

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Friday, August 16, 2019 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit approval for FETTY UNIT 2H 47-095-02635-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin

Chief

Operator's Well Number: FETTY UNIT 2H

Farm Name: RIDGETOP CAPITAL LP

U.S. WELL NUMBER: 47-095-02635-00-00

Horizontal 6A New Drill Date Issued: 8/16/2019

API Number: 4709502635

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- This proposed activity may require permit coverage from the United States Army Corps of Engineers
 (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed
 activity.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled Water Well Regulations, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: 4709502635

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, cessation of drilling, sending an email to DEPOOGNotify@wv.gov.

Antero Resources Corporation Erosion and Sediment Control Plan for Gamehenge Well Pad & Water Containment Pads

Antero Resources Corporation (Antero) is submitting the following narrative and set of drawings in compliance with §35-8-5.4. This plan is submitted in conjunction with the Gamehenge Well Pad &Water Containment Pads Site Design & Construction Plan, Erosion & Sediment Control Plans prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection and Office of Oil and Gas, and certified by Navitus Engineering, Inc., a West Virginia registered professional engineer.

Requirement §5.4.b.1. A general sequence of events that describe in relative terms how and when each construction phase (i.e. clearing and grubbing, mass grading, stabilization) will occur and when each erosion and sediment control best management practice ("BMP") will be installed;

Antero Response:

The following includes a general sequence of events that describe in relative terms how and when each construction phase is anticipated to occur and erosion and sediment control BMPs to be installed. Please refer to the Gamehenge Well Pad & Water Containment Pads Site Design & Construction Plan, Erosion & Sediment Control Plans (Site Design) prepared and certified by Navitus Engineering, Inc. for specific construction measures. Compliance with the measures outlined in the Site Construction Plan (§35-8-5.4) submitted in conjunction with this plan will also be maintained.

- A pre-construction conference with the contactor and the appropriate erosion and sediment control inspector 48 hours prior to beginning work to review the construction drawings and provide any requested guidance.
- Stake the limits of construction and mark/flag all identified wetlands, streams, utilities, and
 other areas of concern for construction activities. Install signs to designate the areas and orange
 safety fence to identify important project attributes such as approved access roads, no refueling
 zones, wetlands/steam bounds, etc.
- 3. Construct the rock construction entrance. All vehicles entering and exiting the site shall do so via the rock construction entrance.
- 4. Construct all BMP's as soon as clearing and grubbing operations allow. Diversions and sediment trap(s)/basin(s) shall be seeded and mulched immediately.
- If applicable, convey upslope drainage around the Access Road, Well Pad, and Water Containment Pad areas by constructing all diversion berm(s) and/or compost filter sock diversion(s) as shown on the plans.
- 6. Clear and grub the site. All woody material, brush, trees, stumps, large roots, boulders, and debris shall be cleared from the site area and kept to the minimum necessary for proper construction, including the installation of necessary sediment controls. Trees six inches in diameter and larger shall be cut and logs stacked. Smaller trees, brush, & stumps shall be cut and/or grubbed and windrowed in appropriate areas for use as sediment barriers at water RECEIVED and Gas drainage outlets (as shown on the plans), windrowed below the well site, used for wildlife habitat, burned (as per WV forest fire laws), removed from site, or disposed of by other JUL 1 2019 methods approved by WV DEP.

WV Department of

- 7. If applicable, install all wetland or stream crossings as shown on the plans.
- 8. Strip the topsoil from the access road. Prior to placing any fill, the exposed subgrade shall be compacted and proof rolled to produce a stable and unyielding site. All stripped topsoil shall be stockpiled in areas shown in the plans, or re-spread at an approximate depth of 2-4 inches on all proposed 2:1 or flatter slopes, and immediately stabilized. Additional BMP measures shall be constructed around topsoil stockpiles, if necessary.
- 9. Construct the access road. All fill areas, including excess material stockpiles, shall be "Keyed In" and compacted in horizontal lifts with a maximum loose lift thickness of 12" and maximum particle size as outlined in the geotechnical report. All fill shall be compacted by a vibrating sheepsfoot roller to 95% per the standard proctor test (ASTM D698). Moisture content will be controlled in accordance with the standard proctor test (ASTM D698) results. It is also recommended that each lift be proof rolled with a loaded haul truck where applicable. Ditch relief culverts shall be installed at a grade of 1-8% to minimize outlet velocities to the extent possible. Install outlet protection once ditch relief culverts are installed, as shown on plans. Stabilize the road with geotextile fabric & stone and side slopes as specified with permanent seeding. Excess material shall be stockpiled (if necessary) in areas shown in the plans and immediately stabilized. Topsoil shall be stripped from all stockpile areas prior to construction of stockpiles. After stockpiles are constructed, topsoil is to be reapplied at a depth of 2"-4". Slopes shall be tracked by running tracked machinery up and down the slope, leaving tread marks parallel to the contour. All ditch lines shall be cleaned prior to installation of lined protection.
- 10. Strip the topsoil from the well pad and water containment pad. Prior to placing any fill, the exposed subgrade shall be compacted and proof rolled to produce a stable and unyielding site. All stripped topsoil shall be stockpiled in areas shown in the plans, or re-spread at an approximate depth of 2-4 inches on all proposed 2:1 or flatter slopes, and immediately stabilized. Additional BMP measures shall be constructed around topsoil stockpiles, if necessary.
- 11. Grade the well pad and water containment pad areas as shown on the plans. Install pad sumps (with 4" PVC drain pipe and outlet protection) and containment berm liner system. Immediately stabilize the outer areas of the well pad and water containment pad. The well pad and water containment pad areas shall be stabilized with geotextile fabric & stone and the side slopes with seed and mulch. Install all straw wattles as shown on plans. Apply seed and mulch to all disturbed areas. This shall include all areas that will not be subject to regular traffic activity (to be stabilized with stone), or any disturbed area that will not be re-disturbed before site reclamation begins.
- 12. Commence well drilling activity.
- 13. All BMP's must remain in place and functional until all areas within the limit of disturbance are complete and permanently stabilized. Maintenance must include inspection of all erosion and sediment controls after each runoff event in excess of 0.5" and on a biweekly basis.
- 14. The construction site should be stabilized as soon as possible after completion. Establishment of final stabilization must be initiated no later than 7 days after reaching final grade. Final stabilization means that all soil-disturbing activities are completed, and that either a permanent vegetative cover with a density of 70% or greater has been established or that the surface has been stabilized by hard cover such as pavement or buildings. It should be noted that the 70% requirement refers to the total area vegetated and not just a percent of the site.
- 15. All permanent sediment control measures can be removed after the site is permanently RECEIVED stabilized and approval is received from the WVDEP.
- 16. Any areas disturbed by removal of controls shall be repaired, stabilized, and permanently 11 2019 seeded.

Requirement §5.4.b.2. A description of the stabilization methods to be used, including the application rates for temporary and permanent seeding and mulching, and provide the timeframes for establishing stabilization

Antero Response:

Stabilization methods used include seeding and mulching of disturbed areas as well as the implementation of erosion and sediment control BMPs. Please refer to "Construction and E&S Control Notes" on page 2 and "Construction Details" on pages 40-47 for detailed descriptions of the different stabilization methods to be used. Seeding and mulching is to be in accordance with the WVDOT Standard Specifications unless specified otherwise in the plans or unless specified otherwise by the construction engineer or Antero representative. Please refer to "Erosion and Sediment Control Narrative" under "Construction and E&S Control Notes" on page 2 as well as "Revegetation" on page 47 of the Site Design for more specific information regarding application, liming, and mulching rates.

Erosion and sediment BMPs will be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs. In a timely manner after earth disturbance activities cease, Antero shall stabilize any areas disturbed by the activities. During non-germination periods, mulch must be applied at the specified rates. Disturbed areas which are not at finish grade and which will be redisturbed within 1 year will be stabilized in accordance with the temporary vegetative stabilization and specifications. Disturbed areas which are finished grade or which will not be re-disturbed within 1 year will be stabilized in accordance with the permanent vegetative stabilization specification. Please refer to "Construction and E&S Control Notes" on page 2 for more information regarding timeframes for establishing stabilization and erosion and sediment BMPs.

The site shall be considered to have achieved full stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics to resist sliding and other movements. Until the site achieves final stabilization, Antero will assure that the best management practices (BMPs) are implemented, inspected, operated, and maintained. As such, Antero will maintain written inspection logs. All maintenance work, including cleaning, repair, replacement, regarding, and re-stabilization shall be performed immediately upon discovery of deficiency. After final stabilization has been achieved, temporary erosion and sediment BMPs controls will be removed. Areas disturbed during removal of the BMPs will be stabilized immediately.

Requirement §5.4.b.3. Details of specifications for the erosion and sediment control BMPs employed on the project.

Antero Response:

Please refer to the "Construction and E&S Control Notes," and "Construction Details" on pages 2 and 40-47 in the Site Design for specifications including instructions for installation, inspection, and maintenance for erosion and sediment control BMPs employed at this site.

Requirement §5.4.c.1. A vicinity map locating the site in relation to the surrounding area and roadsectiveD Office of Oil and Gas

Antero Response:

JUL 11 2019 A vicinity map locating the site in relation to the surrounding area and roads is included on page 1 of the WV Department of Environmental Protection Site Design.

Requirement §5.4.c.2 A plan view site map at a scale of one inch equal to one hundred feet (1"=100') or greater, showing appropriate detail of all site features, including the identification of site access that provides for a stabilized construction entrance and exit to reduce tracking of sediment onto public or private roads; and

Antero Response:

"Overall Plan Sheet Index & Volumes," "Access Road Plan," "Water Containment Pad & Well Pad Plan," "Access Road Plan," "Access Road & Water Containment Pad Plan," "Access Road & Well Pad Plan," "Well Pad Grading Plan," "Water Containment Pad "A" Grading Plan," and "Water Containment Pad "B" Grading Plan," maps are included on pages 8-19 of the Site Design. Specific design, layout and inspection and maintenance notes for a stabilized construction entrance are included in the "Construction and E&S Control Notes" verbiage on page 2.

Requirement §5.4.c.3. The location of all proposed erosion and sediment control BMPs

Antero Response:

"Overall Plan Sheet Index & Volumes," "Access Road Plan," "Water Containment Pad & Well Pad Plan," "Access Road Plan," "Access Road & Water Containment Pad Plan," "Access Road & Well Pad Plan," "Well Pad Grading Plan," "Water Containment Pad "A" Grading Plan," and "Water Containment Pad "B" Grading Plan," maps are included on pages 8-19 of the Site Design locate all proposed erosion and sediment control BMPs.

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Antero Resources Corporation Site Construction Plan for Gamehenge Well Pad & Water Containment Pads

Antero Resources Corporation (Antero) is submitting the following Site Construction Plan in compliance with §35-8-5.5. This plan is submitted in conjunction with the Gamehenge Well Pad & Water Containment Pads Site Design & Construction Plan, Erosion & Sediment Control Plans prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection and Office of Oil and Gas, and certified by Navitus Engineering, Inc., a West Virginia registered professional engineer.

Requirement §5.5.a. The plan should describe the nature and purpose of the construction project and identify the procedures for construction that will be used to achieve site stability. The plan shall be considered conditions of the permit and be enforceable as such.

Antero Response

The nature and purpose of the subject project is to perforate, fracture, and complete one or more horizontal shallow wells. Procedures to achieve site stability include seeding and mulching of earth disturbed areas and implementation of erosion and sediment best management practices (BMPs). Details of seeding and mulching rates as well as procedures for installation and maintenance of erosion and sediment BMPs are outlined on page 2 of "Gamehenge Well Pad & Water Containment Pads Site Design & Construction Plan, Erosion & Sediment Control Plans" (Site Design) prepared and certified by Navitus Engineering, Inc. of West Virginia.

These procedures will be considered as conditions of the permit and shall be inspected and maintained for continual compliance measures outlined in §35-8-5.5.

Requirement §5.5.b.1. A vicinity map location the site in relation to the surrounding area and roads;

Antero Response

Please refer to the vicinity maps on page 1 for the location of the site in relation to the surrounding area and roads.

Requirement §5.5.b.2. A plan view site map at a scale of one inch equal to one hundred feet (1''=100') or greater that shows appropriate detail of all site features and:

Requirement §5.5.b.2.A. Clearly identifies the limit of disturbance for the project;

Antero Response

"Overall Plan Sheet Index & Volumes," "Access Road Plan," "Water Containment Pad & Well Pad Plan,"
"Access Road Plan," "Access Road & Water Containment Pad Plan," and "Access Road & Well Pad Plan,"
maps are included on pages 8-16 of the Site Design.

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Requirement §5.5.b.2.B. Provides existing topographic information on a contour interval that afford 112019 sufficient detail to illustrate site terrain conditions

Antero Response

Please refer to the "Existing Conditions" and "Existing Structures & Features" map on pages6-7 of the Site Design for the current topographic conditions for the constructed pad on a contour interval that affords sufficient detail to illustrate site terrain conditions.

Requirement §5.5.b.2.C. Identifies proposed cut and fill areas with grading contours at an interval that provides sufficient detail to accurately depict slope ratios, indicating top and bottom of slopes; and

Antero Response

Please refer to "Overall Plan Sheet Index & Volumes," "Access Road Plan," "Water Containment Pad & Well Pad Plan," "Access Road Plan," "Access Road & Water Containment Pad Plan," and "Access Road & Well Pad Plan," maps are included on pages 8-16 as well as the "Well Pad Grading Plan," "Water Containment Pad "A" Grading Plan," "Water Containment Pad "B" Grading Plan," "Access Road Profiles," "Access Road Sections," "Well Pad Sections," "Water Containment Pad Sections," and "Stockpile Sections" on pages 17-39 of the Site Design for proposed cut and fill areas with grading contours.

Requirement §5.5.b.2.D. Identifies any existing structures, roads, water bodies, and other critical areas within the area that would most likely be affected by the construction.

Antero Response

Please refer to Response

Please refer to "Overall Plan Sheet Index & Volumes," "Access Road Plan," "Water Containment Pad & Well Pad Plan," "Access Road Plan," "Access Road & Water Containment Pad Plan," and "Access Road & Well Pad Plan," maps are included on pages 8-16 for the maps identifying any structures, roads, water bodies, and other critical areas within the area of interest that would be most likely affected by construction.

Requirement §5.5.b.3. A cross-section of the length and width of the location, providing cut and fill volumes; and

Antero Response

Please refer to to "Overall Plan Sheet Index & Volumes," "Access Road Plan," "Water Containment Pad & Well Pad Plan," "Access Road Plan," "Access Road & Water Containment Pad Plan," and "Access Road & Well Pad Plan," maps are included on pages 8-16 as well as the "Well Pad Grading Plan," "Water Containment Pad "A" Grading Plan," "Water Containment Pad "B" Grading Plan," "Access Road Profiles," "Access Road Sections," "Well Pad Sections," "Water Containment Pad Sections," and "Stockpile Sections" on pages 17-39 for a cross-section of the location. The cut and fill volumes can be found in "Material Quantities" on page 4.

Requirement §5.5.b.4. Any other engineering designs or drawings necessary to construct the project.

RECEIVED Office of Oil and Gas Design. JUL 1 1 2019

Requirment §5.5.c. At a minimum, site construction shall be conducted in accordance with the following enterior enterior. criteria:

Antero Response

All Antero contractors shall be notified of and comply with the measures outlined in Section 5.5.c. of §35-8.

Requirement §5.5.c.1. All woody material, brush, and trees shall be cleared from the site area and kept to the minimum necessary for proper construction, including the installation of necessary sediment controls. Trees six inches in diameter and larger shall be cut and logs stacked;

Antero Response

The Site Design outlines measures to maintain compliance with Section 201 of the WVDOH Specifications which outlines clearing and grubbing measures. Please refer to "Construction and E&S Control Notes" on page 2 of the Site Design.

Requirement §5.5.c.2. Topsoil shall be removed from construction areas and stockpiled for reuse during reclamation. In woodland areas, tree stumps, large roots, large rocks, tree and leaf debris, and ground vegetation shall be removed prior to actual site constructions;

Antero Response

The Site Design outlines procedures for stripping and stocking topsoil. Please refer to "Construction and E&S Control Notes" on page 2 of the Site Design. In addition, soil for stockpiling and use as fill shall be further compliant with measures outlined in Section 5.5.c.2. of §35-8-5.5.

Requirement §5.5.c.3. No embankment fill shall be placed on frozen material;

Antero Response

All Antero contractors shall be notified of and comply with measures outlined in Section 5.5.c.3. of §35-8-5.5.

Requirement §5.5.c.4. The fill material shall be clean mineral soil, free of roots, woody vegetation, stumps, sod, large rocks, frozen soil or other objectionable material;

Antero Response

The Site Design outlines procedures for stripping and stocking topsoil. Please refer to "Construction and E&S Control Notes" on page 2 of the Site Design. In addition, soil shall be further defined to the measures outlined in Section 5.5.c.4. of §35-8-5.5.

Requirement §5.5.c.5. Embankment material shall exhibit adequate soil strength and contain the proper amount of moisture to ensure that compaction will be achieved;

Antero Response

All Antero contractors shall be notified of and comply with measures outlined in Section 5.5.c.5. of §35-8-5.5.

Requirement §5.5.c.6 Earthen fill slopes should be constructed with slopes no steeper than a ratio of two Gas to one (2:1);

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Antero Response

The Site Design outlines all earthen fill slopes to be constructed with slopes no steeper than a ratio WW Department of two to one (2:1).

Requirement §5.5.c.7. Fill material will be placed in lifts or layers over the length of the fill. Lift thickness of soil shall be as thin as the suitable random excavated material will permit, typically from six to twelve (12) inches; and

Antero Response

Please refer to the "Construction and E&S Control Notes" on page 2 of the Site Design. Fill shall be placed in horizontal lifts of maximum loose depth of 12 inches. Compaction will be performed with a compactor with a minimum of five ton static drum weight vibratory roller or five ton static drum weight sheeps footed compactor as appropriate for the type of soil material at the site or other compactor approved by the Engineer.

Requirement §5.5.c.8. The size of rock lifts shall not exceed thirty-six (36) inches. The rock shall not be greater in any dimension than thirty-six (36) inches;

Antero Response

All Antero contractors shall be notified of and comply with measures outlined in Section 5.5.c.8. of §35-8-5.5.

Requirement §5.5.c.9. Compaction shall be obtained by compaction equipment or by routing the hauling equipment over the fill so that the entire surface of each fill lift is compacted by at least one wheel or tread track of equipment or by a compactor. Each lift shall be compacted before beginning the next lift;

Antero Response

Compaction compliance measures are outlined in the "Construction and E&S Control Notes" on page 2 Compaction is required with a compactor with a minimum of five ton static drum weight vibratory roller or five ton static drum weight sheeps footed compactor as appropriate for the type of soil material at the site or other compactor approved by the Engineer.

Requirement §5.5.c.10. Surface water diversion ditches shall be constructed above the disturbed area to intercept water and to divert surface water runoff around the site; and

Antero Response

"Construction and E&S Control Notes" on page 2 of the Site Design identifies the surface diversions used to prevent surface water and subsurface water from flowing on to the well pad and coming into contact with the stormwater associated with the well pad. Additional Erosion & Sediment BMPs will be used to prevent sediment discharges from the project.

Requirement §5.5.c.11. In areas of steep terrain, a terraced bench shall be constructed at the base of the slope where fill is to be placed, creating a toe foundation and aid in holding fill material. Additional terracing shall be constructed from each additional fifty (50) vertical feet of slope and shall be a minimum of ten (10) feet wide.

Antero Response

All Antero contractors shall be notified of and comply with the measures outlined in Section 5.5.c. 11 RECEIVED Gas §35-8-5.5.

API NO. 47-095 - 02635
OPERATOR WELL NO. Fetty Unit 2H
Well Pad Name; Gemehenge Pad

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS OLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

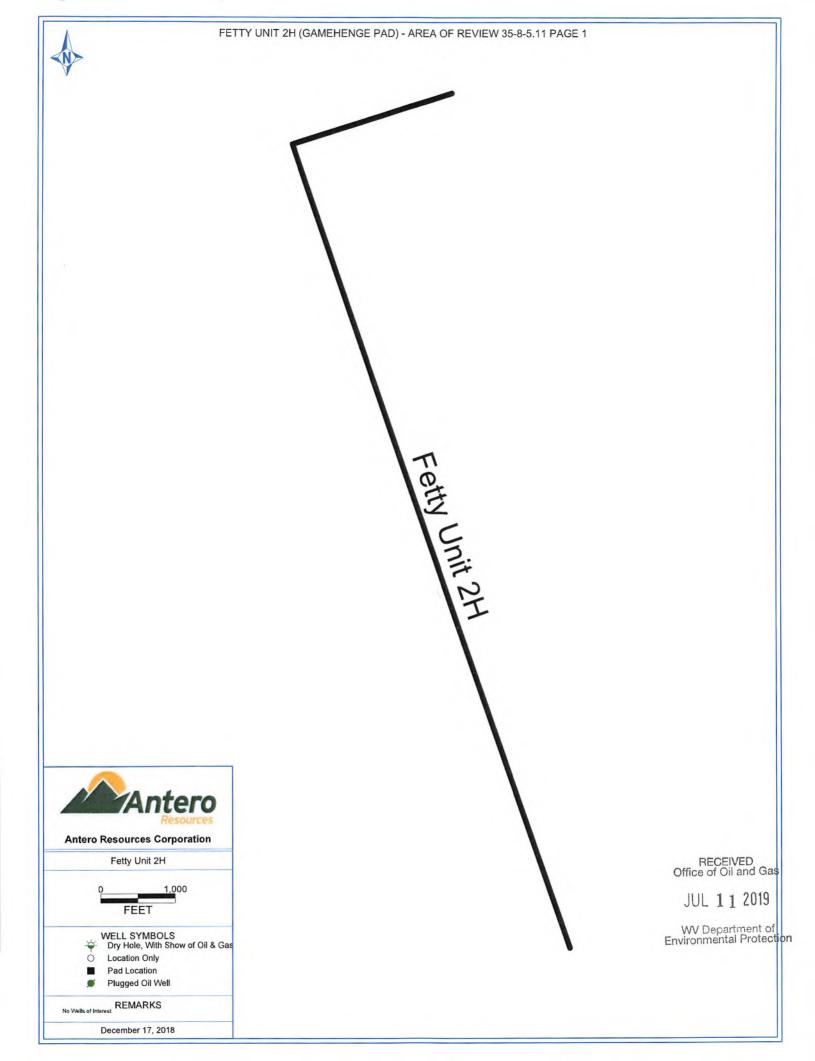
VOLUNTARY STATEMENT OF NO OBJECTION

County:		Easting:	509627.170m
Control of the contro	Tyler	UTM NAD 83 Northing	4373280.652m
District:	Ellsworth	Public Road Access:	State Ridge Road
Quadrangle:	Paden City 7.5'	Generally used farm name	Ridgetop Capital, LP
Watershed:	Outlet Middle Island Creek		
	the box that applies	V	TION BY A NATURAL PERSON
		V	1 1 / 1
SURFAC	CE OWNER	Signature:	higuita Edolf
SURFAC		Signature:	1 1 / 1
SURFAC	CE OWNER	Signature: Print Name: Date:	Margaret A. Eddy
SURFAC	CE OWNER (Road and/or Other Disturbance) CE OWNER (Impoundments/Pits)	Signature: Print Name: Date: FOR EXECU	regult Eddy 19argaset A. Eddy 129/2019 TION BY A CORPORATION, ETC.
SURFACE SURFACE SURFACE COAL C	CE OWNER CE OWNER (Road and/or Other Disturbance) CE OWNER (Impoundments/Pits) OWNER OR LESSEE	Signature: Print Name: Date: FOR EXECUTOR Company:	Margaret A. Eddy 129/2019 TION BY A CORPORATION, ETC.
SURFACE SURFACE SURFACE COAL C	CE OWNER (Road and/or Other Disturbance) CE OWNER (Impoundments/Pits)	Signature: Print Name: Date: FOR EXECUTOR Company:	Margaret A. Eddy 129/2019 TION BY A CORPORATION, ETC.
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Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.





API NO. 47-095 -	
OPERATOR WELL NO.	Fetty Unit 2H
Well Pad Name: Game	nenge Pad

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

1) Well Opera	tor: Antero	Resources	Corpora	494507062	095 - Tyler	Ellsworth	Paden City 7.5'
				Operator ID	County	District	Quadrangle
2) Operator's	Well Numbe	r: Fetty Unit	2H	Well Pac	l Name: Gam	ehenge Pa	d
3) Farm Name	e/Surface Ow	ner: Ridget	op Capita	I, LP Public Roa	d Access: Sta	te Ridge R	oad
4) Elevation, c	current groun	d: 1052'	Ele	evation, proposed	post-constructi	on: ~1026	i
5) Well Type	(a) Gas Other	X	_ Oil	Unde	erground Stora	ge	
	(b)If Gas	Shallow Horizontal	X	Deep			OAB
6) Existing Pa	d: Yes or No	No					12/22/2019
				pated Thickness a ss- 55 feet, Associa			1/129
8) Proposed To	otal Vertical	Depth: 700	0' TVD				
9) Formation a	nt Total Verti	cal Depth:	Marcellus				
10) Proposed	Гotal Measur	red Depth:	13200' MI)			
11) Proposed I	Horizontal L	eg Length:	3681'				
12) Approxima	ate Fresh Wa	iter Strata De	pths:	363'			
13) Method to 14) Approxima			eptilis	ffset well records. De	oths have been ac	ljusted accord	ing to surface elevations.
15) Approxima	ate Coal Sear	m Depths: 5	50'				
16) Approxima	ate Depth to	Possible Voi	d (coal mi	ne, karst, other):	None Anticipa	ted	
17) Does Prop directly overly				Yes	No	X	
(a) If Yes, pr	ovide Mine l	Info: Name					
		Depth					
		Seam:					
		Owner	r:				

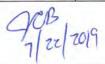
OPERATOR WELL NO. Fetty Unit 2H

Well Pad Name: Gamehenge Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	80	80	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	413 *see # 19	413 *see # 19	CTS, 574 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500	2500	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	13200	13200	3223 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							



TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438"	1530	50	Class A	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	12,630	2500	Lead-H/POZ & Tail - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

PACKERS

Kind:	N/A	
Sizes:	N/A	
Depths Set:	N/A	

OPERATOR WELL NO. Fetty Unit 2H

Well Pad Name: Gamehenge Pad

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill, perforate, fracture a new horizontal shallow well and complete Marcellus Shale.

*Antero will be air drilling the fresh water string which makes it difficult to determine when fresh water is encountered. Therefore, we have built in a buffer for the casing setting depth which helps to ensure that all fresh water zones are covered.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs Anticipated Max Rate - 80 bpm

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 59.61 acres

22) Area to be disturbed for well pad only, less access road (acres): 11.76 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.

Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.

Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

24) Describe all cement additives associated with each cement type:

Conductor: no additives, Class A cement.

Surface: Class A cement with 2-3% calcium chloride and 1/4 lb of flake Intermediate: Class A cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51 Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

^{*}Note: Attach additional sheets as needed.

API	Number	47 -	095
* **	TANITIO OL	7 6	- Sec

Operator's Well No. Fetty Unit 2H STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Antero Resources Corporation OP Code 494507062	
Watershed (HUC 10) Outlet Middle Island Creek Quadrangle Paden City 7.5	
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes	No 🗌
Will a pit be used? Yes No	
If so, please describe anticipated pit waste: No pit will be used at this site (Drilling and Flowback Fluids will be stored in tenks. Cuttings will	be tanked and insuled off site.)
Will a synthetic liner be used in the pit? Yes No V If so, what ml.? N/A	
Proposed Disposal Method For Treated Pit Wastes:	OC
Land Application	7,
Underground Injection (UIC Permit Number *UIC Permit # will be provided on Form	
Reuse (at API Number Future permitted well locations when applicable. API# will be provided on F Off Site Disposal (Supply form WW-9 for disposal location) (Meadowfill Landfill	
Other (Explain Northwestern Landfil WV0109410	
Will closed loop system be used? If so, describe: Yes, fluids stored in tanks, cuttings removed offsite and take	en to landfill,
Surfage - Air/F	rephweter, Intermediate - n, Production - Water Based Mud
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	
Additives to be used in drilling medium? Please See Attachment	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Drill cuttings stored in tanks, removed o	ffsite and taken to landfill.
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A	
-Landfill or offsite name/permit number? Meadowfill Landfill (Permit #SWF-1032-98), Northwestern Landfill (Permit #	SWF-1025/WV0109410)
-Landin or offsite name/perint number?	
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permitte where it was properly disposed.	
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLI on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection provisions of the permit are enforceable by law. Violations of any term or condition of the general permit law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information form and all attachments thereto and that, based on my inquiry of those individuals immobitaining the information, I believe that the information is true, accurate, and complete. I am aware to penalties for submitting false information, including the possibility of fine or imprisonment. Company Official Signature Company Official (Typed Name) Gretchen Kohler	on. I understand that the it and/or other applicable nation submitted on the nediately responsible for
Company Official Title Senior Environmental & Regulatory Manager	
- The state of the	
MAN MAIN 19	
Subscribed and swom before me this day of , 20 , 20 , 20 , 20 , 20 , 20 , 20 , 2	
Notary Public	MECAN COLECTAL
My commission expires MARCM 3, 2022	MEGAN GRIFFITH NOTARY PUBLIC STATE OF COLORADO

Proposed Revegetation Treatme	nt: Acres Disturbed 59.61 a	cres Pre	vegetation pH	
Lime 2-4	Tons/acre or to correct to pH	6.5	_	
Fertilizer type Hay or s	traw or Wood Fiber (will be used	where needed)		
Fertilizer amount 500	1b	es/acre		
Mulch 2-3	Tons/a	acre		
Access Road "C"	(34.84 acres) + Access Road "D" (4.59 acre 76 acres) + Water Containment Pad "B" (6.1	s) + Access Road "E" (0.87 acres) 7 acres) + Excess/Topsoil Materia	+ Water Containmer al Stockpiles (13.92 a	rt Pad "A" (7.46 acres) + cres) = 59.61 Acres
	See	d Mixtures		
Temp	orary		Permane	ent
Seed Type	lbs/acre	Seed	Туре	lbs/acre
Annual Ryegrass	40	Crownvetch		10-15
Field Bromegrass	40	Tall Fescue		30
See attached Table IV-3 for additional see	ed type (Gamehenge Pad Design)	See attached Table IV-4	A for additional seed	type (Gamehenge Pad Design
*or type of grass seed requ	a start but a sinfa a a minari	Tor tunn of groce	anad raduce	. 1
Attach: Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application	d proposed area for land applic will be land applied, include di area	ation (unless engineere	d plans includi	ng this info have been
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911 Address 2115 State Ridge Road Middlebourne, WV 26149

Well Site Safety Plan Antero Resources

Well Name: Gamehenge Unit 1H, Fetty Unit 1H-2H, Reba Unit 1H-3H, Tela Unit 1H-2H

Pad Location: Gamehenge Pad

Tyler County/Ellsworth District

GPS Coordinates:

Entrance - Lat 39°50′51.86″/Long -80°86′72.60″ (NAD83)

Pad Center - Lat 39°50′91.60″/Long -80°88′82.37″ (NAD83)

Driving Directions:

From the U.S Post Office in Middlebourne, head east on Dodd St toward Fair St for 364 ft. Turn left onto Main St for 0.4 miles. Turn right onto Co Rd 18/6 for 1.6 miles. Lease road will be on your left

Alternate Route:

From the U.S Post Office in Sistersville , head southwest on Wells St toward Elizabeth St for 69 ft.

Turn left at the 1st cross street onto Elizabeth St for 272 ft. Elizabeth St turns right and becomes WV-2 S-Chelsea St for 1.0 mile. Continue straight onto WV-18 S for 10.8 miles. Turn left onto Co Rd 18/6 for 1.6 miles. Lease road will be on your left

EMERGENCY (24 HOUR) CONTACT 1-800-878-1373

06/27/19 SSP Page 1

Form WW-9 Additives Attachment

SURFACE INTERVAL

- 1. Fresh Water
- 2. Soap –Foamer AC
- 3. Air

INTERMEDIATE INTERVAL

STIFF FOAM RECIPE:

- 1) 1 ppb Soda Ash / Sodium Carbonate-Alkalinity Control Agent
- 2) 1 ppb Conqor 404 (11.76 ppg) / Corrosion Inhibitor
- 3) 4 ppb KLA-Gard (9.17 ppg) / Amine Acid Complex-Shale Stabilizer
- 4) 1ppb Mil Pac R / Sodium Carboxymethylcellulose-Filtration Control Agent
- 5) 12 ppb KCL / Potassium Chloride-inorganic Salt
- 6) Fresh Water 80 bbls
- 7) Air

PRODUCTION INTERVAL

1. Alpha 1655

Salt Inhibitor

2. Mil-Carb

Calcium Carbonate

3. Cottonseed Hulls

Cellulose-Cottonseed Pellets - LCM

4. Mil-Seal

Vegetable, Cotton & Cellulose-Based Fiber Blend – LCM

5. Clay-Trol

Amine Acid Complex - Shale Stabilizer

6. Xan-Plex

Viscosifier For Water Based Muds

7. Mil-Pac (All Grades)

Sodium Carboxymethylcellulose - Filtration Control Agent

8. New Drill

Anionic Polyacrylamide Copolymer Emulsion – Shale Stabilizer

9. Caustic Soda

Sodium Hydroxide - Alkalinity Control

10. Mil-Lime

Calcium Hydroxide – Lime

11. LD-9

Polyether Polyol – Drilling Fluid Defoamer

12. Mil Mica

Hydro-Biotite Mica - LCM

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13. Escaid 110

Drilling Fluild Solvent - Aliphatic Hydrocarbon

14. Ligco

Highly Oxidized Leonardite - Filteration Control Agent

15. Super Sweep

Polypropylene – Hole Cleaning Agent

16. Sulfatrol K

Drilling Fluid Additive - Sulfonated Asphalt Residuum

17. Sodium Chloride, Anhydrous

Inorganic Salt

18. D-D

Drilling Detergent - Surfactant

19. Terra-Rate

Organic Surfactant Blend

20. W.O. Defoam

Alcohol-Based Defoamer

21. Perma-Lose HT

Fluid Loss Reducer For Water-Based Muds

22. Xan-Plex D

Polysaccharide Polymer - Drilling Fluid Viscosifier

23. Walnut Shells

Ground Cellulosic Material - Ground Walnut Shells - LCM

24. Mil-Graphite

Natural Graphite – LCM

25. Mil Bar

Barite - Weighting Agent

26. X-Cide 102

Biocide

27. Soda Ash

Sodium Carbonate - Alkalinity Control Agent

28. Clay Trol

Amine Acid complex – Shale Stabilizer

29. Sulfatrol

Sulfonated Asphalt – Shale Control Additive

30. Xanvis

Viscosifier For Water-Based Muds

31. Milstarch

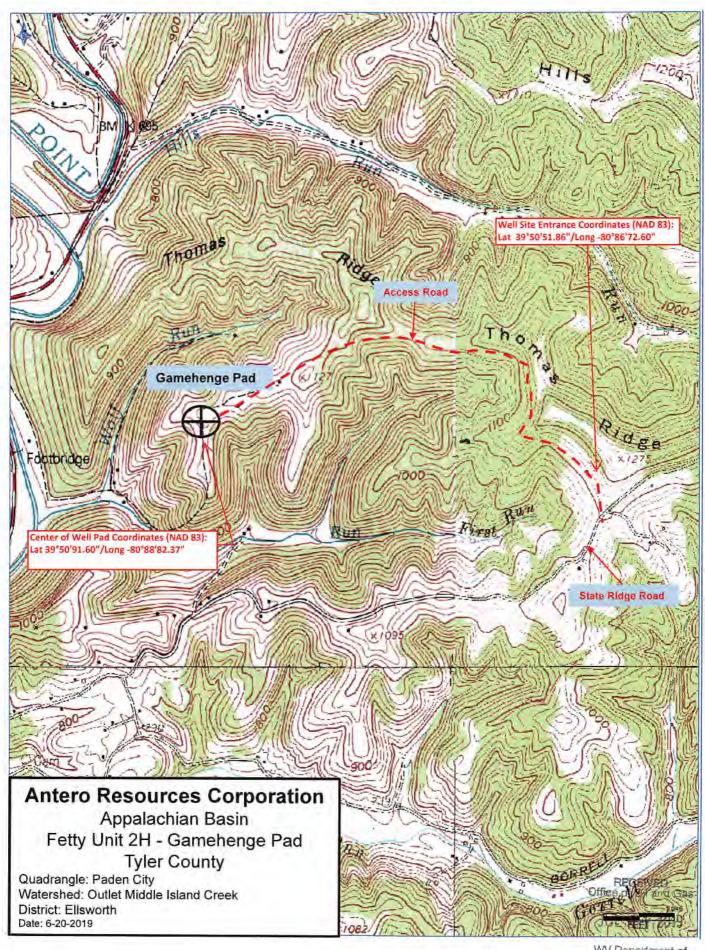
Starch - Fluid Loss Reducer For Water Based Muds

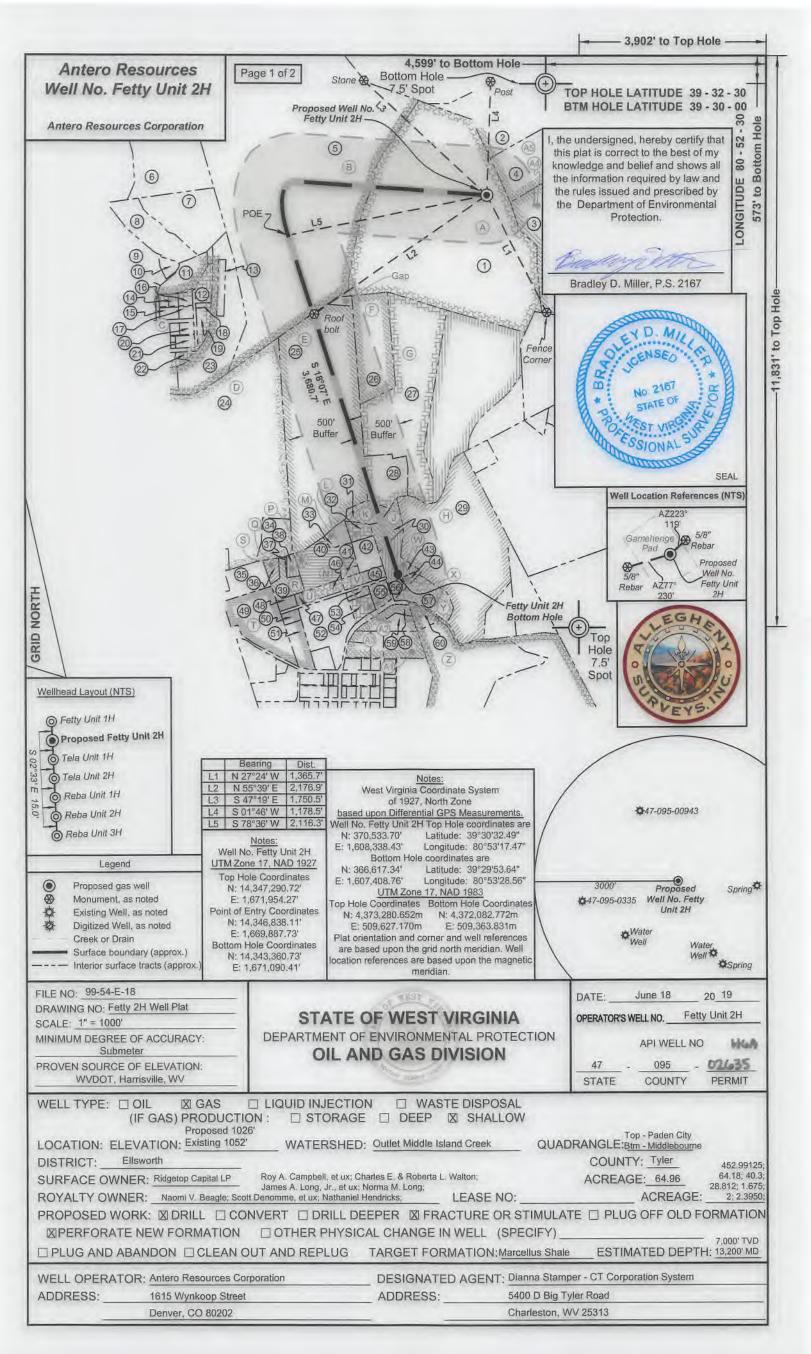
32. Mil-Lube

Drilling Fluid Lubricant

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JUL 1 1 2019





Antero Resources Well No. Fetty Unit 2H

Page 2 of 2

Antero Resources Corporation

	Intero Pec	ources Corporation						
	The O Nest	Juices Corporation					D	
ID	TM/Par	Owner	Bk/Pg	Acres			F	
1	14/27	Ridgetop Capital LP	372/299	64.96			G	
2	14/26	Turner	398/670	26.34			버	
3	15/19	Mendenhall, et al	282/723	45.00			 	
4	15/18	Turner	398/670	26.18			K	
5	14/24	Ridgetop Capital LP	372/299	124.76				
6	14/20.1	Brookover II	346/029	13.46			Ы	
7	14/23	Brookover	321/749	6.88				
8	14/23	Caroll	294/535	5.02			P	_
		Templeton					\vdash	
9	14/21		346/507	14.95			Q	
10	14A/14	Templeton	346/507	0.67			R	
11	14A/41.1	Parr	306/446	2.50			S	
12	14A/37	Wilcox	214/103	1.28			T	
13	14A/29.1	Mensore J.C. Distributors	285/213	1.00			U	
14	14A/41	Wilcox	286/307	0.28			V	
15	14A/40	Bland	490/563	0.57			W	
16	14A/38	Wilcox	156/223	0.44			×	
17	14A/39	Wilcox	WB28/40	0.38			Y	
18	14A/36.1	Wilcox	199/352	0.18			Z	
19	14A/36	Wilcox	WB28/40	1.40			A1	
20	14A/35	Lemon	329/755	0.43			A2	
21	14A/30	Costilow	330/923	0.57			A3	
22	14A/28.1	Costilow	330/925	0.28			A4	
23	14A/29	Weekley	299/300	13.00			A5	
24	14/56.1	Parr	358/643	35.33	!			
25	14/57	Cochran	344/251	40.30				
26	14/58	Newbrough	WB36/617	10.31				
27	14/60	Long	333/188	23.99				
28	14/60.1	Long	283/511	4.82	ID	TM/Par		
29	14/76	Wince	392/489	30.61	45	14/73		
30	14/74	Eddy	182/501	2.00	46	14/73.3		
31	14/59	Cochran	274/170	1.88	47	14/73.4		
32	14/71	Cochran	158/402	0.82	48	14/73.1		
33	14/70.1	VanDyne	355/256	0.83	49	14/65		-
34	14/56	Parr	358/643	2.98	50	14/73.2		
35	14/64	Parr	181/549	3.57	51	14/79		
36	14/68.1	Fletcher	319/172	0.75	52	14/78	<u> </u>	
37	14/68.3	Fletcher	357/662	0.05	53	14/83.1	<u> </u>	
38	14/68.2	Fletcher	348/355	0.57	54	14/82		_

ID	Lease
Α	Naomi V. Beagle
В	Scott Denomme, et ux
С	Scott Denomme, et ux
D	Boyd M. & Patricia L. Parr
Е	Nathaniel Hendricks
F	Linda L. Newbrough
G	James A. Long, Jr., et ux
Н	T&K Enterprises
J	Roy A. Campbell, et ux
К	Norma M. Long
L	Terry W. Tracy
М	Wesley S. VanDyne, et ux
N	Lisa A. George
Р	Roger Carl Ferrell
Q	Scott E. Fletcher
R	James C. Deulley
S	Sandra J. Fletcher
Т	Brian K. Doak, et ux
υ	Robert G. Glover, et ux
٧	Charles J. Mead, et ux
W	Charles E. & Roberta L. Walton
Х	Caroline S. Maisey
Υ	United Christian Fellowship
Z	Carl W. Miller II
A1	Carol Ann Ferguson
A2	Roger Carl Ferrell
А3	Roger Carl Ferrell
A4	Jack Russell Folger, et ux
A5	Linda L. Newbrough

		_							
27	14/60	Long	333/188	23.99					
28	14/60.1	Long	283/511	4.82	ID	TM/Par	Owner	Bk/Pg	Acres
29	14/76	Wince	392/489	30.61	45	14/73	Mead	275/514	0.73
30	14/74	Eddy	182/501	2.00	46	14/73.3	Glover	267/26	1.21
31	14/59	Cochran	274/170	1.88	47	14/73.4	Doak	275/74	0.22
32	14/71	Cochran	158/402	0.82	48	14/73.1	Doak	253/268	0.54
33	14/70.1	VanDyne	355/256	0.83	49	14/65	Doak	309/491	7.11
34	14/56	Parr	358/643	2.98	50	14/73.2	Doak	253/268	0.53
35	14/64	Parr	181/549	3.57	51	14/79	Doak	275/305	1.81
36	14/68.1	Fletcher	319/172	0.75	52	14/78	Wagner	509/121	6.71
37	14/68.3	Fletcher	357/662	0.05	53	14/83.1	Ferrell	WB56/202	0.48
38	14/68.2	Fletcher	348/355	0.57	54	14/82	Ferrell	WB56/202	1.20
39	14/68	Deulley	385/798	1.82	55	14/83	Ferrell	WB56/202	1.51
40	14/70.2	George	453/593	4.52	56	14/77	Maisey	349/762	0.37
41	14/70	Mead	275/514	0.37	57	14/76.2	United Christian Fellowship	253/98	3.13
42	14/72	Cochran	344/251	2.94	58	14/84	Forrester	567/625	0.65
43	14/75	Walton	331/90	2.40	59	14/85	Smith	189/253	1.90
44	14/76.1	Maisey	349/762	0.46	60	14/93	Smith	540/612	1.09

FILE NO: 99-54-E-18

DRAWING NO: Fetty 2H Well Plat

SCALE: 1" = 1000'

MINIMUM DEGREE OF ACCURACY:
Submeter

PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV

Denver, CO 80202

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

DATE:		June 18		20_19	
OPERATOR'S WELL NO.			Fetty Unit 2H		
		API WEI	LL NO)	#4
47		095		024	5
STAT	Ε	COUNT	ГΥ	PER	MIT

Charleston, WV 25313

	- Congression	31	AIE (SOUNTY	PERMIT
(IF GAS) PRODUCTION					
LOCATION: ELEVATION: Existing 1052		QUADRAN	Top - IGLE: <u>Btm -</u>	Paden City <u>Middlebour</u> ne	
DISTRICT: Ellsworth		C	COUNTY:	Tyler	452.99125;
SURFACE OWNER: Ridgetop Capital LP	Roy A. Campbell, et ux; Charles E. & Roberta L. Walton; James A. Long, Jr., et ux; Norma M. Long;	A	CREAGE:	64.96	64.18; 40.3; 28.812; 1.675;
ROYALTY OWNER: Naomi V. Beagle; Scot			A	CREAGE:	
PROPOSED WORK: ☑ DRILL ☐ CO	NVERT □ DRILL DEEPER ☒ FRACTURE OR STIM	//ULATE	PLUG O	FF OLD F	ORMATION
	☐ OTHER PHYSICAL CHANGE IN WELL (SPECIF	FY)			
□ PLUG AND ABANDON □ CLEAN C	OUT AND REPLUG TARGET FORMATION: Marcellus	s Shale	ESTIMAT	ED DEPTH	7,000' TVD 1: 13,200' MD
WELL OPERATOR: Antero Resources Co.	rporation DESIGNATED AGENT: Dianna	Stamper - C	T Corporation	on System	
ADDRESS: 1615 Wynkoop Street	ADDRESS: 5400 D	Big Tyler Ro	oad		

Operator's Well Number

Fetty Unit 2H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Naomi V. Beagle Lease Naomi V. Beagel	Antero Resources Corporation	1/8+	0535/0464
Scott Denomme et ux Lease (TM 14 PCL 9) Scott Denomme et ux	Antero Resources Corporation	1/8+	0535/0187
<u>Nathaniel Hendricks Lease</u> Nathaniel Hendricks	Antero Resources Corporation	1/8+	0619/0372
James A. Long Lease James A. Long	Antero Resources Corporation	1/8+	0434/0350
Norma M. Long Lease Norma M. Long	Antero Resources Corporation	1/8+	0544/0131
Roy A. Campbell et ux Lease Roy A. Campbell et ux Statoil USA Onshore Properties EQT Production Company	Statoil USA Onshore Properties EQT Production Company Antero Resources Corporation	1/8 Assignment Agreement	0482/0464 0539/0239 0653/0844

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Office of Oil and Gas

JUL 11 2019

WV Department of Environmental Protection

CONTINUED ON NEXT PAGE

^{*}Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

WW-6A1 (5/13)

Operator's	Well No.	Fetty Unit 2H	
Operator s	WEILING.		

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Charles E. & Roberta L. Walton Lease

Chalres E. & Roberta L. Walton

Antero Resources Corporation

1/8+

0424/0523

*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

> RECEIVED Office of Oil and Gas Well Operator: Antero Resources Corporation JUL 1 1 2019 By: Kevin Kilstrom Its: Senior Vice President - Production WV Department of Environmental Protection



Antero Resources 1615 Wynkoop Street Denver, CO 80202 Office 303.357.7310 Fax 303.357.7315

West Virginia Department of Environmental Protection Chief, Office of Oil and Gas Attn: Mr. James Martin 601 57th Street SE Charleston, WV 25304

RE:

Fetty Unit 2H

Quadrangle: Paden City 7.5'

Tyler County/Ellsworth District, West Virginia

Mr. Martin:

Antero Resources Corporation (Antero) is submitting the following application for a new well work permit for the Fetty Unit 2H horizontal shallow well. As an authorized representative, I certify that Antero has the right to extract, produce or market the oil or gas for all leases through which the Fetty Unit 2H horizontal lateral will drill through including any and all roads crossed under as identified on the attached survey plat.

Sincerely,

Thomas Kuhn Senior Landman

> RECEIVED Office of Oil and Gas

JUL 1 1 2019

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION

	Date of Notice Certification: 07/08/2019			API No. 47- 095 -		
			Well No. Fetty			
		Well Pad N	Vame: Gamehe	nge Pad		
	been given:	6.00 CA d. O		Market St. Co. D Page 1		
ursuant to tr	tract of land as follows:	§ 22-6A, the Operator has provided the req	juired parties w	ith the Notice Forms listed		
State:	West Virginia	Easting:	509627.170m			
County:	Tyler	UTM NAD 83 Lasting. Northing:	4373280.652m			
District:	Ellsworth	Public Road Access:	State Ridge Road			
Quadrangle:	Paden City 7.5'	Generally used farm name:	Ridgetop Capital,			
Vatershed:	Outlet Middle Island Creek					
nformation rafe giving the equirements Virginia Code	equired by subsections (b) and (c), so surface owner notice of entry to so of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall to	bed in subdivisions (1), (2) and (4), subsection sixteen of this article; (ii) that the recurvey pursuant to subsection (a), section to this article were waived in writing by the tender proof of and certify to the secretary	quirement was en of this artic the surface ow	deemed satisfied as a result cle six-a; or (iii) the notice mer; and Pursuant to West		
Pursuant to	have been completed by the applicant West Virginia Code § 22-6A, the Operator has properly served the require	perator has attached proof to this Notice Co	ertification			
*PLEASE CHI	ECK ALL THAT APPLY			OOG OFFICE USE ONLY		
	ΓΙCE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECAU	ISE NO	□ RECEIVED/		
□ 1. NO.		SEISMIC ACTIVITY WAS CONDUCT		NOT REQUIRED		
			ΓED			
■ 2. NO		SEISMIC ACTIVITY WAS CONDUCT	TED ONDUCTED JSE	NOT REQUIRED		
■ 2. NO	TICE OF ENTRY FOR PLAT SURV	SEISMIC ACTIVITY WAS CONDUCT /EY or	TED ONDUCTED JSE /EY	NOT REQUIRED ☐ RECEIVED/		
■ 2. NO ²	TICE OF ENTRY FOR PLAT SURV	SEISMIC ACTIVITY WAS CONDUCTOR /EY or	TED ONDUCTED JSE /EY	NOT REQUIRED ☐ RECEIVED/		
■ 2. NO? □ 3. NO? □ 4. NO?	FICE OF ENTRY FOR PLAT SURVITCE OF INTENT TO DRILL or	SEISMIC ACTIVITY WAS CONDUCTOR /EY or	TED ONDUCTED JSE /EY	NOT REQUIRED □ RECEIVED □ RECEIVED □ RECEIVED □ RECEIVED		
■ 2. NO ² □ 3. NO ² □ 4. NO ² □ 5. PUE	TICE OF ENTRY FOR PLAT SURVICE OF INTENT TO DRILL or	SEISMIC ACTIVITY WAS CONDUCTOR /EY or	TED ONDUCTED JSE /EY	NOT REQUIRED □ RECEIVED □ RECEIVED NOT REQUIRED □ RECEIVED		

Required Attachments:

WV Department of

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided a protection the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

Its:

Certification of Notice is hereby given:

THEREFORE, I Kevin Kilstrom , have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Antero Resources Corporation

By: Kevin Kilstrom

Senior Vice President Production

Telephone: 303-357-7310

Address: 1615 Wynkoop Street

Denver, CO 80202

Facsimile: 303-357-7315

Email: mgriffith@anteroresources.com

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NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20184011666

MY COMMISSION EXPIRES MARCH 13, 2022

MEGAN GRIFFITH

Subscribed and sworn before me this

day of U

Notary Public

My Commission Expires

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

RECEIVED Office of Oil and Gas

JUL 1 1 2019

API NO. 44 07: 0 9 5 0 2 6 3 5 OPERATOR WELL NO. Fetty Unit 2H Well Pad Name: Gamehenge Pad

Noti	ice Time Requirem	ent: notice shall be provi	ded no later tha	in the filing date of permit application.	
	e of Notice: 7/9/2019 ice of:	_ Date Permit Applica	tion Filed: 7/9/2	2019	
7	PERMIT FOR AN			PROVAL FOR THE AN IMPOUNDMENT OR PIT	
Deli	very method pursi	ant to West Virginia Co	ode § 22-6A-10	(b)	
	PERSONAL	REGISTERED	метн	OD OF DELIVERY THAT REQUIRES A	
	SERVICE	MAIL	RECE	PT OR SIGNATURE CONFIRMATION	
regis sedin the so oil a description of the sedin the se	stered mail or by any ment control plan recourface of the tract or and gas leasehold being ribed in the erosion as ator or lessee, in the ecoal seams; (4) The work, if the surface bundment or pit as de- a water well, spring ide water for consum- osed well work active ection (b) of this sec- reds of the sheriff requision of this article to eR. § 35-8-5.7.a reco	method of delivery that required by section seven of to which the well is or is proposed and sediment control plans sevent the tract of land on very connection of the section of the section of the process of the proc	quires a receipt of this article, and to posed to be located well work, if submitted pursua which the well purface tract or trallacement, constitution article; (5) A cated within one stic animals; and f more than three nds, the applicant suant to section of ien holder is not rator shall also p	t as required by this article shall deliver, by personal seeper signature confirmation, copies of the application, the he well plat to each of the following persons: (1) The of ated; (2) The owners of record of the surface tract or tract if the surface tract is to be used for roads or other land do ant to subsection (c), section seven of this article; (3) The roposed to be drilled is located [sic] is known to be underected to be used for roads or other land do ant to subsection, enlargement, alteration, repair, removal or abardary surface owner or water purveyor who is known to thousand five hundred feet of the center of the well part (6) The operator of any natural gas storage field withing the tenants in common or other co-owners of interests denote that may serve the documents required upon the person desight, article one, chapter eleven-a of this code. (2) Not notice to a landowner, unless the lien holder is the land rovide the Well Site Safety Plan ("WSSP") to the surface as provided in section 15 of this rule.	erosion and where of record of acts overlying the isturbance as he coal owner, derlain by one or d by the proposed adonment of any he applicant to d which is used to he which the escribed in escribed in the withstanding any downer. W. Va.
			S Plan Notice	☑ Well Plat Notice is hereby provided to:	
	JRFACE OWNER(ne: PLEASE SEE ATTAC			COAL OWNER OR LESSEE Name: NO DECLARATIONS ON RECORD WITH COUNTY	
			- -	Address:	
Nam Add	-		 	COAL OPERATOR Name: NO DECLARATIONS ON RECORD WITH COUNTY Address:	
Nam	ne: PLEASE SEE ATTAC		- -	WATER PURVEYOR(s)/OWNER(s) OF WATER WELL, JSPRING OR OTHER WATER SUPPLY SOURCE Name: NONE WITHIN 1500'	
Nam	ne:		_	Address:	
Add	ress:	s) (Impoundments or Pits	<u> </u>	☐ OPERATOR OF ANY NATURAL GAS STORANAME:	
Nam	le:		-	Address:	RECEIVED Office of Oil and Gas
	1000.		– –	*Please attach additional forms if necessary	JUL 1 1 2019

WW-6A (8-13) API NO. 47- 095

OPERATOR WELL NO. Fetty Unit 2H

Well Pad Name: Gamehenge Pad

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wymgev.bf Oil and Gas and-gas/pages/default.aspx.

Well Location Restrictions

JUL 1 1 2019

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from Why Desistingent of water well or developed spring used for human or domestic animal consumption. The center of well pads may not be localed with his rotection hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

API NO. 47- 095

OPERATOR WELL NO. Fetty Unit 2H

Well Pad Name: Gamehenge Pad

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief. Office of Oil and Gas

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

JUL 1 1 2019

WV Department of Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

API NO. 47- 095

OPERATOR WELL NO. Fetty Unit 2H

Well Pad Name: Gamehenge Pad

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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JUL 1 1 2019

WW-6A (8-13)

API NO. 47- 095 OPERATOR WELL NO. Fetty Unit 2H
Well Pad Name: Gamehenge Pad

Notice is hereby given by:

Well Operator: Antero Resources Corporation

Telephone: (303) 357-7223 Email: mgriffith@anteroresources.com

Address: 1615 Wynkoop Street

Denver, CO 80202

Facsimile: 303-357-7315

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

MEGAN GRIFFITH NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20184011666

MY COMMISSION EXPIRES MARCH 13, 2022

Subscribed and sworn before me this

1,0 2011

Notary Public

My Commission Expires

RECEIVED Office of Oil and Gas

JUL 1 1 2019

WW-6A: Notice of Application Attachment:

Surface Owners:

Tax Parcel ID: 2-14-26 & 15-18

Owner:

Barbara Kay Turner

Address:

517 S. 2nd Ave.

Paden City, WV 26159

Surface Owners:

Tax Parcel ID: 2-15-19

Owner:

David Mendenhall & Gary Davis

c/o Tim Aiken

Address:

PO Box 145

Middlebourne, WV 26149

Surface Owners:

Tax Parcel ID: 2-14-27

Owner:

Ridgetop Capital LP c/o Bradley Carpenter

Address:

PO Box 1183

Canonsburg, PA 15317

Surface Owners:

Tax Parcel ID: 2-15-37

Owner:

John D. Mendenhall

Address:

PO Box 145

Middlebourne, WV 26149

Owner:

Jeffery A. Davis

Address:

PO Box 1

Middlebourne, WV 26149

Surface Owners:

Tax Parcel ID: 2-15-3

Owner:

John W. Eddy Estate c/o Margaret Eddy

Address:

142 Mountainview Drive

Kingwood, WV 26537

Surface Owners:

Tax Parcel ID: 2-15-16

Owner:

Robert M. Feldmeir

Address:

415 N 2nd Circle

Paden City, WV, 26159

Surface Owners:

Tax Parcel ID: 2-15-23

Owner:

David Mendenhall c/o Gary Davis

Address:

PO Box 145

Middlebourne, WV 26149

Owner:

Gary Davis

Address: PO Box 145

Middlebourne, WV 26149

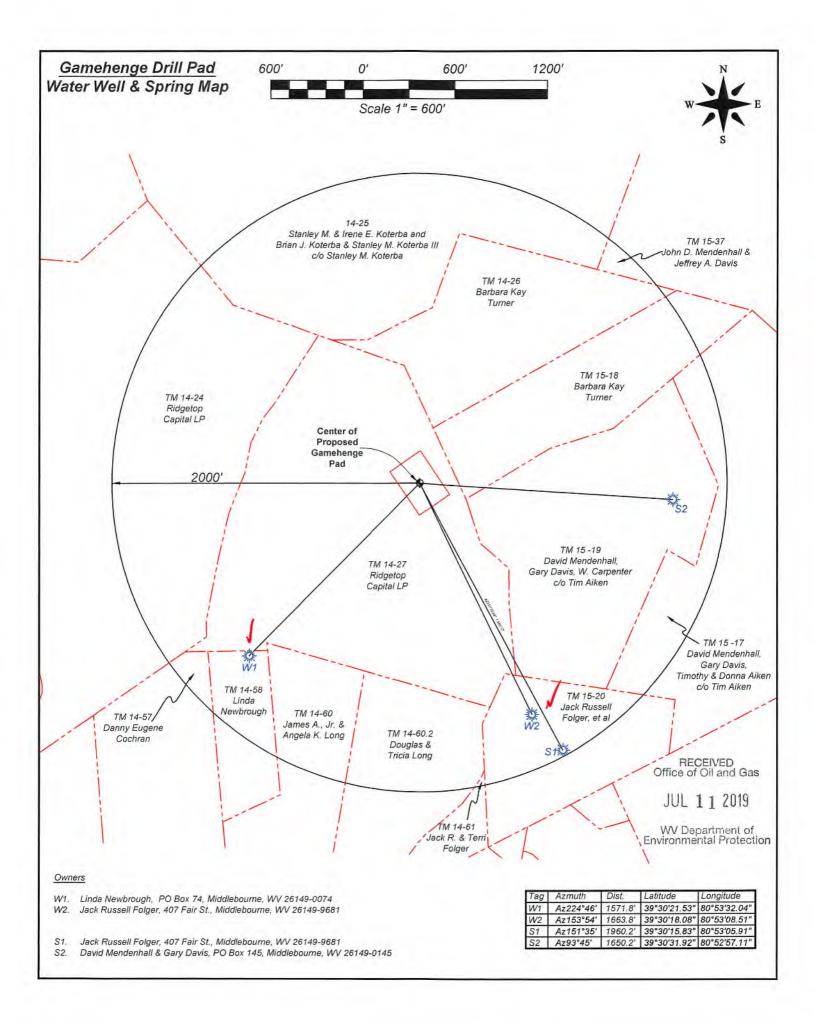
Owner: Address: Robert Feldmier

415 N 2nd Circle

Paden City, WV 26159

RECEIVED Office of Oil and Gas

JUL 1 1 2019



Operator Well No. 9ett 5.nit 2 6 3 5

Multiple Wells on the Gamehenge Pad

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to

entry Date of Notice:	12/11/2018	Date of Plan	nned E	ntry: *12/20/2018	Antero may be more than fort	nat this is an estimated date. gin surveying seven (7) days but no y-five (45) after your receipt of this	
Delivery metho	od pursuant t	to West Virginia C	ode § 2	2-6A-10a	notice (whiche	ver comes first).	
☐ PERSONA	A1 🗆	REGISTERED		METHOD OF DEL	IVERY THAT RE	EOUIRES A	
SERVICE		MAIL	_	RECEIPT OR SIGNATURE CONFIRMATION			
on to the surface but no more that beneath such tra owner of minera and Sediment C Secretary, whice	e tract to cond in forty-five d act that has fil als underlying Control Manua h statement sl	duct any plat survey ays prior to such end led a declaration pur g such tract in the co al and the statutes an	s require try to: (suant to ounty tand and rules information	red pursuant to this are 1) The surface owner to section thirty-six, as a records. The notice related to oil and gas ation, including the action.	ticle. Such notice so of such tract; (2) ticle six, chapter to shall include a state exploration and p	shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any atement that copies of the state Erosion production may be obtained from the age on the Secretary's web site, to	
Notice is hereb	y provided to	o:					
■ SURFACE	OWNER(s)			☐ COA	☐ COAL OWNER OR LESSEE		
Name: PLEASE SEE ATTACHMENT			Name: NO DECLARATIONS ON RECORD WITH COUNTY				
Address:		Address:	Address:				
Name:			_				
Name:Address:			MINERAL OWNER(s) Name: PLEASE SEE ATTACHMENT				
Address:			-	Address:			
				*please attac	h additional forms if ne	ecessary	
Notice is here	by given:						
			notice is	s hereby given that th	e undersigned wel	l operator is planning entry to conduct	
a plat survey on		and as follows:			1 6 7 3 1		
_			Public Road A	ude & Longitude:	Approx. 39.509959, -80.886021 State Ridge Road		
			227 . 1 .	rccess.	Outlet Middle Island Creek		
					d farm name:	Ridgetop Capital, LP	
may be obtained Charleston, WV	d from the Se / 25304 (304	cretary, at the WV I -926-0450). Copies	Departn of suc	nent of Environmenta	l Protection headq ional information r	il and gas exploration and production uarters, located at 601 57 th Street, SE, related to horizontal drilling may be RECEIVED Office of Oil and Gas	
	by given by	r:				JUL 11 2019	
Notice is here		1		Address:		JUL 1 1 2013	
	Antero Resource	es Corporation		Addicss.	1615 Wynkoop Street		
Notice is here Well Operator: Telephone:		es Corporation		Address.	Denver, CO 80202	WV Department of Environmental Protection	

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

WW-6A3: Notice of Entry for Plat Survey Attachment:

Surface Owners:

Tax Parcel ID: 2-14-26 & 15-18

Owner:

Barbara Kay Turner

Address:

517 S. 2nd Ave.

Paden City, WV 26159

Surface Owners:

Tax Parcel ID: 2-15-19

Owner:

David Mendenhall & Gary Dayis

c/o Tim Aiken

Address:

PO Box 145

Middlebourne, WV 26149

Surface Owners:

Tax Parcel ID: 2-14-27

Owner:

Ridgetop Capital LP c/o Bradley Carpenter

Address:

PO Box 1183

Canonsburg, PA 15317

Surface Owners:

Tax Parcel ID: 2-15-37

Owner:

John D. Mendenhall

Address:

PO Box 145

Middlebourne, WV 26149

Owner:

Jeffery A. Davis

Address:

PO Box 1

Middlebourne, WV 26149

Surface Owners:

Tax Parcel ID: 2-15-3

Owner:

John W. Eddy Estate c/o Margaret Eddy

Address:

142 Mountainview Drive

Kingwood, WV 26537

Surface Owners:

Tax Parcel ID: 2-15-16

Owner:

Robert M. Feldmeir

Address:

415 N 2nd Circle

Paden City, WV, 26159

Surface Owners:

Tax Parcel ID: 2-15-23

Owner:

David Mendenhall c/o Gary Davis

Address:

PO Box 145

Middlebourne, WV 26149

Owner:

Gary Davis

Address:

PO Box 145

Middlebourne, WV 26149

Owner:

Robert Feldmier

Address: 415

415 N 2nd Circle

Paden City, WV 26159

Minerals Owners:

Tax Parcel ID: 2-14-26

Owner:

Ridgetop Royalties, LLC

Address:

380 South Pointe Blvd. Suite 405

Canonsburg, PA 15317

Minerals Owners:

Tax Parcel ID: 2-15-18

Owner:

Ridgetop Royalties, LLC

Address:

380 South Pointe Blvd. Suite 405

Canonsburg, PA 15317

Minerals Owners:

Tax Parcel ID: 2-15-19

Owner:

Jack Russell Folger

Address:

407 Fair Street

107 Tun Street

Middlebourne, WV 26149

Owner:

Grover O. Folger

Address:

2207 Byron St.

Richmond, VA 23222

Owner:

Donna Jean Irion

Address:

7 West Rockrimmon Rd.

Williamsburg, CO 81226

RECEIVED Office of Oil and Gas

JUL 1 1 2019

WV Department of

Owner: Address: Josephine Deloris Johnson

109 Kirtley Strasse

Wellsburg, WV 26070

.

Owner: Address: Bessie Ruth Folger Cochran 2351 Cow House Rd.

Sistersville, WV 26175

Minerals Owners:

Tax Parcel ID: 2-15-19

Owner: Marsha Spencer

11401 Harcourt Terrace Address:

Henrico, VA 23233

Owner: Chris Folger

900 Terminal Pl, apt 108 Address:

Richmond, VA 23220

Owner: Dave Folger

Address: 8842 Luss Dr.

Huntington Beach, CA 92646

Owner: Michelle Perry

475 Mile Bridge Way Address:

Johnston, SC 29832

Owner: Cheri Ellis

11401 Harcourt Terrace Address:

Henrico, VA 23233

Andrew Hrynczyn aka Andrew Hrynczn Owner:

12833 North Rd/ Address:

Cleveland, OH 44111

Owner: John Hrynczyn aka John Hrynczn

5460 North Franklin Rd. Address:

Indianapolis, IN 46226

Owner: Karen F. Quinn

Address: 13562 Morgan Ave.

Alliance, OH 44601

Owner: Rebecca A. Taylor

Address: 1027 Jersey St.

Alliance, OH 44601

Owner: Rhonda C. Russell

72 E. Broadway St. Address:

Alliance, OH 44601

Owner: William A. Lancaster aka Bill Lancaster

416 North Union Ave. Address:

Alliance, OH 44601

Owner: Steve Richeson aka Steve E. Folger

Address: 1531 Shady Lane

Salem, OH 44460

Owner: Donald Richeson, Jr. 13564 Stanley Ave. Address:

Alliance, OH 44601

Minerals Owners:

Tax Parcel ID: 2-14-27

Ridgetop Capital, LL LP aka Ridgetop Owner:

Capital, LP

491 Sylvania Dr. Address:

McMurray, PA 15317

Nathaniel Hendricks Owner:

PO Box 100 Address:

Cragsmoor, NY 12420

Joyce A. Ward aka Joyce A. Harker Smith Owner:

Heir of Hilda Harker

8001 E. 2nd St. Address:

Tucson, AZ 85710

Owner: Terry William Tragy

754 Pleasant Ridge Rd Address:

Sistersville, WV 26175

Owner: Phillip Tracy

1330 Pleasant Ridge Rd Address:

Sistersville, WV 26175

Ernest Cline Tracey aka Cline Tracy, E. Owner:

Cline Tracy

7539 Pleasant Ridge Rd Address:

Sistersville, WV 26175

Owner: OXY USA, Inc.

Address: 5 Greenway Plaza, Suite 110

Houston, TX 77046

Collingwood Appalachian Minerals I, LCC Owner:

POA Icon Minerals Management, LLC

Address: 8117 Preston Rd., Ste 260

Dallas, TX 75225

Owner: Naomi V. Beagle

Address: 1896 Wick Rd.

Middlebourne, WV 26149

Minerals Owners:

Tax Parcel ID: 2-15-37

RECEIVED Office of Oil and Gas

JUL 1 1 2019

Owner: David Mendenhall

Address:

WV Department of Environmental Protection PO Box 145

Middlebourne, WV 26149

Minerals Owners:

Tax Parcel ID: 2-15-37

Owner:

John D. Mendenhall

Address:

PO Box 145

Middlebourne, WV 26149

Owner:

Jeffery A. Davis

PO Box 1 Address:

Middlebourne, WV 26149

Owner:

Helen M. Thomas

Address:

230 N. Blake Road

Norfolk, VA 23505

Owner: Address: Susan Townshend

736 Scrubgrass Rd

Pittsburgh, PA 15234

Owner:

Diane Jean Thomas Carpenter

Address:

771 George Street

Latana, TX 76226

Owner:

Mission Aviation Fellowship

Address:

PO Box 47

Nampa, IL 83653

Owner:

Back to the Bible Broadcast

Address:

PO Box 82808

Lincoln, NE 68501

Owner:

Richard Wayne Schmid /

Address:

7355 Battle Creek Rd, SE

Salem, OR 97317

Owner:

Amelia M. Schmid

Address:

1949 Gilman Circle

Placentia, CA 92870

Owner:

Robert Michael Schmid

Address:

7355 Battle Creek Rd, SE

Salem, OR 97317

Owner:

Kathryn Sue Prior

Address:

11737 Mt. Vernon Road

Auburn, CA 95603

Owner:

Lawrence Brian Fromuth

Address:

10 Greenview St

Montgomery, TX 77356

Minerals Owners:

Tax Parcel ID: 2-15-3

Owner:

Terri Koelher

Address:

611 S. Lake Street

Harrison, MI 48625

Owner:

John Arthur Hoffman

Address:

38739 Navajo Court

Romulus, MI 48774

Owner: Address: Wayne Hoffman

303 NW Cheshire Lane Port St. Lucie, FL 34983

Owner:

Robert Hoffman, Jr

Address:

877 Harriet Trail

West Branch, MI 48661

Owner: Address: Suzanne D. Freeman 6380 John Daly Street

Taylor, MI 48180

Owner: Address: Willard Thompson 1450 Carol Ave

Plymouth, MI 48170

Owner: Address:

David Thompson

1450 Carol Ave

Plymouth, MI 48170

Owner:

Allen E. Thompson 1450 Carol Ave

Address:

Plymouth, MI 48170

Owner:

Ruth Virginia Williams

Address:

151 Shirley Cirole Steubnville, OH 43952

Margaret A. Eddy

Owner: Address:

118 Virginia Street

Sistersville, WV 26147

Owner: Address: Michael A. Eddy 118 Virginia Street

Sistersville, WV 26147

Owner: Address: Pasty L. Oliverjo RR 6 Box 294C

Clarksburg, WV 26301

Owner:

Sally L. Brown

Address:

110 Forest Hills Lane

Friendly, WV 26146

Minerals Owners:

Tax Parcel ID: 2-15-3

Owner:

Sue. O. Smith

Address:

130 Rexford Street

Sistersville, WV 26147

Minerals Owners:

Tax Parcel ID: 2-15-16

Owner:

John E. Valentour

Address:

12237 McDougal Road

Millfield, OH 45761

Owner:

Sarah V. Nass

Address:

376 Parkway Drive

Pittsburg, PA 15228

Owner:

Herbert S. Boreman,

Address:

31 Kurt Road

Pittsford, NY 14534

Owner: Address: Catharine Valentour 3442 Oakwood Terrace

Washington, DC 20010

Owner:

Evelyn B. Parks

Address:

5009 Ellenwood Drive

Greensboro, NC 27410

Owner: Address: Catherine G. Lindberg 18 Alley Ranch Trail

Santa Fe, NM 87505

Owner: Address: McVey J. Graham 4318 Meriden Court

Grand Prairie, TX 75052

Owner:

Cornelia G. Haugen

Address:

16 Bradford Lane

Basking Ridge, NJ 07920

Owner:

Piney Holdings, Inc. PO Box 5026

Address:

Fairmont, WV 26555

Nell Ruth Williams 77023 West Ridge Ave.

Westfir, OR 97492-9723

RECEIVED Office of Oil and Gas

JUL 1 1 2019

WV Department of Environmental Protection

Operator Well No. Fetty Unit 2H 6.3 5

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

Notice Time Date of Notic	Requirement: notice shall be provided ce: 07/09/2019 Date Permit	no later than the filing Application Filed: 07/0		application.	
Delivery met	hod pursuant to West Virginia Code	§ 22-6A-16(c)			
■ CERTI	FIED MAIL	HAND			
	RN RECEIPT REQUESTED	DELIVERY			
return receipt the planned of required to be drilling of a l damages to th (d) The notice of notice. Notice is here	V. Va. Code § 22-6A-16(c), no later the requested or hand delivery, give the surpperation. The notice required by this exprovided by subsection (b), section tenthorizontal well; and (3) A proposed surpperation are surface affected by oil and gas operatives required by this section shall be given by provided to the SURFACE OWN is listed in the records of the sheriff at the	rface owner whose land subsection shall inclu- of this article to a surf- rface use and compens ons to the extent the da to the surface owner a	I will be used for de: (1) A copy ace owner whost sation agreement amages are com	or the drilling of a of this code secti- te land will be used to containing an of pensable under arti	horizontal well notice of on; (2) The information in conjunction with the fer of compensation for cle six-b of this chapter.
	SEE ATTACHMENT	Name:			
Address:		Address	3:		
State: County: District:	the surface owner's land for the purpose West Virginia Tyler Ellsworth	UTM NAD 8	Easting: Northing: Access:	509627.170m 4373280.652m State Ridge Road	
Quadrangle: Watershed:	Paden City 7.5' Outlet Middle Island Creek	Generally use	ed farm name:	Ridgetop Capital, LP	
Pursuant to W to be provide horizontal we surface affect information r	Shall Include: Vest Virginia Code § 22-6A-16(c), this red by W. Va. Code § 22-6A-10(b) to a sell; and (3) A proposed surface use and sed by oil and gas operations to the extended to horizontal drilling may be oblocated at 601 57th Street, SE, Characle aspx	a surface owner whose compensation agreeme ent the damages are co tained from the Secret	e land will be un nt containing an empensable und ary, at the WV	offer of compens er article six-b of Department of E	n with the drilling of a ation for damages to the this chapter. Additional nvironmental Protection
Well Operato		Address:	1615 Wynkoop Stre	a.	RECEIVED Office of Oil and Gas
Telephone:	(303) 357-7223	7 1001 0331	Denver, CO 80202	M1	Onico or or and date
Email:	mgriffith@anteroresources.com	Facsimile:	303-357-7315		JUL 1 1 2019
Oil and Gas	Privacy Notice:				WV Department of Environmental Protect

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deepprivacyofficer@wv.gov.

WW-6A5: Notice of Planned Operations to Surface Owner Attachment:

Surface Owners:

Tax Parcel ID: 2-14-26 & 15-18

Owner: Address: Barbara Kay Turner 517 S. 2rd Ave.

Paden City, WV 26159

Surface Owners:

Tax Parcel ID: 2-15-19

Owner:

David Mendenhall & Gary Davis

c/o Tim Aiken

Address:

PO Box 145

Middlebourne, WV 26149

Surface Owners:

Tax Parcel ID: 2-14-27

Owner:

Ridgetop Capital LP c/o Bradley Carpenter

Address:

PO Box 1183

Canonsburg, PA 15317

Surface Owners:

Tax Parcel ID: 2-15-37

Owner:

John D. Mendenhall

Address:

PO Box 145

Middlebourne, WV 26149

Owner:

Jeffery A. Davis

Address:

PO Box 1

Middlebourne, WV 26149

Surface Owners:

Tax Parcel ID: 2-15-3

Owner:

John W. Eddy Estate c/o Margaret Eddy

Address:

142 Mountainview Drive

Kingwood, WV 26537

Surface Owners: Tax Parcel ID: 2-15-16

Owner:

Robert M. Feldmeir

Address:

415 N 2nd Circle

Paden City, WV, 26159

Surface Owners:

Tax Parcel ID: 2-15-23

Owner:

David Mendenhall c/o Gary Davis

Address:

PO Box 145

Middlebourne, WV 26149

Owner: Address: Gary Davis

PO Box 145

Middlebourne, WV 26149

Owner: Address: Robert Feldmier 415 N 2nd Circle

Paden City, WV 26159

WW-6A5: Notice of Planned Operation Attachment:

Water Source Owners:

TM 14 PCL 58

Owner:

Linda Newbrough

Address:

PO Box 74

Middlebourne, WV 26149

TM 15 PCL 20

Owner: Address: Jack Russell Folger

407 Fair Street

Middlebourne, WV 26149

TM 15 PCL 19

Owner:

David Mendenhall & Gary Davis

Address:

PO Box 145

Middlebourne, WV 26149

RECEIVED Office of Oil and Gas

JUL 1 1 2019

WV Department of Environmental Protection



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION **Division of Highways**

1900 Kanawha Boulevard East • Building Five • Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

June 19, 2019

Byrd E. White, III Secretary of Transportation

> Jimmy Wriston, P. E. Deputy Secretary/ **Acting Commissioner**

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57th Street, SE Charleston, WV 25304

Subject: DOH Permit for the Gamehenge Pad, Tyler County Fetty Unit 2H Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2017-0071 issued to Antero Resources Corporation for access to the State Road for a well site located off of Tyler County Route 18/6 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer

Jary K. Clayton

Central Office O&G Coordinator Office of Oil and Gas

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JUL 1 1 2019

WV Department of Environmental Protection

Cc: Megan Griffith Antero Resources Corporation CH, OM, D-6

File

List of Anticipated Additives Used for Fracturing of 0 2 6 3 5 Stimulating Well

Additives	Chemical Abstract Service Number (CAS #)
Fresh Water	7732-18-5
2 Phosphobutane 1,2,4 tricarboxylic acid	37971-36-1
Ammonium Persulfate	7727-54-0
Anionic copolymer	Proprietary
Anionic copolymer Anionic polymer	Proprietary
BTEX Free Hydrotreated Heavy Naphtha	64742-48-9
Cellulase enzyme	Proprietary
Demulsifier Base	Proprietary
Ethoxylated alcohol blend	Mixture
Ethoxylated Nonylphenol	68412-54-4
Ethoxylated Nonyiphenoi Ethoxylated oleylamine	26635-93-8
Ethylene Glycol	107-21-1
	111-76-2
Glycol Ethers	9000-30-0
Guar gum	7647-01-0
Hydrogen Chloride	64742-47-8
Hydrotreated light distillates, non-aromatic, BTEX free	67-63-0
Isopropyl alcohol	10222-01-2
liquid, 2,2-dibromo-3-nitrilopropionamide	
Microparticle	Proprietary
Petroleum Distillates (BTEX Below Detect)	64742-47-8
Polyacrylamide	57-55-6
Propargyl Alcohol	107-19-7
Propylene Glycol	57-55-6
Quartz	14808-60-7
Sillica, crystalline quartz	7631-86-9
Sodium Chloride	7647-14-5
Sodium Hydroxide	1310-73-2
Sugar	57-50-1
Surfactant	68439-51-0
Suspending agent (solid)	14808-60-7
Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7
Solvent Naphtha, petroleum, heavy aliph	64742-96-7
Soybean Oil, Me ester	67784-80-9
Copolymer of Maleic and Acrylic Acid	52255-49-9
DETA phosphonate	15827-60-8
Hexamthylene Triamine Penta	34690-00-1
Phosphino Carboxylic acid polymer	71050-62-9
Hexamethylene Diamine Tetra	23605-75-5
2-Propenoic acid, polymer with 2 propenamide	9003-06-9
Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5
Diethylene Glycol	111-46-6 RECEIVED
Methenamine	100-97-0 Office of Clil and Gas
Polyethylene polyamine	68603-67-8
Coco amine	61791-14-8
2-Propyn-1-olcompound with methyloxirane	38172-91-7 WV Department of

LOCATION COORDINATES:
ACCESS ROAD ENTRANCE
LATITUDE: 39-561-56 LONGITUDE: -60.067260 (NAD B3)
LATITUDE: 39-561-56 LONGITUDE: -80.067260 (NAD B3)
LATITUDE: 29-561-56 LONGITUDE: -80.067260 (NAD B3)
LATITUDE: 20-561-561-561

LATITUDE: 39.509160 LONGITUDE: -80.888237 (NAD 83)
LATITUDE: 39.509082 LONGITUDE: -80.888409 (NAD 83)
N 4373287.08 E 509808.01 (UTM ZONE 17 METERS)

CENTER OF TANK "A" LATITUDE: 39.509829 LONGITUDE: -80.886020 (NAD B3) LATITUDE: 39.509829 LONGITUDE: -80.886192 (NAD B3) N 437337.014 E 509788.47 (UTM ZONE 17 METERS

CENTER OF TANK "B"

LATITUDE: 39-510857 LONGITUDE: -80.082849 (NAD 83)

LATITUDE: 39-510760 LONGITUDE: -80.883021 (NAD 27)

N 4373473.79 E 510070.97 (UTN 20NE 17 METERS)

GENERAL DESCRIPTION

THE ACCESS ROAD(S), WATER CONTAINMENT PAD(S), AND WELL PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

WVDEP OOG

2 J 1/18/160

CHARLES E. COMPTON, III - SURVEYING COORDINATOR CELL: (304) 719-8449

CYRUS S KUMP, PE - PROJECT MANAGER/ENGINEER OFFICE: (888) 862-4185 CELL (540) 686-6747

ENVIRONMENTAL:
SWCA ENVIRONMENTAL CONSULTANTS, INC
IVAN J. MALDONADO - ENVIRONMENTAL SPECIALIST
OFFICE: (412) 839-1001 CELL: (570) 778-5768

GEOTECHNICAL:
PENNSYLVANIA SOIL & ROCK, INC.
CHRISTOPHER W. SAMIOS - PROJECT ENGINEER
OFFICE: (412) 372-4000 CELL: (412) 569-0082

JIM WILSON - LAND AGENT OFFICE: (304) 842-4419 CELL: (304) 671-2708

MISS_UTILITY_STATEMENT:
ANTER RESUMES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATING OF UTILITIES REGION TO THIS PROJECT DESIGN, TICKET #1834641906. IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTEXCED BY FIGOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.

ANTER RESOURCES CORPORATION WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MM-100) FROM THE WEST VIRGINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

FLOODPLAIN NOTES.
THE PROPOSED SITE IS LOCATED WITHIN FEMA FLOOD ZONE "X" FER FEMA FLOOD MAPS #54000CD044C & #64090CD04)

A \$400SCOUTCE.

ENVIRONMENTAL NOTES.

STEUM AND TITLAMS DELIVERING WERP PERFORMED IN ALIQUIST & DECEMBER, 2016 BY SYCA.

STEUM AND TITLAMS DELIVERING.

TO REVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (195 SY SYCA.

NUMBER WITH THE REQULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (195 CE), ARD/OR

THE WEST WITHOUT ONSULTANTS OF ENVIRONMENTAL PROTECTION (WVDEP). ITS NOVEMBER 8, 2016 AND

DECEMBER 7, 2016 STREAM AND WITHAUD DELIREATION INDEX MAPS WERP PREPARED BY SYCA.

SUNICOMMENTAL CONSULTANTS, INC. AND SUMMARIZE THE RESULTS OF THE PETEL DELIREATIONS. THE

WATERS AND WITHAUD SHICK IN MAY BE REQULATED BY THE USACE OR THE WWEIP.

THIS STRONGLY RECOMMENDED THAT THE APPROVED SHICK ON THE SYCHET ONLY INCOME.

CONSTRUCTION ON THE EXPENDED DESCRIBED SHICK IN SOURCES BE CONSULTED IN A TEPORY TO

GAIN MENTERS CONFIDENTIAL DISCOVERY DESCRIBED DEEDEN, THE DESCRIPTION ON THE EXPENSIVE DESCRIBED DEEDEN, THE DESCRIPTION OF THE WITH THE APPROPRIATE

FER THAT OF THE WEIGHT OF THE STRONGLY DESCRIBED DEEDEN, THE DESCRIPTION OF THE WITH THE APPROPRIATE

FER THAT THE WEIGHT OF THE STRONGLY DESCRIBED DEEDEN, THE DESCRIPTION SHOW ANY PROPOSED IMPACTS

VEHICLES OF THE U.S., INCLUDING WITHAUT PLUS AND STREAM GROSSINGS.

GEOTECHNICAL NOTES:
A SUBSUBFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY PENNSYLVANIA SOIL &
ROCK, INC. ON ASVAIRY 09-18, 2017. THE SEPORT PERPARED BY PENNSYLVANIA SOIL & ROCK, INC.
DATED MARCH 02, 2017, REFLECTS THE RESULTS OF THIS SUBSURFACE ENVESTIGATION. THE
NOTEMATION AND RECOMMENDATIONS CONTAINED IN HIS REPORT WERE USED IN THE PREPARATION
OF THESE PLANS. PLASE REFER TO THE SUBSURFACE INVESTIGATION MEPORT BY PENNSYLVANIA
SOIL & ROCK, INC. FOR ABSOLUTIONAL IMPORMATION, SE MEEDLE

PROJECT CONTACTS:

OPERATOR: ANTERO RESOURCES CORPORATION 535 WHITE OAKS BLVD. BRIDGEPORT, WV 26530 PHONE (304) 842-4100 FAX: (304) 842-4100 FAX: (304) 842-4100

ELI WAGONER - ENVIRONMENTAL ENGINEER OFFICE: (304) 842-4088 CELL: (304) 476-9770

JON McEVERS - OPERATIONS SUPERINTENDENT OFFICE: (303) 357-6799 CELL (303) 806-2423

AARON KUNZLER - CONSTRUCTION SUPERVISOR CELL (405) 227-8344

ROBERT B. WIRKS - FIELD ENGINEER OPFICE: (304) 842-4100 CELL: (304) 627-7405

RESTRICTIONS NOTES:

1. THERE ARE NO PERBRUMAL STREAMS, WEILANDS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE WEIL PAD AND LOD.

2. PAD AND LOD.

3. THERE ARE NO GROUPMENTER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WEIL PAD AND LOD.

4. THERE ARE NO GROUPMENTER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WEIL PAD AND LOD.

4. THERE ARE NO APPRANTS EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250

FEET OF THE WELL(S) DEING DRILLED.
THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF

THE WELL PAD.
THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625-FEET OF THE CENTER OF THE WELL PAD.

REPRODUCTION NOTE

THESE PLANS WERE CREATED FOR COLOR PLOTTING AND ARY REPRODUCTIONS IN GRAY SCALE OR TOLOR MAY RESULT IN A LOSS OF DISTORMED AND SEE USED FOR EDINGERCITION FURNISSES

GAMEHENGE WELL PAD & WATER CONTAINMENT PADS SITE DESIGN & CONSTRUCTION PLAN, APPROVED **EROSION & SEDIMENT CONTROL PLANS**

ELLSWORTH DISTRICT, TYLER COUNTY, WV LITTLE MUSKINGUM-MIDDLE ISLAND WATERSHED

USGS 7.5 MIDDLEBOURNE, PADEN CITY, PORTERS FALLS & SHIRLEY QUAD MAPS





DESIGN CERTIFICATION: DESIGN CERTIFICATION: THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF DI AND GAS CRS 35-8



MISS Utility of West Virginia 1-800-245-4848 West Virginia State Law (Section XIV: Chapter 24-C) Requires that you call two business days before you dig in the state of West Virginia. IT'S THE LAW!!

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GE500-GE512 - GEOTECHNICAL DETAILS

Proposed Well Name	WW North NAD 27	W North NAD 85	Zone 17	NAD 83 Lat & Long
Gamehenge	N 370559 20	N 370503 92	N 4373288 15	LAT 39-30-33 0115
Unit 19	E 1508286.25	E 1576845.26	E 509811.15	LCNG -80-53-17.5219
Well Pad Elevation	1,026.0			

GAMEHENGE LIMITS OF DISTURBANC	E AREA (AC)	GAMEHENGE LIMITS OF DISTURBANCE AREA (AC)			
Total Site		Impacts to Barbara Kay Turner Th			
Access Road "C" (4,629')	14.84	Access Road *D*	0.12		
Access Road "D" (1.100')	4.59	Access Road "E"	0.12		
Access Road 'E" (219')	0.87	Well Pad	0.01		
Water Containment Pad "A"	7.46	Total Affected Area	0.37		
Well Pad	11.76	Total Wooded Arres Disturbed	0.37		
Water Containment Pad "B"	6.17				
Excess/Topsoil Material Stockpiles	13.92	Impacts to Ridgetop Capital, LP TI			
Total Affected Area	59.61	Well Pad	10.86		
Total Wooded Acres Disturbed	54.50	Excess/Topsoil Material Stockpiles	5,14		
sects to John D. Mendenhall & Jeffrey A. Davis TM 15-37		Total Affected Area	14.02		
Access Road "C" (2.664')	8.09	Total Wooded Acres Disturbed			
Excess/Topsoil Material Stockpiles	6.38	Impacts to Timothy Alken, David L. Mendenhall & Gar Davis TM 15-19			
Total Affected Area	14.47				
Total Wooded Acres Disturbed	14.09	Water Containment Pad "A"	1.41		
Impacts to Robert M. Feldmeler TI	415.18	WellPad	0.02		
Access Road "C" (891")	2.85	Water Containment Pad "B"	0.01		
Total Affected Area	2.86	Total Affected Area	1.44		
Total Wooded Acres Disturbed	2.86	Total Wooded Acres Disturbed	1.43		
Impacts to John W. Eddy Estate 1		Impacts to David L. Mendenhall, Timothy R	Alben Gane		
Access Road "C" (407)	1.29	Davis & Robert Feldmeler TM 1			
Total Affected Area	1.29	Access Road "C" (80")	0.33		
		Total Affected Area	0.33		
Total Wooded Acres Disturbed	1,29	Total Wooded Acres Disturbed	0.32		
Impects to Barbara K, Turner TM					
Access Road "C" (587)	1.61	Impacts to Timothy R. & Donna Alken, David L. Mend			
Access Road "D" (1,100)	4.47	& Cary R. Davis, Robert M. Feldmeler			
Access Road "E" (219')	0.63	Access Road "C"	0.66		
Water Containment Pad "A"	6,04	Water Containment Pad "A"	0.00		
Well Pad	0.88	Water Containment Pad "B"	3.52		
Water Containment Pad "B"	2.64	Excess/Topsoil Material Stockpiles	2.40		
Total Affected Area	16.27	Total Affected Area	6.58		
Total Wooded Acres Disturbed	13.62	Total Wooded Acres Disturbed	6.50		

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GAMEHENGE

& WATER CONTAINMENT P

3 W PAD



DATE 12/14/2018 SCALE: AS SHOWN SHEET 1 OF 55

