Tuesday, January 02, 2018
WELL WORK PERMIT
Horizontal 6A / New Drill

TRIAD HUNTER, LLC
125 PUTNAM ST
MARIETTA, OH 45750

Re: Permit approval for WELLS MECKLEY 1406
47-095-02488-00-00

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: WELLS MECKLEY 1406
Farm Name: VELMA L. WELLS
U.S. WELL NUMBER: 47-095-02488-00-00
Horizontal 6A / New Drill
Date Issued: 1/2/2018

Promoting a healthy environment.
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

1. 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.
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, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Triad Hunter, LLC 494494833 Tyler Lincoln Paden City
Operator ID County District Quadrangle

2) Operator’s Well Number: 1406 Well Pad Name: Wells Meckley

3) Farm Name/Surface Owner: Wells Meckley Public Road Access: State Route 18

4) Elevation, current ground: 958’ Elevation, proposed post-construction: 958’

5) Well Type (a) Gas Oil Underground Storage
   Other
   (b) If Gas Shallow Deep Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
   Marcellus Shale, 8197'-6258' VD, 50'-55' THICK, 3,000PSI BHP

8) Proposed Total Vertical Depth: 6,258' TVD

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 13,440' MD

11) Proposed Horizontal Leg Length: 7370'

12) Approximate Fresh Water Strata Depths: 320'

13) Method to Determine Fresh Water Depths: Examine local water wells

14) Approximate Saltwater Depths: 1100'-2000'

15) Approximate Coal Seam Depths: 600'-1150'

16) Approximate Depth to Possible Void (coal mine, karst, other): None known

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X

   (a) If Yes, provide Mine Info: Name:
      Depth:
      Seam:
      Owner:
### CASING AND TUBING PROGRAM

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<th>TYPE</th>
<th>Size (in)</th>
<th>New or Used</th>
<th>Grade</th>
<th>Weight per ft. (lb/ft)</th>
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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:
SEE ATTACHMENT: I-B

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:
SEE ATTACHMENT: II-B

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 0 acres

22) Area to be disturbed for well pad only, less access road (acres): 0 acres

23) Describe centralizer placement for each casing string:
SEE ATTACHMENT: III-B

24) Describe all cement additives associated with each cement type:
SEE ATTACHMENT: IV-B

25) Proposed borehole conditioning procedures:
SEE ATTACHMENT: V-B

*Note: Attach additional sheets as needed.
#19 Proposed Well Work:

Drill and complete a new horizontal Marcellus Shale Well.

1. AIR/SOAP Drill a 24" conductor hole to 100 feet; run 20" casing to T.D., cement / grout to surface with Class A cement.

2. AIR/SOAP Drill a 17 1/2" intermediate hole to a depth of 400 feet; run 13 3/8" casing to T.D. and cement to surface with Class A cement.

3. AIR / SOAP Drill a 12 1/4" intermediate hole to a depth of 2,850 feet; run 9 5/8" casing to T.D. and cement back to 2,500 feet with Class A cement.

4. Fluid Drill an 8 3/4" production hole to the projected total measured depth @ +/- 15,000 feet.

6. Run and Cement 5 3/4" production casing to the TMD; cement casing back to the surface with Class A and Class H cement.

7. Run Cased-hole logs (Gamma-Ray, CCL, Bond).

8. Open toe sleeve and establish 15 BPM pump rate.

9. Perforate and stimulate multiple stages in Marcellus lateral section.
   a. Perforations per stage = sixty to seventy
   b. Average stage length = one hundred fifty feet

10. Clean-out 5 3/4" production casing using a coil tubing rig or a work over rig and snubbing unit.

11. Flow test well for seven to ten days to clean up wellbore and determine overall productivity.

12. Turn well into production.
#20 Fracturing/Stimulation Methods:

Upon the successful cementation of the 5 ½” production casing, completion of the well will be performed as follows:

1. Run a GR/CCL/Bond log from the bottom of the curve to surface.

2. Pressure-up on casing, open the toe sleeve and establish pump rate of 15 bpm through the toe sleeve.

3. Run a GR/CCL log from the toe to the base of the curve and correlate with the GR/CCL/Bond log.

4. Pump down through the casing a solid bridge plug and perforating guns.

5. Set the solid bridge plug just above the toe sleeve and perforate the first stage with 60-70 perforations over a 100'-150' interval (stage#1).

6. Fracture stage #1 with a slick water/sand stimulation using approximately 8,000 bbls of water and 225,000 lbs of sand. Average treating pressure is expected to range between 6,000 psi and 7,000 psi and average treating rates are expected to range between 70 bbls and 80 bbls per minute. Upon completion of the stage, the five minute and ten minute shut in pressures are recorded.

7. Repeat the same methodology of perforating and fracturing on subsequent stages using composite frac plugs instead of solid bridge plugs. Once the heel is reached, completion operations are suspended. The average number of stages completed in each well range between twenty and thirty.

8. Upon completion of the last stage, solid bridge plugs are set in the casing, just above the top of the curve and just below the well head for safety purposes.

9. Well is shut in until clean out and flow back operations are initiated.

DMH 11-29-17

GB 11/28/2017
(WW-6B)

#23 Centralizer Placement:

A. (5 ½") Production Casing:
   1. Metal Spiral glider centralizers every joint in lateral, every other joint in curve and every three joints in vertical. No Bowspring in vertical if rotating, only use solid spirals.
#24 Cement Additives:

A. Surface Cement Job (20" csg.)
   1. Surface Cement Job (20" csg.)
      a) Average weight = 15.4 to 15.6 lbs./gal
      b) Average yield = 1.19 to 1.24 ft³/5k
   2. Common Additives
      a) ¾ lb./5k Cello Flake (Lost circulation material)
      b) 2%-3% Calcium Chloride (Accelerator)

   *Note: Gel Sweep is usually pumped ahead of the cement.
   Gel Spacer consists of 6% gel w/cello flake.

B. Intermediate Cement Job (13 3/8" csg. & 9 5/8" csg.)
   Due to depth, most intermediate casings are cemented in two stages.
   1. The upper (lead) stage cement job usually consists of CLASS A CEMENT or LIGHT CEMENT.
      a) Average weight = 13.1 to 13.5 lbs. /gal.
      b) Average yield = 1.54 to 1.70 ft³/5k.
   Common Additives
      a) ¾ lb./5k Cello Flake (Lost circulation material)
      b) 1%-2% Calcium Chloride (Accelerator)

   *Note: Gel Sweep is usually pumped ahead of the cement.
   Gel Spacer consists of 6% gel w/cello flake.

   2. The lower (tail) stage usually consists of standard CLASS A CEMENT.
      a) Average weight = 15.4 to 15.6 lbs./gal
      b) Average yield = 1.18 to 1.20 ft³/5k.
   Common Additives
      a) ¾ lb./5k Cello Flake (Lost circulation material)
      b) 1%-2% Calcium Chloride (Accelerator)
      c) 1% bwoc EC-1 (Bonding Agent)
      d) 55% bwoc BA-10A (Bonding Agent)
#24 Cement Additives:

C. Longstring Cement Job (5 ¾” cse.)

Depending on how far cement is brought back into the intermediate casing, the production casing is usually cemented in two stages and a heavy weighted spacer is pumped ahead of the cement to condition the well bore.

1. Weighted Spacer
   - a) Barite
     - Ultra Flush II
     - @ 257 lbs. /bbl
     - 50 lbs. @ 13 lbs./gal
     - (Weighting Material)
   - b) US-40
     - 2 gals. /bbl
     - (Surface tension reducer)
   - c) ss-2
     - 13 lbs. /gal
     - (Surfactant)

2. Weighted Spacer
   - a) Barite
     - @ 257 lbs./bbl
     - (Weighting Material)
   - b) SS-2
     - 1 lb. /gal
     - (Surfactant)
   - c) MPA-170
     - 1 lb. /bbl
     - (Fluid loss additive)

3. Lead Slurry
   - a) Average Weight = 13.50 lbs./gal
   - b) Average Yield = 1.44 ft³ / 5k.

Common Additives

   - a) BA – 90
     - 3 lbs. /5k
     - (Bonding Agent)
   - b) R – 3
     - .258 bwoc
     - (Retarder)
   - c) MPA – 170
     - 1 lb. / bbl
     - (Fluid loss additive)

4. Tail Slurry
   - CLASS H CEMENT
   - a) Average Weight = 15.2 lbs./gal
   - b) Average Yield = 1.64 ft³ / 5k

Common Additives

   - a) R-3
     - .2% bwoc
     - (Retarder)
   - b) CD-32
     - .75 % bwoc
     - (Dispersant)
   - c) ASA – 301
     - .35 % bwoc
     - (Free water removal)
   - d) BA-10A
     - 1.25% bwoc
     - (Bonding Agent)
   - e) ASCA
     - 30 lbs. /5k
     - (Solubility additive)
   - f) Sodium Metasilicate
     - .58 bwoc
     - (Extender)
(WW-6B)

#25 Borehole Conditioning Procedures:

17 ½" hole – Generally this section of the well is drilled on air with air compressors and boosters. It’s imperative through this section of the well to have sufficient air volume and pressure on the borehole during drilling to ensure hole conditions remain clean and unobstructed. If a significant volume of freshwater is encountered during drilling “stiff foam” or soap is utilized to assist in lifting drill cuttings and freshwater out of the hole. “Red Rock” is a clay-dominant strata that is sensitive to freshwater in this area. Stiff foam is applied to the borehole when freshwater is encountered to prevent the clays from swelling and sloughing into the borehole.

12 1/4” hole - Generally this section of the well is drilled on air with air compressors and boosters. It’s imperative through this section of the well to have sufficient air volume and pressure on the borehole during drilling to ensure hole conditions remain clean and unobstructed. If a significant volume of saltwater is encountered during drilling “stiff foam” or soap is utilized to assist in lifting drill cuttings and freshwater out of the hole. “Red Rock” is a clay-dominant strata that is sensitive to saltwater in this area. Stiff foam is applied to the borehole when saltwater is encountered to prevent the clays from swelling and sloughing into the borehole.

8 ¾” hole – Generally, this section of the well is drilled on fluid. In an effort to keep borehole conditions in good working order several mechanisms are used to condition the borehole:

1. **High Viscosity Sweeps**: Sweeps are mixed and pumped after drilling every 3 joints during the drilling process. Sweeps generally run 20 cp over the active mud system viscosity for 20 bbls.

2. **Clean-Up Cycle**: “Clean-Up Cycles” are utilized every 500’ in the lateral section of the well. During this routine conditioning procedure drilling is halted for the amount of time it takes to circulate 2 sweeps to surface. Also, during this process the pipe is continuously rotated and reciprocated at this spot to help circulate out any “cutting beds” lying in the wellbore.

3. **Short Trips**: Short trips are utilized to work out tight spots and cutting beds from the borehole which cause increased torque and drag, and pressure. Two short trips are typically run during the drilling of this section of the wellbore. The first at the half-way point of the lateral. The drill pipe is pulled out of the hole to the “kick-off” point of the well. The second short trip is utilized at total depth (TD). At this point the drill pipe is pulled out of the wellbore to the half-way point of the lateral.

4. **At TOTAL DEPTH**: A clean-up cycle and short trip is utilized to condition the wellbore when total depth (TD) has been reached in preparation for running production casing.
Triad Hunter
MARCELLUS SHALE
WELLBORE SCHEMATIC* & COMPLETION DATA

20" Conductor Casing To 100'
  (Grout To Surface)

13 3/8" Surface Casing To 400'
  (Cement To Surface)

9 5/8" Intermediate Casing To 2,850'
  (Cement To Surface)

5 1/2" Production Casing To TD +/-15,000'
  (Cement To Surface)

Sand Use Per Stage
100 mesh Sand = 45,000 lbs
40/70 Sand = 180,000 lbs
Total Sand = 225,000 lbs

Sand Use Per Well
~10,560,000 lbs

 +/- 8000' Lateral - ~50 Frac Stages - 150' Stage Spacing

* Schematic Not To Scale
Date

(Conventional Well Operator)
(address)
(address)

RE: Wells Meckley Hydraulic Fracturing Notice

To whom it may concern,

Triad Hunter has developed a Marcellus and Utica pad (Wells Meckley pad) located in Tyler County, WV. As an owner or operator of conventional natural gas wells in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communications, via natural gas, water, or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 6,400’ TVD) and existing conventional natural gas wells in the partially-depleted, relatively high permeability, Alexander formation (approximately 5,200’ TVD).

Triad Hunter LLC anticipates conducting hydraulic fracturing at the Wells Meckley pad during the (1 quarter of 2018). We have identified conventional natural gas wells operated by your company within 1,500’ (lateral distance) of our new planned laterals. Plats for each well on this pad are attached.

We recommend that conventional well operators conduct the following activities before, during, and after fracturing operations:

1. Inspect surface equipment, prior to fracturing, to establish integrity and establish well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas, or pressure.
3. Inspect or install master valves rated to 3000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and Triad Hunter, LLC, if any changes in water, gas production, pressure, or other anomalies are identified.

Should you have any questions or comments please call me at 740-760-0558. You may also contact the West Virginia Office of Oil and Gas at 304-926-0440.

Sincerely,
Triad Hunter, LLC

Will Harless
Supervisor Regulatory Operations
Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operations near Triad Hunter, LLC. Fracturing in Tyler County, WV prior to hydraulic fracturing at the following Triad Hunter, LLC. wells on the Wells Meckley pad: 1401, 1402, 1403, 1404, 1405.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water, or both, may office between hydraulically fractured wells in the Marcellus formation (approximately 6,400’ TVD) and existing natural gas wells in the partially-depleted, relatively high permeability Alexander formation (approximately 5,200’ TVD).

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include pre-notification of conventional well operations of the timing and location of the hydraulic fracturing, establishment of measures conventional well operations should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during the fracturing.

1. Communications with Conventional Well Operators

Triad Hunter, LLC. using available data (WV geological Survey, WVDEP website, and IHS date service), has identified all known conventional wells and well operators within 1,500 feet of this pad and the lateral sections. A map showing these wells along with a list of the wells and operators is included in Attachment A.

Upon approval of this plan, Triad Hunter, LLC. Will notify these operators, via letter, of the hydraulic fracturing schedule for these wells. A copy of this letter is included in Attachment B.

This letter provides the recommendations to these conventional operators to 1) increase their monitoring of their wells, during that time period, 2) ensure that their well head equipment is sound, and 3) provide immediate notification to Triad Hunter, LLC. And the OOG in the event of any changes in their well conditions.

Specifically, the letter recommends that conventional well operators conduct the following activities during and after fracturing operations:

1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas, or pressure.
3. Inspect or install master valves rated to 3000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and Triad Hunter, LLC. if any changes in water, gas production, pressure, or other anomalies are identified.

2. Reporting

Triad Hunter, LLC. will provide information relating to the hydraulic fracturing schedule, communication with conventional operators, and ongoing monitoring of the work upon request of the OOG or immediately in the event of any noted abnormalities.
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<td>UNKNOWN</td>
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<td>-80.938863</td>
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<td></td>
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<td>Triad Hunter</td>
<td>Triad Hunter</td>
<td>Abandoned</td>
<td>39.511853</td>
<td>-80.911738</td>
<td>NA</td>
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</tbody>
</table>
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  

FLUIDS/CUTTINGS DISPOSAL & RECLAMATION PLAN  

Operator Name: Triad Hunter, LLC  
Watershed (HUC 10): Pursley Creek  
Quadrangle: Paden City  

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:  
Will a synthetic liner be used in the pit?  Yes ☐ No ☑  If so, what ml.?  

Proposed Disposal Method For Treated Pit Wastes:  
- Land Application  
- Underground Injection (UIC Permit Number 387 Ohio Disposal Well, 34-121-3995)  
- Reuse (at API Number)  
- Off-Site Disposal (Supply form WW-9 for disposal location)  
- Other (Explain)  

Will closed loop system be used? If so, describe:  

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil-based, etc.  Too Hole Air Drilled, Laterar-Syn Mud  
- If oil based, what type? Synthetic, petroleum, etc.  Synthetic  

Additives to be used in drilling medium?  See Attachment I-A: Drilling Additives List  

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.  Landfill  
- If left in pit and plan to solidity what medium will be used? (cement, lime, sawdust) N/A  
- Landfill or offsite name/permit number?  Wetzel County Landfill, SWPU ID 12-10-45  

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.  

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable 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 submitted on this application form and all attachments thereto 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 or imprisonment.  

Company Official Signature:  
Company Official (Typed Name): Mike Hodan  
Company Official Title: Manager Operations Conventional/Infrastructure  

Subscribed and sworn before me this 17 day of November  
Will Harless  
My commission expires: Aug. 5, 2018  

OFFICIAL SEAL  
NOTARY PUBLIC  
STATE OF WEST VIRGINIA  
WILL HARLESS  
P.O. BOX 59  
CHARLESTON, WV 25301  
My Commission Expires Aug. 5, 2018
Triad Hunter, LLC

Proposed Revegetation Treatment: Acres Disturbed 6.6

Prevegetation pH 6-7

Lime 2-5 Tons/acre or to correct to pH 6.0-7.0

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

### Seed Mixtures

<table>
<thead>
<tr>
<th>Seed Type</th>
<th>Temporary</th>
<th>Permanent</th>
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<tr>
<td>Common Orchard Grass</td>
<td>30%</td>
<td>Same as temporary</td>
</tr>
<tr>
<td>Perennial Rye</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Medium Red Clover</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Common Timothy</td>
<td>10%</td>
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</tr>
</tbody>
</table>

Attach:
Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5° topographic sheet.

Plan Approved by: [Signature]

Comments:

[Blank lines for comments]

Title: Oil Field Inspector  Date: 11-28-17

Field Reviewed? (Y) Yes (N) No
TRIAD HUNTER LLC.
Subsidiary Of
Blue Ridge Mountain Resources

125 Putnam Street
Marietta, Ohio 45750

SITE & SAFETY PLAN
Wells Meckley
Tyler County
West Virginia

Approved:

West Virginia DEP

Triad Hunter LLC

Date: 11/28/17

Date: 11/14/17

Office of Oil and Gas

WV Department of Environmental Protection

NOV 29 2017
<table>
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<th>Lease Number</th>
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<th>Lessee</th>
<th>Lessor Address</th>
<th>Lease Recording Info</th>
<th>Lease Date</th>
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<tbody>
<tr>
<td>LSE25OWEL17</td>
<td>Velma Luella Wells</td>
<td>Triad Hunter, LLC</td>
<td>1901 Tyler Highway Sisterville WV 26175</td>
<td>Book 392 Page 459</td>
<td>11/7/2011</td>
</tr>
<tr>
<td>LSE250FRE1</td>
<td>Janice Freeland Lancaster &amp; Keith Fotty Freeland</td>
<td>Triad Hunter, LLC</td>
<td>5769 Tyler Hwy Sisterville, WV 26175</td>
<td>Book 396 Page 181</td>
<td>11/8/2011</td>
</tr>
<tr>
<td>LSE25OWEL17</td>
<td>Velma Luella Wells</td>
<td>Triad Hunter, LLC</td>
<td>1901 Tyler Highway Sisterville WV 26175</td>
<td>Book 392 Page 459</td>
<td>11/7/2011</td>
</tr>
</tbody>
</table>

Permission to permit, drill & produce:
- BRC Appalachian Minerals I LLC
  - Oxy USA, Inc.
  - Collingwood Appalachian Minerals I, LLC
  - Collingwood Appalachian Minerals III, LLC
- EQT and Antero Resources Corporation (Previously BRC Working Interest Company LLC)
  - 5 Greenway Plaza Suite 110 Houston, TX 77046
  - Book 369 Page 648
  - 2/3/20
  - 10/14/2009

Permission to permit, drill & produce:
- Waco Oil & Gas, Inc.
  - EQT (Previously Statoil Onshore)
  - PO Box 397 Glenville, WV 26351
  - Book 514 Page 638
  - 2/6/2015
<table>
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<th>Produce</th>
<th>Lessee Name</th>
<th>Driller Name</th>
<th>Address</th>
<th>Book</th>
<th>Page</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Permission to permit, drill &amp; produce</td>
<td>&quot;BOOR FAMILY TRUST&quot; Ronald Eugene Boor</td>
<td>Antero Resources Corporation</td>
<td>1564 ALLEN RUN RD., SISTERSVILLE, WV 26175</td>
<td>Book 353</td>
<td>Page 286</td>
<td>2-14-p/o 6; 2-9-38; 2-9-89</td>
</tr>
<tr>
<td>Permission to permit, drill &amp; produce</td>
<td>Charles Ray Jobes</td>
<td>Antero Resources Corporation</td>
<td>6 FRONTAGE DR UNIT 4, MOUNDSVILLE, WV 26041</td>
<td>Book 353</td>
<td>Page 284</td>
<td>2-14-p/o 6; 2-9-38; 2-9-89</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Lease Name or Number</th>
<th>Grantor, Lessor, etc.</th>
<th>Grantee, Lessee, etc.</th>
<th>Royalty</th>
<th>Book/Page</th>
</tr>
</thead>
</table>

Please see attached sheets

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.

Well Operator: Triad Hunter, LLC
By: Mike Horan
Its: Manager Operations Conventional/Infrastructure

Page 1 of WV Department of Environmental Protection Office of Oil and Gas

RECEIVEDnov 29 2017
November 6, 2017

Antero Resources Corporation
Mr. Brett A. Kuhn
1615 Wynkoop St.
Denver, CO 80202

RE: Permission to Drill and Produce – Wells Meckley Unit
Ellsworth District, Tyler County, West Virginia

Dear Mr. Kuhn,

Triad Hunter, LLC (“Triad”) has requested permission of Antero Resources Corporation (“Antero”) to proceed with its plans to drill one or more horizontal wells across certain property subject to the oil and gas lease(s) owned or controlled by Antero located in Tyler County, West Virginia (the “Property”), pursuant to the terms and conditions of this letter agreement. Antero and Triad are currently negotiating an acreage trade agreement for the exchange and/or granting of certain oil and gas leases in Tyler County, West Virginia (the “Potential Trade”). Antero and Triad anticipate that the Potential Trade will include the Property and Triad desires to commence drilling the Property for the initial development of Triad’s Wells Meckley Unit (the “Unit”) during the pendency of negotiations and in advance of the closing of the Potential Trade.

The Property is more specifically defined as the oil and gas leasehold owned or controlled by Antero pursuant to those certain lease(s) further described on Exhibit A, attached hereto.

Antero hereby grants Triad the limited right to horizontally drill, develop, complete and produce one or more wellbore laterals through the portions of the Property within the Unit (collectively, “Wells”) from other tracts comprising the Unit; provided, that Antero expressly withholds and does not grant Triad the right to access or conduct surface operations on the Property.

In the event that Antero and Triad do not finalize, execute and close the Potential Trade within ninety (90) days after the date of this letter agreement (the “Trade Deadline”), then within ten (10) days after the Trade Deadline (a) Triad will pay Antero a purchase price of $5,000.00 per net mineral acre for the portions of the Property within the Unit and (b) Antero will concurrently transfer and convey the portions of the Property within the Unit to Triad pursuant to a mutually agreeable form of assignment. Antero, at its sole option, reserves the right to extend this Trade Deadline in order to continue to pursue prospective trade discussions.
Triad hereby agrees to indemnify, defend and hold harmless Antero for any claims, expenses, damages, injuries, claims or obligations or liabilities (including reasonable attorneys’ fees) that may be brought against Antero or its affiliates or related companies resulting from or in connection with Triad’s activities pursuant to this letter agreement, including, without limitation, the drilling of the Wells and Triad’s development and operation of the Unit, that arise on or after the date of this letter agreement.

Nothing in this letter will diminish any current or future rights of Antero in the Property or other properties. This letter agreement and the rights and obligations of the parties hereunder will terminate if and when the parties consummate the Potential Trade, granting Triad the necessary rights to drill horizontal wells through the Property.

If the above meets your approval, please execute in the space provided below and return one signed copy to the letterhead address. Should you have any questions, please contact Jacob Biehl at (740) 760-0553.

Sincerely,

Triad Hunter, LLC

[Signature]

Tracy D. Miskofsky
Director - Land

Agreed to and accepted this \( f \)^{th} day of November, 2017.

Antero Resources Corporation

[Signature]

Brian A. Kuhn
Senior Vice President - Land
EXHIBIT A

To that certain Letter Agreement dated November 6, 2017 by and between Triad Hunter, LLC and Antero Resources Corporation

<table>
<thead>
<tr>
<th>Lease Number</th>
<th>State</th>
<th>County</th>
<th>District</th>
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<th>Lessor</th>
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<td>Ellsworth</td>
<td>02-9-20</td>
<td>BRC Appalachian Minerals I</td>
<td>BRC Working Interest Co.</td>
<td>369/648</td>
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<td>57.610</td>
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</table>
November 6, 2017

Ms. Tracy D. Miskofsky
Triad Hunter, LLC
125 Putnam Street
Marietta, OH 45850

RE: Permission to Drill and Produce – Wells Meckley Unit
Ellsworth District, Tyler County, West Virginia

Dear Ms. Miskofsky,

Triad Hunter, LLC (“Triad”) has requested permission of EQT Production Company (“EQT”) to proceed with its plans to drill one or more horizontal wells across certain property subject to the oil and gas lease(s) owned or controlled by EQT located in Tyler County, West Virginia (the “Property”), pursuant to the terms and conditions of this letter agreement. EQT and Triad are currently negotiating an acreage trade agreement for the exchange and/or granting of certain oil and gas leases in Wetzel and Tyler Counties, West Virginia (the “Potential Trade”). EQT and Triad anticipate that the Potential Trade will include the Property and Triad desires to commence drilling the Property for the initial development of Triad’s Wells Meckley Unit (the “Unit”) during the pendency of negotiations and in advance of the closing of the Potential Trade.

The Property is more specifically defined as the oil and gas leasehold owned or controlled by EQT pursuant to those certain lease(s) further described on Exhibit A, attached hereto.

EQT hereby grants Triad the limited right to horizontally drill, develop, complete and produce one or more wellbore laterals through the Property (collectively, “Wells”) from other tracts comprising the Unit; provided, that EQT expressly withholds and does not grant Triad the right to access or conduct surface operations on the Property.

In the event that EQT and Triad do not finalize, execute and close the Potential Trade within ninety (90) days after the date of this letter agreement (the “Trade Deadline”), then within ten (10) days after the Trade Deadline (a) Triad will pay EQT a purchase price of $6,000.00 per net mineral acre for the Property and (b) EQT will concurrently transfer and convey the Property to Triad pursuant to a mutually agreeable form of assignment. EQT, at its sole option, reserves the right to extend this Trade Deadline in order to continue to pursue prospective trade discussions.

Triad hereby agrees to indemnify, defend and hold harmless EQT for any claims, expenses, damages, injuries, claims or obligations or liabilities (including reasonable attorneys’ fees) that may be brought against EQT or its affiliates or related companies resulting from or in connection
with Triad's activities pursuant to this letter agreement, including, without limitation, the drilling of the Wells and Triad's development and operation of the Unit, that arise on or after the date of this letter agreement.

Nothing in this letter will diminish any current or future rights of EQT in the Property or other properties. This letter agreement and the rights and obligations of the parties hereunder will terminate if and when the parties consummate the Potential Trade, granting Triad the necessary rights to drill horizontal wells through the Property.

If the above meets your approval, please execute in the space provided below and return one signed copy to the letterhead address. Should you have any questions, please contact Christa Dotson at (304) 848-0038.

Sincerely,

EQT Production Company

[Signature]
Erin R. Centofanti
Senior Vice President, Asset Development

Agreed to and accepted this ___ day of November, 2017.

Triad Hunter, LLC

[Signature]
Tracy D. Miskofsky
Director Land
EXHIBIT A

To that certain Letter Agreement dated November 2, 2017 by and between
EQT Production Company and Triad Hunter, LLC

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<th>Lessor</th>
<th>Lessee</th>
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<td>Ronald Eugene Boor</td>
<td>EOG Resources, Inc.</td>
<td>353/286</td>
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<td>871357</td>
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<td>Tyler</td>
<td>Ellsworth</td>
<td>02-9-30</td>
<td>Waco Oil &amp; Gas Co Inc.</td>
<td>Statoil USA Onshore Properties</td>
<td>514/638</td>
<td>10/26/2015</td>
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<td>Ellsworth</td>
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<td>BBC Working Interest Co.</td>
<td>349/648</td>
<td>10/14/2009</td>
<td>57.61</td>
</tr>
</tbody>
</table>
July 13, 2017

WVDEP
Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304

RE: Wells Meckley

To whom it may concern,

This letter serves you and the Office of Oil and Gas that Triad Hunter, LLC has the minerals leased for the development of the Marcellus Shale on the Wells-Meckley acreage located in the Lincoln District, Tyler County. Wells Meckley will have portions of the horizontal laterals crossing State Route 18 and County Road 18/4. Triad Hunter, LLC also has the mineral rights and the rights to extract all minerals under this Subject State Route 18 and County Road 18/4.

Should you have any questions please call me at my office 740-868-1324.

Sincerely,

Mike Horan
Manager Operations Conventional/Infrastructure
STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE CERTIFICATION

Date of Notice Certification: 11/17/2017

API No. 47-95
Operator's Well No. 1406
Well Pad Name: Wells Mockley

Notice has been given:
Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

<table>
<thead>
<tr>
<th>State</th>
<th>County</th>
<th>UTM NAD 83</th>
<th>Easting</th>
<th>Northing</th>
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<td>West Virginia</td>
<td>Tyler</td>
<td>508638.7</td>
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</table>

Public Road Access: State Route 18
Generally used farm name: Wells Mockley

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of intent to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

**PLEASE CHECK ALL THAT APPLY**

- ☐ 1. NOTICE OF SEISMIC ACTIVITY or ☐ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- ☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ☐ NO PLAT SURVEY WAS CONDUCTED
- ☐ 3. NOTICE OF INTENT TO DRILL or ☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or
  - ☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- ☐ 4. NOTICE OF PLANNED OPERATION
- ☐ 5. PUBLIC NOTICE
- ☐ 6. NOTICE OF APPLICATION

Required Attachments:
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to 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.
Certification of Notice is hereby given:

THEREFORE, I, [Name], 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: Triad Hunter, LLC
By: Mike Horan
Its: Manager - Operations Conventional/Infrastructure
Telephone: 740-968-1324
Address: 125 Putnam Street
Marietta, OH 45750
Facsimile: 740-374-5270
Email: mhoran@brmresources.com

Subscribed and sworn before me this 10th day of November, 2017,

[Signature]
Will Harless
Notary Public
My Commission Expires: Aug 5, 2018

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 depprivacyoffice@wv.gov.
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 11/17/17  Date Permit Application Filed: _______

Notice of:

☐ PERMIT FOR ANY WELL WORK  ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

☐ PERSONAL  ☑ REGISTERED SERVICE  ☐ METHOD OF DELIVERY THAT REQUIRES A MAIL  ☑ RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article, (3) The coal owner, operator or lessee, in the event the tract of land on which the well work to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") 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.

☑ Application Notice  ☑ WSSP Notice  ☑ E&S Plan Notice  ☑ Well Plat Notice is hereby provided to:

☐ SURFACE OWNER(s)
Name: Yelma Luella Wells
Address: 1901 Tyler Highway
Sistersville, WV 26175

Name: Gerald & Rebecca Meckley
Address: 1901 Tyler Highway
Sistersville, WV 26175

☐ SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: 
Address: 

Name: 
Address: 

☐ SURFACE OWNER(s) (Impoundments or Pits)
Name: 
Address: 

☐ COAL OWNER OR LESSEE
Name: 
Address: 

☐ COAL OPERATOR
Name: 
Address: 

☐ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Yelma Luella Wells
Address: 1901 Tyler Highway
Sistersville, WV 26175

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: 
Address: 

*Please attach additional forms if necessary
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 that in 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 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.wv.gov/oilandgas/pages/default.aspx.

Well Location Restrictions
Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six 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 one 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
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 regarding the location or construction of the applicant's proposed well work to the Secretary at:

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

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.**
**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](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 notified 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.

**RECEIVED**
Office of Oil and Gas

**NOV 29 2017**
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 depprivacyoffice@wv.gov.

Subscribed and sworn before me this 17th day of November, 2017.

[Signature]
Notary Public

My Commission Expires Aug. 5, 2018

RECEIVED
Office of Oil and Gas
Nov. 29, 2017

WV Department of Environmental Protection
WW-6A: Additional Water Purveyors

Keith F. & Esther Freeland
2102 Tyler Highway
Sistersville, WV 26175

David L. & Shirley L. Johnson
1749 Tyler Highway
Sistersville, WV 26175

Gerald W. & Rebecca L. Meckley
1701 Tyler Highway
Sistersville, WV 26175

Raymond Keith & Rebecca Ann Barth
1910 Tyler Highway
Sistersville, WV 26175
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: 11/17/2017 Date of Planned Entry: 11/24/2017

Delivery method pursuant to West Virginia Code § 22-6A-10a

☐ PERSONAL ☐ REGISTERED ☐ METHOD OF DELIVERY THAT REQUIRES A
SERVICE MAIL RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract, (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's website, to enable the surface owner to obtain copies from the Secretary.

Notice is hereby provided to:

☐ SURFACE OWNER(s)
Name: Velma Luella Wols
Address: 1901 Tyler Highway
Sistersville, WV 26176

Name: Gerald & Rebecca Mackey
Address: 1901 Tyler Highway
Sistersville, WV 26176

☐ COAL OWNER OR LESSEE
Name: 
Address: 

☐ MINERAL OWNER(s)
Name: 
Address: 

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: West Virginia
County: Tyler
District: Union
Quadrangle: Paden City
Approx. Latitude & Longitude: 376833.7
Public Road Access: 
Watershed: 
Generally used farm name: 

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, Charleston, WV 25304. Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Trad Hunter, LLC
Address: 125 Putnam Street
Marietta, OH 45750
Telephone: 740-760-0568
Email: wharless@bmrresources.com
Facsimile: 740-374-8376

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 11/17/2017

Date Permit Application Filed:

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

☐ CERTIFIED MAIL
☐ HAND DELIVERY
RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Valma Luella Wells
Address: 301 Tyler Highway
Sissonville, WV 25304

Name: Gerald & Rebecca Medley
Address: 301 Tyler Highway

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner’s land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia
County: Tyler
District: Lincoln
Quadrangle: Putnam City
Watershed: Petley Creek

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. 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.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Triad Hunter, LLC
Telephone: 743-374-2940
Email: whansley@trihadhunter.com

Address: 125 Putnam Street
Mareetta, OH 45750
Fax: 740-374-5207

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.

Operator Well No. 3401-6

WV Department of Environmental Protection
NOV 29 2017
March 10, 2014

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 Wells/Meckley Unit Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit # 06-2013-0563 previously to Triad Hunter, LLC for access to the State Road for a well site located off of WV 18 in Tyler County Route.

The operator has signed an OIL AND GAS DISTRICT WIDE ROAD MAINTENANCE BONDING AGREEMENT for District 6 and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton
Regional Maintenance Engineer
Central Oil & Gas Coordinator

Cc: Sam Miracle
Triad Hunter, LLC
CH, OM, D-6
File
CAS Numbers for frac additives:

1. Friction reducers, (PSC) AS-9810
   a. Acrylamide, CAS #26100-47-0 34-40%

2. Scale inhibitor, (PSC) AS-9220
   a. Organic phosphate, CAS #11024-99-2 10-25%

3. Flowback surfactant + iron stabilizer, (PSC) AS-9899
   a. Ethoxylated alcohol, CAS #65439-46-3 10-15%
   b. Stannous chloride, CAS #7772-99-8 5-10%
   c. Sulfamic acid, CAS #5329-14-6, 5-8%
   d. Monoethylamine, CAS #141-43-5 2-6%

4. Microbiocide, One AquaSource MB-7530 (see attached MSDS, page 1)