

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 Jim Justice , Governor Austin Caperton , Cabinet Secretary www.dep.wv.gov

Wednesday, December 06, 2017 WELL WORK PERMIT Horizontal 6A / Drilling Deeper

TRIAD HUNTER, LLC 125 PUTNAM ST

MARIETTA, OH 45750

Re:

Permit approval for 1405 47-095-02155-00-00

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: 1405 Farm Name: WELLS, VELMA L.

U.S. WELL NUMBER: 47-095-02155-00-00

Horizontal 6A / Drilling Deeper

Date Issued: 12/6/2017

Promoting a healthy environment.

API Number: 95-02155D

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action</u>.

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.

API Number: 95-02155 D

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 <u>DEPOOGNotify@wv.gov</u>.

12. Within thirty days of assignment execution, permittee shall provide to the Office of Oil and Gas, copies of assignments or recordation information as outlined in W. Va. Code § 22-6-8, pertaining to mineral tracts for which letter agreements have been executed and made part of the application for this permit.

API NO. 47-95 7 0 9 5 0 2 1 5 5

OPERATOR WELL NO. 1405
Well Pad Name: Wells Meckley

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: 1405	Well P	ad Name: We	ells Meckley	
3) Farm Name/Surface Owner: Wells Med	kley Public Ro	oad Access: S	State Route 1	8
4) Elevation, current ground: 958'	Elevation, propose	d post-constru	iction: 958'	
5) Well Type (a) Gas <u>x</u> Other	Oil X Un	derground Sto	orage	
(b)If Gas Shallow X	Deep			
Horizontal × 6) Existing Pad: Yes or No Yes				DMH 7-25-17
7) Proposed Target Formation(s), Depth(s), Marcellus Shale, 6197'-6256' VD, 50'-55' T		and Expected	d Pressure(s):	7007
8) Proposed Total Vertical Depth: 6,245'	TVD			
	cellus Shale			
10) Proposed Total Measured Depth: 15,2	214' MD			
11) Proposed Horizontal Leg Length: 805	0'			
12) Approximate Fresh Water Strata Depths	250'			
13) Method to Determine Fresh Water Dept 14) Approximate Saltwater Depths: 1100'-		ater wells		
15) Approximate Coal Seam Depths: 600'-				
16) Approximate Depth to Possible Void (c		None know	'n	
17) Does Proposed well location contain codirectly overlying or adjacent to an active m			No ×	
(a) If Yes, provide Mine Info: Name:				
Depth:				
Seam:				
Owner:				

API NO. 47-95	02155	0
OPERATOR WEI	L NO.	1405
Well Pad Name	: Wells	Meckley

18)

CASING AND TUBING PROGRAM

ТҮРЕ	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	A-53B	90 ppf	100' exist	100'	If necessary, will cement to surface
Fresh Water	13 3/8"	New	J-55	54.5 ppf	423' exist	423'	Cement to Surface
Coal	13 3/8"	New	J-55	54.5 ppf	423' exist	423'	Cement to Surface
Intermediate	9 5/8"	New	J-55	36 ppf	2,884' exist	2,884'	Cement to Surface
Production	5 1/2"	New	P-110	20 ppf	15,214'	15,214'	Cement to Surface
Tubing	2 7/8"	New	J-55	4.7 ppf	N/A	As needed	N/A
Liners	N/A	N/A	N/A	N/A	N/A	N/A	N/A

DMH 7-25-M

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"	.375"	1380	0	Standard Class A	1.18 cu.ft./sk
Fresh Water	13 3/8"	17 1/2"	.380"	2730	750	Standard Class A	1.2 cu.ft./sk
Coal	13 3/8"	17 1/2"	.380"	2730	750	Standard Class A	1.2 cu.ft./sk
Intermediate	9 5/8"	12 1/4"	.352"	3520	1750	Light Cement/ Class A	1.9 cu.ft./sk; 1.7 cu.ft./sk
Production	5 1/2"	8 3/4"	.361'	12640	9000	50/50 POZ/ Class H	1.27 cu.ft./sk; 2.58 cu.ft./sk
Tubing	2 7/8"	N/A	.217"	7200	3000	N/A	N/A
Liners	N/A	N/A	N/A	N/A	N/A	N/A	N/A

PACKERS

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

9) Describe proposed well work, including the dri	rilling and plugging back of any pilot hole:
EE ATTACHMENT: I-B	
0) Describe fracturing/stimulating methods in det	tail, including anticipated max pressure and max rate:
SEE ATTACHMENT: II-B	
	DmH 7-25-17
	7-25-17
1) Total Area to be disturbed, including roads, sto	ockpile area, pits, etc., (acres): 66.45 acres
2) Area to be disturbed for well pad only, less acc	cess road (acres): 3.75 acres
Describe centralizer placement for each casing	g string:
EE 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.

ATTACHEMENT: I-B

#19 Proposed Well Work:

Drill and complete a new horizontal Marcellus Shale Well.

- 5. Fluid Drill an 8 1/2" production hole to the projected total measured depth @ +/- 15,000 feet.
- 6. Run and Cement 5 ½" 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 1/2" 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 form the toe to the base of the curve and correlate with the GR/CCL/Bon log.
- 4. Pump down through the casing a solid bridge plug and perforating guns.
- 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 8,000bbls of water and 225,000lbs of sand. Average treating pressure is expected to range between 6,000psi and 7,000psi and average treating rates are expected to range between 70bbls and 80bbls 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.

Dm17

ATTACHEMENT: III-B

#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.

DAH D-25-17

#24 Cement Additives:

ATTACHEMENT: IV-B PAGE 1 OF 2

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) 1/4 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) 1/4 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) 1/4 lb./5k Cello Flake

(Lost circulation material)

b) 1% - 2% Calcium Chloride

(Accelerator)

c) 1% bwoc

(Bonding Agent)

d) 55% bwoc

EC-1 BA-10A

(Bonding Agent)

DMH 7-25-17

#24 Cement Additives:

ATTACHEMENT: IV-B PAGE 2 OF 2

C. Longstring Cement Job (5 1/2" csg.)

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	Ultra Flush II	50 bbs. @ 13lbs. /gal
a) Barite	@257 lbs. /bbl	(Weighting Material)
b) US-40	2 gals. /bbl	(Surface tension reducer)
c) ss-2	13 lbs./gal	(Suractant)
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	50:50 POZ/Premiun	n NE-1

- a) Average Weight = 13.50 lbs. /gal
- b) Average yield = $1.44 \text{ ft}^3 / /5k$.

Common Additives

a) BA - 90	3lbs. /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 = 15.2lbs. /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	30lbs. /5k	(Solubility additive)
f) Sodium Metasilicate	.58 bwoc	(Extender)

July Crassin

#25 Borehole Conditioning Procedures:

17 %" 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:

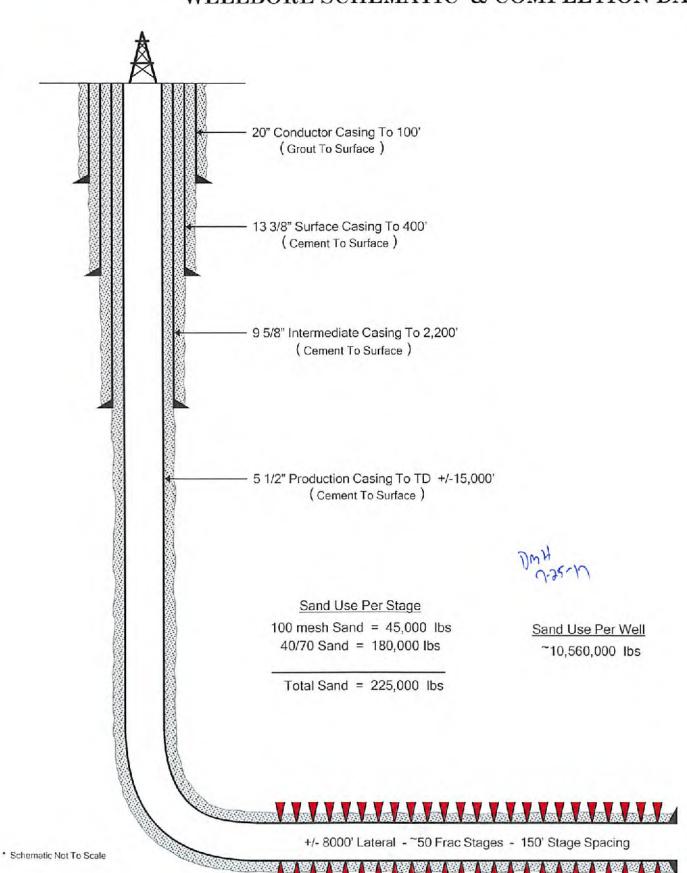
- High Viscosity Sweeps: Sweeps are mixed and pumped after drilling every 3 joints during the drilling process. Sweeps generally run 20 cp over the active mud system viscosity for 20 bbls.
- 2. Clean-Up Cycle: "Clean-Up Cycles" are utilized every 500' in the lateral section of the well. During this routine 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.
- 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.

J-25-17

12/08/2017



Triad Hunter MARCELLUS SHALE WELLBORE SCHEMATIC* & COMPLETION DATA





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, mar 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.
- 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**.

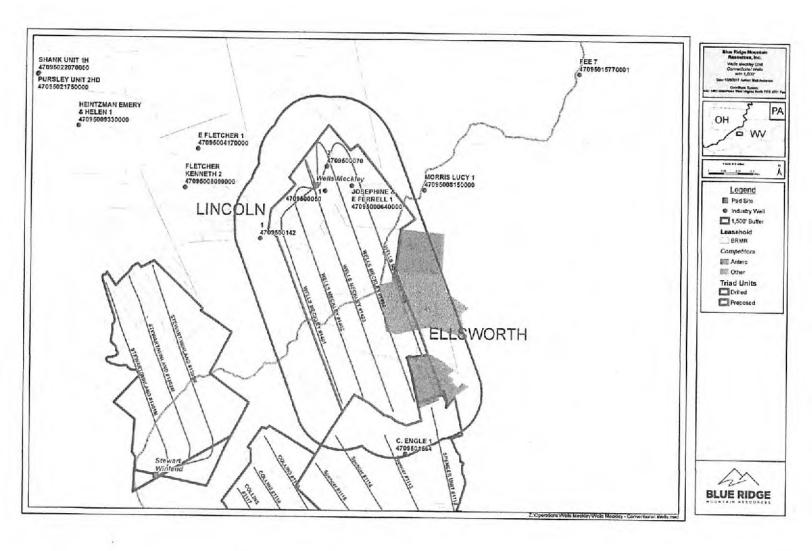
This letter provides the recommendations to these conventional operators to 1) increase their monitoring of their wells, during that time period, 2) ensure that their well head equipment is sound, and 3) provide immediate notification to Triad Hunter, LLC. And the OOG in the event of any changes in their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



API Number 47 -	96	- 02155 D
Operator's	Well No	1405

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

FLUIDS/CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Triad Hunter, LLC	OP Code _494494833
Watershed (HUC 10) Pursley Creek	
Do you anticipate using more than 5,000 bbls of water Will a pit be used? Yes No	r to complete the proposed well work? 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 W	Vastes:
Land Application	
	IC Permit Number_387 Ohio Disposal Well, 34-121-3995
Reuse (at API Number Off Site Disposal (Supply)	form WW-9 for disposal location)
	7-21-1
	1 - ()
Vill closed loop system be used? If so, describe: Yes,	cuttings fluids-gases are separated through a series of vessels. Cuttings are then solidified in debris boxes and hauled to landfill.
Prilling medium anticipated for this well (vertical and	horizontal)? Air, freshwater, oil based, etc. Top Hole-Air Drilled. Lateral-Syn Mud
-If oil based, what type? Synthetic, petroleun	n, etc. Synthetic
dditives to be used in drilling medium? See Attacher	ment I-A: Drilling Additives List
rill cuttings disposal method? Leave in pit, landfill,	removed offsite, etcLandfill
-If left in pit and plan to solidify what mediur	m will be used? (cement, lime, sawdust) N/A
-Landfill or offsite name/permit number? _We	etzel County Landfill, SWPU ID 12-10-45
	Oil and Gas of any load of drill cuttings or associated waste rejected at any provided within 24 hours of rejection and the permittee shall also disclose
where it was properly disposed.	• 70 4 1 1 1 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1
on August 1, 2005, by the Office of Oil and Gas of the provisions of the permit are enforceable by law. Vio law or regulation can lead to enforcement action. I certify under penalty of law that I have papplication form and all attachments thereto and the	rms and conditions of the GENERAL WATER POLLUTION PERMIT issued. West Virginia Department of Environmental Protection. I understand that the plations of any term or condition of the general permit and/or other applicable personally examined and am familiar with the information submitted on this that, based on my inquiry of those individuals immediately responsible for ation is true, accurate, and complete. I am aware that there are significant the possibility of fine or imprisonment.
Company Official Signature Milly	Name of Contract o
Company Official (Typed Name) Mike Horan	
Company Official Title Manager Operations Convention	onal/Infrastructure
ompany official fine	
Subscribed and sworn before me this 1346	day of Tuly 6 11/20/17
My commission expires 8-9-2020	Notary Publicantel a K. Nicholson, Notary Public in and Fur The State of Ohio My Commission Expires 8-9-20
WYDEP OOG JUL 28 20	017 12/08/20

Operator's Well No. 1405

Proposed Revegetation Treatment: Acres D		Prevegetation pH	0-7
Lime 2-5 Tons/acre	or to correct to pH	6.0-7.0	
Fertilizer type 10-20-20	0		
Fertilizer amount_500	11	os/acre	
Mulch 2	Tons/	acre	
	See	d Mixtures	
Temporary		Permar	nent
Seed Type lbs/acre		Seed Type	lbs/acre
Common Orchard Grass	30%	Same as temporary	
Perennial Rye	35%		
Medium Red Clover	25%		
O	10%		
Attach: Maps(s) of road, location, pit and proposed provided). If water from the pit will be land acreage, of the land application area.	area for land applic applied, include di		
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Attach: Maps(s) of road, location, pit and proposed provided). If water from the pit will be land acreage, of the land application area. Photocopied section of involved 7.5' topographical plan Approved by:	area for land applic applied, include di		

TRIAD HUNTER LLC. Subsidiary Of Blue Ridge Mountain Resources

125 Putnam Street Marietta, Ohio 45750

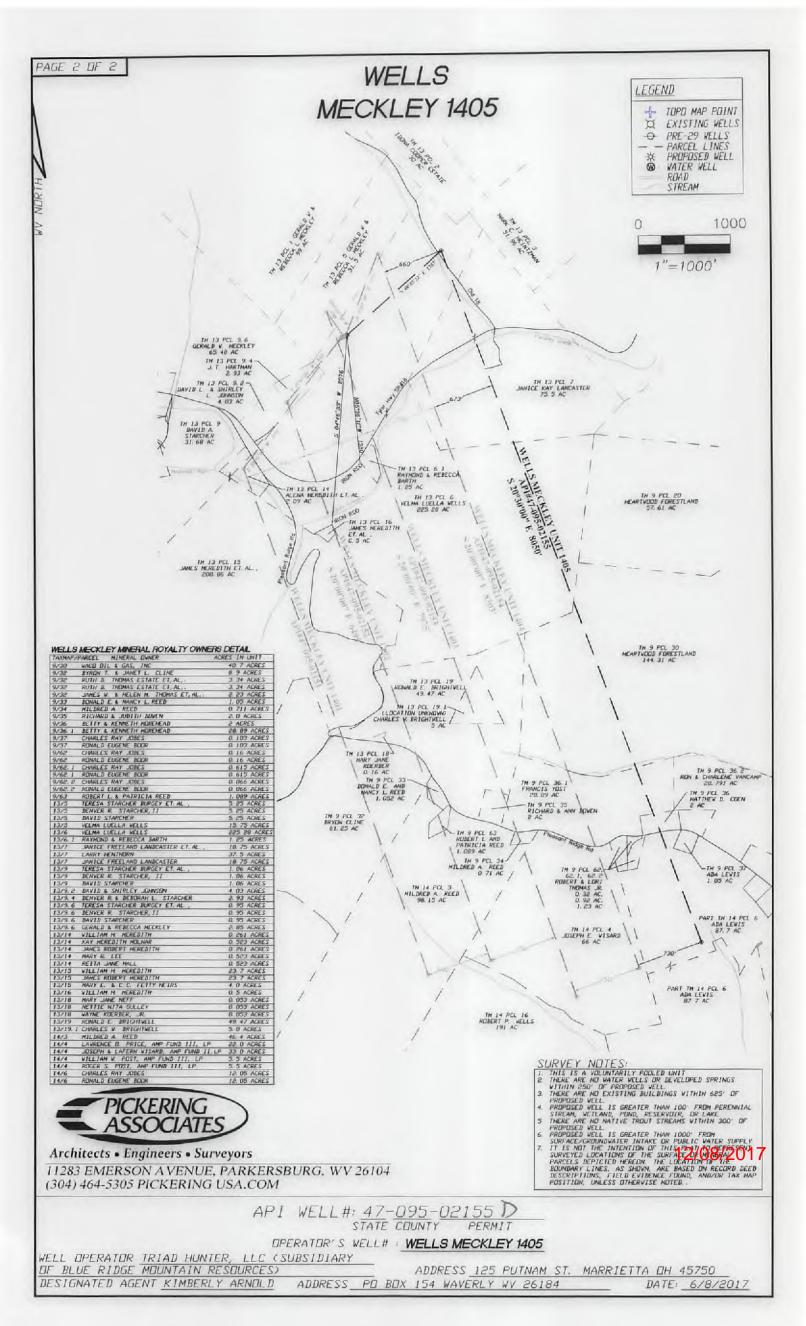
SITE & SAFETY PLAN

Wells Meckley Tyler County West Virginia

Approved:			
West Virginia DEP	Dilter Jaguety	Date:	1-25-17
Triad Hunter LLC	Mike Horan	Date: _	7/14/17

Site Safety Plan Table of Contents

- I. Emergency Phone Numbers (3-5)
- II. Pre-Spud Meeting (6)
- III. Site Access Security Provisions (6)
- IV. Well Site Safety Procedures (7)
 - V. Site Specific Plan/Map (8-13)
 - I. Plan view map
 - II. Area topographical map
 - III. Evacuation Plan
- VI. Drilling & Completion Contingency Plan / Dwellings within 1Mile of Location (8)
- VII. Geological/Drilling Prognosis (14)
- VIII. BOP Equipment & Well Control (16)
 - IX. Typical BOP Stack (16)
 - X. Typical Wellhead Configurations (19)
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WW-6A	I
(5/13)	

Operator's Well No.	1405

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				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

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

2017 29

OWNERSHIP TABULATION MECKLEY - WELLS UNIT

3.18417777% 0.79604444% 4.77626666% 0.79604444% 5.89072888% 0.48305424% 0.48305424% 1.28814464% Percent of Onit Σ 40.700000 included in 22,000000 33.000000 5.500000 5.500000 3.337500 3,337500 8.900000 **Gross Acres in** Lease/Parcel 144.3125 85.25 85.25 61.25 99 99 99 99 Parcel(s) in Map/Parcel Number of 2-14-4 2-14-4 2-14-4 2-14-4 2-9-30 2-6-2 2-6-2 Unit 2-6-2 Book 383 Page 247 Book 383 Page 250 Book 514 Page 638 Book 377 Page Book 377 Page Book 380 Page Book 524 Page Book 380 Page Recording Data 433 436 119 119 93 12/21/2010 12/21/2010 Lease Date 3/30/2011 1/10/2016 9/3/2010 9/8/2010 2/6/2015 4/6/2011 Triad Hunter, LLC Lessee/Assign Triad Hunter, Triad Hunter, Triad Hunter, Triad Hunter, Triad Hunter, Onshore USA Triad Hunter, Statoil CLC CLC TIC G H CEC 3001 EMERSON AVE, NORTH Surface Owner's Address PARKERSBU, WV 26104 Sistersville WV 26175 461 Gold Ring Road Sistersville WV 26175 461 Gold Ring Road Sistersville WV 26175 DUNDEE, OH 44624 DUNDEE, OH 44624 **DUNDEE**, OH 44624 461 Gold Ring Road DUNDEE, OH 44624 1525 TWP RD 414, 1525 TWP RD 414, 1525 TWP RD 414, 1525 TWP RD 414, WISARD JOSEPH E & LAFERN J. WISARD JOSEPH E WISARD JOSEPH E WISARD JOSEPH E CLINE BRYON T & CLINE BRYON T & CLINE BRYON T & Surface owner FORESTLAND CLINE JANET L CLINE JANET L HEARTWOOD CLINE JANET L & LAFERN J. & LAFERN J. & LAFERN J. FUND II LP 1525 Township Rd. 414, Dundee, Lessar's Address Rd. Abington, PA Road Sistersville Ohio, 44624-9201 2517 Woodland Road, Apt. A245 Road, Apt. A245 Pittsburgh, PA Pittsburgh, PA 2180 Veterans Hgwy Apt 504, Levittown, Pa 1300 Bower Hill 1300 Bower Hill Meadville, PA 461 Gold Ring 1083 Park Ave. Glenville, WV 15243-1394 15243-1394 16335-3105 PO Box 397 WV 26175 19056 19001 THOMAS TOWNSHEND HOLDINGS THOMAS TOWNSHEND HOLDINGS Joseph E. Wisard and Lafern J. Byron T. Cline & Janet L. Cline AMP FUND II, LP RUTH B. THOMAS ESTATE RUTH B. THOMAS ESTATE Waco Oil & Gas, Inc. Roger S. Post AMP FUND III LP Lawrence O. Price AMP FUND III, LP ZOODAN W. LLC William W. Post AMP FUND III LP Lessor Wisard Lease Number (LSE2SOAMP2) (LSE250AMP1) LSE250POS2 LSE250AMP4 Working lease LSE250THO25 LSE250TH025 LSE250AMP3 PTP Acquired LSE250PRI2 LSE250WIS1 LSE2502001 LSE250POS1 LSE250Z001 LSE250CLI1 trade œ 2 m S 1 00 6

Exhibit "A"
MECKLEY - WELLS UNIT
OWNERSHIP TABULATION

	8	υ	۵	ш	u	ئ	I	-	-	>	-	
10	LSE2507HO26	JAMES W. & HELEN M. THOMAS THOMAS TWINS ENTERPRISES HELEN M. THOMAS	230 N. Blake Road Norfolk, VA	CLINE BRYON T &	461 Gold Ring Road	Triad Hunter,		Book 380 Page		4	1	Σ
<u></u>			85 Hirkman Road	7 17100 71117	C/TO7 AM SHINGISTIC	ווי	1/1/2011	122	2-9-32	85.25	2.225000	0.32203616%
11	LSE250STA12	Denver R. Starcher, II and Deborah Lee Starcher	Sistersville WV 26175	HARTMANIT	111 SANTA ROSA AVE 400, SANTA ROSA CA 95404	Triad Hunter,	2/1/2011	Book 383 Page	6			
			2051 PLEASANT RIDGE RD				1102121	3	r.6-C1-t	07:007	2.330000	0.4240/459%
12	LSE2SOREE4	Donald E. Reed and Nancy L. Reed	SISTERSVILLE, WV 26175	Donald E. Reed and Nancy L. Reed	2051 PLEASANT RIDGE RD, SISTERSVILLE, WV 26175	Triad Hunter,	3/1/2011	Book 392 Page	60.00		,	
-			722 Pleasant				1107/110	G.	00-6-7	1.052	T:020000	0.1519/212%
7	ISE250RFE2	Mildred A Deed	Sistersville, WV	4 1 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2	722 PLEASANT RIDGE RD,	Triad Hunter,	:	Book 383 Page				
1		7990 (7990)	722 Pleasant	Willared A. Keed	SISTERSVILLE, WV 261/5	רוכ	3/1/2011	100	2-9-34	140.86	0.711000	0.10290684%
			Ridge Road		been orbid torred CCC	-						
4	LSE250REE2	Mildred A. Reed	26175	Mildred A. Reed	Sistersville, WV 26175	Iriad Hunter,	3/1/2011	Book 383 Page 100	2.14.3	140 86	46 40000	6 71572030W
			1210 Partridge Orive New									WCCOZ ICT III
15	LSE250REE3	Robert L. Reed and Patricia Reed	Martinsville, WV 26155-2822	Robert L. Reed and Patricia Reed	1210 PARTRIDGE DR , NEW MARTINSVILL, WV 26155	Triad Hunter,	3/1/2011	Book 383 Page	2.0.63	000	00000	700000
				COEN MATTHEW	1598 PLEASANT RIDGE RD ,				3	600.1	0005007	0.13/61660%
			41 Songbird Rd.	D (P 36)	SISTERSVILLE, WV 26175							
16	LSE250MOR9	Betty Weekly Morehead and Kenneth Morehead	St Mary's, WV 26170	YOST FRANCES (P 36.1)	801 PLEASANT RIDGE RD, SISTERSVILLE, WV 26175	Triad Hunter,	3/4/2011	Book 383 Page 16	2.9.36 36 1	73.67	30 890000	A 47087506%
			1928 PLEASANT						(200)		2000000	4.47.007.20078
		Richard D. Bowen and Judith Ann	RIDGE RD, SISTERSVILLE,	Richard D. Bowen and Judith Ann	1928 PLEASANT RIDGE RD ,	Triad Hunter,		Book 383 Page				•
17	LSE250BOW2	Bowen	WV 26175	Bowen	SISTERSVILLE, WV 26175	· IIC	3/28/2011	118	2-9-35	2	2.000000	0.28947071%

WVDEP GOG JUL 28 2017

MECKLEY - WELLS UNIT
OWNERSHIP TABULATION

Exhibit "A"

0.75986060% 0.15438428% 0.15438428% 0.15438428% 0.75986050% 0.75986050% 2.27958181% 0.13749859% 0.13749859% Σ 5.250000 15.750000 1.066666 1.066666 5.250000 1.066666 5.250000 0.950000 0.950000 208.26 208.26 208.26 195.98 195.98 195.98 195.98 256.8 195.98 4-13-9.6 4-13-9 4-13-9 4-13-5 4-13-5 4-13-9.6 4-13-9 4-13-5 4-13-5 Book 383 Page 95 Book 383 Page 103 Book 383 Page 92 Book 383 Page Book 383 Page 103 Book 383 Page Book 383 Page Book 392 Page Book 383 Page 73 459 55 2/16/2011 2/16/2011 6/14/2011 6/14/2011 6/14/2011 11/7/2011 6/14/2011 6/14/2011 3/1/2011 Triad Hunter, LLC Triad Hunter, LLC Triad Hunter, LLC Triad Hunter, Triad Hunter, Triad Hunter, Triad Hunter, Triad Hunter, Triad Hunter, 211 FF TIC SISTERSVILLE, WV 26175 CAPE CORAL, FL 33914 SISTERSVILLE, WV 26175 CAPE CORAL, FL 33914 CAPE CORAL, FL 33914 1701 TYLER HWY, 1701 TYLER HWY, 1701 TYLER HWY, 1701 TYLER HWY, 4119 SW 13 AVE., 4119 SW 13 AVE., 1701 TYLER HWY, 4119 SW 13 AVE., 1701 TYLER HWY, MECKLEY GERALD MECKLEY GERALD MECKLEY GERALD W & MECKLEY MECKLEY GERALD MECKLEY GERALD MECKLEY GERALD W & MECKLEY W & MECKLEY W & MECKLEY W & MECKLEY David Starcher W & MECKLEY David Starcher David Starcher REBECCAL REBECCAL REBECCAL REBECCA L REBECCAL 7601 Mistywood Rd. Knoxville, TN 7601 Mistywood Rd. Knoxville, TN 7601 Mistywood Rd. Knoxville, TN 5032 SW 8TH CT, CAPE CORAL, FL 85 Hickman Road 85 Hickman Road 37 Hickman Road 85 Hickman Road Sistersville WV Sistersville WV Sistersville WV Sistersville WV Sistersville WV 1901 Tyler Highway 37938 33914 26175 26175 26175 26175 37938 26175 TERESA STARCHER BURGEY *TERESA STARCHER BURGEY* TERESA STARCHER BURGEY Gwendolyn L. Starcher Gwendolyn L. Starcher Gwendolyn L. Starcher Denver R. Starcher, II Denver R. Starcher, II Denver R. Starcher, II Velma Luella Wells David Starcher David Starcher LSE250STA12 LSE250STA13 LSE250WEL17 LSE250STA14 LSE250STA15 LSE250STA10 LSE250STA11 LSE250STA15 LSE250STA11 18 13 23 25 20 21 22 24 56

Exhibit "A"
MECKLEY - WELLS UNIT
OWNERSHIP TABULATION

Σ	0.13749859%	0.00771921%	0.00771921%	20122000	200000000000000000000000000000000000000	92.60398039%	3.43022787%	700	0.07236768%
٦	0.950000	0.053333	0.053333	0.053333			23.700000	000000	0.50000
×	195.98	0.16	0.16	0.16	0 326	0.00	203.59	6.0	203.59
	4-13-9.6	4-13-18	4-13-18	4-13-18	7.13.6		4-13-15	4-13-15	4-13-16
0.00	Book 383 Page 92	Book 387 Page 643	Book 389 Page 136	Book 389 Page 135	Book 392 Page	Book 391 Page	454 Book 391 Page 489	Rovalty Only	Book 391 Page
Ŧ	6/14/2011	7/30/2011	9/24/2011	9/9/2011	11/7/2011	, de la celation de l	12/5/2011	12/5/2011	11/18/2011
9	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter,	Triad Hunter,	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC
LE.	1701 TYLER HWY, SISTERSVILLE, WV 26175	305 NORTH BTH AVE., PADEN CITY, WV 26159	305 NORTH 8TH AVE., PADEN CITY, WV 26159	305 NORTH 8TH AVE., PADEN CITY, WV 26159	1901 Tyler Highway Sistersville WV 26175	2923 PLEASANT RIDGE RD,	2923 PLEASANT RIDGE RD , SISTERSYILLE , WV 26175	2923 PLEASANT RIDGE RD , SISTERSVILLE , WY 26175	2923 PLEASANT RIDGE RD , SISTERSVILLE , WV 26175
В	MECKLEY GERALD W & MECKLEY REBECCAL	Mary Jane Neff (Koerber)	Mary Jane Neff (Koerber)	Mary Jane Neff (Koerber)	Velma Luella Wells	MEREDITH JAMES ROBERT & JAN BEARD LIANNE	MEREDITH JAMES ROBERT & JAN BEARD LUANNE	MEREDITH JAMES ROBERT & JAN BEARD LUANNE	MEREDITH JAMES ROBERT & JAN BEARD LUANNE
Q	37 Hickman Road Sistersville WV 26175	506 SHERBROOK DR, HIGH POINT, NC 27262	612 N. 7th Ave, Paden City, WV 26159	505 Sherbrook Dr. High Point, SC 27262	1901 Tyler Highway Sistersville WV 26175	249 Pleasant Ridge Road Sistersville, WV 26175	250 Pleasant Ridge Road Sistersville, WV 26175		249 Pleasant Ridge Road Sistersville, WV 26175
U	David Starcher	Ronald Brightwell Mary Jane Neff (Koerber)	Ronald Brightwell Nettle Nita Gulley	Ronald Brightwell Wayne Joseph Koerber, Jr	Velma Luella Wells	William H. Meredith	James Robert Meredith	Mary E & C. C. Fetty heirs	William H. Meredith
8	LSE250STA10	LSE250NEF7	LSE250GUL1	LSE250KOE2	LSE250WEL17	LSE250MER10	LSEZSOMERS	Royalty Only	LSE250MER10
	27	58	29	30	31	32	33	34	35

Exhibit "A"
MECKLEY - WELLS UNIT
OWNERSHIP TABULATION

۶	0.03781211%	0.07562422%	0.03781211%	0.07562422%	0.07562422%	2.71378787%	5.42757575%	2.71378787%	0.72367677%
ľ	0.261250	0.522500	0.261250	0.522500	0.522500	18.750000	37.500000	18.750000	5.000000
X	203.59	2.09	203.09			75	75	57	54.47
ſ	4-13-14	4-13-14	4-13-14	4-13-14	4-13-14	4-13-7	4-13-7	4-13-7	19.1
	Book 391 Page 454	Book 392 Page 458	Book 391 Page 489	Royalty Only	Royalty Only	Book 396 Page 181	Book 391 Page 451	Royalty Only	Book 392 Page 457
Ξ	11/18/2011	11/30/2011	12/5/2011			11/8/2011	11/17/2011		12/14/2011
9	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC
u.	2545 E MESCAL ST , PHOENIX Triad Hunter,	2545 E MESCAL ST , PHOENIX Triad Hunter, AZ 85028	2545 E MESCAL ST, PHOENIX Triad Hunter,	2545 E MESCAL ST , PHOENIX Triad Hunter,	2545 E MESCAL ST , PHOENIX Triad Hunter,	5769 Tyler Hwy Sistersville, WV 26175	5769 Tyler Hwy Sistersville, WV 26175	5769 Tyler Hwy Sistersville, WV 26175	2190 Pleasants Ridge Road Sistersville, WV 26175
ш	KAY MEREDITH MOLNAR	KAY MEREDITH MOLNAR	KAY MEREDITH MOLNAR	KAY MEREDITH MOLNAR	KAY MEREDITH MOLNAR	LANCASTER, JR. DONALD H.	LANCASTER, JR. DONALD H	LANCASTER, JR. DONALD H	Charles Wayne Brightwell
Q	249 Pleasant Ridge Road Sistersville, WV 26175	2545 E. Mescal Street Phoenix, AZ 85028-2534	250 Pleasant Ridge Road Sistersville, WV 26175	Co Rt. 450 ON 410 Rd. Madisonville, TN 37354	113 Locaust Street Mannington, WV 26582-1351	5769 Tyler Hwy Sistersville, WV 26175	101 Hills Run Road Sistersville, WV 26175	5769 Tyler Hwy Sistersville, WV 26175	637 Pleasants Ridge Road Sistersville, WV 26175
υ	William H. Meredith	Kay Meredith Moinar	James Robert Meredith	Mary Roselyn Lee	Reita Jane Hall	Janice Freeland Lancaster (Keith Fetty Freeland)	Larry Henthorn	Janice Freeland Lancaster	Charles Wayne Brightwell
В	LSE250MER10	LSE250MOL1	LSE250MER5	Royalty Only	Royalty Only	LSE250LAN13	LSE250HEN2	Royalty Only	LSE250BRI2
	36	37	38	33	6	41	42	43	44

Exhibit "A"
MECKLEY - WELLS UNIT
OWNERSHIP TABULATION

42	7.16005793%	0.58328347%	0.18091919%	0.41249576%	782251000	1.74335180%	200100000	0.023157668	0.08901224%
-	49.470000	4.030000	1.250000	2.850000	12 045100	12 045100	0.160000	0160000	
<u> </u>	54.47	208.26	1.25	195.98	A3 K	2	033	25.0	1.23
-	4-13-19	4-13-9.2	4-13-6.1	4-13-9.6	7-14-0/0.6	2-14-0/06	2.4-6.7	69-6-6	2-9-62.1
-	Book 391 Page 486	Book 397 Page 151	Book 397 Page 146	Book 409 Page 514	Book 353 Page	Book 353 Page	Book 353 Page 286	Book 353 Page	Book 353 Page 286
=	12/19/2011	3/28/2012	4/24/2012	12/17/2012	10/19/2006	10/19/2006			
9	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Triad Hunter, LLC	Antero Resources Corporation	Antero Resources Corporation	Antero Resources Corporation	Antero Resources Corporation	Antero Resources Corporation
¥	98 Dee Street Waverly, WV 26184-9700	1749 TYLER HWY, SISTERSVILLE, WV 26175	SO42 TYLER HWY, SISTERSVILE, WV 26175	1701 TYLER HWY , SISTERSVILLE , WV 26175	216 RUSSELL AVENUE, SISTERSVILLE, WV 26175	216 RUSSELL AVENUE, SISTERSVILLE, WV 26175	1603 PLEASANT RIDGE RD , SISTERSVILLE , WV 26175	1603 PLEASANT RIDGE RD , SISTERSVILLE , WV 26175	1603 PLEASANT RIDGE RD , SISTERSVILLE , WV 2617S
E	Ronald E. Brightwell	David and Shirley Johnson	Raymond Keith Barth & Rebecca Ann Barth	Gerald W. & Rebecca L. Meckley	LEWIS ADA P	LEWIS ADA P	THOMAS ROBERT JR & LORI	THOMAS ROBERT JR & LORI	THOMAS ROBERT JR & LORI
Q	98 Dee Street Waverly, WV 26184-9700	4741 TYLER HWY , SISTERSVILLE, WV 26175	5042 TYLER HWY , SISTERSVILLE , WV 26175	4625 TYLER HWY , SISTERSVILLE, WV 26175	1564 ALLEN RUN RD, SISTERSVILLE , WV 26175	6 FRONTAGE DR UNIT 4, MOUNDSVILLE, WV 26041	1564 ALLEN RUN RD , SISTERSVILLE , WV 2617S	6 FRONTAGE DR UNIT 4, MOUNDSVILLE, WV 26041	1564 ALLEN RUN RD , SISTERSVILLE , WV 26175
υ	Ronald E. Brightwell	David and Shirley Johnson	Raymond Keith Barth & Rebecca Ann Barth	Gerald W. & Rebecca L. Meckley	"BOOR FAMILY TRUST" Ronald Eugene Boor	Charles Ray Jobes	"BOOR FAMILY TRUST" Ronald Eugene Boor	Charles Ray Jobes	"BOOR FAMILY TRUST" Ronald Eugene Boor
8	LSE2SOBRI1	LSE250JOH11	LSE250BAR5	LSE250MEC1	PTP Acquired Working lease trade	PTP Acquired Working lease trade	PTP Acquired Working lease trade	PTP Acquired Working lease trade	PTP Acquired Working lease trade
	45	46	47	48	49	20	51	22	53

WVDEP 00G JUL 28 2017

Exhibit "A"
MECKLEY - WELLS UNIT
OWNERSHIP TABULATION

۶	0.08901224%	0.06665063%	0.06665063%	0.01483537%	0.01483537%	1.0000000000
Ţ	0.615000	0.460500	0.460500	0.102500	0.102500	690.916198
Ж	1.23	0.921	0.921	1.057	1.057	
ſ	2-9-62.1	2-9-62.2	2-9-62.2	2-9-37	2-9-37	
-	Book 353 Page 284	Book 353 Page 286	Book 353 Page 284	Book 353 Page 286	Book 353 Page 284	
Ι	10/19/2006	10/19/2006	10/19/2006	10/19/2006	10/19/2006	
ຶ່	Antero Resources Corporation	Antero Resources Corporation	Antero Resources Corporation	Antero Resources Corporation	Antero Resources Corporation	
F	1603 PLEASANT RIDGE RD , SISTERSVILLE , WV 26175	1603 PLEASANT RIDGE RD , SISTERSVILLE , WV 26175	1603 PLEASANT RIDGE RD , SISTERSVILLE , WV 26175	216 RUSSELL AVENUE, SISTERSVILLE, WV 2617S	216 RUSSELL AVENUE, SISTERSVILLE, WV 26175	
w	THOMAS ROBERT JR & LORI	1564 ALLEN RUN RD , SISTERSVILLE THOMAS ROBERT , WV 26175 JR & LORI	THOMAS ROBERT JR & LORI	LEWIS ADA	LEWIS ADA	
٥	6 FRONTAGE DR UNIT 4, MOUNDSVILLE, WV 26041	1564 ALLEN RUN RD , SISTERSVILLE , WV 26175	6 FRONTAGE DR UNIT 4, MOUNDSVILLE, WV 26041	1564 ALLEN RUN RD , SISTERSVILLE , WV 26175	6 FRONTAGE DR UNIT 4, MOUNDSVILLE, WV 26041	
C	Charles Ray Jobes	"BOOR FAMILY TRUST" Ronald Eugene Boor	Charles Ray Jobes	"BOOR FAMILY TRUST" Ronald Eugene Boor	Charles Ray Jobes	Royalty TOTALS
В	PTP Acquired Working lease trade	PTP Acquired Working lease trade	PTP Acquired Working lease trade	PTP Acquired Working lease trade	PTP Acquired Working lease trade	
	54	55	56	57	58	65 59

Form WW6A1 - List of Lessors Wells-Meckley 1405

Lease Number	Lessor	Lessee	Lessor Address	Lease Recording Info	Lease Recording Info	Lease Date
LSE250WEL17	Velma Luella Wells	Triad Hunter, LLC	1901 Tyler Highway Sistersville WV 26175	Book 392 Page 459	4-13-6	11/7/2011
LSE2SOFRE1	Keith Fetty Freeland	Triad Hunter, LLC	2102 Tyler Hwy Sistersville, WV 26175	Book 396 Page 181	4-13-7	11/8/2011
LSE250HEN2	Larry Henthorn	Triad Hunter, LLC	101 Hills Run Road Sistersville, WV 26175	Book 391 Page 451	4-13-7	11/17/2011
LSE250WAC1	Waco Oil & Gas, Inc.	Triad Hunter, LLC	PO Box 397 Glenville, WV 26351	Book 399 Page 758	2-9-30	10/25/2011
LSE250MOR9	Betty Weekly Morehead and Kenneth Morehead	Triad Hunter, LLC	41 Songbird Rd. St Mary's, WV 26170	Book 383 Page 16	2-9-36, 36.1	3/4/2011
N/A	"BOOR FAMILY TRUST" Ronald Eugene Boor	Antero Resources Corporation	1564 ALLEN RUN RD , SISTERSVILLE , WV 26175	Book 353 Page 286	2-14-p/o 6	10/19/2006
N/A	Charles Ray Jobes	Antero Resources Corporation	6 FRONTAGE DR UNIT 4 , MOUNDSVILLE , WV 26041	Book 353 Page 284	2-14-p/o 6	10/19/2006



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

Tracy D. Miskofsky

Director - Land

Agreed to and accepted this __()*1- day of November, 2017.

Antero Resources Corporation

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

Lease Number	State	County	District	ТМР	Lessor	Lessee	Book/Page	Effective Date	Gross Acres
	wv	Tyler	Ellsworth	2-9-37, 2-9-62, 2-9-62.1, 2-9-62.2, 2-14-6	Ronald Eugene Boor	EOG Resources, Inc.	353/286	10/19/2006	47.028
	wv	Tyler	Ellsworth	2-9-37, 2-9-62, 2-9-62.1, 2-9-62.2, 2-14-6	Charles Ray Jobes	EOG Resources, Inc.	353/284	10/19/2006	47.028
	wv	Tyler	Ellsworth	02-9-20	BRC Appalachian Minerals I	BRC Working Interest Co.	369/648	10/14/2009	57.610



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

Erin R. Centofanti

Senior Vice President, Asset Development

DM

Agreed to and accepted this

day of November, 2017.

Triad Hunter, LLC

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

Lease Number	State	County	District	ТМР	Lessor	Lessee	Book/Page	Effective Date	Gross Acres
370868.01	wv	Tyler	Ellsworth	2-9-37, 2-9-62, 2-9-62.1, 2-9-62.2, 2-14-6	Ronald Eugene Boor	EOG Resources, Inc.	353/286	10/19/2006	47.028
871357	WV	Tyler	Ellsworth	02-9-30	Waco Oil & Gas Co Inc.	Statoil USA Onshore Properties	514/638	10/26/2015	144.310
872677	wv	Tyler	Ellsworth	02-9-20	BRC Appalachian Minerals I	BRC Working Interest Co.	369/648	10/14/2009	57.61



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

Notice has been given: Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provide		Well No. 1405 ame: Wells M		
Notice has been given: Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provide	Well Pad N	ame: Wells M	leckley	
Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provide				
Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided below for the land of S. I.			MATERIAL STREET	
bollows for the tenut of land or full	ded the req	uired parties v	with the Notice Forms listed	
below for the tract of land as follows:				
	Easting:	506638.5		
County. Tyles	Northing:	4376177.9		
District: Lincoln Public Road Acces		State Route 18		
Quadrangle: Paden City Generally used farm	m name:	Wells Meckley		
Watershed: Pursley Creek				
prescribed by the secretary, shall be verified and shall contain the following inform it has provided the owners of the surface described in subdivisions (1), (2) and information required by subsections (b) and (c), section sixteen of this article; (ii) of giving the surface owner notice of entry to survey pursuant to subsection (a) requirements of subsection (b), section sixteen of this article were waived in w Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the of this article have been completed by the applicant.	d (4), subsethat the req), section to vriting by the secretary to	ection (b), sequirement was puirement was en of this arti he surface over that the notice	ction ten of this article, the deemed satisfied as a result cle six-a; or (iii) the notice when; and Pursuant to West	
Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this that the Operator has properly served the required parties with the following:	s Notice Ce	ertification		
*PLEASE CHECK ALL THAT APPLY			OOG OFFICE USE ONLY	
☐ 1. NOTICE OF SEISMIC ACTIVITY or ☐ NOTICE NOT REQUIRE SEISMIC ACTIVITY WAS O			☐ RECEIVED/ NOT REQUIRED	
■ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ☐ NO PLAT SURVEY	Y WAS CO	NDUCTED	☐ RECEIVED	
☐ 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRE NOTICE OF ENTRY FOR PL WAS CONDUCTED or			RECEIVED/ NOT REQUIRED	
☐ WRITTEN WAIVER BY (PLEASE ATTACH)	Y SURFAC	E OWNER		
4. NOTICE OF PLANNED OPERATION			☐ RECEIVED	
■ 5. PUBLIC NOTICE			☐ RECEIVED	

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 Mike Horan , 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
 Address:
 125 Putnam Street

 By:
 Mike Horan
 Marietta, OH 45750

 Its:
 Manager - Operations Conventional/Infrastructure
 Facsimile:
 740-374-5270

 Telephone:
 740-868-1324
 Email:
 mhoran@brmresources.com

NOTARY SEAL

Pamera K. Michalson, Natary Put

of and Ear, The State of Chic

No. Commission Expires 8-9-4

Subscribed and sworn before me this 13th day of July 2017

Notary Public

My Commission Expires 8-9-

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.

WW-6A (9-13)

API NO. 47- 95 - 02155 **D**OPERATOR WELL NO. 1405

Well Pad Name: Wells Meckley

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: 7/13/17 Date Permit Application Filed: Notice of:	
✓ PERMIT FOR ANYWELL WORK✓ CERTIFICATE OF APPRCONSTRUCTION OF A	ROVAL FOR THE N IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-10(b)
	DD OF DELIVERY THAT REQUIRES A PT OR SIGNATURE CONFIRMATION
certificate of approval for the construction of an impoundment or pit registered mail or by any method of delivery that requires a receipt or sediment control plan required by section seven of this article, and the the surface of the tract on which the well is or is proposed to be located and gas leasehold being developed by the proposed well work, if the described in the erosion and sediment control plan submitted pursuant operator or lessee, in the event the tract of land on which the well promore coal seams; (4) The owners of record of the surface tract or trace well work, if the surface tract is to be used for the placement, construction impoundment or pit as described in section nine of this article; (5) And have a water well, spring or water supply source located within one the provide water for consumption by humans or domestic animals; and (approposed well work activity is to take place. (c)(1) If more than three subsection (b) of this section hold interests in the lands, the applicant records of the sheriff required to be maintained pursuant to section eignovision of this article to the contrary, notice to a lien holder is not reprovise to the contrary, notice to a lien holder is not reprovise to the contrary, notice to a lien holder is not reprovise to the contrary, notice to a lien holder is not records of the series of the series of the contrary, notice to a lien holder is not reprovised.	e signature confirmation, copies of the application, the erosion and e well plat to each of the following persons: (1) The owners of record of ed; (2) The owners of record of the surface tract or tracts overlying the the surface tract is to be used for roads or other land disturbance as at to subsection (c), section seven of this article; (3) The coal owner, posed to be drilled is located [sic] is known to be underlain by one or its overlying the oil and gas leasehold being developed by the proposed action, enlargement, alteration, repair, removal or abandonment of any my surface owner or water purveyor who is known to the applicant to thousand five hundred feet of the center of the well pad which is used to (6) The operator of any natural gas storage field within which the tenants in common or other co-owners of interests described in may serve the documents required upon the person described in the 19th, article one, chapter eleven-a of this code. (2) Notwithstanding any notice to a landowner, unless the lien holder is the landowner. W. Va. ovide the Well Site Safety Plan ("WSSP") to the surface owner and any
☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice	☑ Well Plat Notice is hereby provided to:
Z SURFACE OWNER(s)	□ COAL OWNER OR LESSEE
	Name:
	Address:
Sistersville, WV 26175	· · · · · · · · · · · · · · · · · · ·
Name: Gerald & Rebecca Meckley	COAL OPERATOR
	Name:
Sistersville, WV 26175	Address:
SURFACE OWNER(s) (Road and/or Other Disturbance)	
	SURFACE OWNER OF WATER WELL
Address:	AND/OR WATER PURVEYOR(s)
	Name: Velma Luella Wells
Name:	Address: 1901 Tyler Highway
Address:	Sistersville, WV 26175
	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
	Name:
Name:	Address:
Address:	
Address:	*Please attach additional forms if necessary
	a reade actaon additional forms if necessary

API NO. 47- 95 - 02155 D
OPERATOR WELL NO. 1405
Well Pad Name: Wells Meckley

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.wv.gov/oil-and-gas/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 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

WW-6A (8-13) API NO. 47-95 -02155 D
OPERATOR WELL NO. 1405
Well Pad Name: Wells Meckley

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 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.

WW-6A (8-13)

API NO. 47-95 - 02155 D
OPERATOR WELL NO. 1405
Well Pad Name: Wells Meckley

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.

WW-6A	
(8-13)	

OPERATOR W	ELL NO.	. 1405
Well Pad Name	: Wells Meckley	
Treat I de l'addic	. Trong mountary	

Notice i	S	hereby	given	by:
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Well Operator: Triad Hunter, LLC
Telephone: 740-868-1324
Email: mhoran@brmresources.com

Address: 125 Putnam Street

Marietta, OH 45750

Facsimile: 740-374-5270

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 of wv.gov.

Pres - Apresar Votay Fu	Subscribed and sworn before me this day of	2.0(7
The of Q	My Commission Expires 8 9-2020	Notary Public

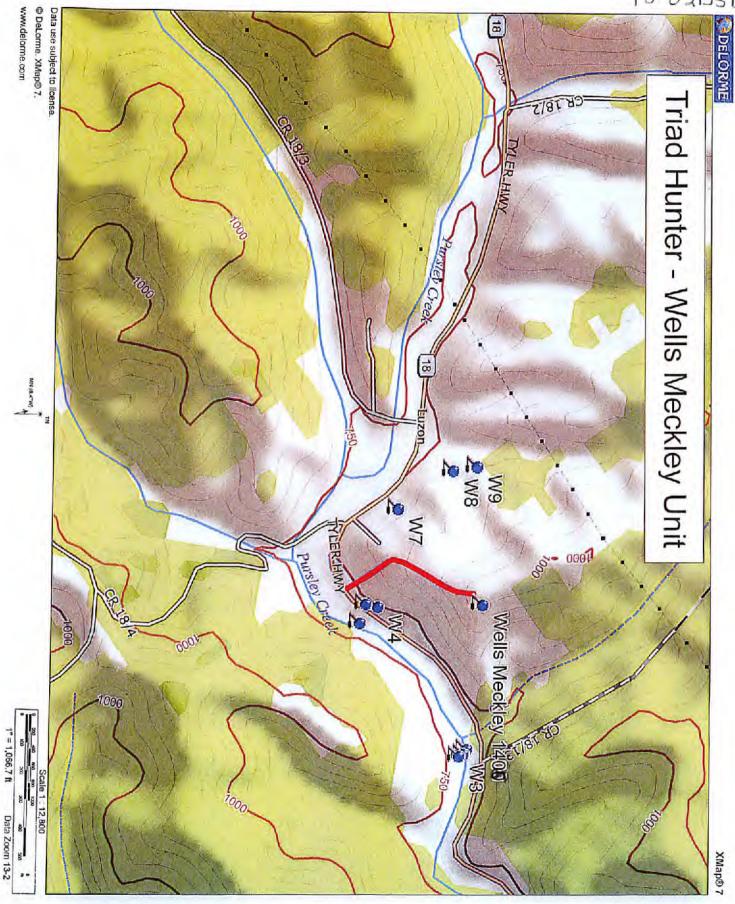
WW-6A: Additional Water Purveyors

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



C	15-02155D
Operator Well No.	1405

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

Notice Time I entry Date of Notice			rided at least SEVEN (7) da	ys but no more tha	n FORTY-FIVE (45) days prior to	
Date of Fiotic		Date of Fian	ined Entry: 120/2017			
Delivery meth	od pursuant	to West Virginia C	ode § 22-6A-10a			
☐ PERSON	IAL I	REGISTERED	☐ METHOD OF DEL	IVERY THAT RE	FOLURES A	
SERVICE		MAIL	RECEIPT OR SIGN			
on to the surfa but no more th beneath such to owner of mine and Sediment Secretary, whi enable the surf	ce tract to cond an forty-five d ract that has fil rals underlying Control Manua ch statement sl	duct any plat surveys lays prior to such ent led a declaration pur g such tract in the co al and the statutes an hall include contact in obtain copies from the	s required pursuant to this are try to: (1) The surface owner suant to section thirty-six, a unty tax records. The notice d rules related to oil and gas information, including the ac	ticle. Such notice s r of such tract; (2) rticle six, chapter to e shall include a sta s 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 attement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to	
SURFAC			Пом	OND TEN ON LE	CORP	
Name: Velma Lu				L OWNER OR LE		
Address: 1901			Name:			
Sistersville, WV 261			- Address:			
			-			
Address: 1701	Tyler Highway		П мілі	☐ MINERAL OWNER(s)		
Sistersville, WV 261	76					
Name:			Address	Name:		
			Address.			
-				h additional forms if ne	cessarv	
a plat survey o State:	est Virginia Co n the tract of la West Virginia	ode § 22-6A-10(a), nand as follows:	Approx. Latit	ude & Longitude:	l operator is planning entry to conduct	
County:	Tyler			Public Road Access: 4376177.9		
District:				Watershed: Pursley Creek		
Quadrangle:	Paden City		Generally use	Generally used farm name: Wells Meckley		
may be obtain Charleston, W obtained from	ed from the Se V 25304 (304 the Secretary I eby given by	cretary, at the WV E -926-0450). Copies by visiting <u>www.dep</u>	Department of Environmenta	l Protection headquional information r	il and gas exploration and production uarters, located at 601 57 th Street, SE, related to horizontal drilling may be	
Telephone:	740-760-0558			Marietta, OH 45750		
Email:	wharless@brmre	esources com	Facsimile:	740-374-5270		

Oil and Gas Privacy Notice:

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WW-6A5 (1/12) Operator Well No. 1405

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

	ice: 07/13/2017		later than the filing oplication Filed:	date of permit	application.
Delivery m	ethod pursuant to West V	Virginia Code § 2	22-6A-16(c)		
■ CERT	IFIED MAIL	П	HAND		
	RN RECEIPT REQUEST		DELIVERY		
return receip the planned required to be drilling of a damages to a (d) The notion of notice. Notice is he (at the addres Name: Valma	or requested or hand deliver operation. The notice reprovided by subsection horizontal well; and (3) he surface affected by oil the surface affected by this section of the surface of the SU set listed in the records of the surface in the surface	ery, give the surfactured by this surfaction ten of A proposed surfaction gas operation in shall be given to RFACE OWNER	ce owner whose land absection shall includ this article to a surfa ace use and compens as to the extent the da to the surface owner a R(s) ime of notice): Name: 9	will be used for de: (1) A copy ace owner whos ation agreement mages are comp	
Address: 190				i jibi i iigi ii a	9
Address: 190 Sistersville, WV				e, WV 26175	
Notice is he Pursuant to operation of State: County: District: Quadrangle:	26175 reby given:	5A-16(c), notice is for the purpose o	Sistersvilles hereby given that the	te undersigned value on the tra Easting: Northing:	well operator has developed a planned ct of land as follows: 506636.5 4376177.9 State Route 18 Wells Meckley
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Notice is he Pursuant to operation of State: County: District: Quadrangle: Watershed: This Notice Pursuant to to be provide horizontal wasurface affectinformation	reby given: West Virginia Code § 22-6 In the surface owner's land West Virginia Tyler Lincoln Paden City Parsley Creek Shall Include: West Virginia Code § 22-6 Ide by W. Va. Code § 2 Idel; and (3) A proposed so Ited by oil and gas operated to horizontal drill Included to horizontal drill	6A-16(c), this not 2-6A-10(b) to a surface use and contions to the extending may be obtain	s hereby given that the farilling a horizonta — UTM NAD 8. Public Road A Generally use — ice shall include: (1) urface owner whose mpensation agreement the damages are conned from the Secreticston, WV 25304 (The undersigned value of the transport of transport of the transport of transpo	ct of land as follows: 506636.5 4376177.9 State Route 18 Wells Meckley code section; (2) The information required used in conjunction with the drilling of a offer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection

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API NO. 47- 95	. 03155 D
OPERATOR WEL	
Well Pad Name: W	ells Meckley

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

, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through , including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows: State: West Virginia Easting: 1598758 UTM NAD 83 Northing: County: Tyler District: Lincoln Public Road Access: SR 18 Ouadrangle: Paden City Generally used farm name: Wells Meckley Watershed: Pursley Creek

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

*Please check the box that applies	FOR EXECUTION BY A NATURAL PERSON
■ SURFACE OWNER	Signature: Let me Level 212 AC
■ SURFACE OWNER (Road and/or Other Disturbance)	Print Name: Velva howilly wells Date: 1-29-18
☐ SURFACE OWNER (Impoundments/Pits)	FOR EXECUTION BY A CORPORATION, ETC.
☐ COAL OWNER OR LESSEE	Company:
☐ COAL OPERATOR	By:
□ WATER PURVEYOR	Signature:
☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD	Date:

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Paul A. Mattox, Jr., P. E. Secretary of Transportation/ Commissioner of Highways

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

47-095-02155

Dear Mr. Martin,

Earl Ray Tomblin

Governor

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

WVDEP 00G JUL 28 2017

95-02155D

CAS Numbers for frac additives:

1. Friction reducers, (PSC) AS-9810

		· · · · ·		
	a.	Acrylamide,	CAS #26100-47-0	34-40%
2.	Scale in	hibitor, (PSC) AS-9220		
	a.	Organic phosphate,	CAS #11024-99-2	10-25%
3.	Flowba	ick surfactant + iron stal	oilizer, (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)



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AUTHORITY CONTACTS

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TRIAD HUNTER, LLC

WELLS MECKLEY LOCATION AS-BUILT

TYLER COUNTY, WEST WIRGINIA

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