

#### west virginia department of environmental protection

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

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

Friday, May 18, 2018 WELL WORK PERMIT Horizontal 6A / Drill Deeper

EOT PRODUCTION COMPANY 625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Permit approval for BLAKE 4H Re:

47-103-02913-00-00

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: BLAKE 4H

Farm Name:

LEMONS, GARY

U.S. WELL NUMBER: 47-103-02913-00-00

Horizontal 6A Drill Deeper

Date Issued: 05/18/2018

API Number: 103-02913DD

## PERMIT CONDITIONS

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

#### CONDITIONS

- 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.
- 2. 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.
- 3. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 5. 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.
- 6. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

API NO. 47-103	_ 02913	DD	
OPERATOR W	ELL NO.	BLAKE 4H	
Well Pad Nar	ne: BLAKE	Ē	

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

1) Well Operator: EQT Produc	ction Company	306686	Wetzel	Magnolia	New Martinsville
		Operator ID	County	District	Quadrangle
2) Operator's Well Number: BL	AKE 4H	Well l	Pad Name: BLA	KE	
3) Farm Name/Surface Owner:	Lemons, Gary	Public R	Road Access: Rt	. 7	****
4) Elevation, current ground:	1293 EI	levation, propos	ed post-construc	tion: 1293	cal min.
5) Well Type (a) Gas X Other	Oil	U	nderground Stor	age	
(-/	llow X	Deep			
6) Existing Pad: Yes or No Yes	3		annual models.		
<ol> <li>Proposed Target Formation(s)</li> <li>Marcellus at a depth of 6786 v</li> </ol>			ss and Expected 55 feet and anticip		essure of 2620 PSI
8) Proposed Total Vertical Depti	h: 6791				
9) Formation at Total Vertical D	epth: Marcellus	3			and the contract of the contra
10) Proposed Total Measured De	epth: 13581				Light from the second
11) Proposed Horizontal Leg Le	ngth: 6354	~~~		1405.00 militariore	
12) Approximate Fresh Water St	trata Depths:	250, 703	N/mm		
13) Method to Determine Fresh	Water Depths:	By offset wells			
14) Approximate Saltwater Dept	ths: 1578, 2283				W 4
15) Approximate Coal Seam Dep	pths: 626, 996,	1093		0	1 - 2 - 10 an
16) Approximate Depth to Possi	ble Void (coal m	ine, karst, other	): None Report	ed	P 5
17) Does Proposed well location directly overlying or adjacent to		ms Yes	N	o X	via jugije.
(a) If Yes, provide Mine Info:	Name:				
	Depth:	10000			
A.)	Seam:				
	Owner:				

API NO. 47- 103	_ 02913	DD	
OPERATOR WE	III NO	Blake H4	

Well Pad Name: BLAKE

18)

### CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	New	A-500	78.6	90	90	86 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	1283	1283	1123 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	2559	2559	988 ft^3 / CTS
Production	5 1/2	New	P-110	20	13581	13581	500° above top producing zone
Tubing	2 3/8		J-55	4.7		May not be run, if run set 40' above top perf or 80° inclination	
Liners						into dvor minim	

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	1378	39	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal			1111200				
Intermediate	9 5/8	12 3/8	.395	3950	3160	See Variance	1.19
Production	5 1/2	8 1/2	.361	12640	10112	Class A/H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			
Liners			****				

## **PACKERS**

Kind: Sizes: Depths Set:

API NO. 47- 103 - 02913 DD

OPERATOR WELL NO. BLAKE 4H
Well Pad Name: BLAKE

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

Well has been drilled to 4924' MD. Drill the vertical to an approximate depth of 5687'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 400,000 pounds of proppant per stage.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 19.58(original), .41(slip repair)
- 22) Area to be disturbed for well pad only, less access road (acres): 9.39(original), .41(slip repair)
- 23) Describe centralizer placement for each casing string:
- Surface: Bow spring centralizers One centralizer at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers— One centralizer at the shoe and one spaced every 500'.
- · Production: One solid body centralizer spaced every joint from production casing shoe to KOP

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

Conductor: Class A no additives Surface (Type 1 Cement): 0-3% Calcium Chloride, Used to speed the setting of cement sturries Intermediate (Type 1 Cement): 0-3% Calcium Chloride, Used to speed the setting of cement sturries,

Production:
Lead (Class A Cement): 0.2% CD-20 (dispersant makes cament easier to mix). .15% SuperFL-300 (fluid loss/lengthens thickening time) .15% SEC-10 (fluid loss) 50:50 POZ (extender)
Tail (Class H Cement): 0.2% Super CR-1 (Rotorder). Lengthens thickening time. .3% Super FL-200 (fluid loss) .2% SEC-10 (Fluid loss). .2% SuperFL-350 (fluid loss) Reduces amount of water lost to formation. 60 % Calculm Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at

Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

\*Note: Attach additional sheets as needed.

Well Blake H4 **EQT Production** New Martinsville Quad Azimuth 327 6460 Wetzel County, WV Vertical Section Note: Diagram is not to scale Тор Base TVD TVD Formations Base Fresh Water 90 Conductor Sandstone and Shale 0 - 1108 Sandstone and Shale 1115 - 2216 Surface Casing Big Lime 2216 - 2331 Big Injun 2331 - 2416 Sandstone and Shale 2416 - 2786 Intermediate Casino Berea 2786 - 2795 Shale 2795 - 3036 3036 - 3060 Gordon Undiff Devonian Shale 3060 - 5266

Casing and Cementing			Deepest Fresh Water	er: 90'
Type	Conductor	Surface	Intermediate	Production
Hole Size, In.	24	17 1/2	12 3/8	8 1/2
Casing Size, OD In.	20	13 3/8	9 5/8	5 1/2
Casing Wall Thickness, In.	0.375	0.380	0.395	0.361
Depth, MD	90'	1,283'	2,559'	13,581'
Weight	78.6#	54.5#	40#	20#
Grade	A-500	J-55	A-500	P-110
New or Used	New	New	New	New
Burst (psi)	1378	2,700	3,950	12,640
Cement Class	A	A/Type 1	A / Type 1	A/H
Coment Yield	1.18	1.19	1.19	1.123 / 2.098
Top of Cement (Planned)	Surface	Surface	Surface	500' above top Producing Zone
Method	Displacement	Displacement	Displacement	Displacement
Est. Volume (cu ft)	86	1,123	988	2,876
Possible Additives	N/A	Calcium Chloride	Calcium Chloride	Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

Benson 5266 - 5317 5532 - 5572 Alexander 6590 - 6683 Sonyea Middlesex 6683 - 6702 Genesee 6702 - 6769 Geneseo 6769 - 6788 6788 - 5815 Tully 6815 - 6848 Hamilton Marcellus 6848 - 6903 6903 Onondaga

Land curve @ 6,791' TVD 7,227' MD

KOP@

5,687

Est. TD @ 6,791' TVD 13,581' MD

#### <NOT PILOT HOLE>

Proposed Well Work:

Drill and complete a new horizontal well in the Marcellus formation.

Orill the vertical to an approximate depth of 5887'.

Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

6,354' Lateral

Well Blake H4 **EQT** Production New Martinsville Quad Azimuth 327 Vertical Section 6460 Wetzel County, WV Note: Diagram is not to scale Base Top Casing and Cementing Deepest Fresh Water: 90' TVD TVD Formations Type Conductor Surface Intermediate Production Hole Size, In. Base Fresh Water 24 17 1/2 12 3/8 8 1/2 Casing Size, OD In. 20 13 3/8 9.5/8 5 1/2 Casing Wall Thickness. In. Sandstone and Shale 0 - 1108 0.375 0.380 0.395 0.361 Coal 108 Depth, MD 2,559 13.581 90' 1,283 Weight 78.6# 54.5# 40# 20# Sandstone and Shale 1115 - 2216 Grade P-110 A-500 A-500 J-55 New or Used New New New New 12,640 Annular Packer Burst (psi) 1378 2,700 3,950 Cement Class A / Type 1 A/Type 1 A A/H Big Lime 2216 - 2331 Cement Yield 1.123 / 2.098 1.18 1.19 1.19 Big Injun 2331 - 2416 Top of Cement (Planned) Surface Surface Surface 500' above top Producing Zone 2416 - 2786 Sandstone and Shale Intermediate Casing Method Displacement Displacement Displacement Displacement Berea 2786 - 2795 Est. Volume (cu ft) 1.123 988 2,876 86 Shale 2795 - 3036 Calcium Carbonate, Fluid Loss, 3036 - 3060 Gordon Extender, Dispersent, Viscosifier, Calcium Possible Additives N/A Calcium Chloride Defoamer, POZ, Bonding Agent, Chloride Retarder, Anti-Settling/Suspension Undiff Devonian Shale 3060 - 5266 Agent 5266 - 5317 Benson KOP@ Alexander 5532 - 5572 5,687 Sonyea 6590 - 6683 Middlesex 6683 - 6702 Genesee 6702 - 6769 Geneseo 6769 - 6788 Tully 6788 - 6815 Hamilton 6815 - 6848 Marcellus 6848 - 6903 Production Casing 13581 MD Onondaga 6903 Est. TD @ 6.791 Land curve @ 6.791' TVD TVD 7,227' MD 13.581' MD <NOT PILOT HOLE> Proposed Well Work: Drill and complete a new horizontal well in the Marcellus formation. 6.354' Lateral

Drill the vertical to an approximate depth of 5687'.

Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

WEST VIRGINIA GEOLOGICAL PROGNOSIS

Horizontal Well Blake II4

v 2017-4

Drilling Objectives: County:

Elevation: Surface location

Landing Point

Recommended Azimuth

Toe location

Quad:

Marcellus Wetzel

Northing:

Northing:

New Martinsville

1303 KB Northing:

420269.00 420081.01

327 Degrees

Easting: Ensting: 425410.83 Easting: 1634335,00 1633884.10 1630425.04

Recommended LP to TD:

TVD: 6791 6,354"

ESTIMATED FORMATION TOPS

Formation	Top (TVD)	Base (TVD)	Lithology	Comments
Fresh Water Zone	0	90		
Sandstone and Shale	0	1108	Sandstone	
Pittsburgh Coal	1108	1115	Coal	
Sandstone and Shale	1115	2216		
Big Lime	2216	2331	Sandstone	Gas storage zones are NOT of concern
Big Injun	2331	2416		
Int esg pt	2559			
Sandstone and Shale	2416	2786	Silty Sand	
Berea	2786	2795	Silty Sand	
Shale	2795	3036	Silty Sand	
Gordon	3036	3060	Silty Sand	
Undiff Devoman Shale	3060	5266	Silty Sand	Base of Offset Well Perforations at 3113' TVD
Benson	5266	5317	Silty Sand	
Alexander	5532	5572	Silty Sand	
Elks	5572	6590	Gray Shales and Silts	
Sonyea	6590	6683	Gray shale	
Middlesex	6683	6702	Shale	
Genesce	6702	6769	Gray shale interbedded	
Geneseo	6769	6788	Black Shale	
Tully	6788	6815	Limestone	
Hamilton	6815	6848	Gray shale with some	
Marcellus	6848	6903	Black Shale	
Purcell	6870	6875	Limestone	
-Lateral Zone	6791			Start Lateral at 6791'
Cherry Valley	6892	6894	Limestone	
Onondaga	6903		Limestone	
Pilot Hole TD	N/A			

472 487 1057 1077 1232 1407 1092 1366 1523 1568 Base of Red Rock

55 feet 3630 PSI Target Thickness Max Anticipated Rock Pressure

Comments:

Note that this is a TVD prog for a

Intermediate casing point is

The estimated landing point TVD

LATERAL DRILLING TOLERANCES

Mapview - Lateral: Mapview - TD:

Deviate as hitle as possible to the left or right of the planned wellbore DO NOT EXTEND beyond recommended wellbore to avoid leaseline

RECOMMENDED CASING POINTS

Fresh Water/Coal	CSG OD	13 3/8	CSG DEPTH		1283	as set
Annular Packer	CSG OD	9.5/8	CSG DEPTH		1177	as set
Intermediate 1:	CSG OD	9.5/8	CSG DEPTH		2559	as set. Beneath theBig Injun formati
Production:	CSG OD	5 1/2	CSG DEPTH	@ TD		

**EQT Production** 

**Hydraulic Fracturing Monitoring Plan** 

Pad ID: BLAKE

County: Wetzel

1/30/18

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#### Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Wetzel County, WV prior to hydraulic fracturing at the following EQT wells on BLAKE pad: BLAKE 1H, BLAKE 2H, BLAKE 4H.

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation.

A report is required to be submitted along with a well work permit application.

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 coordination with well operators of the timing and location of the hydraulic fracturing, establishment of measures well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing.

#### 1. Communications with Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 500 feet of this pad and the lateral sections that are known or could reasonably be expected to be within range of the fracture propagation. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

EQT will recommend to these operators at a minimum to:

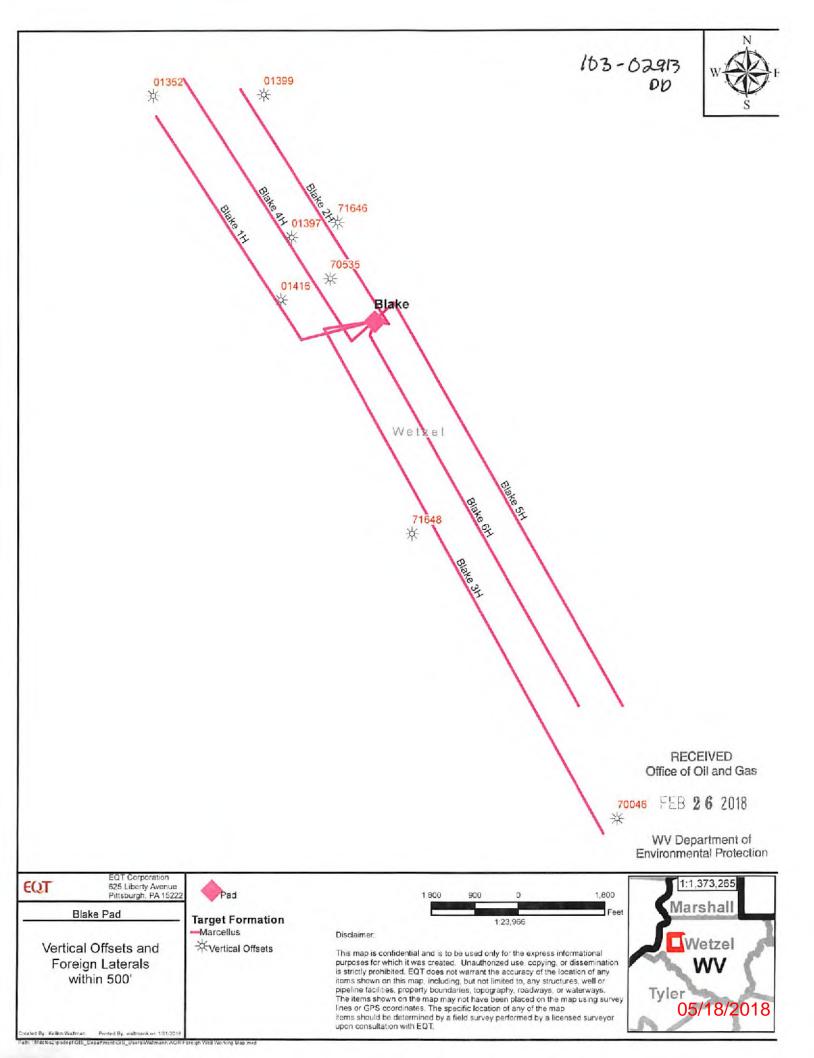
- Inspect their surface equipment prior to fracturing to establish integrity and establish prefrac well conditions
- Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
- Inspect or install master valves or other necessary equipment for wellhead integrity capable
  of a pressure recommended by EQT
- Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

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#### 2. Reporting

WV Department of EQT will provide information relating to the hydraulic fracturing schedule, communication with oth Protection operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.



API Number	Completion Date Current Operator	Elevation Elevation Reference Final Status Lat	Final Status Lat		Long Well Name	Permit Date SPUD Date TD Formation	Total Depth Permit	
47103013520000	8/28/1985 BLUE GROUP OPERATING INCORPORATED	1397 KB	GAS	5595	-80.8148 1 ANDERSON GEORGE A	7/28/1985 8/7/1985 DEVONIAN /SH/ 3231 01352	H/ 3231 01352	
47103013970000	6/3/1986 BLUE GROUP OPERATING INCORPORATED	1317 KB	GAS	39.6514	-80.8046 1 BLAKE RAY	5/9/1986 5/19/1986 DEVONIAN /:	H/ 3232 01397	
47103013990000	11/30/1986 BLUE GROUP OPERATING INCORPORATED	1375 KB	GAS	9.6596	-80.8066 1 SCHUPBACH DAVID	11/8/1986 11/18/1986 GORDON /SC		
47103014160000	4/5/1987 BLUE GROUP OPERATING INCORPORATED	1224 KB	D&A	39.6479	-80.8054 2 BLAKE RAY	3/13/1987 3/23/1987 GORDON /SD/		
47103700460000	4/24/1927 UNKNOWN	752 GR		19.6183	-80.7807 4 L F BURLEY	3/10/1927 3/25/1927 HAMPSHIRE		
47103705350000	SOUTH PENN OIL		PSEUDO	19.6491	-80.8018 1 JOHN WITMER			
47103716460000	UNKNOWN			39.6523	-80.8012 1 JOHN WIDMER		71646	
47103716480000	8/13/1925 UNKNOWN	888 GR		39.6346	-80.7958 1 MARY HARKER	6/29/1925 7/14/1925 HAMPSHIRE	2842 71648	

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

### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name_EQT Production Company	OP Code 306686	
Watershed (HUC 10) Camp Run	Quadrangle New Martinsville	
Do you anticipate using more than 5,000 bbls of water to co	omplete the proposed well work? Yes V No	
Will a pit be used? Yes No V	and the second of the second o	
If so, please describe anticipated pit waste:		
Will a synthetic liner be used in the pit? Yes	No ✓ If so, what ml.?	
Proposed Disposal Method For Treated Pit Wastes:		Dall
Land Application		WAH
Underground Injection (UIC Per	rmit Number 0014, 8462, 4037	3-2-18
■ Reuse (at API Number various		)
Off Site Disposal (Supply form V	WW-9 for disposal location)	
Will closed loop system be used? If so, describe:  Yes, The closed prepared for	sed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are transportation to an off-site disposal facility	then
Drilling medium anticipated for this well (vertical and horizon	ontal)? Air, freshwater, oil based, etc. See Attached	
-If oil based, what type? Synthetic, petroleum, etc.	Synthetic Mud	BECENED
Additives to be used in drilling medium? See Attached	Of	Fice of Oil and Gas
Drill cuttings disposal method? Leave in pit, landfill, remov	ed offsite, etc. Landfill	MAR 1 3 2018
-If left in pit and plan to solidify what medium will	1. 10 / 1. 11	WV Department of
-Landfill or offsite name/permit number? See Attact	Envi	ironmental Protection
Permittee shall provide written notice to the Office of Oil and West Virginia solid waste facility. The notice shall be provid where it was properly disposed.	d Gas of any load of drill cuttings or associated waste reject led within 24 hours of rejection and the permittee shall also	ted at any disclose
on August 1, 2005, by the Office of Oil and Gas of the West provisions of the permit are enforceable by law. Violations law or regulation can lead to enforcement action.	of any term or condition of the general permit and/or oth ally examined and am familiar with the information subm sed on my inquiry of those individuals immediately res true, accurate, and complete. I am aware that there are	stand that the her applicable nitted on this sponsible for
Subscribed and sworn before me this 3 day of	February . 20 18	OFFICIAL SEAL
My commission expires 4-7-2060	IN THE EAST	NOTARY PUBLIC ATE OF WEST VIRGINIA ESCA L. WANSTREET PRODUCTION COMPANY PO BOX 280 PRIDGEPORT, NO. 28329

....

WW-9 Attachment

1.0

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

4

 Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

Additives to be used in drilling medium?

Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud – Barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

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Form WW-9

Proposed Revegetation Trea	atment: Acres Disturbed 1	9.99 Prevegetation pl	H
Lime 3	Tons/acre or to corre	ct to pH 6.5	
Fertilizer type Gra	anular 10-20-20		
Fertilizer amount	1/3	lbs/acre	
Mulch 2		_Tons/acre	
		Seed Mixtures	
Te	emporary	Perma	nent
Seed Type	Ibs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		
Maps(s) of road, location, pit provided). If water from the p	pit will be land applied, incl	application (unless engineered plans included lude dimensions (L x W x D) of the pit, and	ling this info have been dimensions (L x W), and area
Maps(s) of road, location, pit provided). If water from the pater acreage, of the land application	pit will be land applied, incl on area.	application (unless engineered plans included by a position of the pit, and a position of the pit, and	ling this info have been dimensions (L x W), and area
Maps(s) of road, location, pit provided). If water from the p acreage, of the land application. Photocopied section of involve	pit will be land applied, incl on area. ved 7.5' topographic sheet.	application (unless engineered plans included under the pit, and lude dimensions (L x W x D) of the pit, and	dimensions (L x W), and area
Maps(s) of road, location, pit provided). If water from the pacreage, of the land application of involved the provided section of involved the page of the land approved by:	pit will be land applied, incl on area. ved 7.5' topographic sheet.	lude dimensions (L x W x D) of the pit, and	dimensions (L x W), and area
Maps(s) of road, location, pit brovided). If water from the percease, of the land application of involved the percentage of the land application of involved the percentage of the land approved by:	pit will be land applied, incl on area. ved 7.5' topographic sheet.	lude dimensions (L x W x D) of the pit, and	dimensions (L x W), and area
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Maps(s) of road, location, pit provided). If water from the pacreage, of the land application of involved the provided section of involved the page of the land approved by:	pit will be land applied, incl on area. ved 7.5' topographic sheet.	lude dimensions (L x W x D) of the pit, and	dimensions (L x W), and area
Maps(s) of road, location, pit provided). If water from the pacreage, of the land application of involved the provided section of involved the page of the land approved by:	pit will be land applied, incl on area. ved 7.5' topographic sheet.	lude dimensions (L x W x D) of the pit, and	RECEIVED Office of Oil and
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Plan Approved by:	pit will be land applied, incl on area. ved 7.5' topographic sheet.	lude dimensions (L x W x D) of the pit, and	RECEIVED Office of Oil and

# **EQT Production Water plan**

## Offsite disposals for Marcellus wells

#### **CWS TRUCKING INC.**

P.O. Box 391 Williamstown, WV 26187 740-516-3586 Noble County/Noble Township Permit # 3390

#### LAD LIQUID ASSETS DISPOSAL INC.

226 Rankin Road
Washington, PA 15301
724-350-2760
724-222-6080
724-229-7034 fax
Ohio County/Wheeling
Permit # USEPA WV 0014

#### TRI COUNTY WASTE WATER MANAGEMENT, INC.

1487 Toms Run Road Holbrook, PA 15341 724-627-7178 Plant 724-499-5647 Office Greene County/Waynesburg Permit # TC-1009

#### **Waste Management - Meadowfill Landfill**

Rt. 2, Box 68 Dawson Drive Bridgeport, WV 26330 304-326-6027 Permit #SWF-1032-98 Approval #100785WV

#### **Waste Management - Northwestern Landfill**

512 E. Dry Road
Parkersburg, WV 26104
304-428-0602
Permit #SWF-1025 WV-0109400
Approval #100833WV

#### **BROAD STREET ENERGY LLC**

37 West Broad Street
Suite 1100
Columbus, Ohio 43215
740-516-5381
Washington County/Belpre Twp.
Permit # 8462

#### TRIAD ENERGY

P.O. Box 430 Reno, OH 45773 740-516-6021 Well 740-374-2940 Reno Office Jennifer Nobel County/Jackson Township Permit # 4037

#### KING EXCAVATING CO.

Advanced Waste Services
101 River Park Drive
New Castle, Pa. 16101
Facility Permit# PAR000029132

## **EQT Production Water plan**

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#### **BROAD STREET ENERGY LLC**

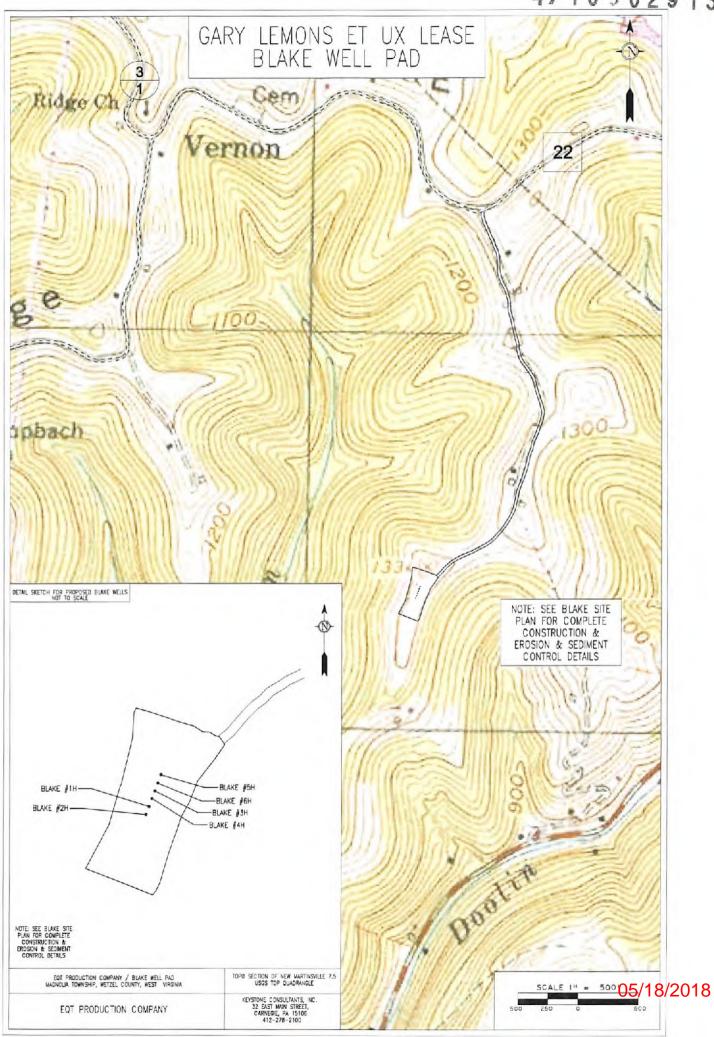
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740-516-5381
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Permit # 8462

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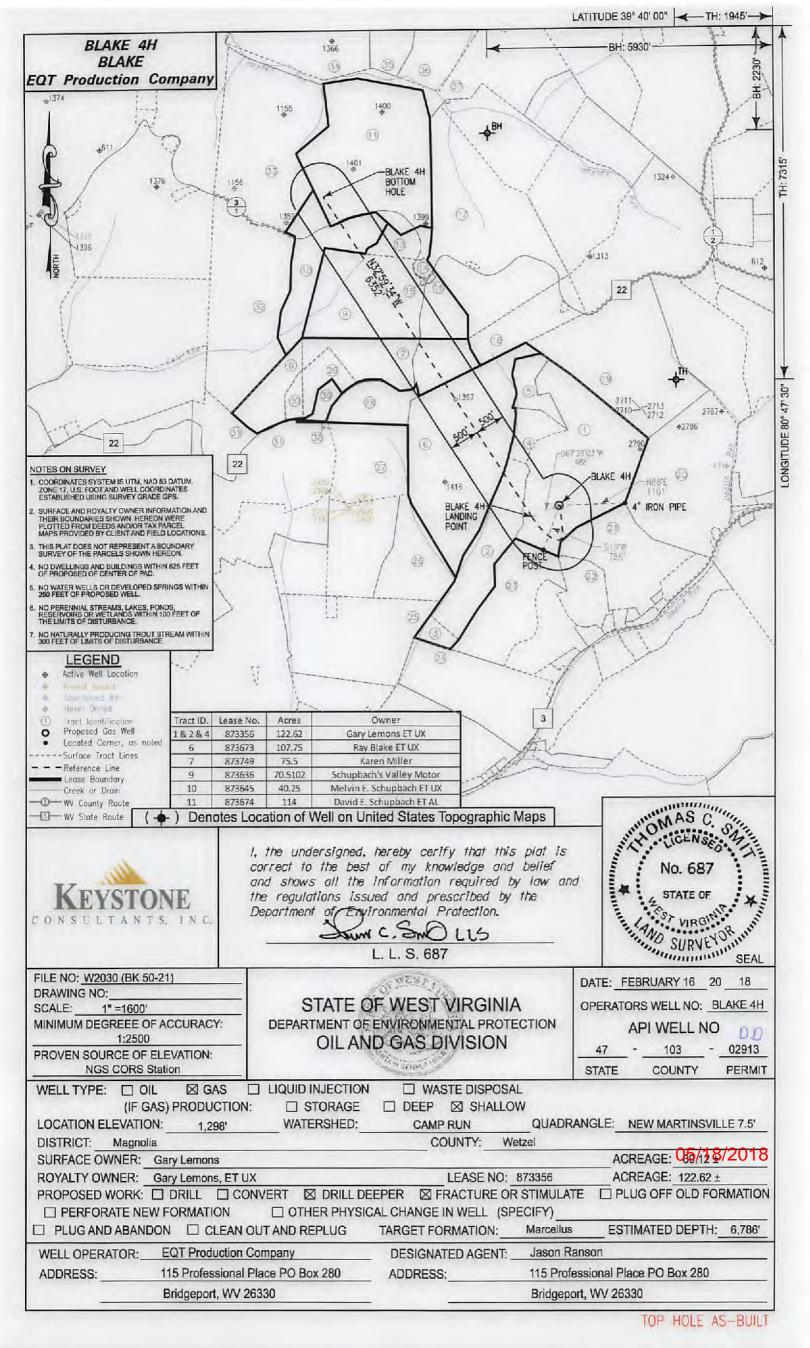




# Site Specific Safety Plan

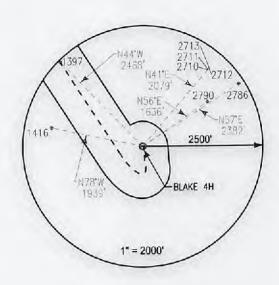


Blake 4H	For Wells:	_
Date Prepared: Aug 8, 2017 Re	vised: Sept 19, 2017  WV Oil and Gas Inspector	
Regional Land Supervisor Title  2/23/2018  Date	Title  3-2-18  Date	



### Blake 4H Blake EQT Production Company

Tract ID.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	5	35	Wetzel	Magnolia	Gary Lemons	79.7
2	8	7	Wetzel	Magnolia	Gary Lemons	30.2
3	8	13	Wetzel	Magnolia	Gary Lemons	5.57
4	5	34	Wetzel	Magnolia	Gary Lemons	11.17
5	5	27	Wetzel	Magnolia	Gary Lemons	11
6	5	33	Wetzel	Magnolia	Franklin Ray Blake	108.47
7	5	26	Wetzel	Magnolia	Stone Energy Corporation	39.95
8	5	25	Wetzel	Magnolla	Stone Energy Corporation	17.64
9	5	19	Wetzel	Magnolia	Ronald L. & Monette Schupbach	68.49
10	5	12	Wetzel	Magnolia	Melvin E. & Wilda G. Schupbach	36.87
- 11	5	2	Wetzel	Magnolia	David E. & Jeanie L. Schupbach	96.43
12	5	N/A	Wetzel	Magnolia	N/A	2.52
13	5	13	Wetzel	Magnolia	Ronald L. & Monette Schupbach	9.48
14	5	14	Wetzel	Magnolia	Ronald Lee & Monette Schupbach	1.51
15	5	20	Wetzel	Magnolia	Ronald L & Monette Schupbach	0.11
15	5	21	Wetzel	Magnolia	Ronald L. & Monette Schupbach	0.19
17	5	16	Wetzel	Magnolia	Sharon L. Bearce	108.6
18	5	22	Wetzel	Magnolia	Sharon L. Bearce	37.5
19	5	28	Wetzel	Magnolia	Gary & Judy Ann Lemons	102.75
20	6	3	Wetzel	Magnolia	Gary Patrick Fitzsimmons	71,99
21	.8	8	Wetzel	Magnolia	Danny L & Orion F. Neff	42.88
22	8	15.3	Wetzel	Magnolia	David & Orion Neff	11.97
23	8	14	Wetzel	Magnolia	Aaron Lloyd Lemons	43.79
24	8	25	Wetzel	Magnolia	Cathy M. Westfall ET AL	57.68
25	8	12	Wetzel	Magnolia	David L. & Ralph O. & Smith	58.15
26	8	6	Wetzel	Magnolia	Albert Kocher HRS	33.01
27	5	32	Wetzel	Magnolia	George 5. Schupbach	37.5
28	5	26.2	Wetze	Magnolia	Franklin Ray Blake	17.73
29	5	26.3	Wetzel	Magnolia	Stone Energy Corporation	10.95
30	5	25.1	Wetzel	Magnolia	Stone Energy Corporation	4.19
31	5	31	Wetze	Magnolia	John William Burton	66.56
32	5	11		Magnolia	Ronald L. Schupbach	89.45
33	5	1.1	Wetze	Magnolia	Ronald L. Schupbach	90.33
34	11	13	Wetzel		Coastal Forest Resources Co.	105
35	11	14	Wetzel	Proctor	Coastal Forest Resources Co.	22
36	11	16	Wetze	-	Nancy J. Garner	40
37	11	26	Wetze	Proctor	Douglas S. & Linda C. Parish	53
38	5	31.1	-	Magnolia	Schupbach Cemetery	0.27
39	5	26.1	-	Magnolia	Stone Energy Corporation	3.93



BLAKE 4H As-Built coordinates are NAD 27 N: 420,269.000 E: 1,634,335.00 NAD 27 Lat: 39.646625 Long: -80.798606 NAD 83 UTM N: 4.388 565.317 E: 517,294.712

BLAKE 4H Landing Point coordinates are NAD 27 N: 420,083,390 E: 1,633,863,897 NAD 27 Lat: 39.646098 Long: -80,800198 NAD 63 UTM N: 4,388,506.471 E: 517,158,222

BLAKE 4H Bottom Hole coordinates are NAD 27 N: 425,410.805 E: 1,630,425.056 NAD 27 Lat: 39,660584 Long: -80,812757 NAD 83 UTM N: 4,390,111.885 E: 516,077.412

st Virginia Coordinates system of 1927 (North Zone) based upon Differential GPS Measurements Plat orientation, Corner and well ties are based upon the grid north meridian Well location references are based upon the grid north

meridian. UTM coordinates are NAD83, Zone 17, Meters.

**BLAKE PAD** O BLAKE 5H O BLAKE 6H

O BLAKE 3H

O BLAKE 4H

O BLAKE 1H

O BLAKE 2H

Well References

Fence Post • N83'W 161.0' O BLAKE 4H

Fence Post

1" = 200"



CONSULTANTS, INC.

**LEGEND** 

Active Well Location

Located Corner, as noted

Proposed Gas Well

Surface Tract Lines Reference Line

Lease Boundary

Creek or Drain

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

m c. Smo L. L. S. 687

want AS C HOM AS C No. 687

W2030 (BK 50-21) FILE NO: DRAWING NO: SCALE: 1" = 1000" MINIMUM DEGREE OF ACCURACY: 1:2500 PROVEN SOURCE OF ELEVATION:

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

SE MENT

DATE: FEBRUARY 16 20 OPERATORS WELL NO: BLAKE 4H API WELL NO nn 103 02913

NGS CORS Station STATE COUNTY PERMIT □ LIQUID INJECTION WELLTYPE: OIL ⊠ GAS □ WASTE DISPOSAL ☐ DEEP ☑ SHALLOW (IF GAS) PRODUCTION: ☐ STORAGE LOCATION ELEVATION: 1,298' QUADRANGLE: NEW MARTINSVILLE 7.5' WATERSHED: CAMP RUN COUNTY: Wetzel DISTRICT: Magnolia ACREAGE: 05/128/2018 SURFACE OWNER: Gary Lemons ACREAGE: 122.62 ± LEASE NO: 873356 ROYALTY OWNER: Gary Lemons, ET UX

☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) ☐ PERFORATE NEW FORMATION

PROPOSED WORK: ☐ DRILL ☐ CONVERT ☒ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION

Marcellus ESTIMATED DEPTH: 6,786' □ PLUG AND ABANDON □ CLEAN OUT AND REPLUG TARGET FORMATION:

**EQT Production Company** DESIGNATED AGENT: \_ Jason Ranson WELL OPERATOR: \_ 115 Professional Place PO Box 280 115 Professional Place PO Box 280 ADDRESS: ADDRESS: Bridgeport, WV 26330 Bridgeport, WV 26330

WW-6A1 (5/13)

Operator's Well No. BLAKE 4H	
------------------------------	--

### 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

See Attached

RECEIVED
Office of Oil and Gas

FEB 26 2018

WV Department of Environmental Protection

#### 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: EQT Production Company

By:

Erin Spine

Its:

Regional Land Supervisor

Page 1 of 2

Operator's Well No.

Blake 4H

se No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Pag
873356	Gary and Judy Lemons, et al (current royalty owner)		**	=
	Gary Lemons, et ux (original lessor)	Central Michigan Exploration, LLC		94A/281
	Central Michigan Exploration, LLC	Stone Energy Corporation		100A/185
	Central Michigan Exploration, LLC	Stone Energy Corporation		101A/96
	Stone Energy Corporation	EQT Production Company		183A/305
<u>873673</u>	Franklin Ray Blake (current royalty owner)			
	Ray Blake, et ux (original lessor)	Clay Resources Inc		69A/66
	Clay Resources Inc	Murvin Oil Company		71A/404
	Murvin Oil Company	Applied Mechanics Corp		74A/426
	Applied Mechanics Corp	Cobham Gas Industries, Inc		74A/676
	Cobham Gas Industries, Inc	Tri-County Oil and Gas, Inc		80/639
	Tri-County Oil and Gas, Inc	B&R Construction, Inc		83A/483
	B&R Construction, Inc	B&R Holdings, Inc.		118A/685
	B&R Holdings, Inc.	Stone Energy Corporation		179A/848
	Stone Energy Corporation	EQT Production Company		183A/305
873749	Karen Miller, et al (current royalty owner)			
	Karen Miller (original lessor)	Stone Energy Corporation		129A/228
	Stone Energy Corporation	EQT Production Company		183A/305
<u>873636</u>	Schupbachs Valley Motor Co Inc. et al (current royalty owner	o ·		
	Schupbach's Valley Motor Company, Inc (original lessor)	Stone Energy Corporation		165A/552
	Stone Energy Corporation	EQT Production Company		183A/305
<u>873645</u>	Melvin E and Wilda G Schupbach (current royalty owner)			
	Melvin E Schupbach, et ux (original lessor)	Spartan West Virginia LLC		88A/226
	Spartan West Virginia LLC	Acadian Energy Resources LLC		103A/193
	Acadian Energy Resources LLC	Tenaska Resources, LLC		106A/587
	Acadian Energy Resources LLC	Tsar-WV LLC		108A/478
	Tenaska Resources, LLC/Tsar-WV LLC	B&R Construction Inc		108A/506
	B&R Construction, Inc	B&R Holdings, Inc.		118A/694
	B&R Holdings, Inc.	Stone Energy Corporation		179A/848
	Stone Energy Corporation	EQT Production Company		183A/305
873674	Dayld E Schupbach (current royalty owner)			
	David E Schupbach, et al (original lessor)	Clay Resources, Inc		69A/495
	Clay Resources, Inc	Murvin Oil Company		71A/404
	Murvin Oil Company	Applied Mechanics Corp		74A/426
	Applied Mechanics Corp	Cobham Gas Industries. Inc		74A/676
	Cobham Gas Industries, Inc	Tri-County Oil and Gas, Inc		80/639
	Tri-County Oil and Gas, Inc	B&R Construction, Inc		110A/41
	B&R Construction, Inc	B&R Holdings, Inc.		118A/685
	·	-		179A/848
	B&R Holdings, Inc.	Stone Energy Corporation		
	Stone Energy Corporation	EQT Production Company		183A/305

<sup>\*\*</sup> Per West Virginia Code Section 22-6-8.

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Office of Oil and Gas

FEB **26** 2018



January 30, 2018

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

Re: Blake 1H, Blake 2H, Blake 4H Magnolia District, Wetzel County

Dear Mr. Martin,

EQT Production Company is submitting an application for a new well work permit for the above well number. Upon information and belief, Operator's lease and/ or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including under any public roads that the well lateral crosses.

Sincerely,

Todd Klaner

Regional Land Manager

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Office of Oil and Gas

FEB 26 2018

WW-6AC (1/12)

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

Date of Notic	ce Certification: 02/23/2018	AP	I No. 47- 103 - 02	2913
		Ор	erator's Well No. BL	AKE 4H
		We	II Pad Name: BLAKE	
Notice has b				
	ne provisions in West Virginia Code	§ 22-6A, the Operator has provide	d the required parties	with the Notice Forms listed
	tract of land as follows:	_		
State:	W		ting: 517295.0	
County:	Wetzel		rthing: 4388565.0	
District: Quadrangle:	Magnolia New Martinsville	Public Road Access: Generally used farm		
Watershed:	Camp Run	Generally used farm	name: Lemons, Gary	
watersneu.	Camp Kun			
it has provide information re of giving the requirements Virginia Code	the secretary, shall be verified and sed the owners of the surface described and (c), so surface owner notice of entry to so of subsection (b), section sixteen (c) § 22-6A-11(b), the applicant shall have been completed by the applicant	bed in subdivisions (1), (2) and ( ection sixteen of this article; (ii) the urvey pursuant to subsection (a), so of this article were waived in writender proof of and certify to the so	4), subsection (b), so at the requirement was section ten of this art ting by the surface o	ection ten of this article, the s deemed satisfied as a result ticle six-a; or (iii) the notice wner; and Pursuant to West
that the Ope	West Virginia Code § 22-6A, the Operator has properly served the require ECK ALL THAT APPLY		Notice Certification	OOG OFFICE USE ONLY
□ 1. №	FICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED SEISMIC ACTIVITY WAS CO		RECEIVED/ NOT REQUIRED
☐ 2. NO1	FICE OF ENTRY FOR PLAT SURV	VEY or <a> NO PLAT SURVEY</a>	WAS CONDUCTED	☐ RECEIVED
■ 3. NO1	FICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED NOTICE OF ENTRY FOR PLA WAS CONDUCTED or		☐ RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER BY S (PLEASE ATTACH)	SURFACE OWNER	
■ 4. NOT	FICE OF PLANNED OPERATION	Offic	RECEIVED e of Oil and Gas	RECEIVED
■ 5. PUB	BLIC NOTICE		EB <b>26</b> 2018	RECEIVED
■ 6. NOT	TICE OF APPLICATION	w	V Department of	RECEIVED
-		Envir	V Department of onmental Protection	<u> </u>

#### 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.

WW-6AC (1/12)

By:

#### Certification of Notice is hereby given:

THEREFORE, I Erin Spine \_\_\_\_\_\_\_, 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: EQT Production Company

Erin Spine

Its: Regional Land Supervisor

Telephone: 304-848-0035

Address: 2200 Energy Dr.

Canonsburg PA 15317

Facsimile: 304-848-0041

Email: espine@eqt.com

NOTARY SEAL

OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA REBECCA L. WANSTREET EQT PHODUCTION COMPANY PO BOX 280 BRIDGEPORT, WV 28330 My commission expluse April 07, 2020

Subscribed and sworn before me this

of tebruary 2018

My Commission Expires 4-7-2000

Oil and Gas Privacy Notice:

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

RECEIVED
Office of Oil and Gas

FEB 26 2018

API NO. 47- 103 - 0	02913 DD
OPERATOR WELL N	NO. BLAKE 4H
Well Pad Name: BLAK	E

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS $\frac{\text{NOTICE OF APPLICATION}}{\text{NOTICE OF APPLICATION}}$

Notice Time Requirement: notice shall be provided no later)	than the filing date of permit application.
Date of Notice: 2/23/2018 Date Permit Application Filed: 2 Notice of:	/23/2018
PERMIT FOR ANY WELL WORK CONSTRUCTION O	PPROVAL FOR THE F AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-	-10(b)
	THOD OF DELIVERY THAT REQUIRES A CEIPT OR SIGNATURE CONFIRMATION
certificate of approval for the construction of an impoundment or registered mail or by any method of delivery that requires a receip sediment control plan required by section seven of this article, and the surface of the tract on which the well is or is proposed to be level oil and gas leasehold being developed by the proposed well work described in the erosion and sediment control plan submitted purpoperator or lessee, in the event the tract of land on which the well more coal seams; (4) The owners of record of the surface tract or well work, if the surface tract is to be used for the placement, contimpoundment or pit as described in section nine of this article; (5 have a water well, spring or water supply source located within oprovide water for consumption by humans or domestic animals; a proposed well work activity is to take place. (c)(1) If more than the subsection (b) of this section hold interests in the lands, the application of the sheriff required to be maintained pursuant to section provision of this article to the contrary, notice to a lien holder is records of the sheriff required, in part, that the operator shall also water purveyor or surface owner subject to notice and water testing	
<ul> <li>☑ Application Notice</li> <li>☑ WSSP Notice</li> <li>☑ E&amp;S Plan Notice</li> <li>☑ SURFACE OWNER(s)</li> </ul>	COAL OWNER OR LESSEE
Name: See Attached	Name: See Attached
Address:	Address:
Name:	COAL OPERATOR
Address:	Name:
	Address;
SURFACE OWNER(s) (Road and/or Other Disturbance)	
Name: See Attached	☑ SURFACE OWNER OF WATER WELL
Address:	AND/OR WATER PURVEYOR(s)
Nome	Name: See Attached
Name:	Address:
Address:	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: See Attached	Name: Address:
Address:	RECEIVED
	*Please attach additional forms if necessary Office of Oil and Gas

FEB 26 2018

WW-6A (8-13)

# RECEIVED Office of Oil and Gas

FFB 2 6 2018

API NO. 47- 103 - 02913 DO
OPERATOR WELL NO. BLAKE 4H
Well Pad Name: BLAKE

#### Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is the experimental die undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of the con

#### 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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.gov/oil-and-gas/pages/default.aspx">www.dep.wv.gov/oil-and-gas/pages/default.aspx</a>.

#### 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

- 02913 API NO. 47-103 OPERATOR WELL NO. BLAKE 4H

Well Pad Name: BLAKE

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 RECEIVED location or construction of the applicant's proposed well work to the Secretary at: Office of Oil and Gas

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

FEB 26 2018

WV Department of

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

API NO. 47-103 - 02913 DOPERATOR WELL NO. BLAKE 4H
Well Pad Name: BLAKE

#### 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 <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

#### Permit Denial or Condition

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

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

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

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

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WW-6A (8-13) API NO. 47-103 - 02913 D D
OPERATOR WELL NO. BLAKE 4H
Well Pad Name: BLAKE

Notice is hereby given by:

Well Operator: EQT Production Company

Telephone: 304-848-0035 Email: espine@eqt.com 2.3fi

Address: 2200 Energy Dr.

Canonsburg PA 15317

Facsimile: 304-848-0041

#### Oil and Gas Privacy Notice:

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

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
REBECCA L. WANSTREET
EQT PROBUCTION COMPANY
PO 80X 280
SRIDGEPORT, WY 26330
My commission expires April 07, 2020

Subscribed and sworn before me this 23 day of February 2018.

Notary Public

My Commission Expires 4-7-2C

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Office of Oil and Gas

FEB 26 2018

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Topo Quad: NEW MARTINSVILLE, WV - OHIO 7.5 1" = 1000" Scale: WETZEL **01 FEBRUARY 2018** County: \_\_\_\_\_ Date: MAGNOLIA NMA12 Project No:\_\_\_\_ District: Topo Water **BLAKE WELL PURVEYOR MAP** 08-05-27 08-05-34 08-05-33 08-05-35 08-06-03 08-08-8 08-08-6 08-08-15.3 08-08-8.1 08-08-08-08-14 RECEIVED
Office of Oit and Gas 08-08-141 FEB 26 2018 WV Department of 1200 Environmental Protection LEGEND Water Well SCALE: 1 INCH = 1000 FEET □ Cistern/Spring 1000 3000' Stream SURVEYING AND MAPPING SERVICES PERFORMED BY: EQT Production Co. Inc. 115 Professional Place, P.O. Box 280 EYSTONE Bridgeport, WV 26330 05/18/2018

Topo Quad: N	EW MARTINSVILLE, WV - OHIO 7.5	Scale:	1" = 1000'	
County:	WETZEL	Date:	01 FEBRUARY 2018	
District:	MAGNOLIA	Project No:	NMA12	
Water	BLAKE WELL P  08-05-34  08-05-34  08-08-14  08-08-14  08-08-14  08-08-15,1 08-08-15	URVEY  08-05-28  08-05-35  08-08-16  08-08-16  08-08-16  08-08-16  08-08-16  14.1	OR MAP  08-06-03  08-06-03  REC Office of FEB Environme	Topo  Laboratorion  FGEND
SCALE: 1	INCH = 1000 FEET 2000' 3000'		□с	/ater Well istern/Spring tream
KEYSTC	NE EQT Product	lace, P.O. Box 28		05/18/201



## Table 1 - Water Source Identification

EQT Well Pad Name: BLAKE Submittal Date:	
EQT Well Number: 1H, 2H, 3H, 4H, 5H, 6H	
Survey / Engineering Company: Keystone Consultants, Inc.	
Site Number:1 Distance from Gas Well (feet):2,050' +/-	7
Surface Owner / Occupant: Franklin Ray Blake  Address: 416 Cessna Ave Charleston, SC 29407 Phone #:  Field Located Date: N/A Owner home during survey (yes/no):	<ul> <li>□ Landowner Requested         Sampling</li> <li>□ Landowner Decline         Sampling</li> <li>⋈ Unable to Contact</li> </ul>
Coordinates: 39.649438°, -80.804795° +/- (decimal degrees – NAD 83)  Contact Attempts (Date): 1st:2nd:Date Door Hanger Left:  Comments:	(Further contact attempts to be made by EQT's third party pre-drill sampling lab)
Site Number:2 Distance from Gas Well (feet):1,238'+/-  Surface Owner / Occupant: Gary Lemons  Address:1102 James St. New Martinsville, WV 26155 Phone #: N/A  Field Located Date: N/A Owner home during survey (yes/no):  Coordinates:39.649537°, -80.795933° +/- (decimal degrees - NAD 83)  Contact Attempts (Date): 1st: 2nd: Door Hanger Left:  Comments:	□ Landowner Requested Sampling □ Landowner Decline Sampling □ Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)
Site Number:3 Distance from Gas Well (feet):1,576'+/  Surface Owner / Occupant:Danny L. & Orion F. Neff  Address: 3137 Doolin Run Rd New Martinsville, WV 26155 Phone #:N/A  Field Located Date: N/A Owner home during survey (yes/no): No  Coordinates: 39.644345°, -80.793740°+/- (decimal degrees – NAD 83)  Contact Attempts (Date): 1st: Door Hanger Left:  Comments:	□ Landowner Requested Sampling □ Landowner Decline Sampling ☑ Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)  RECEIVED Office of Oil and Gas
	FEB 2 6 2018

Site Number: 4 Distance from Gas Well (feet): 2,252'+/-	
Surface Owner / Occupant: E. D. & Marshie A, Sidenstricker	☐ Landowner Requested Sampling
Address: 164 Wool Rd New Martinsville, WV 26155 Phone #: N/A  Field Located Date: N/A Owner home during survey (yes/no): No  Coordinates: 39.642534°, -80.792538°+/- (decimal degrees – NAD 83)	<ul> <li>□ Landowner Decline         Sampling</li> <li>☑ Unable to Contact         (Further contact attempts to be made by EQT's third party pre-drill sampling lab)</li> </ul>
Contact Attempts (Date): 1 <sup>st</sup> :2 <sup>nd</sup> : Door Hanger Left:	
Site Number:5 Distance from Gas Well (feet):2,209'+/	
Surface Owner / Occupant:	<ul> <li>□ Landowner Requested         Sampling</li> <li>□ Landowner Decline         Sampling</li> <li>☑ Unable to Contact         (Further contact attempts to be made by EQT's third party pre-drill sampling lab)</li> </ul>
Contact Attempts (Date): 1 <sup>st</sup> :2 <sup>nd</sup> : Door Hanger Left: Comments:	
Site Number: 6 Distance from Gas Well (feet): 2,131'+/-	
Surface Owner / Occupant: <u>Marshie Sidenstricker Et Al</u> Address: 115 Wool Rd New Martinsville, WV 26155 Phone #: <u>N/A</u> Field Located Date: <u>N/A</u> Owner home during survey (yes/no): <u>No</u> Coordinates: 39.641843°, -80.794252°+/- (decimal degrees – NAD 83)	<ul> <li>□ Landowner Requested         Sampling</li> <li>□ Landowner Decline         Sampling</li> <li>☑ Unable to Contact         (Further contact attempts to be made by EQT's third party pre-drill sampling lab)</li> </ul>
Contact Attempts (Date): 1 <sup>st</sup> :2 <sup>nd</sup> : Door Hanger Left:	
Site Number:7 Distance from Gas Well (feet):_2,119'+/	
Surface Owner / Occupant: Lou Ann Beaty-Anderson  Address: 2071 Doolin Run Rd New Martinsville, WV 26155 Phone #: N/A  Field Located Date: N/A Owner home during survey (yes/no): No  Coordinates: 39.641531°, -80.795037°+/- (decimal degrees – NAD 83)	<ul> <li>□ Landowner Requested         Sampling</li> <li>□ Landowner Decline         Sampling</li> <li>☑ Unable to Contact         (Further contact attempts to be made by EQT's third party pre-drill sampling lab)</li> <li>■ RECEIVED</li> </ul>
Contact Attempts (Date): 1st:2nd: Door Hanger Left:	Office of Oil and Gas
Comments:	FEB <b>2 6</b> 2018

05/18/2018 WV Department of Environmental Protection Surface Owners: Surface Owners (road or other disturbance): 47 1 0 3 0 2 9 1 3 D D

Gary and Judy Lemons 1102 James Street New Martinsville, WV 26155

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FEB 26 2018

### Coal Owner

Gary Lemons 1102 James Street New Martinsville, WV 26155

CNX RCPC, LLC 1000 Consol Energy Dr. Canonsburg PA 15317 Attn: Casey Saunders

CNX Gas Company LLC 1000 Consol Energy Dr. Canonsburg PA 15317 Attn: Casey Saunders

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FEB 2.6 2018

WW-6A4 (1/12) Operator Well No. BLAKE 4H

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner. Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application. RECEIVED Date of Notice: 08/11/2017 Date Permit Application Filed: 08/21/2017 Office of Oil and Gas Delivery method pursuant to West Virginia Code § 22-6A-16(b) FEB 26 2018 CERTIFIED MAIL HAND WV Department of RETURN RECEIPT REQUESTED DELIVERY Environmental Protection Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: Provided, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: Provided, however. That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Notice is hereby provided to the SURFACE OWNER(s): Name: See Attached Name: See Attached Address: Address: Notice is hereby given: Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: w Easting: 517295.0 UTM NAD 83 County: Wetzel Northing: 4388565.0 Magnolia District: Public Road Access: Rt.7 Generally used farm name: Quadrangle: New Martinsville Lemons, Gary Watershed: Camp Run This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. 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. Notice is hereby given by: Well Operator: EQT Production Company Authorized Representative: Erin Spine Address: Address: 2200 Energy Dr. 2200 Energy Dr. Canonsburg PA 15317 Canonsburg PA 15317 Telephone: Telephone: 304-848-0035 304-848-0035 Email: Email: espine@eqt.com espine@eqt.com

#### Oil and Gas Privacy Notice:

304-848-0041

Facsimile:

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 <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

Facsimile:

304-848-0041

Surface Owners: Surface Owners (road or other disturbance):

Gary and Judy Lemons 1102 James Street New Martinsville, WV 26155

> RECEIVED Office of Oil and Gas

> > FEB 26 2018

WW-6A5 (1/12) Operator Well No. BLAKE 4H

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

Date of Notic	Requirement: notice shall be ce: 02/23/2018 Dat	provided no later than the filing e Permit Application Filed: 02/		application.
Delivery met	thod pursuant to West Virgin	nia Code § 22-6A-16(c)		
■ CERTI	FIED MAIL	☐ HAND		
	RN RECEIPT REQUESTED	DELIVERY		
return receipt the planned of required to be drilling of a damages to the	requested or hand delivery, g operation. The notice require e provided by subsection (b), s horizontal well; and (3) A pro- ne surface affected by oil and g	ive the surface owner whose land by this subsection shall includent on ten of this article to a surface use and compensate operations to the extent the d	I will be used for de: (1) A copy ace owner whose sation agreement amages are com	ication, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the nt containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
Notice is her	eby provided to the SURFAC	CE OWNER(s)		
And the second second	s listed in the records of the sh		.795.0.00	
Nama: See Atta	ched	Name:	See Attached	
and the same of th		A 11		
Address:		Addres		
Address:  Notice is her Pursuant to W operation on State: County:	Vest Virginia Code § 22-6A-16 the surface owner's land for the W Wetzel	o(c), notice is hereby given that the purpose of drilling a horizonta	ne undersigned I well on the tra Basting: Northing:	517295.0 4388565.0
Notice is her Pursuant to W operation on State: County: District:	Vest Virginia Code § 22-6A-16 the surface owner's land for the work work work work with the work work work work work work work work	o(c), notice is hereby given that the purpose of drilling a horizonta  UTM NAD 8  Public Road	ne undersigned I well on the tra Basting: Northing: Access:	act of land as follows: 517295.0 4388565.0 Rt. 7
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Notice is her Pursuant to W operation on State: County: District: Quadrangle: Watershed: This Notice S Pursuant to W to be provide horizontal we surface affect information r	West Virginia Code § 22-6A-16 the surface owner's land for the www. Wetzel Magnolia New Martinsville Camp Run  Shall Include: West Virginia Code § 22-6A-16 ed by W. Va. Code § 22-6A-16 ed by oil and gas operations related to horizontal drilling in located at 601 57th Street, S	(c), notice is hereby given that the purpose of drilling a horizonta  UTM NAD 8  Public Road  Generally us  6(c), this notice shall include: (1  10(b) to a surface owner whose use and compensation agreement to the extent the damages are company be obtained from the Secre	ne undersigned I well on the tra Easting: Northing: Access: ed farm name:  A copy of this e land will be undersigned arm, at the WV	act of land as follows: 517295.0 4388565.0 Rt. 7
Notice is her Pursuant to W operation on State: County: District: Quadrangle: Watershed: This Notice S Pursuant to W to be provide horizontal we surface affect information r headquarters, gas/pages/def	West Virginia Code § 22-6A-16 the surface owner's land for the www. Wetzel Magnolia New Martinsville Camp Run  Shall Include: West Virginia Code § 22-6A-16 ed by W. Va. Code § 22-6A-16 ed by oil and gas operations related to horizontal drilling in located at 601 57th Street, S	(c), notice is hereby given that the purpose of drilling a horizonta  UTM NAD 8  Public Road  Generally us  6(c), this notice shall include: (1  10(b) to a surface owner whose use and compensation agreement to the extent the damages are company be obtained from the Secre	ne undersigned I well on the tra Easting: Northing: Access: ed farm name:  A copy of this e land will be undersigned arm, at the WV	act of land as follows:  517295.0  4388565.0  Rt. 7  Lemons, Gary  code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection
Notice is her Pursuant to W operation on State: County: District: Quadrangle: Watershed: This Notice S Pursuant to W to be provide horizontal we surface affect information r headquarters, gas/pages/def	West Virginia Code § 22-6A-16 the surface owner's land for the www.wetzel Magnolia New Martinsville Camp Run  Shall Include: West Virginia Code § 22-6A-16 ed by W. Va. Code § 22-6A-16 ell; and (3) A proposed surface ted by oil and gas operations related to horizontal drilling in located at 601 57th Street, Sault.aspx.	(c), notice is hereby given that the purpose of drilling a horizontal UTM NAD and Public Road Generally us (6(c), this notice shall include: (110(b) to a surface owner whose use and compensation agreement to the extent the damages are company be obtained from the Secretal SE, Charleston, WV 25304	ne undersigned I well on the tra Easting: Northing: Access: ed farm name:  A copy of this e land will be a nt containing an omersable und ary, at the WV (304-926-0450)	act of land as follows:  517295.0  4388565.0  Rt. 7  Lemons, Gary  code section; (2) The information required used in conjunction with the drilling of a n offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-

Oil and Gas Privacy Notice:

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Office of Oil and Gas

FEB 26 2018

DD

Surface Owners: Surface Owners (road or other disturbance):

Gary and Judy Lemons 1102 James Street New Martinsville, WV 26155

> RECEIVED Office of Oil and Gas

> > FEB 26 2018



### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

# **Division of Highways**

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

Thomas J. Smith, P. E. Secretary of Transportation/ Commissioner of Highways

August 25, 2017

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

Subject: DOH Permit for the Blake Pad, Wetzel County

Blake 1H

Blake 2H

Blake 3H

Blake 4H

Blake 5H

Blake 6H

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WV Department of Environmental Protection

Dear Mr. Martin,

Jim Justice

Governor

This well site will be accessed from a permit 06-2015-0141 which has been transferred to EQT Production Company for access to the State Road for a well site located off of Wetzel County Route 22 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Day K. Clayton

Cc:

Nick Bumgarder

**EQT Production Company** 

CH, OM, D-6

File

# Anticipated Frac Additives Chemical Names and CAS numbers

<u>Material</u>	<u>Ingredient</u>	<b>CAS Number</b>
Water		
Sand	Hydrotreated light petroleum distillate Tributyl tetradecyl phosphonium	14808-60-7
Friction Reducer	chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion Inhibitor	Methanol	107-19-7
Corrosion Inhibitor	Guar Gum	67-56-1
Gelling Agent	Sodium Persulfate	9000-30-0
Oxidizing Breaker	Potassium Carbonate	7775-27-1
Buffering Agent		584-08-7

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# APPROVED WVDEP OOG Modification 3/28/2018



# **BLAKE PAD**



#### SITE LOCATION

THE PROJECT IS LOCATED AT 39.655376 -80.796705 (NAD83 WWN). THE COORDINATES ARE REFRENCED FROM THE PAD ENTRANCE AND CAN BE LOCATED BY TAKING STATE ROUTE? IN NEW MARTINGUALE TO TURN EAST ONTO DOOLIN RUN ROAD (CR 3). TRAVEL DOOLIN RUN FOR 5.54 HILES AND HAKE A LEFT ONTO AMERICAN RIDGE ROAD (CR 3/1). AFTER OME HILE, STAY LEFT AT THE "Y" INTERSECTION AND CONTINUE ON AMERICAN RIDGE ROAD (CR 22) FOR 0.47 MILES. TURN LEFT COTO THE LEMONS PAD LEASE ROAD, CONTINUING THROUGH THE LEMONS PAD TO REACH THE BLAKE PAD.

#### FLOODPLAIN NOTE

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT ARE NOT LOCATED IN A FLOOD ZONE, PER THE FLOCD INSURANCE RATE MAP (FIRM) NUMBER 59/11/C0250C.

	SHEET INDEX
PG	DRAWING NAME
1	COVER SHEET
2	GENERAL NOTES (1 OF 2)
3	GENERAL NOTES (2 OF 2)
4	EXISTING SITE CONDITIONS (I OF 2)
5	EXISTING SITE CONDITIONS (2 OF 2)
6	PROPOSED SITE PLAN (1 DF 2)
7	PROPOSED SITE PLAN (2 OF 2)
8	PROPOSED SITE PLAN W/ORTHO (I OF 2)
9	PROPOSED SITE PLAN W/ORTHO (2 OF 2)
10	PAD X-SECTIONS
11	ACCESS ROAD PROFILES
12	SLIP EXCAVATION SITE PLAN
13	PROPOSED SLIP REPAIR SITE PLAN
14	SLIP PROFILES (I OF 3)
15	SLIP PROFILES (2 OF 5)
16	SLIP PROFILES (3 OF 3)
17	CONSTRUCTION DETAILS (I OF 2)
81	CONSTRUCTION DETAILS (2 OF 2)
19	RECLAMATION SITE PLAN
20	MATERIAL QUANTITY SHEET



#### ENTRANCE LOCATION

NAD 83 - LAT: N 39.655376; LONG: W 80.796705 NAD 27 - LAT: N 39.655297; LONG: W 80.796886 UTM (NAD83) - N 4389528.210; E 517440.128

#### CENTER OF BLAKE PAD

NAD 83 - LAT: N 39.646668; LONG: W 80.798431 NAD 27 - LAT: N 39.646589; LONG: W 80.798611 UTM (NAD83) - N 4388561.431; E 517294.229

MAGNOLIA DISTRICT,
WETZEL COUNTY, WEST VIRGINIA
DATE: JANUARY 30, 2018



11023 Mason Dixon Hwy. Burton, WV 26562-9656 Engineers and Land Surveyors (304) 662-6486

NOTE: DRAWING WAS CREATED ON 22X34 PAPER. HX17 DRAWINGS ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING.



LOCATION MAP

#### PROPERTY OWNERS

- LEMONS, GARY 08-05-35
- LEMONS, GARY & JUDY ANN 08-28-28

WELL NUMBER AND AP	
DESCRIPTION	API NUMBER
BLATE IH	102-05610
BLAKE ZH*	(05-3291)
BLOKE 3H*	103-050(5
BLATE LHT	102-05613
BLAKE SH*	103-02914
BLME DH*	K3-029ft
LEHONS IH*	103-02710
LENONE 5H*	(45-027)
LEMONS LHT	103-02799
LEHOHE SH*	153-02712
LEHONE SHT	103-02784
LEMONS 7H*	105-027/2
LEHONS BH*	103-02767

#### CERTIFICATION:

I DO HERELY CERTEY TO THE BEST DE MY ANOMEDIGE, INFORMATION AND BELIEF, THAT THE ERODION AND SECHENT CONTROL PLAN AND STITE RESTORATION PLAN AND POST CONSTRUCTION BMPS ARE TRUE AND CORNECT, REPRESENT ACTUAL FIELD CONDITIONS AND ARE IN ACCORDANCE WITH THE WEST VIRGINA CODE AND THE DEPARTMENT SILVES AND RESULATIONS. I AN AWARE THAT THERE ARE SIGNEDICANT PENALTIES FOR SUB-HITTING FALSE INFORMATION, INCLUDING THE DESCRIPTION OF RISE AND ADDRESSMENT.

SIGNATURE William P. Fley

DATE: 01/30/2018

Blue Mountain Inc.

IZO PROFESSIONAL PLACE PROFESSIONAL BUILDING FOUR BRIDGEPORT, WV 26330

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