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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, August 16, 2021  
WELL WORK PERMIT  
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY  
625 LIBERTY AVE., SUITE 1700  
PITTSBURGH, PA 15222

Re: Permit approval for BIG 245 108H  
47-103-03443-00-00

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.

A blue ink signature of James A. Martin, Chief, is written over the text of his name and title.

James A. Martin  
Chief

Operator's Well Number: BIG 245 108H  
Farm Name: ET BLUE GRASS LLC  
U.S. WELL NUMBER: 47-103-03443-00-00  
Horizontal 6A New Drill  
Date Issued: 8/16/2021

## 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

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

## PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov).

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

1) Well Operator: EQT Production Company 306686 Wetzel Grant Big Run  
Operator ID County District Quadrangle

2) Operator's Well Number: 108H Well Pad Name: BIG245

3) Farm Name/Surface Owner: ET Blue Grass LLC Public Road Access: CR 19/2

4) Elevation, current ground: 1430' Elevation, proposed post-construction: 1430'

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

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus, 7,548', 19', 2,620 PSI

8) Proposed Total Vertical Depth: 7,548

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 18,557'

11) Proposed Horizontal Leg Length: 10,635'

12) Approximate Fresh Water Strata Depths: 243', 521', 676', 766', 1025'

13) Method to Determine Fresh Water Depths: Offset Wells - 47-103-00376 & 47-103-00380

14) Approximate Saltwater Depths: None

15) Approximate Coal Seam Depths: 939'-940', 1038'-1047', 1137'-1143'

16) Approximate Depth to Possible Void (coal mine, karst, other): 300'

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

(a) If Yes, provide Mine Info: Name: Harrison Co. Mine  
Depth: 300'  
Seam: Pittsburgh  
Owner: ACNR Resources, Inc.

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18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<b>Size (in)</b>	<b>New or Used</b>	<b>Grade</b>	<b>Weight per ft. (lb/ft)</b>	<b>FOOTAGE: For Drilling (ft)</b>	<b>INTERVALS: Left in Well (ft)</b>	<b>CEMENT: Fill-up (Cu. Ft.)/CTS</b>
Conductor	26	New	A-500	85.6	40	40	50 ft <sup>3</sup> / CTS
Fresh Water	13 3/8	New	J-55	54.5	1193	1193	1000 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2651	2651	1000 ft <sup>3</sup> / CTS
Production	5 1/2	New	P-110	20	18557	18557	500' above intermediate casing
Tubing							
Liners							

*Byg Hamir*  
7-12-21

<b>TYPE</b>	<b>Size (in)</b>	<b>Wellbore Diameter (in)</b>	<b>Wall Thickness (in)</b>	<b>Burst Pressure (psi)</b>	<b>Anticipated Max. Internal Pressure (psi)</b>	<b>Cement Type</b>	<b>Cement Yield (cu. ft./k)</b>
Conductor	26	30	0.312	1050	18	Class A	1.18
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A / Type 1	1.13 - 1.19
Coal							
Intermediate	9 5/8	12 3/8	0.352	3520	2816	Class A / Type 1	1.13 - 1.19
Production	5 1/2	8 1/2	0.361	14360	11488	Class A/H	1.04 - 2.10
Tubing							
Liners							

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

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WW-6B  
(10/14)

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

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical, 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 10,000 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 200,000-600,000 pounds of proppant per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 44.2222) Area to be disturbed for well pad only, less access road (acres): 43.58

## 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: Calcium Chloride. Used to speed the setting of cement slurries  
Intermediate: Calcium Chloride. Used to speed the setting of cement slurries.  
Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder,  
Anti-Settling/Suspension Agent

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## 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 surface.  
Production: Perform a cleanup cycle by pumping 3-8 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.





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601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
dep.wv.gov

March 18, 2014

Nabors Completion & Production Services Company  
1380 Route 286 Hwy E #121  
Indiana PA 15701

Re: Cement Variance Request

Dear Sir or Madam,

This agency is approving a variance request for the cement blend listed below to be used on surface and coal protection strings for the drilling of oil and gas wells in the state of West Virginia. The variance cannot be used without requesting its use on a permit application and approval by this agency:

- Type 1 (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "1" Cement)

If you have any questions regarding this matter feel free to contact me at 304-926-0499, ext. 1653.

Sincerely,

James Peterson  
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

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**BEFORE THE OFFICE OF OIL AND GAS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE OF WEST VIRGINIA**

**IN THE MATTER OF A VARIANCE FROM ) ORDER NO. 2014 - 17**  
**REGULATION 35 CSR § 4-11.4/11.5/14.1 )**  
**AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE )**  
**THE OPERATIONAL )**  
**REGULATIONS OF CEMENTING OIL )**  
**AND GAS WELLS )**

**REPORT OF THE OFFICE**

Nabors Completion & Production Services Co. requests approval of a different cement blend for use in cementing surface and coal protection casing of oil and gas wells.

**FINDINGS OF FACT**

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
  - 2% Calcium Chloride (Accelerator)
  - 0.25 % Super Flake (Lost Circulation)
  - 94% Type "I" Cement
  - 5.20 % Water
  
- 2.) Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500 psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24 hours.

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**CONCLUSIONS OF LAW**

Pursuant to Articles 6 and 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to 35 CSR § 4-11.5 and 35 CSR § 8-9.2.h.8 the Chief of the Office of Oil and Gas may approve different cement blends upon the well operator providing satisfactory proof that different cement types are adequate.

**ORDER**

It is ordered that Nabors Completion & Production Services Co. may use the cement blend listed in Findings of Fact No.1 for the cementing of surface and coal protection casing of oil and gas wells in the State as may be requested by oil and gas operators. The waiting time on the cement blend shall be 8 hours. The cement blend shall be mixed in strict accordance with the specifications for each blend and weight measurements made on-site to assure the cement slurries meet the minimum weight specifications. A sample shall be collected and, if after 8 hours the cement is not set up, additional time will be required. Nabors Completion & Production Services Co. shall keep a record of cement blend jobs in which the cement blend approved under this order is to be used and made available to the Office of Oil and Gas upon request.

Dated this, the 18th day of March, 2014.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chief  
Office of Oil and Gas

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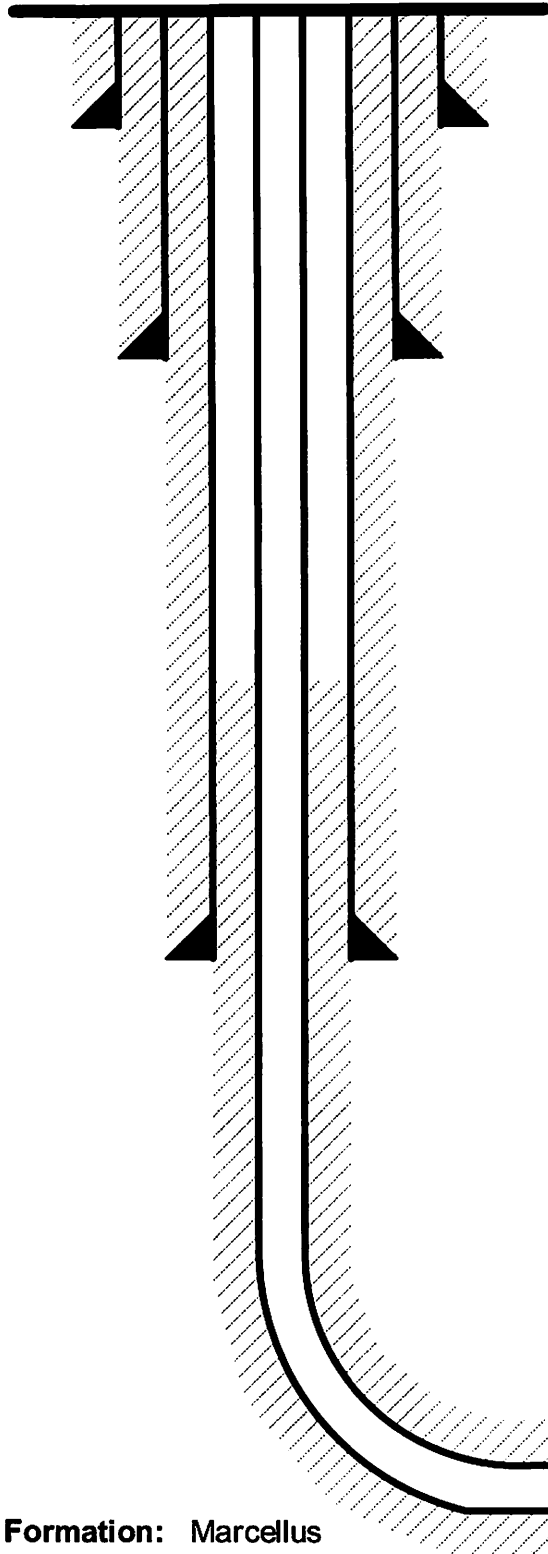
**EQT Production**

**Wellbore Diagram**

Well: BIG 245 108H  
Pad: BIG 245  
Elevation: 1430' GL 1443' KB

County: Wetzel  
State: West Virginia

4710303443



**Conductor @ 40'**

26", 85.6#, A-500, cement to surface w/ Class A

**Surface @ 1,193'**

13-3/8", 54.5#, J-55, cement to surface w/ Class A/Type I

**Intermediate @ 2,651'**

9-5/8", 36#, J-55, cement to surface w/ Class A/Type I

**Production @ 18,557' MD / 7,548' TVD**

5-1/2", 20#, P-110, cement to 500' inside 9-5/8" w/ Class A/H

**Formation: Marcellus**

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EQT PRODUCTION COMPANY  
400 Woodcliff Drive | Canonsburg, PA 15317  
P: 724-746-9073 | [www.eqt.com](http://www.eqt.com)

July 6, 2021

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

Re: Casing on BIG245 108H

Dear Mr. Brewer,

The 13-3/8" surface casing will be set at 1,193' KB, 50' below the deepest workable coal seam and 168' below the deepest fresh water. The 9-5/8" intermediate string will be set at 2,651' KB, 50' below the base of the Big Injun formation.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Zavatchan'.

John Zavatchan  
Project Specialist - Permitting

Enc.

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**WEST VIRGINIA GEOLOGICAL PROGNOSIS**

Horizontal Well

BIG245

S-000221

**Drilling Objectives:** Marcellus  
**County:** Wetzel  
**Quad:** Big Run  
**Elevation:** 1443 KB

1430 GL

**Recommended Azimuth:** TBD Degrees

**Recommended LP to TD:** TBD

**Proposed Logging Suite:** Not needed

**ESTIMATED FORMATION TOPS**

Formation	Top (TVD)	Base (TVD)	Lithology	Comments	Top RR	Base RR
Fresh Water Zone	1	1025		FW @ 243,521,676,766,1025.		
Waynesburg Coal	939	940	Coal			
Mapletown Coal	1038	1047	Coal			
Pittsburgh Coal	1137	1143	Coal			
<b>STORAGE ZONE</b>	<b>2383</b>	<b>2439</b>	<b>Sandstone</b>	<b>There are no known past, present, or future mining and/or permits</b>		
Maxton	2310	2351	Sandstone	<b>Base of Offset Well Perforations at 1171' TVD</b>		
Big Lime	2364	2434	Limestone			
Big Injun	2434	2601	Sandstone			
Int Casing	2651					
Weir	2770	2810	Silty Sand			
Top Devonian	2986					
Gordon	3168	3207	Silty Sand			
Forth Sand	3226	3270	Silty Sand			
Bayard	3274	3504	Silty Sand			
Speechley	3896	4118	Silty Sand			
Riley	4689	4921	Silty Sand		225	238
Benson	5385	5533	Silty Sand		273	285
Alexander	5847	6163	Silty Sand		288	298
Elks	6163	7068	Gray Shales and Silts		320	338
Sonyea	7068	7145	Gray shale		381	391
Middlesex	7233	7285	Shale	Depth as seen on Previous BIG 245 Well H17	491	503
Genesee	7285	7372	Gray shale interbedded	Depth as seen on Previous BIG 245 Well H17	563	583
Genesco	7372	7395	Black Shale	Depth as seen on Previous BIG 245 Well H17	820	829
Tully	7395	7418	Limestone	Depth as seen on Previous BIG 245 Well H17	825	831
Hamilton	7418	7512	Gray shale with some	Depth as seen on Previous BIG 245 Well H17	858	865
Marcellus	7512	7531	Black Shale	Depth as seen on Previous BIG 245 Well H17	976	981
Purcell	7531	7533	Limestone	Depth as seen on Previous BIG 245 Well H17		
<b>Lateral Zone</b>		<b>7548</b>				
Cherry Valley	7543	7545	Limestone			
Onondaga	7565		Limestone			

Base of Red Rock

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Target Thickness 19 feet

**Comments:**

Note that this is a TVD prog for a horizontal well (azimuth of TBD degrees; target formation = Marcellus). All measurements taken from estimated KB elevation. Water and coal information estimated from surrounding well data.

Intermediate casing point is recommended 50' beneath the Big Injun to shut off any water production from the Upper Devonian sands. Keener storage zone from 2369' to 2425' MD, please take all necessary precautions while drilling!! Intermediate casing should be cemented into the surface string, per WV regulations.

**RECOMMENDED CASING POINTS**

<b>Fresh Water/Coal</b>	CSG OD	13 3/8	CSG DEPTH:	1193	50' below Pittsburgh
<b>Intermediate 1:</b>	CSG OD	9 5/8	CSG DEPTH:	2651	50' below Big Injun
<b>Production:</b>	CSG OD	5 1/2	CSG DEPTH:	@ TD	

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EQT Production  
Hydraulic Fracturing Monitoring Plan  
Pad ID: BIG245  
County: Wetzel

July 9, 2021

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08/20/2021



**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 the BIG245 pad: 102H, 104H, 106H, 108H, 110H, 112H & 114H.

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:

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 or other necessary equipment for wellhead integrity capable of a pressure recommended by EQT
4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

**2. Reporting**

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

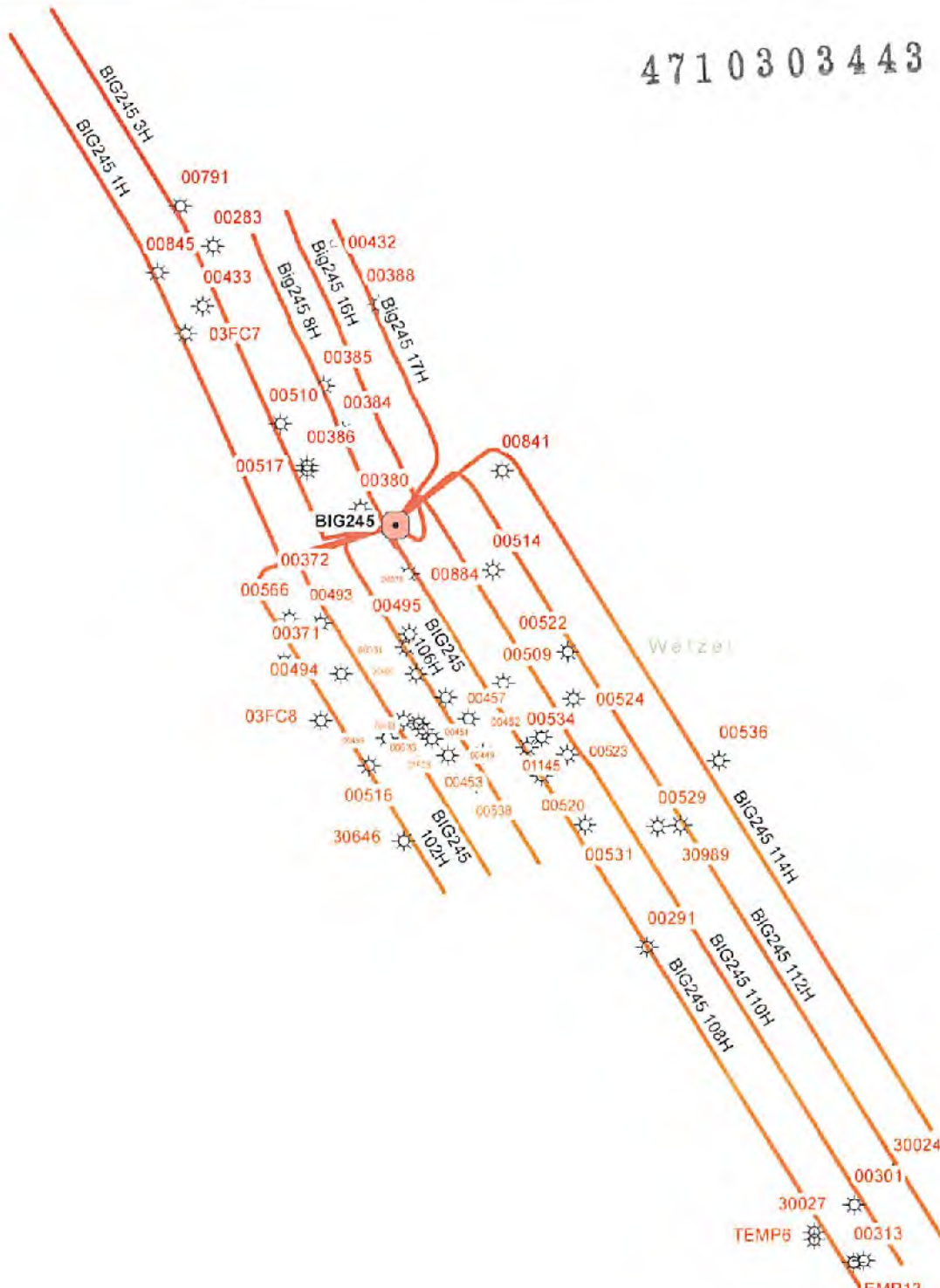
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**EQT**  
EQT Corporation  
625 Liberty Avenue  
Pittsburgh, PA 15222

BIG245

Vertical Offsets and  
Foreign Laterals  
within 500'

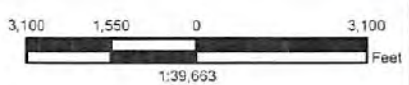
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Path: \\p-86052\gsd\pr\GIS\_Department\GIS\_Users\Hudgins\Vertical Offsets Foreign Well Working Map.mxd

**Legend**

- Foreign Offset Wells
- Well Pad Sites
- Well Lateral\_FM
- Formation
  - Geneseo
  - Marcellus
  - Utica

**Disclaimer**

This map is confidential and is to be used only for the express informational purposes for which it was created. Unauthorized use, copying, or dissemination is strictly prohibited. EQT does not warrant the accuracy of the location of any items shown on this map, including, but not limited to, any structures, well or pipeline facilities, property boundaries, topography, roadways, or waterways. The items shown on the map may not have been placed on the map using survey lines or GPS coordinates. The specific location of any of the map items should be determined by a field survey performed by a licensed surveyor upon consultation with EQT.



08/20/2021

WellID	WellStatus	date	FmatTD	Permit	Operator	Longitude	Latitude	TargetFm	DatumEleva	TotalDepth-SS	Total Depth
4710300283	GAS	3/24/1943		00283	EPC	-80.5821	39.6113		1190.0000	-2099.0000	3289.0000
4710300291	GAS-P	1/24/1944		00291	CARNEGIE NAT GAS	-80.5503	39.5711		1205.0000	-2129.0000	3334.0000
4710300301	GAS	1/11/1944		00301	CNG	-80.5351	39.5563		933.0000	282.0000	651.0000
4710300313	GAS-P	7/24/1944		00313	CNG	-80.5352	39.5530		911.0000	284.0000	627.0000
4710300331	GAS	11/17/1903		00331	PGH & WV GAS	-80.5680	39.5883		1109.0000	-1176.0000	2285.0000
4710300371	GAS	2/26/1951		00371	FOSTER MCKENZIE	-80.5771	39.5875		825.0000	295.0000	530.0000
4710300372	GAS-P	3/10/1951		00372	FOSTER MCKENZIE	-80.5773	39.5917		842.0000	299.0000	543.0000
4710300376	GAS	4/11/1952		00376	P C MCKENZIE	-80.5698	39.5907		1265.0000	257.0000	1008.0000
4710300380	DRY	5/23/1952		00380	P C MCKENZIE	-80.5714	39.5962		1267.0000	132.0000	1135.0000
4710300384	GAS	5/27/1953		00384	P C MCKENZIE	-80.5726	39.6007		855.0000	270.0000	585.0000
4710300385	GAS	7/4/1953		00385	P C MCKENZIE	-80.5740	39.6032		905.0000	258.0000	647.0000
4710300386	GAS	6/16/1953		00386	EPC	-80.5753	39.5987		847.0000	277.0000	570.0000
4710300388	GAS	10/24/1953		00388	P C MCKENZIE	-80.5699	39.6079		938.0000	272.0000	666.0000
4710300432	DRY	6/22/1956		00432	P C MCKENZIE	-80.5738	39.6112		994.0000	-501.0000	1495.0000
4710300433	GAS	8/17/1956		00433	P C MCKENZIE	-80.5829	39.6079		1509.0000	274.0000	1235.0000
4710300449	GAS	6/15/1957		00449	NORTH FORK DEVELOP	-80.5650	39.5821		825.0000	288.0000	537.0000
4710300451	GAS	7/7/1957		00451	NORTH FORK DEVELOP	-80.5669	39.5836		817.0000	288.0000	529.0000
4710300452	GAS	8/9/1957		00452	NORTH FORK DEVELOP	-80.5635	39.5842		886.0000	272.0000	614.0000
4710300453	DRY	10/5/1957		00453	NORTH FORK DEVELOP	-80.5624	39.5822		979.0000	254.0000	725.0000
4710300457	DRY	1/5/1958		00457	NORTH FORK DEVELOP	-80.5652	39.5854		1108.0000	249.0000	859.0000
4710300493	STORAGE	3/8/1963		00493	EPC	-80.5744	39.5897		1163.0000	-995.0000	2158.0000
4710300494	STORAGE	11/8/1961		00494	EPC	-80.5729	39.5868		1086.0000	-1002.0000	2088.0000
4710300495	STORAGE	3/15/1963		00495	EPC	-80.5678	39.5890		1109.0000	-1011.0000	2120.0000
4710300496	STORAGE	11/16/1961		00496	EPC	-80.5673	39.5868		844.0000	-1697.0000	2541.0000
4710300499	STORAGE	10/11/1961		00499	EPC	-80.5695	39.5831		923.0000	-969.0000	1892.0000
4710300509	STORAGE	1/3/1963		00509	EPC	-80.5609	39.5862		1155.0000	-1140.0000	2295.0000
4710300510	GAS	8/29/1961		00510	PEMCO GAS	-80.5772	39.6011		934.0000	272.0000	662.0000
4710300514	STORAGE	5/17/1962		00514	EPC	-80.5616	39.5927		1107.0000	-985.0000	2092.0000
4710300516	STORAGE	6/6/1962		00516	EPC	-80.5709	39.5815		1034.0000	-981.0000	2015.0000
4710300517	STORAGE	6/20/1962		00517	EPC	-80.5753	39.5984		869.0000	-975.0000	1844.0000
4710300520	STORAGE	11/14/1963		00520	EPC	-80.5581	39.5809		937.0000	-1088.0000	2025.0000
4710300522	STORAGE	7/24/1962		00522	EPC	-80.5561	39.5880		1221.0000	-1930.0000	3151.0000
4710300523	STORAGE	1/2/1963		00523	EPC	-80.5562	39.5821		846.0000	-1010.0000	1856.0000
4710300524	STORAGE	10/24/1962		00524	EPC	-80.5557	39.5853		972.0000	-1735.0000	2707.0000
4710300529	STORAGE	5/1/1963		00529	EPC	-80.5495	39.5780		1200.0000	-2028.0000	3228.0000
4710300531	STORAGE	8/10/1979		00531	EPC	-80.5549	39.5781		1098.0000	-1007.0000	2105.0000
4710300533	STORAGE	12/13/1962		00533	EPC	-80.5683	39.5841		829.0000	-985.0000	1814.0000
4710300534	STORAGE	6/9/1979		00534	EPC	-80.5592	39.5825		1067.0000	-1023.0000	2090.0000
4710300536	STORAGE	5/17/1963		00536	EPC	-80.5449	39.5817		1208.0000	-1755.0000	2963.0000
4710300538	STORAGE	7/31/1963		00538	EPC	-80.5629	39.5805		836.0000	-1014.0000	1850.0000

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4710300566	GAS	1/20/1965	00566	FOSTER MCKENZIE	-80.5767	39.5900	880.0000	332.0000	548.0000
4710300791	GAS		00791	EPC	-80.5844	39.6136	0.0000	-99999.0000	99999.0000
4710300841	GAS-P	9/14/1903	00841	EPC	-80.5608	39.5983	1020.0000	-99999.0000	101019.0000
4710300845	P&A	9/22/1905	00845	EPC	-80.5862	39.6098	1290.0000	-1822.0000	3112.0000
4710300884	STORAGE	9/26/1922	00884	EQUITRANS	-80.5679	39.5925	1167.0000	-1044.0000	2211.0000
4710301145	STORAGE	10/19/1962	01145	EPC	-80.5581	39.5831	1067.0000	-1023.0000	2090.0000
4710330024	GAS		30024	HOPE NAT GAS	-80.5322	39.5581	1229.0000	-1101.0000	2330.0000
4710330027	OIL		30027	OPER IN MIN.OWN	-80.5381	39.5547	890.0000	-1894.0000	2784.0000
4710330646	GAS	3/19/1915	30646	LOWER HURON SHALE	-80.5683	39.5772	1197.0000	-2142.0000	3339.0000
4710330989	GAS	1/17/1917	30989	DUNN-MAR O & G	-80.5478	39.5781	1200.0000	-2021.0000	3221.0000
4710370423	P&A		70423	CARNEGIE NAT GAS	-80.5672	39.5839	0.0000	-99999.0000	99999.0000
47103FC7	UNK		03FC7	PHILADELPHIA O	-80.5842	39.6063	0.0000	-99999.0000	99999.0000
47103FC8	P&A		03FC8	UNK	-80.5744	39.5841	0.0000	-99999.0000	99999.0000
47103FC9	P&A		03FC9	UNK	-80.5662	39.5831	0.0000	-99999.0000	99999.0000
47103TEMP13	UNK		EMP13		-80.5344	39.5531	0.0000	-99999.0000	99999.0000
47103TEMP6	UNK		TEMP6		-80.5381	39.5543	0.0000	-99999.0000	99999.0000

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WW-9  
(4/16)

4710303443

API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. BIG245 108H

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) Rockcamp Run of Willey Fork Quadrangle Big Run

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: N/A

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number 0014, 8462, 4037 )
- Reuse (at API Number Various )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? If so, describe: Yes, The closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off-site disposal facility.

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

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Mud

Additives to be used in drilling medium? See Attached

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? See Attached List

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

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]

Company Official (Typed Name) John Zavatchan

Company Official Title Project Specialist - Permitting

Subscribed and sworn before me this 13<sup>th</sup> day of July, 2021

[Signature] Notary Public

My commission expires March 9, 2024

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Department of Environmental Protection

Commonwealth of Pennsylvania - Notary Seal  
Rebecca Shrum, Notary Public  
Beaver County  
My commission expires March 9, 2024  
Commission number 1267706  
Member, Pennsylvania Association of Notaries

471 0303 443

WW-9 Attachment

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

- 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 synthetic 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.
- Synthetic mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

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**EQT Production Company**

Proposed Revegetation Treatment: Acres Disturbed \_\_\_\_\_ Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

**Seed Mixtures**

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

**Attach:**

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bryan Ham

Comments: Pre-seed/mulch all disturbed areas as soon as reasonably possible, per regulation. Upgrade E&S as necessary per WV DEP E&S Manual.

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Title: Inspector Date: 7-12-21

Field Reviewed?  Yes  No



EQT Production Water Plan										
Offsite Disposals for Unconventional Wells										
Facility Name	Address	Address 2	City	State	Zip	Phone	County	State	Permit Number	
CWS Trucking Inc.	P.O. Box 391		Williamstown	WV	26187	740-516-3586	Noble	OH	3390	
Broad Street Energy LLC	37 West Broad Street	Suite 1100	Columbus	OH	43215	740-516-5381	Washington	OH	8462	
LAD Liquid Assets Disposal Inc.	226 Rankin Road		Washington	PA	15301	724-350-2760	Ohio	WV	USEPA WV 0014	
Triad Energy	PO Box 430		Reno	OH	45773	740-516-6021 740-374-2940	Noble	OH	4037	
Tri County Waste Water Management, Inc.	1487 Toms Run Road		Holbrook	PA	15341	724-627-7178 724-499-5647	Greene	PA	TC-1009	
King Excavating Co. Advance Waste Services	101 River Park Drive		New Castle	PA	16101		Lawrence	PA	PAR000029132	
Waste Management - Meadowfill Landfill	Rt. 2, Box 68 Dawson Drive		Bridgeport	WV	16330	304-326-6027	Harrison	WV	SWF-1032-98 Approval #100785WV	
Waste Management - Northwestern Landfill	512 E. Dry Road		Parkersburg	WV	26104	304-428-0602	Wood	WV	SWF-1025 WV-0109400	
APEX Landfill	11 County Road 78	PO Box 57	Amsterdam	OH	43903	740-543-4389	Jefferson	OH	06-08438	
Advanced Disposal - Chestnut Valley Landfill	1184 McClellandtown Road		McClellandtown	PA	15458	724-437-7336	Fayette	PA	100419	
Westmoreland Sanitary Landfill	901 Tyrol Boulevard		Belle Vernon	PA	15012	724-929-7694	Westmoreland	PA	100277	
Austin Master Services	801 North 1st Street		Martins Ferry	OH	43935	740-609-3800	Belmont	OH	2014-541	
Belmont Solids Control	77505 Cadiz-New Athers Road		Cadiz	OH	43907	740-942-1739	Harrison	OH	2015-511	
Diversified Resources	3111 Braun Rd.		Belpre	OH	45714	740-401-0413	Washington	OH		
Buckeye Brine	23986 Airport Road		Coshocton	OH	43812	740-610-1512 724-591-4393	Coshocton	OH	34-031-27177 34-031-27178 34-031-27241	
Central Environmental Services	28333 West Belpre Pike		Coolville	OH	45723	304-488-0701	Athens	OH		
Nuverra - Nichols	10555 Veto Road		Belpre	OH	45714	330-232-5041	Washington	OH	34-119-2-8776	
Nuverra - Goff	9350 East Pike Road		Norwich	OH	43767	330-232-5041	Muskingum	OH	34-167-2-3862	
Nuverra - Wolf	5480 State Route 5		Newton Falls	OH	44444	330-232-5041	Trumbull	OH	34-155-2-1893	
Nuverra - Pander	5310 State Route 5		Newton Falls	OH	44444	330-232-5041	Trumbull	OH	34-155-2-3795	
Nuverra - AnnaRock D-1	3549 Warden Road		Fowler	OH	44418	330-232-5041	Trumbull	OH	34-155-2-2403	

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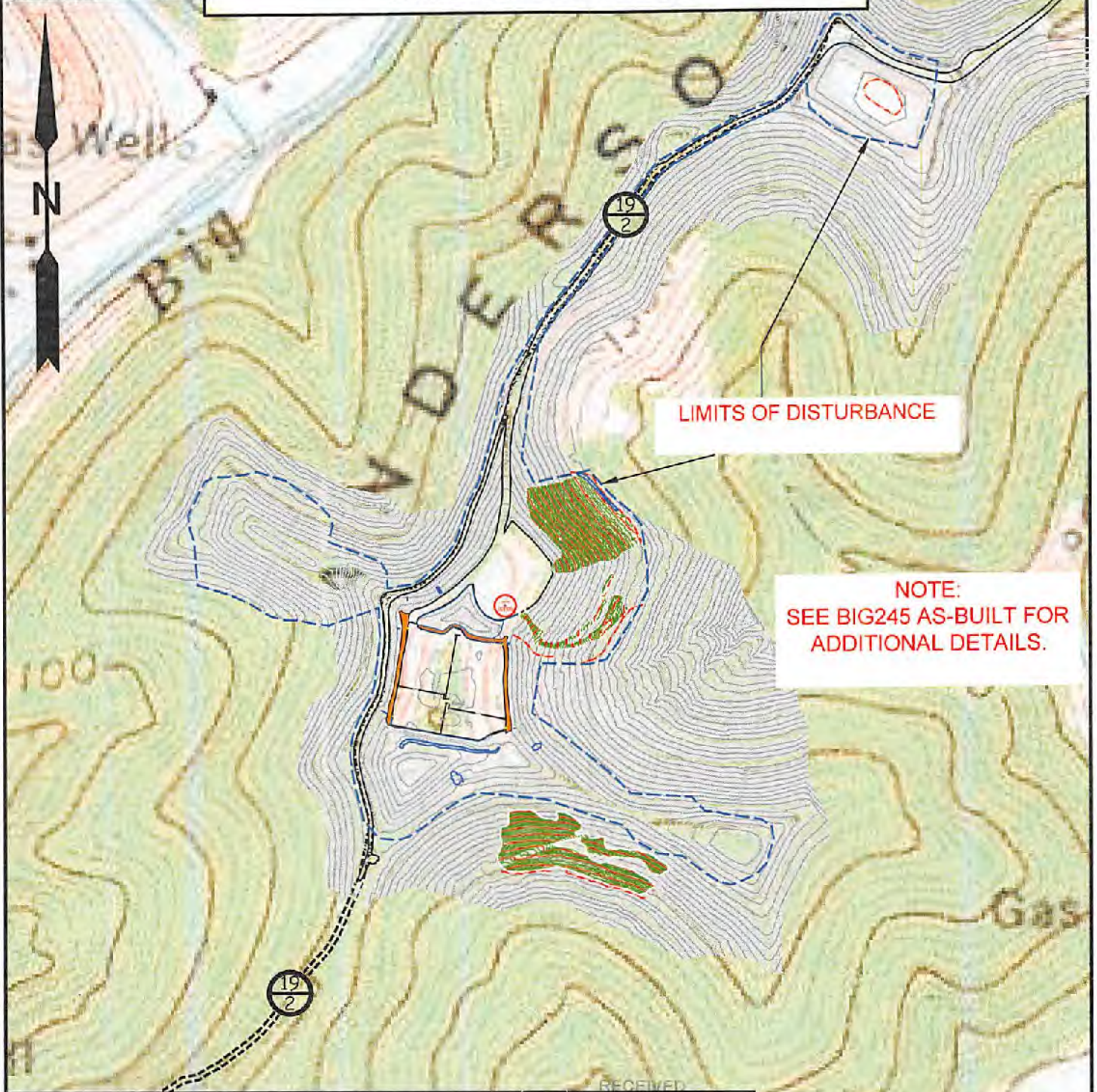
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FQ Helen	199 Bowersock Road		Reno	OH	45773	740-374-2940 412-443-4397 740-236-2135	Washington	OH	34-167-2-9577
FQ Dexter	38505 Marietta Rd.		Dexter City	OH	45727	740-374-2940 412-443-4397 740-236-2135	Noble	OH	34-121-24037 34-121-24086
FQ Ritchie	122 Lonesome Pine Rd		Ellenboro	WV	26346	740-374-2940 412-443-4397 740-236-2135	Ritchie	WV	47-085-09721
FQ Mills	53610 TS Rd 706		Portland	OH	45770	740-374-2940 412-443-4397 740-236-2135	Meigs	OH	34-105-2-3619 34-105-2-3652 34-105-2-3637 34-105-2-3651
Petta Enterprises - OH	745 North 3rd Street		Cambridge	OH	43725	614-477-1368	Guernsey	OH	Ohio Chiefs Order 25-019
Petta Enterprises - WV	38 Technology Dr.		Tridelpia	WV	26059	740-255-5727	Ohio	WV	
Deep Rock Disposal	2341 OH-821		Marietta	OH	45750	304-629-0176	Washington	OH	34-167-2-9766

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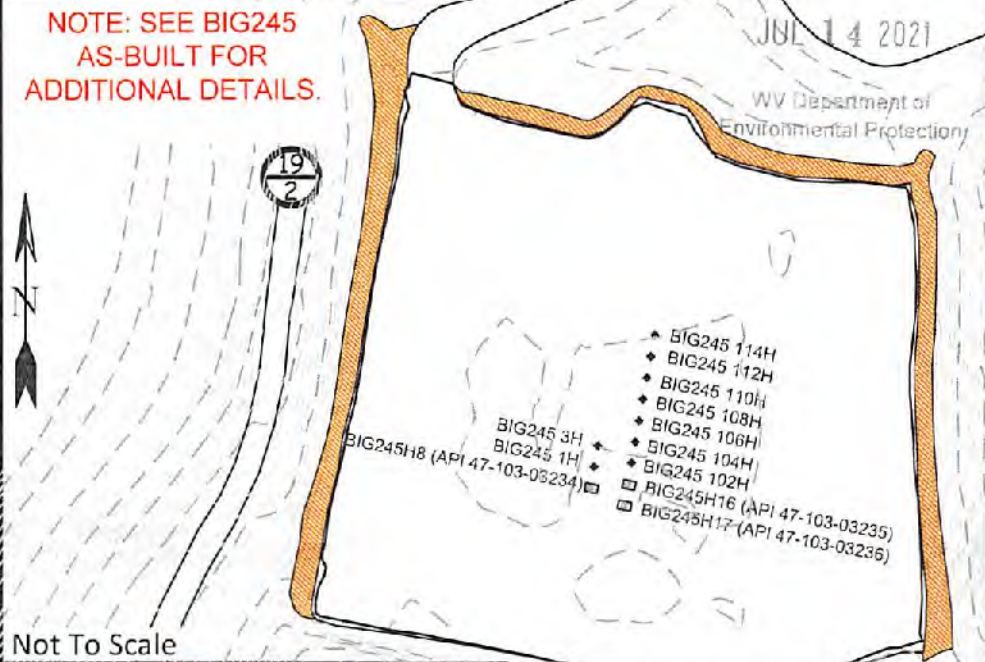




Detail Sketch for Proposed BIG245 Wells

**NOTE: SEE BIG245 AS-BUILT FOR ADDITIONAL DETAILS.**

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**SCALE: 1"=500'**



TOPO SECTION OF BIG RUN 7.5'  
USGS TOPO QUADRANGLE

DRAWN BY CPM	FILE NO. 7812	DATE 07-08-21	CADD FILE: 781256245REDFLAN-12.dwg
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*Bryan Harris*  
7-12-21

# SITE SAFETY AND ENVIRONMENTAL PLAN

BIG245 Pad

Burton  
Wetzel County, WV

Prepared By: Donny Prater, CSP, Health and Safety Sciences, LLC

Approved By: Scott M. Held, Senior Safety Coordinator

Created Date: 29-Jan-20

**Existing Wells:**

BIG245H8 – 47-103-03234  
BIG245H16 – 47-103-03235  
BIG245H17 – 47-103-03236

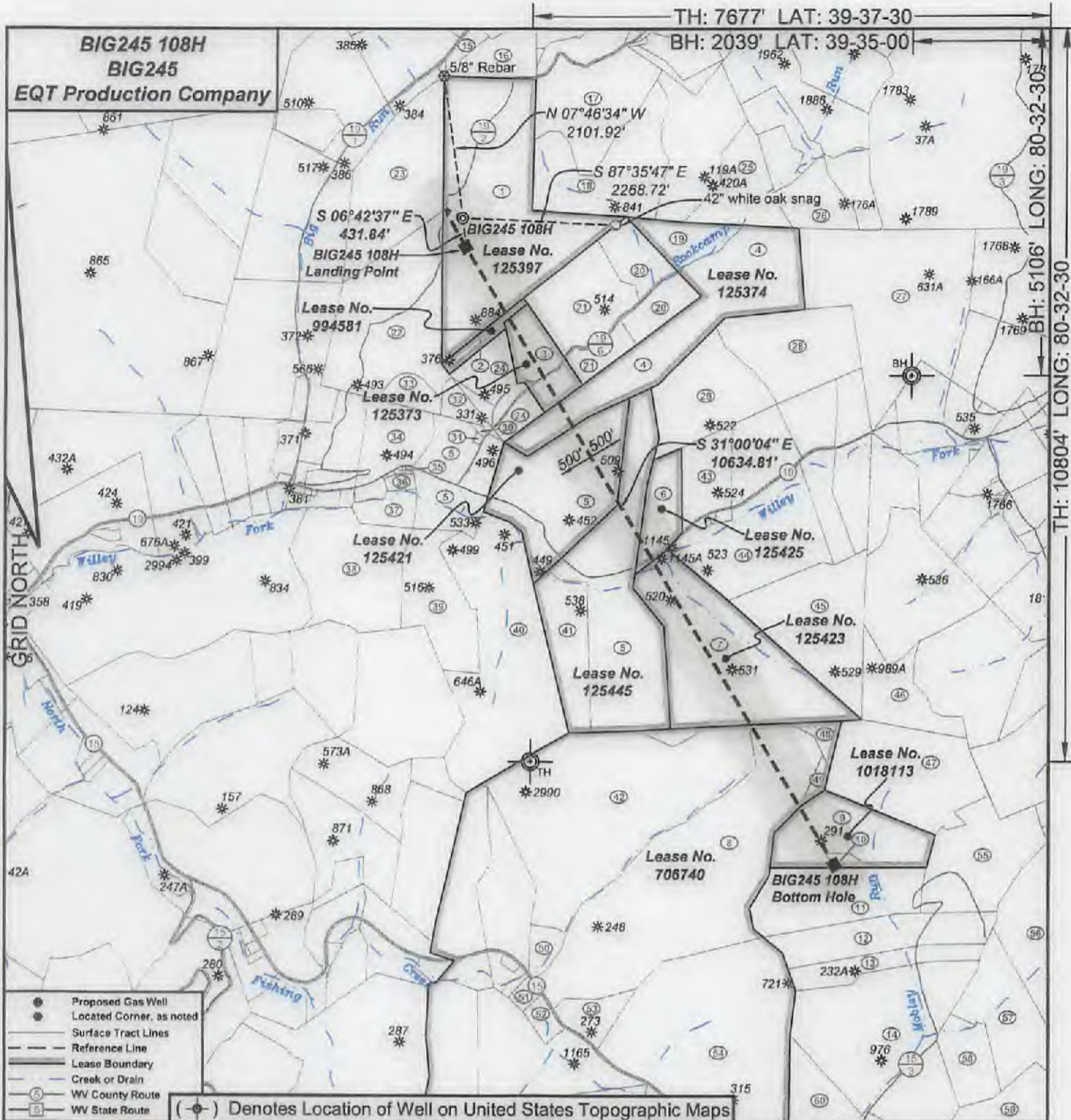
**Proposed Wells:**

BIG245 1H, BIG245 3H, BIG245 102H, BIG245 104H  
BIG245 106H, BIG245 108H, BIG245110H,  
BIG245 112H, BIG245 114H

John Zavatchan  
EQT Production Co.

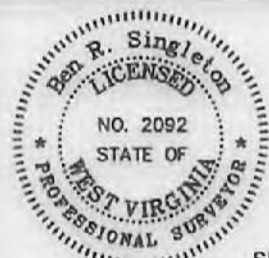
Bryan Harris  
WVDEP Oil and Gas Inspector





*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.*

*Ben R. Singleton*  
P.S. 2092



SEAL

FILE NO: 246-18  
DRAWING NO: BIG245 108H  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: August 05 20 21  
OPERATOR'S WELL NO.: BIG245 108H  
API WELL NO 46A  
47 - 103 - 03443  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1430' WATERSHED Rockcamp Run of Willey Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: ET Blue Grass LLC ACREAGE: 138.93  
ROYALTY OWNER: Shiben Estates, Inc., et al. LEASE NO: 125397 ACREAGE: 140  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,548'

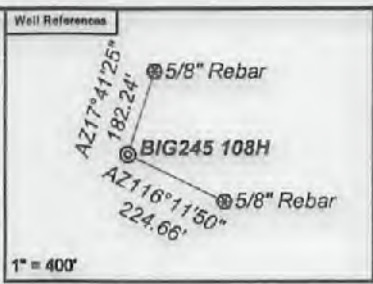
WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280  
Canonsburg, PA 15317 Bridgeport, WV 26330

08/20/2021

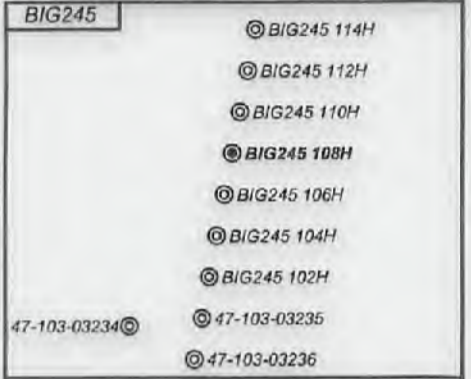


**BIG245 108H**  
**BIG245**  
**EQT Production Company**

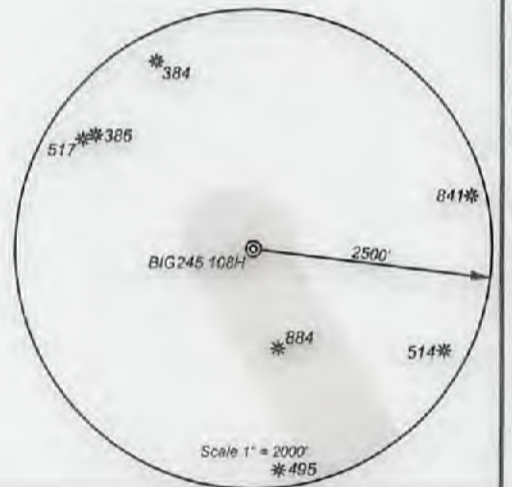
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	8	22	Wetzel	Grant	ET Blue Grass LLC	138.93
2	8	25	Wetzel	Grant	James A. Yoho	6.25
3	8	27	Wetzel	Grant	James A. Yoho	21.75
4	8	32	Wetzel	Grant	Joe Pigg	82.40
5	8	50	Wetzel	Grant	H. Dorn Higginbotham	191.21
6	8	54	Wetzel	Grant	Sherilyn Snider	20.90
7	14	7	Wetzel	Grant	Norman Darby	83.00
8	13	45	Wetzel	Grant	Coastal Forest Resources Company	135.30
9	14	22	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	48.00
10	14	21	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	2.80
11	14	28	Wetzel	Grant	EQT Production Company	50.50
12	14	37	Wetzel	Grant	EQT Production Company	36.50
13	14	37	Wetzel	Grant	EQT Production Company	37.50
14	14	35	Wetzel	Grant	EQT Production Company	100.00
15	8	13.1	Wetzel	Grant	Quane M. Goodrich	3.50
16	8	7	Wetzel	Grant	James C. & Marla A. Stonking	19.12
17	8	8	Wetzel	Grant	Wanda L. Byard	59.16
18	8	15	Wetzel	Grant	John Michael Byard	71.50
19	9	22	Wetzel	Grant	James A. Yoho	17.50
20	8	29	Wetzel	Grant	Mary Jane Byard	19.00
21	8	28	Wetzel	Grant	James A. Yoho	51.00
22	8	23	Wetzel	Grant	Dale K. Dulaney, et al	70.81
23	8	11	Wetzel	Grant	Bernie M. Hedburn	83.50
24	8	26	Wetzel	Grant	James A. Yoho	23.25
25	8	13	Wetzel	Grant	James A. Yoho	27.00
26	8	17	Wetzel	Grant	Louise Watson	30.08
27	9	25	Wetzel	Grant	Stephen B. & Carolyn M. Gantz	130.00
28	9	20	Wetzel	Grant	William & Margaret Schlaicher	47.90
29	9	28	Wetzel	Grant	Sherilyn Snider	55.52
30	8	40	Wetzel	Grant	James A. Yoho	0.50
31	8	41	Wetzel	Grant	H. Dorn Higginbotham	0.45
32	8	30	Wetzel	Grant	James A. Yoho	7.50
33	8	24	Wetzel	Grant	H. Dorn Higginbotham	7.10
34	8	39	Wetzel	Grant	H. Dorn Higginbotham	23.02
35	8	52	Wetzel	Grant	Henry E. Wiley	0.28
36	8	51	Wetzel	Grant	Henry E. Wiley	3.54
37	8	55	Wetzel	Grant	Mansel L. McDuffie, et al	9.28
38	13	7	Wetzel	Grant	Mansel L. McDuffie, et al	51.90
39	13	8	Wetzel	Grant	Robert Cole	36.00
40	13	17	Wetzel	Grant	Mary Higginbotham	112.00
41	13	9	Wetzel	Grant	Mary Higginbotham	30.10
42	13	27.1	Wetzel	Grant	Jeremy Collins	148.70
43	9	40.1	Wetzel	Grant	Donald J. Dulaney	22.00
44	9	52	Wetzel	Grant	Norman Darby	51.51
45	14	8	Wetzel	Grant	Edith R. Coen	99.60
46	14	19	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	29.00
47	14	18	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	66.70
48	14	17	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	8.20
49	14	19	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	1.90
50	13	27	Wetzel	Grant	Teresa D. Gump Life Estate	8.07
51	13	50	Wetzel	Grant	Gary D. & Julia A. Watson	2.93
52	13	45.1	Wetzel	Grant	Gary D. & Julia A. Watson	5.00
53	13	51	Wetzel	Grant	James & Debra Lippincott	11.70
54	18	12.1	Wetzel	Grant	Liberty Midstream & Resources LLC	202.00
55	14	23	Wetzel	Grant	Equitans LP	51.00
56	14	36	Wetzel	Grant	Dale C. Casham, et al.	57.00
57	14	39.3	Wetzel	Grant	Dale C. Casham, et al.	35.65
58	14	39	Wetzel	Grant	Mountain Valley Pipeline LLC	12.81
59	19	7	Wetzel	Grant	Florance E. Kiboye	157.00
60	19	5	Wetzel	Grant	Roger R. & Shirley K. Hinerman	45.12



**Notes:**  
BIG245 108H coordinates are  
NAD 27 N: 400,738.44 E: 1,698,788.01  
NAD 27 Lat: 39.565340 Long: -80.568909  
NAD 83 UTM N: 4,382,943.53 E: 537,030.28  
BIG245 108H Landing Point coordinates are  
NAD 27 N: 400,309.56 E: 1,698,838.48  
NAD 27 Lat: 39.594165 Long: -80.568712  
NAD 83 UTM N: 4,382,813.12 E: 537,047.82  
BIG245 108H Bottom Hole coordinates are  
NAD 27 N: 391,193.85 E: 1,704,315.97  
NAD 27 Lat: 39.569316 Long: -80.548899  
NAD 83 UTM N: 4,380,063.81 E: 538,762.88  
West Virginia Coordinate 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.

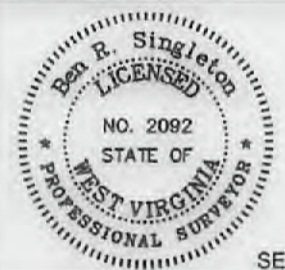


Lease No.	Owner	Acres
994581	Carolyn J. Ferguson, et al.	6.25
125373	Jim Yoho, et al.	22
125374	Jordan Zachary Pigg, et al.	100
125421	H. Dorn Higginbotham and Lavena Jane Higginbotham	73
125445	PA Mineral Group II, LLC, et al.	121
125426	Sherilyn Louise Snider, et al.	20
125423	AMP Fund III, LP, et al.	85
708740	EQT Production Company	1003.75
1018113	Tamara L. Donchue f/k/a Tamara Lynn Hixenbaugh, et al.	48



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.

*Ben R. Singleton*  
P.S. 2092



FILE NO: 246-18  
DRAWING NO: BIG245 108H  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: August 05 20 21  
OPERATOR'S WELL NO.: BIG245 108H  
API WELL NO: H6A  
47 - 103 - 03443  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1430' WATERSHED: Rockcamp Run of Willey Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: ET Blue Grass LLC ACREAGE: 138.93  
ROYALTY OWNER: Shiben Estates, Inc., et al. LEASE NO: 125397 ACREAGE: 140  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,548'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280  
Canonsburg, PA 15317 Bridgeport, WV 26330

08/20/2021



**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 Attachment				

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**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: John Zavatchan  
 Its: Project Specialist - Permitting

4710303443

WW-GA1 attachment

Operator's Well No.

BIG245 108H

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
	<u><b>Shiben Estates, Inc., et al.</b></u>			*at least 1/8th per WV Code 22-6-8"	
<u>125397</u>	Joseph Shiben and Minnie Shiben, his wife, et al Equitable Gas Company Equitrans, Inc., et al Equitrans, L.P.	140 ac	Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company		OG 44A/224 OG 71A/453 Misc. Book 105/908 OG 131A/81
	<u><b>Carolyn J. Ferguson, et al.</b></u>			*at least 1/8th per WV Code 22-6-8"	
<u>994581</u>	Elizabeth Stewart, a/k/a Elizabeth J. Stewart, widow	6.25 ac	EQT Production Company		OG 146A/287
	<u><b>Jim Yoho, et al.</b></u>			*at least 1/8th per WV Code 22-6-8"	
<u>125373</u>	Edna M. Rice, widow, et al Equitable Gas Company Equitrans, Inc., et al Equitrans, L.P.	22 ac	Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company		OG 52A/245 OG 71A/453 Misc. Book 105/908 OG 131A/81
	<u><b>Jordan Zachary Pigg, et al.</b></u>			*at least 1/8th per WV Code 22-6-8"	
<u>125374</u>	Josephine J. Pigg and Joe W. Pigg, her husband Equitable Gas Company Equitrans, Inc., et al Equitrans, L.P.	100 ac	Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company		OG 52A/165 OG 71A/453 Misc. Book 105/908 OG 131A/81
	<u><b>H. Dorn Higginbotham and Lavena Jane Higginbotham</b></u>			*at least 1/8th per WV Code 22-6-8"	
<u>125421</u>	Elva R. King and Charles H. King, her husband, et al Willard E. Ferrell Equitable Gas Company Equitrans, Inc., et al Equitrans, L.P.	73 ac	Willard E. Ferrell Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company		OG 42A/411 OG 44A/320 OG 71A/453 Misc. Book 105/908 OG 131A/81
	<u><b>PA Mineral Group II, LLC, et al.</b></u>			*at least 1/8th per WV Code 22-6-8"	
<u>125445</u>	Elva R. King and Charles H. King, her husband, et al Equitable Gas Company Equitrans, Inc., et al Equitrans, L.P.	121 ac	Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company		OG 45A/25 OG 71A/453 Misc. Book 105/908 OG 131A/81
	<u><b>Sherilyn Louise Snider, et al.</b></u>			*at least 1/8th per WV Code 22-6-8"	
<u>125425</u>	Adda M. Sole, widow, et al Equitable Gas Company Equitrans, Inc., et al Equitrans, L.P.	20 ac	Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company		OG 44A/493 OG 71A/453 Misc. Book 105/908 OG 131A/81
	<u><b>AMP Fund III, LP, et al.</b></u>			*at least 1/8th per WV Code 22-6-8"	
<u>125423</u>	C. E. Brown and Ada M. Brown, his wife, et al Equitable Gas Company Equitrans, Inc., et al Equitrans, L.P.	85 ac	Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company		OG 45A/278 OG 71A/453 Misc. Book 105/908 OG 131A/81

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<u>706740</u>	<u>EQT Production Company</u> Benedum-Trees Oil Company and The Parker and Edwards Oil Company Carnegie Natural Gas Company Carnegie Production Company Carnegie Production Company	1003.75 ac	Carnegie Natural Gas Company Carnegie Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"  OG 2A/180 OG 78A/513 WV SOS
<u>1018113</u>	<u>Tamara L. Donohue f/k/a Tamara Lynn Hixenbaugh, et al.</u> Tamara L. Donohue f/k/a Tamara Lynn Hixenbaugh, a married woman dealing in her sole and separate property	48 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"  OG 252A/558

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4710303443



EQT PRODUCTION COMPANY  
400 Woodcliff Drive | Canonsburg, PA 15317

July 7, 2021

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

Re: BIG245 108H  
Grant District, Wetzel County, WV

Dear Mr. Brewer,

EQT Production Company is applying for a new well work permit for the well referenced above. Upon information and belief, the 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,

A handwritten signature in blue ink, appearing to read 'J. Zavatchan'.

John Zavatchan  
Project Specialist - Permitting

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

Date of Notice Certification: 7/13/2021

API No. 47- 4710303443  
Operator's Well No. 103H  
Well Pad Name: BIG245

**Notice has been given:**

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

State:	<u>West Virginia</u>	UTM NAD 83 Easting:	<u>537030.277</u>
County:	<u>Wetzel</u>	UTM NAD 83 Northing:	<u>4382943.532</u>
District:	<u>Grant</u>	Public Road Access:	<u>CR 19/2</u>
Quadrangle:	<u>Big Run</u>	Generally used farm name:	<u>FT Blue Grass LLC</u>
Watershed:	<u>Rockcamp Run of Willey Fork</u>		

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p align="center"><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED Office of Oil and Gas JUL 14 2021</p> <p><input checked="" type="checkbox"/> RECEIVED WV Department of Environmental Protection</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p>
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**Required Attachments:**

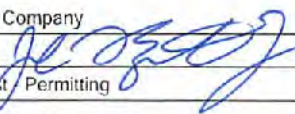
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication 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.

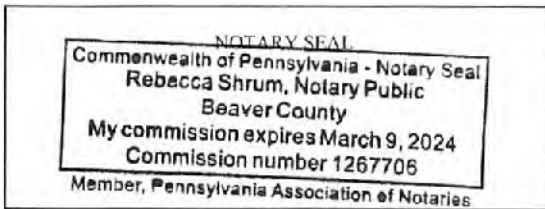
08/20/2021

4710303443

**Certification of Notice is hereby given:**

THEREFORE, I John Zavatchan, 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:	<u>EQT Production Company</u>	Address:	<u>400 Woodcliff Drive</u>
By:	<u>John Zavatchan</u> 		<u>Canonsburg, PA 15317</u>
Its:	<u>Project Specialist Permitting</u>	Facsimile:	<u>412-395-2974</u>
Telephone:	<u>724-746-9073</u>	Email:	<u>jzavatchan@eqt.com</u>



Subscribed and sworn before me this 13<sup>th</sup> day of July 2021.

Rebecca Shrum Notary Public

My Commission Expires March 9, 2024

**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](mailto:depprivacyofficer@wv.gov).

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WW-6A  
(9-13)

API NO. 47 4710303443  
OPERATOR WELL NO. 108H  
Well Pad Name: BIG245

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:** 7/12/2021 **Date Permit Application Filed:** 7/13/2021

Notice of:

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

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

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

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

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

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JUL 14 2021

WV Department of  
Environmental Protection

SURFACE OWNER(s)  
Name: See Attached List  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
Name: See Attached List  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OPERATOR  
Name: ACNR Resources, Inc.  
Address: 46226 National Road  
St. Clairsville, OH 43950

SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: See Attached List  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL  
AND/OR WATER PURVEYOR(s)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: Equitrans Midstream c/o Gerald Smith  
Address: 2200 Energy Drive  
Canonsburg, PA 15317

\*Please attach additional forms if necessary

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**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://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

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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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
☎ +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.**

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**Time Limits and Methods for Filing Comments.**

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

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

**Comment Requirements**

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

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

**Permit Denial or Condition**

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

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

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

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

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WW-6A  
(8-13)

4710303443  
API NO. 47-  
OPERATOR WELL NO. 108H  
Well Pad Name: BIG245

**Notice is hereby given by:**

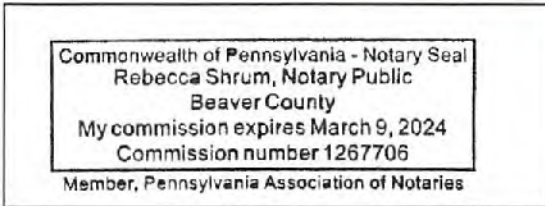
Well Operator: EQT Production Company  
Telephone: 724-746-9073  
Email: jzavatchan@eqt.com



Address: 400 Woodcliff Drive  
Canonsburg, PA 15317  
Facsimile: 412-395-2974

**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](mailto:deprivacyofficer@wv.gov).



Subscribed and sworn before me this 13<sup>th</sup> day of July, 2021.

Rebecca Shrum Notary Public

My Commission Expires March 9, 2024

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4710303443

**BIG245**

**Surface Owners (All Disturbance):**

- Wanda L. Byard  
1250 Meadowland Dr.  
Lewisport, KY 42351
- Neal Utt  
1204 Big Run Rd.  
Burton, WV 26562
- Ikey Joe Willey  
12359 Willey Fork Rd.  
Pine Grove, WV 26419
- ET Blue Grass LLC  
PO Box 6135  
Pittsburgh, PA 15212-0135

**Coal Owners:**

- WPP, LLC  
5260 Irwin Road  
Huntington, WV 25727-3247
- Frances E. Hartman (Fluharty) heirs & assigns  
4337 5th Avenue  
Pittsburgh, PA 15213

**Coal Operator:**

- ACNR Resources, Inc.  
46226 National Road  
St. Clairsville, OH 43950

**No Water Supplies within 1500'**

**Operator of Any Natural Gas Storage Field:**

- Equitrans Midstream  
c/o Gerald Smith  
2200 Energy Drive  
Canonsburg, PA 15317

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Environmental Protection

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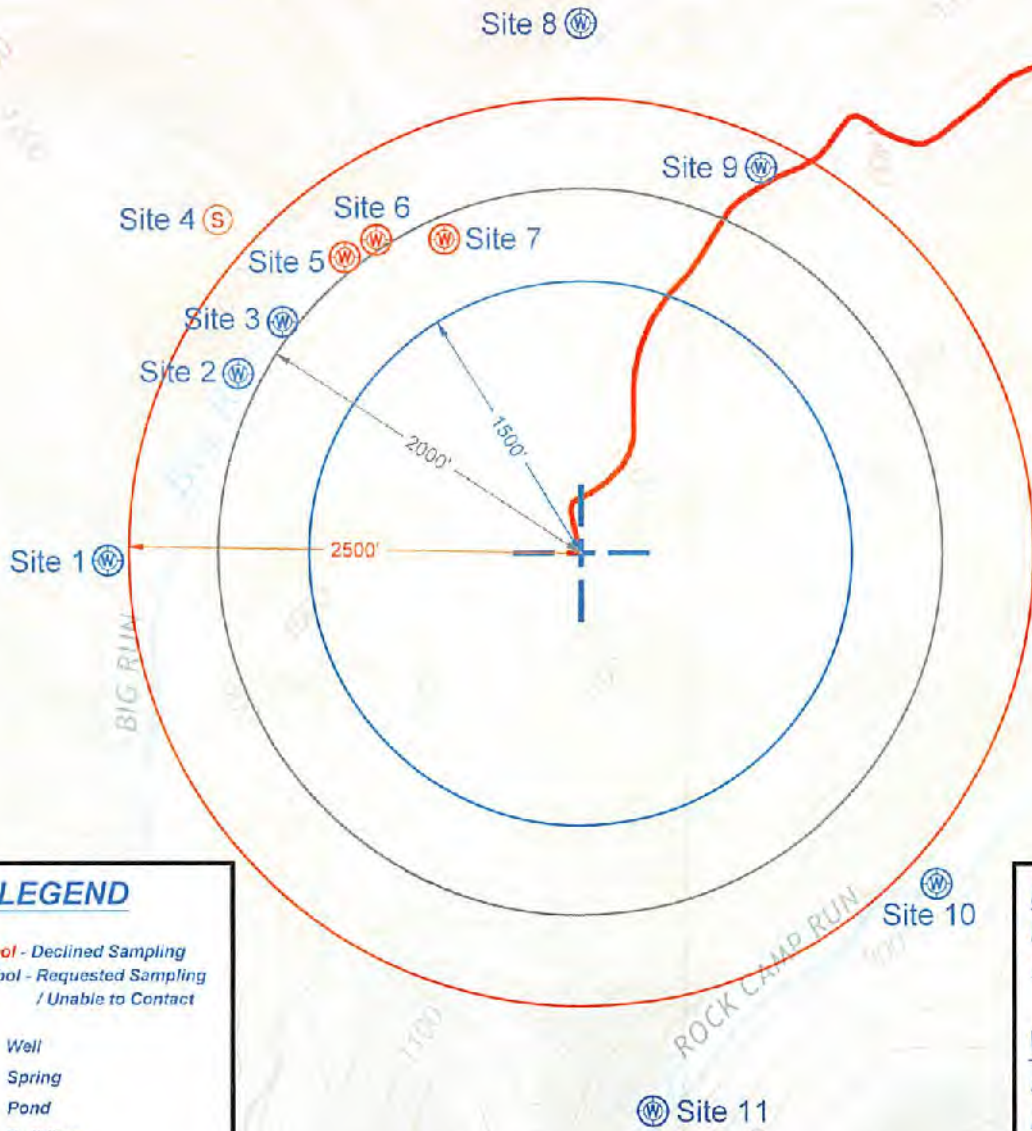


Topo Quad: Big Run 7.5' Scale: 1" = 1000'  
 County: Wetzel Date: June 24, 2021  
 District: Grant Project No: 246-34-G-18

Water

# BIG 245

6 Potential Water Sources within 2500'



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 Environmental Protection

### LEGEND

- Red Symbol - Declined Sampling
- Blue Symbol - Requested Sampling / Unable to Contact
- ⊙ Well
- ⊙ Spring
- ▲ Pond
- Building

**NAD 27, North Zone**  
**N: 400,723.70**  
**E: 1,698,785.26**  
  
**WGS 84**  
**LAT: 39.595300**  
**LONG: -80.568918**  
**ELEV: 1430.00**



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**  
 1-800-482-8606  
 237 Birch River Road  
 Birch River, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

PREPARED FOR:  
**EQT Production Company**  
 400 Woodcliff Drive  
 Canonsburg, PA 15317



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.

**Date of Notice:** 06/23/2021 **Date Permit Application Filed:** 7/13/2021

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

HAND DELIVERY  CERTIFIED MAIL RETURN RECEIPT REQUESTED

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 attachment Name: \_\_\_\_\_  
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: West Virginia UTM NAD 83 Easting: 537030.277  
County: Wetzel Northing: 4382943.532  
District: Grant Public Road Access: CR 19/2  
Quadrangle: Big Run Generally used farm name: BIG245  
Watershed: Rockcamp Run of Willey Fork

**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: EQT Production Company  
Address: 400 Woodcliff Drive  
Canonsburg, PA 15317  
Telephone: 724-746-9073  
Email: jzavatchan@eqt.com  
Facsimile: 412-395-2974

Authorized Representative: John Zavatchan  
Address: 400 Woodcliff Drive  
Canonsburg, PA 15317  
Telephone: 724-746-9073  
Email: jzavatchan@eqt.com  
Facsimile: 412-395-2974

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WV Department of  
Environmental Protection

**Oil and Gas Privacy Notice:**

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

4710303443

BIG245 Surface Owner List (All Disurbance)

- 04-8-8  
Wanda L. Byard  
1250 Meadowland Dr.  
Lewisport, KY 42351
- 04-8-14  
Neal Utt  
1204 Big Run Rd.  
Burton, WV 26562
- 04-8-21  
Ikey Joe Willey  
12359 Willey Fork Rd.  
Pine Grove, WV 26419
- 04-8-22  
ET Blue Grass, LLC.  
P.O. Box 6135  
Pittsburgh, PA 15212

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WW-6A5  
(1/12)

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

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

**Date of Notice:** 7/12/21 **Date Permit Application Filed:** 7/13/2021

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

CERTIFIED MAIL  HAND  
RETURN RECEIPT REQUESTED DELIVERY

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

**Notice is hereby provided to the SURFACE OWNER(s)**

(at the address listed in the records of the sheriff at the time of notice):

Name: See attachment

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Address: \_\_\_\_\_

**Notice is hereby given:**

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>537030.277</u>
County:	<u>Wetzel</u>		Northing:	<u>4382943.532</u>
District:	<u>Grant</u>	Public Road Access:		<u>CR 19/2</u>
Quadrangle:	<u>Big Run</u>	Generally used farm name:		<u>BIG245</u>
Watershed:	<u>Rockcamp Run of Willey Fork</u>			

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: EQT Production Company  
Telephone: 724-746-9073  
Email: jzavachian@eqt.com

Address: 400 Woodcliff Drive  
Canonsburg PA 15317  
Facsimile: 412-395-2974

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**Oil and Gas Privacy Notice:**

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

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4710303443

BIG245 Surface Owner List (All Disurbance)

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- 04-8-21  
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Pine Grove, WV 26419
- 04-8-22  
ET Blue Grass, LLC.  
P.O. Box 6135  
Pittsburgh, PA 15212

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471 0303443

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**

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

Byrd E. White, III  
Secretary of Transportation/  
Commissioner of Highways

Jimmy Wriston, P. E.  
Deputy Secretary/  
Deputy Commissioner

July 13, 2021

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 BIG245 Pad, Wetzel County  
BIG245 108H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2016-0430 which has been issued to EQT Production Company for access to the State Road for a well site located off Wetzel County Route 19/2 SLS MP1.42.

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

Very Truly Yours,

Gary K. Clayton, P.E.  
Regional Maintenance Engineer  
Central Office O&G Coordinator

Cc: Becky Shrum  
EQT Production Company  
CH, OM, D-6  
File

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Environmental Protection



471 0303 443

**Anticipated Frac Additives  
Chemical Names and CAS Numbers**

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Sand (Proppant)	Silica Substrate	14808-60-7
Water	Water	7732-18-5
Hydrochloric Acid (HCl)	Hydrogen Chloride	7647-01-0
Friction Reducer	Copolymer of 2-propenamide	Proprietary
	Petroleum Distillate	64742-47-8
	Oleic Acid Diethanolamide	93-83-4
	Alcohols, C12-16, ethoxylated	68551-12-2
	Ammonium chloride ((NH <sub>4</sub> )Cl)	12125-02-9
Biocide	Glutaraldehyde	111-30-8
	Alkyl dimethyl benzyl ammonium chloride	68391-01-5
	Didecyl dimethyl ammonium chloride	7173-51-5
	Non-hazardous substances	Proprietary
Scale Control	Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid)(BHMT)	34690-00-1
	Non-hazardous substances	Proprietary
Acid Chelating Agent	Citric Acid	77-92-9
	Corrosion Inhibitor	Methanol
pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides		68909-18-2
Nonoxynol-9		127087-87-0
2-ethyl-1-hexanol		104-76-7
	4-nonylphenyl, ethoxylated	26027-38-3

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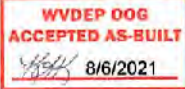
JUL 14 2021

WV Department of  
Environmental Protection

08/20/2021

# EQT BIG 245 WELL PAD AS-BUILT PLAN EQT PRODUCTION COMPANY

PROPOSED WELLS: BIG245 1H, BIG245 3H, BIG245 102H, BIG245 104H, BIG245 106H, BIG245 108H,  
BIG245 110H, BIG245 112H, & BIG245 114H  
PRODUCING WELLS: BIG245H8 (47-103-03234), BIG245H16 (47-103-03235), BIG245H17 (47-103-03236)



SITUATED ON THE WATERS OF BIG RUN, A TRIBUTARY OF  
WILLEY FORK, GRANT DISTRICT, WETZEL COUNTY, WV

### PROJECT INFORMATION

PROJECT NAME: EQT BIG 245  
TAX PARCEL:  
GRANT DISTRICT, WETZEL COUNTY, WV  
MAP 06 PARCELS 01, 14, 21, 22

### SURFACE OWNER

WANDA L BYARD  
MAP 08, PARCEL 06  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 59.96 +/- ACRES

NEAL UTT  
MAP 08, PARCEL 14  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 81.0 +/- ACRES

KEY JOE WILLEY  
MAP 08, PARCEL 21  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 75.27 +/- ACRES

ET BLUE GRASS LLC  
MAP 08, PARCEL 22  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 139.92 +/- ACRES

### OIL AND GAS ROYALTY OWNER

SHIBEN ESTATES, INC.  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 140.3 +/- ACRES

### LOCATION COORDINATES

EQT BIG 245 CONSTRUCTION ENTRANCE  
LATITUDE: 39.558200 LONGITUDE: -80.567960 (NAD 83)

EQT BIG 245 WELL PAD CENTER  
LATITUDE: 39.608402 LONGITUDE: -80.568748 (NAD 83)

EQT BIG 245 AST TANK CENTER  
LATITUDE: 39.596211 LONGITUDE: -80.556605 (NAD 83)

### PROJECT DATUM

NAD 27 WV NORTH

### SURVEY NOTE

THE CERTIFICATION OF THIS DRAWING APPLIES ONLY TO THE TOPOGRAPHIC MAPPING AS GENERATED FROM THE FIELD DATA OBTAINED AT THE TIME OF THE FIELD SURVEY ON 2/19/19, 2/13/19, 2/14/19, 2/15/19, 2/16/19, 2/19/19, 2/22/19, 2/25/19, 3/28/19, 3/29/19, 3/30/19, 3/31/19, 4/1/19, 4/2/19, 4/3/19, 4/4/19, 4/5/19, 4/11/19 AND DRONE FLIGHTS ON 3/11/19, 3/12/19, 4/1/19, & 06/04/21

### MISS UTILITY STATEMENT

MISS UTILITY OF WEST VIRGINIA WAS NOTED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN; TICKET #211470767.

MISS Utility of West Virginia  
1-800-245-8548  
West Virginia State Law  
(Section 21-2-2, Chapter 21-2-C)  
Requires that you call two  
business days before you dig in  
the state of West Virginia.  
IT'S THE LAW!

GRID NORTH AND ELEVATIONS  
STATIONED AND  
ESTABLISHED BY SURVEY  
GRADE 019



LOCATION MAP  
BIG RUN QUADRANGLE  
WEST VIRGINIA  
7.5 MINUTE SERIES



### OPERATOR

EQT PRODUCTION COMPANY  
OPERATOR ID: 305636  
P.O. BOX 260  
BRIDGEPORT, WV 26630  
PHONE: (304) 348-3870

### ENGINEER

STANTEC CONSULTING, INC.  
111 ELKINS STREET  
FAIRMONT, WV 26554  
PHONE: (304) 307-9401

### SURVEYOR

SMITH LAND SURVEYING, INC.  
PO BOX 150  
12 VANHORN DRIVE  
GLENVILLE, WV 26031  
PHONE: (304) 482-5634

LIST OF DRAWINGS	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX SHEET
3	AS-BUILT PLAN SHEET
4	AS-BUILT PLAN SHEET
5	AS-BUILT PLAN SHEET
6	AS-BUILT PLAN SHEET
7	AS-BUILT PLAN SHEET
8	ACCESS ROAD AS-BUILT PROFILE

LOD by property owner	Parcel #	Planned Total Disturbance Area (Acres)	As-Built Total Disturbance Area (Acres)	Wooded Area (Acres)
WINDAL, SHANE	4-8	4.03	3.82	3.82
WIND, JOE	4-8-14	5.14	5.14	5.14
Key-Joe Willey	4-8-21	3.48	3.48	3.48
ET Blue Grass LLC	4-8-22	29.07	31.80	31.80
<b>Total Area</b>			<b>44.22</b>	<b>44.22</b>

LOD by project area	LOD (Acres)	Wooded Area (Acres)
Well Pad Access Road Sta 59+57 to 110+65	0.82	0.84
Well Pad	3.78	3.29
AST Pads	1.50	1.50
Topsoil Stockpile #	1.26	1.26
Stockpile 1	4.29	4.28
Stockpile 2, 3, & 6	4.35	4.35
Stockpile 4	2.81	2.81
Stockpile 5	4.47	4.47
Remediating Channel and Graded Areas	22.42	22.42
<b>Total Area</b>	<b>44.22</b>	<b>44.22</b>

### LEGEND

AS-BUILT LIMITS OF DISTURBANCE  
DESIGN WELL PAD LIMITS OF DISTURBANCE (LOD)  
DESIGN ACCESS ROAD LIMITS OF DISTURBANCE (LOD)  
STOCKPILE LIMITS  
PROPERTY LINES  
EX. ROAD EDGE OF GRAVEL/DIRT  
EX. ROAD CENTERLINE  
EX. DITCHLINE  
EX. CULVERT  
EX. GASLINE  
EDGE OF GRAVEL PAD  
EDGE OF BERM  
12" COMPOST FILTER SOCK  
18" COMPOST FILTER SOCK  
24" COMPOST FILTER SOCK  
TOP BERM  
GRAVEL  
RIP RAP  
ORIGINAL GROUND 2' CONTOURS  
AS BUILT 2' CONTOURS  
MATCHLINE  
EX. FENCELINE  
EX. OVERHEAD UTILITY  
EX. 20' GASLINE RIGHT OF WAY  
EX. STRUCTURE  
EX. PIPELINE MARKER  
EX. POWER POLE  
EX. GUY WIRE  
AS-BUILT WELL LOCATIONS  
PROPOSED WELL LOCATIONS  
ADJACENT WELL LOCATIONS

### SUPPLEMENTAL LEGEND

ITEMS ADDED AFTER 3/11/2019 SURVEY.  
EX. GRADIRAIL  
AS-BUILT 2' CONTOURS

### SUPPLEMENTAL LEGEND 2

ITEMS ADDED AFTER 08/01/2021 SURVEY  
6" COMPOST FILTER SOCK  
AS-BUILT 2' CONTOURS

EXCESS MATERIAL STOCKPILES	
NAME	VOLUME (CY)
1	51.824
2 & 3	71.954
4	1.204
5	* 26.807
6	6.198 (RIP)
<b>TOTAL</b>	<b>158.693</b>

TOPSOIL STOCKPILE	
NAME	VOLUME (CY)
1	11.263
<b>TOTAL</b>	<b>11.263</b>

\* ON THE PRIOR AS-BUILT DRAWINGS, DATED 1-28-2019, A CORRECTION IN STOCK PILE VOLUME WAS INDICATED ONLY APPLICABLE TO STOCK PILE NO. 1 OF THE WELL PAD. THE CORRECTION SHOULD HAVE BEEN APPLIED TO STOCK PILE NO. 1 OF THE ACCESS ROAD ALSO BEING STOCK PILE NO. 5 OF THE WELL PAD.

REVISION	DATE	DESCRIPTION	BY
1	5/29/19	FINAL AS-BUILT UPDATE	BM
2	7/28/21	FINAL AS-BUILT UPDATE	DM
3	7/26/21	FINAL REQUIRED 603 LOCATION	DM
		UPDATES WELL NUMBERS	

DATE: 08/06/2021

THIS DOCUMENT WAS PREPARED BY SLS AND I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER FOR EQT

COVER SHEET  
EQT BIG 245 WELL PAD AS-BUILT  
GRANT DISTRICT  
WETZEL COUNTY, WV

DATE: 08-25-19  
SCALE: 1"=2000'  
DRAWN BY: TRW  
FILE NO: 7612  
SHEET 1 OF 8  
8/27/2019 10:48 AM 2019 26.00

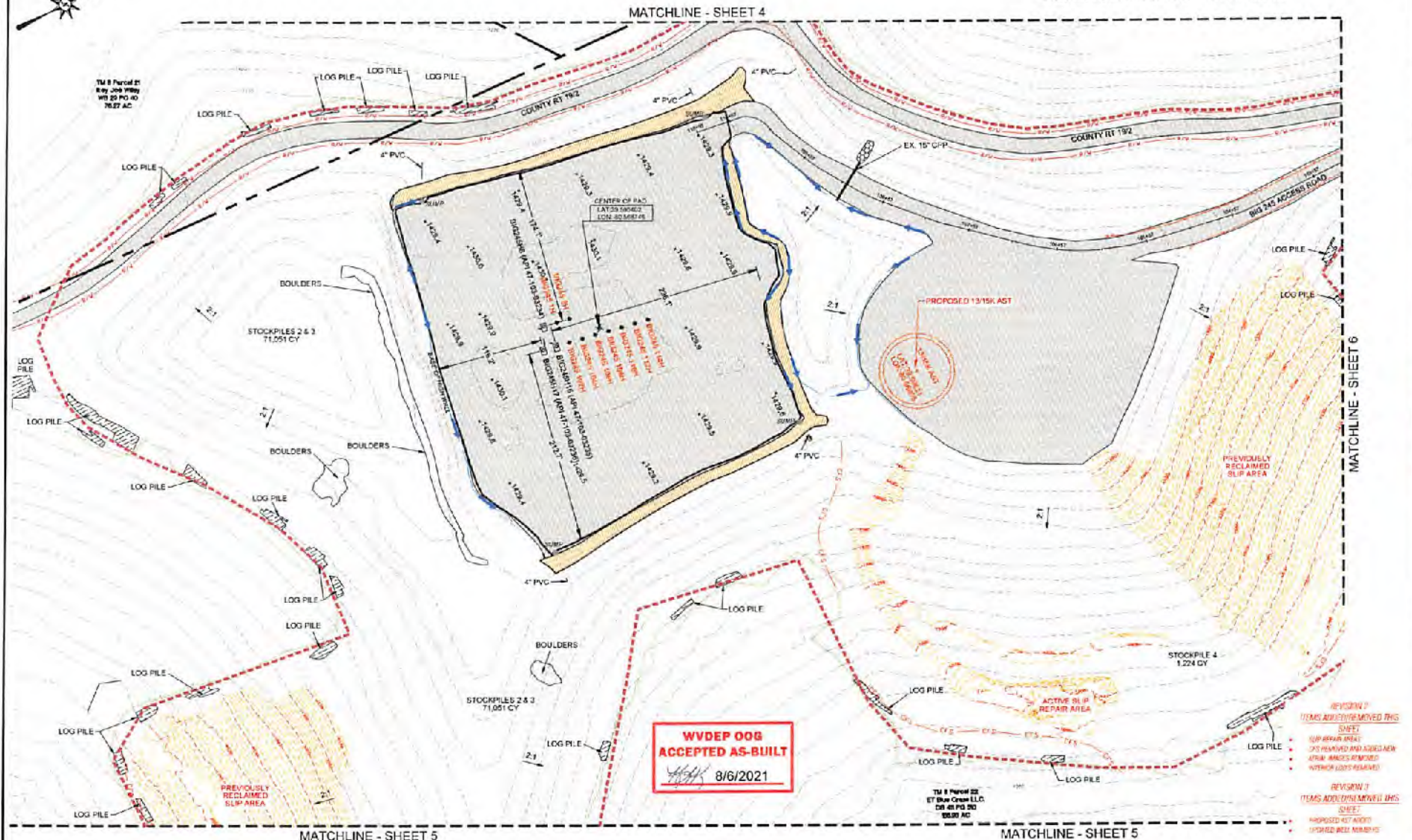


GRID NORTH AND SURVEYED ELEVATIONS SHOWN HEREON WERE ESTABLISHED BY DDPS SURVEY ORDN.



# BIG 245 WELL PAD AS-BUILT

SITUATE ON THE WATERS OF BIG RUN, A TRIBUTARY OF WILLEY FORK, GRANT DISTRICT, WETZEL COUNTY, WV



**WVDEP OOG  
ACCEPTED AS-BUILT**  
8/6/2021

SEE SHEET 4 FOR WELL ELEVATION DETAIL



REVISION	DATE	DESCRIPTION
1	02/20/21	FINAL AS-BUILT UPDATE
2	07/26/21	ADDED PROPOSED AST LOCATION
3		UPDATED WELL NUMBERS



THIS DOCUMENT WAS PREPARED BY SLS LAND & ENERGY DEVELOPMENT FILE 807

PLAN SHEET  
**EQT BIG 245 WELL PAD AS-BUILT**  
GRANT DISTRICT  
WETZEL COUNTY, WV

DATE: 2-26-2019  
SCALE: 1"=50'  
DRAWN BY: THW  
FILE NO: 7812  
SHEET: 3 OF 8  
9/12/2019 10:46:16 2019 PLAN



# EQT BIG 245 WELL PAD AS-BUILT PLAN EQT PRODUCTION COMPANY

PROPOSED WELLS: BIG245 1H, BIG245 3H, BIG245 102H, BIG245 104H, BIG245 106H, BIG245 108H,  
BIG245 110H, BIG245 112H, & BIG245 114H  
PRODUCING WELLS: BIG245H8 (47-103-03234), BIG245H16 (47-103-03235), BIG245H17 (47-103-03236)

*Bryce Harris*  
RECEIVED  
Office of Oil and Gas  
7-12-21  
JUL 14 2021  
WV Department of  
Environmental Protection

SITUATED ON THE WATERS OF BIG RUN, A TRIBUTARY OF  
WILLEY FORK, GRANT DISTRICT, WETZEL COUNTY, WV

### PROJECT INFORMATION

PROJECT NAME: EQT BIG 245  
TAX PARCEL:  
GRANT DISTRICT, WETZEL COUNTY, WV  
MAP 08 PARCELS 08, 14, 21, 22

### SURFACE OWNER

WANDA L BYARD  
MAP 08 PARCEL 08  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 59.15 +/- ACRES

### NEAL UTI

MAP 18, PARCEL 14  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 51.9 +/- ACRES

### KEY JOE WILLEY

MAP 08, PARCEL 24  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 76.27 +/- ACRES

### ET BLUE GRASS LLC

MAP 08, PARCEL 22  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 136.93 +/- ACRES

### OIL AND GAS ROYALTY OWNER

SHIBEN ESTATES, INC.  
GRANT DISTRICT, WETZEL COUNTY, WV  
TOTAL PROPERTY AREA: 140.0 +/- ACRES

### LOCATION COORDINATES

EQT BIG 245 CONSTRUCTION ENTRANCE  
LATITUDE: 39.584600 LONGITUDE: -80.567850 (NAD 83)

EQT BIG 245 WELL PAD CENTER  
LATITUDE: 39.595032 LONGITUDE: -80.568746 (NAD 83)

EQT BIG 245 AST TANK CENTER  
LATITUDE: 39.592621 LONGITUDE: -80.568805 (NAD 83)

### PROJECT DATUM

NAD 27 WV NORTH

### SURVEY NOTE

THE CERTIFICATION OF THIS DRAWING APPLIES ONLY TO THE TOPOGRAPHIC MAPPING AS GENERATED FROM THE FIELD DATA OBTAINED AT THE TIME OF THE FIELD SURVEY ON 2/09/19, 2/12/19, 2/14/19, 2/15/19, 2/18/19, 2/19/19, 2/22/19, 2/26/19, 3/05/19, 3/07/19, 3/09/19, 3/11/19, 3/12/19, 3/13/19, 3/14/19, 4/09/19, 4/26/19, 4/28/19, 4/29/19 AND DRONE FLIGHTS ON 3/11/19, 3/12/19, 4/11/19 & 06/01/21

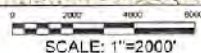
### MISS UTILITY STATEMENT

MISS UTILITY OF WEST VIRGINIA WAS NOTED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. TICKET #211479767

GRID NORTH AND ELEVATIONS  
SHOWN IN GREEN WERE  
ESTABLISHED BY SURVEY  
GRADE GPS



LOCATION MAP  
BIG RUN QUADRANGLE  
WEST VIRGINIA  
7.5-MINUTE SERIES



### LIST OF DRAWINGS

SHEET NO	DESCRIPTION
1	COVER SHEET
2	INDEX SHEET
3	AS-BUILT PLAN SHEET
4	AS-BUILT PLAN SHEET
5	AS-BUILT PLAN SHEET
6	AS-BUILT PLAN SHEET
7	AS-BUILT PLAN SHEET
8	ACCESS ROAD AS-BUILT PROFILE

### LDD by property owner

Parcel #	Disturbance Area (Acres)	Actual Total Disturbance Area (Acres)	Wooded Area (Acres)
458	4.05	5.82	0.82
45-18	0.14	0.14	0.14
45-21	0.45	0.45	0.45
45-23	2.67	3.80	1.80
<b>Sub Area</b>		<b>14.22</b>	<b>44.22</b>

### LDD by project area

Description	LDD (Acres)	Wooded Area (Acres)
Well Pad Access Road See 3/11/2019 SURVEY	2.28	2.28
Well Pad	1.80	1.80
Topsoil Example 1	1.28	1.28
Stockpile 1	4.26	4.26
Stockpile 2, 3, & 4	4.26	4.26
Stockpile 4	2.51	2.81
Stockpile 5	4.47	4.47
Remaining Cleared and Contaminated Areas	22.42	22.42
<b>Total Area</b>	<b>44.22</b>	<b>44.22</b>

### LEGEND

- AS-BUILT LIMITS OF DISTURBANCE
- DESIGN WELL PAD LIMITS OF DISTURBANCE (LDD)
- DESIGN ACCESS ROAD LIMITS OF DISTURBANCE (LDD)
- STOCKPILE LIMITS
- PROPERTY LINES
- EX. ROAD EDGE OF GRAVEL/DIRT
- EX. ROAD CENTERLINE
- EX. DITCHLINE
- EX. CULVERT
- EX. GASLINE
- EDGE OF GRAVEL PAD
- EDGE OF BERM
- 12" COMPOST FILTER SOCK
- 18" COMPOST FILTER SOCK
- 24" COMPOST FILTER SOCK
- TOP TERN
- GRAVE
- RIP RAP
- ORIGINAL CONTOUR 2 CONTOURS
- AS BUILT 2' CONTOURS
- MATCHLINE
- EX. FENCELINE
- EX. OVERHEAD UTILITY
- EX. 20' GASLINE (RIGHT OF WAY)
- EX. STRUCTURE
- EX. PIPELINE MARKER
- EX. POWER POLE
- EX. GUY WIRE
- AS-BUILT WELL LOCATIONS
- PROPOSED WELL LOCATIONS
- ADJACENT WELL LOCATIONS

### SUPPLEMENTAL LEGEND

ITEMS ADDED AFTER 3/11/2019 SURVEY

- EX. GUARDRAIL
- AS-BUILT 2' CONTOURS

### SUPPLEMENTAL LEGEND 2

ITEMS ADDED AFTER 06/01/2021 SURVEY

- 2' COMPOST FILTER SOCK
- AS-BUILT 2' CONTOURS

NAME	VOLUME (CY)
1	81,824
2 & 3	71,059
4	1,124
5	29,987
6	0 - UNUSED

NAME	VOLUME (CY)
1	11,363

ON THE ABOVE AS-BUILT DRAWINGS, DATED 4-25-2019 A CORRECTION TO STOCKPILE VOLUME WAS BROUGHT TO YOUR ATTENTION. THE CORRECTION SHOULD HAVE BEEN APPLIED TO STOCKPILE NO. 1 OF THE ACCESS ROAD AS SHOWN STOCKPILE NO. 5 OF THE WELL PAD.

MISS Utility of West Virginia  
1-800-745-4644  
West Virginia State Law  
(Section 21-1-1, Chapter 24-C)  
Requires that you call two  
consumers lines before you dig in  
the state of West Virginia  
(1 & THE LAW)

**OPERATOR**  
EQT PRODUCTION COMPANY  
OPERATOR ID: 309636  
P.O. BOX 289  
BRIDGEFORD, WV 26030  
PHONE: (304) 343-2070

**ENGINEER**  
STANTEC CONSULTING INC.  
111 ELKINS STREET  
FAIRMONT, WV 26554  
PHONE: (304) 367-9491

**SURVEYOR**  
SMITH LAND SURVEYING, INC.  
PO BOX 150  
12 YANNDON DRIVE  
GLENVILLE, WV 26351  
PHONE: (304) 452-5634

REV.	DATE	DESCRIPTION
1	2/26/19	PLAN AS-BUILT
2	07/29/21	PLAN AS-BUILT
3	07/29/21	AS-BUILT

COVER SHEET  
EQT BIG 245 WELL PAD  
AS-BUILT  
GRANT DISTRICT  
WETZEL COUNTY, WV

DATE: 3-26-19  
SCALE: 1"=2000  
DRAWN BY: TOW  
FILE NO: 19-2  
SHEET: 1 OF 8