



west virginia department of environmental protection

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

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

Tuesday, February 28, 2017  
WELL WORK PERMIT  
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY (A)  
120 PROFESSIONAL PLACE  
BUILDING II  
BRIDGEPORT, WV 26330

Re: Permit approval for 514369  
47-103-03176-00-00

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

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

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

  
James A. Martin  
Chief

Operator's Well Number: 514369  
Farm Name: E. T. BLUE GRASS LLC  
U.S. WELL NUMBER: 47-103-03176-00-00  
Horizontal 6A / New Drill  
Date Issued: 2/24/2017

Promoting a healthy environment.

03/03/2017

**PERMIT CONDITIONS** 10505170

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.

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**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 10305176

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.



471030-111

west virginia department of environmental protection

Shallow Gas Well Review Board  
601 57<sup>th</sup> Street, SE Charleston, WV 25304  
(304)926-0499, Ext 1656

Jim Justice, Governor  
Barry K Lay, Chairman

**BEFORE THE SHALLOW GAS WELL REVIEW BOARD  
OF THE STATE OF WEST VIRGINIA**

**IN THE MATTER OF THE OBJECTIONS FROM WESTERN  
POCAHONTAS PROPERTIES, LP REGARDING THE  
DRILLING BY EQT PRODUCTION COMPANY FOR THE  
PROPOSED WELLS IDENTIFIED AS THE BIG 209 #515590  
AND #515591 TO BE LOCATED IN GRANT DISTRICT,  
WETZEL COUNTY, WEST VIRGINIA.**

**DOCKET NO. 254  
ORDER NO. 1**

**AND**

**IN THE MATTER OF THE OBJECTIONS FROM WESTERN  
POCAHONTAS PROPERTIES, LP REGARDING THE  
DRILLING BY EQT PRODUCTION COMPANY FOR THE  
PROPOSED WELLS IDENTIFIED AS THE **BIG 245** #514366,  
#514367, #514368 AND #514369 TO BE LOCATED IN GRANT  
DISTRICT, WETZEL COUNTY, WEST VIRGINIA.**

**DOCKET NO. 255  
ORDER NO. 1**

**ORDER**

These matters came on for hearing on January 5, 2017, on the objection of Western Pocahontas Properties, LP (“WPP”) to oil and gas well permits submitted to the West Virginia Department of Environmental Protection (“WV DEP”) by EQT Production Company (“EQT”). With the agreement of the parties, Dockets 254 and 255 were consolidated for purposes of the statutorily required settlement conference, and failing settlement, for hearing.

Specifically, EQT submitted the following applications:

- a. With respect to wells to be drilled on the Big 209 drilling pad to be located in Grant District, Wetzel County, West Virginia, EQT submitted applications for Well Numbers 515590 (API No. 47-103-03160) and 515591 (API No. 47-103-03161) (the “Big 209 Wells”); and

b. With respect to wells to be drilled on the Big 245 drilling pad to be located in Grant District, Wetzel County, West Virginia, EQT submitted applications for Well Numbers 514366 (API No. 47-103-03173), 514367 (API No. 47-103-03174), 514368 (API No. 47-103-03175), and 514369 (API No. 47-103-03176) to be located in Grant District, Wetzel County, West Virginia (the "Big 245 Wells").

WPP objected to all of the foregoing permit applications. At the pre-hearing conference, the Parties reached an agreement to resolve these matters, as follows:

1. EQT cancels and withdraws the pending permit applications for the Big 209 Wells.
2. WPP cancels and withdraws its objections to the pending permit applications for the Big 245 Wells.

The Board having no objection to the agreement of the parties, does hereby ORDER that the permit applications for Big 209 Wells, Well Numbers 515590 (API No. 47-103-03160) and 515591 (API No. 47-103-03161), are withdrawn and cancelled.

The Board further Orders that the permit applications for the Big 245 Wells, being Well Numbers 514366 (API No. 47-103-03173), 514367 (API No. 47-103-03174), 514368 (API No. 47-103-03175), and 514369 (API No. 47-103-03176) are hereby REMANDED to the West Virginia Department of Environmental Protection Office of Oil and Gas for review.

Dated this 3<sup>rd</sup> day of January, 2017.

**SHALLOW GAS WELL REVIEW BOARD**

By: Barry K. Lay  
Barry K. Lay, Chairman



# Western Pocahontas Properties

Limited Partnership

5260 Irwin Road

Huntington, WV 25705-3247

304-522-5757 • Fax 304-522-5401; 304-302-2370

Certified Mail

No. 7015 1730 0000 4756 7384

November 21, 2016

File: 42-09

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

Re: EQT Production Company  
Notice of Permit Application for the following BIG 245 gas wells:

- Well No. 514366, Grant District, Wetzel County – Marcellus Formation 47-103-03173 11/9
- Well No. 514367, Grant District, Wetzel County – Marcellus Formation 47-103-03174 11/9
- Well No. 514368, Grant District, Wetzel County – Marcellus Formation 47-103-03175 11/9
- Well No. 514369, Grant District, Wetzel County – Marcellus Formation 47-103-03176 11/9

Dear Mr. Martin:

Western Pocahontas Properties Limited Partnership respectfully objects to the drilling of the wells represented by the above referenced well drilling applications at this time, pending an opportunity to discuss the well applications in detail with EQT Production Company.

Subject wells are all planned into the Marcellus Formation in close proximity to existing wells (situated within 1500' spacing) and will have a substantial impact to our coal reserves and future mineability. The proposed gas wells are planned in an area of proven Coal Reserves. The gas wells, as proposed will interfere with the development of our Pittsburgh Seam of coal which is currently being developed in the surrounding area and would interfere with the future development of the Pittsburgh Seam of coal in this area.

Western Pocahontas is seeking a dialog with EQT for locating and approving future wells to include a methodology addressing relocation and or mine-through procedures relating to the future development of our coal reserves.

Respectfully submitted,

George Angus  
Vice President & Regional Manager

cc: Rick Johnson, GISP, RL  
Landman - Coal  
EQT Production - Land Department  
Building 1 - Schedule 'A'  
15 Professional Place  
P.O. Box 280  
Bridgeport, WV 26330

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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: 514369 Well Pad Name: BIG245

3) Farm Name/Surface Owner: E.T. Blue Grass LLC Public Road Access: Rt 19/2

4) Elevation, current ground: 1480 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 no

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus, 7532, 53, 2620 PSI, Top of Marcellus 7511

*DAA  
11-14-16*

8) Proposed Total Vertical Depth: 7532

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14032

11) Proposed Horizontal Leg Length: 4883

12) Approximate Fresh Water Strata Depths: 229, 507, 662, 752, 1011

13) Method to Determine Fresh Water Depths: From offset wells

14) Approximate Saltwater Depths: None

15) Approximate Coal Seam Depths: 925, 1024, 1123

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

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: \_\_\_\_\_

Depth: \_\_\_\_\_

Seam: \_\_\_\_\_

Owner: \_\_\_\_\_

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18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	New	A-500	78.6	40	40	60 ft <sup>3</sup> / CTS
Fresh Water	13 3/8	New	J-55	54.5	1179	1179	1026 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	2925	2925	1136 ft <sup>3</sup> / CTS
Production	5 1/2	New	P-110	20	14032	14032	500' above top producing zone
Tubing	2 3/8		J-55	4.7		May not be run, if run set 40' above top perf or 80° inclination.	
Liners							

*Dm4  
11-14-16*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	26	.375	1378	1102	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal							
Intermediate	9 5/8	12 3/8	.395	3950	3160	Class H	1.07
Production	5 1/2	8 1/2	.361	12640	10112	Class H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			
Liners							

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

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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 to an approximate depth of 2995'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

*Dmit*  
11-14-16

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 0.3%) of chemicals (including 15% Hydrochloric acid, gelling agent, gel breaker, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 200,000 barrels of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000 pounds of sand per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 36.41

22) Area to be disturbed for well pad only, less access road (acres): 32.63

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers– One cent at the shoe and one spaced every 500'.
- Production: One solid body cent spaced every joint from production casing shoe to KOP

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

Conductor: Class A no additives  
Surface (Type 1 Cement): 0-3% Calcium Chloride Used to speed the setting of cement slurries, .25% Flake Loss Circulation Material (LCM) is used to combat the loss of the cement slurry to a thief zone.  
Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Salt is used in shallow, low temperature formations to speed the setting of cement slurries. 0.25% flake. Loss Circulation Material (LCM) is used to combat the loss of whole drilling fluid or cement slurry (not filtrate) to a thief zone.  
Production:  
Lead (Type H Cement): 0.2% CD-20 (dispersant makes cement easier to mix). .15% SuperFL-300 (fluid loss/lengthens thickening time) .15% SEC-10 (fluid loss) 50:50 POZ (extender)  
Tail (Type H Cement): 0.2% Super CR-1 (Retarder). Lengthens thickening time. .3% Super FL-200 (fluid loss) .2% SEC-10 (Fluid loss) .2% SuperFL-350 (fluid loss) Reduces amount of water lost to formation.  
60 % Calcium Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.  
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.  
Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

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\*Note: Attach additional sheets as needed.

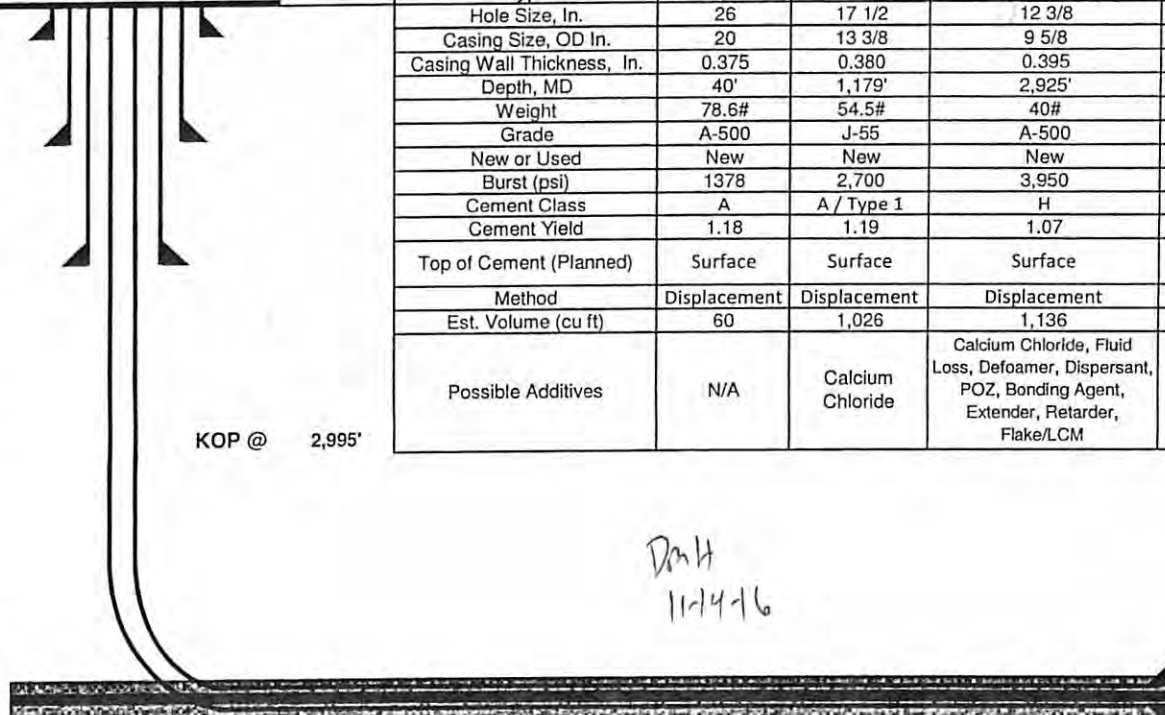
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Well 514369(BIG245H8)  
 EQT Production  
 Big Run Quad  
 Wetzel County, WV

Azimuth 157  
 Vertical Section 4150

Note: Diagram is not to scale

Formations	Top TVD	Base TVD
Conductor	40	
Base Red Rock	967	
Base Fresh Water	1011	
Surface Casing	1179	
Intermediate Casing	2925	
Maxton	2332 - 2426	
Big Lime	2463 - 2659	
Weir	2783 - 2875	
Gantz	2982 - 3055	
Fifty foot	3108 - 3161	
Thirty foot	3195 - 3234	
Gordon	3249 - 3297	
Forth Sand	3307 - 3320	
Bayard	3124 - 3486	
Warren	3884 - 3931	
Speechley	4034 - 4067	
Riley	4897 - 4939	
Benson	5529 - 5586	
Alexander	5882 - 5941	
Sonyea	7087 - 7241	
Middlesex	7241 - 7287	
Genesee	7287 - 7370	
Geneseo	7370 - 7403	
Tully	7403 - 7421	
Hamilton	7421 - 7511	
Marcellus	7511 - 7564	
Production Casing	14032	MD
Onondaga	7564	



Casing and Cementing		Deepest Fresh Water: 1,011'		
Type	Conductor	Surface	Intermediate	Production
Hole Size, In.	26	17 1/2	12 3/8	8 1/2
Casing Size, OD In.	20	13 3/8	9 5/8	5 1/2
Casing Wall Thickness, In.	0.375	0.380	0.395	0.361
Depth, MD	40'	1,179'	2,925'	14,032'
Weight	78.6#	54.5#	40#	20#
Grade	A-500	J-55	A-500	P-110
New or Used	New	New	New	New
Burst (psi)	1378	2,700	3,950	12,640
Cement Class	A	A / Type 1	H	H
Cement Yield	1.18	1.19	1.07	1.123/2.098
Top of Cement (Planned)	Surface	Surface	Surface	500' above top Producing Zone
Method	Displacement	Displacement	Displacement	Displacement
Est. Volume (cu ft)	60	1,026	1,136	1,633
Possible Additives	N/A	Calcium Chloride	Calcium Chloride, Fluid Loss, Defoamer, Dispersant, POZ, Bonding Agent, Extender, Retarder, Flake/LCM	Calcium Carbonate, Fluid Loss, Extender, Dispersant, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

Land curve @ 7,532' TVD  
 9,149' MD

Est. TD @

7,532' TVD  
 14,032' MD

4,883' Lateral

Proposed Well Work:  
 Drill and complete a new horizontal well in the Marcellus formation.  
 Drill the vertical to an approximate depth of 2995'.  
 Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

4710303176

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

**11/8/16**

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**WV Department of**  
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Page 1 of 2  
**03/03/2017**

## 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 BIG245 pad: 514366, 514367, 514368, 514369

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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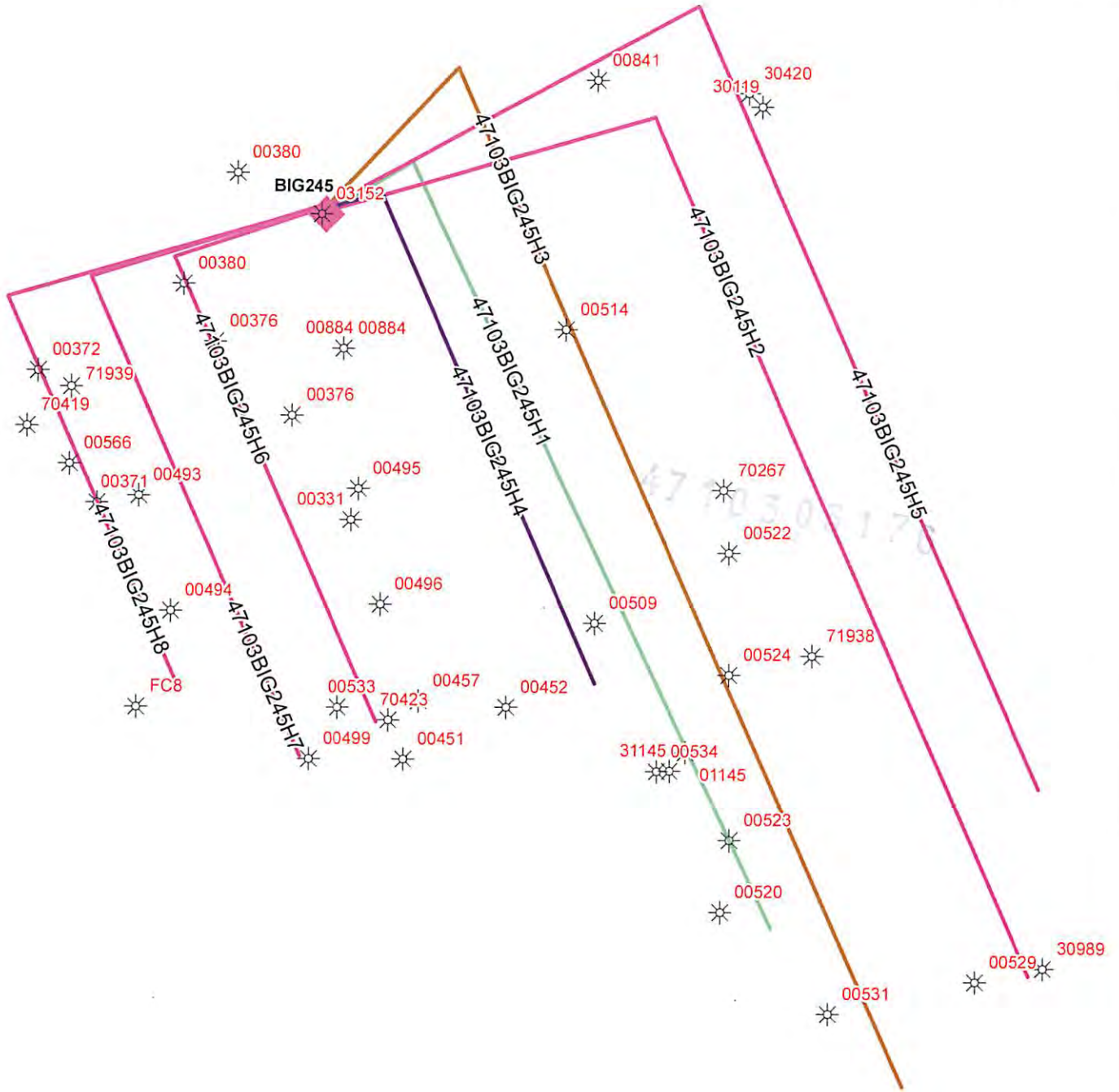
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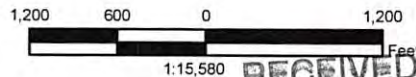


EQT Corporation  
625 Liberty Avenue  
Pittsburgh, PA 15222

### BIG245

### Vertical Offsets and Foreign Laterals within 500'

- Legend
- BIG245 Vertical Offsets
  - GENESEO
  - MARCELLUS
  - MIDOLESEX
  - POINT PLEASANT
  - 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.



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Attachment A(1)

Well ID	WellStatus	Comp Date	Permit	Operator	Latitude	Longitude	Datum Eleva	SS Depth	TotalDepth	
4710300331	GAS	11/17/1903	00331	PGH & WV GAS	39.588300	-80.568000		1109	-1176	2285
4710300372	GAS-P	3/10/1951	00372	FOSTER MCKENZIE	39.591700	-80.577300		842		
4710300376	GAS	4/11/1952	00376	P C MCKENZIE	39.590700	-80.569800		1265		
4710300380	DRY	5/23/1952	00380	P C MCKENZIE	39.596200	-80.571400		1267		
4710300495	STORAGE	3/15/1963	00495	EPC	39.589000	-80.567800		1109	-1011	2120
47103FC8	P&A		FC8	UNK	39.584100	-80.574400				
47103003710000	GAS-CB	2/1/1951	00371	J C R PETROLEUM INCORPORATED	39.588715	-80.575575		825		530 CONEMAUGH /SERIES/
47103004930000	ABD-GW	12/30/1915	00493	EQUITABLE GAS COMPANY	39.588872	-80.574319		1163		2234 BIG INJUN /SD/
47103004960000	ABD-GW	8/4/1902	00496	PITTSBURGH & W VA GAS	39.586405	-80.567188		844		2785 HAMPSHIRE
47103005090000	ABD-GW	8/4/1919	00509	DUNN-MAR OIL & GAS COMPANY	39.585976	-80.560835		1155		3243 CHEMUNG
47103005200000	ABD-GW	8/2/1919	00520	HOPE NATURAL GAS	39.579415	-80.557138		937		2025 BIG INJUN /SD/
47103005240000	GAS	4/5/1919	00524	EQUITABLE GAS COMPANY	39.584808	-80.556866		972		2882 CHEMUNG
47103005330000	ABD-GW	12/11/1902	00533	PITTSBURGH & W VA GAS	39.584071	-80.568456		829		1928 POCONO
47103005660000	GAS-CB	1/1/1965	00566	J C R PETROLEUM INCORPORATED	39.589598	-80.576384		880		548 CONEMAUGH /SERIES/
47103309890000	ABD-GW	1/17/1917	30989	CARNEGIE NATURAL GAS CORPORATION	39.578108	-80.547584		1200		3221 HURON LOWER
47103005220000	UNKWN		00522	UNKNOWN	39.587566	-80.556866		1214		3154 CHEMUNG
47103005290000	GSTG	5/1/1963	00529	EQUITABLE GAS COMPANY	39.577815	-80.549603		1200		3228 FIFTH SAND
47103031520000	PERMIT		03152	EQT PRODUCTION COMPANY	39.595246	-80.568931		1430		
47103005310000	PSEUDO		00531	EQUITABLE GAS COMPANY	39.577092	-80.553953		1098		
47103008410000	PSEUDO		00841	UNKNOWN	39.598294	-80.560775				
47103011450000	PSEUDO		01145	MEADOW RIDGE DEVELOPMENT LLC	39.583043	-80.558152				
47103301190000	PSEUDO		30119	CARNEGIE NATURAL GAS CORPORATION	39.597714	-80.555904				
47103311450000	PSEUDO		31145	EQUITABLE GAS COMPANY	39.582608	-80.558637				
47103702670000	PSEUDO		70267	HOPE NATURAL GAS	39.589006	-80.557028				
47103704190000	PSEUDO		70419	HOPE NATURAL GAS	39.590457	-80.577635				
47103704230000	PSEUDO		70423	PHILADELPHIA OIL	39.583781	-80.566957				
47103003760000	GAS-CB	4/1/1952	00376	J C R PETROLEUM INCORPORATED	39.592356	-80.572067		1265		1008 CONEMAUGH /SERIES/
47103003800000	D&A-OG	5/1/1952	00380	UNKNOWN	39.593662	-80.573006		1267		1185 CONEMAUGH /SERIES/
47103004570000	D&A-G	1/1/1958	00457	UNKNOWN	39.584228	-80.566062		1108		859 AMES /LM/
47103004510000	ABD-CB	7/1/1957	00451	NORTH FORK DEVELOPMENT	39.582898	-80.566505		817		529 PENNSYLVANIAN
47103004520000	GAS-CB	8/1/1957	00452	NORTH FORK DEVELOPMENT	39.584072	-80.563459		886		614 PITTSBURGH COAL
47103004940000	GSTG		00494	EQUITABLE GAS COMPANY	39.586260	-80.573381		1086		2088 CHEMUNG
47103004990000	GSTG		00499	EQUITABLE GAS COMPANY	39.582898	-80.569315		923		2712 CHEMUNG
47103005340000	GSTG		00534	EQUITABLE GAS COMPANY	39.582608	-80.559011		1067		2880 CHEMUNG
47103008840000	GSTG		00884	UNKNOWN	39.592199	-80.568269		1167		
47103005140000	GSTG	5/1/1962	00514	J A & M OIL & GAS	39.592630	-80.561681		1107		BIG INJUN /SD/
47103005230000	GSTG	1/1/1963	00523	EQUITABLE GAS COMPANY	39.581035	-80.556866		846		BIG INJUN /SD/
47103304200000	ABD-OW	2/16/1918	30420	UNKNOWN	39.598016	-80.556303		1310		3226 HURON LOWER
47103719380000	UNKWN		71938	HOPE NATURAL GAS	39.585232	-80.554406				
47103719390000	UNKWN		71939	UNKNOWN	39.591328	-80.576324				
47103008840001	P&A	11/7/1989	00884	EQUITRANS INCORPORATED	39.592199	-80.568269		1167		2211 GREENBRIER /LM/

**\*NO PERFORATION DATA ON IHS\***

**RECEIVED**  
**Office of Oil and Gas**  
**NOV 09 2016**  
**WV Department of Environmental Protection**

4710303176



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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, 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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west virginia department of environmental protection

Office of Oil and Gas  
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

**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 "1" 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.

Promoting a healthy environment.

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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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October 11, 2016

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

Re: Casing plan on Wells (BIG245)

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 1179' KB, 50' below the deepest mineable Pittsburgh Coal. We will set the 9-5/8" intermediate string at 2925' KB, 50' below the base of the Weir formation.

If you have any questions, please do not hesitate to contact me at (304) 848-0076.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Vicki Roark'.

Vicki Roark  
Permitting Supervisor

Enc.

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WV Department of  
Environmental Protection

WW-9  
(4/16)

47 10303176

API Number 47 - 103  
Operator's Well No. 514369

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 Wiley 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.?

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.

*Dm4  
11-14-16*

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.

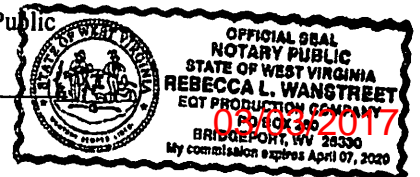
Company Official Signature *Victoria J. Roark*  
Company Official (Typed Name) Victoria J. Roark  
Company Official Title Permitting Supervisor

Received  
Office of Oil & Gas  
NOV 17 2016

Subscribed and sworn before me this 13 day of October, 2016

Rebecca L. Wanstreet Notary Public

My commission expires 4-7-2020



47 10303176

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 oil based mud.

Additives to be used in drilling medium?

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

DMH

11-14-16

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EQT. Production Company

47 1030 3176

Operator's Well No. 514369

Proposed Revegetation Treatment: Acres Disturbed 32.63 Prevegetation pH 6.3

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 1/3 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: [Signature]

Comments: [Blank lines for handwritten notes]

Title: Oil & Gas Inspector

Date: 11/14/16

Field Reviewed? (X) Yes ( ) No

Received Office of Oil & Gas NOV 17 2016

**EQT Production Water plan**  
**Offsite disposals for Marcellus wells**

**CWS TRUCKING INC.**

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

**LAD LIQUID ASSETS DISPOSAL INC.**

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

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

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

**Waste Management - Meadowfill Landfill**

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

**Waste Management - Northwestern Landfill**

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

**BROAD STREET ENERGY LLC**

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

**TRIAD ENERGY**

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

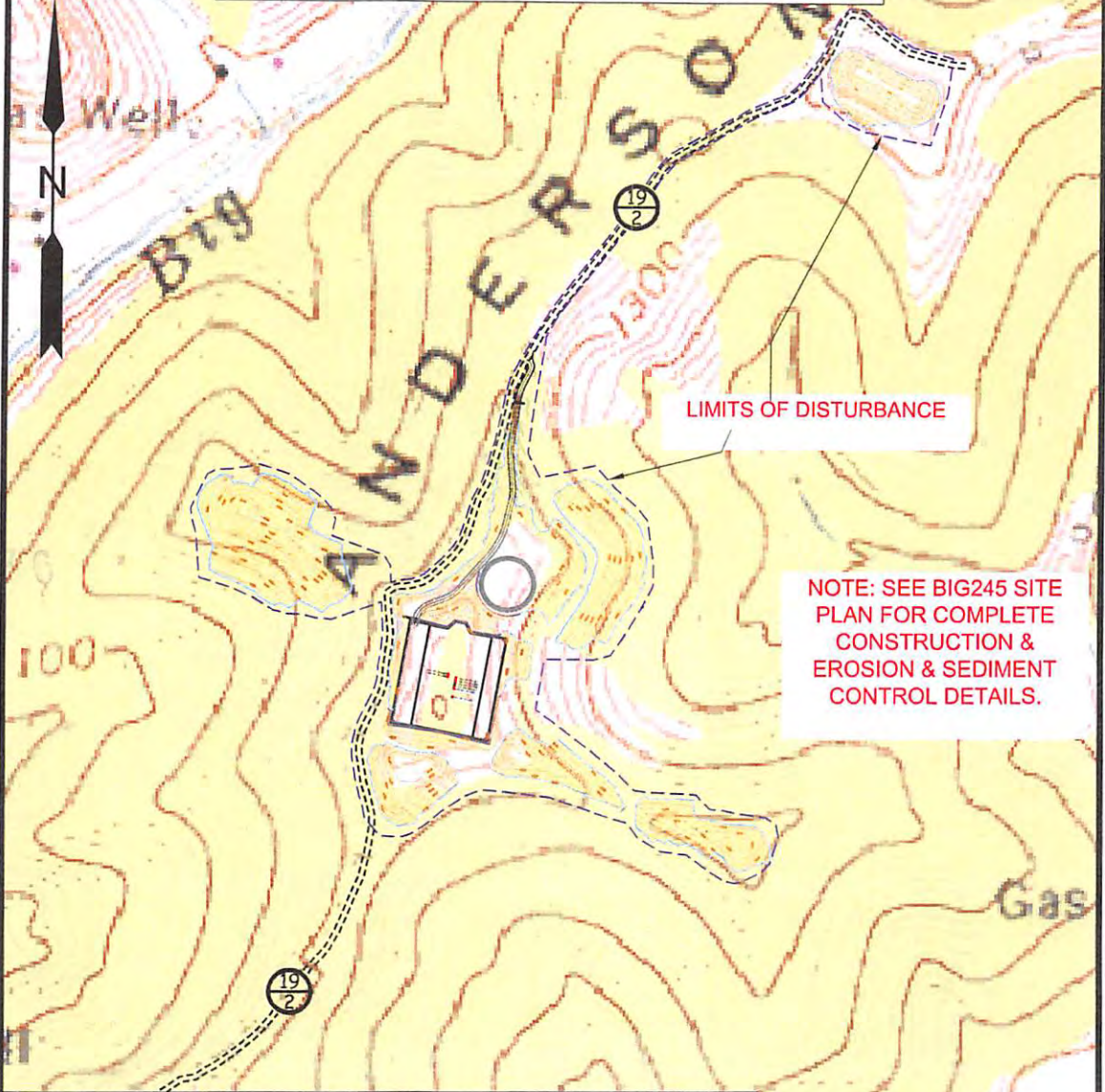
**KING EXCAVATING CO.**

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

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**WV Department of**  
**Environmental Protection**  
03/03/2017



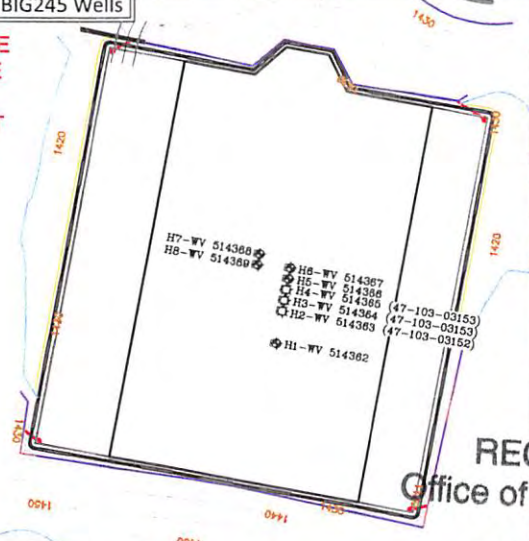
47103031

LIMITS OF DISTURBANCE

NOTE: SEE BIG245 SITE PLAN FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.

Detail Sketch for Proposed BIG245 Wells

NOTE: SEE BIG245 SITE PLAN FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.



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Not To Scale

**SLS**  
Land & Energy Development  
Solutions from the ground up.  
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www.slsenergy.com

DRAWN BY K. D. W.	FILE NO. 7812	DATE 11-08-16	CADD FILE: 781286245REOPLAN.dwg
----------------------	------------------	------------------	------------------------------------

TOPO SECTION OF  
USGS TOPO QUADRANGLE

WV Department of Environmental Protection  
**SCALE: 1"=500'**

500' 1000'  
08/03/2017



47 10 30 3 176

Where energy meets innovation.™

# Site Specific Safety Plan

EQT BIG 245 Pad

Burton

Wetzel County, WV

For Wells:

514366

514367

514368

514369

[Signature]  
 EQT Production  
Permitting Supervisor  
 Title  
10-13-16  
 Date

Date Prepared:

April 4, 2016

[Signature]  
 WV Oil and Gas Inspector  
Oil & Gas Inspector  
 Title  
11-14-16  
 Date

Received  
 Office of Oil & Gas  
 NOV 17 2016

03/03/2017



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

47 1 0 3 0 3 1 7 6

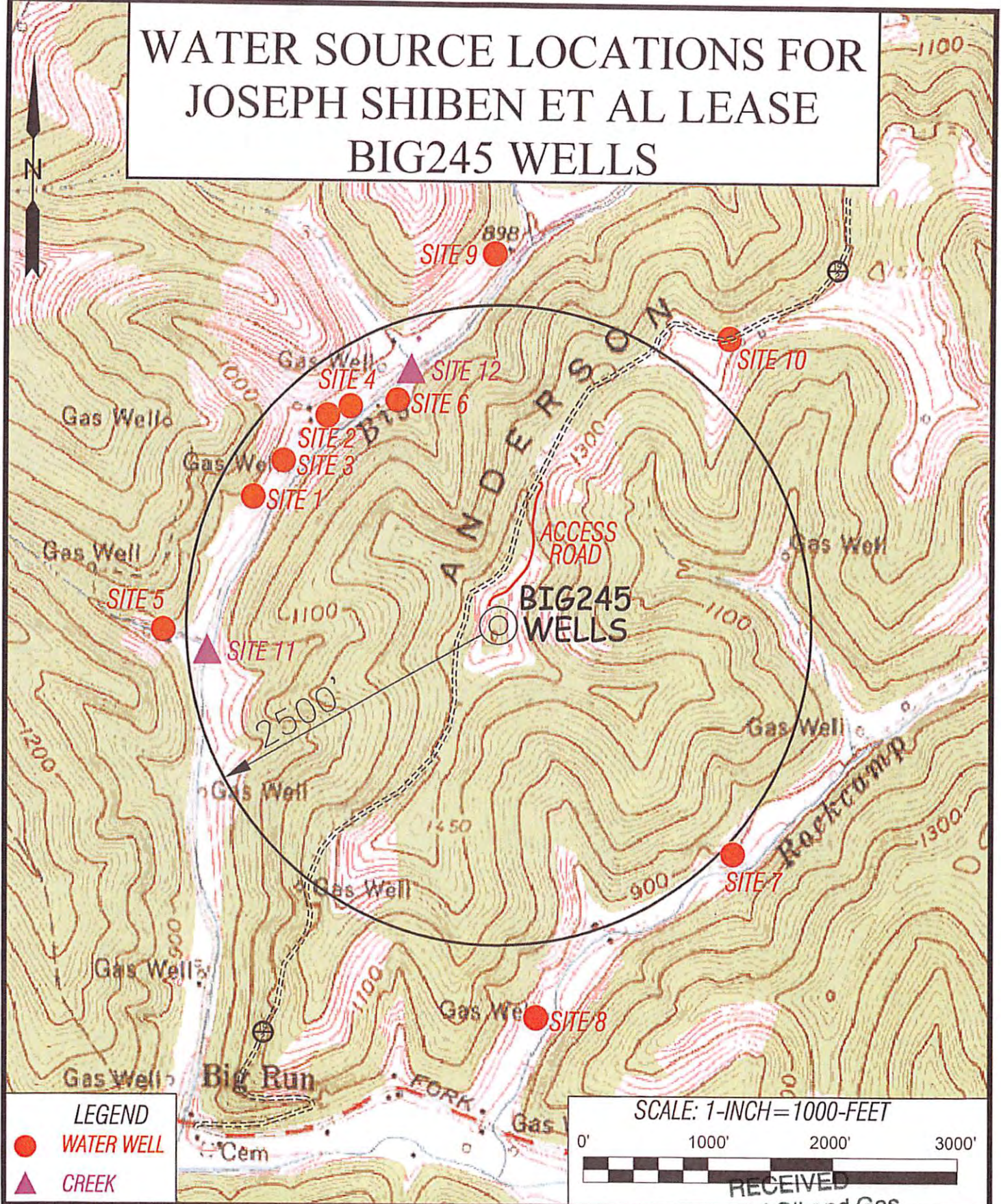
<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
Friction Reducer	Tributyl tetradecyl phosphonium chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol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

DMH  
11-14-16

**Received**  
**Office of Oil & Gas**  
NOV 17 2016

03/03/2017

# WATER SOURCE LOCATIONS FOR JOSEPH SHIBEN ET AL LEASE BIG245 WELLS



**LEGEND**

- WATER WELL
- ▲ CREEK

SCALE: 1-INCH=1000-FEET

0'      1000'      2000'      3000'

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**SLS**  
Land & Energy Development  
*Solutions from the ground up.*  
P.O. Box 150 • 12 Veterans Drive • Summers, WV 26051 • 304.812.5004  
www.slsusa.com

TOPO SECTION OF:  
BIG RUN, WV 7.5' QUAD

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
GRANT	WETZEL	08-22

OPERATED BY

**Office of Oil and Gas**  
EQT PRODUCTION COMPANY  
115 PROFESSIONAL PLACE  
P.O. BOX 280  
BRIDGEWATER, WV 26030

NOV 09 2016

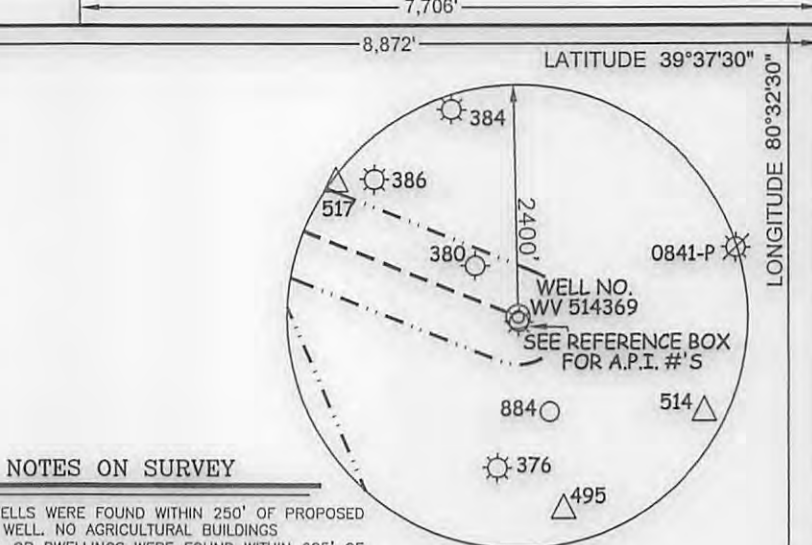
WV Department of  
Environmental Protection

03/03/2017

**BIG245**  
**WV 514369**  
**EQT PRODUCTION COMPANY**

G-TM-3-30	THOMAS & CHERYL LEASURE	51.80 ACRES±
G-TM-8-1	DANNY STOCKSLAGER ET AL	170 ACRES±
G-TM-8-2	MIKE & MADELINE WHITE	40.13 ACRES±
G-TM-8-7	JAMES & MARTIN STONEKING	19.12 ACRES±
G-TM-8-8	WANDA BYARD	59.16 ACRES±
G-TM-8-8.1	GARNET GAS CORPORATION	0.47 ACRES±
G-TM-8-10	GARLAND MINOR	48.1 ACRES±
G-TM-8-11	BONNIE HENTHORNE	63.5 ACRES±
G-TM-8-12	SHIRLEY TITUS	41.9 ACRES±
G-TM-8-12.1	DALE SAPP ET AL	10.1 ACRES±
G-TM-8-13	NEAL UTT	3.75 ACRES±
G-TM-8-13.1	DUANE GOODRICH	3.56 ACRES±
G-TM-8-14	NEAL UTT	51 ACRES±
G-TM-8-15	JOHN M. BYARD	71.60 ACRES±
G-TM-8-18	COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO.	337 ACRES±
G-TM-8-19	PHILLIP & KIMBERLY SHREVE	46.45 ACRES±
G-TM-8-21	IKEY JOE WILLEY	76.27 ACRES±
G-TM-8-22	ET BLUE GRASS LLC	138.93 ACRES±
G-TM-8-23	DALE DULANEY ET AL	70.81 ACRES±
G-TM-8-23.1	JAMES DULANEY	3.19 ACRES±
G-TM-8-24	DORN HIGGINBOTHAM ET AL	7.1 ACRES±
G-TM-8-25	JAMES YOHO	6.25 ACRES±
G-TM-8-26	JAMES YOHO	23.25 ACRES±
G-TM-8-27	JAMES YOHO	21.75 ACRES±
G-TM-8-28	JAMES & FLORENCE YOHO	61 ACRES±
G-TM-8-30	JAMES & JIM YOHO	7.50 ACRES±
G-TM-8-32	JOE PIGG	82.4 ACRES±
G-TM-8-35	DEBORAH FRONCZEK ET AL	15.50 ACRES±
G-TM-8-36	JAMES & KAREN DULANEY	14.1 ACRES±
G-TM-8-37	JAMES & KAREN DULANEY	14.1 ACRES±
G-TM-8-38	DALE & SHERRY DULANEY	28.82 ACRES±
G-TM-8-38.1	JAMES DULANEY	0.137 ACRES±
G-TM-8-39	DORN HIGGINBOTHAM ET AL	23.62 ACRES±
G-TM-8-39.1	HENRY WILLEY	0.12 ACRES±
G-TM-8-40	JAMES & JIM YOHO	0.50 ACRES±
G-TM-8-41	DORN HIGGINBOTHAM ET AL	72 SQ. RODS±
G-TM-8-44	ELIAS LEASURE JR.	1.6 ACRES±
G-TM-8-51	HENRY WILLEY	2.34 ACRES±
G-TM-8-51.1	HENRY WILLEY	0.19 ACRES±
G-TM-8-51.2	GERALD & EMMA WHITE	2.82 ACRES±
G-TM-8-52	HENRY WILLEY	0.26 ACRES±
G-TM-8-53	DORN HIGGINBOTHAM	196.21 ACRES±
G-TM-8-55	MANSEL McDIFFITT ET AL	9.25 ACRES±
G-TM-13-07	MANSEL McDIFFITT ET AL	51.8 ACRES±
G-TM-13-08	ROBERT & ALFRED COLE	36 ACRES±

ROYALTY OWNERS		
SHIBEN ESTATES, INC. ET AL	160.12 AC.±	LEASE NO. 102838
DEWEY J. TAYLOR ET AL	3 AC.±	LEASE NO. 125370
BONNIE M. HENTHORNE	64 AC.±	LEASE NO. 125428
MICHAEL JAY MYERS ET AL	119 AC.±	LEASE NO. 125440
ACROPOLIS INC. ET AL	74 AC.±	LEASE NO. 121160
CHESAPEAKE APPALACHIA LLC ET AL	60 AC.±	LEASE NO. 121807
TRIO PETROLEUM AND WACO OIL & GAS	26 AC.±	LEASE NO. 125393



**NOTES ON SURVEY**

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

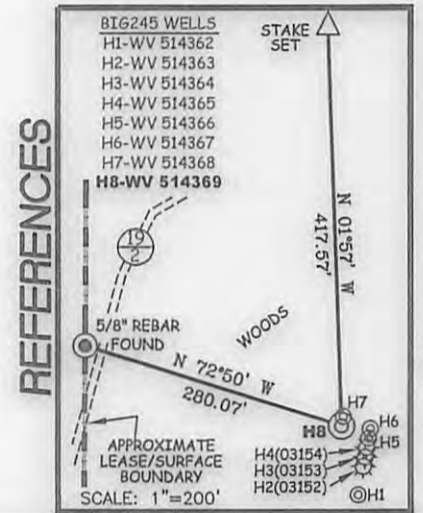
NAD'27 S.P.C.(FT)	N. 400,746.35	E. 1,698,758.99
NAD'27 GEO.	LAT-(N) 39.595361	LONG-(W) 80.589013
NAD'83 UTM (M)	N. 4,382,945.79	E. 537,021.40

**LANDING POINT**

NAD'27 S.P.C.(FT)	N. 401,272.62	E. 1,695,639.36
NAD'27 GEO.	LAT-(N) 39.596703	LONG-(W) 80.580105
NAD'83 UTM (M)	N. 4,383,090.24	E. 536,068.28

**BOTTOM HOLE**

NAD'27 S.P.C.(FT)	N. 396,777.59	E. 1,697,547.43
NAD'27 GEO.	LAT-(N) 39.584426	LONG-(W) 80.573143
NAD'83 UTM (M)	N. 4,381,730.49	E. 536,672.41



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. C. Victor Moyers  
 849



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE OCTOBER 04, 20 16  
 REVISED \_\_\_\_\_, 20 \_\_\_\_  
 OPERATORS WELL NO. WV 514369  
 API WELL NO. 47-103-03176 HGA  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7812P514369R.dwg  
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE SEE NOTE 2

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

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: (GROUND) (PROPOSED)  
 ELEVATION 1,481' 1,430' WATERSHED TRIBUTARY OF ROCKCAMP RUN  
 DISTRICT GRANT COUNTY WETZEL QUADRANGLE BIG RUN 7.5'

SURFACE OWNER ET BLUE GRASS LLC ACREAGE 138.93±  
 ROYALTY OWNER SHIBEN ESTATES INC. ACREAGE 140±

PROPOSED WORK: LEASE NO. 125397

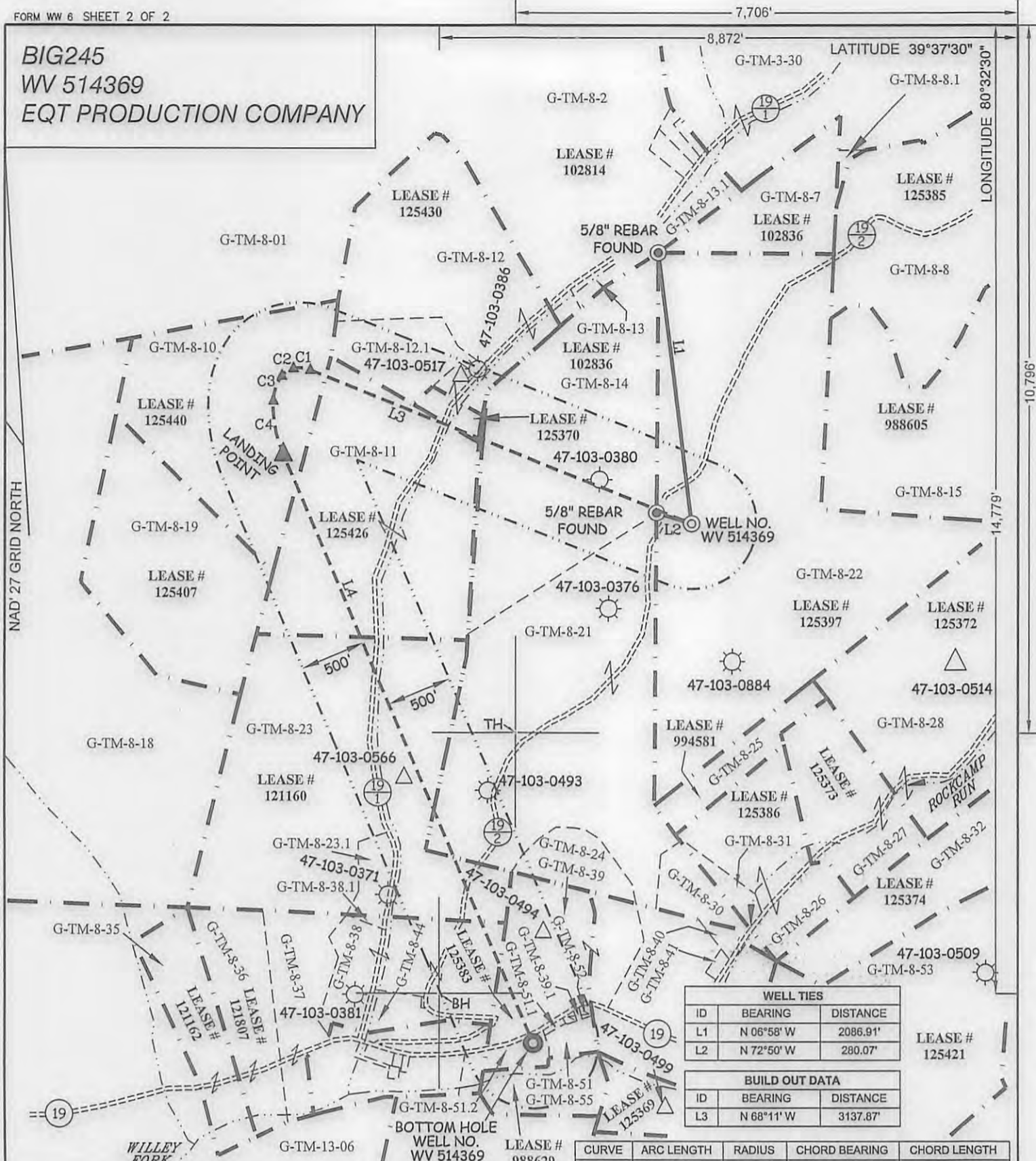
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION MARCELLUS  
 ESTIMATED DEPTH 7,532'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY  
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

10,796'  
14,775'  
COUNTY NAME  
PERMIT

**BIG245**  
**WV 514369**  
**EQT PRODUCTION COMPANY**



WELL TIES		
ID	BEARING	DISTANCE
L1	N 06°58' W	2086.91'
L2	N 72°50' W	280.07'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	N 68°11' W	3137.87'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C2	131.78'	208.63'	N 84°00'13" W	129.60'
C3	107.40'	165.83'	S 57°21'20" W	105.53'
C4	203.39'	357.08'	S 19°09'54" W	200.66'
C4	417.72'	886.22'	S 10°45'43" E	413.86'

LATERAL		
ID	BEARING	DISTANCE
L5	S 23°00' E	4883.24'

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**Land & Energy Development**  
*Solutions from the ground up.*  
 P.O. Box 150 • 12 Venhorn Drive • Glenville, WV 26351 • (304) 462-5634  
 www.slsurveys.com

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)  
 NAD'27 S.P.C.(FT) N. 400,746.35 E. 1,698,758.99  
 NAD'27 GEO. LAT-(N) 39.595361 LONG-(W) 80.569013  
 NAD'83 UTM (M) N. 4,382,945.79 E. 537,021.40

**LANDING POINT**  
 NAD'27 S.P.C.(FT) N. 401,272.62 E. 1,695,639.36  
 NAD'27 GEO. LAT-(N) 39.596703 LONG-(W) 80.580105  
 NAD'83 UTM (M) N. 4,383,090.24 E. 536,068.28

**BOTTOM HOLE**  
 NAD'27 S.P.C.(FT) N. 396,777.59 E. 1,697,547.43  
 NAD'27 GEO. LAT-(N) 39.584426 LONG-(W) 80.573143  
 NAD'83 UTM (M) N. 4,381,730.49 E. 536,672.41



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

**LEGEND**

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- STORAGE WELL
- GRANT DISTRICT TAX MAP-PARCEL

G-00-00

SCALE 1" = 1000' FILE NO. 7812P514369R  
 DATE OCTOBER 04, 2016  
 REVISED \_\_\_\_\_, 20\_\_\_\_  
 OPERATORS WELL NO. WV 514369  
 API WELL NO. 47-103-03176  
 NO. STATE COUNTY PERMIT

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

WELL OPERATOR **EQT PRODUCTION COMPANY** DESIGNATED AGENT **REX C. RAY**  
 ADDRESS **115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330** ADDRESS **115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330**

LONGITUDE 80°32'30" NAD 27 GRID NORTH 14,779' PERMIT

03/03/2017

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

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached				

**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

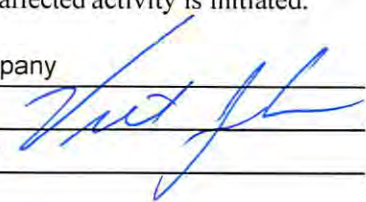
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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired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

Well Operator: EQT Production Company  
 By: Victoria J Roark  
 Its: Permitting Supervisor



Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<b>125397</b>	<b><u>ET Blue Grass LLC, et al. (current royalty owner)</u></b>		***	
	Joseph Shiben, et al.	Equitable Gas Company		DB 44A/224
	Equitable Gas Company	Equitrans, Inc.		O&G 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<b><u>Shiben Estates, Inc. (Current Royalty Owner)</u></b>		***	
<b>102836</b>	S I Robinson	The Philadelphia Company		DB 47/469
	The Philadelphia Company	Pittsburgh and West Virginia Gas Co.		DB 146/98
	Pittsburgh and West Virginia Gas Co.	Equitable Gas Company		DB 187/374
	Equitable Gas Company	Equitrans, Inc.		O&G 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<b><u>Dewey J. Taylor, et al. (Current Royalty Owner)</u></b>		***	
<b>125370</b>	Austa B. Utt, et al.	Equitable Gas Company		DB 52A/173
	Equitable Gas Company	Equitrans, Inc.		O&G 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<b><u>Margaret Douglas Mastin Elrod, et al. (Current Royalty Owner)</u></b>		***	
<b>125430</b>	Marion D. Smith, et al.	P.C. McKenzie Co.		LB 40A/331
	P.C. McKenzie Co.	Pemco Gas Incorporated		LB 43A/118
	Pemco Gas Incorporated	Equitable Gas Company		LB 44A/445
	Equitable Gas Company	Equitrans, Inc.		O&G 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<b><u>Bonnie M. Henthorne (Current Royalty Owner)</u></b>		***	
<b>125426</b>	William Swisher, et ux.	Hope Natural Gas Company		LB 5A/128
	Hope Natural Gas Company	Equitable Gas Company		LB 44A/380
	Equitable Gas Company	Equitrans, Inc.		O&G 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<b><u>Acropolis, Inc., et al. (Current Royalty Owner)</u></b>		***	
<b>121160</b>	A. C. Higginbotham, et al.	Pittsburgh & West Virginia Gas Company		LB 39A/236
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		LB 187/374
	Equitable Gas Company	Equitrans, Inc.		O&G 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<b><u>Chesapeake Appalachia LLC, et al. (Current Royalty Owner)</u></b>		***	
<b>121807</b>	A. C. Higginbotham, et al.	Pittsburgh & West Virginia Gas Company		LB 39A/233
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		LB 187/374
	Equitable Gas Company	Equitrans, Inc.		O&G 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<b><u>Trio Petroleum and Waco Oil and Gas (Current Royalty Owner)</u></b>		***	
<b>125383</b>	Dora Kohn, et al.	Equitable Gas Company		LB 44A/87
	Equitable Gas Company	Equitrans, Inc.		O&G 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81

\*\*\*We certify that we will pay a minimum one-eighth of the total amount paid to or received by or allowed to the owner of the working interest at the wellhead for the oil or gas so extracted, produced or marketed before deducting the amount to be paid to or set aside for the owner of the oil or gas in place, on all such oil or gas to be extracted, produced or marketed from the well.

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03/03/2017



October 12, 2016

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

Re: BIG245 well pad, well number 514369  
Grant District, Wetzel County

Dear Mr. Martin,

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Vicki Roark'.

Vicki Roark  
Permitting Supervisor-WV

47 105 001 30

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

Date of Notice Certification: 11/8/10

API No. 47- 103 \_\_\_\_\_  
Operator's Well No. 514369 \_\_\_\_\_  
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>WV</u>	UTM NAD 83	Easting: <u>537021.40</u>
County: <u>Wetzel</u>		Northing: <u>4382945.79</u>
District: <u>Grant</u>	Public Road Access: <u>Rt 19/2</u>	
Quadrangle: <u>Big Run</u>	Generally used farm name: <u>E.T. Bluegrass LLC</u>	
Watershed: <u>Rockcamp Run of Wiley 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 style="padding-left: 100px;"><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><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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**Required Attachments:**

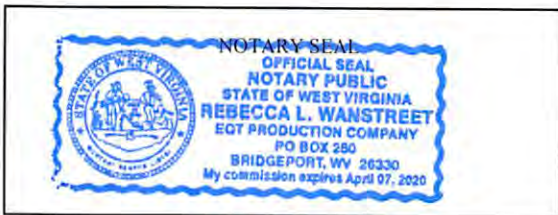
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach the Class II Legal Advertisement with publication date verification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



**Certification of Notice is hereby given:**

THEREFORE, I *Victoria J Roark*, 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>115 Professional Place PO Box 280</u>
By:	<u>Victoria J Roark</u>		<u>Bridgeport WV 26330</u>
Its:	<u>Permitting Supervisor</u>	Facsimile:	<u>304-848-0041</u>
Telephone:	<u>304-848-0076</u>	Email:	<u>vroark@eqt.com</u>



Subscribed and sworn before me this 13 day of October 2016.

Rebecca L. Wanstreet Notary Public

My Commission Expires 4-7-2020

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

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

**Date of Notice:** 11/8/10 **Date Permit Application Filed:** 11/8/10

**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:

SURFACE OWNER(s)

Name: See Attached  
Address: \_\_\_\_\_

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

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: See Attached  
Address: \_\_\_\_\_

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

SURFACE OWNER(s) (Impoundments or Pits)

Name: See Attached  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: See Attached  
Address: \_\_\_\_\_

COAL OPERATOR

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

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

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

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

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

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\*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. (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  
(304) 926-0450

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

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03/03/2017

**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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Environmental Protection 03/03/2017

WW-6A  
(8-13)

API NO. 47-103 -  
OPERATOR WELL NO. 514369  
Well Pad Name: BIG245

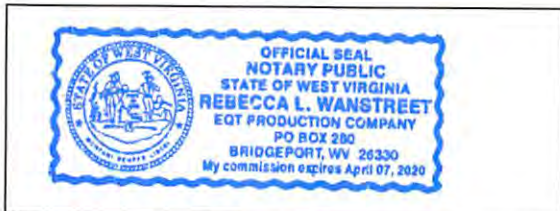
**Notice is hereby given by:**

Well Operator: EQT Production Company  
Telephone: 304-848-0076  
Email: vroark@eqt.com

Address: 115 Professional Place PO Box 280  
Bridgeport WV 26330  
Facsimile: 304-848-0041

**Oil and Gas Privacy Notice:**

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



Subscribed and sworn before me this 13 day of October 2016 .

Rebecca L. Wanstreet Notary Public

My Commission Expires 4-7-2020

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NOV 09 2016  
WV Department of  
Environmental Protection

03/03/2017

**Surface Owners:**

ET Blue Grass LLC  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

W

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WV Department of  
Environmental Protection

03/03/2017

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

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

**Comment and Waiver Provisions**

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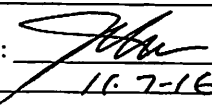
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**VOLUNTARY STATEMENT OF NO OBJECTION**

I, John Damato, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through \_\_\_\_\_, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: <u>WV</u>	UTM NAD 83 Easting: <u>537021.40</u>
County: <u>Wetzel</u>	Northing: <u>4382945.79</u>
District: <u>Grant</u>	Public Road Access: <u>Rt 19/2</u>
Quadrangle: <u>Big Run</u>	Generally used farm name: <u>E.T. Bluegrass LLC</u>
Watershed: <u>Rockcamp Run of Wiley Fork</u>	

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

<p>*Please check the box that applies</p> <p><input checked="" type="checkbox"/> SURFACE OWNER</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p><b>FOR EXECUTION BY A NATURAL PERSON</b></p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p><b>FOR EXECUTION BY A CORPORATION, ETC.</b></p> <p>Company: <u>ET Blue Grass LLC</u></p> <p>By: <u>John Damato</u></p> <p>Its: <u>Regional Land Director</u></p> <p>Signature: </p> <p>Date: <u>11-7-16</u></p>
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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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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**WV Department of  
Environmental Protection**

**03/03/2017**



Surface Owners (Road or other Disturbance):

ET Blue Grass LLC  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

Wanda L. Byard  
1250 Meadowlane Drive  
Lewisport KY 42351

Neal Utt  
1204 Big Run Road  
Burton WV 26562

7015 0640 0005 9572 5060

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<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

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30330-1150

Wanda L. Byard  
1250 Meadowlane Drive  
Lewisport KY 42351  
BIG245 Permit App and Planned Op

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for Instructions

7015 0640 0005 9572 5053

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Extra Services & Fees (check box, add fee as appropriate)

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<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
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\$

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Neal Utt  
1204 Big Run Road  
Burton WV 26562  
BIG245 Permit App and Planned Op

RW

Instructions

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

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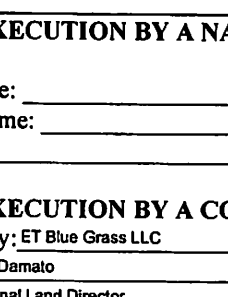
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District:	<u>Grant</u>	Public Road Access:	<u>Rt 19/2</u>
Quadrangle:	<u>Blg Run</u>	Generally used farm name:	<u>E.T. Bluegrass LLC</u>
Watershed:	<u>Rockcamp Run of Wiley Fork</u>		

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	<p><b>RECEIVED</b></p> <p>Office of Oil and Gas</p> <p>NOV 10 2016</p> <p>WV Department of <b>Environmental Protection</b></p>

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**Surface Owners (Pits, Impoundments, or AST):**

ET Blue Grass LLC  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

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

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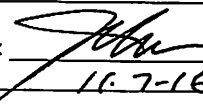
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	<p align="center"><b>FOR EXECUTION BY A CORPORATION, ETC.</b></p> <p>Company: <u>ET Blue Grass LLC</u></p> <p>By: <u>John Damato</u></p> <p>Its: <u>Regional Land Director</u></p> <p>Signature: </p> <p>Date: <u>11-7-16</u></p>

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Coal Owner

ET Blue Grass LLC  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

Western Pocahontas Properties LLC  
5260 Irwin Road  
Huntington WV 25705

CNX Land LLC  
Engineering Operations Support Dept. Coal  
1000 Consol Energy Drive  
Canonsburg PA 15317

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<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$
Total Postage	\$

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Western Pocahontas Properties LLC  
5260 Irwin Road  
Huntington WV 25705  
Attn: George Angus  
BIG245 Permit App

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<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
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Sent To  
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City, State,  
PS Form 3800, April 2015

CNX Land LLC  
Engineering Operations Support Dept. Coal  
1000 Consol Energy Drive  
Canonsburg PA 15317  
Attn: Ryan Arp  
BIG245 Permit App

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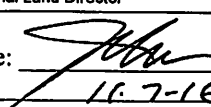
Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except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

**VOLUNTARY STATEMENT OF NO OBJECTION**

I, John Damato, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through \_\_\_\_\_, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: <u>WV</u>	UTM NAD 83 Easting: <u>537021.40</u>
County: <u>Wetzel</u>	Northing: <u>4382945.79</u>
District: <u>Grant</u>	Public Road Access: <u>Rt 19/2</u>
Quadrangle: <u>Big Run</u>	Generally used farm name: <u>E.T. Bluegrass LLC</u>
Watershed: <u>Rockcamp Run of Wiley Fork</u>	

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

<p>*Please check the box that applies</p> <p><input checked="" type="checkbox"/> SURFACE OWNER</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p><b>FOR EXECUTION BY A NATURAL PERSON</b></p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p>
	<p><b>FOR EXECUTION BY A CORPORATION, ETC.</b></p> <p>Company: <u>ET Blue Grass LLC</u></p> <p>By: <u>John Damato</u></p> <p>Its: <u>Regional Land Director</u></p> <p>Signature: </p> <p>Date: <u>11.7-16</u></p>

**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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**Surface Owners:**

ET Blue Grass LLC  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

W

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**Surface Owners (Pits, Impoundments, or AST):**

ET Blue Grass LLC  
625 Liberty Ave Suite 1700 w  
Pittsburgh PA 15222

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

**WAIVER**


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.

**Surface Owner Waiver:**

I, John Damato, hereby state that I have read the notice provisions listed above and hereby waive the notice requirements under West Virginia Code § 22-6A-16(b) for the tract of land as follows:

State:	<u>WV</u>	UTM NAD 83	Easting:	<u>537021.40</u>
County:	<u>Wetzel</u>		Northing:	<u>4382945.79</u>
District:	<u>Grant</u>	Public Road Access:		<u>Rt 19/2</u>
Quadrangle:	<u>Big Run</u>	Generally used farm name:		<u>E.T. Bluegrass LLC</u>
Watershed:	<u>Rockcamp Run of Wiley Fork</u>			

Name: ET Blue Grass LLC  
Address: 625 Liberty Ave. Suite 1700  
Pittsburgh PA 15222

Signature:   
Date: 9.29.16

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**Surface Owners (Road or other Disturbance):**

ET Blue Grass LLC  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

Wanda L. Byard  
1250 Meadowlane Drive  
Lewisport KY 42351

Neal Utt  
1204 Big Run Road  
Burton WV 26562

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

**WAIVER**

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.

**Surface Owner Waiver:**

I, WB, hereby state that I have read the notice provisions listed above and hereby waive the notice requirements under West Virginia Code § 22-6A-16(b) for the tract of land as follows:

State: WV  
County: Wetzel  
District: Grant  
Quadrangle: Big Run  
Watershed: Rockcamp Run of Wiley Fork

UTM NAD 83 Easting: 537021.40  
Northing: 4382945.79  
Public Road Access: Rt 19/2  
Generally used farm name: E.T. Bluegrass LLC

Name: Wanda Byard  
Address: 1250 Meadowlane DR  
Lewisport, KY 42351

Signature: Wanda L Byard  
Date: 10-10-16

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

**WAIVER**

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.

**Surface Owner Waiver:**

I, Neal S UTT, hereby state that I have read the notice provisions listed above and hereby waive the notice requirements under West Virginia Code § 22-6A-16(b) for the tract of land as follows:

State:	<u>WV</u>	UTM NAD 83	Easting:	<u>537021.40</u>
County:	<u>Wetzel</u>		Northing:	<u>4382945.79</u>
District:	<u>Grant</u>	Public Road Access:		<u>Rt 19/2</u>
Quadrangle:	<u>Big Run</u>	Generally used farm name:		<u>E.T. Bluegrass LLC</u>
Watershed:	<u>Rockcamp Run of Wiley Fork</u>			

Name: Neal S UTT  
Address: 1204 Big Run Rd.  
Burton WV 26562

Signature: Neal S UTT  
Date: 9/29/16

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

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

**Date of Notice:** 11/8/10      **Date Permit Application Filed:** 11/8/10

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

- CERTIFIED MAIL  
RETURN RECEIPT REQUESTED
- HAND 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: <u>See Attached</u>	Name: <u>See Attached</u>
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>WV</u>	UTM NAD 83 Easting: <u>537021.40</u>
County: <u>Wetzel</u>	Northing: <u>4382945.79</u>
District: <u>Grant</u>	Public Road Access: <u>Rt 19/2</u>
Quadrangle: <u>Big Run</u>	Generally used farm name: <u>E.T. Bluegrass LLC</u>
Watershed: <u>Rockcamp Run of Wiley 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: <u>EQT Production Company</u>	Address: <u>115 Professional Place PO Box 280</u>
Telephone: <u>304-848-0076</u>	<u>Bridgeport WV 26330</u>
Email: <u>wroark@eqt.com</u>	Facsimile: <u>304-848-0041</u>

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**Surface Owners:**

ET Blue Grass LLC  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

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Surface Owners (Road or other Disturbance):

ET Blue Grass LLC ✓  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

Wanda L. Byard ✓  
1250 Meadowlane Drive  
Lewisport KY 42351

Neal Utt ✓  
1204 Big Run Road  
Burton WV 26562

7015 0640 0005 9572 5060

U.S. Postal Service™  
**CERTIFIED MAIL® RECEIPT**  
Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

**OFFICIAL USE**

Certified Mail Fee  
\$

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage  
\$

Postmark Here  
NOV 0 2016  
30330-1150

Wanda L. Byard  
1250 Meadowlane Drive  
Lewisport KY 42351  
BIG245 Permit App and Planned Op

RW

for Instructions

7015 0640 0005 9572 5053

U.S. Postal Service™  
**CERTIFIED MAIL® RECEIPT**  
Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

**OFFICIAL USE**

Certified Mail Fee  
\$

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$

Postage  
\$

Postmark Here  
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30330-1150

Neal Utt  
1204 Big Run Road  
Burton WV 26562  
BIG245 Permit App and Planned Op

RW

Instructions

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

**Instructions to Persons Named on Page WW-6A**

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

**Comment and Waiver Provisions**

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

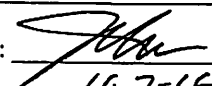
Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except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

**VOLUNTARY STATEMENT OF NO OBJECTION**

I, John Damato, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through \_\_\_\_\_, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>WV</u>	UTM NAD 83 Easting:	<u>537021.40</u>
County:	<u>Wetzel</u>	UTM NAD 83 Northing:	<u>4382945.79</u>
District:	<u>Grant</u>	Public Road Access:	<u>Rt 19/2</u>
Quadrangle:	<u>Big Run</u>	Generally used farm name:	<u>E.T. Bluegrass LLC</u>
Watershed:	<u>Rockcamp Run of Wiley Fork</u>		

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

<p>*Please check the box that applies</p> <p><input checked="" type="checkbox"/> SURFACE OWNER</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p><b>FOR EXECUTION BY A NATURAL PERSON</b></p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p>
	<p><b>FOR EXECUTION BY A CORPORATION, ETC.</b></p> <p>Company: <u>ET Blue Grass LLC</u></p> <p>By: <u>John Damato</u></p> <p>Its: <u>Regional Land Director</u></p> <p>Signature: </p> <p>Date: <u>11-7-16</u></p>

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**Surface Owners (Pits, Impoundments, or AST):**

ET Blue Grass LLC  
625 Liberty Ave Suite 1700  
Pittsburgh PA 15222

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03/03/2017





WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Earl Ray Tomblin  
Governor

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

November 7, 2016

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 Site, Wetzel County

514362 BIG245H1	514363 BIG245H2	514364 BIG245H3	514365BIG245H4
514366 BIG245H5	514367 BIG245H6	514368 BIG245H7	514369 BIG245H8
514370 BIG245H9	514371 BIG245H10	514372 BIG245H11	514373 BIG245H12
515606 BIG245H13	515607 BIG245H14	515608 BIG245H15	515609 BIG245H16
516520 BIG245H17	516521 BIG245H18	516522 BIG245H19	516523 BIG245H20
516524 BIG245H21	516525 BIG245H22	516526 BIG245H23	516527 BIG245H24
516528 BIG245H25	516529 BIG245H26	516530 BIG245H27	516531 BIG245H28
516532 BIG245H29	516533 BIG245H30		

Dear Mr. Martin,

This well site will be accessed from existing Permit # 06-2016-0430 issued to EQT Production Company for access to the State Road for a well site located off of Wetzel County Route 19/2 SLS.

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

Very Truly Yours,

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

Cc: Nick Bumgardner  
EQT Production Company  
CH, OM, D-6, File

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

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

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**Environmental Protection**

03/03/2017

**PROJECT INFORMATION**

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

**SURFACE OWNER:**

NEAL UTT  
 MAP 08, PARCEL 14  
 GRANT DISTRICT, WETZEL COUNTY, WV  
 TOTAL PROPERTY AREA: 51.0 +/- ACRES  
 TOTAL DISTURBANCE AREA: 6.1 +/- ACRES

KEY JOE WILLEY  
 MAP 08, PARCEL 21  
 GRANT DISTRICT, WETZEL COUNTY, WV  
 TOTAL PROPERTY AREA: 76.27 +/- ACRES  
 TOTAL DISTURBANCE AREA: 0.2 +/- ACRES

ET BLUE GRASS LLC.  
 MAP 08, PARCEL 22  
 GRANT DISTRICT, WETZEL COUNTY, WV  
 TOTAL PROPERTY AREA: 138.93 +/- ACRES  
 TOTAL DISTURBANCE AREA: 30.5 +/- ACRES

**OIL AND GAS ROYALTY OWNER:**

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

**SITE LOCATION:**

THE EQT BIG 245 ACCESS ROAD ENTRANCE IS LOCATED 4.427+/-  
 NORTH-EAST OF THE JUNCTION OF CO. RT. 19 AND CO. RT. 19/2.  
 THE WELL PAD IS LOCATED 1.3 MILES +/- NORTH-EAST OF THE  
 JUNCTION OF CO. RT. 15 AND CO. RT. 19.

**LOCATION COORDINATES**

EQT BIG 245 CONSTRUCTION ENTRANCE  
 LATITUDE: 39.59388 LONGITUDE: 80.569747 (NAD 83)

EQT BIG 245 WELL PAD CENTER  
 LATITUDE: 39.595312 LONGITUDE: 80.568705 (NAD 83)

EQT BIG 245 AST PAD CENTER  
 LATITUDE: 39.545499 LONGITUDE: 80.866501 (NAD 83)

**GENERAL DESCRIPTION**

THE WELL PAD, ACCESS ROAD AND TANK PAD ARE BEING CONSTRUCTED  
 TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS  
 WELLS.

**SITE DISTURBANCE COMPUTATIONS**

WELL PAD/ MAIN ACCESS ROAD = 4.6 +/- ACRES  
 AST PAD/AST ACCESS ROAD = 3.1 +/- ACRES  
 STOCKPILES = 30.6 +/- ACRES  
 TOTAL SITE DISTURBANCE AREA = 38.4 +/- ACRES

**ENTRANCE PERMIT**

EQT PRODUCTION COMPANY WILL OBTAIN AN ENCROACHMENT PERMIT (FORM  
 M-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION  
 ACTIVITIES.

**MISS UTILITY STATEMENT**

MISS UTILITY OF WEST VIRGINIA WAS NOTED FOR THE LOCATING OF  
 UTILITIES PRIOR TO THIS PROJECT DESIGN. TICKET #13256935  
 IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE  
 PROJECT.

**GEOTECHNICAL NOTES**

A SUBSURFACE INVESTIGATION HAS BEEN PERFORMED FOR THIS SITE AND  
 A GEOTECHNICAL REPORT HAS BEEN PREPARED BY LARSON DESIGN GROUP  
 DATED 10/23/2015. THE ENGINEER AND SURVEYOR ARE NOT RESPONSIBLE  
 FOR UNOBTAINED SUBSURFACE IRREGULARITIES CAUSING ADDITIONAL  
 WORK OR ADDITIONAL CONSTRUCTION MEASURES REQUIRED BEYOND  
 THOSE STANDARD PRACTICES SHOWN ON THIS PLAN AS A RESULT OF ANY  
 OTHER GEOTECHNICAL COMPLICATIONS ENCOUNTERED DURING CONSTRUCTION.

**ENVIRONMENTAL NOTES**

A WETLAND DELINEATION WAS PERFORMED ON JULY 7, 2011, MAY 30, 2012, AUGUST 14,  
 2012, MARCH 11-13, 2015, APRIL 3, 2015, AND MAY 8, 2015, BY POTESTA & ASSOCIATES TO  
 REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE  
 REGULATORY JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE  
 WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE MAY, 27  
 2015 REPORT FOR THE BIG 245 SITE WAS PREPARED BY POTESTA & ASSOCIATES, INC.,  
 SUMMARIZING THE RESULTS OF THE FIELD DELINEATION. THE REPORT DOES NOT, IN ANY  
 WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF  
 WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WVDEP. IT IS  
 STRONGLY RECOMMENDED THAT THE AFOREMENTIONED AGENCIES BE CONSULTED IN AN  
 EFFORT TO OBTAIN WRITTEN CONFIRMATION OF THE DELINEATION DESCRIBED BY THIS  
 REPORT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN.  
 THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR  
 STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE  
 U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

# EQT BIG 245 SITE PLAN EQT PRODUCTION COMPANY

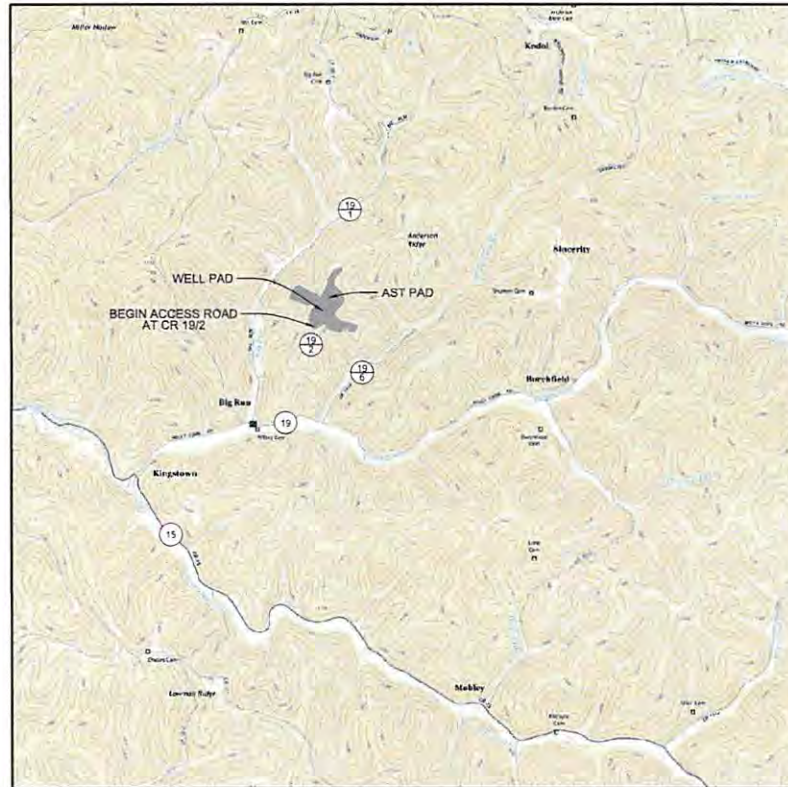
PROPOSED WELL NO. H1-WV 514362, H2-WV 514363, H3-WV 514364, H4-WV 514365

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

**APPROVED  
 WVDEP OOG**

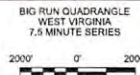
4/28/2016

GRID NORTH AND ELEVATIONS  
 ESTABLISHED BY SURVEY  
 ESTABLISHED BY SURVEY  
 GRADE UPS



**RESTRICTIONS NOTES**

1. THERE ARE INTERMITTENT STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE PROJECT LOD. THERE ARE WETLANDS WITHIN 100 FEET OF THE LOD, AND A WAIVER FROM THE WVDEP WILL BE APPLIED FOR THROUGH THE ARMY CORPS OF ENGINEERS BY EQT PRODUCTION COMPANY.
2. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE PAD AND LOD.
3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE PAD AND LOD.
4. THERE ARE NO EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE WELLS(S) BEING DRILLED, STANTEC AND SMITH LAND SURVEYING ARE NOT RESPONSIBLE FOR ANY EXISTING WATER WELL DEVELOPED SPRING DISCOVERED DURING CONSTRUCTION.
5. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 650 FEET OF THE CENTER OF THE PAD.
6. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2500 SQUARE FEET OF THE CENTER OF THE PAD.



MISS UTILITY of West Virginia  
 1400-245-8848  
 West Virginia State Law  
 (Section XIV, Chapter 24-C)  
 Requires that you call two  
 business days before you dig in  
 the state of West Virginia.  
 IT'S THE LAW!

LIST OF DRAWINGS	
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	OVERALL PLAN SHEET INDEX
4-7	WELL PAD LAYOUT
8	ACCESS ROAD PROFILES
9	WELL PAD PROFILES
10-12	ACCESS ROAD CROSS SECTIONS
13-16	WELL PAD CROSS SECTIONS
17-20	AST TANK PAD CROSS SECTIONS
21-22	EXCESS MATERIAL STOCKPILE PROFILES
23-39	EXCESS MATERIAL STOCKPILE CROSS SECTIONS
40-43	RECLAMATION PLAN
44	TYPICAL ACCESS ROAD CROSS SECTIONS
45-47	CONSTRUCTION DETAILS
48	CONSTRUCTION QUANTITIES

LEGEND		
EX. INDEX CONTOUR	----- 1550	PROP. INDEX CONTOUR
EX. INTERMEDIATE CONTOUR	----- 1550	PROP. INTERMEDIATE CONTOUR
EX. BOUNDARY LINE	-----	PROP. CUT LINE
EX. EDGE OF ROAD PAVEMENT	-----	PROP. FILL LINE
EX. GUARDRAIL	-----	PROP. LIMITS OF DISTURBANCE
EX. FENCELINE	-----	ENVIRONMENTAL ASSESSMENT AREA OF DELINEATION
EX. GATE	-----	PROP. WELL HEAD
EX. OVERHEAD UTILITY	-----	PROP. CONTAINMENT BERM
EX. OVERHEAD UTILITY R/W	-----	PROP. ROAD CENTERLINE
EX. UTILITY POLE	-----	PROP. V-DITCH WITH CHECK DAMS
EX. GUY WIRE	-----	PROP. CULVERT
EX. TELEPHONE LINE	-----	PROP. RIP-RAP OUTLET PROTECTION
EX. GASLINE	-----	PROP. RIP-RAP INLET PROTECTION
EX. GASLINE R/W	-----	PROP. COMPOST FILTERSOCK
EX. WATERLINE	-----	PROP. TREELINE
EX. WATER WELL	-----	PROP. STONE CONSTRUCTION ENTRANCE
EX. GAS WELL	-----	X-SECTION GRID INDEX
EX. TREELINE	-----	X-SECTION GRID INTERMEDIATE
EX. REFERENCE TREE	-----	X-SECTION PROPOSED GRADE
EX. DELINEATED STREAM	-----	X-SECTION EXISTING GRADE
EX. DELINEATED WETLAND	-----	
EX. BUILDING	-----	

**OPERATOR**

EQT PRODUCTION COMPANY  
 OPERATOR ID: 306690  
 P.O. BOX 290  
 BRIDGEPORT, WV 26330  
 PHONE: (304) 349-3870

**ENGINEER**

STANTEC CONSULTING, INC.  
 111 ELKINS STREET  
 FAIRMONT, WV 26554  
 PHONE: (304) 367-9401

**SURVEYOR**

SMITH LAND SURVEYING, INC.  
 PO BOX 150  
 228 WEST MAIN STREET  
 GLENVILLE, WV 26351  
 PHONE: (304) 462-5634



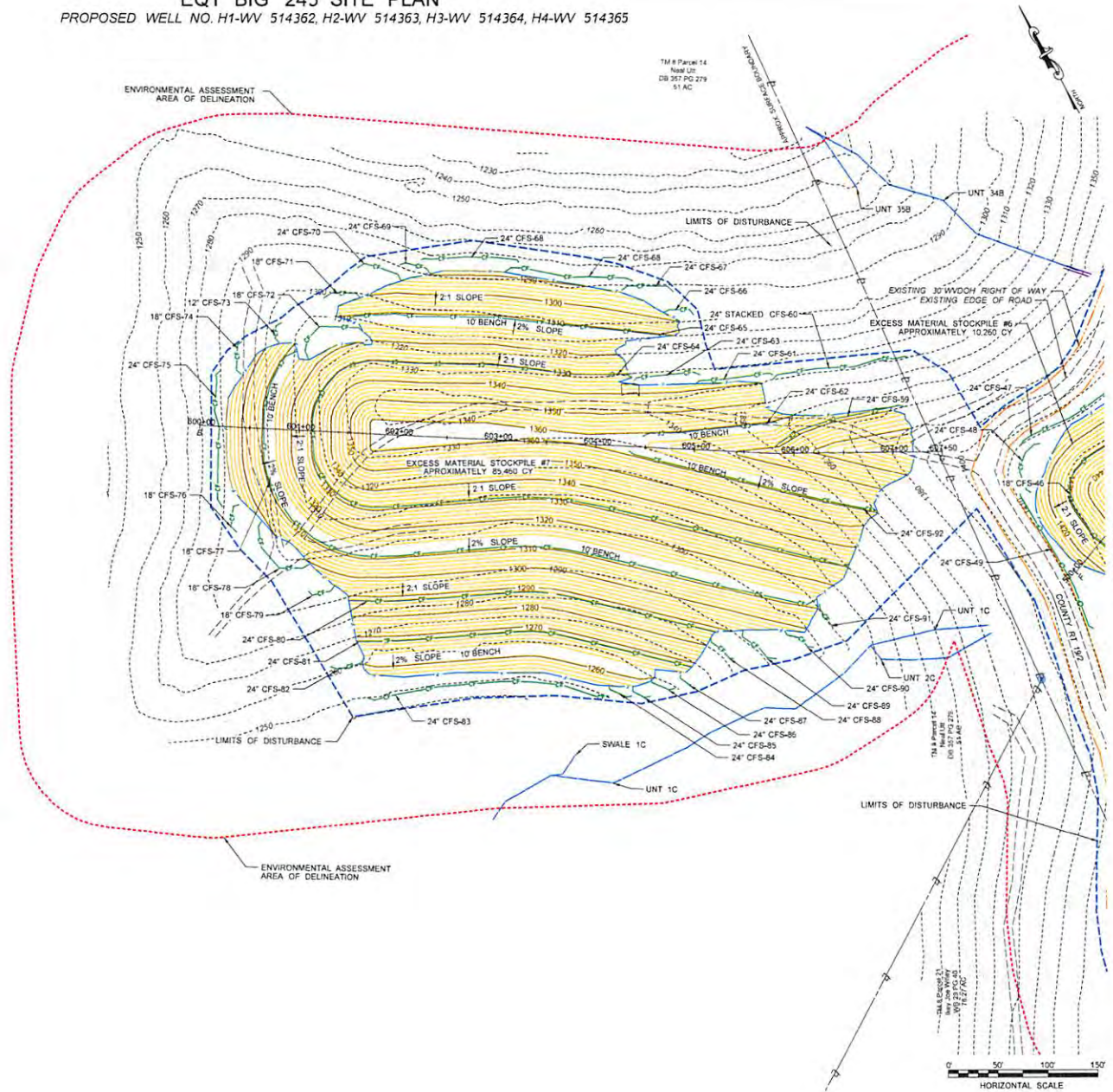
THIS DOCUMENT WAS PREPARED BY STANTEC FOR EQT PRODUCTION COMPANY

TITLE SHEET  
 EQT BIG 245  
 GRANT DISTRICT  
 WETZEL COUNTY, WV

DATE: 02-25-2016  
 SCALE: AS SHOWN  
 DESIGNED: KDS  
 CHECKED: CSM  
 REVIEWED: RLG  
 FILE NO.: SLS-7912  
 SHEET 1 OF 48  
 REV: 04-25-2016

EQT BIG 245 SITE PLAN  
 PROPOSED WELL NO. H1-WV 514362, H2-WV 514363, H3-WV 514364, H4-WV 514365

**APPROVED  
 WVDEP OOG**  
 4/28/2016



THIS DOCUMENT WAS  
 PREPARED BY  
 STANTEC  
 FOR  
 FOOT PRODUCTION COMPANY

SITE PLAN  
 EQT BIG 245  
 GRANT DISTRICT  
 WETZEL COUNTY, WV

DATE: 03-25-2016  
 SCALE: AS SHOWN  
 DESIGNED: KDS  
 CHECKED: CSH  
 REVIEWED: RLO  
 FILE NO.: SLS-7812  
 SHEET 5 OF 48  
 REV: 04-25-2016

11/15/2016 10:00 AM  
 EQT BIG 245 SITE PLAN  
 EQT BIG 245 SITE PLAN

11/15/2016 10:00 AM  
 EQT BIG 245 SITE PLAN  
 EQT BIG 245 SITE PLAN