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west virginia department of environmental protection

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

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

Thursday January 27, 2022  
PERMIT MODIFICATION APPROVAL  
New Drill / Modification/Lateral Extension

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

Re: Permit Modification Approval for BIG464 113H  
47-103-03437

Extending Lateral

EQT PRODUCTION COMPANY

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before 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: BIG464 113H  
Farm Name: EQT PRODUCTION COMPANY  
U.S. WELL NUMBER: 47-103-03437  
New Drill Modification/Lateral Extension  
Date Modification Issued: 01/27/2022

Promoting a healthy environment.

02/11/2022

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: 113H Well Pad Name: BIG464

3) Farm Name/Surface Owner: EQT Production Company Public Road Access: CR1

4) Elevation, current ground: 1246.8' (built) Elevation, proposed post-construction: 1246.8' (built)

5) Well Type (a) Gas X Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_

Other \_\_\_\_\_ RECEIVED  
Office of Oil and Gas

(b) If Gas Shallow X Deep \_\_\_\_\_

Horizontal X \_\_\_\_\_ JAN 24 2022

6) Existing Pad: Yes or No Yes WV Department of Environmental Protection

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus, 7,394', 51', 2,620 PSI

8) Proposed Total Vertical Depth: 7,394'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 25717'

11) Proposed Horizontal Leg Length: 17124'

12) Approximate Fresh Water Strata Depths: 109', 184', 432'

13) Method to Determine Fresh Water Depths: Offset Wells - 47-103-30593, 47-103-30910

14) Approximate Saltwater Depths: 1724', 1848'

15) Approximate Coal Seam Depths: 556'-559', 795'-797', 897'-899', 912'-919'

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

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

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_

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

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

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

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	26	New	A-500	85.6	40	40 ✓	50 ft <sup>3</sup> / CTS
Fresh Water	13 3/8	New	J-55	54.5	1019	1019 ✓	1000 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2441	2441 ✓	1000 ft <sup>3</sup> / CTS
Production	5 1/2	New	P-110	20	25717	25717 ✓	500' above intermediate casing
Tubing							
Liners							

*Bryan Harris 12/28/21 ✓*

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	26	30	0.312	1050	18	Class A	1.18
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A / Type 1	1.13 - 1.19
Coal							
Intermediate	9 5/8	12 3/8	0.352	3520	2816	Class A / Type 1	1.13 - 1.19
Production	5 1/2	8 1/2	0.361	14360	11488	Class A/H	1.04 - 2.10
Tubing							
Liners							

**PACKERS**

Kind:				
Sizes:				
Depths Set:				



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

Drill and complete a horizontal well in the Marcellus Formation. Drill the vertical, kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): N/A - Site Built

22) Area to be disturbed for well pad only, less access road (acres): N/A - Site Built

23) Describe centralizer placement for each casing string:

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

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

Conductor: Class A no additives  
Surface: Calcium Chloride. Used to speed the setting of cement slurries  
Intermediate: Calcium Chloride. Used to speed the setting of cement slurries.  
Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.  
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.  
Production: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

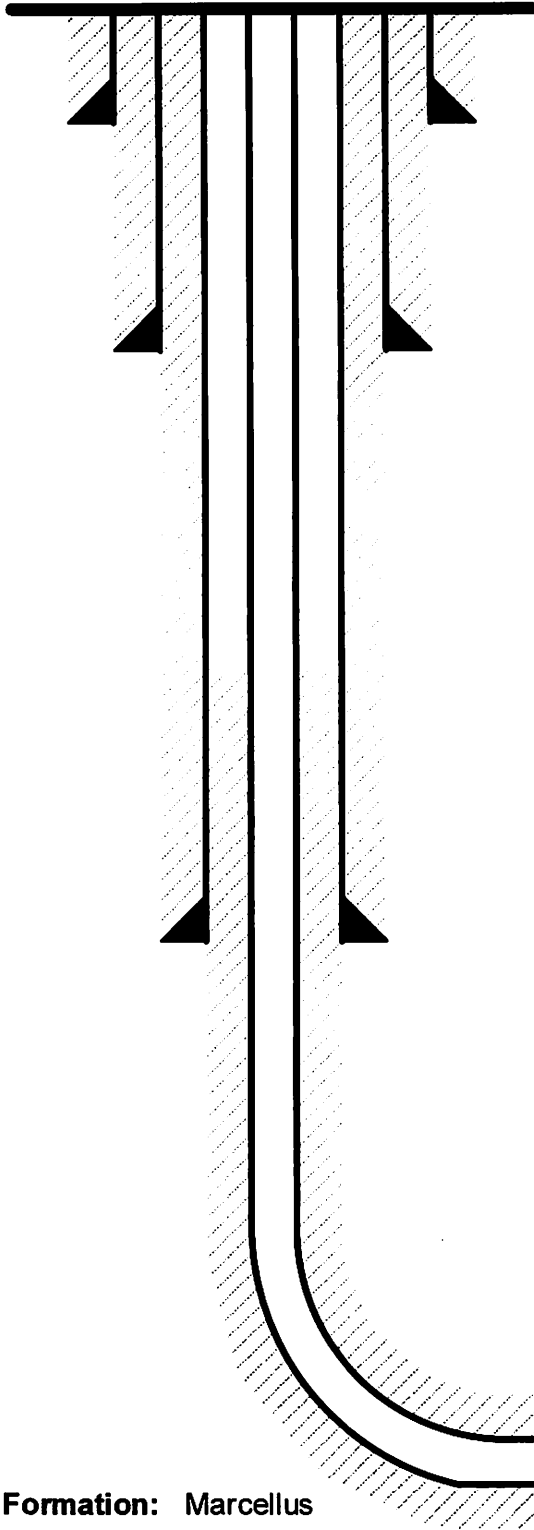
\*Note: Attach additional sheets as needed.

**EQT Production**

**Wellbore Diagram**

Well: BIG 464 113H  
Pad: BIG 464  
Elevation: 1246' GL 1259' KB

County: Wetzel  
State: West Virginia



**Conductor @ 40'**  
26", 85.6#, A-500, cement to surface w/ Class A

**Surface @ 1,019'**  
13-3/8", 54.5#, J-55, cement to surface w/ Class A/Type I

**Intermediate @ 2,441'**  
9-5/8", 36#, J-55, cement to surface w/ Class A/Type I

**Production @ 25,717' MD / 7,394' TVD**  
5-1/2", 20#, P-110, cement to 500' inside 9-5/8" w/ Class A/H

**Formation: Marcellus**

**WEST VIRGINIA GEOLOGICAL PROGNOSIS**

Finalized for Top Hole

Horizontal Well  
**BIG464**  
 S-000124

**Drilling Objectives:**

**County:**

**Quad:**

**Elevation:**

Marcellus  
 Wetzel  
 Big Run

1259 KB

1246 GL

**Recommended Azimuth**

TBD

TBD Degrees

**Recommended LP to TD: TBD**

Proposed Logging Suite:

Pilot Logging Not needed

**ESTIMATED FORMATION TOPS**

From pilots on BIG57 and BIG182

Formation	Top (TVD)	Base (TVD)	Lithology	Comments	Top RR	Base RR
Fresh Water Zone	1	432		FW @ 109,184,252,278,432	69	73
Waynesburg Coal	556	559 Coal			76	80
Coal	795	797 Coal		No known past/present/and or future mining within the area	96	114
Sewickley Coal	897	899 Coal			125	132 Base of Red
Pittsburgh Coal	912	919 Coal				
Maxton	1792	1971 Sandstone		SW @ 1724,1848		
Big Lime	2234	2310 Limestone				
Big Injun	2322	2391 Sandstone				
Int. csg pt	2441					
Weir	2520	2670 Sandstone				
Top Devonian	2735					
Gantz	2735	2771 Silty Sand				
Fifty foot	2876	2932 Silty Sand		Storage is NOT of concern		
Thirty foot	2971	2998 Silty Sand				
Gordon	3027	3072 Silty Sand				
Forth Sand	3097	3110 Silty Sand		Base of Offset Well Perforations at 3129' TVD		
Fifth Sand	3169	3188 Silty Sand				
Bayard	3222	3240 Silty Sand				
Warren	3645	3669 Silty Sand				
Speechley	3765	3813 Silty Sand				
Baltown A	4123	4138 Silty Sand				
Riley	4608	4650 Silty Sand				
Benson	5237	5286 Silty Sand				
Alexander	5651	5718 Silty Sand				
Elks	5718	6917 Gray Shales and Silts				
Sonyea	6917	7080 Gray shale				
Middlesex	7080	7136 Shale				
Genesee	7136	7223 Gray shale interbedded				
Genesee	7223	7255 Black Shale				
Tully	7255	7280 Limestone				
Hamilton	7280	7378 Gray shale with some				
Marcellus	7378	7429 Black Shale				
Purcell	7393	7396 Limestone				
-Lateral Zone	7394					
Cherry Valley	7409	7413 Limestone				
Onondaga	7429	Limestone				

Target Thickness 51 feet

**Comments:**

Intermediate casing point is recommended beneath the Big Injun to shut off any water production from the Upper Devonian sands. Intermediate casing should be cemented into the surface string, per WV regulations.

**RECOMMENDED CASING POINTS**

<b>Fresh Water/Coal</b>	CSG OD	13 3/8	CSG DEPTH	1019	Beneath Pittsburgh Coal
<b>Intermediate 1:</b>	CSG OD	9 5/8	CSG DEPTH	2441	Beneath the Big Injun formation
<b>Production:</b>	CSG OD	5 1/2	CSG DEPTH	@ TD	

02/11/2022

**EQT Production**  
**Hydraulic Fracturing Monitoring Plan**  
**Pad ID: BIG464**  
**County: Wetzel**

January 21, 2022

## Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Wetzel County, WV prior to hydraulic fracturing at the following EQT wells on the BIG464 well pad: 1H, 3H, 5H, 7H, 9H, 11H & 113H.

Due to the requirements under 3SCSR8 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.

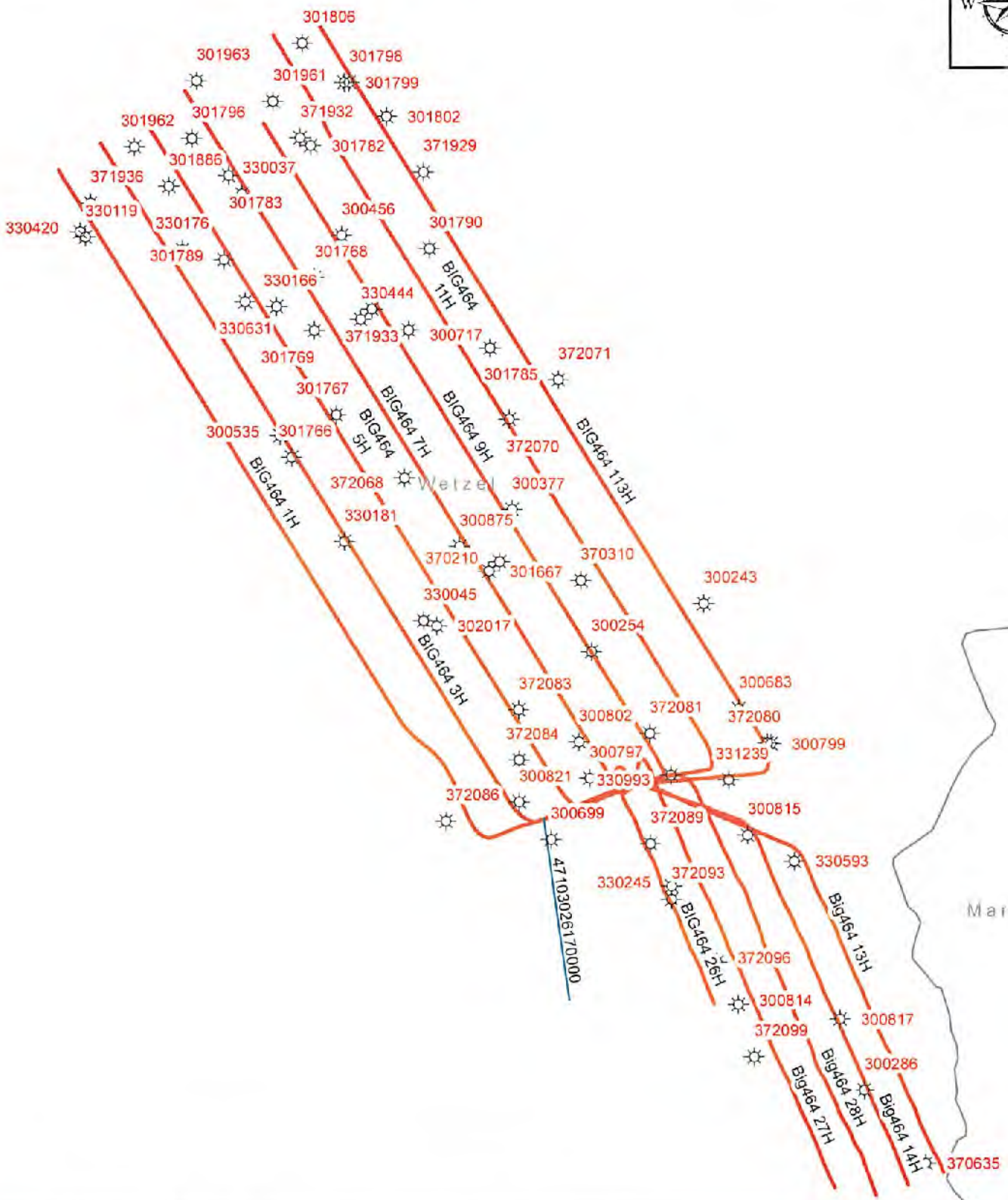
EQT will recommend to these operators at a minimum to:

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.

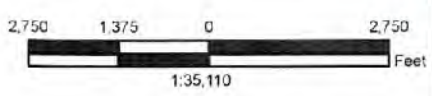




**EQT**  
 EQT Corporation  
 625 Liberty Avenue  
 Pittsburgh, PA 15222

**Legend**

- ☼ Foreign Offset Well
- Foreign Offset Laterals
- Well Lateral\_FM Formation**
- Genesee
- Marcellus
- Utica



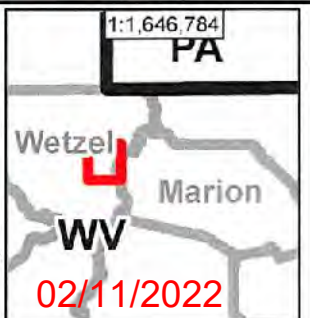
**Disclaimer:**

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

BIG464

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Vertical Offsets and Foreign Laterals within 500'

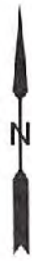


UWI	ACT_STATUS	CURR_OPER	FNL_CLASS	INIT_CLASS	LATITUDE	LONGITUDE	OPER_NAME	DATUM	ELEVATION	TOT_DEPTH	TVD
372080	Completed Wells	CARNEGIE NATURAL GAS CORP	UNCLASSIFIED	UNCLASSIFIED	39.56969200	-80.50773060	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
300817	Completed Wells	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.55445100	-80.50224800	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
371936	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.59964100	-80.55553000	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
300821	Completed Wells	CARNEGIE NATURAL GAS CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.56649700	-80.52510300	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
300875	Completed Wells	DIVERSIFIED PRODUCTION LLC	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.58057600	-80.52922500	PHILADELPHIA OIL	NAD27	0.00	0.00	0.00
301567	Completed Wells/WHCS	ANIA RESOURCES	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.57919010	-80.52717940		NAD27	1066.00	0.00	0.00
372071	Completed Wells	UNKNOWN	UNCLASSIFIED	UNCLASSIFIED	39.58973100	-80.52210600	UNKNOWN	NAD27	0.00	0.00	0.00
372086	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.56548100	-80.53034900	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
371932	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.60308400	-80.54046500	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
370310	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.57868900	-80.52060700	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
370635	Completed Wells	UNKNOWN	UNCLASSIFIED	UNCLASSIFIED	39.54646800	-80.49617600	UNKNOWN	NAD27	0.00	0.00	0.00
330444	Completed Wells	HOPE NATURAL GAS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.59308100	-80.53622100	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
372068	Completed Wells	UNKNOWN	UNCLASSIFIED	UNCLASSIFIED	39.58436100	-80.53315900	UNKNOWN	NAD27	0.00	0.00	0.00
372089	Completed Wells	UNKNOWN	UNCLASSIFIED	UNCLASSIFIED	39.56417500	-80.51573600	UNKNOWN	NAD27	0.00	0.00	0.00
300243	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	DEVELOPMENT WELL	39.57738300	-80.51180200	HOPE NATURAL GAS	NAD27	1272.00	1018.00	0.00
372093	Completed Wells	UNKNOWN	UNCLASSIFIED	UNCLASSIFIED	39.56112700	-80.51423800	UNKNOWN	NAD27	0.00	0.00	0.00
300815	Completed Wells	DIVERSIFIED PRODUCTION LLC	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.56461000	-80.50805000	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
301798	Completed Wells/WHCS	DAC CORP	DEVELOPMENT WELL-DRY (INCLUDING TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39.60613980	-80.53690870	DAC CORP	NAD27	1525.00	2323.00	0.00
370210	Completed Wells	HOPE NATURAL GAS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.57970500	-80.52641500	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
300377	Completed Wells/WHCS	ANIA RESOURCES	DEVELOPMENT WELL-DRY (INCLUDING TEMPORARILY ABANDONED WELL)	DEVELOPMENT WELL	39.58260830	-80.52548590	EAGON ROBINSON OIL & GAS	NAD27	1035.00	3197.00	0.00
300683	Completed Wells	CONSOLIDATED GAS SUPPLY CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.57157700	-80.50936700	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	0.00	0.00
300797	Completed Wells	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.56780300	-80.52004500	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
372084	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.56881900	-80.52510300	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
331239	Completed Wells	CONSOLIDATED GAS SUPPLY CORP	UNCLASSIFIED	UNCLASSIFIED	39.56765900	-80.51011600	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	0.00	0.00
372081	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.57027100	-80.51573600	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
330119	Completed Wells	CARNEGIE NATURAL GAS CORP	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.59771400	-80.55590400	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
371979	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.60119700	-80.53166000	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
372083	Completed Wells	UNKNOWN	UNCLASSIFIED	UNCLASSIFIED	39.57157700	-80.52510300	UNKNOWN	NAD27	0.00	0.00	0.00
371933	Completed Wells	HOPE NATURAL GAS	UNCLASSIFIED	UNCLASSIFIED	39.59385000	-80.53540700	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
300814	Completed Wells	HOPE NATURAL GAS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.55532200	-80.50955400	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
372070	Completed Wells	EQUITABLE PRODUCTION CO	UNCLASSIFIED	UNCLASSIFIED	39.58755400	-80.52566500	HOPE NATURAL GAS	NAD27	0.00	0.00	0.00
300286	Completed Wells	UNKNOWN	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.55053200	-80.50056200	UNKNOWN	NAD27	1171.00	3066.00	0.00
301766	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL-GAS	39.58552970	-80.54121730	DAC CORP	NAD27	871.00	2302.00	0.00
301961	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-OIL	DEVELOPMENT WELL	39.60512390	-80.54241940	EXCEL ENERGY INC	NAD27	1380.00	3696.00	0.00
301789	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59641480	-80.54597870	DAC CORP	NAD27	1420.00	3584.00	0.00
330631	Completed Wells	HOPE NATURAL GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59409700	-80.54447900	HOPE NATURAL GAS	NAD27	1356.00	3294.00	0.00
300699	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56446500	-80.52285500	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	3154.00	0.00
301782	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60265680	-80.53917940	DAC CORP	NAD27	1474.00	3823.00	0.00
300799	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56963390	-80.50705510	CARNEGIE NATURAL GAS CORP	NAD27	1090.00	3086.00	0.00
30176	Completed Wells	PITTSBURGH & W VA GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59698800	-80.54897300	PITTSBURGH & W VA GAS	NAD27	1078.00	3135.00	0.00
300456	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59772600	-80.53753500	UNKNOWN	NAD27	1295.00	2505.00	0.00
301806	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60831680	-80.54028070	DAC CORP	NAD27	1209.00	3365.00	0.00
300699	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56446500	-80.52285500	CONSOLIDATED GAS SUPPLY CORP	NAD27	0.00	1747.00	0.00
301767	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEEPER POOL WILDCAT	39.58785160	-80.53803360	DAC CORP	NAD27	868.00	3264.00	0.00
330593	Completed Wells	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.54315900	-80.50543300	CARNEGIE NATURAL GAS CORP	NAD27	1527.00	1887.00	0.00
301886	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60047900	-80.54991380	EXCEL ENERGY INC	NAD27	981.00	3310.00	0.00
330245	Completed Wells	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56185300	-80.51423800	CARNEGIE NATURAL GAS CORP	NAD27	1040.00	2908.00	0.00
301811	Completed Wells	PITTSBURGH & W VA GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.58086600	-80.53746800	PITTSBURGH & W VA GAS	NAD27	906.00	2936.00	0.00
301963	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60628400	-80.54785220	EXCEL ENERGY INC	NAD27	1214.00	3350.00	0.00
330045	Completed Wells	HOPE NATURAL GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.57651200	-80.53184700	HOPE NATURAL GAS	NAD27	0.00	2146.00	0.00
300802	Completed Wells	EQT PRODUCTION CO	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.59698800	-80.53079400	CARNEGIE NATURAL GAS CORP	NAD27	0.00	0.00	0.00
301790	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56794900	-80.51423800	CARNEGIE NATURAL GAS CORP	NAD27	904.00	3126.00	0.00
330037	Completed Wells	PITTSBURGH & W VA GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60003600	-80.54466400	PITTSBURGH & W VA GAS	NAD27	869.00	1966.00	0.00
330993	Completed Wells	CARNEGIE NATURAL GAS CORP	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56794900	-80.51423800	CARNEGIE NATURAL GAS CORP	NAD27	1131.00	3004.00	0.00
301796	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60309190	-80.54227200	EXCEL ENERGY INC	NAD27	1003.00	3337.00	0.00
330593	Completed Wells	UNKNOWN	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.56315900	-80.50543300	UNKNOWN	NAD27	1527.00	3438.00	0.00
301799	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60613200	-80.53780000	DAC CORP	NAD27	1525.00	3629.00	0.00
301768	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	NEW POOL WILDCAT	39.59539970	-80.53953300	DAC CORP	NAD27	1285.00	3679.00	0.00
300254	Completed Wells	EQT PRODUCTION CO	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.57477000	-80.51985800	CARNEGIE NATURAL GAS CORP	NAD27	1464.00	3449.00	0.00
301789	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59148150	-80.52698000	DAC CORP	NAD27	1186.00	3554.00	0.00
301802	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60253700	-80.54226800	DAC CORP	NAD27	1401.00	3594.00	0.00
301769	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	NEW POOL WILDCAT	39.59249570	-80.53953180	DAC CORP	NAD27	1326.00	3692.00	0.00
300535	Completed Wells	EQUITABLE GAS CO	UNCLASSIFIED	UNCLASSIFIED	39.58669500	-80.54201900	EQUITABLE GAS CO	NAD27	1008.00	3057.00	0.00
372096	Completed Wells	UNKNOWN	UNCLASSIFIED	UNCLASSIFIED	39.55764400	-80.51105200	UNKNOWN	NAD27	0.00	0.00	0.00
330420	Completed Wells	UNKNOWN	DEVELOPMENT WELL-OIL	DEVELOPMENT WELL	39.59801600	-80.55630300	UNKNOWN	NAD27	1310.00	3226.00	0.00
300717	Completed Wells	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59248900	-80.53278400	CONSOLIDATED GAS SUPPLY CORP	NAD27	880.00	1927.00	0.00
301962	Completed Wells/WHCS	XTO ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60265600	-80.55234980	EXCEL ENERGY INC	NAD27	1325.00	3633.00	0.00
300217	Completed Wells/WHCS	DYNATEC ENERGY INC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.57622940	-80.53091330	DYNATEC ENERGY INC	NAD27	948.00	711.00	0.00
330166	Completed Wells	HOPE NATURAL GAS	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.59379500	-80.54222900	HOPE NATURAL GAS	NAD27	1012.00	2215.00	0.00
372099	Completed Wells	UNKNOWN	UNCLASSIFIED	UNCLASSIFIED	39.55241900	-80.50843000	UNKNOWN	NAD27	0.00	0.00	0.00
301783	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60105200	-80.54560100	DAC CORP	NAD27	1376.00	3555.00	0.00
301790	Completed Wells/WHCS	DIVERSIFIED PRODUCTION LLC	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.60105200	-80.54560100	DAC CORP	NAD27	1376.00	3555.00	0.00

UWI	ACT_STATUS	CURR_OPER	FNL_CLASS	INIT_CLASS	LATITUDE	LONGITUDE	OPER_NAME	DATUM	ELEVATION	TOT_DEPTH	TVD	WELL_NAME	WELL_NUM
47103026170000	Completed Wells	EQT PRODUCTION CO	DEVELOPMENT WELL-GAS	DEVELOPMENT WELL	39.55563000	-80.52162000	EQT PRODUCTION CO	NAD27	941.00	10761.00	7117.00	WW511423 ALLEN I M	WW511423

**BIG464 113H**  
**EQT Production Company**  
 "Detail of 113H Top Hole"



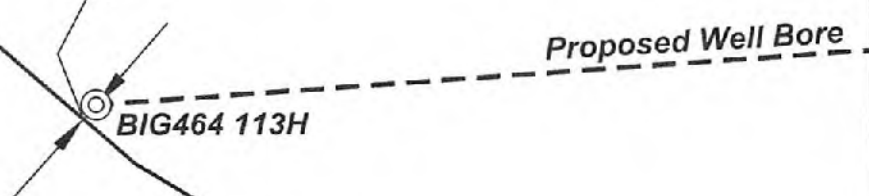
Lease No.  
1010666

Lease No.  
707114



Scale: 1 Inch = 50 Feet

5.16'



Birch River Office  
 Phone: (304) 649-8606  
 Fax: (304) 649-8608

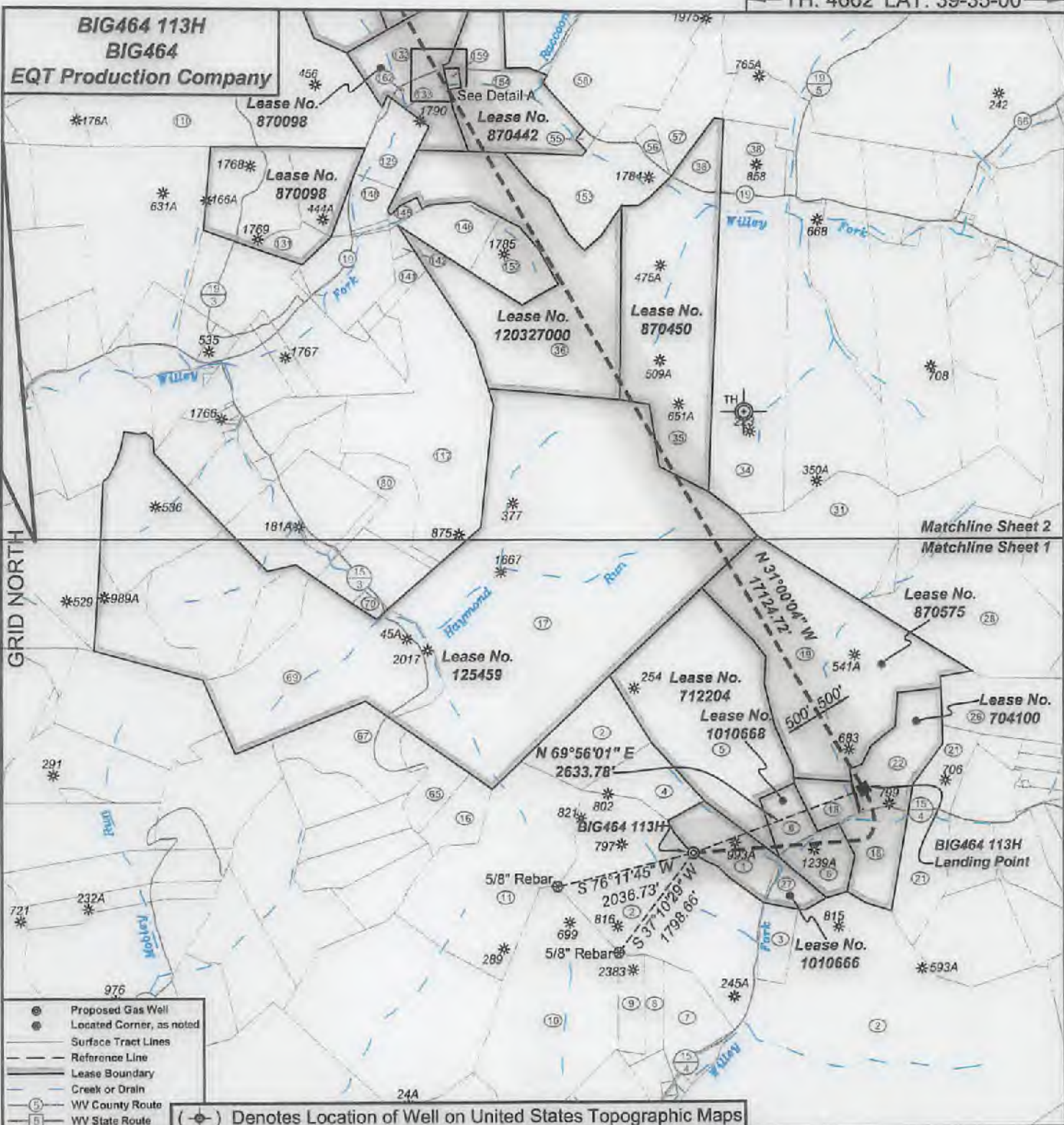
237 Birch River Road  
 Birch River, WV 26610  
 www.alleghenysurveys.com

PARTY CHIEF: NA	DRAWING NO: 113H Detail.dwg
RESEARCH: NA	PROJECT NO: 125-34-G-16
SURVEYED: NA	PREPARED: January 26, 2022
FIELD CREW: NA	DRAWN BY: Tim Rutledge



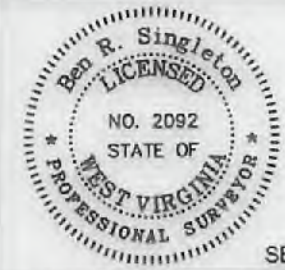
TH: 4662' LAT: 39-35-00

TH: 5777' LON: 80-30-00



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

*Ben R. Singleton*  
P.S. 2092



SEAL

FILE NO: 125-16  
DRAWING NO: BIG464 113H  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: January 19 20 22  
OPERATOR'S WELL NO. BIG464 113H  
API WELL NO. 47-103-03437  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1246.8' WATERSHED Willey Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: EQT Production Company ACREAGE: 25.25  
ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

02/11/2022

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



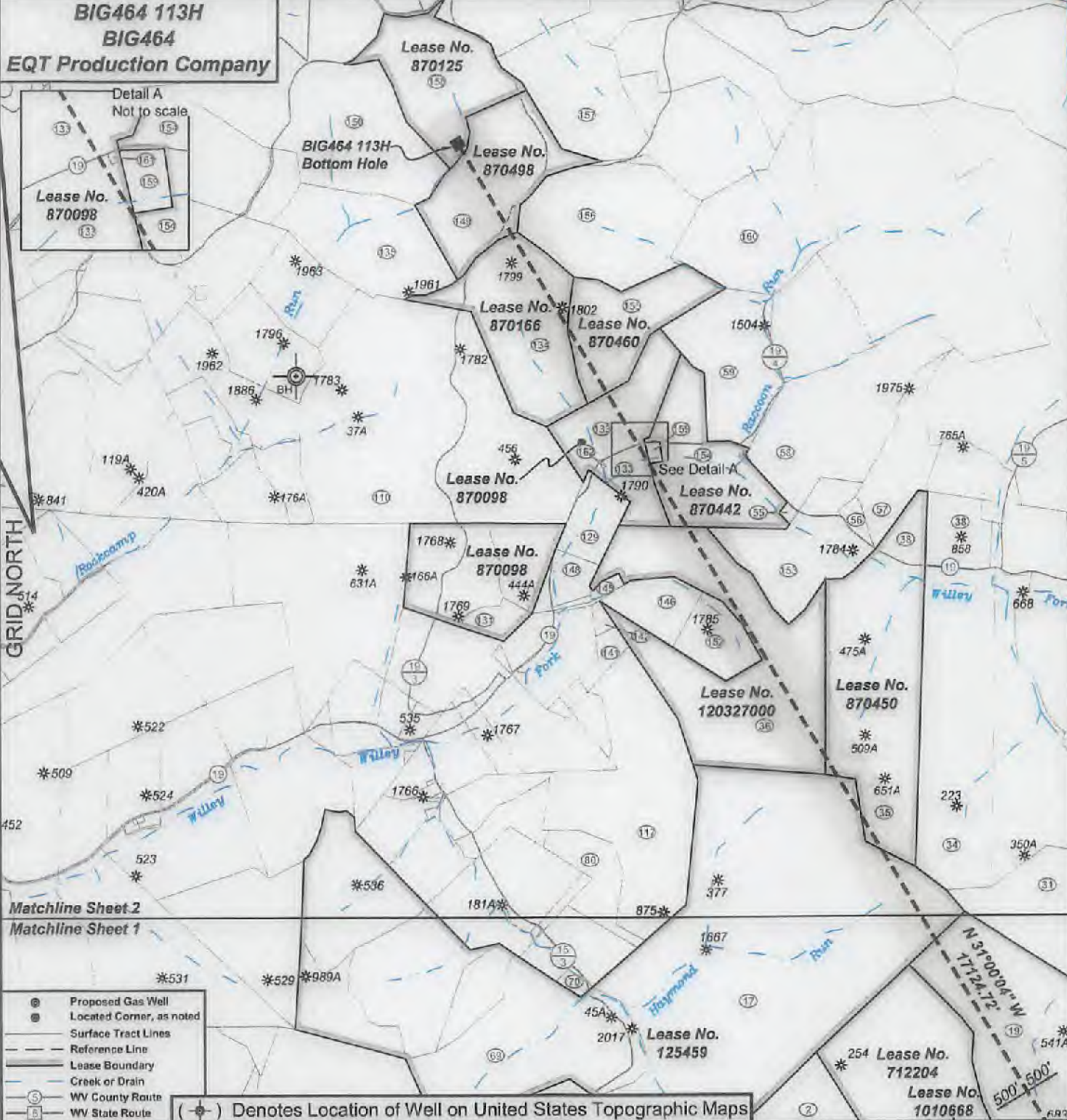
BH: 11181' LAT: 39-37-30

BH: 5444' LON: 80-30-00

**BIG464 113H**  
**BIG464**  
**EQT Production Company**



GRID NORTH



Matchline Sheet 2  
Matchline Sheet 1

- ⊙ Proposed Gas Well
- ⊙ Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- Lease Boundary
- Creek or Drain
- Ⓢ WV County Route
- Ⓟ WV State Route

(⊙) Denotes Location of Well on United States Topographic Maps



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

*Ben R. Singleton*  
P.S. 2092



FILE NO: 125-16  
 DRAWING NO: BIG464 113H  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: January 19 20 22  
 OPERATOR'S WELL NO.: BIG464 113H  
 API WELL NO **M69**  
 47 - 103 - 03437  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: 1246.8' WATERSHED Wiley Fork QUADRANGLE: Big Run  
 DISTRICT: Grant COUNTY: Wetzel  
 SURFACE OWNER: EQT Production Company ACREAGE: 25.29  
 ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

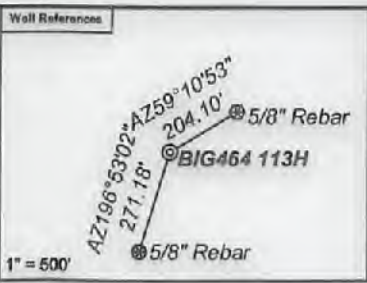
02/11/2022

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

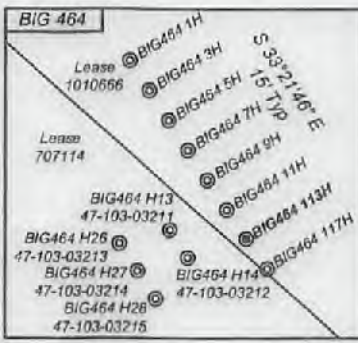


**BIG464 113H**  
**BIG464**  
**EQT Production Company**

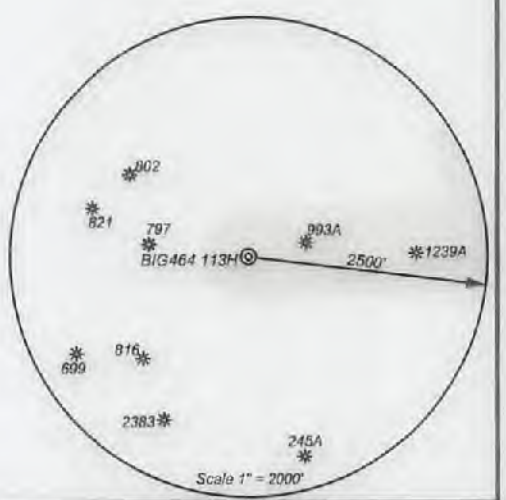
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	14	34	Wetzel	Grant	EQT Production Company	25.25
2	20	1	Wetzel	Grant	Coastal Forest Resources Company	520.00
3	15	27	Wetzel	Grant	Beverly Lynn Bar Life Estate	10.00
4	14	27	Wetzel	Grant	EQT Production Company	22.00
5	14	20	Wetzel	Grant	EQT Production Company	126.50
6	15	16	Wetzel	Grant	Donald J. D'Lusky	25.00
7	14	45	Wetzel	Grant	Coastal Forest Resources Company	11.00
8	14	44	Wetzel	Grant	Mabel F. Barr	11.00
9	14	43	Wetzel	Grant	Mabel F. Barr	11.01
10	14	42	Wetzel	Grant	Donald J. D'Lusky	111.09
11	14	33	Wetzel	Grant	Mira H. & Hilta S. Conway	108.00
16	14	32	Wetzel	Grant	Mary Jane Byard	13.00
17	14	6	Wetzel	Grant	Coastal Forest Resources Company	332.00
18	15	18	Wetzel	Grant	Donald J. D'Lusky	33.50
19	15	12	Wetzel	Grant	William Bowers & Donald J. D'Lusky	147.50
21	15	29	Wetzel	Grant	Terry Phillips, et al.	40.00
22	15	16.1	Wetzel	Grant	Donald J. & Jane A. D'Lusky	29.80
26	15	13	Wetzel	Grant	Donald W. & Diana White	40.00
27			Wetzel	Grant	No Tax Map & Parcel Information	
28	15	7	Wetzel	Grant	Timothy E. Titus	118.00
31	15	5	Wetzel	Grant	William Bowers, et al.	43.20
34	10	28	Wetzel	Grant	Coastal Forest Resources Company	107.00
35	9	39	Wetzel	Grant	Coastal Forest Resources Company	128.00
36	9	38	Wetzel	Grant	Terry L. & Carolyn M. Fry	165.08
36	10	16	Wetzel	Grant	Michael J. & Patricia L. Barber	35.00
55	9	21.2	Wetzel	Grant	David W. & Barbara L. Anderson	1.00
56	9	27.1	Wetzel	Grant	David G. & Susan M. Barr	3.70
57	9	64	Wetzel	Grant	Cahin N. Barr	32.52
58	9	12	Wetzel	Grant	David G. Barr, et al.	80.28
59	9	4	Wetzel	Grant	Gregory & Michael Dulaney	69.00
66	14	26	Wetzel	Grant	Mary Jane Byard	14.50
67	14	25	Wetzel	Grant	ET Blue Grass, LLC	36.88
68	14	19	Wetzel	Grant	Coastal Forest Resources Company	138.08
70	14	13	Wetzel	Grant	Coastal Forest Resources Company	2.80
80	14	5	Wetzel	Grant	Dale K. & Sherry Dulaney	21.50
110	9	10	Wetzel	Grant	William B. & Pamela Franck	233.37
117	9	81	Wetzel	Grant	Jimbo's Quiet Mountain Retreat	114.10
120	9	82	Wetzel	Grant	William B. & Pamela S. Franck	30.50
131	9	25	Wetzel	Grant	Deborah Fronczek & John Parks	6.60
133	9	11	Wetzel	Grant	Elizabeth Amundson, et al.	53.37
134	9	2	Wetzel	Grant	Liberty Holding Company	74.50
135	4	8	Wetzel	Grant	James A. Yoho	63.00
141	9	35	Wetzel	Grant	Terry L. & Carolyn M. Fry	6.23
142	9	34	Wetzel	Grant	Terry L. & Carolyn M. Fry	3.25
145	9	32.1	Wetzel	Grant	Terry L. & Carolyn M. Fry	3.40
146	9	36	Wetzel	Grant	Terry L. & Carolyn M. Fry	15.00
148	9	26	Wetzel	Grant	Elizabeth L. Taylor, et al.	10.08
149	20	38	Wetzel	Center	William D. Franck, Sr. & Pamela Spinoza	66.58
150	4	8	Wetzel	Grant	James Daniel Kennedy	100.00
152	9	17	Wetzel	Grant	Terry L. & Carolyn M. Fry	25.00
153	9	27	Wetzel	Grant	David G. Barr, et al.	47.17
154	9	21	Wetzel	Grant	Gregory & Michael Dulaney	58.00
155	9	3	Wetzel	Grant	William D. Franck, Sr. & Pamela Spinoza	59.00
156	4	10	Wetzel	Grant	William D. Franck, Sr. & Pamela Spinoza	76.78
167	20	36	Wetzel	Center	Rachel Elizabeth Wyatt	54.00
168	20	33	Wetzel	Center	Myra L. Phelps Trust	68.50
169	9	21.1	Wetzel	Center	Louis C. & Carolyn A. Fried	1.38
160	4	11	Wetzel	Center	Liberty Holding Company	89.05
161	9	20	Wetzel	Center	Elizabeth Amundson, et al.	0.00
162	9	11.1	Wetzel	Center	Elizabeth Amundson, et al.	0.00



**Notes:**  
BIG464 113H coordinates are  
NAD 27 N: 390,418.37 E: 1,713,430.97  
NAD 27 Lat: 39.567475 Long: -80.516536  
NAD 83 UTM N: 4,379,873.98 E: 541,543.85  
BIG464 113H Landing Point coordinates are  
NAD 27 N: 391,322.05 E: 1,715,904.83  
NAD 27 Lat: 39.570032 Long: -80.507797  
NAD 83 UTM N: 4,380,161.90 E: 542,292.97  
BIG464 113H Bottom Hole coordinates are  
NAD 27 N: 406,000.63 E: 1,707,084.68  
NAD 27 Lat: 39.610054 Long: -80.539688  
NAD 83 UTM N: 4,384,588.98 E: 539,531.30  
West Virginia Coordinate system of 1927 (North Zone) based upon Differential GPS Measurements. Plat orientation, corner and well ties are based upon the grid north meridian. Well location references are based upon the grid north meridian. UTM coordinates are NAD83, Zone 17, Meters.

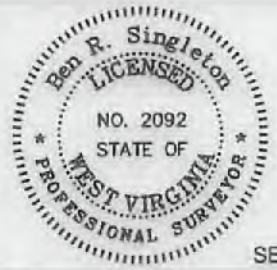


Lease No.	Owner	Acres
712204	Janice E. Nolan, et al.	120
1010668	Ridgetop Royalties, LLC, et al.	25
704100	Piney Holdings, Inc., et al.	70
870576	David E. Bowyer, et al.	147.5
125459	Randel J. Hartman, et al.	693
870450	Pikewood Energy Corporation, et al.	139
120327000	OXY USA Inc., et al.	158.5
870442	Emma Joyce Dahlin Anderson, et al.	62.25
870098	Emma Joyce Dahlin Anderson, et al.	196.5
870460	Goldie Poole, et al.	50
870166	Liberty Holding Company	74
870496	William B. Franck and Pamela S. Franck, Trustees of The William B. and Pamela S. Franck Joint Revocable Living Trust, dated 2/12/2018	67
870125	Miriam K. Knowles, et al.	68



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

*Ben R. Singleton*  
P.S. 2092



SEAL

FILE NO: 125-16  
DRAWING NO: BIG464 113H  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: January 19 20 22  
OPERATOR'S WELL NO.: BIG464 113H  
API WELL NO. 47-103-03437  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1246.8' WATERSHED: Wiley Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: EQT Production Company ACREAGE: 25.25  
ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

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

02/11/2022



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

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

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

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

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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

Well Operator: EQT Production Company  
 By: John Zavatchan *John F. Zavatchan Jr.*  
 Its: Project Specialist - Permitting



January 21, 2022

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

Re: BIG464 113H 6A1 Addendum

Dear Mr. Brewer,

This letter and supporting documentation serve as EQT Production Company's addendum to the WW-6A1 form associated with this well. The lease included on this addendum is a lease in which EQT "claims the right to extract, produce or market the oil or gas", but does not propose to encounter the lease with the proposed wellbore. EQT would like to report this lease as part of our Well Work Permit Application, as it is located within 50' of our proposed permitted wellbore.

If EQT does encounter this lease, an application for a permit modification will be filed with the West Virginia DEP, Office of Oil and Gas.

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

Sincerely,

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

John Zavatchan  
Project Specialist - Permitting

Enc.

02/11/2022

<b>Lease No.</b>	<b>Grantor, Lessor, etc.</b>		<b>Grantee, Lessee, etc.</b>	<b>Royalty</b>	<b>Book/Page</b>
<b><u>1010666</u></b>	<b><u>Ridgetop Royalties, LLC, et al.</u></b> Ridgetop Royalties, LLC	32 ac	EQT Production Company	*at least 1/8th per WV Code 22-6-8"	OG 166A/638
<b><u>712204</u></b>	<b><u>Janice E. Nolan, et al.</u></b> T. J. Glover, single, and Daniel Glover, single Carnegie Natural Gas Company Carnegie Production Company	120 ac	Carnegie Natural Gas Company Carnegie Production Company EQT Production Company	*at least 1/8th per WV Code 22-6-8"	OG 19A/380 OG 78A/513 WV SOS
<b><u>1010668</u></b>	<b><u>Ridgetop Royalties, LLC et al.</u></b> Ridgetop Royalties, LLC	25 ac	EQT Production Company	*at least 1/8th per WV Code 22-6-8"	OG 248A/272
<b><u>704100</u></b>	<b><u>Piney Holdings, Inc., et al.</u></b> B. C. Merrifield and J. M. V. Merrifield, her husband J. E. Carnahan and H. L. Smith Carnegie Natural Gas Company Carnegie Production Company	70 ac	J. E. Carnahan and H. L. Smith Carnegie Natural Gas Company Carnegie Production Company EQT Production Company	*at least 1/8th per WV Code 22-6-8"	DB 96/349 DB 96/349 OG 78A/513 WV SOS
<b><u>870575</u></b>	<b><u>David E. Bowyer, et al.</u></b> David E. Bowyer	147.5 ac	EQT Production Company	*at least 1/8th per WV Code 22-6-8"	OG 226A/34

	<b><u>Randel J. Hartman, et al.</u></b>			*at least 1/8th per WV Code 22-6-8"
<b><u>125459</u></b>	Virginia Myers and William S. Myers, her husband, et al Equitable Gas Company Columbia Gas Transmission Corporation Columbia Natural Resources, Inc. Columbia Natural Resources, LLC Chesapeake Appalachia, L.L.C. Statoilhydro USA Onshore Properties Inc. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties, Inc. SWN Exchange Titleholder, LLC SWN Production Company, LLC Statoil USA Onshore Properties, Inc. Antero Exchange Properties LLC Antero Resources Corporation	693 ac	Equitable Gas Company Columbia Gas Transmission Corporation Columbia Natural Resources, Inc. Columbia Natural Resources, LLC Chesapeake Appalachia, L.L.C. Statoilhydro USA Onshore Properties Inc. Statoil USA Onshore Properties, Inc. SWN Production Company, LLC SWN Exchange Titleholder, LLC SWN Production Company, LLC Antero Exchange Properties LLC Antero Exchange Properties LLC Antero Resources Corporation EQT Production Company	OG 47A/16 OG 64A/442 OG 72A/368 Corp. 12/622 DB 402/446 OG 97A/578 WV SOS OG 157A/540 OG 158A/801 Corp. 13/296 OG 177A/533 OG 177A/738 Corp. 13/311 OG 227A/932
	<b><u>Pikewood Energy Corporation, et al.</u></b>			*at least 1/8th per WV Code 22-6-8"
<b><u>870450</u></b>	Pikewood Energy Corporation Antero Resources Corporation	139 ac	Antero Resources Corporation EQT Production Company	OG 194A/177 OG 227A/932
	<b><u>OXY USA Inc., et al.</u></b>			*at least 1/8th per WV Code 22-6-8"
<b><u>120327000</u></b>	BRC Appalachian Minerals I LLC and BRC Minerals LP BRC Working Interest Company	158.5 ac	BRC Working Interest Company LLC EQT Production Company	OG 102A/505 & 103A/320 OG 271A/94
	<b><u>Emma Joyce Dahlin Anderson, et al.</u></b>			*at least 1/8th per WV Code 22-6-8"
<b><u>870442</u></b>	Emma D. Anderson, widow Statoil USA Onshore Properties, Inc., et al	62.25 ac	Statoil USA Onshore Properties, Inc. EQT Production Company	OG 161A/872 OG 175A/707 & 185A/907



<b><u>870098</u></b>	<p><b><u>Emma Joyce Dahlin Anderson, et al.</u></b>  Pershing R. Taylor, a widower, et al  Drilling Appalachian Corporation  Grenadier Energy Partners, LLC  Drilling Appalachian Corporation  Statoil USA Onshore Properties, Inc., et al</p>	196.5 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company	*at least 1/8th per WV Code 22-6-8"	OG 77A/88 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707
<b><u>870460</u></b>	<p><b><u>Goldie Poole, et al.</u></b>  Goldie Poole, single</p>	50 ac	EQT Production Corporation	*at least 1/8th per WV Code 22-6-8"	OG 184A/644
<b><u>870166</u></b>	<p><b><u>Liberty Holding Company</u></b>  Liberty Holding Company, Inc.  Drilling Appalachian Corporation  Grenadier Energy Partners, LLC  Drilling Appalachian Corporation  Statoil USA Onshore Properties, Inc., et al</p>	74 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company	*at least 1/8th per WV Code 22-6-8"	OG 78A/486 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707
<b><u>870498</u></b>	<p><b><u>William B. Francik and Pamela S. Francik, Trustees of The  William B. and Pamela S. Francik Joint Revocable Living Trust,  dated 2/12/2018</u></b>  William B. Francik Sr. and Pamela S. Francik, husband and wife  Drilling Appalachian Corporation  Grenadier Energy Partners, LLC  Drilling Appalachian Corporation  Drilling Appalachian Corporation  Statoil USA Onshore Properties, Inc., et al</p>	67 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company	*at least 1/8th per WV Code 22-6-8"	OG 77A/281 OG 126A/970 OG 138A/1 OG 138A/54 OG 153A/640 OG 175A/707
	<b><u>Miriam K. Knowles, et al.</u></b>			*at least 1/8th per WV Code 22-6-8"	

<b><u>870125</u></b>	Miriam Knowles and Philip G. Knowles, wife and husband Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties, Inc., et al	68 ac	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company	OG 79A/138 & 79A/472 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707 and 185A/907
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<b>Lease No.</b>	<b>Grantor, Lessor, etc.</b>		<b>Grantee, Lessee, etc.</b>	<b>Royalty</b>	<b>Book/Page</b>
	<b><u>Ridgetop Royalties, LLC, et al.</u></b>			"at least 1/8th per WV Code 22-6-8"	
<b><u>707114</u></b>	W. S. Furbee and Mary Furbee, his wife Carnegie Natural Gas Company Carnegie Production Company	78 ac	Carnegie Natural Gas Company Carnegie Production Company EQT Production Company		OG 2A/182 OG 78A/513 WV SOS
	<b><u>AMP Fund III, LP, et al.</u></b>			"at least 1/8th per WV Code 22-6-8"	
<b><u>870630</u></b>	Alice Hoskinson Drilling Appalachian Corporation Grenadier Energy Partners, LLC Drilling Appalachian Corporation Statoil USA Onshore Properties, Inc., et al	25 ac	Drilling Appalachian Corp Grenadier Energy Partners, LLC Statoil USA Onshore Properties, Inc. Statoil USA Onshore Properties, Inc. EQT Production Company		OG 78A/300 OG 118A/108 & 136A/538 OG 138A/1 OG 138A/54 OG 175A/707
	<b><u>Noel Spencer, et al.</u></b>			"at least 1/8th per WV Code 22-6-8"	
<b><u>186301001</u></b>	Noel Spencer, a married man dealing in his sole and separate property	0.09375 ac	EQT Production Company		OG 271A/719
	<b><u>Louis C. Freed, et al.</u></b>			"at least 1/8th per WV Code 22-6-8"	
<b><u>186215000</u></b>	Louis C. Freed and Carolyn A. Freed, husband and wife	1.35 ac	EQT Production Company		OG 271A/653

103-03437 Exp  
Mod



EQT PRODUCTION COMPANY  
400 Woodcliff Drive | Canonsburg, PA 15317

January 21, 2022

Via FedEx Overnight

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304

RE: Well Work Permit Modification  
BIG464 113H Well  
Permit Number 47-103-03437  
Grant District, Wetzel County, WV

RECEIVED  
Office of Oil and Gas  
JAN 24 2022  
WV Department of  
Environmental Protection

WVDEP Recipient,

Attached please find following information to modify the existing Well Work Permit for this well:

- Check in the amount of \$2,500 for the permit fee
- Check in the amount of \$2,500 for the expedited permit fee
- Completed Form WW-6B and supporting documents, approved by the Oil and Gas Inspector
- Revised Well Bore Diagram
- Well Location Plat
- Completed Form WW-6A1 and supporting documentation
- Hydraulic Fracturing Monitoring Plan

EQT is proposing to extend the lateral from the previously permitted length.

EQT Production trusts that if any portion of the submitted documentation is found to be inadequate for processing the permit, notification will be made to our Permitting department at your earliest convenience. It is EQT Production's intent to cooperate fully to provide any additional requested documentation and clarification in a timely manner such that permitting proceeds in a predictable and logical manner.

Best Regards,

John Zavatchan  
Project Specialist – Permitting  
[jzavatchan@eqt.com](mailto:jzavatchan@eqt.com)  
724-746-9073

02/11/2022



Stansberry, Wade A &lt;wade.a.stansberry@wv.gov&gt;

**Modification Horizontal H6A Well Work Permit (API: 47-103-03431, 03432, 03433, 03434, 03435, 03436, 03437)**

1 message

**Stansberry, Wade A** <wade.a.stansberry@wv.gov>

Thu, Feb 3, 2022 at 12:00 PM

To: John &lt;JZavatchan@eqt.com&gt;, Todd &lt;tklaner@eqt.com&gt;, "Shrum, Becky" &lt;bshrum@eqt.com&gt;, Olivia Pishioneri &lt;opishioneri@eqt.com&gt;, Erin Spine &lt;espine@eqt.com&gt;, "Harris, Bryan O" &lt;bryan.o.harris@wv.gov&gt;, Scott Lemley &lt;slemley@wvassessor.com&gt;

I have attached a copy of the newly issued well [permit](#) number. This will serve as your copy.








47-103-03431 - BIG 464 1H  
47-103-03432 - BIG 464 3H  
47-103-03433 - BIG 464 5H  
47-103-03434 - BIG 464 7H  
47-103-03435 - BIG 464 9H  
47-103-03436 - BIG 464 11H  
47-103-03437 - BIG 464 113H

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

Thank you,

**Wade A. Stansberry**  
Environmental Resource Specialist 3  
West Virginia Department of Environmental Protection  
Office of Oil & Gas  
601 57th St. SE  
Charleston, WV 25304  
(304) 926-0499 ext. 41115  
(304) 926-0452 fax  
[Wade.A.Stansberry@wv.gov](mailto:Wade.A.Stansberry@wv.gov)

**7 attachments**

-  47-103-03434 - mod.pdf  
1369K
-  47-103-03433 - mod.pdf  
1512K
-  47-103-03435 - mod.pdf  
1538K
-  47-103-03431 - mod.pdf  
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**02/11/2022**