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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

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

Tuesday, December 20, 2016  
WELL WORK PERMIT  
Horizontal 6A / Horizontal 6A Well - 1

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

Re: Permit approval for 516814  
47-103-03156-00-00

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: 516814  
Farm Name: COASTAL FOREST RESOURCES COMPANY  
U.S. WELL NUMBER: 47-103-03156-00-00  
Horizontal 6A / Horizontal 6A Well - 1  
Date Issued: 12/20/2016

Promoting a healthy environment.

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# PERMIT CONDITIONS 7 1 0 3 0 3 1 5 6

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

## CONDITIONS

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

4710303156

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

4710303156

1) Well Operator: EQT Production Company 306686 Wetzel Grant Pine Grove  
Operator ID County District Quadrangle

2) Operator's Well Number: 516814 Well Pad Name: PNG234

3) Farm Name/Surface Owner: Coastal Forest Resources Company  
F.K.A. Coastal Lumber Company Public Road Access: WV-218

4) Elevation, current ground: 1280 Elevation, proposed post-construction: 1234

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, 7206' TVD, 50', 2620 PSI, Top of Marcellus 7187'

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8) Proposed Total Vertical Depth: 7206'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 11257'

11) Proposed Horizontal Leg Length: 3115'

12) Approximate Fresh Water Strata Depths: 159'

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

14) Approximate Saltwater Depths: 1854, 2000, 2105'

15) Approximate Coal Seam Depths: 464, 927'

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	26	New	A-500	85.6	80	80	98 ft <sup>3</sup> / CTS
Fresh Water	13 3/8	New	J-55	54.5	982	982	826 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	2464	2464	960 ft <sup>3</sup> / CTS
Production	5 1/2	New	P-110	20	11257	11257	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							

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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	.312	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	See Variance	1.19
Production	5 1/2	8 1/2	.361	12640	10112	Class H	1.07/1.86
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 5053'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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7-22-16

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): 44.87

22) Area to be disturbed for well pad only, less access road (acres): 37.9

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.

\*Note: Attach additional sheets as needed.



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

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

March 18, 2014

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

4710303156

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.

12/23/2016



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**

4710303156

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.

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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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Well 516814(PNG234H5)

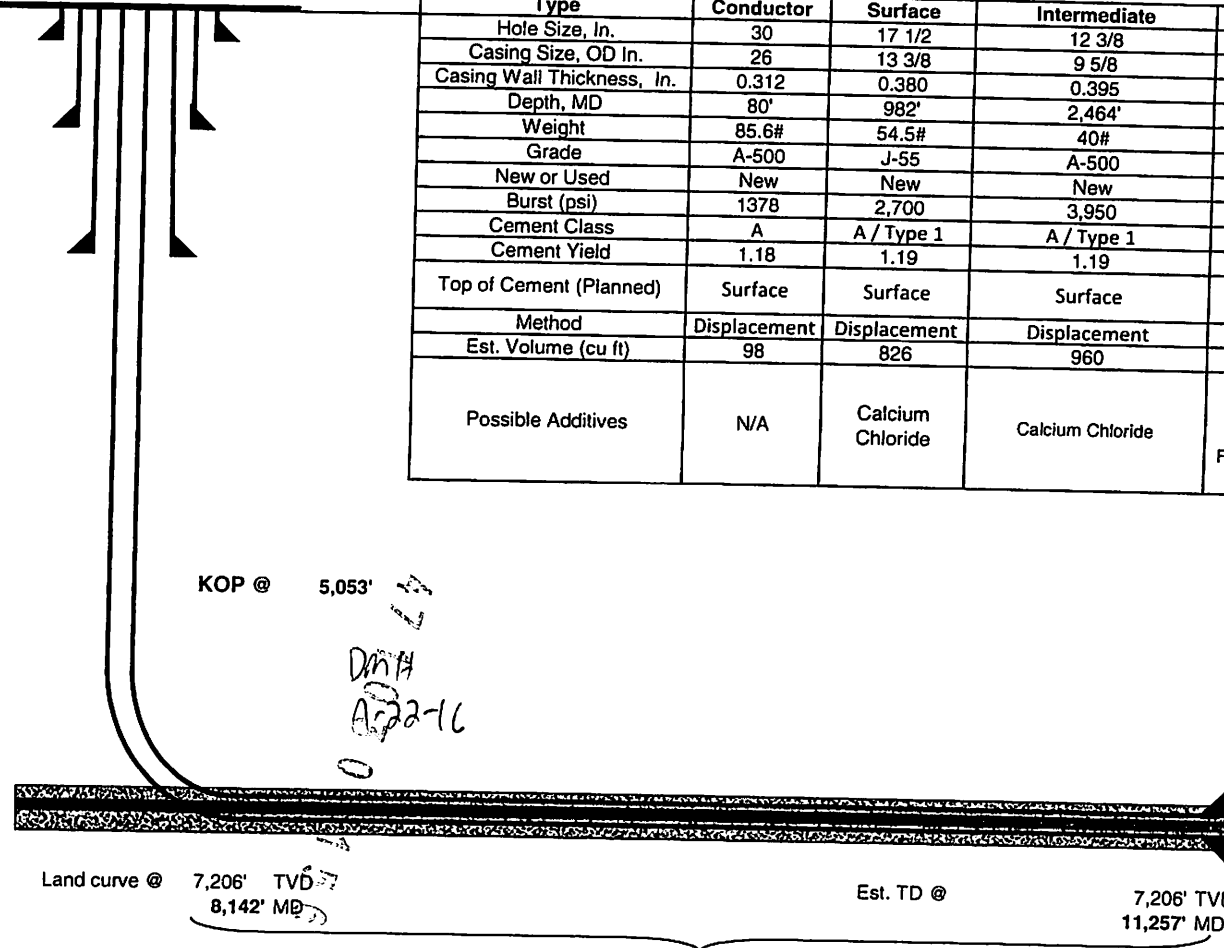
EQT Production  
Pine Grove Quad  
Wetzel County, WV

Azimuth 152  
Vertical Section 2464

Note: Diagram is not to scale

Formations	Top TVD	Base TVD
Conductor	80	
Base Fresh Water	159	
Surface Casing	982	
Base Red Rock	2027	
Maxton	2068 - 2245	
Big Lime	2305 - 2414	
Intermediate Casing	2464	
Weir	2545 - 2644	
Gantz	2731 - 2779	
Fifty foot	2858 - 2879	
Thirty foot	2900 - 2923	
Gordon	2963 - 3029	
Forth Sand	3067 - 3077	
Bayard	3209 - 3230	
Warren	3649 - 3690	
Speechley	3775 - 3789	
Riley	4649 - 4668	
Benson	5260 - 5329	
Alexander	5628 - 5651	
Sonyea	6799 - 6940	
Middlesex	6940 - 6980	
Genesee	6980 - 7062	
Genesee	7062 - 7087	
Tully	7087 - 7105	
Hamilton	7105 - 7187	
Marcellus	7187 - 7237	
Production Casing	11252	MD
Onondaga	7237	

Casing and Cementing				
Deepest Fresh Water: 159'				
Type	Conductor	Surface	Intermediate	Production
Hole Size, In.	30	17 1/2	12 3/8	8 1/2
Casing Size, OD In.	26	13 3/8	9 5/8	5 1/2
Casing Wall Thickness, In.	0.312	0.380	0.395	0.361
Depth, MD	80'	982'	2,464'	11,257'
Weight	85.6#	54.5#	40#	20#
Grade	A-500	J-55	A-500	P-110
New or Used	New	New	New	New
Burst (psi)	1378	2,700	3,950	12,640
Cement Class	A	A / Type 1	A / Type 1	H
Cement Yield	1.18	1.19	1.19	1.07/1.86
Top of Cement (Planned)	Surface	Surface	Surface	500' above top Producing Zone
Method	Displacement	Displacement	Displacement	Displacement
Est. Volume (cu ft)	98	826	960	2,216
Possible Additives	N/A	Calcium Chloride	Calcium Chloride	Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent



Land curve @ 7,206' TVD  
8,142' MD

Est. TD @ 7,206' TVD  
11,257' MD

3,115' Lateral

Proposed Well Work:  
Drill and complete a new horizontal well in the Marcellus formation.  
Drill the vertical to an approximate depth of 5033'.  
Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

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 Office of Oil and Gas  
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June 27, 2016

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

Re: Casing on PNG234

Dear Mr. Smith,

EQT is requesting the 13-3/8" surface casing be set at 982' KB, 50' below the Pittsburgh Coal seam. We will set the 9-5/8" intermediate string at 2464' KB, 50' below the base of the Big Lime formation.

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

Sincerely,

Vicki Roark  
Permitting Supervisor - WV

Enc.

4710303156

DMH  
7-22-16

**EQT Production**  
**Hydraulic Fracturing Monitoring Plan**  
**Pad ID: PNG234**  
**Wetzel County, WV**

**12/19/16**

## 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 PNG234 pad: 516814

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**.

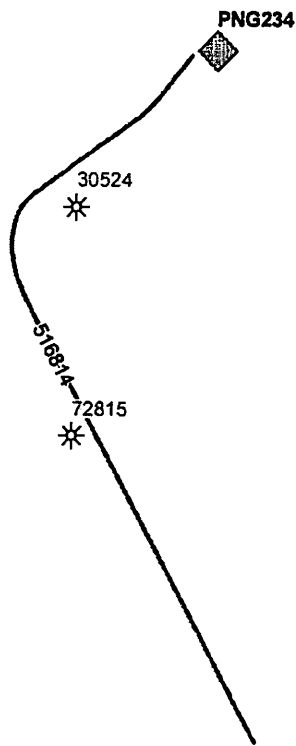
EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

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.



**EQT**

EQT Corporation  
625 Liberty Avenue  
Pittsburgh, PA 15222

**PNG234**

**Vertical Offsets and  
Foreign Laterals  
within 500'**

Legend

PNG234 Vertical Offset

Gaswell Spud

Marcellus Spud

Middlesex Spud

Utica Spud

ODELSB

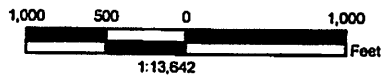
MARCELLUS

MIDDLESEX

POINT PLEASANT

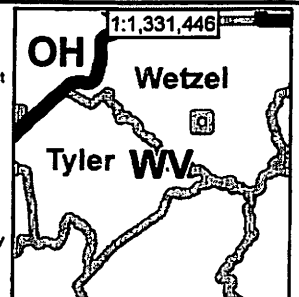
UTICA

Prospect Wells



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.



Created By: Ryan Meers Printed By: rmeers on 12/19/2016

Path: \\MDC\PC92\concept\GIS\_Department\GIS\_Users\Meers,R\scratch\Vertical Offsets\Foreign Well Working Map.mxd

Attachment A (6) 12/23/2016

UWI	ABAND_DATE	COMP_DATE	CURR_OPER	ELEVATION	ELEV_REF_CD	FNL_STAT	HOLE_DIR	LAST_ACT	LATITUDE	LONGITUDE	OPER_NAME	PERMIT_DT	SPUD_DATE	TD_FORM_NM	TOT_DEPTH	TVD	WELL_NUM	Permit
47103305240000	4/29/1946	10/13/1915	UNKNOWN	1172	GR	ABD-GW	V	6/2/2015	39.5498	-80.6504	UNKNOWN	8/29/1915	9/13/1915	HAMPSHIRE	3076	0	3906	30524
47103728150000			UNKNOWN	0	GR	UNKWN	V	2/2/2015	39.5459	-80.6505	UNKNOWN				0	0	1634	72815

\* No Perforation Data

Attachment A(2)  
12/23/2016

WW-9  
(4/16)

47 10303 156

API Number 47 - 103 - \_\_\_\_\_  
Operator's Well No. 516814

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) Upper Run of South Fork Fishing Creek Quadrangle Pine Grove

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: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? 47 10303 156

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 \_\_\_\_\_)

*Dir H*  
*7-22-16*

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

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

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

Additives to be used in drilling medium? See Attached

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

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

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

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

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

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

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

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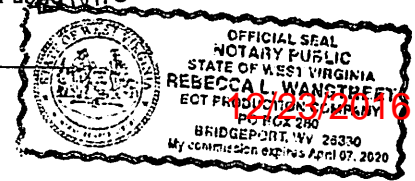
JUL 28 2016

Subscribed and sworn before me this 7 day of July, 2016

*Rebecca L. Wainstreet*

WV Department of Environmental Protection  
Notary Public

My commission expires 4-7-20



4710303156

Operator's Well No. 516814

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed 44.87 Prevegetation pH 6.1

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]

4710303156

RECEIVED Office of Oil and Gas

JUL 28 2016

WV Department of Environmental Protection

Title: Oil + Gas Inspector

Date: 7-22-16

Field Reviewed? ( / ) Yes ( ) No





Pine Grove 7.5' USGS QUADRANGLE		Proposed Disturbance Area	
Projected culvert inventory. (for bid purposes only)		Well Site Location	See Site Plan
15" minimum diameter culverts	See Site Plan	Proposed Access Road	See Site Plan
24" minimum diameter culverts	See Site Plan	Approximate Total Disturbance	See Site Plan
DRAWN BY: Tim Rutledge	DATE: June 7, 2016	FILE NO: 10-16	DRAWING FILE NO: 1016 Rec Plan

Note: SEE SITE PLAN OF PNG 103 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC. JUL 28 2016



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**  
 Birch River Office 1-800-482-8606 237 Birch River Road  
 Phone: (304) 649-8606 P.O. Box 438  
 Fax: (304) 649-8608 Birch River, WV 26610

WV Department of Environmental Protection

12/23/2016

# **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

### **BROAD STREET ENERGY LLC**

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

### **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

### **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

### **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

### **KING EXCAVATING CO.**

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

### **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

4710303150

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Environmental Protection  
12/23/2016

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.

471030215-



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4710303156



Where energy meets innovation.™

# Site Specific Safety Plan

EQT PNG 234 Pad

471030315

Pine Grove  
Wetzel County, WV

516814

For Wells:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date Prepared:

June 16, 2016

[Signature]  
EQT Production

[Signature]  
WV Oil and Gas Inspector

Permitting Supervisor  
Title

Oil + Gas Inspector  
Title

7-7-16  
Date

7-22-16  
Date

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Office of Oil and Gas

JUL 28 2016

WV Department of  
Environmental Protection

12/23/2016

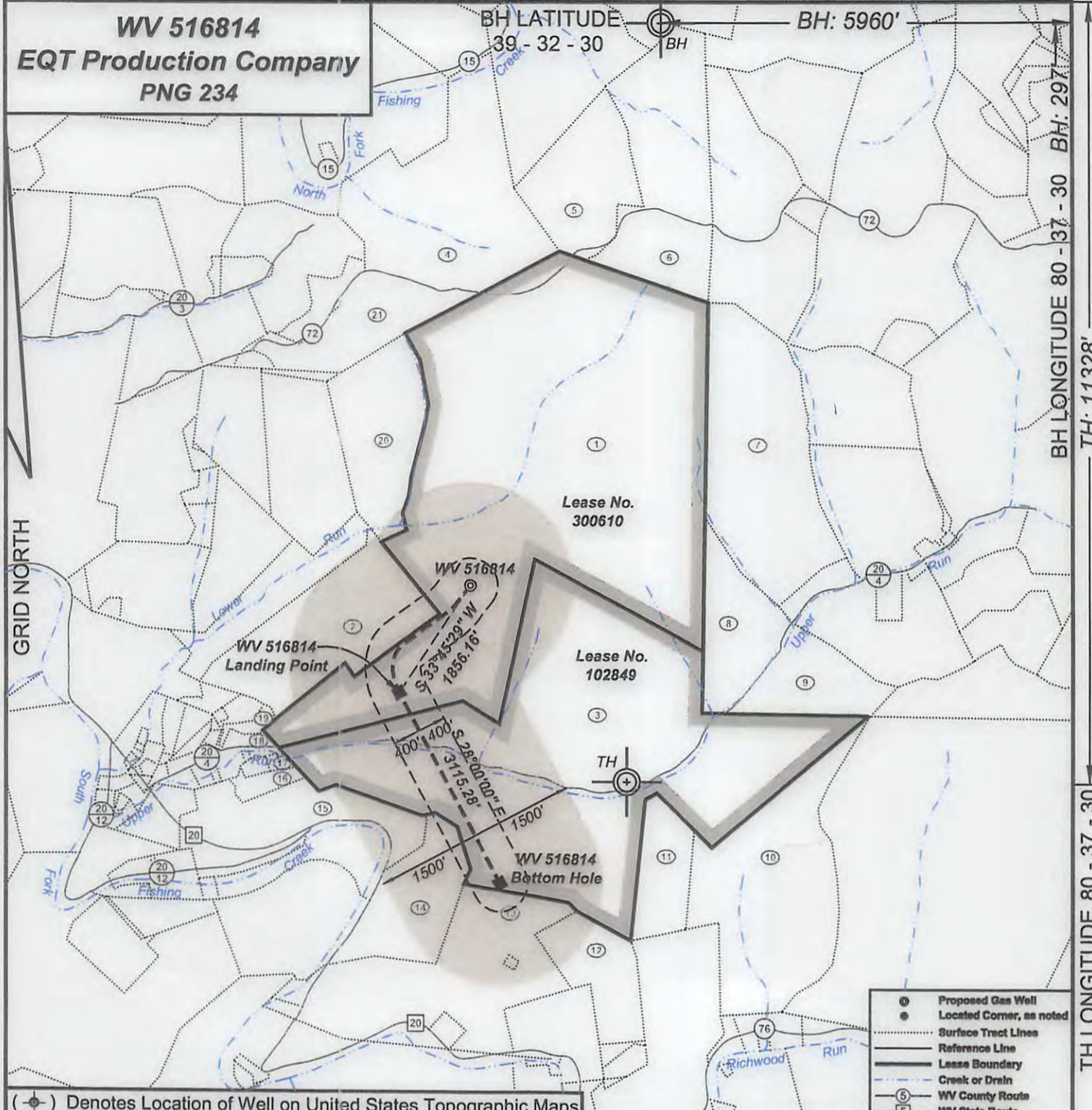
TH LATITUDE 39 - 35 - 00'

TH: 6581'

**WV 516814**  
**EQT Production Company**  
**PNG 234**

BH LATITUDE  
39 - 32 - 30

BH: 5960'



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

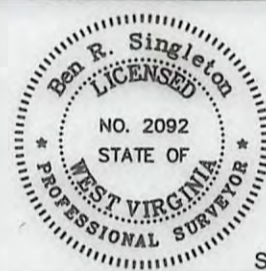
- ⊕ Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- ⑤ WV County Route
- ⑤ WV State Route



*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: 10-34-G-16  
 DRAWING NO: 10-16 PNG234 H5.dwg  
 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: July 14 20 16

OPERATOR'S WELL NO. WV 516814

API WELL NO

47 - 103 - 03150  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: Existing 1280' Proposed 1234' WATERSHED Upper Run of South Fork of Fishing Creek QUADRANGLE: Pine Grove

DISTRICT: Grant COUNTY: Wetzel

SURFACE OWNER: Coastal Forest Resources Company F.K.A. Coastal Lumber Company ACREAGE: 532

ROYALTY OWNER: Waco Oil & Gas Co., Inc. LEASE NO: 300610 ACREAGE: 532

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: 7,206'

WELL OPERATOR: EQT Production Company

DESIGNATED AGENT: Rex C. Ray

ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330

ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330

12/23/2016



Pine Grove 7.5' USGS QUADRANGLE		Proposed Disturbance Area	
Projected culvert inventory. (for bid purposes only)		Well Site Location	See Site Plan
15" minimum diameter culverts	See Site Plan	Proposed Access Road	See Site Plan
24" minimum diameter culverts	See Site Plan	Approximate Total Disturbance	See Site Plan
DRAWN BY: Tim Rutledge	DATE: June 7, 2016	FILE NO. 10-16	DRAWING FILE NO. 1016 Rec Plan

Note: SEE SITE PLAN OF PNG 103 FOR COMPLETE GRADING & DRAINAGE CONSTRUCTION INCLUDING EROSION & SEDIMENT CONTROL DETAILS, ETC.

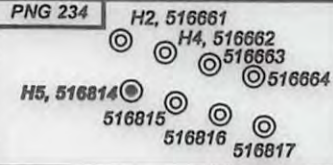
RECEIVED  
Office of Oil and Gas  
JUL 12 2016



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**  
1-800-482-8606  
Birch River Office  
Phone: (304) 649-8606  
Fax: (304) 649-8608  
237 Birch River Road  
P.O. Box 438  
Birch River, WV 26610

WV Department of Environmental Protection  
12/23/2016

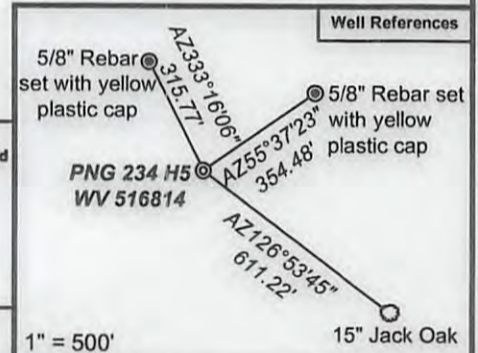
**WV 516814**  
**EQT Production Company**  
**PNG 234**



WV 516814 coordinates:  
 NAD 27 N: 385,379.81 E: 1,676,346.77  
 NAD 27 Lat: 39.552416 Long: -80.647842  
 NAD 83 UTM N: 4,378,150.05 E: 530,271.14  
 WV 516814 Landing Point coordinates:  
 NAD 27 N: 383,836.61 E: 1,675,315.33  
 NAD 27 Lat: 39.548143 Long: -80.651429  
 NAD 83 UTM N: 4,377,674.64 E: 529,964.72  
 WV 516814 Bottom Hole coordinates:  
 NAD 27 N: 381,085.99 E: 1,676,777.86  
 NAD 27 Lat: 39.540543 Long: -80.646119  
 NAD 83 UTM N: 4,376,844.09 E: 530,424.26

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.

Tract I.D.	Tax Map No.	Parcel No.	District	Surface Tract Owner	Acres
1	16	19	Grant	Coastal Forest Resources Co.	522.5
2	16	23	Grant	Coastal Forest Resources Co.	99.5
3	16	40	Grant	Coastal Forest Resources Co.	412.8
4	11	58	Grant	Coastal Forest Resources Co.	124.25
5	12	23	Grant	Esther R. Coen	60.5
6	12	36	Grant	Coastal Forest Resources Co.	38.5
7	17	1.1	Grant	Coastal Forest Resources Co.	131.69
8	17	05	Grant	Donald Lee & Laura S. Smith	48.03
9	17	06	Grant	Georgia Ann Smith	0.55
10	17	16.1	Grant	Coastal Forest Resources Co.	137.39
11	17	15	Grant	Coastal Forest Resources Co.	32.00
12	22	02	Grant	Elizabeth Morgan, et al.	27.00
13	22	01	Grant	Wheeling Jesuit University, Inc.	122.35
14	16	64	Grant	Jerry Lee Kuhens, Jr., et al.	52.82
15	16	55	Grant	Joseph D. Barker	61.00
16	16	54.2	Grant	William M. & Kimberly K. Haught	6.40
17	16	54	Grant	Carma Wyatt, et al.	1.482
18	16	39	Grant	Donna Sivert, et al.	3.78
19	16	32.2	Grant	Donna Sivert, et al.	2.88
20	16	13	Grant	Coastal Forest Resources Co.	64.00
21	11	73	Grant	Coastal Forest Resources Co.	52.30

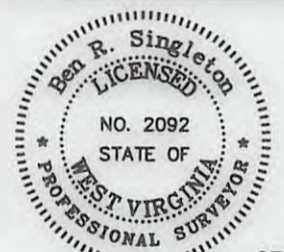


Lease No.	Acres	Owner
102849	419.7	Shiben Estates



*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: 10-34-G-16  
 DRAWING NO: 10-16 PNG234 H1.dwg  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: July 14 20 16  
 OPERATOR'S WELL NO. WV 516814  
 API WELL NO. 47 - 103 - 03156  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: Existing 1280' Proposed 1234' WATERSHED Upper Run of South Fork of Fishing Creek QUADRANGLE: Pine Grove  
 DISTRICT: Grant COUNTY: Wetzel  
 SURFACE OWNER: Coastal Forest Resources Company F.K.A. Coastal Lumber Company ACREAGE: 532  
 ROYALTY OWNER: Waco Oil & Gas Co., Inc. LEASE NO: 300610 ACREAGE: 532  
 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: 7,206'  
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Rex C. Ray  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330 Bridgeport, WV 26330

**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				

4710305153

**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: Victoria J Roark  
 Its: Permitting Supervisor

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 JUL 12 2016  
 Page 1 of 2  
 WV Department of Environmental Protection  
 12/23/2016



Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty Book/Page
	Waco Oil & Gas Co., Inc. (current royalty owner)		***
<b>300610</b>	Lucius Hogue, et ux.	South Penn Oil Company	DB 56/622
	South Penn Oil Company	Hope Natural Gas Company	OG 9A/230
	Hope Natural Gas Company	Consolidated Gas Supply Corporation	OG 233/387
	Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	OG 66A/69
	Consolidated Gas Transmission Corporation	CNG Transmission Corporation	CB 13/151
	CNG Transmission Corporation	Eastern States Oil & Gas, Inc.	OG 76A/232
	Eastern States Oil & Gas, Inc.	Blazer Energy Corp.	CB 12/253
	Blazer Energy Corp.	Eastern States Oil & Gas, Inc.	CB 12/259
	Eastern States Oil & Gas, Inc.	Equitable Production-Eastern States Oil & Gas, Inc	CB 13/14
	Equitable Production-Eastern States Oil & Gas, Inc.	Equitable Production Company	CB 13/14
	Equitable Production Company	EQT Production Company	CB 13/14
	Shiben Estates, Inc. (current royalty owner)		***
<b>102849</b>	Letitia J. Lacock	The Philadelphia Company	DB 47/519
	The Philadelphia Company	The Philadelphia Company of WVA	DB 47/561
	The Philadelphia Company of WVA	Pittsburgh and West Virginia Gas Company	OG 22A/352
	Pittsburgh and West Virginia Gas Company	Equitable Gas Company	DB 187/321
	Equitable Gas Company	Equitrans, Inc.	71A/453
	Equitrans, Inc.	Equitrans, LP	DB 437/584 & DB 105/908
	Equitrans, LP	Equitable Production-Eastern States, Inc.	DB 192/19 (Doddridge County)
	Equitable Production-Eastern States, Inc.	Equitable Production Company	Delaware Secretary of State (see attached)
	Equitable Production Company	EQT Production Company	CB 13/14

\*\*\* We will pay 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.

47 103 03 150

State of Delaware  
Office of the Secretary of State

PAGE 1

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"EQUITABLE PRODUCTION - EASTERN STATES, INC.", A DELAWARE CORPORATION,

WITH AND INTO "EQUITABLE PRODUCTION COMPANY" UNDER THE NAME OF "EQUITABLE PRODUCTION COMPANY", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF PENNSYLVANIA, AS RECEIVED AND FILED IN THIS OFFICE THE THIRTIETH DAY OF APRIL, A.D. 2001, AT 12 O'CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



*Harriet Smith Windsor*  
Harriet Smith Windsor, Secretary of State

3386289 8100M

AUTHENTICATION: 1109924

010206565

DATE: 05-01-01

12/23/2016

CERTIFICATE OF MERGER  
OF  
EQUITABLE PRODUCTION – EASTERN STATES, INC.  
INTO  
EQUITABLE PRODUCTION COMPANY

The undersigned corporation DOES HEREBY CERTIFY:

**FIRST:** That the names and states of incorporation of each of the constituent corporations of the merger are as follows:

<u>NAME</u>	<u>STATE OF INCORPORATION</u>
Equitable Production – Eastern States, Inc.	Delaware
Equitable Production Company	Pennsylvania

**SECOND:** That an Agreement of Merger between the parties to the merger has been approved, adopted, certified, executed and acknowledged by each of the constituent corporations in accordance with the requirements of Section 252 of the General Corporation Law of Delaware.

**THIRD:** That the Articles of Incorporation of Equitable Production Company, a Pennsylvania corporation, which is the surviving corporation, shall continue in full force and effect as the Certificate of Incorporation of the surviving corporation.

**FOURTH:** That the executed Agreement of Merger is on file at an office of the surviving corporation, the address of which is 301 Grant Street, Suite 3300, Oxford Centre, Pittsburgh, Pennsylvania 15219.

**FIFTH:** That a copy of the Agreement of Merger will be furnished, on request and without cost, to any stockholder of any constituent corporation.

**SIXTH:** That Equitable Production Company survives the merger and may be served with process in the State of Delaware in any proceeding for enforcement of any obligation of any constituent Delaware corporation as well as for enforcement of any obligation of the surviving corporation arising from the merger, including any suit or other proceeding to enforce the right of any stockholder, as determined in appraisal proceedings pursuant to the provisions of Section 262 of the General Corporation Law of Delaware, and it does hereby irrevocably appoint the Secretary of State of Delaware as its agent to accept service of process in any such suit or other proceeding. The address to which a copy of such process shall be mailed by the Secretary of State of Delaware is 301 Grant Street, Suite 3300, Oxford Centre, Pittsburgh, PA 15219 until the surviving corporation shall have hereafter designated in writing to the said Secretary of State a different address for such purpose.

**SEVENTH:** That this Certificate of Merger shall be effective on April 30, 2001.

Dated: April 26, 2001

EQUITABLE PRODUCTION COMPANY

By:   
Henry E. Reich, Jr., Vice President

STATE OF DELAWARE  
SECRETARY OF STATE  
DIVISION OF CORPORATIONS  
FILED 12:00 PM 04/30/2001  
010206565 - 2075827



June 30, 2016

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

Re: PNG234 well pad, well number 516814  
Grant District, Wetzel County

4710303155

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

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

Date of Notice Certification: 7/11/10

API No. 47- 103 - \_\_\_\_\_  
Operator's Well No. 516814  
Well Pad Name: PNG234

**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>530271.1</u>
County: <u>Wetzel</u>	Northing: <u>4378150</u>
District: <u>Grant</u>	Public Road Access: <u>WV-218</u>
Quadrangle: <u>Pine Grove</u>	Generally used farm name: <u>Coastal Forest Resources F.K.A. Coastal Lumber Company</u>
Watershed: <u>Upper Run of South Fork of Fishing Creek</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 checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" 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>
--	---

**Required Attachments:**

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

**Certification of Notice is hereby given:**

THEREFORE, I *[Signature]*, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: EQT Production Company  
By: Victoria J Roark  
Its: Permitting Supervisor  
Telephone: 304-848-0076

Address: 115 Professional Place PO Box 280  
Bridgeport WV 26330  
Facsimile: 304-848-0041  
Email: vroark@eqt.com



Subscribed and sworn before me this 7<sup>th</sup> day of July 2016.  
Rebecca L. Wanstreet Notary Public  
My Commission Expires 4-7-20

**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).

4710303156



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

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

Date of Notice: 7/8/10 Date Permit Application Filed: 7/8/10

Notice of:

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

4710303150

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

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

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

\*Please attach additional forms if necessary



**Surface Owners (Other Disturbance-AST):**

Coastal Forest Resources d/b/a  
Coastal Timberlands Company  
PO Box 709  
Buckhannon WV 26201

✓

4710303150

RECEIVED  
Office of Oil and Gas  
JUL 12 2016  
WV Department of  
Environmental Protection

12/23/2016

**Surface Owners:**

Coastal Forest Resources d/b/a  
Coastal Timberlands Company  
PO Box 709  
Buckhannon WV 26201



47 10303156

12/23/2016

**Surface Owners (Road):**

Coastal Forest Resources d/b/a  
Coastal Timberlands Company  
PO Box 709  
Buckhannon WV 26201



4710303156

12/23/2016

## Coal Owner

CNX Land LLC ✓  
Engineering Operations Support Dept. Coal ✓  
1000 Consol Energy Drive  
Canonsburg PA 15317-6506  
Attn: Casey Saunders

CNX RCPC, Inc. ✓  
Engineering Operations Support Dept. Coal ✓  
1000 Consol Energy Drive  
Canonsburg PA 15317-6506  
Attn: Casey Saunders

Consolidation Coal Company (OH) ✓  
c/o Murray Energy Corporation ✓  
46226 National Road  
St. Clairsville OH 43950  
Attn: Alex O'Neill

Consolidation Coal Company (WV) ✓  
c/o Murray Energy Corporation ✓  
1 Bridge Street  
Monongah WV 26554  
Attn: Troy Freels

Richards Resources ✓  
Rt. 3 Box 79-B  
Salem WV 26426

Flame Duo ✓  
111 Venture Dr.  
Bridgeport WV 26330

Dorothy M. Miller ✓  
c/o Rebecca Lynn Miller Schmitt ✓  
119 N. 23<sup>rd</sup> St.  
Wheeling WV 26003

Stuart Barrett Kelly ✓  
1116 River Bay Rd  
Annapolis MD 21409

Berry Wells Cox ✓  
2 Lyme Street  
Old Lyme Court CT 06371-2328

John Morrison Cox ✓  
13878 SW Maple Crest Drive ✓  
Portland OR 97219-6432

Lynn Cox Little ✓  
4800 Ballenger Creek Rd.  
Frederick MD 21701-7552

Helen Berry Cox, Trust B  
Owensboro National Bank of Owensboro  
2800 Fredrica St  
Owensboro KY 42301

S.T. Cox ✓  
aka Thistle Cox ✓  
308 2<sup>nd</sup> Street  
Glen Dale WV 26038

Charles W Cox  
Address Unknown

12/23/2016

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

**This Notice Shall Include:**

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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 permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

0307  
RECEIVED  
Office of Oil and Gas  
JUL 12 2016  
WV Department of  
Environmental Protection

**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.

RECEIVED  
Office of Oil and Gas  
JUL 12 2016  
WV Department of  
Environmental Protection

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

*Went JK*



Subscribed and sworn before me this 7<sup>th</sup> day of July 2016.  
Rebecca L. Wanstreet Notary Public  
My Commission Expires 4-7-20

4710303150



Topo Quad: Pine Grove

Scale: 1" = 2000'

County: Wetzel

Date: June 30, 2016

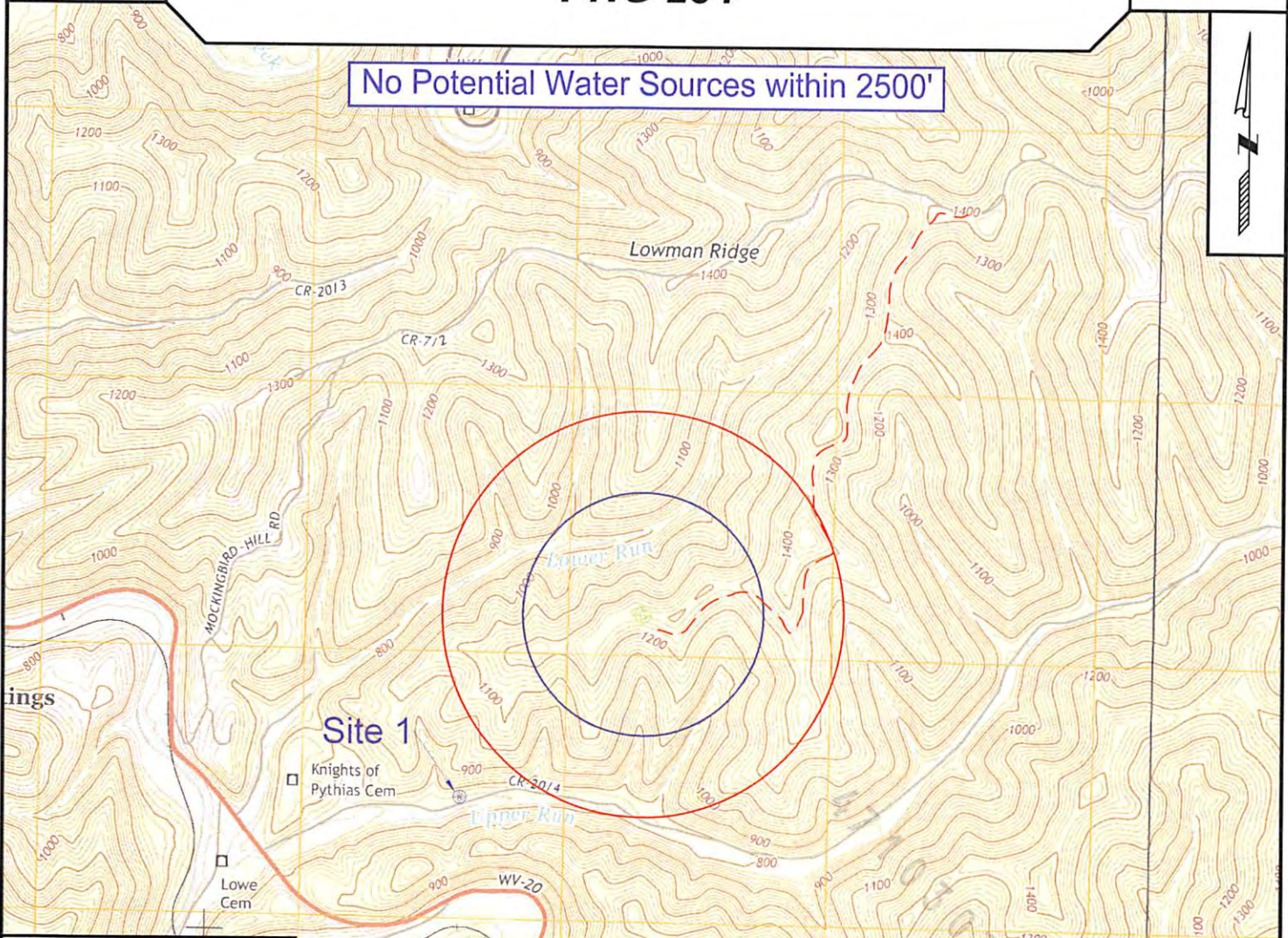
District: Grant

Project No: 10-34-G-16

Water

# PNG 234

No Potential Water Sources within 2500'



### LEGEND

Red Symbol - Declined Sampling  
 Blue Symbol - Requested Sampling  
 / Unable to Contact

- Well
- Spring
- Pond
- Building

NAD 83, North Zone  
 N:385,435.07  
 E:1,644,944.49

WGS 84  
 LAT:39.552550  
 LONG:-80.647527  
 ELEV:1,250.00



SURVEYING AND MAPPING SERVICES PERFORMED BY:

## ALLEGHENY SURVEYS, INC.

1-800-482-8606  
 237 Birch River Road  
 Birch River, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

PREPARED FOR:

## EQT Production Company

P.O. Box 280  
 Bridgeport, WV 26330

RECEIVED  
JUL 12 2016  
Office of Oil and Gas

RECEIVED  
JUL 12 2016  
Office of Oil and Gas

RECEIVED  
JUL 12 2016  
Department of Environmental Protection

12/23/2016

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

**Notice Time Requirement:** Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry.

Date of Notice: 12/31/2015

Date of Planned Entry: 1/7/2016

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

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

Pursuant to West Virginia Code § 22-6A-10(a), prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

**Notice is hereby provided to:**

SURFACE

COAL OWNER OR LESSEE

Name: Coastal Forest Resources

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

Address: P.O. Box 709, Buckhannon, WV 26201

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

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

MINERAL OWNER(S)

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

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

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

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

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

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

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

\*Please attach additional forms if necessary

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: WV

Approx. Latitude & Longitude: 39.55253/-80.64729

County: Wetzel

Public Road Access: County Route 7/2 - Lowman Ridge

District: Grant/Tax Map 16 Parcel 19

Watershed: Upper Run

Quadrangle: Pine Grove

Generally Used Farm Name: Hoge

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: EQT Production Company

Address: 115 Professional Place, Bridgeport, WV 26330

Telephone: 304-848-0074

EQT Representative: Jamie I. Barbour

Facsimile: 304-848-0040

Email: EQTLandEntryNotice@eqt.com

Signature: 

**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 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).

**12/23/2016**

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

**Notice Time Requirement:** Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry.

**Date of Notice:** 12/31/2015

**Date of Planned Entry:** 1/7/2016

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

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

Pursuant to West Virginia Code § 22-6A-10(a), prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

**Notice is hereby provided to:**

SURFACE

COAL OWNER OR LESSEE ✓

CNX Land LLC  
Engineering and Operations Support Dept. Coal  
Name: Attn.: Ryan Arp

Address: CNX Center, 1000 CONSOL Energy Dr.,  
Canonsburg, PA 15317-6505

MINERAL OWNER(S)

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

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

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

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

\*Please attach additional forms if necessary

47103037

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: WV  
County: Wetzel  
District: Grant/Tax Map 16 Parcel 19  
Quadrangle: Pine Grove


Approx. Latitude & Longitude: 39.55253/-80.64729  
Public Road Access: County Route 7/2 - Lowman Ridge  
Watershed: Upper Run  
Generally Used Farm Name: Hoge

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: EQT Production Company  
Telephone: 304-848-0074  
Facsimile: 304-848-0040  
Email: EQTLandEntryNotice@eqt.com

Address: 115 Professional Place, Bridgeport, WV 26330  
EQT Representative: Jamie J. Barbour

Signature: 

**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 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 or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@WV.gov](mailto:depprivacyofficer@WV.gov).

12/28/2016

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

**Notice Time Requirement:** Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry.

Date of Notice: 12/31/2015

Date of Planned Entry: 1/7/2016

Delivery method pursuant to West Virginia Code § 22-6A-10(a):

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

Pursuant to West Virginia Code § 22-6A-10(a), prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE

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

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

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

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

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

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

COAL OWNER OR LESSEE

Name: Murray American Energy, Inc. ✓  
Attn.: Troy Freels

Address: 1 Bridge Street  
Monongah, WV 26554

MINERAL OWNER(S)

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

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

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

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

\*Please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: WV

County: Wetzel

District: Grant/Tax Map 16 Parcel 19

Quadrangle: Pine Grove

Approx. Latitude & Longitude: 39.55253/-80.64729

Public Road Access: County Route 7/2 - Lowman Ridge

Watershed: Upper Run

Generally Used Farm Name: Hoge 770303150

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Notice is hereby given by:

Well Operator: EQT Production Company

Telephone: 304-848-0074

Facsimile: 304-848-0040

Email: EQTLandEntryNotice@eqt.com

Address: 115 Professional Place, Bridgeport, WV 26330

EQT Representative: Jamie I. Barbour

Signature: 

**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 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).

12/23/2016



**Surface Owners:**

Coastal Forest Resources d/b/a  
Coastal Timberlands Company  
PO Box 709  
Buckhannon WV 26201



47 1 0 3 0 5 1 5 6

**RECEIVED**  
Office of Oil and Gas

JUL 12 2016

WV Department of  
Environmental Protection

12/23/2016

**Surface Owners (Road):**

Coastal Forest Resources d/b/a  
Coastal Timberlands Company  
PO Box 709  
Buckhannon WV 26201

47 1 0 3 0 3 1 5 6

12/23/2016

**Surface Owners (Other Disturbance-AST):**

Coastal Forest Resources d/b/a  
Coastal Timberlands Company  
PO Box 709  
Buckhannon WV 26201

47 1 0 3 0 5 1 5 9

12/23/2016





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

June 23, 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 PNG 234 Pad Site, Wetzel County

#516661 PNG234H1	#516662 PNG234H2	#516663 PNG234H3
#516664 PNG234H4	#516814 PNG234H5	#516815 PNG234H6
#516816 PNG234H7	#516817 PNG234H8	

Dear Mr. Martin,

This well site will be accessed from existing Permits #06-2013-0092 & #06-2013-0093 issued to EQT Production Company for access to the State Road for a well site located off of Wetzel County Route 74 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

4710305156

RECEIVED  
Office of Oil and Gas

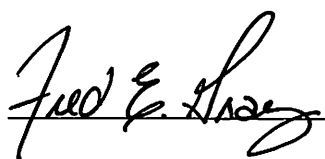
JUL 12 2016

WV Department of  
Environmental Protection

12/23/2016

OPERATOR: EQT Production Company WELL NO: 516814

PAD NAME: PNG234

REVIEWED BY: Fred E. Gray SIGNATURE: 

### WELL RESTRICTIONS CHECKLIST

#### HORIZONTAL 6A WELL


#### Well Restrictions

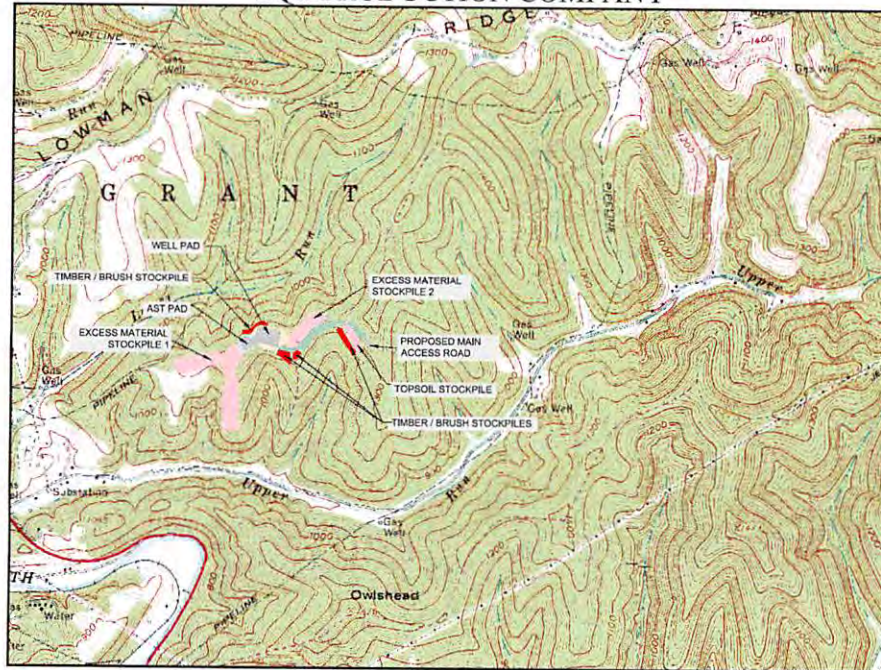
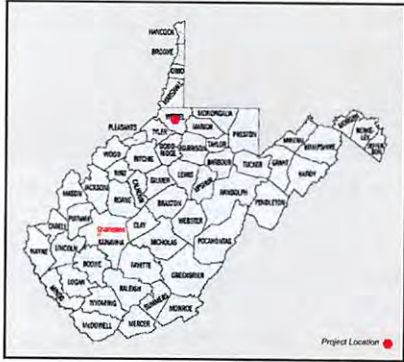
- At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR  
 DEP Waiver and Permit Conditions
- At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR  
 DEP Waiver and Permit Conditions
- At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR  
 DEP Waiver and Permit Conditions
- At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR  
 Surface Owner Waiver and Recorded with County Clerk, OR  
 DEP Variance and Permit Conditions
- At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR  
 Surface Owner Waiver and Recorded with County Clerk, OR  
 DEP Variance and Permit Conditions
- At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR  
 Surface Owner Waiver and Recorded with County Clerk, OR  
 DEP Variance and Permit Conditions

# EQT - PNG 234

## FINAL SITE DESIGN, CONSTRUCTION PLANS, & EROSION & SEDIMENT CONTROL PLANS

### EQT PRODUCTION COMPANY


 West Virginia Coordinate System of 1983  
 State Plane Grid North  
 Elevations NAVD88  
 Established by Survey Grade GPS



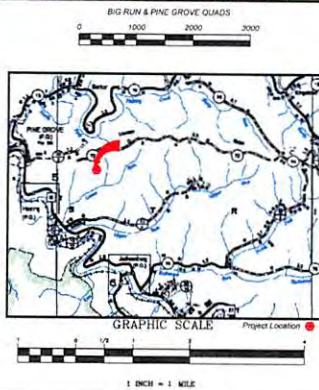
**AFFECTED PROPERTIES**

TM 16 PCL 19 COASTAL LUMBER COMPANY 532 ACRES SITE DISTURBANCE	MAIN ACCESS ROAD = 5.37 ACRES ABOVEGROUND STORAGE TANK (AST) PAD = 2.32 ACRES WELL PAD = 5.44 ACRES EXCESS MATERIAL STOCKPILES AREA = 18.20 ACRES TOPSOIL STOCKPILES AREA = 0.63 ACRES TIMBER / BRUSH STORAGE AREAS = 1.14 ACRES <b>TOTAL DISTURBANCE = 31.85 ACRES</b> TIMBER REMOVAL = 30.26 ACRES
TM 16 PCL 40 COASTAL LUMBER COMPANY 532 ACRES SITE DISTURBANCE	MAIN ACCESS ROAD = 1.60 ACRES TOPSOIL STOCKPILE AREA = 1.59 ACRES EXCESS MATERIAL STOCKPILES AREA = 0.26 ACRES TIMBER / BRUSH STORAGE AREA = 0.88 ACRES <b>TOTAL DISTURBANCE = 4.33 ACRES</b> TIMBER REMOVAL = 4.00 ACRES
TM 16 PCL 73 COASTAL LUMBER COMPANY 89.90 ACRES SITE DISTURBANCE	EXCESS MATERIAL STOCKPILES AREA = 8.89 ACRES <b>TOTAL DISTURBANCE = 8.89 ACRES</b> TIMBER REMOVAL = 8.89 ACRES

- WELL LEGEND**
- 516817 - LAT: 39.552438 / LONG. -80.647350
  - 516816 - LAT: 39.552458 / LONG. -80.647453
  - 516815 - LAT: 39.552478 / LONG. -80.647556
  - 516814 - LAT: 39.552498 / LONG. -80.647659
  - 516661 - LAT: 39.552588 / LONG. -80.647685
  - 516662 - LAT: 39.552568 / LONG. -80.647582
  - 516663 - LAT: 39.552548 / LONG. -80.647479
  - 516664 - LAT: 39.552528 / LONG. -80.647375

FLOODPLAIN CONDITIONS	
DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN:	NO
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:	NO
HEC-RAS STUDY COMPLETED:	N/A
FLOODPLAIN SHOWN ON DRAWINGS:	N/A
FIRM MAP NUMBER(S) FOR SITE:	54103C0185C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:	N/A

SITE LOCATIONS WGS 84 (NAD 83) NORTH ZONE		
PROPOSED	LATITUDE	LONGITUDE
Proposed Well Pad	39.552530	-80.647517
Proposed AST PAD	39.552472	-80.648092
Existing Off 72 Access Road	39.552419	-80.647549
Proposed Access Road Site (C-10)	39.552418	-80.647527



**WELL LOCATION RESTRICTIONS**

Well Pad complies with the Well Location Restrictions of WV code 20-6A-12

- \* 250' from an existing well or developed spring used for human or domestic animals.
- \* 625' to occupied dwelling or barn greater 2500 SF, used for poultry or dairy measured from the center of the pad.
- \* 100' from edge of disturbance to wetlands, perennial streams, nature or artificial lake, pond or reservoir.
- \* 300' from edge of disturbance to naturally reproducing trout streams.
- \* 1000' of surface or ground water intake to a public water supply.

Design Certification

The drawings, construction notes, and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection, Office of Oil and Gas §35-4-21.

The information reflects a 40,000 BBL Above Ground Storage Tank (AST) Pad with secondary containment.

Honor Brothers Engineers make no certifications relating to the design, construction or materials associated with the Above Ground Storage Tank (AST).

**APPROVED**  
**WVDEP OOG**  
 12/12/2016

**SHEET INDEX**

COVER SHEET / LOCATION MAP	NO.
EXISTING CONDITIONS PLAN	-1
SCHEDULE OF QUANTITIES	-2
CONSTRUCTION, GENERAL AND EAS NOTES	-3
OVERVIEW PLAN	-4
EXISTING PNG 129 ACCESS ROAD	-5
FINAL SITE DESIGN PLANS	6-13
WELL PAD PROFILE & CROSS SECTIONS	-14-15
AST PAD PROFILE & CROSS SECTIONS	-16
TOPSOIL STOCKPILE PROFILE & CROSS SECTIONS	-17
EXCESS MATERIAL STOCKPILES PROFILES & SECTIONS	-18-24
EXISTING PNG 129 ROAD PROFILES & SECTIONS	-25-30
ACCESS ROADS PROFILE & CROSS SECTIONS	-31-34
CONSTRUCTION DETAILS	-35-37
RECLAMATION PLANS	-38-42

MISS Utility of West Virginia  
 1-800-245-4848  
 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!!**



Allghery Surveys Inc.  
 P.O. Box 438  
 237 Birch River Road  
 Birch River, WV 25610  
 304-649-8606



**Honor Brothers Engineers**  
 Civil, Mining, Environmental and Consulting Engineering and Construction Services  
 1000 1/2 West Virginia Ave., Martinsburg, WV 26001  
 304-261-1234



THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

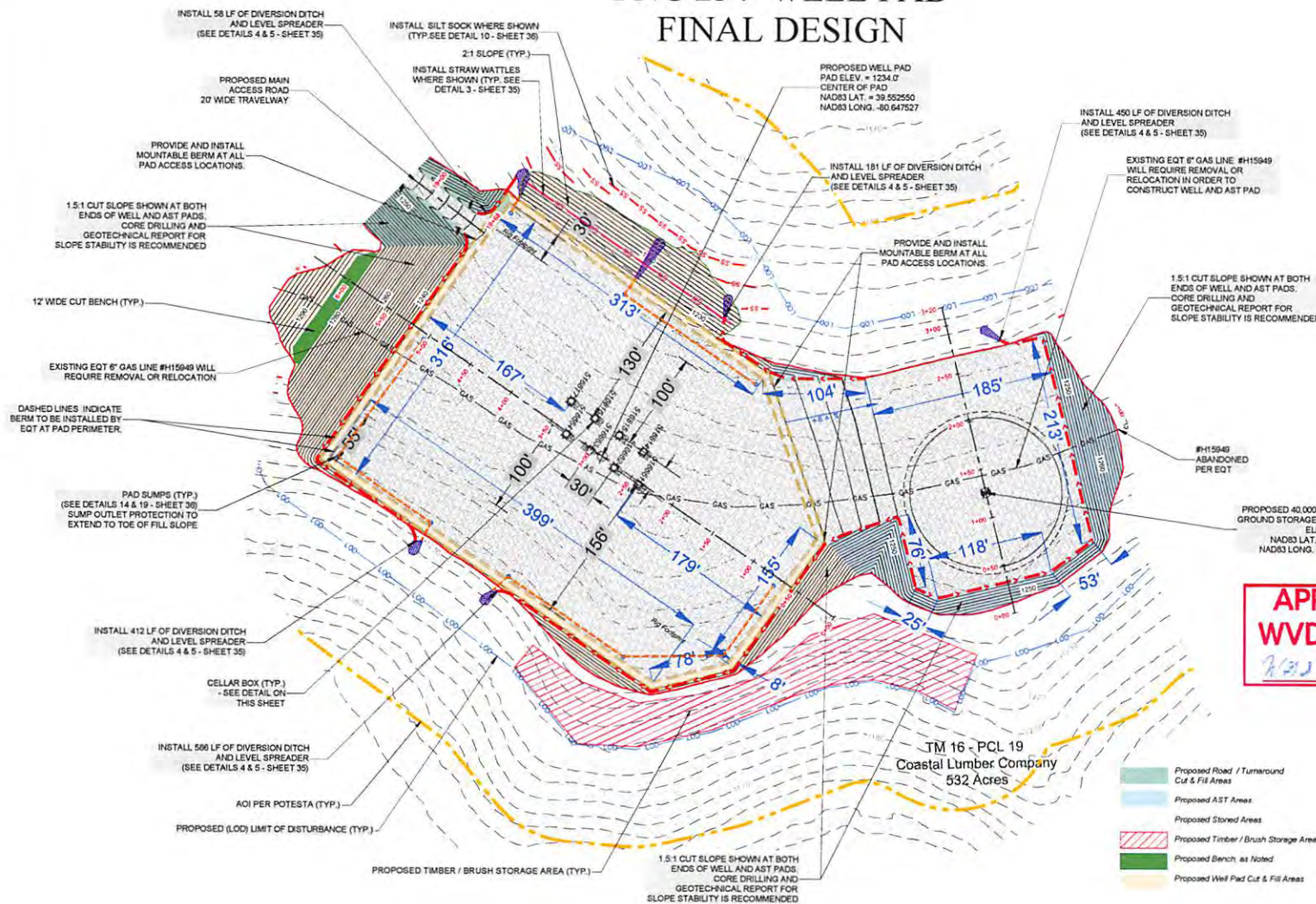
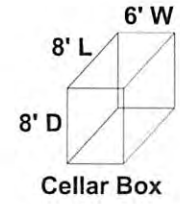
COVER LOCATION SHEET  
**PNG 234**  
**WELL PAD SITE**  
 GRANT DISTRICT  
 WETZEL COUNTY, WV

DATE	REVISIONS	Date: 6/6/2016
		Scale: As Noted
		Designed by: TIK
		File No: 1601230100
		Page: 1 of 42

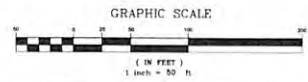
# PNG 234 WELL PAD FINAL DESIGN



All topographic information shown herein is based on aerial photography provided by Blue Mountain Aerial Mapping with a flight date of Spring 2014.



**APPROVED**  
**WVDEP OOG**  
12 / 12 / 2016



- Legend**
- (TYP.) Typical/ Existing 2' Contour
  - (TYP.) Existing 10' Contour
  - (TYP.) Existing Gas Line CL
  - (TYP.) Existing Fence
  - (TYP.) Existing Treeline
  - (TYP.) Proposed 2' Contour
  - (TYP.) Proposed 10' Contour
  - (TYP.) AOI Per Potesta
  - (TYP.) LOD
  - (TYP.) Proposed Silt Sock
  - (TYP.) Proposed Super Silt Fence
  - (TYP.) Proposed Straw Wattle
  - (TYP.) Proposed Cut Areas
  - (TYP.) Proposed Fill Areas
- Proposed Road / Turnaround Cut & Fill Areas
  - Proposed AST Areas
  - Proposed Stored Areas
  - Proposed Timber / Brush Storage Area
  - Proposed Bench as Noted
  - Proposed Well Pad Cut & Fill Areas

DATE	REVISIONS	Date: 6/6/2016
08/29/2016	Label Mountable Berm for AST Pad	Scale: 1"=50'
		Designed By: TRC
		File No: 1114 PNG234-16100-000
		Page: 11 of 42

**Allegheny Surveys Inc.**  
P.O. Box 438  
237 Birch River Road  
Birch River, WV 26610  
304-649-8606

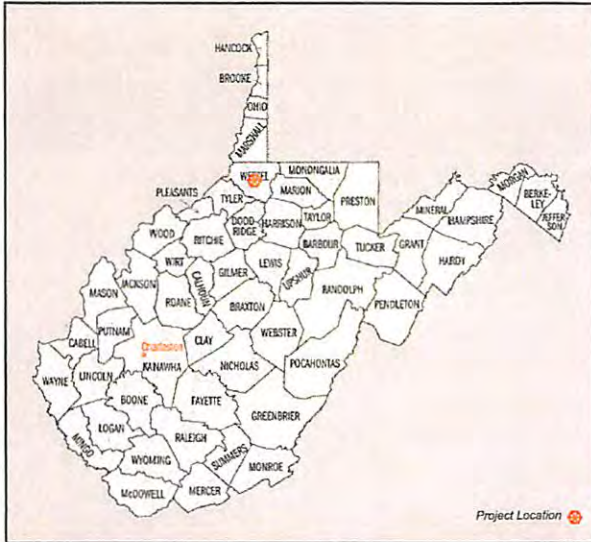
**Horror Bros. Engineers**  
1992  
Civil, Mining, Environmental and  
Geotechnical Engineering  
145 South 74th Street, Suite 200  
Chickadee, West Virginia, 26030 (304) 514-1145

**EQT**  
Energy Service Company

THIS DOCUMENT PREPARED FOR:  
EQT PRODUCTION COMPANY

FINAL DESIGN  
PNG 234  
WELL PAD SITE  
GRANT DISTRICT  
WETZEL COUNTY, WV

# EQT - PM FINAL SITE DESIGN, CON EROSION & SEDIMENT EQT PRODUCTION

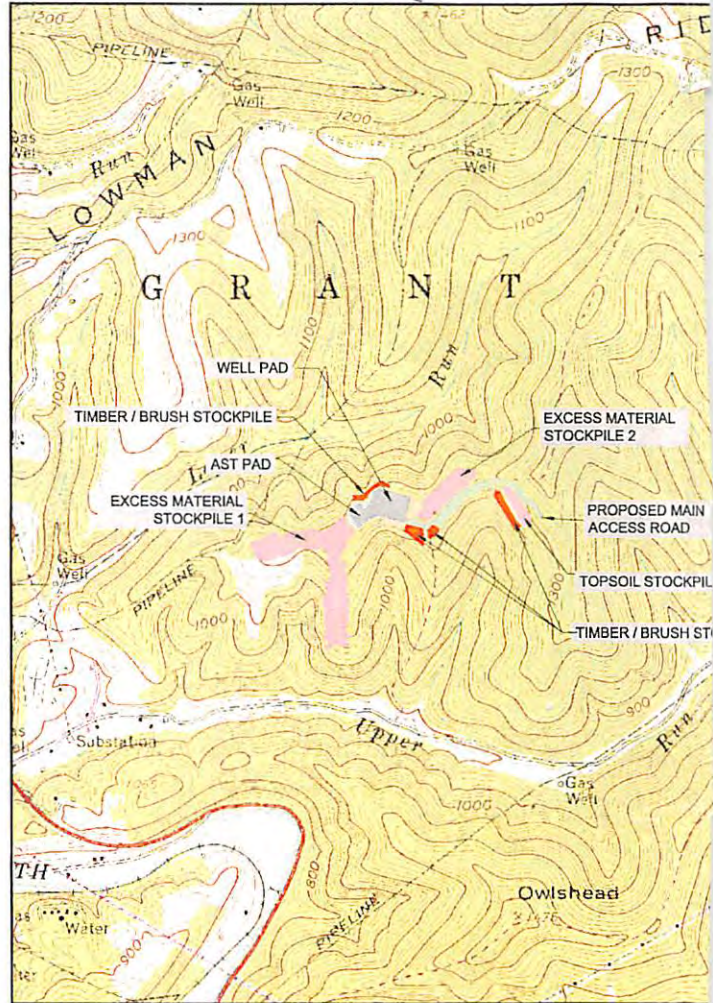


### WELL LEGEND

- 516817 - LAT: 39.552438 / LONG. -80.647350
- 516816 - LAT: 39.552458 / LONG. -80.647453
- 516815 - LAT: 39.552478 / LONG. -80.647556
- 516814 - LAT: 39.552498 / LONG. -80.647659
- 516661 - LAT: 39.552588 / LONG. -80.647685
- 516662 - LAT: 39.552568 / LONG. -80.647582
- 516663 - LAT: 39.552548 / LONG. -80.647479
- 516664 - LAT: 39.552528 / LONG. -80.647375

### FLOODPLAIN CONDITIONS

DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN.	NO
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR.	NO
HEC-RAS STUDY COMPLETED:	N/A
FLOODPLAIN SHOWN ON DRAWINGS:	N/A
FIRM MAP NUMBER(S) FOR SITE:	54103C0185C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:	N/A



SITE LOCATIONS WGS 84 (WV NORTH ZONE)		
	LATITUDE	LONGITUDE
Proposed Well Pad	39.552550	-80.647527
Proposed 40,000 BBL AST	39.552263	-80.648862
Existing CR 72 Access Road	39.566318	-80.633548
Proposed Access Road Sta 0+00	39.552236	-80.641227



MISS Utility of West Virginia  
1-800-245-4848  
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!!**



**Know what's below.  
Call before you dig.**

47 10 30 3 15 6

**PNG 234**  
**CONSTRUCTION PLANS, &**  
**CONTROL PLANS**  
**COMPANY**



West Virginia Coordinate System of 1983  
 State Plane Grid North  
 Elevations NAVD88  
 Established By Survey Grade GPS



**AFFECTED PROPERTIES**

TM 16 PCL 10  
 COASTAL LUMBER COMPANY  
 532 ACRES  
 SITE DISTURBANCE

MAIN ACCESS ROAD = 5.37 ACRES  
 ABOVEGROUND STORAGE TANK (AST) PAD = 2.32 ACRES  
 WELL PAD = 5.49 ACRES  
 EXCESS MATERIAL STOCKPILES AREA = 16.20 ACRES  
 TOPSOIL STOCKPILES AREA = 0.63 ACRES  
 TIMBER / BRUSH STORAGE AREAS = 1.64 ACRES  
**TOTAL DISTURBANCE = 31.65 ACRES**  
 TIMBER REMOVAL = 30.26 ACRES

TM 16 PCL 40  
 COASTAL LUMBER COMPANY  
 532 ACRES  
 SITE DISTURBANCE

MAIN ACCESS ROAD = 1.60 ACRES  
 TOPSOIL STOCKPILE AREA = 1.59 ACRES  
 EXCESS MATERIAL STOCKPILES AREA = 0.26 ACRES  
 TIMBER / BRUSH STORAGE AREA = 0.88 ACRES  
**TOTAL DISTURBANCE = 4.33 ACRES**  
 TIMBER REMOVAL = 4.00 ACRES

TM 16 PCL 23  
 COASTAL LUMBER COMPANY  
 99.50 ACRES  
 SITE DISTURBANCE

EXCESS MATERIAL STOCKPILES AREA = 8.89 ACRES  
**TOTAL DISTURBANCE = 8.89 ACRES**  
 TIMBER REMOVAL = 8.89 ACRES

*DMH  
 7-22-16*

**SHEET INDEX**

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TOPSOIL STOCKPILE PROFILE & CROSS SECTIONS	17
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ACCESS ROADS PROFILE & CROSS SECTIONS	31-34
CONSTRUCTION DETAILS	35-37
RECLAMATION PLANS	38-42

**WELL LOCATION RESTRICTIONS**

Well Pad complies with the Well Location Restrictions of WV code 22-6A-12

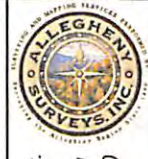
- \* 250' from an existing well or developed spring used for human or domestic animals.
- \* 625' to occupied dwelling or barn greater 2500 SF used for poultry or dairy measured from the center of the pad.
- \* 100' from edge of disturbance to wetlands, perennial streams, natural or artificial lake, pond or reservoir.
- \* 300' from edge of disturbance to naturally reproducing trout streams.
- \* 1000' of surface or ground water intake to a public water supply.

**Design Certification**

The drawings, construction notes, and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection, Office of Oil and Gas §35-4-21.

The information reflects a 40,000 BBL. Above Ground Storage Tank (AST) Pad with secondary containment.

Hornor Brothers Engineers make no certifications relating to the design, construction or materials associated with the Above Ground Storage Tank (AST).



Allegheny Surveys Inc.  
 P.O. Box 438  
 237 Birch River Road  
 Birch River, WV 26610  
 304-649-8606



**Hornor Bros. Engineers**  
 Since 1902  
 Civil, Mining, Environmental and Consulting Engineering  
 140 South Third Street, Post Office Box 386,  
 Conkling, West Virginia, 25201 (504) 624-6445



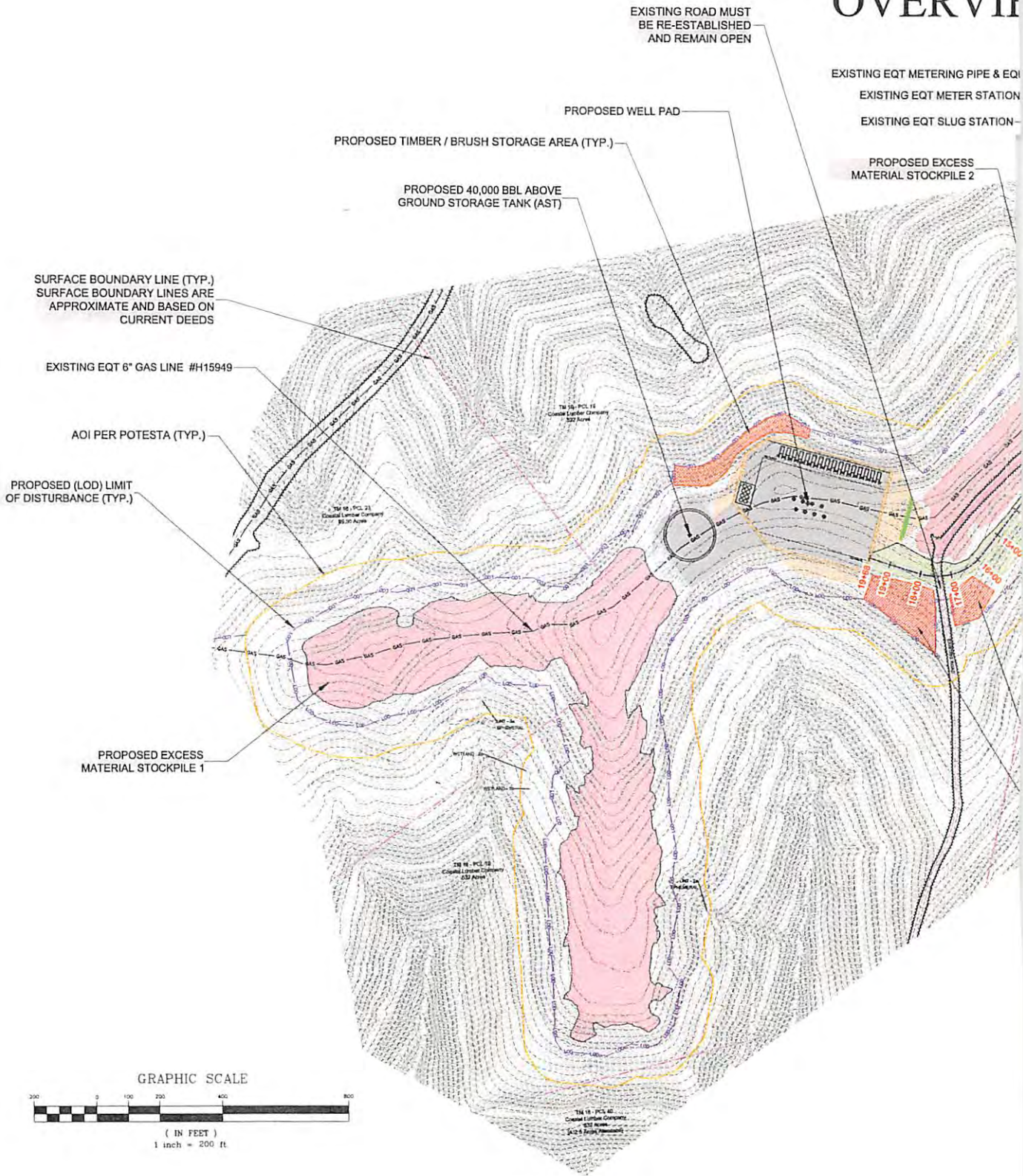
THIS DOCUMENT  
 PREPARED FOR  
 EQT PRODUCTION  
 COMPANY

COVER / LOCATION SHEET  
**PNG 234**  
**WELL PAD SITE**  
 GRANT DISTRICT  
 WETZEL COUNTY, WV

DATE	REVISIONS	Date: 6/6/2016
		Scale: As Noted
		Designed By: TBC
		File No: 16-14 COVER.dwg
		Page: 1 of 42

12/23/2016

# PNG 234 V OVERVIEW



M:\2016 PROJECTS\2016\2016 PNG 234 V\2016 PNG 234 V.dwg



47 10 30 3 15 6

# WELL PAD NEW PLAN



All topographic information shown hereon is based on aerial photography provided by Blue Mountain Aerial Mapping with a flight date of Spring 2014



Allegheny Surveys Inc.  
P.O. Box 438  
237 Birch River Road  
Birch River, WV 26610  
304-649-8606

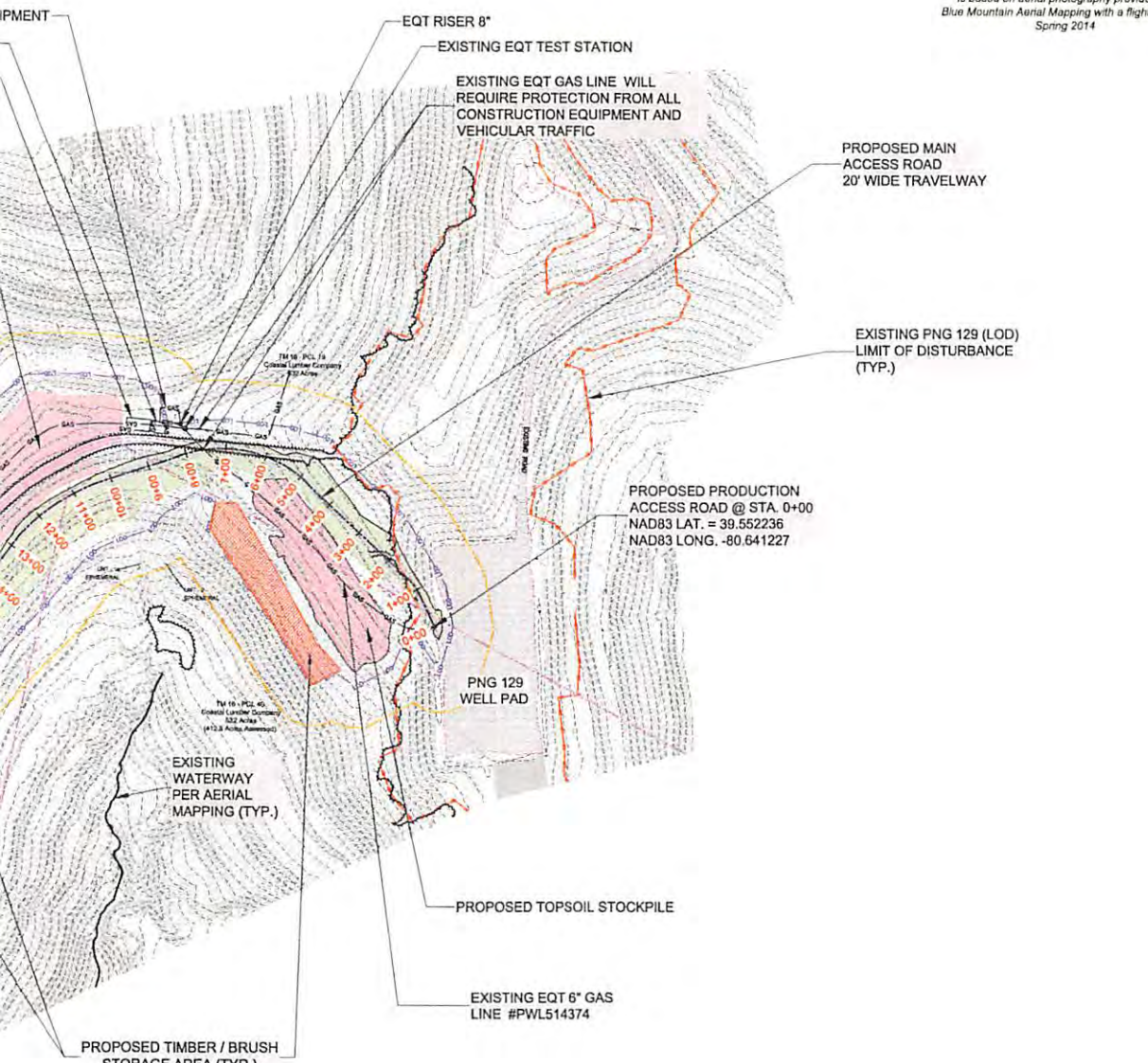


Hornor Bros. Engineers  
Since 1902  
1902 Civil, Mining, Environmental and Consulting Engineering  
140 South Third Street, Post Office Box 586  
Martinsburg, West Virginia 25701 (304) 624-4445



THIS DOCUMENT PREPARED FOR EQT PRODUCTION COMPANY

OVERVIEW PLAN  
PNG 234  
WELL PAD SITE  
GRANT DISTRICT  
WETZEL COUNTY, WV



- Legend**
- Existing 2' Contour
  - Existing 10' Contour
  - Existing Utility Pole
  - Existing Overhead Utility
  - Existing Underground Phone Line
  - Existing Gas Line CL
  - Existing Fence
  - Existing Treeline
  - Unpaved Road/Driveway
  - Paved Road
  - Proposed 2' Contour
  - Proposed 10' Contour
  - Proposed AOI
  - AOI per Potesta
  - Proposed LOD
  - Surface Boundary Line
  - Existing Waterway per Aerial Mapping
  - Stream per Potesta, as noted
  - (TYP.) Typical
  - Existing PNG 129 LOD

DMH  
7-22-16

DATE	REVISIONS	Date: 6/6/2016
		Scale: 1"=200'
		Designed By: TDC
		File No. 15.4.OVERVIEW.dwg
		Page 5 of 42