



 west virginia department of environmental protection

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

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

Wednesday, May 15, 2019
 WELL WORK PERMIT
 Horizontal 6A / New Drill

EQT PRODUCTION COMPANY
 625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for BIG177H7
 47-103-03299-00-00

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: BIG177H7
 Farm Name: COASTAL FOREST RESOUR⁺
 U.S. WELL NUMBER: 47-103-03299-00-00
 Horizontal 6A New Drill
 Date Issued: 5/15/2019

PERMIT CONDITIONS

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

CONDITIONS

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

PERMIT CONDITIONS

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

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

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

2) Operator's Well Number: BIG177H7 Well Pad Name: BIG177

3) Farm Name/Surface Owner: Coastal Forest Resources Co. d/b/a Coastal Timberlands Co. Public Road Access: Rt 19

4) Elevation, current ground: 811' (as-built) Elevation, proposed post-construction: 811'

5) Well Type (a) Gas Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow Deep _____

Horizontal

6) Existing Pad: Yes or No Yes

DMH
4-10-19

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target formation: Marcellus; Depth: 6867'; Anticipated Thickness: 53'; Anticipated Target Pressure: 2620 PSI

8) Proposed Total Vertical Depth: 6,867'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 17,454'

11) Proposed Horizontal Leg Length: 9,486'

12) Approximate Fresh Water Strata Depths: 173', 283', 483', 633'

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

14) Approximate Saltwater Depths: 1138, 1453

15) Approximate Coal Seam Depths: 103', 156', 434', 498'

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

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

WV Department of Environmental Protection

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26	New	A-500	85.6	80	80	98 ft ³ / CTS
Fresh Water	13 3/8	New	J-55	54.5	768	768	811 ft ³ / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	2,731	2,731	1,073 ft ³ / CTS
Production	5 1/2	New	P-110	20	17,454	17,454	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							

*Dmit
4-10-19*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	0.312	884	35	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal							
Intermediate	9 5/8	12 3/8	.395	3950	3160	Class H	1.07
Production	5 1/2	8 1/2	.361	12640	10112	Class A/H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			
Liners							

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PACKERS

Kind:				WV Department of Environmental Protection
Sizes:				
Depths Set:				

05/17/2019

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 4154'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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4/10/19

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

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

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

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

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.

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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)
 Intermediate (Class H Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries. 0.25% flake. Loss Circulation Material (LCM) .6% Super FL-300 (fluid loss/lengthens thickening time)
 Production:
 Lead (Class A 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 (Class 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) Reducas amount of water lost to formation. 60 % Calcium Carbonate. Acid solubility.

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25) Proposed borehole conditioning procedures:

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



05/17/2019

February 27, 2019

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

Re: Casing on BIG177H7

Dear Mr. Brewer,

The 13-3/8" surface casing will be set at 768' KB, 135' below the deepest fresh water. The 9-5/8" intermediate string will be set at 2,731' KB, 50' below the base of the Gordon formation.

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

Sincerely,

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

John Zavatchan
Landman - Permitting

Enc.

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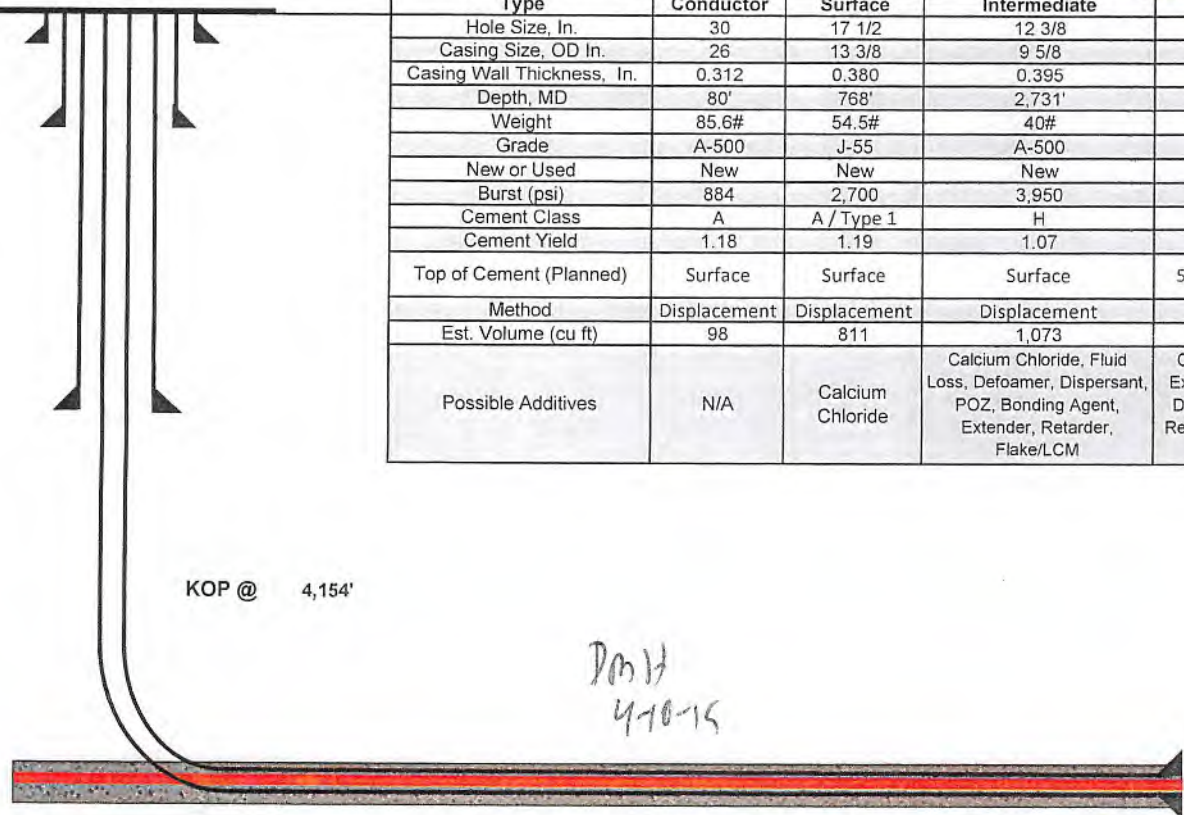
Well 513836 (BIG177H7)

EQT Production
Big Run Quad
Wetzel County, WV

Azimuth 337
 Vertical Section 10226

Note: Diagram is not to scale

Formations	Top TVD	Base TVD
Conductor	80	
Base Fresh Water	633	
Surface Casing	768	
Base Red Rock	1654	
Maxton	1695 - 1739	
Big Lime	1811 - 1864	
Weir	2193 - 2221	
Gantz	2367 - 2405	
Fifty foot	2518 - 2563	
Thirty foot	2589 - 2623	
Gordon	2636 - 2681	
Forth Sand	2723 - 2734	
Intermediate Casing	2731	
Bayard	2775 - 2848	
Warren	3232 - 3278	
Speechley	3382 - 3396	
Balltown A	3771 - 3788	
Riley	4231 - 4244	
Benson	4883 - 4922	
Alexander	5231 - 5257	
Sonyea	6421 - 6591	
Middlesex	6591 - 6636	
Genesee	6636 - 6713	
Genesee	6713 - 6747	
Tully	6747 - 6770	
Hamilton	6770 - 6862	
Marcellus	6862 - 6914	
Production Casing	17454	MD
Onondaga	6914	



Casing and Cementing				Deepest Fresh Water: 633'
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'	768'	2,731'	17,454'
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)	884	2,700	3,950	12,640
Cement Class	A	A / Type 1	H	A / H
Cement Yield	1.18	1.19	1.07	1.123 / 2.098
Top of Cement (Planned)	Surface	Surface	Surface	500' above top Producing Zone
Method	Displacement	Displacement	Displacement	Displacement
Est. Volume (cu ft)	98	811	1,073	3,804
Possible Additives	N/A	Calcium Chloride	Calcium Chloride, Fluid Loss, Defoamer, Dispersant, POZ, Bonding Agent, Extender, Retarder, Flake/LCM	Calcium Carbonate, Fluid Loss, Extender, Dispersant, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

Land curve @ 6,867' TVD
 7,968' MD

Est. TD @ 6,867' TVD
 17,454' MD

9,486' Lateral

Proposed Well Work:
 Drill and complete a new horizontal well in the Marcellus formation.
 Drill the vertical to an approximate depth of 4154'.
 Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
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March 18, 2014

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

Re: Cement Variance Request

Dear Sir or Madam,

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

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

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

Sincerely,

James Peterson
Environmental Resources Specialist / Permitting

Promoting a healthy environment.

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Earl Ray Tomblin, Governor
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**BEFORE THE OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA**

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

REPORT OF THE OFFICE

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

FINDINGS OF FACT

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
 - 2% Calcium Chloride (Accelerator)
 - 0.25 % Super Flake (Lost Circulation)
 - 94% Type "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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API Number 47 - _____ - _____
Operator's Well No. BIG177H7

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) Willey Fork of North Fork Fishing Creek Quadrangle Big Run

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

Will a pit be used? Yes No

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

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number See Attached)
- Reuse (at API Number Various)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

*DMH
4-10-19*

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

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

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-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

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

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

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

Company Official Signature [Signature]

Company Official (Typed Name) John Zavatchan

Company Official Title Landman - Permitting

Subscribed and sworn before me this 11th day of March, 20 19

Donna K. Larry

Notary Public

My commission expires 8-23-2023



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, viscosifier, 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, viscosifier, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

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Operator's Well No. BIG177H7

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed No additional disturbance Prevegetation pH 5.2

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: _____

Title: Oil + Gas Inspector Date: 4-10-19

Field Reviewed? Yes No

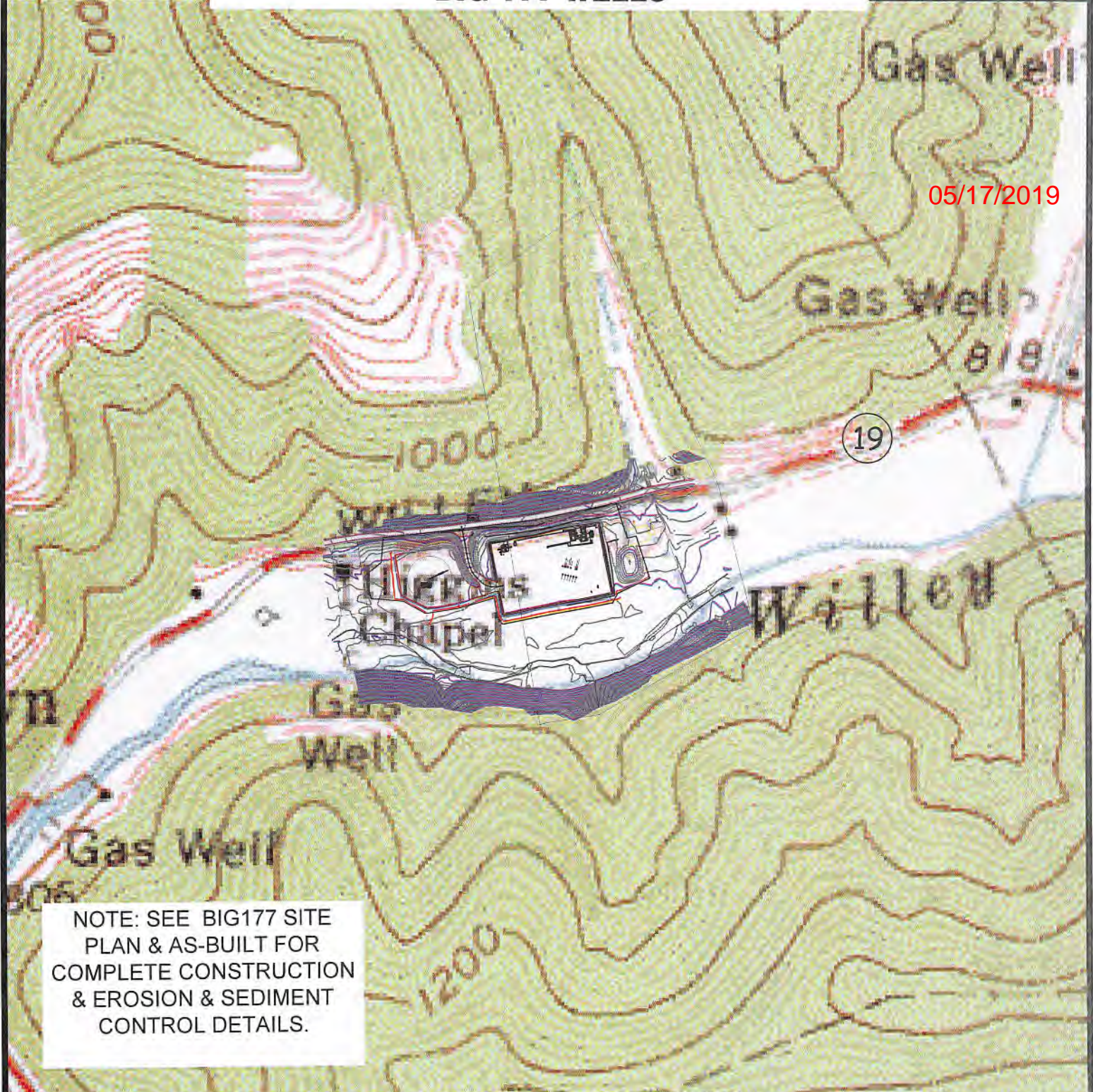
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EQT Production Water Plan									
Offsite Disposals for Unconventional Wells									
Facility Name	Address	Address 2	City	State	Zip	Phone	County	State	Permit Number
CWS Trucking Inc.	P.O. Box 391		Williamstown	WV	26187	740-516-3586	Noble	OH	3390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

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

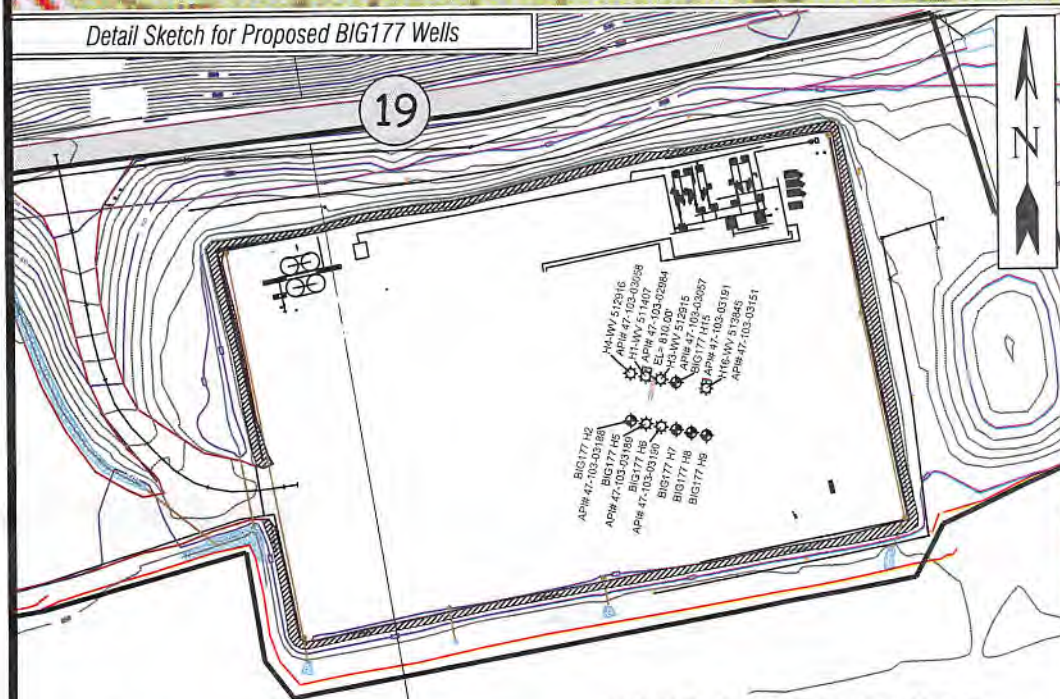
RECEIVED
 Office of Oil and Gas
 APR 17 2019
 WV Department of
 Environmental Protection



05/17/2019

NOTE: SEE BIG177 SITE PLAN & AS-BUILT FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.

Detail Sketch for Proposed BIG177 Wells

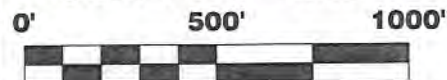


Not To Scale

NOTE: SEE BIG177 SITE PLAN & AS-BUILT FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS



SCALE: 1"=500'



TOPO SECTIONS OF BIG RUN
7.5' TOPO QUADRANGLE

DRAWN BY K.G.M.	FILE NO. 6806	DATE 02-26-19	CADD FILE: 6806BIG177REC.DWG
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Site Specific Safety and Environmental Plan

EQT
BIG177 Pad
Jacksonburg
Wetzel County, WV

BIG177H7

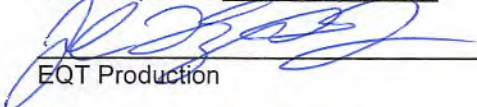
For Wells:

RECEIVED
Office of Oil and Gas

APR 17 2019

WV Department of
Environmental Protection

Date Prepared: February 23, 2018


EQT Production

Lawman-Permitting
Title

3/11/19
Date

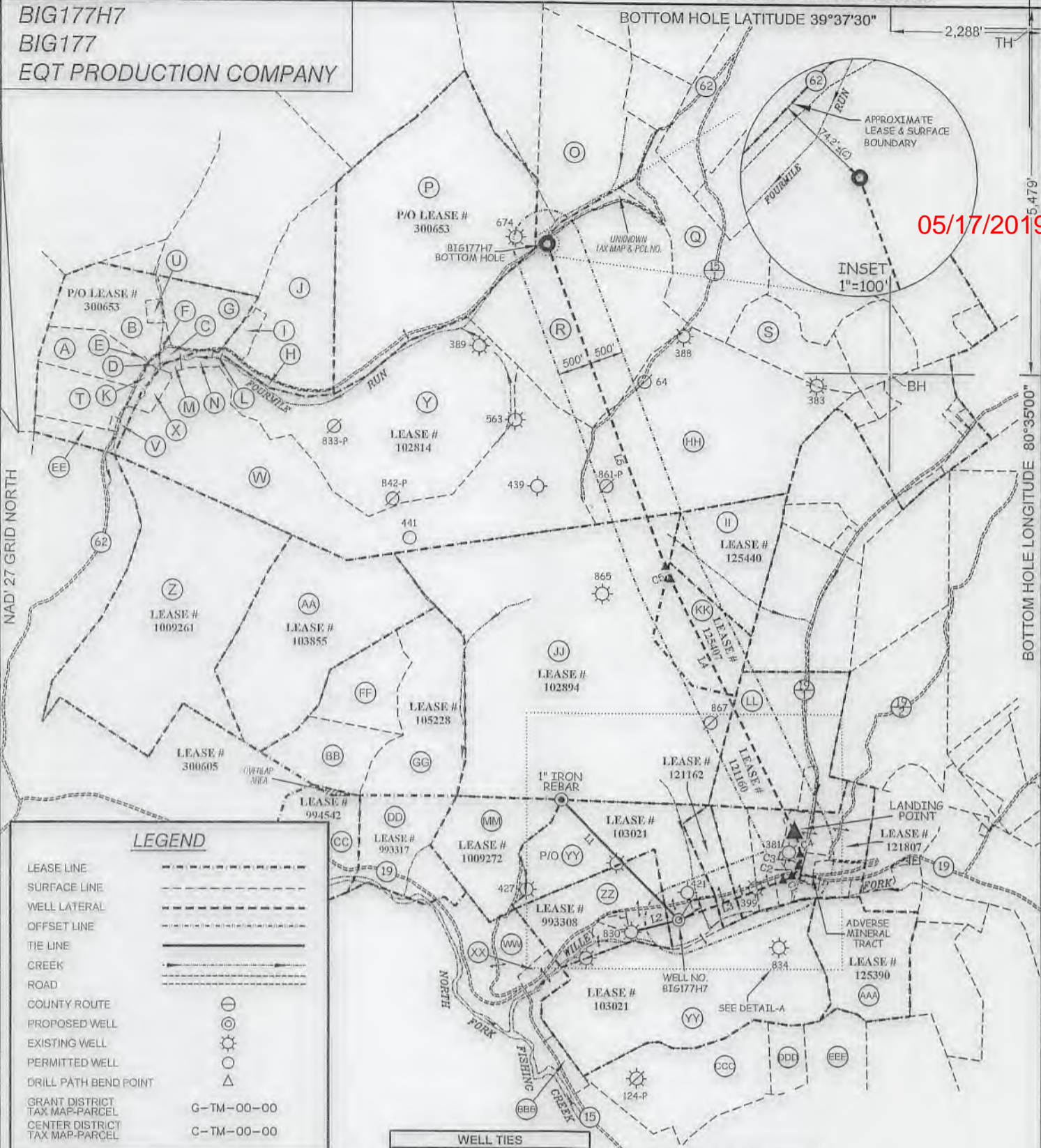

WV Oil and Gas Inspector

Oil + Gas Inspector
Title

4-10-19
Date

BIG177H7
BIG177
EQT PRODUCTION COMPANY

05/17/2019



LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- DRILL PATH BEND POINT
- GRANT DISTRICT TAX MAP-PARCEL G-TM-00-00
- CENTER DISTRICT TAX MAP-PARCEL C-TM-00-00

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

NAD'27 S.P.C.(FT)	N. 396,103.36	E. 1,694,465.46
NAD'27 GEO.	LAT-(N) 39.582473	LONG-(W) 80.584049
NAD'83 UTM (M)	N. 4,381,509.379	E. 535,736.861

LANDING POINT

NAD'27 S.P.C.(FT)	N. 397,413.17	E. 1,696,189.01
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NAD'83 UTM (M)	N. 4,381,917.208	E. 536,255.322

BOTTOM HOLE

NAD'27 S.P.C.(FT)	N. 406,138.92	E. 1,692,499.56
NAD'27 GEO.	LAT-(N) 39.609959	LONG-(W) 80.591456
NAD'83 UTM (M)	N. 4,384,556.814	E. 535,087.001

WELL TIES

ID	BEARING	DISTANCE
L1	N 44°24' W	2489.93'
L2	S 75°47' W	727.38'

LATERAL DATA

ID	BEARING	DISTANCE
L4	N 26°11' W	4181.89'
L5	N 20°14' W	5105.70'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C5	198.50'	1952.00'	N 23°12'43" W	198.41'

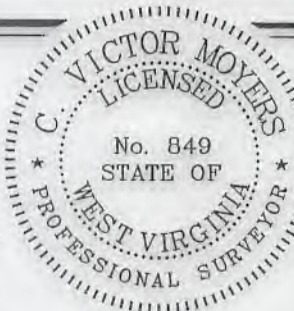
TOTAL LATERAL LENGTH = 9486.19'

BUILD OUT DATA

ID	BEARING	DISTANCE
L3	N 69°01' E	1662.64'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	148.28'	455.45'	N 64°26'18" E	147.61'
C2	177.55'	328.03'	N 33°45'42" E	175.30'
C3	179.77'	461.78'	N 07°53'08" E	178.64'
C4	341.01'	800.65'	N 14°21'31" W	339.43'

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www.slsww.com



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

FILE NO. 6806PBIG177H7.dwg (513836)

SCALE 1" = 2000' 19

DATE FEBRUARY 26, 20

REVISED

OPERATORS WELL NO. BIG177H7

WELL NO. 47 - 103 - 03299

STATE COUNTY PERMIT

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 C. Victor Moyers

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

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JASON RANSON

ADDRESS 2400 ANSYS DRIVE, SUITE 200 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
CANONSBURG, PA 15317 BRIDGEPORT, WV 26330

COUNTY NAME
 PERMIT

**BIG177H7
BIG177
EQT PRODUCTION COMPANY**

BOTTOM HOLE LATITUDE 39°37'30"

2,288'

TH

80°35'00" TOP HOLE LONGITUDE

80°35'00" BOTTOM HOLE LONGITUDE

05/17/2019

TAG	TAX MAP/PCL	SURFACE OWNERS	ACREAGE
A	G-TM-2-09	ROBERT W. DULANEY	22.87 AC.±
B	G-TM-2-10	HARLEY R. DULANEY, JR.	38.00 AC.±
C	G-TM-2-10.1	TEORA L. & SANDRA J. DULANEY	1.53 AC.±
D	G-TM-2-10.2	ROBERT W. DULANEY	0.45 AC.±
E	G-TM-2-10.3	ROBERT W. DULANEY	0.09 AC.±
F	G-TM-2-10.4	HARLEY R. DULANEY, JR.	0.130 AC.±
G	G-TM-2-11	EDWIN LEO & LINDA L. DULANEY	26.4 AC.±
H	G-TM-2-12	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	3.63 AC.±
I	G-TM-2-12.1	TEORA L. & SANDRA DULANEY	4.72 AC.±
J	G-TM-2-12.2	TEORA L. & SANDRA DULANEY	66.64 AC.±
K	G-TM-2-13	ROBERT W. DULANEY	2.14 AC.±
L	G-TM-2-14	TEORA L. & SANDRA J. DULANEY	0.488 AC.±
M	G-TM-2-15	TEORA L. & SANDRA J. DULANEY	1.023 AC.±
N	G-TM-2-16	TEORA L. DULANEY	3.187 AC.±
O	G-TM-3-05	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	179.00 AC.±
P	G-TM-3-13	EDWARD L. DULANEY II	164.75 AC.±
Q	G-TM-3-14	DOUGLAS J. STONEKING	70.80 AC.±
R	G-TM-3-23	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	167.75 AC.±
S	G-TM-3-24	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	35.89 AC.±
T	G-TM-7-02	ROBERT W. DULANEY	19.43 AC.±
U	G-TM-7-02.1	HARLEY R. DULANEY, JR.	2.00 AC.±
V	G-TM-7-02.2	CODY N. & WALTER N., JR. NORRIS	2.43 AC.±
W	G-TM-7-03	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	178 AC.±
X	G-TM-7-03.1	ROBERT W. DULANEY	4.00 AC.±
Y	G-TM-7-03.2	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	156.98 AC.±
Z	G-TM-7-9	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	170.875 AC.±
AA	G-TM-7-10	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	120.00 AC.±
BB	G-TM-7-32	STELLA & LEEK POSTLETHWAIT, ET AL	28.46 AC.±
CC	G-TM-7-33	JOHN R. & ROSA MARGELLEA COOK	20.00 AC.±
DD	G-TM-7-34	KENNETH & LORRAINE WILDMAN	44.60 AC.±
EE	G-TM-7-50	CODY N. & WALTER N., JR. NORRIS	10.00 AC.±
FF	G-TM-8-16	O. J. & MINNIE M. WYATT HEIRS	25.46 AC.±
GG	G-TM-8-17	KENNETH & LORRAINE WILDMAN	67.00 AC.±
HH	G-TM-8-01	DANNY STOCKSLAGER	170.00 AC.±
II	G-TM-8-10	GARLAND E. MINOR	48.10 AC.±

TAG	TAX MAP/PCL	SURFACE OWNERS	ACREAGE
JJ	G-TM-8-18	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	337.00 AC.±
KK	G-TM-8-19	PHILLIP & KIMBERLY SHREVE	46.45 AC.±
LL	G-TM-8-23	DALE DULANEY ET AL	70.81 AC.±
MM	G-TM-8-34	HALLIE HARDBARGER	54.01 AC.±
NN	G-TM-8-35	DEBORAH FRONCZEK ET AL	15.50 AC.±
OO	G-TM-8-38	JAMES L. & KAREN DULANEY	14.10 AC.±
PP	G-TM-8-37	JAMES L. & KAREN DULANEY	14.10 AC.±
QQ	G-TM-8-38	DALE K. & SHARON L. DULANEY	28.82 AC.±
RR	G-TM-8-43	JUDY K. UTT	3.25 AC.±
SS	G-TM-8-58	HIGGINS CHAPEL CHURCH OF CHRIST	0.99 AC.±
TT	G-TM-8-64	MARY EASTHAM ET AL	1.45 AC.±
UU	G-TM-8-65	IKEY & TINA WILLEY	2.15 AC.±
VV	G-TM-8-66	EQM GATHERING OPOC LLC	0.42 AC.±
WW	G-TM-13-04	JEFF, VIRGIL, JR. & DONNAH WILLEY	26.80 AC.±
XX	G-TM-13-04.3	JEFFERY L. WILLEY	3.35 AC.±
YY	G-TM-13-06	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	217.19 AC.±
ZZ	G-TM-13-05.1	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	55.06 AC.±
AAA	G-TM-13-07	MANSEL McDIFFITT ET AL	51.8 AC.±
BBB	G-TM-13-12	LESLIE LYDICK & SUSAN MIRACLE	15.2 AC.±
CCC	G-TM-13-13	LEEMAN E. & LINDA L. DUNN	67.5 AC.±
DDD	G-TM-13-14	LEEMAN E. & LINDA L. DUNN	12.5 AC.±
EEE	G-TM-13-15	ROBERT COLE ET AL	27.75 AC.±
FFF	G-TM-8-23.1	JAMES L. DULANEY	3.19 AC.±
GGG	G-TM-8-38.1	JAMES L. DULANEY	0.14 AC.±
HHH	G-TM-8-44	ELIAS LEASURE, JR.	1.60 AC.±
III	G-TM-8-47	ELIAS JR. & JOAN E. LEASURE	0.50 AC.±
JJJ	G-TM-8-46	ELIAS JR. & JOAN E. LEASURE	12 PERCHES
KKK	G-TM-8-45.1	ELIAS LEASURE, JR.	0.17 AC.±
LLL	G-TM-8-48	BIG RUN CEMETERY	100' X 125'
MMM	G-TM-8-47.1	DONALD J. DULANEY	0.19 AC.±
NNN	G-TM-8-45	DONALD J. DULANEY	9.83 AC.±

ROYALTY OWNERS		
ET BLUE GRASS, LLC ET AL	16 AC.±	LEASE NO. 121162
STONE HILL MINERAL HOLDINGS, LLC ET AL	80 AC.±	LEASE NO. 121807
ACROPOLIS INC., ET AL	74 AC.±	LEASE NO. 121160
NORMA JEAN PHILLIPS RIGGS, ET AL	46.45 AC.±	LEASE NO. 125407
EQT PRODUCTION COMPANY	300 AC.±	LEASE NO. 102894
JOSEPH SHIBEN & MINNIE SHIBEN ESTATE ET AL	1030 AC.±	LEASE NO. 102814

- NOTES ON SURVEY**
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS 2500 SQ. FT. OR GREATER, WERE FOUND WITHIN 825' OF THE CENTER OF PROPOSED WELL PAD. SEE REFERENCE BOX FOR DWELLING WITHIN 825' OF THE CENTER OF PROPOSED WELL PAD.
 - WELL SPOT CIRCLE (SHEET 3) AND TOPO MARK (SHEETS 1, 2 & 3) SCALE IS 1" = 2000'.

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

NAD'27 S.P.C.(FT) N. 396,103.36 E. 1,694,465.46
 NAD'27 GEO. LAT-(N) 39.532473 LONG-(W) 80.594049
 NAD'83 UTM (M) N. 4,381,509.379 E. 535,736.861

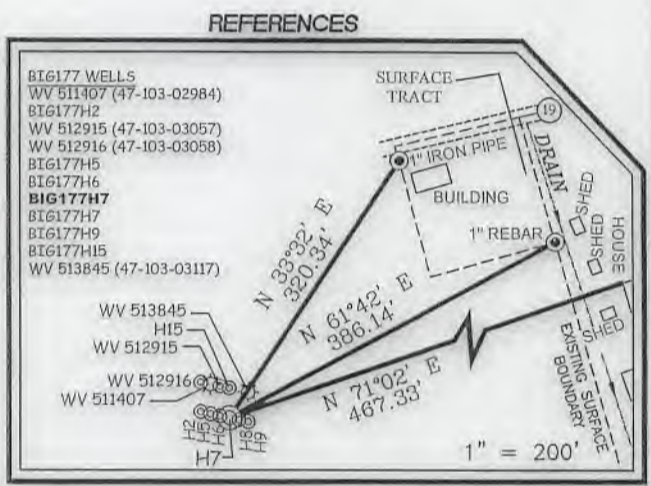
LANDING POINT

NAD'27 S.P.C.(FT) N. 397,413.17 E. 1,698,189.01
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BOTTOM HOLE

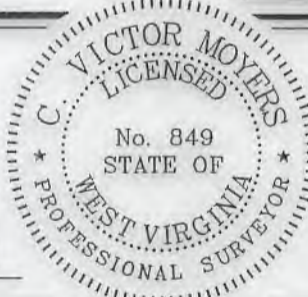
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 NAD'83 UTM (M) N. 4,384,556.814 E. 535,087.001

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www.slsww.com



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P.S. 849 *C. Victor Moyers*



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

DATE FEBRUARY 26, 20 19

REVISED _____

OPERATORS WELL NO. BIG177H7

API WELL NO. 47-103-03219

STATE WV COUNTY WV PERMIT 03219

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 6806PBIG177H7.dwg (513836)

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE SEE NOTE 2

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

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

LOCATION: PAD ELEVATION 811' WATERSHED WILLEY FORK OF NORTH FORK FISHING CREEK

DISTRICT GRANT COUNTY WETZEL QUADRANGLE BIG RUN 7.5'

SURFACE OWNER COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO. ACREAGE 27± OF 217±

ROYALTY OWNER HIGGINS FAMILY TRUST, ET AL. ACREAGE 242.5

PROPOSED WORK: LEASE NO. 103021

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

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,867'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JASON RANSON

ADDRESS 2400 ANSYS DRIVE, SUITE 200 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
CANONSBURG, PA 15317 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT

BIG177H7
BIG177
EQT PRODUCTION COMPANY

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- DRILL PATH BEND POINT
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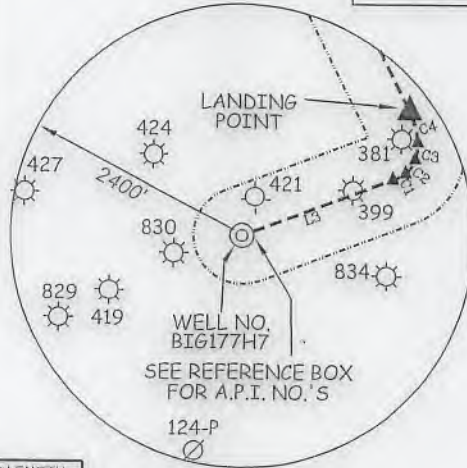
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05/17/2019



WELL TIES

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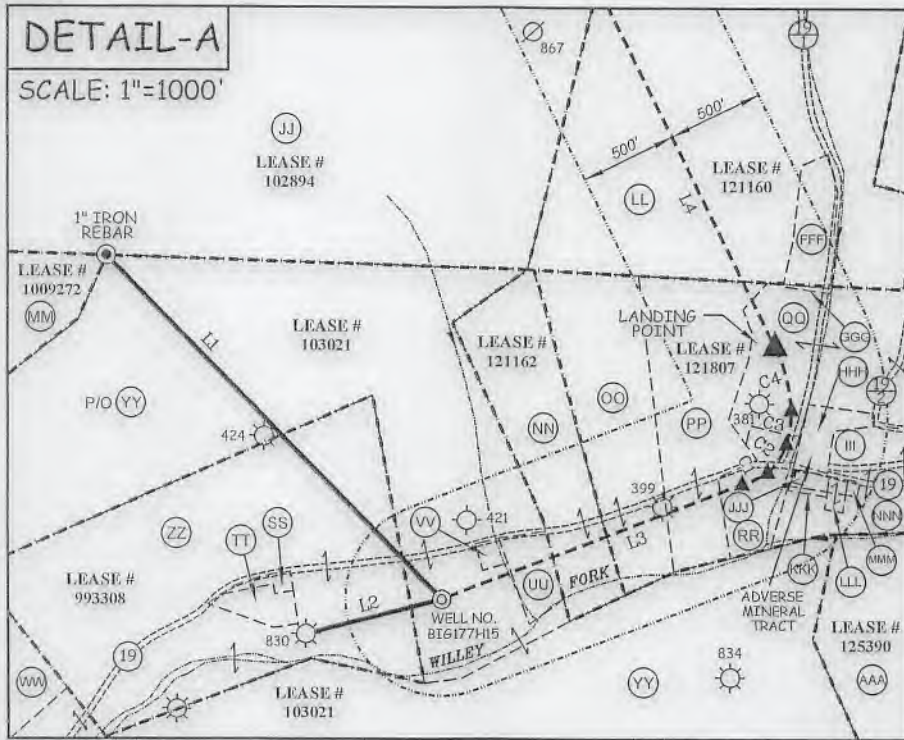
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TOTAL LATERAL LENGTH = 9486.19'

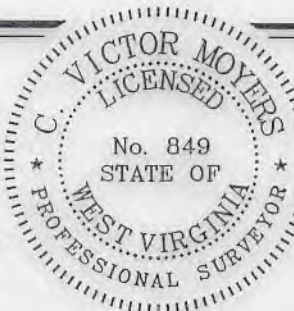
NAD'27 GRID NORTH

DETAIL-A

SCALE: 1"=1000'



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www.slsww.com



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

FILE NO. 6806PBIG177H7.dwg (513836)
 SCALE 1" = 2000'
 DATE FEBRUARY 26, 20 19
 REVISED _____
 OPERATORS WELL NO. BIG177H7
 API WELL NO. 47-103
 STATE WV COUNTY PUTNAM PERMIT 03299 H44

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 C. Victor Moyers

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



WELL OPERATOR EQT PRODUCTION COMPANY
 ADDRESS 2400 ANSYS DRIVE, SUITE 200
CANONSBURG, PA 15317

DESIGNATED AGENT JASON RANSON
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
BRIDGEPORT, WV 26330

COUNTY NAME
 PERMIT

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

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

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

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

See Attached

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

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

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

RECEIVED
Office of Oil and Gas
MAR 13 2019

WV Department of
Environmental Protection

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

Well Operator: EQT Production Company
 By: John Zavatchan
 Its: Landman - Permitting

05/17/2019

WW-6A1 attachment

Operator's Well No.

BIG177H7

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
	<u>Higgins Family Trust, et al. (current royalty owner)</u>		**	
103021	James V. Higgins (original lessor)	The Philadelphia Company of West Va.		DB 60/414
	The Philadelphia Company of West Va.	Pittsburgh & West Virginia Gas Company		22A/352
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		OG 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		DB 131A/81
	<u>ET Blue Grass LLC, et al (current royalty owner)</u>		**	
121162	Julia Willey, et al (original lessor)	Equitable Gas Company		48/147
	Equitable Gas Company	Equitrans, Inc.		71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		131A/81
	<u>Stone Hill Mineral Holdings, LLC et al (current royalty owner)</u>		**	
121807	A. C. Higginbotham, et al (original lessor)	Pittsburgh & West Virginia Gas Company		39A/233
	The Philadelphia Company of West Va.	Pittsburgh & West Virginia Gas Company		22A/352
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		OG 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<u>Acropolis Inc., et al (current royalty owner)</u>		**	
121160	A. C. Higginbotham, et al (original lessor)	Pittsburgh & West Virginia Gas Company		39A/236
	The Philadelphia Company of West Va.	Pittsburgh & West Virginia Gas Company		22A/352
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		OG 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		O&G 131A/81
	<u>Norma Jean Phillips Riggs, et al (current royalty owner)</u>		**	
125407	Nellie J Phillips, et al (original lessor)	Equitable Gas Company		52A/199
	Equitable Gas Company	Equitrans, Inc.		71/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	EQT Production Company		131A/81
	<u>EQT Production Company (current royalty owner)</u>		**	
102894	J. B. Hicks (original lessor)	The Philadelphia Company of West Va.		OG 47/441
	The Philadelphia Company of West Va.	Pittsburgh & West Virginia Gas Company		OG 22A/352
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		OG 71A/453
	Equitrans, Inc.	Equitrans, LP		DB 105/908
	Equitrans, LP	Equitable Production-Eastern States Inc. (EPES)		AB 23/899 Marion Co.
	Equitable Production-Eastern States Inc. (EPES)	Equitable Production Company		see attached
	Equitable Production Company	EQT Production Company		CB 13/14
	<u>Joseph Shiben and Minnie Shiben Estate, et al (current royalty owner)</u>		**	
102814	Shiben Estates, Inc	EQT Production Company		

** Per West Virginia Code Section 22-6-8.

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PENNSYLVANIA DEPARTMENT OF STATE
CORPORATION BUREAU
ROOM 308 NORTH OFFICE BUILDING
P.O. BOX 8722
HARRISBURG, PA 17105-8722

315

EQUITABLE PRODUCTION COMPANY PA

THE CORPORATION BUREAU IS HAPPY TO SEND YOU YOUR FILED DOCUMENT.
PLEASE NOTE THE FILE DATE AND THE SIGNATURE OF THE SECRETARY OF THE
COMMONWEALTH. THE CORPORATION BUREAU IS HERE TO SERVE YOU AND WANTS
TO THANK YOU FOR DOING BUSINESS IN PENNSYLVANIA. IF YOU HAVE ANY
QUESTIONS PERTAINING TO THE CORPORATION BUREAU, CALL (717) 787-1057.

ENTITY NUMBER: 2980374

MICROFILM NUMBER: 2001032

1297-1300

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C T CORP SYSTEM
COUNTER

200132-1297

APR 30 2001

Microfilm Number _____

Filed with the Department of State on _____

Entity Number 2980374

Kim Duggan
Secretary of the Commonwealth

ARTICLES OF MERGER-DOMESTIC BUSINESS CORPORATION
DSCB:15-1926 (Rev 90)

JD

In compliance with the requirements of 15 Pa.C.S. § 1926 (relating to articles of merger or consolidation), the undersigned business corporations, desiring to effect a merger, hereby state that:

1. The name of the corporation surviving the merger is: Equitable Production Company

2. (Check and complete one of the following):

The surviving corporation is a domestic business corporation and the (a) address of its current registered office in this Commonwealth or (b) name of its commercial registered office provider and the county of venue is (the Department is hereby authorized to correct the following information to conform to the records of the Department):

(a) _____
Number and Street City State Zip County

(b) c/o: CT Corporation System Allegheny
Name of Commercial Registered Office Provider County

For a corporation represented by a commercial registered office provider, the county in (b) shall be deemed the county in which the corporation is located for venue and official publication purposes.

_____ The surviving corporation is a qualified foreign business corporation incorporated under the laws of _____ and the (a) address of its current registered office in this Commonwealth or (b) name of its commercial registered office provider and the county of venue is (the Department is hereby authorized to correct the following information to conform to the records of the Department):

(a) _____
Number and Street City State Zip County

(b) c/o: _____
Name of Commercial Registered Office Provider County

For a corporation represented by a commercial registered office provider, the county in (b) shall be deemed the county in which the corporation is located for venue and official publication purposes.

_____ The surviving corporation is a nonqualified foreign business corporation incorporated under the laws of _____ and the address of its principal office under the laws of such domiciliary jurisdiction is:

_____ Number and Street City State Zip

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3. The name and the address of the registered office in this Commonwealth or name of its commercial registered office provider and the county of venue of each other domestic business corporation and qualified foreign business corporation which is a party to the plan of merger are as follows:

Name of Corporation	Address of Registered Office or Name of Commercial Registered Office Provider	County
<u>Equitable Production Company</u>	<u>CT Corporation System</u>	<u>Allegheny</u>
<u>Equitable Production-Eastern States, Inc.</u>	<u>CT Corporation System</u>	<u>Allegheny</u>

WV Department of Environmental Protection

200132-1298

DSCB:15-1926 (Rev 90)-2

4. (Check, and if appropriate complete, one of the following):

The plan of merger shall be effective upon filing these Articles of Merger in the Department of State.

X The plan of merger shall be effective on: April 30, 2001 at _____ at _____ Hour

5. The manner in which the plan of merger was adopted by each domestic corporation is as follows:

Name of Corporation	Manner of Adoption
<u>Equitable Production Company</u>	<u>Adopted by Board of Directors pursuant to Sec. 1924 of the PA BCL</u>
_____	_____
_____	_____

6. (Strike out this paragraph if no foreign corporation is a party to the merger). The plan was authorized, adopted or approved, as the case may be, by the foreign business corporation (or each of the foreign business corporations) party to the plan in accordance with the laws of the jurisdiction in which it is incorporated.

7. (Check, and if appropriate complete, one of the following):

X The plan of merger is set forth in full in Exhibit A attached hereto and made a part hereof.

Pursuant to 15 Pa.C.S. § 1901 (relating to omission of certain provisions from filed plans) the provisions, if any, of the plan of merger that amend or constitute the operative Articles of Incorporation of the surviving corporation as in effect subsequent to the effective date of the plan are set forth in full in Exhibit A attached hereto and made a part hereof. The full text of the plan of merger is on file at the principal place of business of the surviving corporation, the address of which is:

Number and Street	City	State	Zip	County
_____	_____	_____	_____	_____

IN TESTIMONY WHEREOF, the undersigned corporation or each undersigned corporation has caused these Articles of Merger to be signed by a duly authorized officer thereof this 26th day of April, 2001.

Equitable Production Company

(Name of Corporation)

BY: Henry E. Reich
Henry E. Reich, (Signature)

TITLE: Vice President

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Equitable Production - Eastern States, Inc.

(Name of Corporation)

BY: Johanna G. O'Loughlin
Johanna G. O'Loughlin (Signature)

TITLE: Corporate Secretary

WV Department of
Environmental Protection

200132-1299

AGREEMENT AND PLAN OF MERGER
BETWEEN
EQUITABLE PRODUCTION – EASTERN STATES, INC.
AND
EQUITABLE PRODUCTION COMPANY

AGREEMENT AND PLAN OF MERGER, dated this 30th day of April 2001, pursuant to Section 251 of the General Corporation Law of the State of Delaware between Equitable Production – Eastern States, Inc., a Delaware corporation, and Equitable Production Company, a Pennsylvania corporation.

WHEREAS, the constituent corporations desire to merge into a single corporation.

NOW, THEREFORE, the corporations, parties to this Agreement, in consideration of the mutual covenants, agreements and provisions hereinafter contained, do hereby prescribe the terms and conditions of said merger and mode of carrying the same into effect as follows:

FIRST: Effective on April 30, 2001, Equitable Production Company hereby merges into itself Equitable Production – Eastern States, Inc., and Equitable Production Company shall be the surviving corporation.

SECOND: The Articles of Incorporation of Equitable Production Company as heretofore amended and as in effect on the date of the merger provided in this Agreement, shall continue in full force and effect as the Articles of Incorporation of the corporation surviving this merger.

THIRD: The outstanding shares of the capital stock of Equitable Production – Eastern States, Inc. shall be cancelled as of the effective date of the merger pursuant to this Agreement and no new shares issued therefor.

FOURTH: The terms and conditions of the merger are as follows:

- (a) The by-laws of the surviving corporation as they shall exist on the effective date of this Agreement shall be and remain the by-laws of the surviving corporation until the same shall be altered, amended and repealed as therein provided.
- (b) The directors and officers of the surviving corporation shall continue in office until the next annual meeting of the shareholders

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and until their successors shall have been elected and qualified.

- (c) Upon the merger becoming effective, all the property, rights, privileges, franchises, patents, trademarks, licenses, registrations and other assets of every kind and description of the merged corporation shall be transferred to, vested in and devolved upon the surviving corporation without further act or deed and all property, rights, and every other interest of the surviving corporation and the merged corporation shall be effectively the property of the surviving corporation as they were of the surviving and the merged corporations, respectively. The merged corporation hereby agrees from time to time, as and when requested by the surviving corporation or by its successors or assigns, to execute and deliver or cause to be executed and delivered all such deeds and instruments and to take or cause to be taken such further or other action as the surviving corporation may deem to be necessary or desirable in order to vest in and confirm to the surviving corporation title to and possession of any property of the merged corporation acquired or to be acquired by reason of or as a result of the merger herein provided for and otherwise to carry out the intent and purposes hereof and the proper officers and directors of the merged corporation and the proper officers and directors of the surviving corporation are fully authorized in the name of the merged corporation or otherwise to take any and all such action.

IN WITNESS WHEREOF, the parties to this agreement, pursuant to the approval and authority duly given by resolutions adopted by their Board of Directors have caused these presents to be executed by the President of each party hereto as the respective act, deed and agreement of said corporations on this 30th day of April 2001.

ATTEST:


 Corporate Secretary

EQUITABLE PRODUCTION –
EASTERN STATES, INC.

By: 
President

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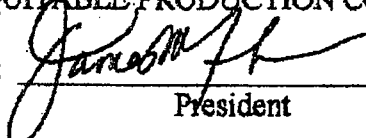
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ATTEST:


 Corporate Secretary

EQUITABLE PRODUCTION COMPANY

By: 
President

05/17/2019

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF STATE

APRIL 30, 2001

TO ALL WHOM THESE PRESENTS SHALL COME, GREETING:

EQUITABLE PRODUCTION COMPANY

I, Kim Pizzingrilli, Secretary of the Commonwealth of Pennsylvania do hereby certify that the foregoing and annexed is a true and correct photocopy of Articles of Merger

which appear of record in this department



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Seal of the Secretary's Office to be affixed, the day and year above written.

Kim Pizzingrilli

Secretary of the Commonwealth

DPOS

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EQT Production Company
2400 Ansys Drive, Suite 200
Canonsburg, PA 15317
www.eqt.com

05/17/2019

John Zavatchan
Landman - Permitting
O:724-746-9073
jzavatchan@eqt.com

February 26, 2019

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

Re: BIG177H7 Gas Well
Grant District, Wetzel County

Dear Mr. Brewer,

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

Sincerely,

John Zavatchan
Landman - Permitting

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WW-6AC
(1/12)

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

Date of Notice Certification: 03/11/2019

API No. 47- -
Operator's Well No. BIG177H7
Well Pad Name: BIG177

Notice has been given:

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>4,381,509.379</u>
County:	<u>Wetzel</u>		Northing:	<u>535,736.861</u>
District:	<u>Grant</u>	Public Road Access:		<u>Rt 19</u>
Quadrangle:	<u>Big Run</u>	Generally used farm name:		<u>Coastal Forest Resources Co., d/b/a Coastal Timberlands Co.</u>
Watershed:	<u>Willey Fork of North Fork 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.

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:

*PLEASE CHECK ALL THAT APPLY

- 1. NOTICE OF SEISMIC ACTIVITY or NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

OOG OFFICE USE ONLY

- RECEIVED/
NOT REQUIRED
- RECEIVED
- RECEIVED/
NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

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Required Attachments:

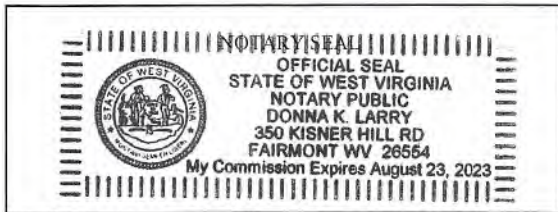
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

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Certification of Notice is hereby given:

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

Well Operator:	<u>EQT Production Company</u>	Address:	<u>2400 Ansys Drive, Suite 200</u>
By:	<u>John Zavatchan</u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Landman - Permitting</u>	Facsimile:	<u>724-745-2418</u>
Telephone:	<u>724-746-9073</u>	Email:	<u>jzavatchan@eqt.com</u>



Subscribed and sworn before me this 11th day of March 2019
Donna K. Larry Notary Public
 My Commission Expires 8-23-2023

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.

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WW-6A
(9-13)

API NO. 47- _____ - 05/17/2019
OPERATOR WELL NO. BIG177H7
Well Pad Name: BIG177

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: 03/11/2019 **Date Permit Application Filed:** 03/11/2019

Notice of:

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

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

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

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

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

SURFACE OWNER(s)

Name: See Attached List
Address: _____

Name: _____
Address: _____

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

Name: See Attached List
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: See Attached List
Address: _____

COAL OWNER OR LESSEE

Name: See Attached List
Address: _____

COAL OPERATOR

Name: N/A
Address: _____

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

Name: See Attached List
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: N/A
Address: _____

*Please attach additional forms if necessary

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Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

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Well Location Restrictions

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

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examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

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

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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.**

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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WW-6A
(8-13)

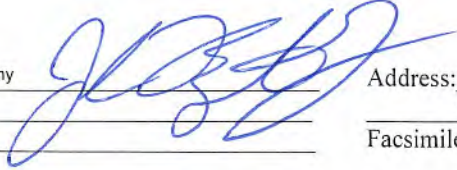
API NO. 47- _____ - **05/17/2019**
OPERATOR WELL NO. BIG177H7
Well Pad Name: BIG177

Notice is hereby given by:

Well Operator: EQT Production Company

Telephone: 724-746-9073

Email: jzavatchan@eqt.com



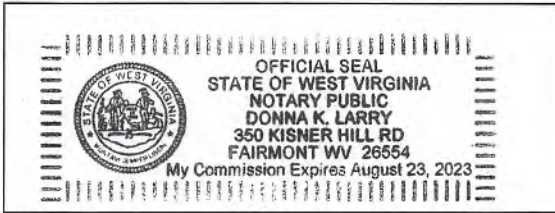
Address: 2400 Ansys Drive, Suite 200

Canonsburg, PA 15317

Facsimile: 724-745-2418

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.



Subscribed and sworn before me this 11th day of March, 2019.

Donna K. Larry Notary Public

My Commission Expires 8-23-2023

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WV Department of
Environmental Protection

4710303200
05/17/2019

Surface Owners:

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

Surface Owners (road or other disturbance):

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

Surface Owners (Pits or impoundments):

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

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05/17/2019

Owners of Water Wells

Higgins Church of Christ
C/O Virgil Willey
10460 N. Fork RD
Pine Grove, WV 26419 ✓

Ike Willey
12359 Willey Fork Road
Pine Grove, WV 26419 ✓

John D. Parks
14016 Stacey Valley Dr.
Azle, TX 76020 ✓

Mary Eastham ✓
12653 Willey Fork Rd
Pine Grove, WV 26419

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4710303299
05/17/2019

Coal Owner

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

Consol Mining Company, LLC
Attn: Casey V. Saunders
1000 Consol Energy Dr.
Canonsburg, PA 15317

Doris Hamilton
55 Parker St.
Wheeling, WV

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

Janet Marie Allison
122 Dominic Drive
Scott Depot, WV 25560

John D. Parks
HC 62 Box 93
Pine Grove, WV 26419

John D. Parks and Deborah Fronczek
HC 62 Box 93
Pine Grove, WV 26419

Joyce L. Wilson
806 Whispering Way, South
Charleston, WV 25303

WPP, LLC
5260 Irwin Road
Huntington, WV 25727

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

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 02/13/2019 **Date Permit Application Filed:** 3/11/19

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

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

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

Name: See Attached List Name: _____
Address: _____ Address: _____

Notice is hereby given:

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

State: West Virginia UTM NAD 83 Easting: 535,736.86
County: Wetzel Northing: 4,381,509.38
District: Grant Public Road Access: RT 19
Quadrangle: Big Run Generally used farm name: Coastal Forest Resources Co. d/b/a Coastal Timberlands Co.
Watershed: Willey Fork of North Fork Fishing Creek

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: EQT Production Company
Address: 2400 Ansys Drive, Suite 200
Canonsburg, PA 15317
Telephone: 724-746-9073
Email: jzavatchan@eqt.com
Facsimile: 724-745-2418

Authorized Representative: John Zavatchan
Address: 2400 Ansys Drive, Suite 200
Canonsburg, PA 15317
Telephone: 724-746-9073
Email: jzavatchan@eqt.com
Facsimile: 724-745-2418

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MAR 13 2019
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

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

05/17/2019

Surface Owners:

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

Surface Owners (road or other disturbance):

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

Surface Owners (Pits or impoundments):

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

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Environmental Protection

WW-6A5
(1/12)

4710303299
Operator Well No. Big 77 03/11/2019

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

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

Date of Notice: 03/11/2019 **Date Permit Application Filed:** 03/11/2019

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

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)

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

Name: See Attached List Name: _____
 Address: _____ Address: _____

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>535,736.861</u>
County: <u>Wetzel</u>		Northing: <u>4,381,509.379</u>
District: <u>Grant</u>	Public Road Access: <u>Rt 19</u>	
Quadrangle: <u>Big Run</u>	Generally used farm name: <u>Coastal Forest Resources Co., d/b/a Coastal Timberlands Co.</u>	
Watershed: <u>Willey Fork of North Fork Fishing Creek</u>		

This Notice Shall Include:

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

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

Address: 2400 Ansys Drive, Suite 200
Canonsburg, PA 15317
 Facsimile: 724-745-2418

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Surface Owners:

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

Surface Owners (road or other disturbance):

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

Surface Owners (Pits or impoundments):

Coastal Forest Resources dba Coastal Timberlands Company
P.O. Box 709
Buckhannon, WV 26201

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

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

February 27, 2019

Jill M. Newman
Deputy Commissioner

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

Subject: DOH Permit for the BIG177 Well Site, Wetzel County

BIG177 H7

Dear Mr. Martin,

This well site will be accessed from existing Permit # 06-2013-0292 issued to EQT Production Company for access to the State Road for a well site located off of Wetzel County Route 19 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
Regional Maintenance Engineer
Central Office Oil & Gas Coordinator

Cc: John Zavatchan
EQT Production Company
CH, OM, D-6
File

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Anticipated Frac Additives
Chemical Names and CAS numbers

4710303299
05/17/2019

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

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BIG-177 AS-BUILT SITE PLAN EQT PRODUCTION COMPANY

**WVDEP OOG
ACCEPTED AS-BUILT**
[Signature] 8/28/2017

PROJECT INFORMATION

PROJECT NAME: BIG-177 SITE AS BUILT

TAX PARCEL:
GRANT DISTRICT
MAP 13-8, 13-8.1

SURFACE OWNER:
COASTAL FOREST RESOURCES COMPANY D/B/A
GRANT DISTRICT
WETZEL COUNTY, WV
TOTAL PROPERTY AREA: 27± ACRES OR 217± ACRES
AND 55± ACRES

ROYALTY OWNER:
HIGGINS FAMILY TRUST (LEASE NO. 103021)
GRANT DISTRICT
WETZEL COUNTY, WV
TOTAL PROPERTY AREA: 242.5± ACRES

SITE LOCATION:
THE BIG-177 SITE IS LOCATED IN THE BOTTOM NORTH OF WILLEY
FORK APPROXIMATELY 2,300 FT EAST OF THE CO. ST 10 AND CO.
RT. 15 INTERSECTION.

BIG 177 LOCATION COORDINATES

BIG-177 SITE ENTRANCE
LATITUDE: 39.60363 LONGITUDE: -80.53027 (NAD 83)

BIG-177 WELL PAD (CENTER PAD)
LATITUDE: 39.58263 LONGITUDE: -80.50412 (NAD 83)

BIG-177 WELL PAD (CENTER OF TANK)
LATITUDE: 39.56252 LONGITUDE: -80.50070 (NAD 83)

SITE DISTURBANCE COMPUTATIONS

ORIGINAL LIMITS OF DISTURBANCE = 6.9 ± ACRES

GENERAL DESCRIPTION

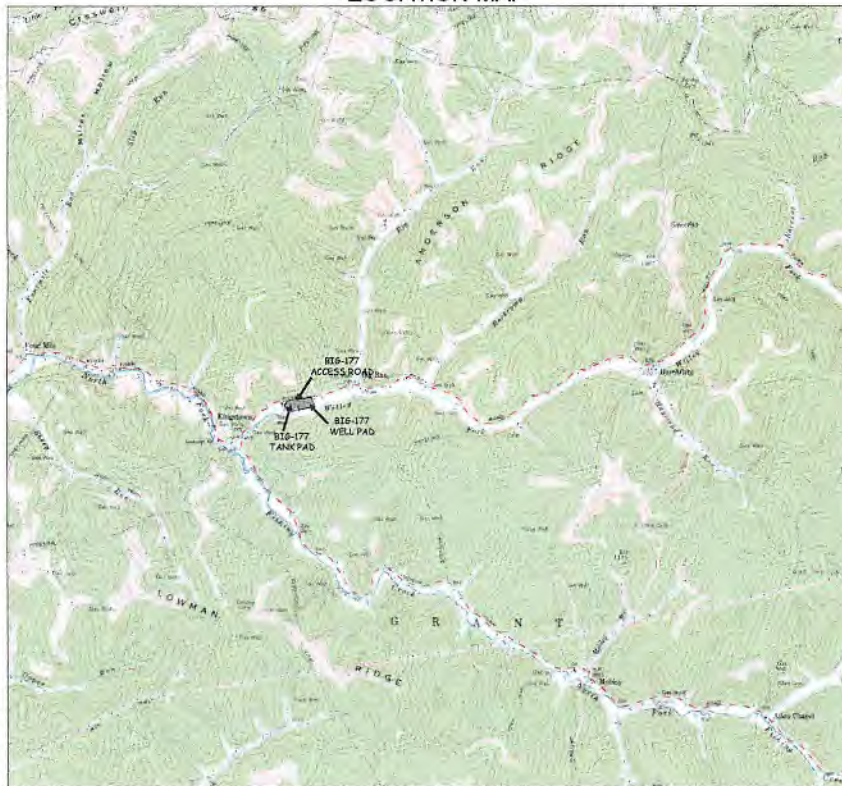
THE WELL PAD AND TANK PAD HAVE BEEN CONSTRUCTED TO AID IN THE
DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

PERMITTED WELLS: API# 47-103-02984, 47-103-03117, 47-103-03057, & 47-103-03058

PROPOSED WELLS: BIG177H2, BIG177H5, BIG177H6, BIG177H7, BIG177H8,
BIG177H9, & BIG177H15.

SITUATE ON THE WATERS OF WILLEY FORK OF NORTH FORK FISHING CREEK
IN GRANT DISTRICT, WETZEL COUNTY, WEST VIRGINIA.

LOCATION MAP



LIST OF DRAWINGS

- 1 - COVER SHEET
- 2 - CONSTRUCTION NOTES
- 3 - TANK PAD MODIFICATION PLAN
- 4 - DETAILS
- 5 - DETAILS
- 6 - DETAILS

LEGEND

PROPOSED LIMITS OF DISTURBANCE	---
COMPOST FILTER SOCK	---
EX. BOUNDARY LINE	---
EX. ROAD EDGE OF GRAVEL/DIRT	---
EX. ROAD EDGE OF PAVEMENT	---
EX. ROAD CENTERLINE	---
EX. DITCHLINE	---
EX. CULVERT	---
EX. FENCING	---
EX. OVERHEAD UTILITY R/W	---
EX. POWER POLE	---
EX. CITY WIRE	---
EX. TELEPHONE LINE	---
EX. GASLINE	---
EX. GASLINE R/W	---
EX. WATERLINE	---
EX. MONITORING WELL	---
EX. TREELINE	---
EX. REFERENCE TREES	---
EX. BELIEVED STREAM	---
EX. BELIEVED WETLAND	---
EX. STRUCTURE	---
EX. PIPELINE MARKER	---
RG FOOTPRINT	---
EDGE OF BERM	---
EX. SUPER SILT FENCE	---
EX. REINFORCED SILT FENCE	---
BERM	---
GRAVEL	---
REP RAP	---
ORIGINAL GROUND & CONTOURS	---
AS BUILT ± CONTOUR	---
PHOTO NUMBER & LOCATION	---
PERMITTED WELL LOCATIONS	---
PROPOSED WELL LOCATIONS	---
SPOT ELEVATIONS	---
MATCHLINE	---

GROUND ELEVATIONS
 SHOWN IN RED
 ESTABLISHED BY SURVEY
 CHARGE GPS

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!!

NO.	REVISION	DATE	DESCRIPTION	
THIS DOCUMENT WAS PREPARED BY SLS LAND AND ENERGY DEVELOPMENT FOR EQT.				
BIG-177 AS-BUILT SITE PLAN THIS DOCUMENT WAS PREPARED BY SLS LAND AND ENERGY DEVELOPMENT FOR EQT PRODUCTION COMPANY.				
DATE: 3/29/17				
BY:				
SCALE: 1"= 2000'				
DESIGNED BY: WAR				
FILE NO. 8806				
SHEET: 1 OF 8				
SFL				

GRID NORTH AND SURVEYED ELEVATIONS SHOWN HEREON WERE ESTABLISHED BY DGPS SURVEY GRADE.



BIG-177 PAD AS-BUILT

PERMITTED WELLS: API# 47-103-02984, 47-103-03117, 47-103-03057, & 47-103-03058
 PROPOSED WELLS: BIG177H2, BIG177H5, BIG177H6, BIG177H7, BIG177H8, BIG177H9, & BIG177H10.

**WVDEP OOG
 ACCEPTED AS-BUILT**
[Signature]
 8/28/2017

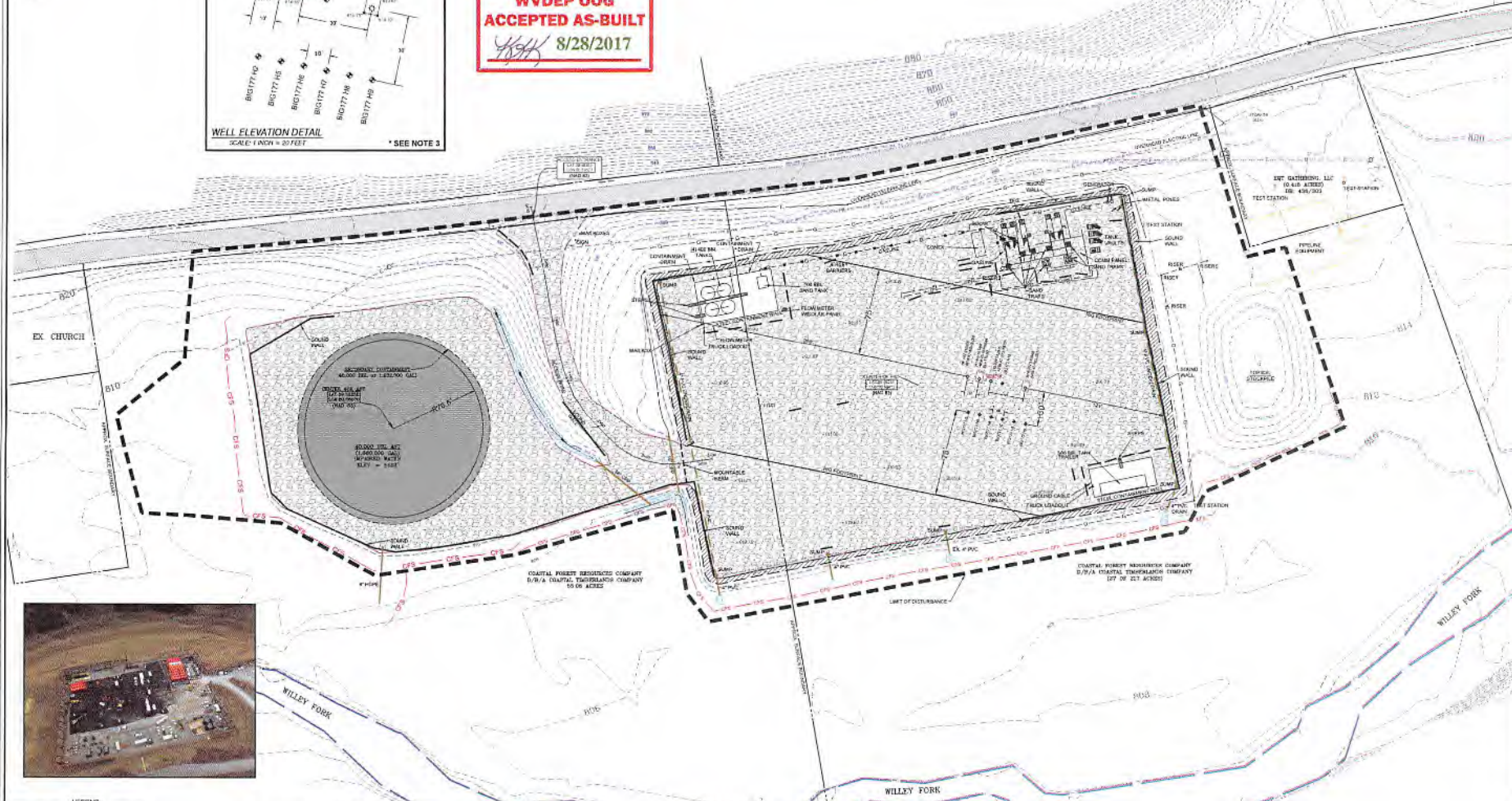
REV. NO.	DATE	DESCRIPTION
1	3/29/17	UPDATE TO FIELD CHECK



THIS DOCUMENT WAS PROVIDED BY SLS LAND AND ENERGY PROJECT # 177-0007 FOR: EQT

BIG-177 WELL PAD AS-BUILT SITE PLAN
 200 ACRES
 200 ACRES
 200 ACRES

DATE: 3/29/17
 SCALE: 1"=40'
 DRAWN BY: VAN
 FILE NO: 6806
 SHEET: 3 OF 6



LEGEND

[Symbol]	LINE OF DISTURBANCE
[Symbol]	JERSEY BANNER
[Symbol]	EDGE OF GRAVEL
[Symbol]	CENTRAL LINE OF DITCH
[Symbol]	GRAVEL (AS NOTED)
[Symbol]	WYPAE
[Symbol]	CONTAINMENT BERM
[Symbol]	GRAVEL
[Symbol]	AS NOTED - CONTOURS
[Symbol]	WELL LOCATIONS
[Symbol]	WELL MARKER
[Symbol]	SPOT ELEVATIONS

- SURVEY NOTE**
1. THE CERTIFICATION OF THIS DRAWING APPLIES ONLY TO THE TOPOGRAPHIC MAPPING AS GENERATED FROM THE FIELD DATA OBTAINED AT THE TIME OF THE FIELD SURVEY ON 10/27/16.
 2. ALL EXISTING MOUSE HOLES HAVE METAL CAPS AS PER WELL INSPECTION ON 08/28/17.
 3. WELL ELEVATION DETAIL BASED ON PREVIOUS DRAWING, NOT ABLE TO UPDATE DUE TO ACTIVITY ON PAD AT THIS TIME.

RECEIVED
 Office of Oil and Gas
 MAR 19 2019
 WV Department of Environmental Protection

