



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Monday, February 7, 2022
WELL WORK PLUGGING PERMIT
Horizontal 6A Plugging

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

Re: Permit approval for BIG177H15
47-103-03191-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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: BIG177H15
Farm Name: COASTAL FOREST RESOURC
U.S. WELL NUMBER: 47-103-03191-00-00
Horizontal 6A Plugging
Date Issued: 2/7/2022

PERMIT CONDITIONS

West Virginia Code § 22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

4710303191A

WW-4B
Rev. 2/01

- 1) Date September 2, 2021
- 2) Operator's
Well No. BIG177-MR H15
- 3) API Well No. 47-103 - ~~03191~~

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 806' Watershed Fishing Creek
District Grant County Wetzel Quadrangle Big Run

6) Well Operator EQT Production Company 7) Designated Agent Joseph C. Mallow
Address 400 Woodcliff Drive Address 115 Professional Place
Canonsburg PA 15317 Bridgeport WV 26330

8) Oil and Gas Inspector to be notified Name Bryan Harris 9) Plugging Contractor Name R&J
Address PO Box 157 Address 1087 Raccoon Road
Volga, WV 26238 Hueysville, KY 41640

10) Work Order: The work order for the manner of plugging this well is as follows:
See Attachments for details and procedures.

*OK gwm
2/6/22*

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Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Bryan Harris Date 9/8/21

02/11/2022

BIG177 15H
 Wetzel Co., WV
 HZ Marcellus well
 API # 47-103-03191-00
 BY: Tyler Mizgorski
 DATE: 8/19/2021

CURRENT STATUS:

Elevation @ 811'
 26" conductor @ 80' Cemented to Surface
 13 3/8" casing @ 768' Cemented to Surface
 9 5/8" casing @ 2,731' Cemented to Surface
 5 1/2" casing @ 15,367' Calculated Cement top of 362'

Well not completed

Fresh water @ 185', 295', 495', 621'
 Coal Show @ 115', 168', 446', 510'
 Salt Water @ 1150', 1465'
 Gas Show @ None Reported
 Oil Show @ None Reported

- 1) Notify Inspector Bryan Harris, (304) 553-6087, Bryan.O.Harris@wv.gov, 24 hours prior to commencing operations.
- 2) Check and record pressure on all casings, notify Engineer of recorded pressures.
- 3) Install 10k wireline BOP. Test BOP's and stack to regs. P/U install 10k lubricator. (Call 8hrs before, will need crane truck)
- 4) Equalize lubricator, if necessary and RIH w/ gauge ring to 7,815 and set a CIBP @7,795' MD above the Marcellus TVD. Do not set plug in collar. If unable to get to set depth, EQT office will call DEP to discuss options.
- 5) Hook up pump truck and pressure test lines to 8000 psi. (Call pump truck 8hrs before)
- 6) POOH w/ wireline and load well with 6% gel if not full. Perform CIT with pump truck to 2000 psi. Ensure leak-off is not more than 10% in thirty minutes per regulation.
- 7) RIH and set second CIBP 10' above the first @7,785' MD
- 8) POOH w/ wireline and load well with 6% gel if not full. Perform CIT with pump truck to 2000 psi. Ensure leak-off is not more than 10% in thirty minutes per regulation.
- 9) RIH with Renegade segmented bond log and pull log from CIBP to surface
- 10) TIH with tubing to CIBP.
- 11) Pump 1500' Class A cement plug. 7,785' to 6,285' Pump 500' of cement and pull 500' of tubing 2 times. Pump last 500' section and pull tubing 700' and reverse circulate with fresh water if need be.
- 12) Let cement dry for 8 hours Tag up on cement. If cement top is at 6285' or close POOH with tubing to 2900'
- 13) Set a 300' CIA cement plug 2900' to 2600'. TOOH 300' Reverse circulate full hole volume. TOOH 300' (Safety Plug)
- 14) Let cement dry for 8 hours. Tag up on cement. If cement top is at 2600' or close POOH with tubing
- 15) Free Point 5 1/2" casing. Cut Casing @freepoint ~350' using jet cutter. Estimated freepoint @362. TOOH 5 1/2" Casing.
- 16) Set a 600' CIA Cement plug 600' to surface 250'in/350' out of casing cut 600' to Surface
- 17) Let cement dry for 8 hours.
- 18) Set Monument above ground to WV-DEP Specifications

OK
 g m m

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State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-103-03191 County WETZEL District GRANT
Quad BIG RUN Pad Name BIG177 Field/Pool Name N/A
Farm name COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO. Well Number BIG177H15 (513844)
Operator (as registered with the OOG) EQT Production Company
Address 625 LIBERTY AVENUE, SUITE 1700 City PITTSBURGH State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,381,518.733 Easting 535,736.680
Landing Point of Curve Northing 4,382,278.892 Easting 535,834.253
Bottom Hole Northing 4,384,296.551 Easting 534,825.834

Elevation (ft) 811' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s) Synthetic Based Mud 12.4 ppg, barium sulfate, salt, lime, organophilic clay, gibsonite, anionic emulsifier, polyamide emulsifier, organic polymeric viscosifier, oil soluble sulfonated surfactant, surfactant, thinner, calcium carbonate, walnut shells, cellulose, blend of deformable latex polymers

Date permit issued 08/29/2017 Date drilling commenced 12/20/2018 Date drilling ceased 7/09/2019
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

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Freshwater depth(s) ft 185,295,495,645 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1150,1465 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 115,168,446,510 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed by:
02/11/2022

API 47-103 - 03191 Farm name COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO. Well number BIG177H15 (513844)

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	26"	80'	NEW	A-500 85.6#	N/A	Y
Surface	17-1/2"	13-3/8"	768'	NEW	J-55 54.5#	470'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2731'	NEW	A-500 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	15367'	NEW	P-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has calculated TOC of 362' MD, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	166	15.6	1.18	196	0	8+
Surface	CLASS A	765	16.0	1.13	864	0	8
Coal							
Intermediate 1	CLASS H	1164	16.8	1.02	1187	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	3224	15.2	1.09	3514	362	8+
Tubing							

Drillers TD (ft) 15382' MD Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 3962' MD

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING CONDUCTOR: NONE
 SURFACE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE
 INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE
 PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 1966'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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WR-35
Rev. 8/23/13

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API 47- 103 - 03191 Farm name COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO. Well number BIG177H15 (513844)

Drilling Contractor Falcon Drilling Company LLC
Address 1120 RT 119 NWY NORTH City INDIANA State PA Zip 15701

Logging Company KLX
Address 1498 Evans City Rd City Evans City State PA Zip 16033

Logging Company Gyrodata
Address 73 Noblestown Rd City Carnegie State PA Zip 15106

Cementing Company Universal
Address 13549 S. Mosiertown Rd City Meadville State PA Zip 16335

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API # 47-103-03191 Final Formations BIG177H15 (513844)				
Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)
SAND/SHALE	1	1	115	115
COAL	115	115	118	118
SAND/SHALE	118	118	168	168
WAYNESBURG	168	168	172	172
SAND/SHALE	172	172	446	446
MAPLETOWN	446	446	450	450
SAND/SHALE	450	450	510	510
PITTSBURGH	510	510	516	516
SAND/SHALE	516	516	1707	1707
MAXTON	1707	1707	1751	1751
SAND/SHALE	1751	1751	1823	1823
BIG LIME	1823	1823	1876	1876
SAND/SHALE	1876	1876	2205	2205
WEIR	2205	2205	2233	2233
SAND/SHALE	2233	2233	2379	2379
GANTZ	2379	2379	2417	2417
SAND/SHALE	2417	2417	2530	2530
FIFTY FOOT	2530	2530	2575	2575
SAND/SHALE	2575	2575	2601	2601
THIRTY FOOT	2601	2601	2635	2635
SAND/SHALE	2635	2635	2648	2648
GORDON	2648	2648	2693	2693
SAND/SHALE	2693	2693	2735	2735
FORTH SAND	2735	2735	2746	2746
SAND/SHALE	2746	2746	2787	2787
BAYARD	2787	2787	2860	2860
SAND/SHALE	2860	2860	3244	3244
WARREN	3244	3244	3290	3290
SAND/SHALE	3290	3290	3394	3394
SPEECHLEY	3394	3394	3408	3408
SAND/SHALE	3408	3408	3783	3783
BALLTOWN A	3783	3783	3800	3800
SAND/SHALE	3800	3800	4243	4242
RILEY	4243	4242	4256	4255
SAND/SHALE	4256	4255	4880	4777
BENSON	4880	4777	5210	5017
ALEXANDER	5210	5017	5271	5062
ELKS	5271	5062	7099	6413
SONYEA	7099	6413	7305	6568
MIDDLESEX	7305	6568	7374	6620
GENESEE	7374	6620	7496	6706
GENESEO	7496	6706	7535	6731
TULLY	7535	6731	7572	6752
HAMILTON	7572	6752	7815	6849
MARCELLUS	7815	6849	15382	6882

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Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: BIG177H15 (513844)

API: 47 - 103 - 03191

Submission: Initial Amended

Notes:

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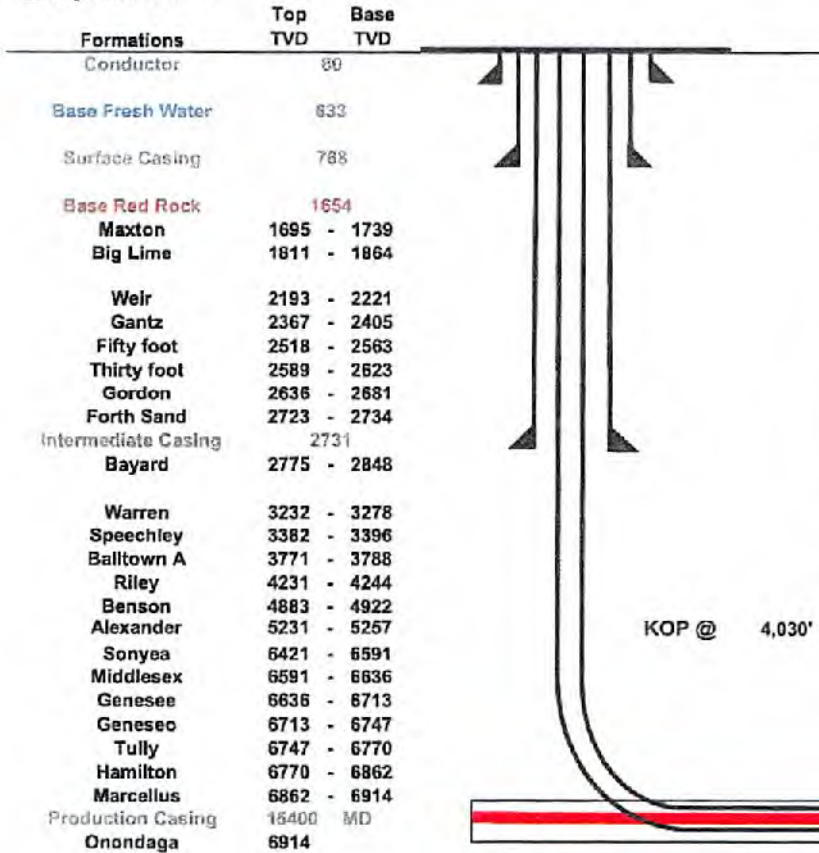
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41-103-03191

Well **BIG177H15**
EQT Production
Big Run Quad
Wetzel County, WV

Azimuth **332**
 Vertical Section **9630**

Note: Diagram is not to scale



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'	15,400'
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	3,286
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 @ 6,881' TVD 7,963' MD Est. TD @ 6,881' TVD 15,400' MD

7,437' Lateral

Proposed Well Work:
 Drill and complete a new horizontal well in the Marcellus formation.
 Drill the vertical to an approximate depth of 4030'.
 Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

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EQT PRODUCTION COMPANY
400 Woodcliff Drive | Canonsburg, PA 15317

CERTIFIED MAIL

Dear Sir or Madam:

Re: Proposed BIG177 H15 Gas Well
Grant District, Wetzel County, West Virginia

Pursuant to Section 22B-1-g of the West Virginia Code, enclosed please find copies of the following documents:

- Form WW-4A - Notice of Application to Plug and Abandon a Well (1 copy)
- Form WW-4B - Application for a Permit to Plug and Abandon (1 copy)
- Form WW-7 - WV DEP Well Location Form - Certified Copy
- Form WW-9 - Fluids/Cuttings Disposal & Reclamation Plan (1 copy)

This application is being filed by EQT Production with the Administrator of the Office of Oil and Gas of the West Virginia Department of Environmental Protection. If you have no objections to this well being plugged, please sign the Surface Owner Waiver or Coal Party Waiver (Form WW-B) and return one copy to our office in the enclosed prepaid envelope.

Thank you for your cooperation and consideration. Should you have any questions, comments, or require any additional information, please feel free to contact Becky Shrum at (724) 271-7314.

Sincerely,
EQT PRODUCTION COMPANY

Erin Spine
Supervisor - Subsurface Permitting

Enclosures

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WW-6B
(04/15)

API NO. 47-103 - 03191
OPERATOR WELL NO. BIG177H15
Well Pad Name: BIG177

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: BIG177H15 Well Pad Name: BIG177

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

4) Elevation, current ground: 811' 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 12/12/18*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 6881', 53', 2620 PSI

8) Proposed Total Vertical Depth: 6881

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 15400

11) Proposed Horizontal Leg Length: 7437

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: 103,156,434,544

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

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

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

Depth: _____

Seam: _____

Owner: _____

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WW-6B
(04/15)

API NO. 47- 103 - 03191
 OPERATOR WELL NO. BIG177H15
 Well Pad Name: BIG177

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	2731	2731	1073 ft ³ / CTS
Production	5 1/2	New	P-110	20	15400	15400	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 60' inclination	
Liners							

DMDH 12/12/18

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	.312	884	35	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Volume 2014-17	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							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical to an approximate depth of 4030'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

DMA 12/12/18

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): no additional

22) Area to be disturbed for well pad only, less access road (acres): no additional

23) Describe centralizer placement for each casing string:

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

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

Conductor: Class A no additives
 Surface (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries. .25% Floke Loss Circulation Material (LCM)
 Intermediate (Class H Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries. 0.25% Floke. 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-300 (fluid loss) .2% SEC-10 (Fluid loss). .2% SuperFL-350 (fluid loss) Reduces amount of water lost to formation. 60 % Calcium Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.

WEST VIRGINIA GEOLOGICAL PROGNOSIS

Horizontal Well
BIG177H15

Drilling Objectives: Marcellus
County: Wetzel
Quad: Big Run
Elevation: 824 KB 811 GL
Surface location: Northing: 396134.06 Easting: 1694465.38
Landing Point: Northing: 398618.12 Easting: 1694813.32
Toe location: Northing: 405333.10 Easting: 1691616.57
Recommended Azimuth: 332 Degrees TYD: 6881
Recommended LP to TD: 7,437'

Proposed Logging Suite: No pilot hole logs on BIG177 pad, formation tops based on logs run in BIG7 and BIG176 pilot holes. Please have mudloggers rigged up on location by 6362.5' TVD.

Recommended Gas Tests: 1800, 2050, 2600, Intra Csg. Pt., 3400, 4900, 5250, KOP, (Gas test at any mine void). Gas test during any trip or significant downtime while drilling the lateral section.

ESTIMATED FORMATION TOPS

Formation	Top (TVD)	Base (TVD)	Lithology	Comments	Top RR	Base RR
Fresh Water Zone	1	633		FW @ 175,283,483,633...	14	22
Coal	103	106	Coal		195	208
Waynesburg	156	160	Coal		266	279
Mapletown	434	438	Coal		396	401
Pittsburgh	544	551	Coal	Planned future mining in Pittsburgh seam elev. 280' thickness 611' to 72'	585	598
Maxton	1695	1739	Sandstone	SW @ 1138,1455...	677	748
Possible Storage Zone	1757	1813		Possible Storage Zone	718	738
Big Lime	1811	1864	Limestone		792	877
Weir	2193	2221	Sandstone		1616	1654 Base of Red
Top Devonian	2367					
Gantz	2367	2405	Silty Sand			
Fifty foot	2518	2563	Silty Sand			
Thirty foot	2589	2623	Silty Sand			
Gordon	2636	2681	Silty Sand			
Intr. csg pt	2731					
Forth Sand	2723	2734	Silty Sand			
Bayard	2775	2848	Silty Sand			
Warren	3232	3278	Silty Sand	Base of Offset Well Perforations at 2877' TVD		
Speechley	3382	3396	Silty Sand			
Baltown A	3771	3788	Silty Sand			
Riley	4231	4244	Silty Sand			
Benson	4883	4922	Silty Sand			
Alexander	5231	5257	Silty Sand			
Elks	5257	6421	Gray Shales and Silts			
Sonyea	6421	6591	Gray shale			
Middlesex	6591	6636	Shale			
Genesee	6636	6713	Gray shale interbedded			
Genesee	6713	6747	Black Shale			
Tully	6747	6770	Limestone			
Hamilton	6770	6862	Gray shale with some			
Marcellus	6862	6914	Black Shale			
Purcell	6871	6873	Limestone			
-Lateral Zone	6881			Start Lateral at 6880.5'		
Cherry Valley	6891	6892	Limestone			
Onondaga	6914		Limestone			

Target Thickness	53 feet
Max Anticipated Rock Pressure	2620 PSI

Comments:
 Note that this is a TVD prog for a horizontal well (azimuth of 332 degrees; target formation = Marcellus). All measurements taken from estimated KB elevation. Water and coal information estimated from surrounding well data.
 Intermediate casing point is recommended 50' beneath the Gordon to shut off any water production from the Upper Devonian sands. Intermediate casing should be cemented into the surface string, per WV regulations.
 The estimated landing point TVD is 6880.5', rig geologist may adjust landing point. After the well is landed, drill to reported bed dips/ geologists' recommendation. The geologic structure is unknown at this time.

**AHS (KB 13') hit redrock at 810' KB when drilling first well on BIG177 pad (511407). Do not drill deeper than 790' to avoid hitting RR prior to running casing (this will give us 30' rat-hole).

LATERAL DRILLING TOLERANCES

Mapview - Lateral: Deviate as little as possible to the left or right of the planned wellbore.
Mapview - TD: DO NOT EXTEND beyond recommended wellbore to avoid lease line.

RECOMMENDED CASING POINTS

Coal	CSG OD	13 3/8	CSG DEPTH:	768	Beneath water show at 633'
Intermediate 1:	CSG OD	9 5/8	CSG DEPTH:	2731	Beneath the Gordon formation
Production:	CSG OD	5 1/2	CSG DEPTH:	@ TD	

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Environmental Protection

02/11/2022

BIG177H15
BIG177
EQT PRODUCTION COMPANY

BOTTOM HOLE LATITUDE 39°37'30"

3102

Table with columns: TAG, TAX REFERENCE, SURVEYOR, ACRES. Lists various land parcels and their owners, including Coastal Forest Resources Company and Robert W. Colaneri.

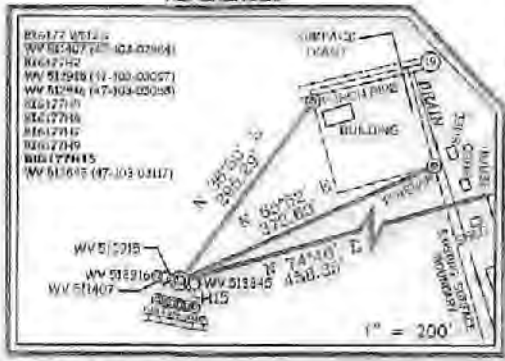
Table with columns: TAG, TAX REFERENCE, SURVEYOR, ACREAGE. Lists parcels owned by Coastal Forest Resources Company and other entities.

PROPERTY OWNERS table listing owners: BT WILSON GRASS, EQT PRODUCTION COMPANY, JACOB T. BISHOP, and MARIE SHARR ESTATE.

NOTES ON SURVEY

- 1. NO WATER WELLS WERE FOUND WITHIN 200 FT. OF PROPOSED WELL.
2. NO AGRICULTURAL BUILDINGS 200 FT. FROM PROPOSED WELL WERE FOUND WITHIN 200 FT. OF THE CENTER OF PROPOSED WELL.
3. WELL SPOT DIRCLE (SHEET 3) AND TOWN MARK (SHEETS 1, 2 & 3) SCALE: 1" = 200'

REFERENCES



UTM NORTH ZONE (UTM) EDGE 17 NORTH
NAD83 S.P.C. (T) N: 698,104.07 E: 1,004,484.33
NAD83 GCS LAT (N) 39.626359 LONG (W) 81.566000
NAD83 UTM (N) 11 4,381,510.735 E: 1,004,500.000



I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
DATE MAY 4 20 17
REVISED 8/27/17, 12/05/17, 12/12/18
OPERATORS WELL NO. BIG177H15
API WELL NO. 47-103-03191
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 6806PBIG177H16R3.dwg
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE SEE NOTE 2

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

WELL TYPE: OIL GAS 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 T.S.
SURFACE OWNER COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO ACREAGE 27.4 OF 217.6
ROYALTY OWNER HIGGINS FAMILY TRUST ACREAGE 242.5
PROPOSED WORK: 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 5,881'

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

02/11/2022

BIG177H15
BIG177
EQT PRODUCTION COMPANY

NAD 27 GRID NORTH

TOP HOLE LONGITUDE 80°35'00"

BOTTOM HOLE LONGITUDE 80°35'00"

LEGEND

- LEASE LINE: - - - - -
- SURFACE LINE: - - - - -
- WELL LATERAL: - - - - -
- OFFSET LINE: - - - - -
- TIE LINE: - - - - -
- CREEK: - - - - -
- ROAD: - - - - -
- COUNTY ROUTE: - - - - -
- PROPOSED WELL: (Symbol)
- EXISTING WELL: (Symbol)
- PERMITTED WELL: (Symbol)
- DRILL PATH SEND POINT: (Symbol)
- 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)
 NAD27 S.P.C.(FT) U. 824,134.07 E. 1,624,485.38
 NAD27 GEO. LAT.(N) 38.592558 LONG.(W) 80.594357
 NAD83 UTM (M) N. 4,391,518.703 E. 539,736.600

LANDING POINT
 NAD27 S.P.C.(FT) N. 388,618.12 E. 1,094,613.32
 NAD27 GEO. LAT.(N) 38.589389 LONG.(W) 80.592922
 NAD83 UTM (M) N. 4,365,277.812 E. 535,630.083

BOTTOM HOLE
 NAD27 S.P.C.(FT) N. 405,358.10 E. 1,521,618.57
 NAD27 GEO. LAT.(N) 38.607917 LONG.(W) 80.594555
 NAD83 UTM (M) N. 4,384,206.818 E. 534,822.073

BUILD OUT DATA

ID	BEARING	DISTANCE
C1	N 29°51'E	248.87
C2	N 65°23'30"W	323.70

LATERAL DATA

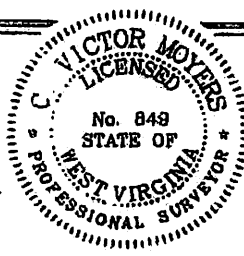
ID	BEARING	DISTANCE
L1	N 23°07'W	747.05

WELL TIES

ID	BEARING	DISTANCE
L1	N 44°54'W	248.54
L2	N 00°35'E	108.01



Land & Energy Development
 1700 11th St. Ste. 1000
 Charleston, WV 25301
 (304) 422-5000
 www.landenergy.com



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 FILE NO. 6806PEIG177H15R3.dwg SCALE 1" = 2000'
 DATE MAY 4, 20 17
 REVISED 8/07/17, 12/05/17, 12/12/18
 OPERATORS WELL NO. BIG177H15

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*

API WELL NO. 47 - 103 - 03191
 STATE COUNTY PERMIT

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

WELL OPERATOR EQT PRODUCTION COMPANY
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
 BRIDGEPORT, WV 26330

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

02/11/2022

BIG177H15
BIG177
EQT PRODUCTION COMPANY

LEGEND

- LEASE LINE -----
- SURFACE LINE -----
- WELL LATERAL -----
- OFFSET LINE -----
- TIE LINE -----
- ORDER -----
- ROAD -----
- COUNTY ROAD -----
- PROPOSED WELL (Symbol)
- EXISTING WELL (Symbol)
- PERMITTED WELL (Symbol)
- DRILL PATH BEHIND POINT (Symbol)
- GRANT DISTRICT TAX MAP PARCEL (Symbol) G-TM-00-00
- CENTER DISTRICT TAX MAP PARCEL (Symbol) G-TM-00-00

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

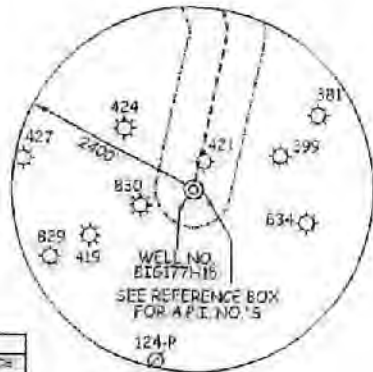
NAD27 S.P.C.(FT)	N 4,381,194.07	E 1,694,885.86
NAD27 GEO.	LAT (N) 39.58266	LONG (W) 80.584022
NAD83 UTM (M)	N 4,381,196.733	E 836,736.620

LANDING POINT

NAD27 S.P.C.(FT)	N 329,610.52	E 1,894,815.31
NAD27 GEO.	LAT (N) 39.58266	LONG (W) 80.584022
NAD83 UTM (M)	N 4,382,277.382	E 566,030.063

BOTTOM HOLE

NAD27 S.P.C.(FT)	N 405,332.10	E 1,691,616.57
NAD27 GEO.	LAT (N) 39.624117	LONG (W) 80.584855
NAD83 UTM (M)	N 4,384,208.815	E 1,074,822.173



BUILD OUT DATA

ID	BEARING	DISTANCE
1	N 12°21' E	300.00'

CURVE

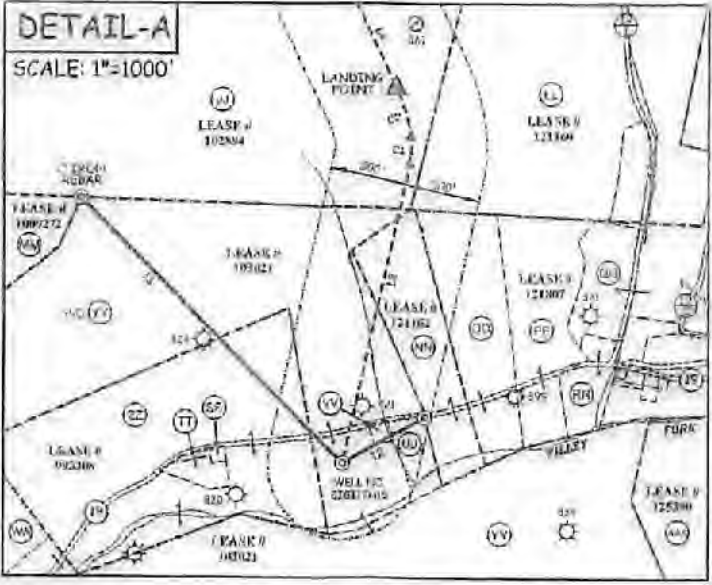
CURVE	ARC LENGTH	INSIDE	CHORD BEARING	CHORD LENGTH
C1	125.00'	111.61'	S 01°51'11" E	177.00'
C2	547.16'	1071.67'	S 16°52'02" W	328.79'

LATERAL DATA

ID	BEARING	DISTANCE
L1	N 23°22' W	740.00'

WELL TIES

ID	BEARING	DISTANCE
T1	N 41°14' W	280.00'
T2	N 81°00' E	620.00'



NAD 27 GRID NORTH

TOP HOLE LONGITUDE 80°55'00"

BOTTOM HOLE LONGITUDE 80°55'00"

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 www.slsenergy.com

VICTOR MOYERS
 LICENSED
 No. 849
 STATE OF
 WEST VIRGINIA
 PROFESSIONAL SURVEYOR

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

FILE NO. 6806PBIG177H15R3 (over) SCALE 1" = 2000'
 DATE MAY 4 20 17
 REVISED 8/07/17, 12/01/17, 12/12/18
 OPERATOR'S WELL NO. BIG177H15

API WELL NO. 47 - 103 - 03191
 STATE COUNTY PERMIT

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

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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. 648 *C. Victor Moyers*

WELL OPERATOR EQT PRODUCTION COMPANY

ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
BRIDGEPORT WV 26330

DESIGNATED AGENT JASON RANSON

ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
BRIDGEPORT WV 26330

02/11/2022

WW-4A
Revised 6-07

1) Date: September 2, 2021
2) Operator's Well Number
BIG177 H15
3) API Well No.: 47 - 103 - 03191

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>See attached</u>	Name _____
Address _____	Address _____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>See attached</u>
(c) Name _____	Address _____
Address _____	Name _____
Address _____	Address _____
6) Inspector <u>Bryan Harris</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 157</u>	Name _____
<u>Meigs, WV 26236</u>	Address _____
Telephone <u>304-553-0267</u>	Address _____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Commonwealth of Pennsylvania - Notary Seal
Olivia Pishioneri, Notary Public
Allegheny County
 My commission expires **October 25, 2023**
 Commission number **1359968**
 Member, Pennsylvania Association of Notaries

Well Operator EQT Production Company
 By: Todd Kibner
 Its: Manager - Permitting
 Address 400 Woodcliff Drive
Canonsburg PA 15317
 Telephone (724) 746-9023

Subscribed and sworn before me this 2nd day of September, 2021
Olivia Pishioneri Notary Public
 My Commission Expires October 25, 2023

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 Office requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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 Office of Oil and Gas
 SEP 13 2021
 WV Department of
 Environmental Protection

Surface Owner:

Coastal Forest Resources Company ✓
P.O. Box 709, 1772 Brushy Fork Road
Buckhannon, WV 26201

Coal Owners:

Coastal Forest Resource Company ✓
P.O. Box 709, 1772 Brushy Fork Road
Buckhannon, WV 26201

Melinda Jo Carpenter ✓
319 Franklin Street
Barnesville, OH 43713

Irrevocable Intervivos Trust of Billy J. Higgins and Frances J. Higgins, dated 1/10/2012 ✓
(Co-Trustees: Frances J. Higgins & William P. Higgins)
531 Franklin Terrace
Washington, PA 15301

Deanne Merle Weber ✓
633 Carothers Road
Weirton, WV 26062

WPP LLC ✓
5260 Irwin Road
Huntington, WV 25727

Consol RCPC LLC ✓
1000 Consol Energy Drive, Suite 100
Canonsburg, PA 15317

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Office of Oil and Gas

SEP 13 2021

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Office of Oil and Gas
West Virginia Department of
Environmental Protection

SEP 13 2021

WV Department of
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4710303191

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City, State, ZIP+4®

COASTAL FOREST RESOURCES CO.
PO BOX 709
1772 BRUSHY FORK ROAD
BUCKHANNON WV 26201

40-09 - BIG 177 H15 - NOTIFICATIONS

PS Form 3800, Apr 2019

02/11/2022

SURFACE OWNER WAIVER

4710303191

Operator's Well
Number

BIG177 H15

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

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

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) 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.

Comments must be in writing. Your comments must 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.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

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

FOR EXECUTION BY A NATURAL PERSON
ETC.

FOR EXECUTION BY A CORPORATION,

RECEIVED
Office of Oil and Gas
SEP 13 2021
WV Department of
Environmental Protection

_____	Date	_____	Name	_____
Signature		By	Its	_____

				Date
				02/11/2022
		Signature		Date

4710303191P

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COASTAL FOREST RESOURCES CO.
PO BOX 709
1772 BRUSHY FORK ROAD
BUCKHANNON WV 26201

40-09 - BIG 177 H15 - NOTIFICATIONS
 PS Form 3800, Apr 2012

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MELINDA JO CARPENTER
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BARNESVILLE OH 43713

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<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$
Total Postage and Fees	\$ 8.76

Sent To
BILLY J. HIGGINS, FRANCES J HIGGINS
& WILLIAM P HIGGINS
531 FRANKLIN TERRACE
WASHINGTON PA 15301

40-09 - BIG 177 H15 - NOTIFICATIONS
 PS Form 3800, Apr 2012

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<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$
Total Postage and Fees	\$ 8.76

Sent To
DEANNE MERLE WEBER
633 CAROTHERS ROAD
WEIRTON WV 26062

40-09 - BIG 177 H15 - NOTIFICATIONS
 PS Form 3800, Apr 2012

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<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$
Total Postage and Fees	\$ 8.76

Sent To
WPP LLC
5260 IRWIN ROAD
HUNTINGTON WV 25727

40-09 - BIG 177 H15 - NOTIFICATIONS
 PS Form 3800, Apr 2012

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Certified Mail Fee	\$
Extra Services & Fees (check box, add fee as appropriate)	
<input type="checkbox"/> Return Receipt (hardcopy)	\$
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$
Total Postage and Fees	\$ 8.76

Sent To
CONSOL RCPC LLC
1000 CONSOL ENERGY DRIVE, SUITE 100
CANONSBURG, PA 15317

40-09 - BIG 177 H15 - NOTIFICATIONS
 PS Form 3800, Apr 2012

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Office of Oil and Gas
SEP 13 2021

WV Department of Environmental Protection
02/11/2022

API No. 4710303191P
 47-103-03191

Farm Name Coastal Forest Resources Co. dba Coastal Timberlands Co.

Well No. BIG177 H15

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator ____/ owner ____/ lessee ____/ of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____

By: _____

Its _____

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SEP 13 2021
WV Department of
Environmental Protection

02/11/2022

WW-9
(5/16)

4710303191

API Number 47 - 103 03191
Operator's Well No. BIG177 H15

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 306666

Watershed (HUC 10) Fishing Creek Quadrangle Big Run 7.5'

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: _____

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

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

Additives to be used in drilling medium? _____

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

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

-Landfill or offsite name/permit number? _____

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 April 1, 2016, 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 

Company Official (Typed Name) Todd Klamer

Company Official Title Manager - Permitting

Subscribed and sworn before me this 2nd day of September, 2021

 Notary Public

My commission expires October 25, 2023

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Commonwealth of Pennsylvania - Notary Seal
Olivia Pishioneri, Notary Public
Allegheny County
My commission expires October 25, 2023
Commission number 1359968
Member, Pennsylvania Association of Notaries

4710303191

EQT Production Water plan
Offsite disposals

Waste Management - Meadowfill Landfill

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

Waste Management - Northwestern Landfill

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

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Form WW-9

Operator's Well No. BIG177 H2

Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH _____

Lime _____ Tons/acre or to correct to pH _____

Fertilizer type _____

Fertilizer amount _____ lbs/acre

Mulch _____ Tons/acre

The BIG177H2 well is located on a Well Pad with other wells in production. No further reclamation activity will occur beyond what was approved in the Well Work Permit for Well Pad stabilization. A copy of the revegetation plan containing this information is attached for reference.

Seed Mixtures

Temporary

Permanent

Seed Type

lbs/acre

Seed Type

lbs/acre

Seed Type	lbs/acre	Seed Type	lbs/acre
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bryan Harris

Comments: _____

Title: Inspector

Date: 9/8/21

Field Reviewed? () Yes () No

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Environmental Protection

02/11/2022

4710303191P



Branden Weimer – Project Specialist, Permitting

400 Woodcliff Dr | Canonsburg, PA 15317
P: 412-997-7940 | branden.weimer@eqt.com

West Virginia Dept. of Environmental Protection

Office of Oil & Gas
Attn: Jeff McLaughlin
601 57th Street, SE
Charleston, WV 25304

September 10, 2021
Well Plug & Abandonment Permit Application
API 47-103-03191
Grant District, Wetzel County, WV

Mr. McLaughlin,

Attached is EQT Production Company's permit application for plug and abandonment of the BIG177H15 well.

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

Regards,

A handwritten signature in blue ink, appearing to read 'B. Weimer', is written over the typed name.

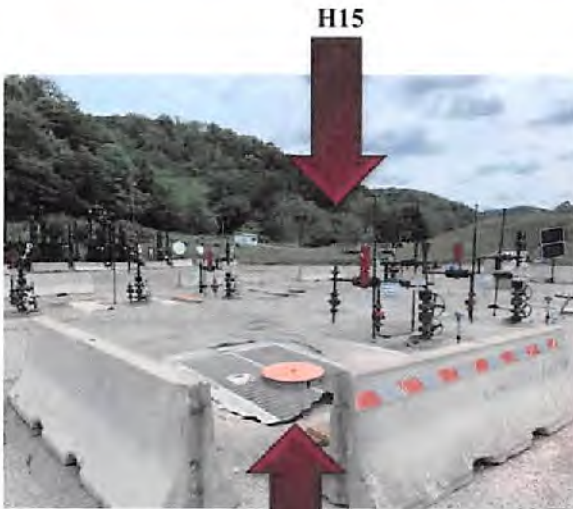
Branden Weimer
Project Specialist, Permitting
EQT Production Company

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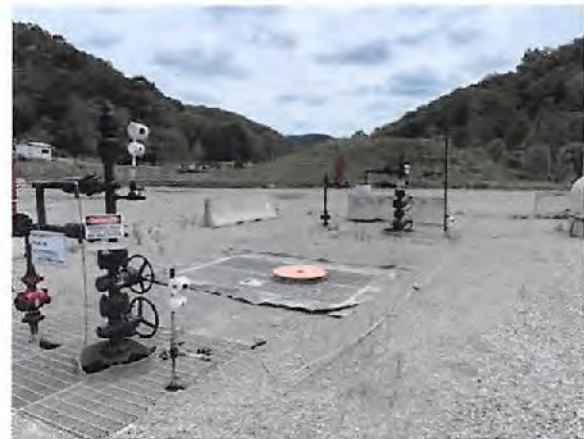
02/11/2022



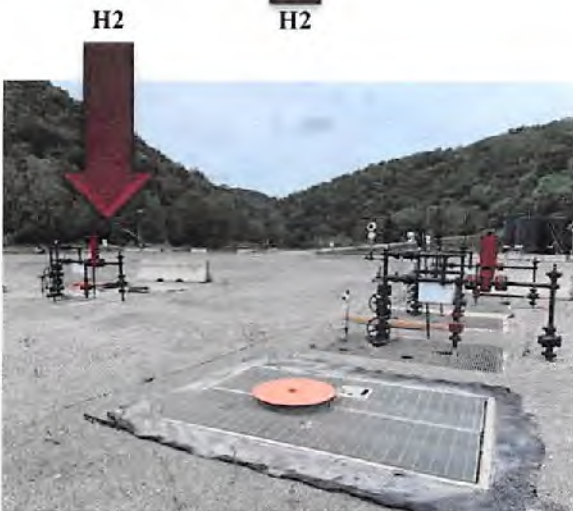
Site Pictures
Coastal Forest Resources Co. dba Coastal Timberlands Co.
BIG 177 H15 47-103-03191



BIG 177 Well Pad Site



BIG 177 H15 Well Pad Site



BIG 177 H15 Well Pad Site

BIRCH RIVER OFFICE
237 Birch River Road
Birch River, WV 26610
phone: 304-649-8606 fax: 304-649-8608

BRIDGEPORT OFFICE
172 Thompson Drive
Bridgeport, WV 26330
phone: 304-848-5035 fax: 304-848-5037

CHARLESTON OFFICE
301 RHL Boulevard - Suite 5
Charleston, WV 25309
phone: 304-756-2949 fax: 304-756-2948

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Topo Quad: Big Run 7.5'

Scale: 1" = 2000'

4710303191

County: Wetzel

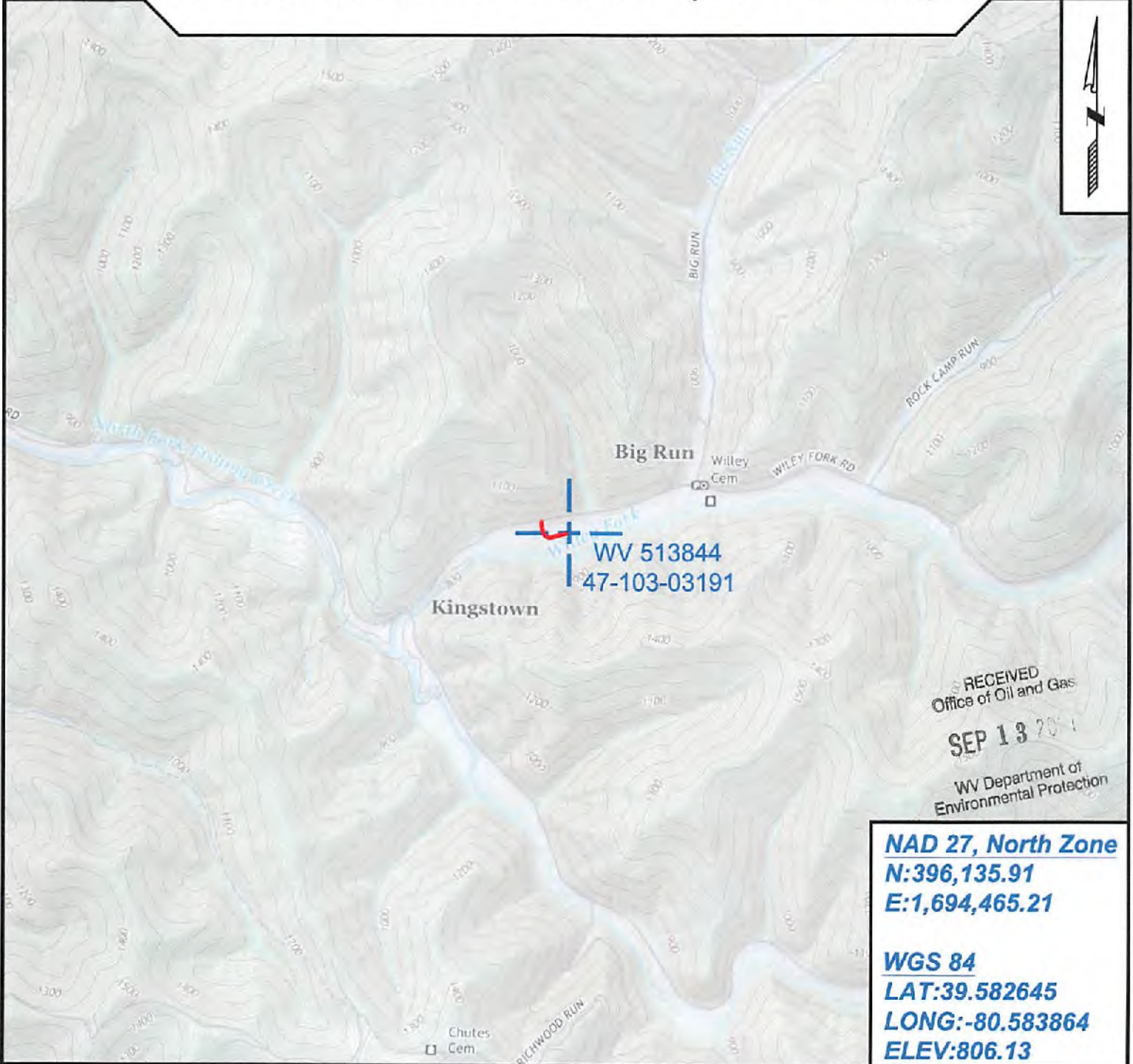
Date: June 07, 2021

District: Grant

Project No: 40-34-00-09

47-103-03191 WV 513844 (BIG 177 H15)

Topo



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NAD 27, North Zone
N:396,135.91
E:1,694,465.21

WGS 84
LAT:39.582645
LONG:-80.583864
ELEV:806.13



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

PREPARED FOR:
EQT Production Company
 400 Woodcliff Drive
 Canonsburg, PA 15317
 02/11/2022

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-103-03191 WELL NO.: WV 513844 (BIG 177 H15)

FARM NAME: Coastal Forest Resources Co. dba Coastal Timberlands Co.

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Wetzel DISTRICT: Grant

QUADRANGLE: Big Run 7.5'

SURFACE OWNER: Coastal Forest Resources Co. dba Coastal Timberlands Co.

ROYALTY OWNER: Higgins Family Trust, et al.

UTM GPS NORTHING: 4381519

UTM GPS EASTING: 535736 GPS ELEVATION: 246 m (806 ft)

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS _____ : Post Processed Differential _____
Real-Time Differential _____

Mapping Grade GPS X : Post Processed Differential X
Real-Time Differential _____

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data 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 Office of Oil and Gas.


Signature

PS#2180
Title

6/9/2021
Date

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WV Department of
Environmental Protection

02/11/2022



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

RE: [EXTERNAL] Plugging Vertical Well Work Permit API: 47-103-03188, 03191)

1 message

Weimer, Branden <Branden.Weimer@eqt.com>

Mon, Feb 7, 2022 at 10:17 AM

To: "Stansberry, Wade A" <wade.a.stansberry@wv.gov>, "Zavatchan, John" <JZavatchan@eqt.com>, "Klaner, Todd" <TKlaner@eqt.com>, "Spine, Erin" <ESpine@eqt.com>, "Shrum, Becky" <BShrum@eqt.com>, "Wilson, Olivia" <OPishioneri@eqt.com>, Scott Lemley <slemley@wvassessor.com>, "Harris, Bryan O" <bryan.o.harris@wv.gov>

Thanks, Wade.

Branden Weimer | Project Specialist - Permitting | EQT Corporation

400 Woodcliff Drive, Canonsburg, PA 15317

M: (412) 997-7940 | branden.weimer@eqt.com



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

Sent: Monday, February 7, 2022 9:53 AM

To: Weimer, Branden <Branden.Weimer@eqt.com>; Zavatchan, John <JZavatchan@eqt.com>; Klaner, Todd <TKlaner@eqt.com>; Spine, Erin <ESpine@eqt.com>; Shrum, Becky <BShrum@eqt.com>; Wilson, Olivia <OPishioneri@eqt.com>; Scott Lemley <slemley@wvassessor.com>; Harris, Bryan O <bryan.o.harris@wv.gov>

Subject: [EXTERNAL] Plugging Vertical Well Work Permit API: 47-103-03188, 03191)

:::This email is from an external source. Please use caution when clicking links or opening attachments:::

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

47-103-03188 - BIG177H2

47-103-03191 - BIG177H15

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

Thank you,

Wade A. Stansberry

Environmental Resource Specialist 3

West Virginia Department of Environmental Protection

Office of Oil & Gas

601 57th St. SE

Charleston, WV 25304

(304) 926-0499 ext. 41115

(304) 926-0452 fax

Wade.A.Stansberry@wv.gov

02/11/2022

2/7/22, 10:25 AM

State of West Virginia Mail - RE: [EXTERNAL] Plugging Vertical Well Work Permit API: 47-103-03188, 03191)

To learn about EQT's environmental, social and governance efforts visit: <https://esg.eqt.com>

02/11/2022