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

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

Monday, October 17, 2016
WELL WORK PERMIT
Horizontal 6A / Horizontal 6A Well - 1

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

Re: Permit approval for 516335
47-103-03155-00-00

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: 516335
Farm Name: COASTAL FOREST RESOURCES CO.,
U.S. WELL NUMBER: 47-103-03155-00-00
Horizontal 6A / Horizontal 6A Well - 1
Date Issued: 10/17/2016

API Number: 103-03155

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. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.

8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

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

west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

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

September 15, 2016

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-103-03155

COMPANY: EQT Production Company

FARM: Coastal Forest Resources – Big 333 #516335

COUNTY: Wetzel DISTRICT: Grant QUAD: Big Run

The deep well review of the application for the above company is **APPROVED TO DRILL TO TRENTON FOR POINT PLEASANT COMPLETION. Docket 242-231**

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? none
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners; yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells, well name, and the name and address of the operator; *see below
4. Provided a plat showing that the proposed location is a distance of 400 feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Cindy Raines

Cindy Raines
Program Administrator

* Within 3,000' of 47-103-03136 Big 333 pad
* Within 3,000' of 47-103-03137 Big 192 pad

WW-6B
(04/15)

4710303155 API NO. 47- 103 - 03155
OPERATOR WELL NO. 516335
Well Pad Name: BIG333

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: 516335 Well Pad Name: BIG333

3) Farm Name/Surface Owner: Coastal Forest Resources DBA Coastal Timberlands Co Public Road Access: Co Rt 20

4) Elevation, current ground: 1452' Elevation, proposed post-construction: 1452'

5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____
(b)If Gas Shallow _____ Deep X
Horizontal X

Dm 4
6-30-16

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Point Pleasant, 13,020', 119', 12,369 PSI

8) Proposed Total Vertical Depth: 13,339'

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 17,858'

11) Proposed Horizontal Leg Length: 4,043'

12) Approximate Fresh Water Strata Depths: 568', 753'

13) Method to Determine Fresh Water Depths: Offsetting well data

14) Approximate Saltwater Depths: 2,257', 2,370', 2,683'

15) Approximate Coal Seam Depths: 756', 896', 932', 1,024', 1253', 1346'

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

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

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

WW-6B
(04/15)

47 10303155

API NO. 47- 103 - 03155
OPERATOR WELL NO. 516335
Well Pad Name: BIG333

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	30	New	A-500	118.76	60	60	130 ft^3 / CTS
Fresh Water	18 5/8	New	J-55	87.5	969	969	1825 ft^3 / CTS
Coal	13 3/8	New	J-55	68	3100	3100	2679 ft^3 / CTS
Intermediate	9 5/8	New	HC EIP-110	47	11894	11894	3710 ft^3
Production	5 1/2	New	HC EIP-110	23	17858	17858	1000' above 9 5/8" csg shoe
Tubing	2 7/8		P-110	6.5		May not be run, if run set 40' above top perf or 80° inclination	
Liners							

DMH
6-30-16

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30	36	.375	1050	840	Class A	1.18
Fresh Water	18 5/8	24	.435	2250	1800	Class A	1.19
Coal	13 3/8	17 1/2	.48	3450	2760	Class A	1.18
Intermediate	9 5/8	12 1/4	.472	11000	8800	Class H	1.66/1.22
Production	5 1/2	8 1/2	.415	18863	15000	Class G/H	1.57 / 1.71
Tubing	2 7/8	NA	.434	14530			
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

WW-6B
(10/14)

47 10303155 API NO. 47- 103 - 03155
OPERATOR WELL NO. 516335
Well Pad Name: BIG333

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

Drill and complete a new horizontal well in the Point Pleasant Formation. Drill the vertical to an approximate depth of 13,339' (200' below top of Trenton). Plug back vertical portion of wellbore with a solid cement plug to approximately 11,894'. Kick off and drill curve. Drill the lateral in the Point Pleasant. Cement casing.

DMH
6-30-16

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.3%) of chemicals (including 15% Hydrochloric acid, gelling agent, gel breaker, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 15000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 200,000 barrels of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000 pounds of sand per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): No additional disturbance

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

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One at the shoe and one spaced every 500'.
- Intermediate 1: Bow spring centralizers– One cent at the shoe and one spaced every 500'.
- Intermediate 2: Bow spring centralizers– One cent at the shoe and one spaced every 500' to previous casing string shoe.
- 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 (Class A Cement): Calcium Chloride. Used to speed the setting of cement slurries
Intermediate 1 (Class A Cement): Calcium Chloride. Used to speed the setting of cement slurries. 25% Flake Loss Circulation Material (LCM)
Intermediate 2 (Class H Cement): Calcium/Sodium Chloride, POZ, Flake/LCM, Fluid Loss, Defoamer, Dispersant, Extender, Retarder, Viscosifier, Anti-Settling/Suspension Agent
Production (Class G/H Cement): Calcium Carbonate, Fluid Loss, Extender, Weighting Agent, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate 1: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate 2: Circulate hole clean by pumping 1-3 bottoms up or until shakers are clean. Pump marker sweep with nut plug to determine actual hole washout. Check volume of cuttings coming across shakers every 15 minutes.
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.

EQT Production

Hydraulic Fracturing Monitoring Plan

Pad ID: BIG333

Wetzel County, WV

10/5/16

Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Wetzel County, WV prior to hydraulic fracturing at the following EQT wells on BIG333 pad: 516335.

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include pre-notification of conventional well operators of the timing and location of the hydraulic fracturing, establishment of measures conventional well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing.

1. Communications with Conventional Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known conventional wells and well operators within 500 feet of this pad and the lateral sections. A map showing these wells along with a list of the wells and operators is included in **Attachment A.**

Upon approval of this plan, EQT will notify these operators, via letter, of the hydraulic fracturing schedule for these wells. A copy of this letter is included in **Attachment B.**

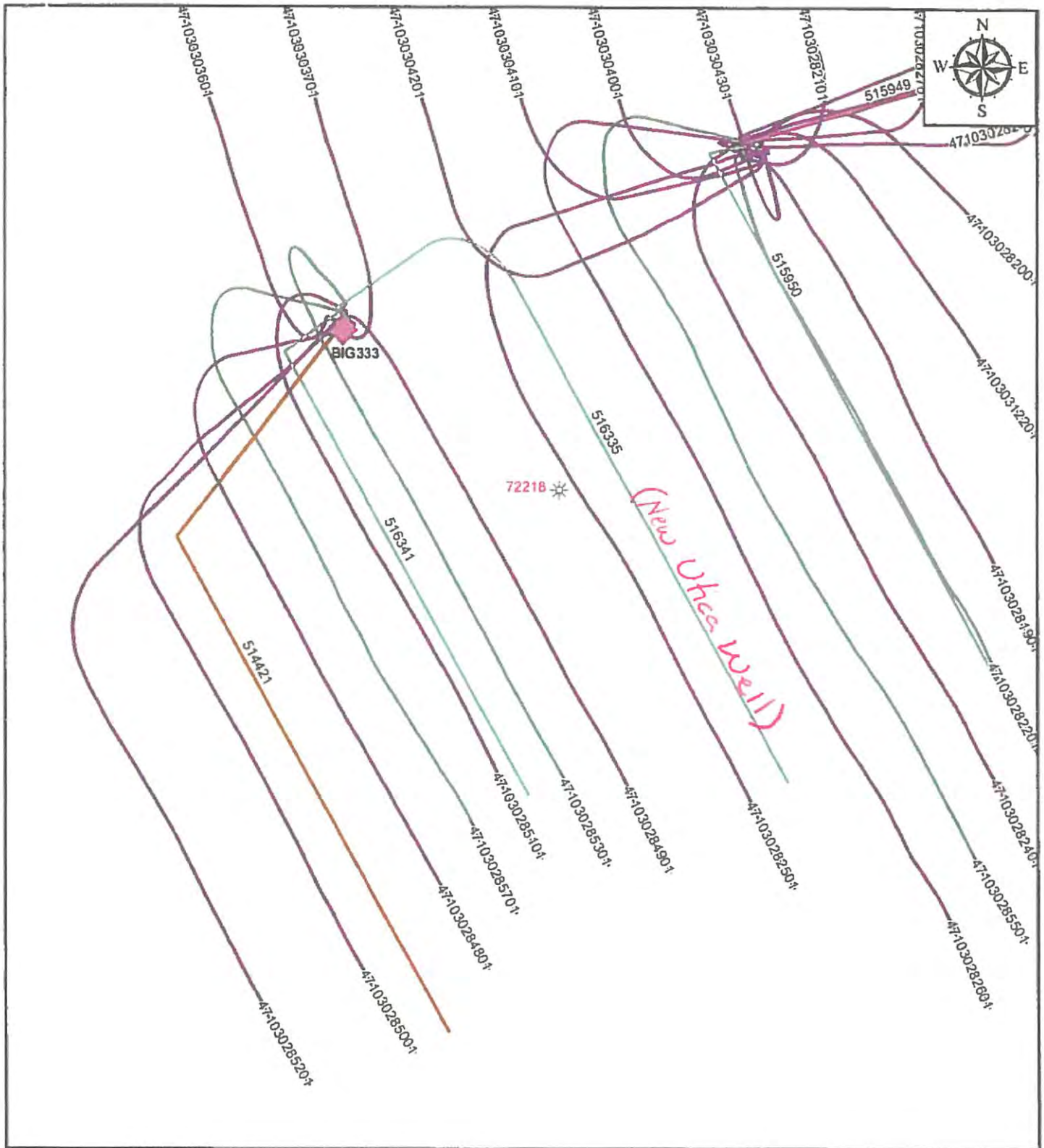
The letter provides recommendations to these conventional operators to 1) increase their monitoring of their wells during that time period, 2) ensure that their well head equipment is sound, and 3) provide immediate notification to EQT and the OOG in the event of any changes in their well conditions.

Specifically, the letter recommends that conventional well operators conduct the following activities during and after fracturing operations:

1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
3. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

2. Reporting

EQT will provide information relating to the hydraulic fracturing schedule, communication with conventional operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.



EQT

EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222

BIG333 - 516335

Vertical Offsets and Foreign Laterals within 500'

Created By: Hallie Thyken Printed By: JOHNH on 10/4/2018

Legend

BIG333 - 516335 Vertical Offsets

Target Formation

- Point Pleasant
- Utica
- Genesee
- Marcellus
- Middlesex
- Genesee Spud
- Marcellus Spud
- Middlesex Spud
- Utica Spud

790 395 0 790 Feet

1:9,947

Disclaimer

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

Path: \\Happy Bare EPC_Geosciences Geotechs Shared Competitor Offset Data Foreign Well Warning Map.mxd

Attachment A-1

UWI	COMP_DATE	COUNTY_NM	CURR_OPER	ELEVATION	FNL_STAT	HOLE_DIR	LATITUDE	LONGITUDE	SPUD_DATE	PERMIT
47103722180000		WETZEL	PHILADELPHIA OIL		UNKWN	V	39.52163700000	-80.58689300000		72218

No perforated formation data available

Attachment #2

625 Liberty Ave. Suite 1700
Pittsburgh PA 15222
www.eqt.com

TEL: (412) 395-3305
FAX: (412) 395-2156

John Centofanti
Corporate Director,
Environmental Affairs

(date)

[Conventional Well Operator]
[address]
[state]

RE: Wetzel County Hydraulic Fracturing Notice

Dear Sir/Madam,

EQT has developed a Utica and Marcellus pad (Big 333 pad) located in Wetzel County, WV. As an owner or operator of conventional natural gas wells in this area, we are requesting your assistance in this matter.

EQT anticipates conducting hydraulic fracturing at the BIG 333 pad during the [first,second, third,fourth] quarter of [year]. We have identified conventional natural gas wells operated by your company within 500' (lateral distance) of our new/planned laterals. Plats for each well on this pad are attached.

We recommend that conventional well operators conduct the following activities before, during, and after fracturing operations:

1. Inspect surface equipment, prior to fracturing, to establish integrity and establish well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas, or pressure.
3. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified.

Please feel free to contact me at 412-395-3305 with any questions or comments. You may also contact the West Virginia Office of Oil and Gas at 304-926-0440.

Sincerely,
EQT Production

John Centofanti
Corporate Director, Environmental Affairs

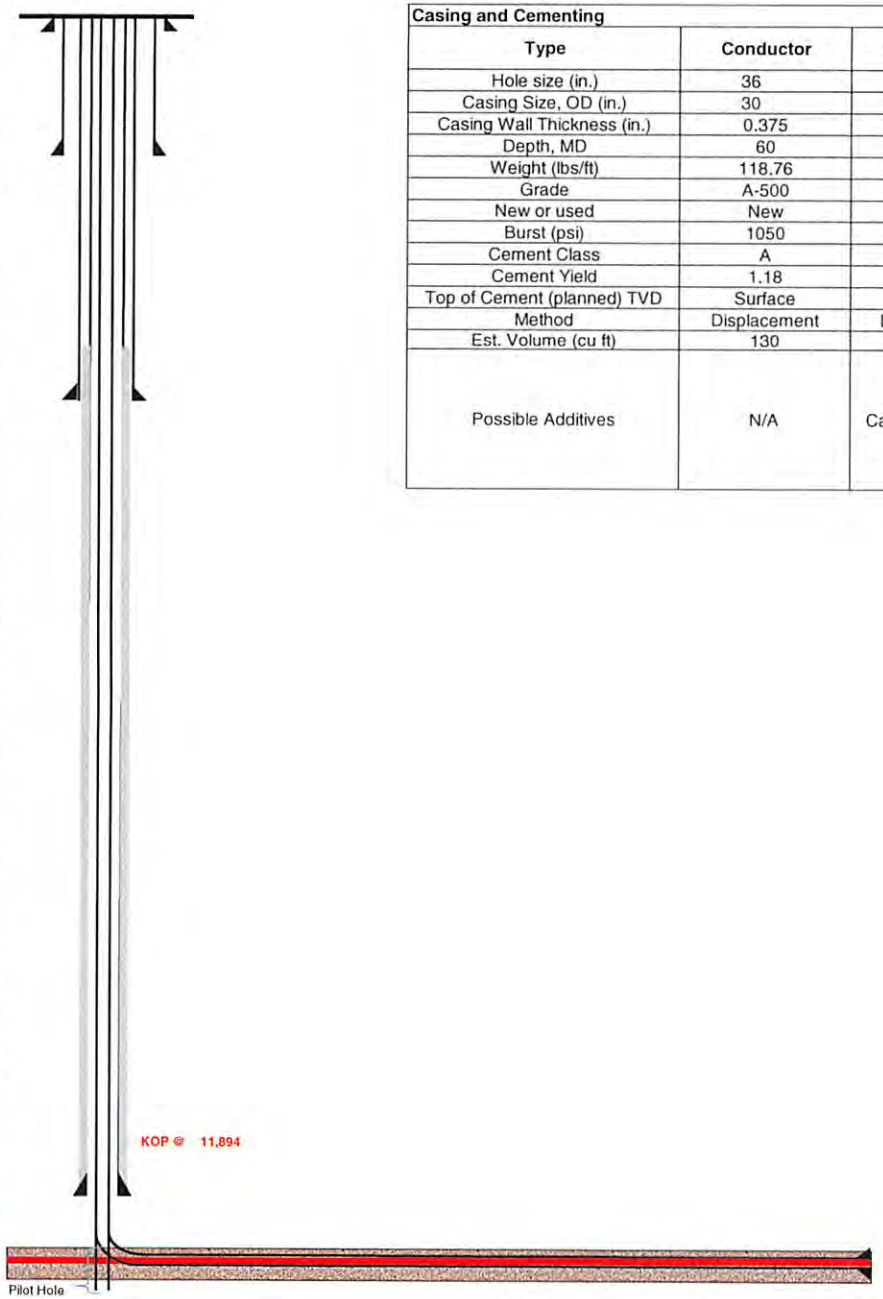
cc: James Martin, WV Office of Oil and Gas

Attachment B

516335
EQT Production
BIG RUN
Wetzel

Pad Name BIG333
Azimuth 152
Vertical Section 3,624'
West Virginia

Formation Tops (TVD)		
Conductor	60	
Base Fresh Water	759	
Washington	756	758
Waynesburg	896	898
Fresh Water String	969	
Pittsburgh	1,253	1,258
Coal	1,346	1,350
Maxton	2,456	2,497
Big Lime	2,497	2,636
Big Injun	2,636	2,752
Weir	2,886	2,988
Gantz	3,095	3,120
Int. csg pt	3,100	
Fifty foot	3,120	3,207
Thirty foot	3,207	3,322
Gordon	3,322	3,354
Gordon Base	3,354	3,393
Forth Sand	3,393	3,482
Bayard Base	3,700	3,978
Warren	3,978	4,128
Speechley	4,128	5,020
Riley	5,020	5,650
Benson	5,650	5,974
Alexander	5,974	7,148
Rhinestreet	7,148	7,206
Sonyea	7,206	7,356
Middlesex	7,356	7,405
Genesee	7,405	7,491
Geneseo	7,491	7,518
Tully	7,518	7,539
Hamilton	7,539	7,626
Marcellus	7,626	7,677
Onondaga/Huntersville	7,677	7,824
Needmore	7,824	7,913
Oriskany	7,913	8,015
Helderberg	8,015	8,236
Keyser	8,236	8,438
Salina	8,438	8,600
Top of Salt	8,600	9,248
Base of Salt	9,248	9,373
Lockport/Newburg	9,373	9,827
Rose Hill	9,827	10,290
Packer Shell	10,290	10,400
Clinton/Medina	10,400	10,585
Queenston	10,585	11,560
Reedsville	11,560	11,694
Red/Grey Shale Transition	11,694	
Int.2 csg pt	11,894	
Utica	12,910	13,020
Point Pleasant	13,020	13,139
Production Casing	17,858	
Trenton	13,139	13,352
Black River	13,352	



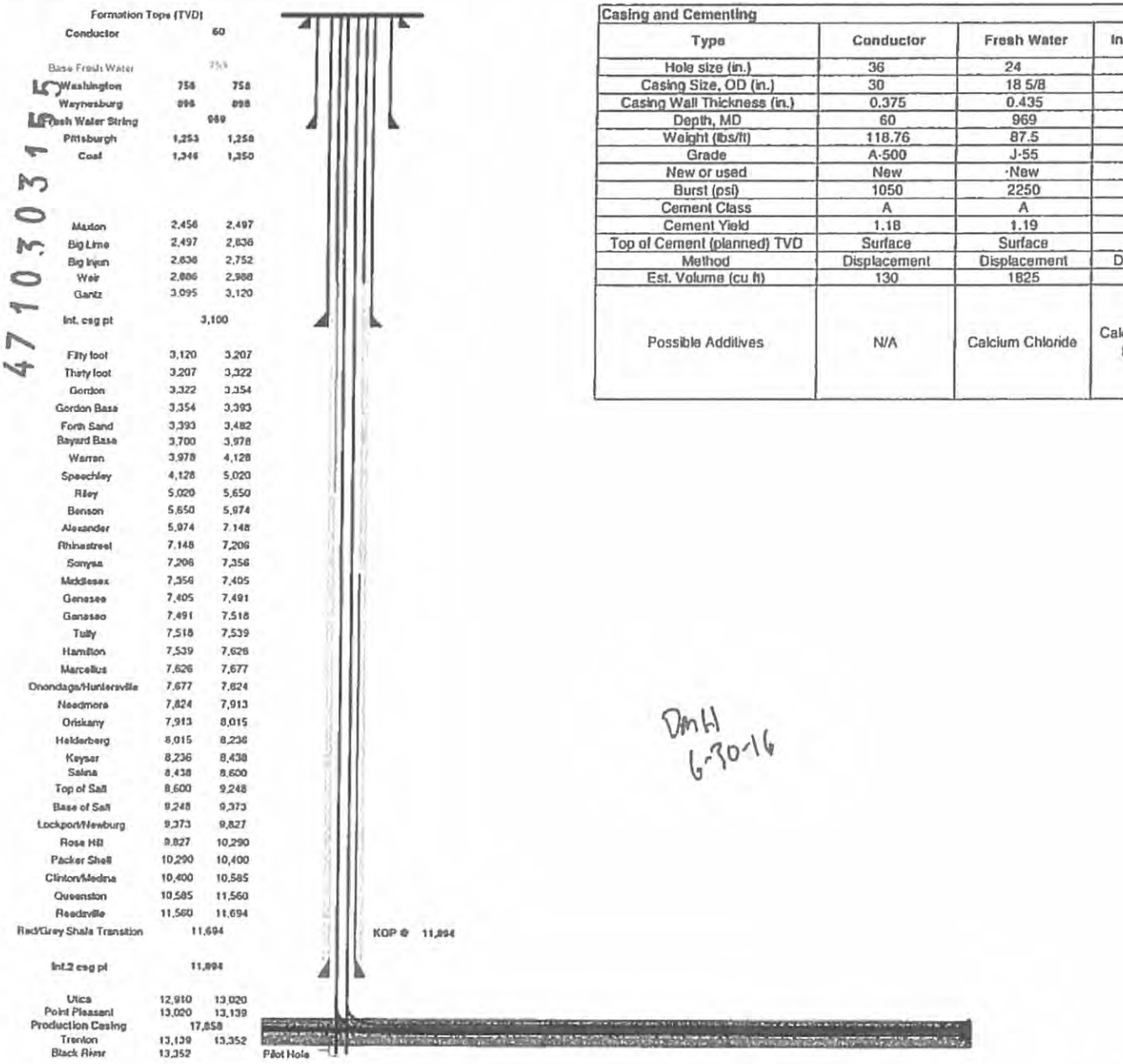
Casing and Cementing					
Type	Conductor	Fresh Water	Intermediate 1	Intermediate 2	Production
Hole size (in.)	36	24	17 1/2	12 1/4	8 1/2
Casing Size, OD (in.)	30	18 5/8	13 3/8	9 5/8	5 1/2
Casing Wall Thickness (in.)	0.375	0.435	0.48	0.472	0.415
Depth, MD	60	969	3100	11894	17858
Weight (lbs/ft)	118.76	87.5	68	47	23
Grade	A-500	J-55	J-55	HC EIP-110	HC EIP-110
New or used	New	New	New	New	New
Burst (psi)	1050	2250	3450	11000	18863
Cement Class	A	A	A	H	G / H
Cement Yield	1.18	1.19	1.18	1.66 / 1.22	1.57 / 1.71
Top of Cement (planned) TVD	Surface	Surface	Surface	2822	10894
Method	Displacement	Displacement	Displacement	Displacement	Displacement
Est. Volume (cu ft)	130	1825	2679	3710	1754
Possible Additives	N/A	Calcium Chloride	Calcium Chloride, Flake/LCM	Calcium/Sodium Chloride, Flake/LCM, Fluid Loss, Defoamer, Dispersant, Extender, Retarder, Viscosifier, Anti-Settling/Suspension Agent	Calcium Carbonate, Fluid Loss, Extender, Weighting Agent, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

Proposed Well Work:
Drill a vertical well down to an approximate depth of 13,339' (200' below Trenton)
Log well with desired logging suite.
Plug back vertical portion of wellbore with cement plug.
Then kick off the horizontal leg into the Point Pleasant.

518335
EQT Production
BIG RUN
Wetzel

Pad Name BIG333
Azimuth 152
Vertical Section 3,624'
West Virginia

47103031575



Casing and Cementing					
Type	Conductor	Fresh Water	Intermediate 1	Intermediate 2	Production
Hole size (in.)	36	24	17 1/2	12 1/4	8 1/2
Casing Size, OD (in.)	30	18 5/8	13 3/8	9 5/8	5 1/2
Casing Wall Thickness (in.)	0.375	0.435	0.48	0.472	0.415
Depth, MD	60	969	3100	11894	17858
Weight (lbs/ft)	118.76	87.5	68	47	23
Grade	A-500	J-55	J-55	HC EIP-110	HC EIP-110
New or used	New	New	New	New	New
Burst (psi)	1050	2250	3450	11000	18863
Cement Class	A	A	A	H	G / H
Cement Yield	1.18	1.19	1.18	1.66 / 1.22	1.57 / 1.71
Top of Cement (planned) TVD	Surface	Surface	Surface	2822	10894
Method	Displacement	Displacement	Displacement	Displacement	Displacement
Est. Volume (cu ft)	130	1825	2679	3710	1754
Possible Additives	N/A	Calcium Chloride	Calcium Chloride, Flake/LCM	Calcium/Sodium Chloride, Flake/LCM, Fluid Loss, Defoamer, Dispersant, Extender, Retarder, Viscosifier, Anti-Settling/Suspension Agent	Calcium Carbonate, Fluid Loss, Extender, Weighting Agent, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent

DMH
6-30-16

Proposed Well Work:
Drill a vertical well down to an approximate depth of 13,339' (200' below Trenton)
Log well with desired logging suite.
Plug back vertical portion of wellbore with cement plug.
Then kick off the horizontal leg into the Point Pleasant.

WW-9
(4/16)

47103031155

API Number 47 - 103 - _____
Operator's Well No. 516335

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) Aunty Run of South 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: _____

Will a synthetic liner be used in the pit? Yes ☑ No ☐ If so, what ml.? 60

Proposed Disposal Method For Treated Pit Wastes:

_____ Land Application
■ Underground Injection (UIC Permit Number 0014, 8462, 4037)
■ Reuse (at API Number Various)
■ Off Site Disposal (Supply form WW-9 for disposal location)
_____ Other (Explain _____

DMH
6-30-16

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

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

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

Additives to be used in drilling medium? See Attached

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

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

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

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

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

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

Company Official Signature _____

Company Official (Typed Name) Victoria J. Roark

Company Official Title Permitting Supervisor

Subscribed and sworn before me this 6th day of June, 20 16

_____ Notary Public

My commission expires 8-24-22

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

4710303155

Form WW-9

Operator's Well No. 516335

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed no additional Prevegetation pH 6

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: M. [signature]

Comments:

Title: Oil + Gas Inspector Date: 6-30-16

Field Reviewed? (✓) Yes ( ) No

EQT Production Water plan

Offsite disposals for Marcellus wells

4710303155

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

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

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

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

TRI COUNTY WASTE WATER MANAGEMENT, INC.
1487 Toms Run Road
Holbrook, PA 15341
724-627-7178 Plant
724-499-5647 Office
Greene County/Waynesburg
Permit # TC-1009

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

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

DMH
6-30-16

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

Anticipated Frac Additives
Chemical Names and CAS numbers

47 1 0 3 0 3 1 5 5

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

DMH
6-30-16

103-03155

WW-9 Attachment

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

- Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

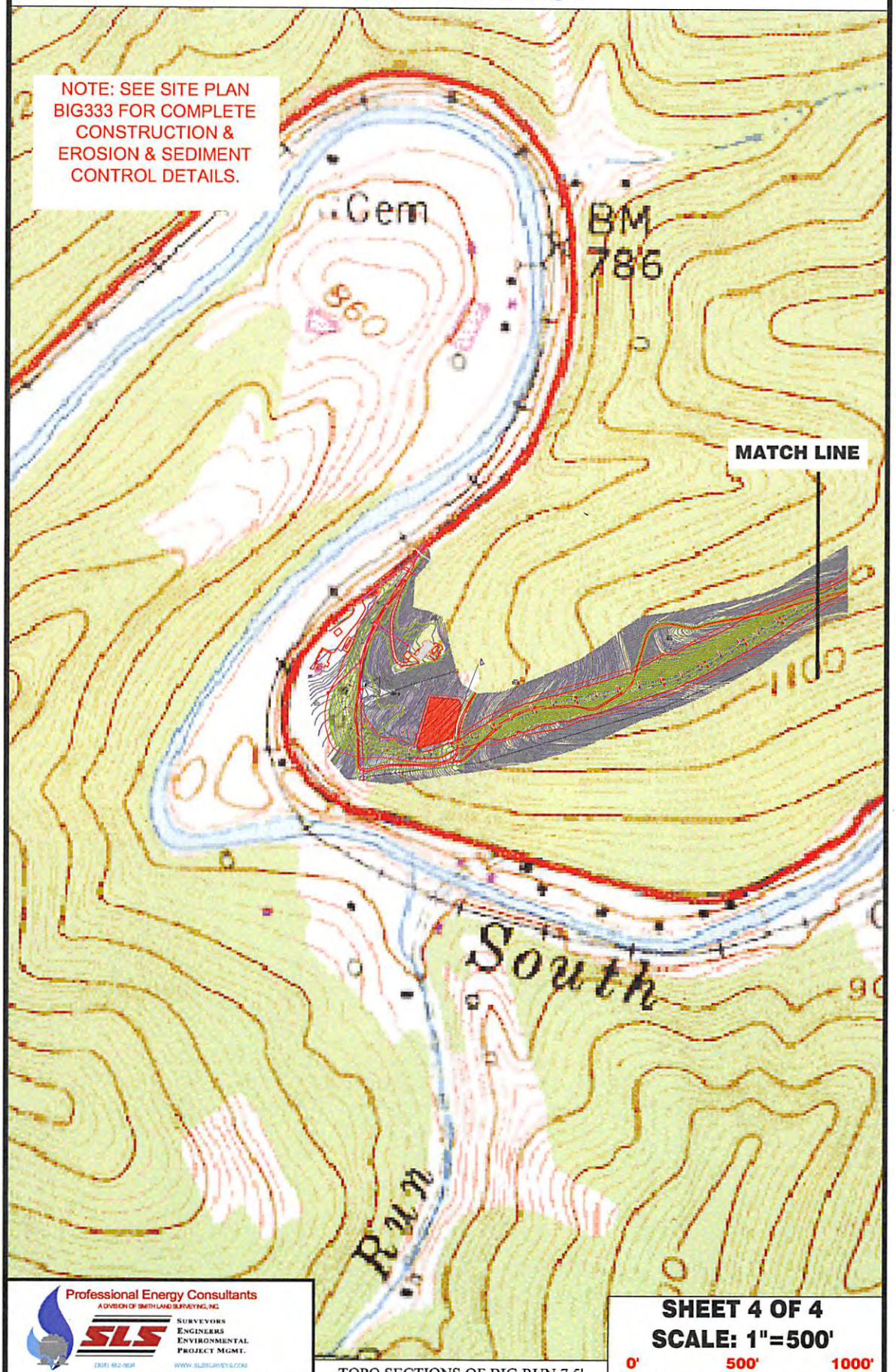
Additives to be used in drilling medium?

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

Form WW-9

HART LEASE
BIG333 WELLS

page of



Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.
SLS SURVEYORS ENGINEERS ENVIRONMENTAL PROJECT MGMT.
(304) 462-1658 WWW.SLSSURVEYS.COM

DRAWN BY	FILE NO.	DATE	CADD FILE:
K.D.W.	7856	05-20-15	7856RECPLAN.dwg

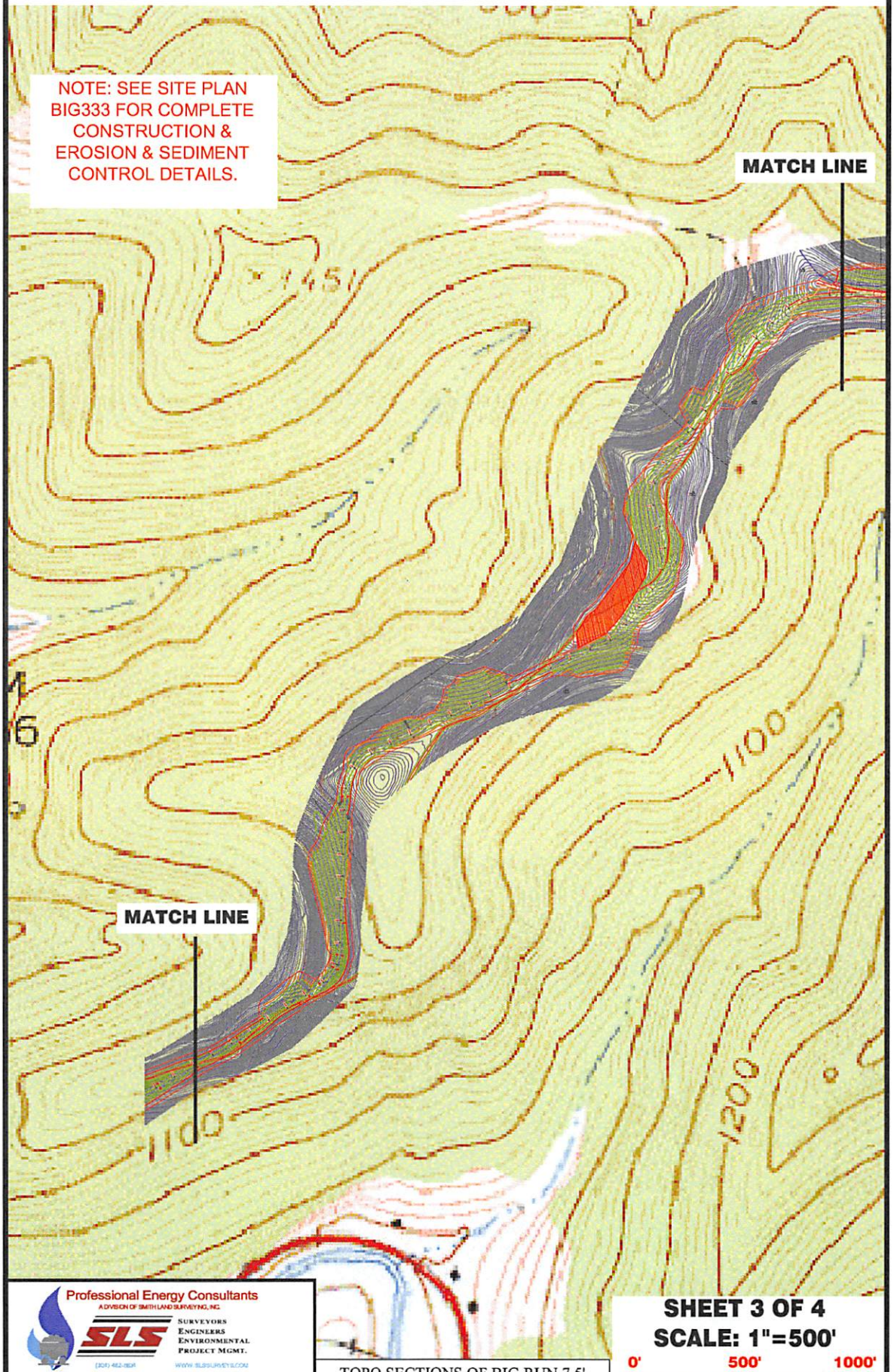
TOPO SECTIONS OF BIG RUN 7.5' TOPO QUADRANGLE

SHEET 4 OF 4
SCALE: 1"=500'
0' 500' 1000'

Form WW-9

HART LEASE
BIG333 WELLS

page of



Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.
SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

DRAWN BY	FILE NO.	DATE	CADD FILE:
K.D.W.	7856	05-20-15	7856REDPLAN.dwg

TOPO SECTIONS OF BIG RUN 7.5' TOPO QUADRANGLE

SHEET 3 OF 4

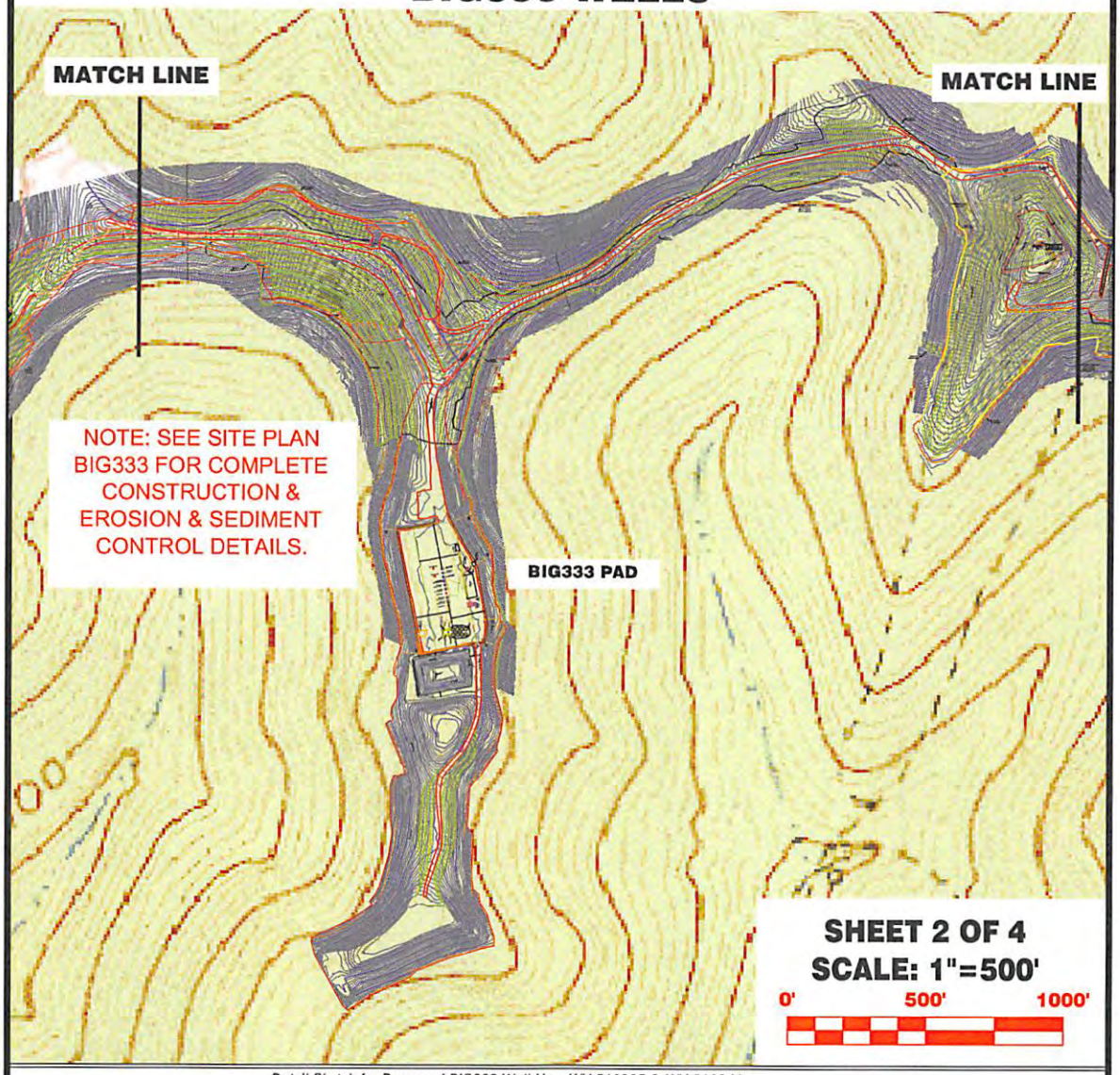
SCALE: 1"=500'

0' 500' 1000'

Form WW-9

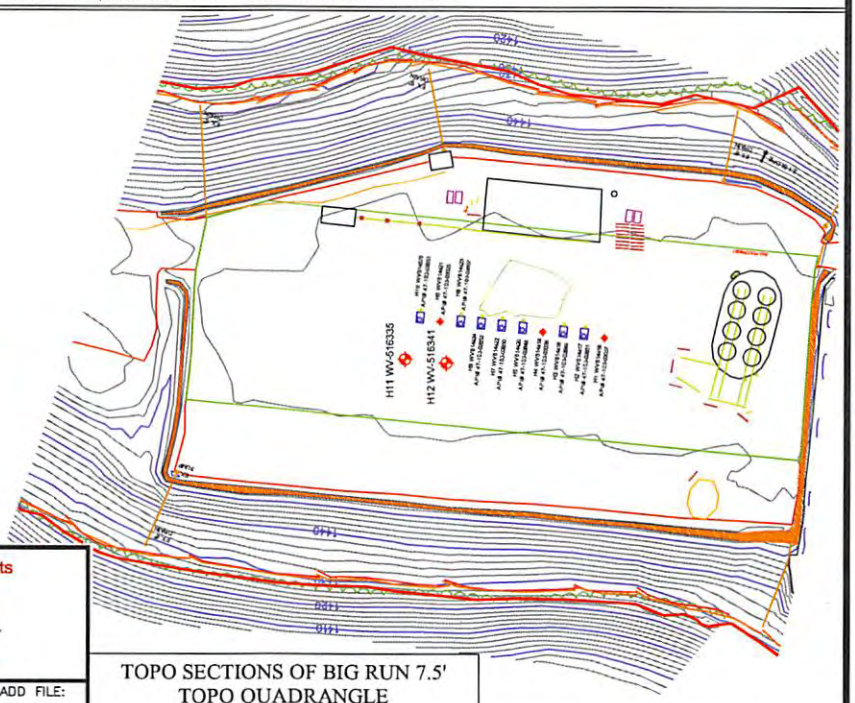
HART LEASE
BIG333 WELLS

page of



Detail Sketch for Proposed BIG333 Well No.s WV 516335 & WV 516341

Not To Scale



NOTE: SEE SITE PLAN BIG333 FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.
SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

DRAWN BY	FILE NO.	DATE	CADD FILE:
K.D.W.	7856	05-20-15	7856RECPLAN.dwg

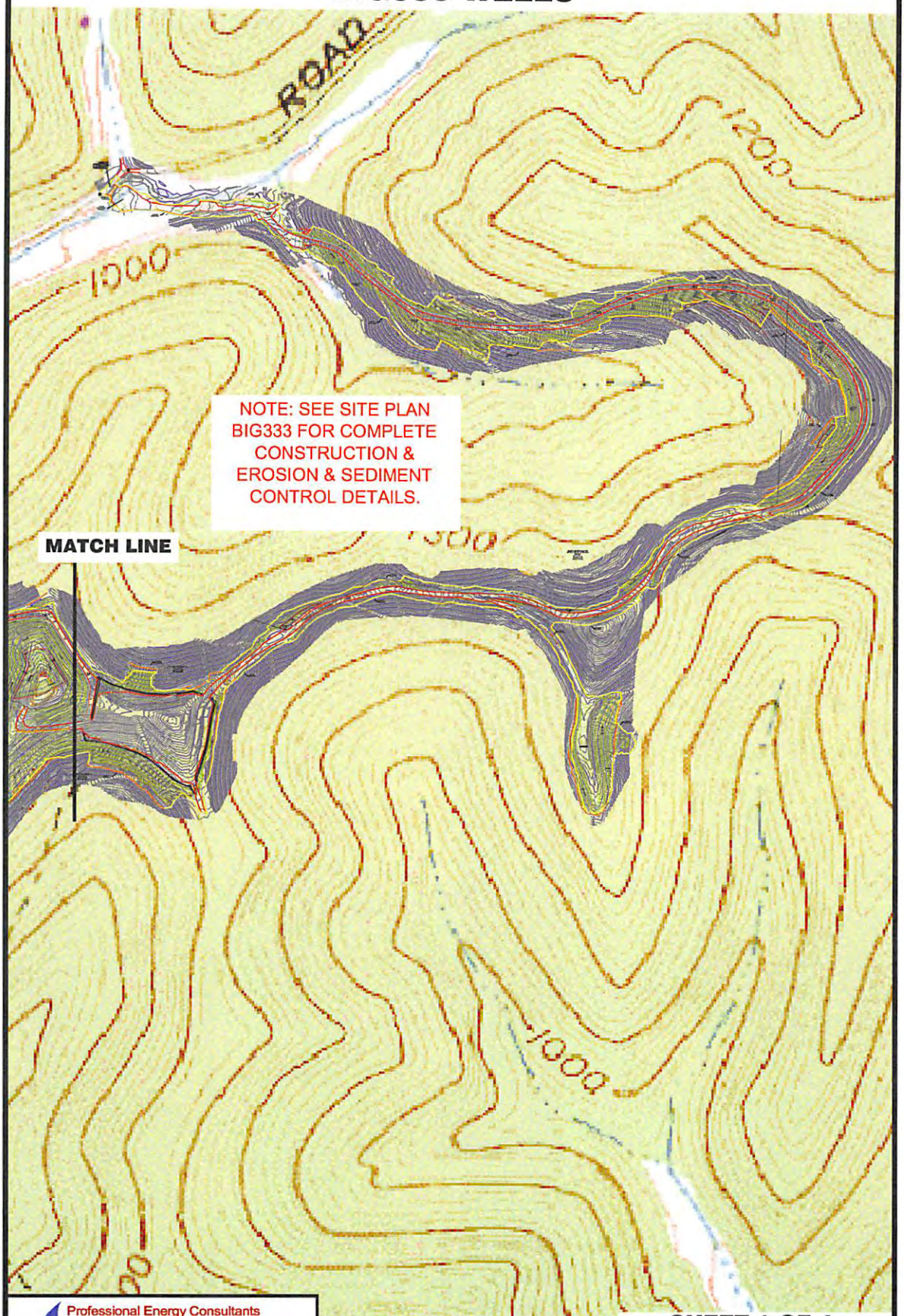
TOPO SECTIONS OF BIG RUN 7.5' TOPO QUADRANGLE

103-03155

Form WW-9

page of

HART LEASE
BIG333 WELLS



Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEY INC, INC
SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

DRAWN BY	FILE NO.	DATE	CADD FILE:
K.D.W.	7856	05-20-15	7856RECPLAN.dwg

TOPO SECTIONS OF BIG RUN 7.5' TOPO QUADRANGLE

SHEET 1 OF 4

SCALE: 1"=500'

0' 500' 1000'

4710303155

EQT

Where energy meets innovation.™

Site Specific Safety Plan

EQT BIG 333

Big Run Quardrant
Wetzel County, WV

For Wells:

516335

Date Prepared: May 26, 2016

EQT Production

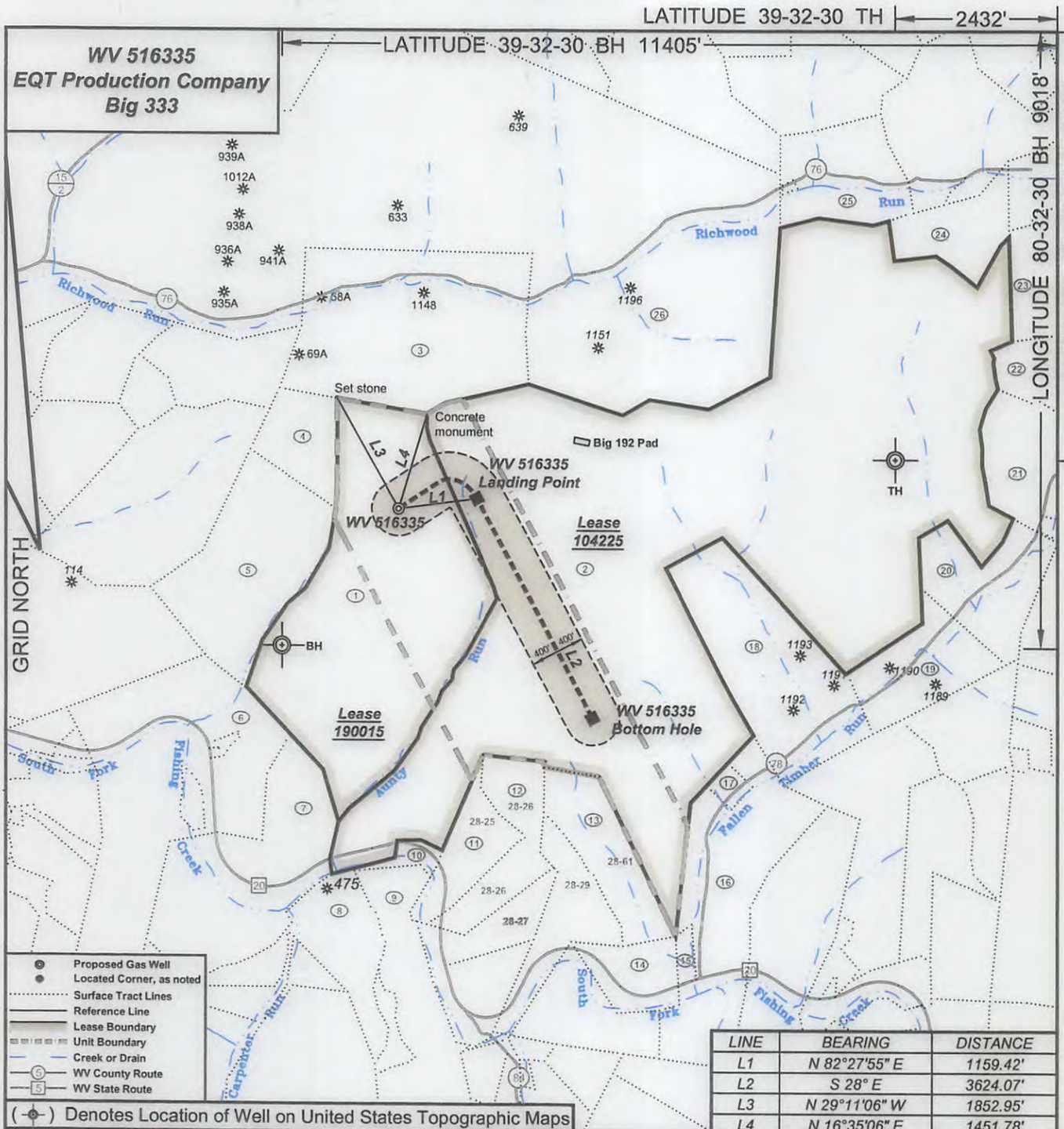
Permitting Supervisor
Title

6-6-16
Date

WV Oil and Gas Inspector

Oil + Gas Inspector
Title

6-30-16
Date



LINE	BEARING	DISTANCE
L1	N 82°27'55" E	1159.42'
L2	S 28° E	3624.07'
L3	N 29°11'06" W	1852.95'
L4	N 16°35'06" E	1451.78'

ALLEGHENY SURVEYS, INC.

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

Ben R. Singleton

P.S. 2092

Ben R. Singleton LICENSED NO. 2092 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

SEAL

FILE NO: 33-15
DRAWING NO: 33-15 BIG 333 516335
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: May 19 20 16
OPERATOR'S WELL NO.: 516335
API WELL NO HGM
47 - 103 - 03155
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION : ☐ STORAGE ☒ DEEP ☐ SHALLOW
LOCATION: ELEVATION: As-Built - 1452' WATERSHED Aunty Run of South Fork Fishing Creek QUADRANGLE: Big Run
DISTRICT: Grant COUNTY: Wetzel
SURFACE OWNER: Coastal Forest Resources Co., d/b/a Coastal Timberlands Co. ACREAGE: 283.6±
ROYALTY OWNER: Equitrans, Inc. LEASE NO: 190015 ACREAGE: 285±
PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Point Pleasant ESTIMATED DEPTH: 13,007'

WELL OPERATOR: EQT Production Company
ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330

DESIGNATED AGENT: Rex C. Ray
ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330

5127 3135

WV 516335
EQT Production Company
Big 333

Lease No.	Royalty Owner	Acreage
104225	Ed Broom, Inc. et al.	1100

Tract I.D.	Tax Map No.	Parcel No.	District	Surface Tract Owner	Acres
1	23	13	Grant	Coastal Forest Resources Co.	283.60
2	23	14	Grant	Richard B. Dallison, et al.	879.30
3	23	5	Grant	Al Wyatt Heirs	174.68
4	23	9	Grant	Larry Larew, et al.	31.50
5	23	12	Grant	Larry Larew, et al.	104.80
6	28	6	Grant	Joseph W. Carlin	190.74
7	28	8	Grant	Joseph W. Carlin	112.90
8	28	20	Grant	Joseph W. Carlin	38.00
9	28	22	Grant	Laurie Jean Dallison	67.00
10	28	24	Grant	Phillip E. Lowe	2.00
11	28	25	Grant	Everett Lee Shreve	26.00
12	28	26	Grant	Everett Shreve, et al.	36.70
13	28	61	Grant	William J. & Paula J. Goodrich	50.14
14	28	46.1	Grant	William J. Goodrich	18.75
15	28	30.3	Grant	Richard B. & Jaynee Dallison	1.93
16	28	32	Grant	Coastal Forest Resources Co.	96.74
17	28	9	Grant	Edward E. Klein	3.90
18	23	16	Grant	Arthur J. Fach	112.00
19	24	40	Grant	Paul Ice	51.88
20	24	32	Grant	Eddie & Kim Dallison	45.27
21	24	24	Grant	Enzie L. Wyatt	42.00
22	24	15	Grant	Sheila Brown, et al.	35.60
23	24	5	Grant	Enzie L. & Thomas E. Wyatt	235.08
24	24	3	Grant	Eddie & Kim Dallison	40.00
25	24	1	Grant	Harry W. & Lavada B. Goodrich	54.50
26	17	14	Grant	Coastal Forest Resources Co.	1627.60

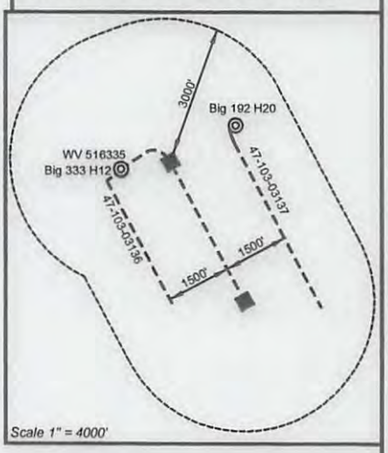
Notes:

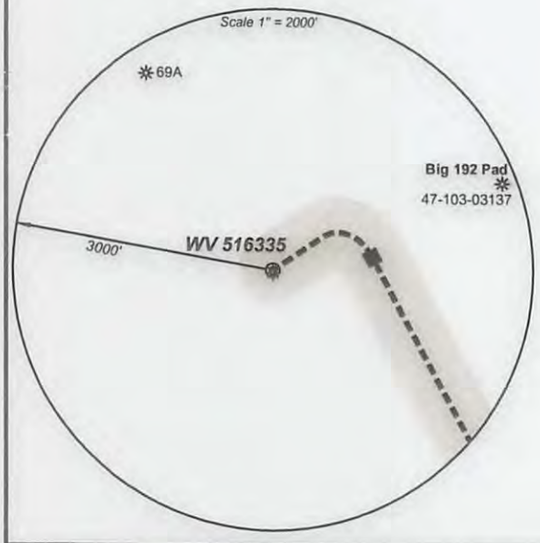
516335 coordinates are
NAD 27 N: 375,129.71 E: 1,691,981.91
NAD 27 Lat: 39.524811 Long: -80.591955
NAD 83 UTM N: 4,375,106.87 E: 535,086.60

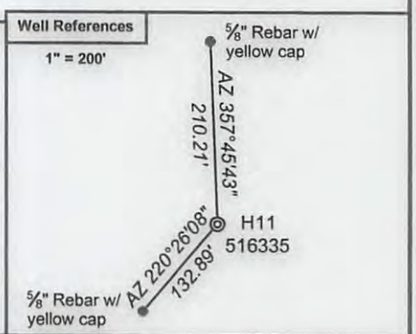
516335 Landing Point coordinates are
NAD 27 N: 375,281.75 E: 1,693,131.33
NAD 27 Lat: 39.525267 Long: -80.587887
NAD 83 UTM N: 4,375,159.04 E: 535,436.01

516335 Bottom Hole coordinates are
NAD 27 N: 372,081.85 E: 1,694,832.72
NAD 27 Lat: 39.516539 Long: -80.581720
NAD 83 UTM N: 4,374,192.82 E: 535,970.60

West Virginia Coordinate system of 1927 (North Zone) based upon Differential GPS Measurements.
Plat orientation, corner and well ties are based upon the grid north meridian.
Well location references are based upon the grid north meridian.
UTM coordinates are NAD83, Zone 17, Meters.







ALLEGHENY SURVEYS, INC.

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

Ben R. Singleton

P.S. 2092

Ben R. Singleton
LICENSED
NO. 2092
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

SEAL

FILE NO: 33-15
DRAWING NO: 33-15 BIG 333 516335
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: May 19 20 16
OPERATOR'S WELL NO.: 516335
API WELL NO H6A
47 - 103 - 03155
STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION : ☐ STORAGE ☒ DEEP ☐ SHALLOW
LOCATION: ELEVATION: As-Built - 1452' WATERSHED Aunty Run of South Fork Fishing Creek QUADRANGLE: Big Run
DISTRICT: Grant COUNTY: Wetzel
SURFACE OWNER: Coastal Forest Resources Co., d/b/a Coastal Timberlands Co. ACREAGE: 283.6±
ROYALTY OWNER: Equitrans, Inc. LEASE NO: 190015 ACREAGE: 285±
PROPOSED WORK: ☒ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION
☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Point Pleasant ESTIMATED DEPTH: 13,007'

WELL OPERATOR: EQT Production Company
ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330

DESIGNATED AGENT: Rex C. Ray
ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330

103-03155

WW-6A1
(5/13)

Operator's Well No. 516335

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

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

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

WW-6A1 attachment Operator's Well No. 516335

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
190015	**Equitrans, Inc. (fee interest owner)**		Fee Interest	
	Alex Hart, et al.	The Philadelphia Company of West Virginia		DB 93/392
	The Philadelphia Company of West Virginia	Pittsburgh & West Virginia Gas Company		DB 146/98
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		DB 71A/453
	Equitrans, Inc.	Equitrans, L.P		DB 105/908
	Equitrans, L.P	Equitable Production-Eastern States, Inc.		DB 320/607
	Equitable Production-Eastern States, Inc.	Equitable Production Company		CB13/14
	Equitable Production Company	EQT Production Company		CB13/14
104225	**Chesapeake Appalachia, LLC (current royalty owner)**		***	
	L G Robinson, et al.	H. L. Smith		DB 111/452
	H. L. Smith	Philadelphiia Company of West Virginia		DB 47A/287
	Philadelphia Company of West Virginia	Pittsburgh & W Va Gas Company		DB 146/98
	Pittsburgh & West Virginia Gas Company	Equitable Gas Company		DB 187/321
	Equitable Gas Company	Equitrans, Inc.		DB 71A/453
	Equitrans, Inc.	Equitrans, L.P		DB 105/908
	Equitrans, L.P	Equitable Production-Eastern States, Inc.		AB 192/19 (Doddridge Co.)
	Equitable Production-Eastern States, Inc.	Equitable Production Company		CB13/14
	Equitable Production Company	EQT Production Company		CB13/14

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

103-03155

103-03155

June 27, 2016

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

Re: BIG333 well pad, well number 516335
Grant District, Wetzel County

Dear Mr. Martin,

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

Sincerely,

Vicki Roark
Permitting Supervisor-WV

103-03155

BIG-333 PLAN MODIFICATION
EQT PRODUCTION COMPANY

4710303155

EXISTING WELLS API NO's: API NO. 47-103-02851, 47-103-02849, 47-103-02848, 47-103-02850, 47-103-02852, 47-103-02857, 47-103-02853, 47-103-03025, WV 514416 & WV 514419

PROPOSED WELLS: WV 516335 & WV 516341.

SITUATE ON THE WATERS OF TRIBUTARIES OF SOUTH FORK, OF FISHING CREEK & AUNTY RUN IN GRANT DISTRICT, WETZEL COUNTY, WEST VIRGINIA.

PROJECT INFORMATION

PROJECT NAME: BIG-333 AS-BUILT SITE PLAN

TAX PARCEL
GRANT DISTRICT
[illegible]

SURFACE OWNER:
COASTAL FOREST RESOURCES COMPANY [illegible]
COASTAL TIMBERLANDS COMPANY
GRANT DISTRICT
WETZEL COUNTY, WV
TOTAL PROPERTY AREA [illegible] ACRES

ROYALTY OWNER:
[illegible] ET AL
GRANT DISTRICT
WETZEL COUNTY, WV
TOTAL PROPERTY AREA [illegible] ACRES

SITE LOCATION:
[illegible]

BIG 333 LOCATION COORDINATES

[illegible]

SITE DISTURBANCE COMPUTATIONS

[illegible]

GENERAL DESCRIPTION

[illegible]

LOCATION MAP

BIG RUN QUAD

SCALE: 1"=2000'

BIG 333 AS-BUILT DISTURBANCE

SURFACE OWNER	TAX MAP-PARCEL	AS-BUILT DISTURBANCE (AC.)	BIG-333 PROPOSED DISTURBANCE (AC.)
COASTAL LUMBER COMPANY / COASTAL FOREST RESOURCES COMPANY	[illegible]	[illegible]	[illegible]
[illegible] ET AL	[illegible]	[illegible]	
[illegible] ET AL	[illegible]	[illegible]	
COASTAL LUMBER COMPANY / COASTAL FOREST RESOURCES COMPANY	[illegible]	[illegible]	
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]		[illegible]
[illegible]	[illegible]		[illegible]

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!!

LIST OF DRAWINGS

[illegible]

LEGEND

[illegible]

DMH
6-30-16

EQT

Professional Energy Consultants

SLS

BIG-333 SITE PLAN MODIFICATION

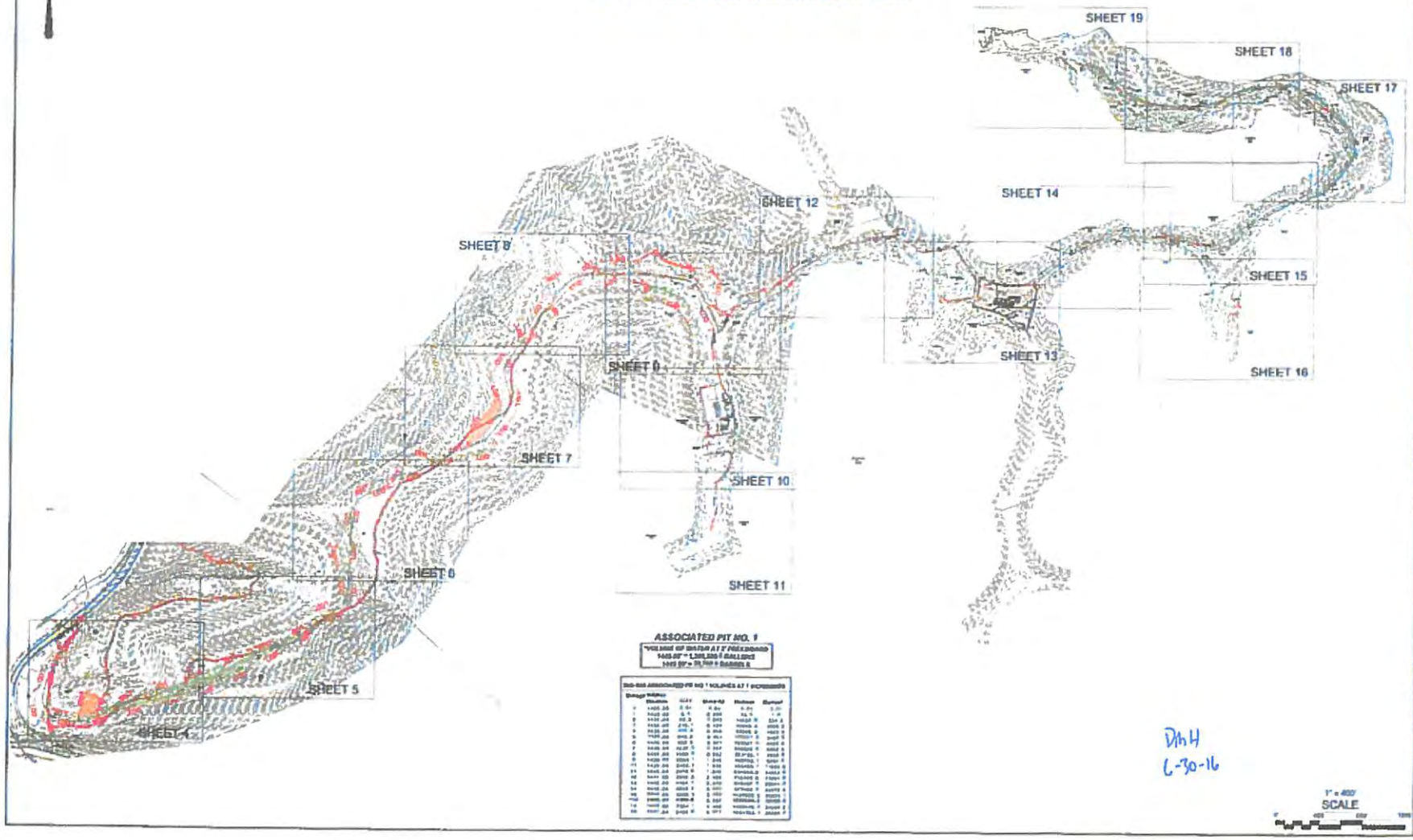
SHEET 1 OF [illegible]

103-03155

BIG-333 AS-BUILT
SITE PLAN MODIFICATION

47 103 03155

SITUATE ON THE WATERS OF TRIBUTARIES OF SOUTH FORK,
OF FISHING CREEK & AUNTY RUN
IN GRANT DISTRICT, WETZEL COUNTY, WEST VIRGINIA



DMH
6-30-16

BIG-333 SITE PLAN MODIFICATION

WW-6AC
(1/12)

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

Date of Notice Certification: 6-29-16

API No. 47- 103 - 03155
Operator's Well No. 516335
Well Pad Name: BIG333

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:	WV	UTM NAD 83 Easting:	535,086.6
County:	Wetzel	Northing:	4,375,106.87
District:	Grant	Public Road Access:	Co Rt 20
Quadrangle:	Big Run	Generally used farm name:	Coastal Forest Resources Co dba Coastal Timberlands Co
Watershed:	Aunty Run of South Fork Fishing Creek		

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

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.

103-03155

WW-6AC
(1/12)

Certification of Notice is hereby given:

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

Well Operator:	EQT Production Company	Address:	115 Professional Place PO Box 280
By:	Victoria Roark		Bridgeport WV 26330
Its:	Permitting Supervisor	Facsimile:	304-848-0041
Telephone:	304-848-0076	Email:	vroark@eqt.com

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

Subscribed and sworn before me this 6 day of June 2016.

_____ Notary Public

My Commission Expires 8-24-22

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.

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

WW-6A
(9-13)

API NO. 47- 103 - 03155
OPERATOR WELL NO. 516335
Well Pad Name: BIG333

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: 6-29-16 **Date Permit Application Filed:** 6-29-16

Notice of:

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

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

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

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

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

☑ SURFACE OWNER(s)
Name: See Attached
Address: _____
Name: _____
Address: _____

☑ SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: See Attached
Address: _____
Name: _____
Address: _____

☑ SURFACE OWNER(s) (Impoundments or Pits)
Name: See Attached
Address: _____

☑ COAL OWNER OR LESSEE
Name: See Attached
Address: _____

☐ COAL OPERATOR
Name: _____
Address: _____

☐ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: _____
Address: _____

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

103-03155

WW-6A **WELL 516335**

Surface Owner:

Coastal Forest Resources
Dba Coastal Timberlands Company
PO Box 709
Buckhannon WV 26201

103-03155

WW-6A **WELL 516335**

Surface Owners: Access Road

Coastal Forest Resources
DBA Coastal Timberlands Co
PO Box 709
Buckhannon WV 26201

Richard B and Jaynee C Dallison
28855 Shoreline Hwy
Folsom WV 26348

Thomas P Dallison
452 Trader Fork Road
Smithfield WV 26437

Trenton D Dallison
2975 Barker Run Road
Pine Grove WV 26419

Richard & Roxanne Funk
4832 Fairport Rd
Newton Falls, OH 44444

Larry Larew
12750 W Middleton Rd
Salem OH 44460

Sharon Kay Irvin
POA for Lydle M Martyn
PO Box 7
Jacksonburg WV 26377

103-03155

WW-6A **WELL 516335**

Surface Owner: Pit/Impoundment ✓

Coastal Forest Resources
Dba Coastal Timberlands Company
PO Box 709
Buckhannon WV 26201

103-03155

WW-6A **WELL 516335**

Coal Owners:

CNX Land LLC
Engineering & Operations Support Dept. Coal
CNX Center
1000 Consol Energy Dr
Canonsburg PA 15317

Murray American Energy Inc
C/O Murray Energy Corp
46226 National Rd
St Clairsville OH 43950

Murray American Energy Inc
1 Bridge St
Monongah WV 26554

Roxanna Yost Hafer
460 N Main St
New Martinsville WV 26155

Betty Jean Woods
7 Ross St
New Martinsville WV 26155

Forrest O Miller
4406 McClure Rd
Winchester KY 40394

WW-6A
(8-13)

API NO. 47- 103 - 03155
OPERATOR WELL NO. 516335
Well Pad Name: BIG333

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.

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

WW-6A
(8-13)

API NO. 47- 103 - 03155
OPERATOR WELL NO. 516335
Well Pad Name: BIG333

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.

WW-6A
(8-13)

API NO. 47- 103 - 03155
OPERATOR WELL NO. 516335
Well Pad Name: BIG333

Notice is hereby given by:

Well Operator: EQT Production Company
Address: 115 Professional Place PO Box 280
Bridgeport WV 26330
Telephone: 304-848-0076
Email: vroark@eqt.com
Facsimile: 304-848-0041

Oil and Gas Privacy Notice:

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

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

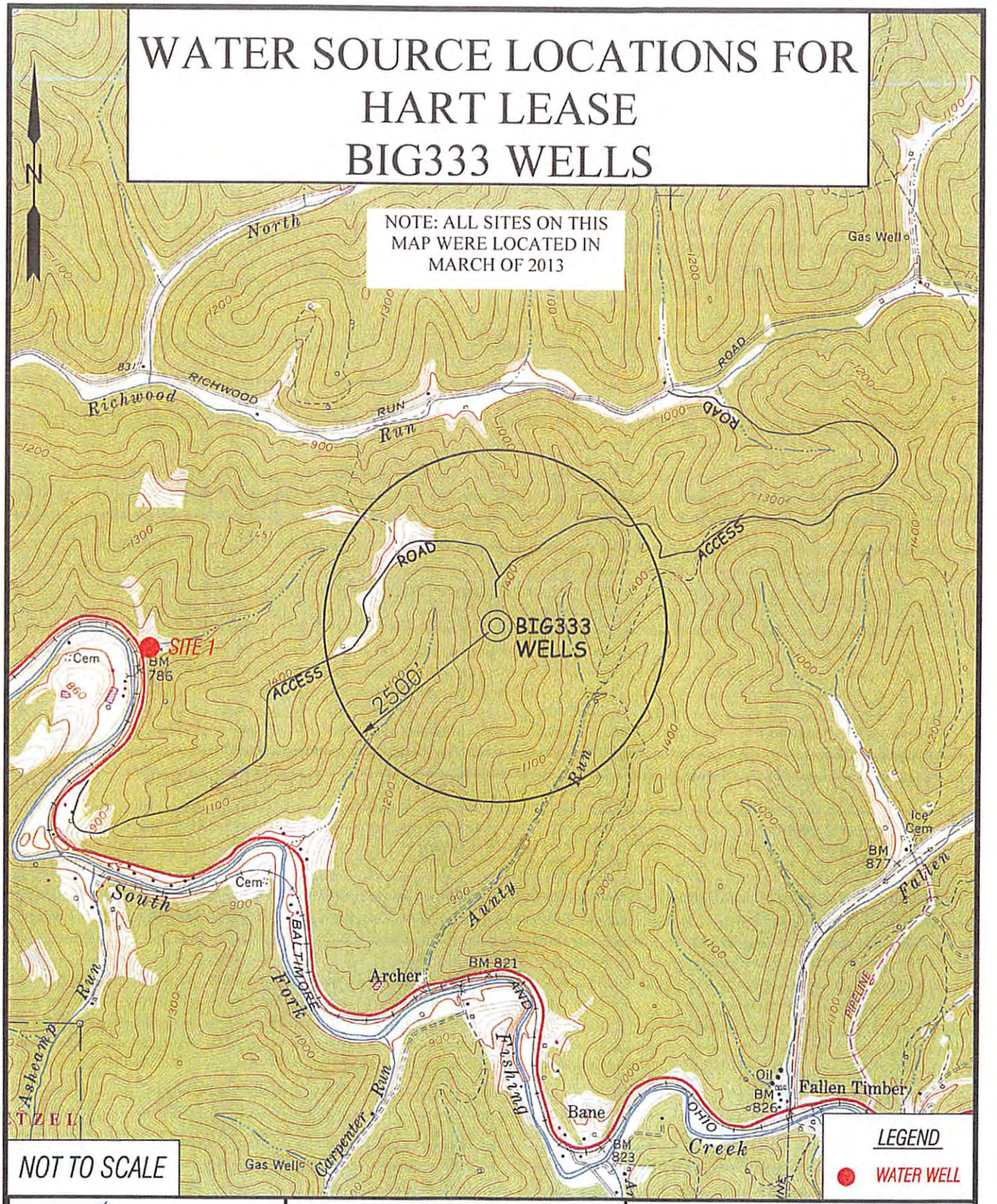
Subscribed and sworn before me this 6 day of June, 2016.

Notary Public

My Commission Expires 8-24-22

103-03155

WATER SOURCE LOCATIONS FOR HART LEASE BIG333 WELLS



SLS Land & Energy Development
Solutions from the ground up.

DRAWN BY	FILE NO.	DATE	CADD FILE:
K.E.S.	7856	05/19/16	7856BIG333WS-AR.dwg

TOPO SECTION OF:
BIG RUN, WV 7.5' QUAD

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
GRANT	WETZEL	23-13

OPERATOR:
EQT PRODUCTION COMPANY
115 PROFESIONAL PLACE
P.O. BOX 280
BRIDGEPORT, WV 26330

103-03155

WW-6A4
(1/12)

Operator Well No. 516335

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: 4-13-16 **Date Permit Application Filed:** 4-23-16

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
Address:

Name: See Attached
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: WV
County: Wetzel
District: Grant
Quadrangle: Big Run
Watershed: Aunty Run of South Fork Fishing Creek

UTM NAD 83 Easting: 535,086.6
Northing: 4,375,106.87
Public Road Access: Co Rt 20
Generally used farm name: Coastal Forest Resources Co dba Coastal Timberlands Co

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: 115 Professional Place PO Box 280
Bridgeport WV 26330
Telephone: 304-848-0076
Email: vroark@eqt.com
Facsimile: 304-848-0041

Authorized Representative: Victoria Roark
Address: 115 Professional Place PO Box 280
Bridgeport WV 26330
Telephone: 304-848-0076
Email: vroark@eqt.com
Facsimile: 304-848-0041

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

WW-6AW
(1-12)

API NO. 103-03155
OPERATOR WELL NO. BIG333 516335
Well Pad Name: BIG333

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

VOLUNTARY STATEMENT OF NO OBJECTION

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

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

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

VOLUNTARY STATEMENT OF NO OBJECTION

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

State:	West Virginia	WVSPN NAD 27	Easting:	1,691,981.910
County:	Wetzel		Northing:	375,129.710
District:	Grant	Public Road Access:		Aunty Run Rd 15/2
Quadrangle:	BIG RUN	Generally used farm name:		
Watershed:	Aunty Run of South Fork Fishing Creek			

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, **provided that EQT Production Company drills the well on WV North NAD27 coordinates of North 375,129.710, East 1,691,981.910. This statement does not serve as notice that CNX Land LLC has waived its rights to mine all the coal or accept any responsibility for any damage to the well or surface facilities associated with the well by CNX Land LLC mining activity. This Voluntary Statement of No Objection does not waive CNX Land LLC's Common Law Property Rights in the State of West Virginia.**

*Please check the box that applies

- ☐ SURFACE OWNER
- ☐ SURFACE OWNER (Road and/or Other Disturbance)
- ☐ SURFACE OWNER (Impoundments/Pits)
- ☒ COAL OWNER OR LESSEE
- ☒ COAL OPERATOR
- ☐ WATER PURVEYOR
- ☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD

FOR EXECUTION BY A NATURAL PERSON

Signature: _____
Print Name: _____
Date: _____

FOR EXECUTION BY A CORPORATION, ETC.

Company: CNX Land LLC
By: Ryan Arp
Its: Project Engineer
Signature: _____
Date: 9/3/2015

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.

103-03155

WW-6A4

WELL 516335

Surface Owners

Coastal Forest Resources
DBA Coastal Timberlands Co
PO Box 709
Buckhannon WV 26201

Richard B and Jaynee C Dallison
28855 Shoreline Hwy
Folsom WV 26348

Thomas P Dallison
452 Trader Fork Road
Smithfield WV 26437

Trenton D Dallison
2975 Barker Run Road
Pine Grove WV 26419

Richard & Roxanne Funk
4832 Fairport Rd
Newton Falls, OH 44444

Larry Larew
12750 W Middleton Rd
Salem OH 44460

Sharon Kay Irvin
POA for Lydle M Martyn
PO Box 7
Jacksonburg WV 26377

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☐ Adult Signature Restricted Delivery $
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Total Pos
Sent To Coastal Forest Resources
DBA Coastal Timberlands Co.
Street an P.O. Box 709
City, Stat Buckhannon, WV 26201
516335 Notice of Intent
Postmark Here
APR 12 2016
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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☐ Adult Signature Restricted Delivery $
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Total Posta
Sent To Richard B & Jaynee C. Dallison
Street and 28855 Shortline Hwy
City, State, Folsom, WV 26348
516335 Notice of Intent
Postmark Here
APR 12 2016
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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☐ Adult Signature Required $
☐ Adult Signature Restricted Delivery $
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Sent To Thomas P. Dallison
Street and 452 Trader Fork Rd
City, State, Smithfield, WV 26437
516335 Notice of Intent
Postmark Here
APR 12 2016
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

103-03155

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City, State,

Postmark Here
APR 12 2016

Trenton D. Dallison
2975 Barker Run Rd
Pine Grove, WV 26419

516335 Notice of Intent

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- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage
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Total Posta
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Sent To
Street and
City, State,

Postmark Here
APR 12 2016

Sharon Kay Irvin POA for
Lydle M Martyn
PO Box 7
Jacksonburg WV 26377

516335 Notice of Intent

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

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Sent To
Street an
City, Stat

Postmark Here
APR 12 2016

Richard & Roxanne Funk
4832 Fairport Rd
Newton Falls OH 44444

516335 Notice of Intent

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 3010 0001 6903 1265

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- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

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Street ar
City, Sta

Postmark Here
APR 12 2016

Larry Larew
12750 W Middleton Rd
Salem OH 44460

516335 Notice of Intent

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

103-0315J

WW-6A5
(1/12)

Operator Well No. 516335

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: 6-29-16 **Date Permit Application Filed:** 6-29-16

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

☒ CERTIFIED MAIL
RETURN RECEIPT REQUESTED

☐ HAND
DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: See Attached
Address:

Name: See Attached
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: WV
County: Wetzel
District: Grant
Quadrangle: Big Run
Watershed: Aunty Run of South Fork Fishing Creek

UTM NAD 83 Easting: 535,086.6
Northing: 4,375,106.87
Public Road Access: Co Rt 20
Generally used farm name: Coastal Forest Resources Co dba Coastal Timberlands Co

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: 304-848-0076
Email: vroark@eqt.com

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

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

103-03155

WW-6A5 **WELL 516335**

Surface Owners

Coastal Forest Resources
DBA Coastal Timberlands Co
PO Box 709
Buckhannon WV 26201

Richard B and Jaynee C Dallison
28855 Shoreline Hwy
Folsom WV 26348

Thomas P Dallison
452 Trader Fork Road
Smithfield WV 26437

Trenton D Dallison
2975 Barker Run Road
Pine Grove WV 26419

Richard & Roxanne Funk
4832 Fairport Rd
Newton Falls, OH 44444

Larry Larew
12750 W Middleton Rd
Salem OH 44460

Sharon Kay Irvin
POA for Lydle M Martyn
PO Box 7
Jacksonburg WV 26377

WW-6AW
(1-12)

API NO. 47 - 103 - 03155
OPERATOR WELL NO. 516335
Well Pad Name: BIG333

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

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

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

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

VOLUNTARY STATEMENT OF NO OBJECTION

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

State:	WV	UTM NAD 83 Easting:	535,086.60
County:	Wetzel	UTM NAD 83 Northing:	4,375,106.87
District:	Grant	Public Road Access:	Co Rt. 20
Quadrangle:	Big Run	Generally used farm name:	Coastal Forest Resources Co. dba Coastal Timberlands Co
Watershed:	Aunty Run of South Fork Fishing Creek		

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.

*Please check the box that applies	FOR EXECUTION BY A NATURAL PERSON
☐ SURFACE OWNER	Signature: Larry Roberts POA
☐ SURFACE OWNER (Road and/or Other Disturbance)	Print Name: Betty J. Woods
☐ SURFACE OWNER (IMPOUNDMENTS/PITS)	Date: 8-24-15
☒ COAL OWNER OR LESSEE	FOR EXECUTION BY A CORPORATION, ETC.
☐ COAL OPERATOR	Company:
☐ WATER PURVEYOR	By:
☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD	Its:
	Signature:
	Date:

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

103-03155

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways
1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

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

July 29, 2015

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 BIG333 Pad Site, Wetzel County

#516335 BIG333H11 #516341 BIG333H12

Dear Mr. Martin,

This well site will be accessed from existing Permits # 06-12-0519 & 06-2014-0558 issued to EQT Production Company for access to the State Road for a well site located off of Wetzel County Route 76 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

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

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

103-03155

Anticipated Frac Additives

Chemical Names and CAS numbers

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