

STATE OF OHIO  
DEPARTMENT OF NATURAL  
RESOURCES

Division of Oil and Gas  
Resources Management  
WELL PERMIT

API WELL NUMBER  
**34-013-2-0970-00-00**

OWNER NAME, ADDRESS

XTO ENERGY INC.  
190 THORN HILL RD  
WARRENDALE

PA 15086

DATE ISSUED

9/15/2015

PERMIT EXPIRES

9/14/2017

TELEPHONE NUMBER

(724) 772-3500

IS HEREBY GRANTED PERMISSION TO: Drill New Well, horizontally

AND ABANDON WELL IF UNPRODUCTIVE

PURPOSE OF WELL: Oil & Gas

COMPLETION DATE IF PERMIT TO PLUG:

DESIGNATION AND LOCATION:

LEASE NAME WASSMANN UNIT B  
WELL NUMBER 5H  
COUNTY BELMONT  
CIVIL TOWNSHIP PULTNEY  
TRACT OR ALLOTMENT  
SURFACE FOOTAGE LOCATION 3606'SL & 1298'WL OF SEC 4 (PULTNEY TWP)  
TARGET FOOTAGE LOCATION 333'SL & 845'WL OF SEC 33 (MEAD TWP)

SURFACE NAD27

X: 2478643

Y: 729226

LAT: 39.989732227436

LONG: -80.7917399034974

TARGET NAD27

2483260

721271

39.967657365957

-80.7758080272011

TYPE OF TOOLS: Air Rotary/Fluid Rotary

PROPOSED TOTAL DEPTH

19520 FEET

GROUND LEVEL ELEVATION

1230 FEET

GEOLOGICAL FORMATION(S):

POINT PLEASANT

SPECIAL PERMIT CONDITIONS: Permit is subject to the attached terms and/or conditions  
Horizontal Drilling Well Permit Conditions  
Horizontal Well/Pre-Permitting Site Conditions  
Water Well Sampling Results must be Submitted Prior to Drilling

CASING PROGRAM (CASING MUST BE CENTRALIZED AND IS SUBJECT TO APPROVAL OF THE OIL AND GAS INSPECTOR):

30" CONDUCTOR APPROX. 100' CEMENTED TO SURFACE  
24" SURFACE CASING MINIMUM OF 300' CEMENTED TO SURFACE  
20" MINE STRING 630\_\_' AND CEMENTED  
13 3/8 " APPROX. 2350 ' THRU BEREA WITH CEMENT CIRCULATED TO SURFACE  
9 5/8 " INTERMEDIATE APPROX. 8900' AND CEMENTED  
5 1/2" PRODUCTION CASING TO T.D. CEMENTED IF PRODUCTIVE  
"BLOW OUT PREVENTOR REQUIRED" HAZARDOUS CONDITIONS MAY BE ENCOUNTERED

This permit is NOT TRANSFERABLE. This permit, or an exact copy thereof, must be displayed in a conspicuous and easily accessible place at the well site before permitted activity commences and remain until the well is completed. Ample notification to inspector is necessary.

OIL AND GAS WELL INSPECTOR:

ANDREW CORDER (740) 255-2467  
BRENT BEAR - Supervisor (740) 412-2945  
DISTRICT #: (740) 588-0631

INSPECTOR NOTIFICATION

The oil and gas inspector must be notified at least 24 hours prior to:

1. Commencement of site construction
2. Pit excavation and closure
3. Commencement of drilling, reopening, converting or plugback operations
4. Installation and cementing of all casing strings
5. BOP testing
6. Well stimulation
7. Plugging operations
8. Well pad construction

The oil and gas inspector must be notified immediately upon:

1. Discovery of defective well construction
2. Detection of any natural gas or H2S gas during drilling in urban areas
3. Discovery of defective well construction during well stimulation
4. Determination that a well is a lost hole
5. Determination that a well is a dry hole

FLARING NOTIFICATION

The oil and gas inspector and local fire authority must be notified prior to flaring.

FIRE AND EMERGENCY NUMBERS

FIRE: (740) 699-0425

MEDICAL SERVICE (740) 699-0425

**Richard J. Simmers**

CHIEF, Division of Oil and Gas Resources  
Management

STATE OF OHIO  
DEPARTMENT OF NATURAL  
RESOURCES

Division of Oil and Gas  
Resources Management  
WELL PERMIT

API WELL NUMBER  
34-013-2-0970-00-00

XTO ENERGY INC.  
190 THORN HILL RD  
WARRENDALE, PA 15086

The Ohio Department of Natural Resources  
The Division of Oil and Gas Resources Management  
2045 Morse Road, Building F-2  
Columbus, Ohio 43229-6693

## **HORIZONTAL DRILLING PERMIT CONDITIONS**

Within sixty (60) days of completion of drilling operations, the following items **must** be submitted to the Division of Oil and Gas Resources Management:

- A copy of the bore hole deviation survey
- A revised surveyor's plat showing:
  1. Surface Location;
  2. Actual location of the first perforation;
  3. Actual location of the last perforation;
  4. Actual ending point of the bore hole in the target formation;
  5. X, Y coordinates of the above four points.
- A fifty-dollar (\$ 50.00) fee for the revised surveyor's plat.

## Memorandum

**To:** Permit File- aPATT027880

**From:** Richard J. Simmers, Chief

**Date:** August 31, 2015

**Subject:** <sup>MM for RJS</sup> Variance Request-XTO energy Inc  
Wassmann 5H, Belmont County, Pultney Township

Pursuant to Section 1501:9-1-04 (E)(2) of the OAC, I hereby grant the variance request to the spacing requirements of Sections 1501:9-1-04 (C)(4)(c) of the OAC to XTO energy Inc. Approval of this variance reduces the setback distances at the heel and toe portions of this horizontal shale well from 500 feet to no less than 150 feet to the unit boundary.

In the attached documents, the applicant has demonstrated that the approval of the variance will protect correlative rights and promote conservation by permitting oil and gas to be produced that could not otherwise be produced.

An "as drilled" survey plat showing the location of the perforations at the heel and toe sections of the well shall be submitted within 60 days of perforating the well.

c: Steve Opritza, Geologist





Ohio Department of Natural Resources  
Division of Oil and Gas Resources Management  
2045 Morse Rd. Bldg. F-2 – Columbus OH 43229-6693



### *Pre-Construction Permit Conditions*

Application Number	Permit Number	Inspection Date	Modification Date (if applicable)
aPatt027880	2-0970-00	3-3-2015	
Company	XTO Energy	Lease Name/Well #	Wassman Well Pad (well #5H)
County	Belmont	Township	Pultney
Section/Lot	4	Urban Area (if applicable)	Non-Urban
Inspected By	Anthony Carson		
Accompanied By	Randy Cutlip (XTO), Pat Warner (Waco)		

Directions to Location      Travel State Route 147 to 3 miles west of Bellaire, Ohio. Turn left on Winding Hill Road. Site is on the right approximately 0.5 miles.

ITEM	LEASE ROAD, WELL SITE CONSTRUCTION	Comments:
1	Tree/Brush Removal/Disposition	Anything greater than 4 inch that has timber value will be stock piled for landowner, remaining trees will be chipped
2	Topsoil Removal/Stockpiles/Placement	Soils will be preserved, stockpiled, and immediately stabilized with seed/straw. (See engineered plans)
3	Erosion/Sediment Control (Silt Fence, Berms)	As per engineered plans
4	Drainage Controls (Diversion Ditches, Culverts, Waterways, Crossings)	Up to 1 culverts w/ rock check dams. Permanent channels for access road drainage.
5	Signage	As required, at entrance.
6	Apron/Culverts/Road Materials	As per engineered plans
7	Pull Off Area	If needed
8	Parking	Yes, At companys direction
9	GPS – Access Road	39.991158 N, 80.787900 W (NAD 83)
10	GPS – Well Stake	39.989797 N, 80.791597 W (NAD 83)
11	GPS – Tank Battery	N/A
12	GPS – Pit Location	N/A
13	Site Construction Plan	Engineered plans submitted by M. J. McTish & Associates

ITEM	DRILLING CONSIDERATIONS	Comments:
14	Location Dimensions (Length, Width, Approximate Acreage)	550' by 300': 13.6 Acres for LOD
15	Multiple Wells	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2 Wells
16	Rig Type	RTAF
17	Is a blow-out preventer required?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If No, explain:	
18	Equipment Placement/ Orientation (Rig/Frac Tanks/Etc.)	Not Specified

19	Mine Voids	Yes	Yes	<input type="checkbox"/>	No	Bt-110 Underground Mine
20	Verify Water Wells Within 300'	None				
21	Verify Structures Within 500'	None				
22	Verify Streams and Drainage	UNT-Pinch Run & Brooks Run				
23	Flood Plain	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	
24	Stream Crossing	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	
	Corps of Engineers Notified	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	
25	Wetlands	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	
	EPA Notified	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	

ITEM	PITS	Comments:
26	Source of water for drilling	Local Source
27	Source of water for hydrofrac	Local Source
28	Drilling Pits (Placement/Orientation)	None proposed
29	Pit Dimensions (Length, Width, Depth)	N/A
30	Estimated Volume/Capacity	N/A
31	Number & Type of Liners	N/A
32	Thickness of Liner	N/A
33	Type of Material Under Liner	N/A
34	Pit Construction Plan	N/A
35	Fencing (Pits/Entire Location)	None showed on engineered plans.

ITEM	RESTORATION	Comments:
36	Pit Closure – (Standard/Solidification/Off-Site Disposal – state time frame)	Off-site disposal, standard time frame
37	Site-Specific Time Frame for Restoration	Standard as per ORC 1509-072
38	Erosion/Sediment Control	Maintain & Monitor, as per engineered plans
39	Drainage Control	As per engineered plans

ITEM	PRODUCTION	Comments:
40	Is the Access Road Gate required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If No, explain:	Not considered urban, if a gate is present and locked, a key must be provided to ODNR- DOGRM.

	WAIVERS	Comments:
41	Is the Company required to submit a waiver?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If yes, submit the following waiver requests:	

Is the Company required to submit revised drawings? ☐ Yes ☒ No

**THE FOLLOWING ITEMS HAVE BEEN CHANGED FROM THE ORIGINAL APPLICATION:**

Completed By Anthony Carson

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# DAILY ROUTE SLIP *Pultney*

APPLICATION NO. aPATT027880

TYPE: Drill New Well, horizontal

CONAME XTO ENERGY INC.

API

WELL NAME /NO. WASSMANN UNIT B

5H

COUNTY 13 BELMONT

INITIALS

DATE

DATE APPLICATION REC'D

pn

8/18/2015

PERMIT FEE AND CHECK NO.

\$500.00

1460

RUSH AMOUNT RUSH CHECK NO.

\$0.00

0

APPLICATION ENTERED

pn

8/18/15

APPLICATIONS AND PLATS SENT  
FOR MINE APPROVAL

pn

8/21/15

COAL APPROVAL RECEIVED

pn

9-15-15

OIL/GAS AFFIDAVIT REC'D

URBANIZED AREA YES NO

pn

8/21/15

URBANIZED AREA NOTIFICATION SENT

pn

9-15-15

PRE-PERMIT REVIEW SENT TO  
INSPECTOR/REC'D BACK

pn

rec'd

URBAN MAP REVIEW

\_\_\_\_\_

\_\_\_\_\_

STATE LAND YES NO

\_\_\_\_\_

\_\_\_\_\_

SAMPLES: YES \_\_\_\_\_/SPECIAL AREAS

\_\_\_\_\_

\_\_\_\_\_

GEOLOGIST APPROVAL

ms<sup>re</sup>

8/31/15

DATA ENTRY /ISSUED

pn

9-15-15

PERMIT: TAKEN \_\_\_\_\_ MAILED ☒

pn

9-15-15

FAX TO: \_\_\_\_\_

FINAL MAP CHECK

ms

8/31/15

COMMENTS: mail HWSR, HD. WWSR

\_\_\_\_\_  
\_\_\_\_\_



# Proof Sheet

APPL NUMBER aPATT027880  
 OWNER NUMBER 8063  
 OWNER NAME XTO ENERGY INC.  
 EXISTING WELL 0  
 API PERMIT NO  
 APPL TYPE HX  
 TYPE OF WELL OG  
 VARIANCE REQUEST  
 WELL NAME WASSMANN UNIT B  
 WELL NUMBER 5H  
 PREV/PROPOSED TD 19520  
 DRILL UNIT ACRES 625.666  
 TYPE OF TOOL RTAF  
 WELL CLASS POOL  
 FIRE PHONE (740) 699-0425  
 MEDICAL PHONE (740) 699-0425  
 COUNTY CODE 13  
 COUNTY NAME BELMONT  
 COAL (Y=-1/N=0) -1  
 CIVIL TOWNSHIP PULTNEY  
 SURF QUAD BUSINESSBURG  
 Nad 27 SURF ORIG X 2,478,643  
 Nad 27 SURF ORIG Y 729,226  
 GROUND ELEVATION 1230  
 SURF SEC 4  
 SURF LOT  
 SURF QTR TWP  
 SURF ALLOT  
 SURF TRACT  
 SURF FRACTION

URBANIZED AREA ? ☐  
 NAME

STATE LAND ? ☐

MP Check # 0

## PROPOSED FORMATIONS

POINT PLEASANT

UTICA/PT PLEASANT ☒

MARCELLUS ☐

TAKE POINT ORIG X 2,479,620

TAKE POINT ORIG Y 729,406

TARG COUNTY CODE 13

TARG COUNTY NAME Belmont

TARG CIVIL TWP MEAD

TARG QUAD BUSINESSBURG

Nad 27 TARG ORIG X 2,483,260

Nad 27 TARG ORIG Y 721,271

TARG ELEV 1130

TARG SECTION 33

TARG LOT

TARG QTR TWP

TARG ALLOT

TARG TRACT

TARG FRACTION

# Proof Sheet

## SURFACE FOOTAGE

3600' SL + 1298' WL of sec 4 (Pultney dip)

## TAKE POINT FOOTAGE

3818' SL + 2267' WL of sec 4 (Pultney dip)

## TARGET FOOTAGE

333' SL + 845' WL of sec 33 (Mead dip)

## CASING PROGRAM

18	30	100
60	24	300
93	20	680
08	13 <sup>3</sup> / <sub>8</sub>	2350
13	9 <sup>5</sup> / <sub>8</sub>	8900
21	5 <sup>1</sup> / <sub>2</sub>	
26		

## SPECIAL CONDITIONS/COMMENTS

-PER  
HWSC  
HD  
NWSR

PI# 20776  
BE-2077  
EIV-1150

COMPLETION DT

MINES APPROVAL

AFFIDAVIT APPROV

GIS: No dirt No water wells  
Mine BT-110 EIV 650

SOURCES OF WATER

BELMONT CO WTR/OHIO RIVER/MCMAHON CREE

WATERSHED LAKE ERIE ☐ OHIO RIVER ☒

RUMA ATTACHED



EST WITHDRAWAL RATE (GAL/DAY)

NON AGREEMENT AFFIDAVIT  
ATTACHED



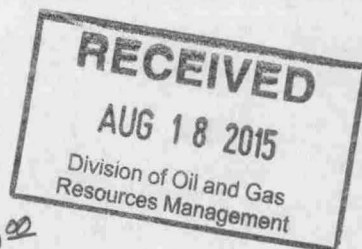
EST TOTAL VOLUME (GALLONS)

RECYCLED WATER EST TOTAL  
VOLUME (GALLONS)

WATER WELL SAMPLING RESULTS ☐

DATE SUBMITTED

APPLICATION FOR A PERMIT (Form 1)  
OHIO DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS RESOURCES MANAGEMENT  
2045 MORSE ROAD, BUILDING F-2  
COLUMBUS, OHIO 43229-6693  
(614) 265-6922



SEE INSTRUCTIONS ON BACK

AP# 4027880

CK# 1460 Ad 5002

1. We (applicant) <u>XTO Energy, Inc.</u>		2. Owner #: <u>8063</u>	
Address: <u>190 Thorn Hill Road -Warrendale, Pa 15086</u>		Phone #: <u>724-772-3500</u>	
hereby apply this date <u>August 12<sup>th</sup></u> , 20 <u>15</u> for a permit to:			
<input type="checkbox"/> Drill Vertical Well		<input type="checkbox"/> Revised Location	
<input checked="" type="checkbox"/> Drill Horizontally		<input type="checkbox"/> Plug Back	
<input type="checkbox"/> Drill Directionally		<input type="checkbox"/> Plug and Abandon	
<input type="checkbox"/> Reissue		<input type="checkbox"/> Temporary Inactive ( <input type="checkbox"/> 1 <sup>st</sup> year <input type="checkbox"/> 2nd year <input type="checkbox"/> 3rd year <input type="checkbox"/> ___th year)	
3. TYPE OF WELL: <input checked="" type="checkbox"/> Oil & Gas		<input type="checkbox"/> Annular Disposal	
<input type="checkbox"/> Stratigraphic Test		<input type="checkbox"/> Gas Storage	
<input type="checkbox"/> Solution Mining*		<input type="checkbox"/> Enhanced Recovery* (*if checked, select appropriate box below)	
<input type="checkbox"/> Input/Injection		<input type="checkbox"/> Water Supply	
		<input type="checkbox"/> Saltwater Injection	
		<input type="checkbox"/> Other (explain): _____	
4. IS THE WELL LOCATION OR PRODUCTION FACILITY(S) WITHIN AN URBANIZED AREA AS DEFINED BY 1509.01 (Y)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		20. TYPE OF TOOLS: <input type="checkbox"/> Cable <input checked="" type="checkbox"/> Rotary ( <input checked="" type="checkbox"/> Air <input checked="" type="checkbox"/> Fluid) <input type="checkbox"/> Cable/Rotary <input type="checkbox"/> Service Rig	
5. MAIL PERMIT TO: Attn: Melissa Breitenbach 190 Thorn Hill Road - Warrendale, Pa 15086		21. SOURCE(S) OF GROUND AND/OR SURFACE WATER USED IN PRODUCTION OPERATION: <u>Belmont County Water/Ohio River/Mcmahon Creek</u> Watershed: <input type="checkbox"/> Lake Erie <input checked="" type="checkbox"/> Ohio River Estimated Withdrawal Rate (gal/day): <u>1,200,000</u> Estimated Total Volume (gal): <u>12,000,000</u> If Recycled Water – Estimated Total Volume (gal): <u>820,000 If Needed</u>	
6. COUNTY: <u>Belmont</u>		22. EMERGENCY TELEPHONE NUMBERS: (closest to well site): Fire: <u>911 Or Belmont County E911 (740) 699-0425</u> Medical: <u>911 Or Belmont County E911 (740) 699-0425</u>	
7. CIVIL TOWNSHIP: <u>Pultney</u>		23. MEANS OF INGRESS & EGRESS: Road: <u>I-70 / Sr-9 / Sr-147 / Cr-44</u>	
8. SECTION: <u>3,4,32,33</u> 9. LOT: _____		24. ROAD USE FOR A HORIZONTAL WELL: Maintenance Agreement Attached <input checked="" type="checkbox"/> Non-agreement Affidavit Attached <input type="checkbox"/> State Route (Not Required) <input type="checkbox"/>	
10. FRACTION: _____ 11. QTR TWP: _____		25. ARE THE SURFACE RIGHTS OWNED BY STATE OF OHIO? Agency Name: <u>N/A</u>	
12. TRACT/ALLOT: _____		26. FOR PLUGGING APPLICATIONS: Date of Last Production: _____ Amount of Oil: _____ (bbl) Gas: _____ (mcf)	
13. WELL #: <u>5H</u>			
14. LEASE NAME: <u>Wassmann Unit B</u>			
15. PROPOSED TOTAL DEPTH: <u>19,520</u>			
16. PROPOSED GEOLOGICAL FORMATION(S): <u>Point Pleasant</u>			
17. DRILLING UNIT ACRES: <u>625.6660</u>			
18. ATTACH LANDOWNER ROYALTY LISTING: _____			
19. IF PERMITTED PREVIOUSLY: API #: _____			

27. PROPOSED CASING AND CEMENTING PROGRAM

Type Casing	Borehole Diameter (in)	Borehole Depth (ft)	Casing Diameter (in)	Casing Depth (ft)	Cement Volume (sacks)	Formation	Zone Tested or produced (✓ if Yes)	Hydraulic Fracturing (✓ if Yes)
Drive Pipe	N/A						<input type="checkbox"/>	<input type="checkbox"/>
Conductor	36	100	30	100	~240	N/A	<input type="checkbox"/>	<input type="checkbox"/>
Mine String	22	670	20	650	~320	Thru Pgh Coal, if needed	<input type="checkbox"/>	<input type="checkbox"/>
Surface	28	420	24	400	~490		<input type="checkbox"/>	<input type="checkbox"/>
1 <sup>st</sup> Intermediate	17.5	2370	13.375	2350	~1780	Ohio Shale(thru Berea)	<input type="checkbox"/>	<input type="checkbox"/>
2 <sup>nd</sup> Intermediate	12.25	8920	9.625	8900	~1430	Queenston, if needed	<input type="checkbox"/>	<input type="checkbox"/>
Production	8.5	19520	5.5	TD	~2810	Pt. Pleasant	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Liner	TBD	TBD	TBD	TBD	TBD	TBD	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>

I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

I, the undersigned, further depose and state that I am the person who has the right to drill on the tract or drilling unit and to drill into and produce from a pool and to appropriate the oil or gas that I produce therefrom either for myself or others as described in this application. And furthermore, I the undersigned, being duly sworn, depose and state at this time that I am not liable for any final nonappealable order of a court for damage to streets, roads, highways, bridges, culverts, or drainage ways pursuant to Section 5577.12 of the Ohio Revised Code (ORC). I, the undersigned, further depose and state that all notices required by 1509.06 (A) (9) ORC for this application have been duly provided by me. If applying for a permit to plug and abandon a well, I hereby certify that the written notices, as required in Section 1509.13, ORC, have been given.

That I hereby agree to conform with all provisions of Chapter 1509., ORC, and Chapter 1501., OAC, and all orders and conditions issued by the Chief, Division of Oil and Gas Resources Management.

Signature of Owner/Authorized Agent Melissa Breitenbach

Name (Type or Print) Melissa Breitenbach Title Regulatory Coordinator

If signed by Authorized Agent, a certificate of appointment of agent must be on file.

Sworn to and subscribed before me this the 17<sup>th</sup> day of August, 20 15.

Kimberly Beth Wilson  
(Notary Public)

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal

Kimberly Beth Wilson, Notary Public  
Hampton Twp., Allegheny County  
My Commission Expires June 10, 2016

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES





RECEIVED  
AUG 18 2015  
XTO Energy Inc.  
190 Thorn Hill Road  
Warrendale, PA 15086  
DIVISION of Oil and Gas  
Resources Management  
(724) 772-3500  
(724) 772-3505 Fax

August 14, 2015

Ohio Dept of Natural Resources  
Division of Oil & Gas Resources Management  
Attn: Mr. Steve Opritza  
2045 Morse Road, Building F-2  
Columbus, OH 43229-6693

Re: Wassmann Unit B 5H  
Reduced Spacing Request from Takepoint to Unit Boundary  
Pultney Township, Belmont County

Dear Mr. Opritza,

XTO Energy, Inc. respectfully requests a variance to reduce spacing from take point to unit boundary for the proposed Wassmann Unit B 5H located in Pultney Township, Belmont County. In accordance with OAC 1501.9-1-04(E)(2) XTO requests reduced spacing from the heel/first take point to a minimum distance of 150 feet and reduced spacing from the toe/last take point a minimum distance of 150' feet of the horizontal wellbore to unit boundary. This reduction in spacing will still protect correlative rights while enabling XTO to more efficiently recover resources that would otherwise be left unrecovered. Unless otherwise stated, the productive section of the wellbore will maintain a minimum 500 foot distance to the unit boundary (measured perpendicularly).


At the heel/first take point, Parcel #26-01876.000 Martha Wassmann-Winn, is XTO acreage and is included as part of the Wassmann Unit B and therefore does not require a waiver.

At the toe/last take point, Parcel # 15.00676.000 Robert G. Gibson, II, is XTO acreage and is included as part of the Wassmann Unit B and therefore does not require a waiver.

In support of this request, please find attached a copy of Chesapeake's Temporary Minimum Spacing Request submitted to the Technical Advisory Council, November 6, 2013. Their request demonstrates that the current setback distances for the take points to the unit boundary leaves substantial reserves undeveloped. Furthermore, it demonstrates that there is little impact to acreage beyond the drilling unit. Reducing the take point setbacks will improve well economics; allow access to reserves that would otherwise be left behind within the proposed drilling unit, while still protecting correlative rights.

Should you have any questions concerning this request, please feel free to contact me at (724) 772-8715.

Sincerely,  
XTO ENERGY, INC.

  
Melissa Breitenbach  
Regulatory Coordinator



November 6, 2013

Douglas Gonzalez, Chair  
Technical Advisory Council  
2045 Morse Road  
Columbus, OH 43229-6639

**RE: Temporary Minimum Spacing Request**

Dear Chairman Gonzalez:

Ohio has a proud, longstanding history of oil and natural gas exploration and production. Such history would not have been possible without effective management of Ohio's mineral development. Ohio's current spacing and setback regulations, as applied to unconventional horizontal development, are incongruent with its tradition of conservation and protection of correlative rights. As Ohio encounters new frontiers in exploration, it has at its disposal the tools necessary for the vigilant management of its mineral resources. Accordingly, for the Council's consideration, Chesapeake Exploration, L.L.C. respectfully submits the foregoing Temporary Minimum Spacing Request.

Ohio Administrative Code § 1501:9-1-04(D) provides the Chief, upon consideration of an application by an owner in an affected area, with the authority to order temporary well spacing for a particular pool or field in an area. The Chief's order also requires the approval of this Council.

Pursuant to OAC § 1501:9-1-04(D)(1), the Chief's order must contain the following:

***(a) Description of the area covered by the order;***

While much of the horizontal drilling in Ohio is concentrated in certain counties, it is far too early in the development to define the geographic area of the play. To avoid multiple operators making repeated and redundant requests, Chesapeake advocates applying the order to any county where a permit to drill a horizontal well which targets the Utica or Point Pleasant has been issued prior to the submission of this application.

**Chesapeake Energy Corporation**  
P.O. Box 6070 • Charleston, WV 25362 • 414 Summers St. • Charleston, WV 25301  
304-353-5016 • fax 304-353-5231 • Jody.C.Jones@chk.com

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***(b) Identification of the pool, field or horizons covered by the order;***

Chesapeake agrees with the Chief's previous finding that the Utica Shale and Point Pleasant are the target formations for the "Utica" play<sup>1</sup>; therefore, suggests the same consistent identification of the field. *See Attachment 1.*

***(c) Minimum distance wells may be drilled from the tract or drilling unit boundaries;***

As discussed in further detail below, in order to promote conservation and protect correlative rights, Chesapeake proposes that the minimum distance from first or last perforation of a horizontal well to any tract or drilling unit boundary be 50 feet.

***(d) Minimum distance between wells;***

Chesapeake proposes that the minimum distance between any first or last perforations between adjacent horizontal wells be 100 feet.

***(e) Minimum acreage for tracts or drilling units; and may contain other requirements deemed necessary by the chief to accomplish the purpose of paragraph (D) of this rule.***

Chesapeake proposes no changes to the minimum acreage requirement for drilling units.

## **DISCUSSION**

### ***Shale Formations and Fracture Propagation***

Horizontal wells are drilled differently than vertical wells. Instead of a vertical wellbore penetrating the target formation(s), a horizontal well changes orientation (i.e. curves) from vertical to horizontal and "lands" in the target formation(s) then maintains that horizontal orientation until the terminus of the wellbore. Therefore, a horizontal well has the length of the wellbore (the "lateral"), in addition to the curved portion (the "heel") and terminus of the wellbore (the "toe"). To achieve optimal development and to greatly reduce surface disturbance, multiple horizontal wells are drilled from a common pad.

Ohio's current spacing and setback regulations were created for vertical wells, and thus prove to be counterproductive for efficient horizontal shale wells. OAC § 1501:9-1-04(C)(4) substantively provides that wells deeper than 4,000 feet for the production of oil or gas be a minimum of 500 feet from a drilling unit boundary and 1,000 feet from a well producing from the same formation. *See Attachment 2.*

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<sup>1</sup> "The Concept of 'Take Point' as it Applies to Horizontal Shale Wells" presented by DOGRM to the TAC on 8/7/2012.

For the initial horizontal wells drilled into the Utica/Point Pleasant, the Division used the entry point (where the wellbore entered the target formation) and the terminus of the wellbore (bottom hole location, or BHL) as the measuring points for calculating spacing and setback compliance. The dilemma with that approach was that the entry point and BHL did not accurately reflect the measuring points where production is flowing in to the wellbore, resulting in otherwise recoverable oil and gas being left in place. Following consultation with the industry, the Division proposed to this Council the application of takepoint spacing, which used the first and last perforation as the measurements for spacing and setbacks. This Council unanimously approved the Division's request, and was implemented via Order No. 2012-24.<sup>2</sup> *See Attachment 3.*

The application of takepoint spacing was an improvement in maximizing recovery; however, the current spacing and setbacks regulations, as applied to horizontal shale wells, are still incongruent and fail to promote conservation by leaving oil and gas in place, to the detriment of mineral owners and the state of Ohio. These unrecovered minerals could be recoverable with a revision of the current 500 foot setback to 50 feet, thus promoting conservation and still protecting correlative rights. *See Attachment 2.* To understand why oil and gas is left in place, an elementary understanding of how a horizontal shale well is drilled and completed is needed.

Target formations for oil and gas development are typically described in terms of their porosity and permeability. Generally speaking, porosity is the ability of the rock to hold hydrocarbons, and permeability is the ability of the hydrocarbons to move through the rock. Shales are known for having low porosity, and very low permeability; and thus, are sometimes referred to as "tight". Hydraulic fracturing is the process by which pathways (i.e. permeability) are created in the shale to allow the hydrocarbons trapped in the pore space to travel into the wellbore.

Horizontal wells are drilled in a particular direction (azimuth) in order to take advantage of the formation stresses in place. In the Utica/Point Pleasant, the formation stress orientation is northwest or southeast. When a horizontal well is completed, the perforating and hydraulic fracturing process is optimized by creating transverse fractures to the wellbore and therefore maximizing the reservoir area contacted. The primary goals in hydraulic fracturing are to apply pressure to overcome the horizontal minimum stress in the reservoir to create fractures, and then to place proppant in those fractures to create a conductive pathway through which the hydrocarbons can flow.

The propagation of fractures begins from the perforations. As all fluid will travel the path of least resistance, the fractures will open against the horizontal minimum principle stress (parallel to the wellbore if drilled in the typical direction) of the reservoir, then the fractures will typically grow vertically until a vertical stress barrier is encountered. In the case of the Utica Shale, the vertical stress barriers are the Trenton beneath the Point Pleasant and either the Middle or Upper Utica. The vertical stress profile (and thus the vertical barriers) is determined via dipole sonic logs and calibrated with pump-in tests. *See Attachment 4.* Once the fractures reach the vertical

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<sup>2</sup> Division of Oil and Gas Resources Management Order No. 2012-24 "Take points to determine spacing to unit lines." Issued 8/21/2012



stress barrier, they grow towards the horizontal maximum principle stress (perpendicular to the wellbore). *See attachment 5.*

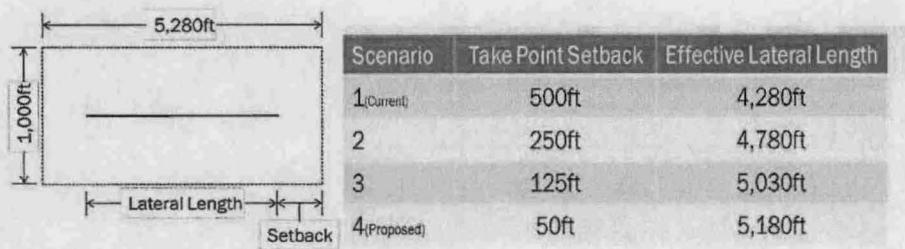
#### ***Reservoir Drainage***

A horizontal well's production, and ultimately its success, is dependent on the ability to create surface area to accomplish reservoir depletion. Reservoir drainage is a function of the distance between the fractures, and likewise, the distance between the perforations (also known as "cluster spacing"). Completion design, which includes cluster spacing as a parameter, can be engineered to maximize reservoir drainage. Through multiple drilled, completed, and producing horizontal wells Chesapeake's internal technical team of engineers and geoscientists has identified that the distance between perforations has a significant impact on well performance, and more importantly, well production performance improves dramatically by decreasing cluster spacing. As a result of our research, modeling and testing, Chesapeake's designed cluster spacing has been reduced to approximately 50 feet between clusters. While ongoing study of cluster spacing will determine the most effective cluster spacing design, all current data indicates that to efficiently develop the reserves along the completed lateral the cluster spacing should not exceed approximately 50 feet. In stark contrast to the 50 foot cluster spacing along the completed lateral is the 500 foot setback to the drilling unit boundary and 1,000 foot spacing between opposing wells. An alternate expression would be to say that cluster spacing between the first and last perforations of offset wells is 1,000 feet, or 20 times what is proven to be the maximum for efficient reservoir drainage.

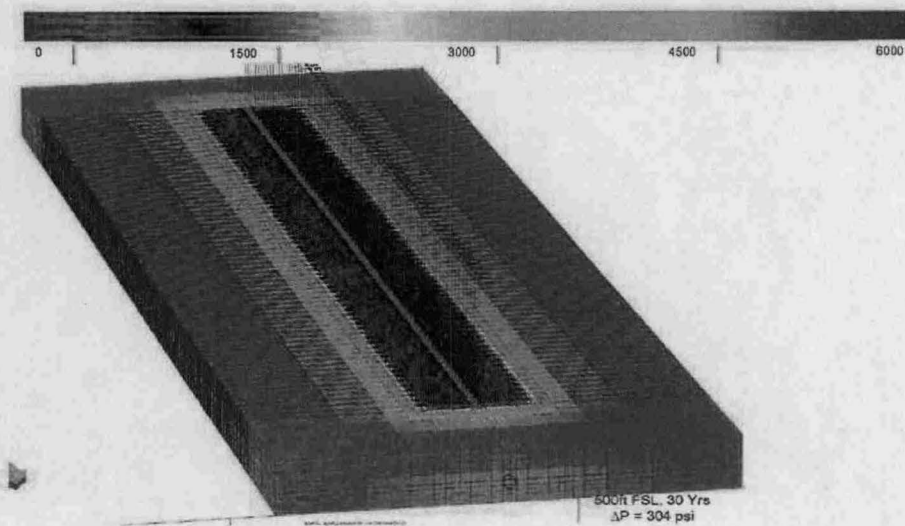
#### **Numerical Simulation**

To demonstrate the impact of the current setback and spacing restrictions, below is a multi-layer numerical simulation which utilizes reservoir rock and fluid properties of the Utica/Point Pleasant shale formation. The reservoir and fluid properties were derived using proprietary analysis of multiple cores, well logs, and produced fluid samples throughout eastern Ohio. The model parameters represent Chesapeake's current understanding of the reservoir properties in southern Carroll County, which has been Chesapeake's most active area to date. The development of this model allows for multiple setback scenarios to be examined in order to quantify the impact setbacks have on oil and gas recovery and rate of depletion from the first and last perforations to the unit boundary. This simulation is a single well unit model with constant dimensions (shown below) in which multiple lateral length scenarios (shown below) are evaluated in order to demonstrate the impact of the heel/toe setback.

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Simulation Results



This model illustrates that after 30 years of production the pressure depletion at the unit boundary using the current 500 foot setback is less than 5 percent, stranding a significant portion of oil and gas reserves between the take point and the unit boundary. As a comparison, under the proposed 50 foot setback, for the same 30-year time period, the pressure depletion at the unit boundary is 70 percent, which represents a considerable improvement to drainage efficiency. This improved efficiency also has a dramatic impact to ultimate recovery of reserves in the unit. Estimated ultimate recovery (EUR) increases 18% from 5.02 billion cubic feet of gas equivalent (or BCFE) to 5.95 BCFE for the 500 feet to 50 feet scenario, respectively. With over 15,000 wet and dry gas wells to be drilled across eastern Ohio, decreasing setbacks from the heel/toe to the unit boundary could potentially translate into 14 trillion cubic feet of recoverable gas equivalent.

This increased recovery not only improves well economics, but results in additional revenues to mineral owners and the state of Ohio.

#### *Conservation*

The concept of conservation has always included two important principles. The first principle is achieving the maximum drainage with the fewest wells. The ability to drill multiple horizontal wells from a single pad has greatly advanced the ability to drain a large area while reducing surface footprint. In order to fully achieve the potential of horizontal drilling, setback and spacing provisions must allow for the most efficient and maximum drainage. If not, recoverable reserves are simply left behind. The second principle is correlative rights, or allowing mineral owners to benefit from the recovery of their minerals while protecting offset mineral owners. As demonstrated by the model above, the current 500 foot setback leaves recoverable hydrocarbons in place, thus depriving mineral owners of that revenue. The proposed 50 foot setback allows for a higher, more efficient, depletion at the unit boundary, but requires decades to achieve. Thus, offset mineral owners have an abundance of time to develop their resources. Accordingly, the proposed 50 foot setback strikes a fair, but realistic balance, between allowing a mineral owner the opportunity to benefit from the recovery of their reserves, while still protecting the correlative rights of offset mineral owners.

#### CONCLUSION

Every day horizontal wells are being drilled in the Utica/Point Pleasant in Ohio, and oil and gas is being left behind, running afoul of the principles of conservation and failing to protect correlative rights. As core areas are developed, without change to Ohio's current spacing and setback regulations, recoverable minerals will be relegated to uneconomically recoverable status. The early stages of the Utica/Point Pleasant development present a prime opportunity to establish spacing and setbacks which maximize efficiency and recovery, the keystones of conservation. Accordingly, Chesapeake proposes that this Council approve temporary minimum spacing of 50 feet from the first and last takepoint to the unit boundary.

Chesapeake appreciates your consideration of this request and looks forward to formally presenting to the Council at the earliest opportunity.

Sincerely,



Jody C. Jones  
Manager, Regulatory Affairs

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Wassmann Unit B 5H  
(yellow highlight denotes 500ft offset)  
Questions 18- Landowner Royalty Listing  
Mead and Pultney Townships / Belmont County

Tract #	Parcel #	Surface Owner	Surface Owner Address	Royalty Owner	Royalty Owner Address
1	26-01876.000	Martha Wassmann-Winn	55014 Winding Hill Road Bellaire, OH 43906	Martha Wassmann-Winn	55014 Winding Hill Road Bellaire, OH 43906
2	26-02917.000	Robert E. Phillips	62120 rolling Hills Lane Shadyside, OH 43947	Robert E. Phillips	62120 rolling Hills Lane Shadyside, OH 43947
3	26-02909.000	Lynnette R. Adams	62080 Rolling Hills Lane Shadyside, OH 43947	Lynnette R. Adams	62080 Rolling Hills Lane Shadyside, OH 43947
4	26-02927.000	William T. Alderman	1306 Thompson Avenue Moundsville, WV 26041	William T. Alderman	1306 Thompson Avenue Moundsville, WV 26041
5	26-00975.000	John R. Patt and Elaine Patt	55590 Winding Hill Road Bellaire, OH 43906	John R. Patt and Elaine Patt	55590 Winding Hill Road Bellaire, OH 43906
6	26-02924.000	Joshua L. Fabry and Jamie L. Fabry	62003 Rolling Hills Lane Shadyside, OH 43947	Joshua L. Fabry and Jamie L. Fabry	62003 Rolling Hills Lane Shadyside, OH 43947
7	15-00657.000	Steven F. Kosek and Patricia L. Kosek	61280 Webb Heights Road Shadyside, OH 43947	Steven F. Kosek and Patricia L. Kosek	61280 Webb Heights Road Shadyside, OH 43947
8	26-03107.001	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947
9	26-01670.007	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947
10	26-01670.001	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947
11	26-01670.002	Jeffrey C. Helt and Elizabeth S. Helt	55161 New Cut Road Shadyside, OH 43947	Jeffrey C. Helt and Elizabeth S. Helt	55161 New Cut Road Shadyside, OH 43947
12	26-01670.003	Ryan K. Kernik and Jill A. Kernik	55165 New Cut Road Shadyside, OH 43947	Ryan K. Kernik and Jill A. Kernik	55165 New Cut Road Shadyside, OH 43947
13	26-01670.004	W. Joan Vernet	55201 New Cut Road Shadyside, OH 43947	W. Joan Vernet	55201 New Cut Road Shadyside, OH 43947
14	26-01670.005	Wilma Joan Vernet	55201 Merrit Estates Shadyside, OH 43947	Wilma Joan Vernet	55201 Merrit Estates Shadyside, OH 43947
15	26-01670.006	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947
16	26-01670.000	Frank J. Sadlowski and Melissa A. Sadlowski	362 Rosser Avenue Bellaire, OH 43906	Frank J. Sadlowski and Melissa A. Sadlowski	362 Rosser Avenue Bellaire, OH 43906

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Tract #	Parcel #	Surface Owner	Surface Owner Address	Royalty Owner	Royalty Owner Address
17	26-02505.000	Terri J. Wilson	55174 New Cut Road Shadyside, OH 43947	Terri J. Wilson	55174 New Cut Road Shadyside, OH 43947
18	26-02504.000	American Coal Sales Company	46226 National Road St. Clairsville, OH 43950	American Coal Sales Company	46226 National Road St. Clairsville, OH 43950
19	26-02510.000	Cynthia L. Pugh	55198 New Cut Road Shadyside, OH 43947	Cynthia L. Pugh	55198 New Cut Road Shadyside, OH 43947
20	26-02501.000	Robert L. Sall and Margaret E. Sall	55206 New Cut Road Shadyside, OH 43947	Robert L. Sall and Margaret E. Sall	55206 New Cut Road Shadyside, OH 43947
21	26-02503.000	Cynthia L. Clegg and Don A. Clegg	55210 New Cut Road Shadyside, OH 43947	Cynthia L. Fry and Don A. Clegg	55210 New Cut Road Shadyside, OH 43947
22	26-02502.000	Cynthia L. Clegg and Don A. Clegg	55210 New Cut Road Shadyside, OH 43947	Cynthia L. Clegg and Don A. Clegg	55210 New Cut Road Shadyside, OH 43947
23	26-01078.000	Stephanie Van Derheyden	62130 Rolling Hills Lane Shadyside, OH 43947	Stephanie Van Derheyden	62130 Rolling Hills Lane Shadyside, OH 43947
24	26-02923.000	Roger D. Swoyer and Charleen L. Swoyer	62130 Rolling Hills Lane Shadyside, OH 43947	Roger D. Swoyer and Charleen L. Swoyer	62130 Rolling Hills Lane Shadyside, OH 43947
25	26-01156.000	Vicky Meigh	44967 Foxberry Lane St. Clairsville, OH 43950	Vicky Meigh	44967 Foxberry Lane St. Clairsville, OH 43950
25	26-01156.000	Sheila Filius	44967 Foxberry Lane St. Clairsville, OH 43950	Sheila Filius	44967 Foxberry Lane St. Clairsville, OH 43950
25	26-01156.000	Michael Hendershot, Jr.	52981 Key-Bellaire Road Bellaire, OH 43906	Michael Hendershot, Jr.	52981 Key-Bellaire Road Bellaire, OH 43906
25	26-01156.000	Shaun Meigh	42001 Mount Hope Road Flushing, OH 43977	Shaun Meigh	42001 Mount Hope Road Flushing, OH 43977
25	26-01156.000	Shane Doty	55368 Key-Bellaire Road Bellaire, OH 43906	Shane Doty	55368 Key-Bellaire Road Bellaire, OH 43906
25	26-01156.000	Samantha Meigh	42001 Mount Hope Road Flushing, OH 43977	Samantha Meigh	42001 Mount Hope Road Flushing, OH 43977
25	26-01156.000	Brittney Doty	42981 Key-Bellaire Road Bellaire, OH 43906	Brittney Doty	42981 Key-Bellaire Road Bellaire, OH 43906
26	26-02911.000	Kim A. Scott	62125 Rolling Hills Lane Shadyside, OH 43947	Kim A. Scott	62125 Rolling Hills Lane Shadyside, OH 43947

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27	26-02922.000	Milton B. Robertson and Theresa Robertson	62079 Rolling Hills Lane Shadyside, OH 43947	Milton B. Robertson and Theresa Robertson	62079 Rolling Hills Lane Shadyside, OH 43947
28	26-02913.000	Daniel S. Eller and Cindy Eller	62035 Rolling Hills Lane Shadyside, OH 43947	Daniel S. Eller and Cindy Eller	62035 Rolling Hills Lane Shadyside, OH 43947
29	26-02918.000	Robert A. Johnson and Catherine Ann Johnson	62019 Rolling Hills Lane Shadyside, OH 43947	Robert A. Johnson and Catherine Ann Johnson	62019 Rolling Hills Lane Shadyside, OH 43947
30	26-02920.000	William J. Taylor and Michelle Taylor	55362 New Cut Road Shadyside, OH 43947	William J. Taylor and Michelle Taylor	55362 New Cut Road Shadyside, OH 43947
31	26-02921.000	Richard A. Polinsky and Barbara D. Polinsky	55406 New Cut Road Shadyside, OH 43947	Richard A. Polinsky and Barbara D. Polinsky	55406 New Cut Road Shadyside, OH 43947
32	26-03106.000	Russell Doan and Kathy J. Doan	7055 State Route 150 Dillonvale, OH 43917	Russell Doan and Kathy J. Doan	7055 State Route 150 Dillonvale, OH 43917
33	26-01692.000	Michael Littleton and Kathy Lou Littleton	716 Sutton Place Findlay, OH 45840	Michael Littleton and Kathy Lou Littleton	716 Sutton Place Findlay, OH 45840
33	26-01692.000	Scott R. Littleton and Shirley M. Littleton	14004 Florence Wakeman Rd. Wakeman, OH 44889	Scott R. Littleton and Shirley M. Littleton	14004 Florence Wakeman Rd. Wakeman, OH 44889
33	26-01692.000	Dane C. Littleton and Lori Ann Littleton	14004 Florence Wakeman Rd. Wakeman, OH 44889	Dane C. Littleton and Lori Ann Littleton	14004 Florence Wakeman Rd. Wakeman, OH 44889
33	26-01692.000	Jan Flynn and Eric A. Flynn	11369 Baumhart Road Amherst, OH 44001	Jan Flynn and Eric A. Flynn	11369 Baumhart Road Amherst, OH 44001
33	26-01692.000	Michelle E. Lengyell and Larry G. Lengyel	14004 Florence Wakeman Rd. Wakeman, OH 44889	Michelle E. Lengyell and Larry G. Lengyel	14004 Florence Wakeman Rd. Wakeman, OH 44889
34	26-02926.000	Ryan J. Aberegg and Mandy S. Aberegg	55375 New Cut Road Shadyside, OH 43947	Ryan J. Aberegg and Mandy S. Aberegg	55375 New Cut Road Shadyside, OH 43947
35	26-02915.000	Heidi L. Chaplin and Josh Chaplin	55381 New Cut Road Shadyside, OH 43947	Heidi L. Chaplin and Josh Chaplin	55381 New Cut Road Shadyside, OH 43947
36	26-02912.000	Kathy Jo Sickles	55399 New Cut Road Shadyside, OH 43947	Kathy Jo Sickles	55399 New Cut Road Shadyside, OH 43947
37	26-02925.000	Joseph J. Tomlan and Rachel Tomlan	55405 New Cut Road Shadyside, OH 43947	Joseph J. Tomlan and Rachel Toman	55405 New Cut Road Shadyside, OH 43947

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Tract #	Parcel #	Surface Owner	Surface Owner Address	Royalty Owner	Royalty Owner Address
38	26-00531.000	Samuel A. Hanasky and Mary Kay Hanasky	55425 New Cut Road Shadyside, OH 43947	Samuel A. Hanasky and Mary Kay Hanasky	55425 New Cut Road Shadyside, OH 43947
39	26-01181.000	James E. Tharp and Roxann Tharp	55433 New Cut Road Shadyside, OH 43947	James E. Tharp and Roxann Tharp	55433 New Cut Road Shadyside, OH 43947
40	26-01126.000	Joanne Newkirk and Randall W. Newkirk	55525 New Cut Road Shadyside, OH 43947	Joanne Newkirk and Randall W. Newkirk	55525 New Cut Road Shadyside, OH 43947
41	26-03105.000	Samuel T. Greenwood and Sharissa L. Greenwood	55535 New Cut Road Shadyside, OH 43947	Samuel T. Greenwood and Sharissa L. Greenwood	55535 New Cut Road Shadyside, OH 43947
42	26-03107.000	Michael B. Koonce	55745 New Cut Road Shadyside, OH 43947	Michael B. Koonce	55745 New Cut Road Shadyside, OH 43947
43	26-03108.000	Michael B. Koonce	55745 New Cut Road Shadyside, OH 43947	Michael B. Koonce	55745 New Cut Road Shadyside, OH 43947
44	26-01804.000	Sherol L. Rayl	55987 New Cut Road Shadyside, OH 43947	Sherol L. Rayl	55987 New Cut Road Shadyside, OH 43947
44	26-01804.000	Scott D. Dague	55987 New Cut Road Shadyside, OH 43947	Scott D. Dague	55987 New Cut Road Shadyside, OH 43947
45	26-01804.001	Sherol L. Rayl	55987 New Cut Road Shadyside, OH 43947	Sherol L. Rayl	55987 New Cut Road Shadyside, OH 43947
46	26-00379.000	Michael B. Koonce	55745 New Cut Road Shadyside, OH 43947	Michael B. Koonce	55745 New Cut Road Shadyside, OH 43947
47	14-00251.000	Eric W. Heller and Kim Heller	55984 New Cut Road Shadyside, OH 43947	Eric W. Heller and Kim Heller	55984 New Cut Road Shadyside, OH 43947
48	14-00229.000	Herbert F. May and Mary Lee May	61781 Webb Heights Road Shadyside, OH 43947	Herbert F. May and Mary Lee May	61781 Webb Heights Road Shadyside, OH 43947
49	14-00078.000	Michael B. Koonce	55745 New Cut Road Shadyside, OH 43947	Michael B. Koonce	55745 New Cut Road Shadyside, OH 43947
50	14-00010.000	Robert T. Kucera	61899 Webb Heights Road Shadyside, OH 43947	Robert T. Kucera	61899 Webb Heights Road Shadyside, OH 43947
51	14-00229.002	Frank L. Calinger	61930 Webb Heights Road Shadyside, OH 43947	Frank L. Calinger	61930 Webb Heights Road Shadyside, OH 43947
51	14-00229.002	Gregory L. Calinger and Becky A. Calinger	61930 Webb Heights Road Shadyside, OH 43947	Gregory L. Calinger and Becky A. Calinger	61930 Webb Heights Road Shadyside, OH 43947



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52	14-00017.000	Frank L. Calinger	61930 Webb Heights Road Shadyside, OH 43947	Frank L. Calinger	61930 Webb Heights Road Shadyside, OH 43947
52	14-00017.000	Gregory L. Calinger and Becky A. Calinger	61930 Webb Heights Road Shadyside, OH 43947	Gregory L. Calinger and Becky A. Calinger	61930 Webb Heights Road Shadyside, OH 43947
53	14-00163.000	Frank A. Calinger	61930 Webb Heights Road Shadyside, OH 43947	Frank A. Calinger	61930 Webb Heights Road Shadyside, OH 43947
53	14-00163.000	Gregory L. Calinger and Becky A. Calinger	61930 Webb Heights Road Shadyside, OH 43947	Gregory L. Calinger and Becky A. Calinger	61930 Webb Heights Road Shadyside, OH 43947
54	14-00226.000	Michael Littleton and Kathy Lou Littleton	716 Sutton Place Findlay, OH 45840	Michael Littleton and Kathy Lou Littleton	716 Sutton Place Findlay, OH 45840
54	14-00226.000	Scott R. Littleton and Shirley M. Littleton	14004 Florence Wakeman Rd. Wakeman, OH 44889	Scott R. Littleton and Shirley M. Littleton	14004 Florence Wakeman Rd. Wakeman, OH 44889
54	14-00226.000	Dane C. Littleton and Lori Ann Littleton	14004 Florence Wakeman Rd. Wakeman, OH 44889	Dane C. Littleton and Lori Ann Littleton	14004 Florence Wakeman Rd. Wakeman, OH 44889
54	14-00226.000	Jan Flynn and Eric A. Flynn	11369 Baumhart Road Amherst, OH 44001	Jan Flynn and Eric A. Flynn	11369 Baumhart Road Amherst, OH 44001
54	14-00226.000	Michelle E. Lengyell and Larry G. Lengyel	14004 Florence Wakeman Rd. Wakeman, OH 44889	Michelle E. Lengyell and Larry G. Lengyel	14004 Florence Wakeman Rd. Wakeman, OH 44889
55	14-00271.001	Nanca L. Carlisle	39720 Broadway Road Shadyside, OH 43947	Bounty Minerals, LLC and Bounty Minerals II Acquisitions, LLC	777 Main Street, Suite 850 Fort Worth, TX 76102
56	14-00271.003	Craig Booth and Amy L. Booth	61700 Webb Heights Road Shadyside, OH 43947	Craig Booth and Amy L. Booth	61700 Webb Heights Road Shadyside, OH 43947
57	14-00271.005	Craig Booth and Amy L. Booth	61700 Webb Heights Road Shadyside, OH 43947	Craig Booth and Amy L. Booth	61700 Webb Heights Road Shadyside, OH 43947
58	14-00271.004	Kevin R. Dorsey and Renee Dorsey	61484 Webb Heights Road Shadyside, OH 43947	Kevin R. Dorsey and Renee Dorsey	61484 Webb Heights Road Shadyside, OH 43947
59	14-00229.001	Joseph Michael May and Tammy Lee May	61731 Webb Heights Road Shadyside, OH 43947	Joseph Michael May and Tammy Lee May	61731 Webb Heights Road Shadyside, OH 43947
60	14-00271.002	Joseph Michael May and Tammy Lee May	61731 Webb Heights Road Shadyside, OH 43947	Joseph Michael May and Tammy Lee May	61731 Webb Heights Road Shadyside, OH 43947

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Tract #	Parcel #	Surface Owner	Surface Owner Address	Royalty Owner	Royalty Owner Address
61	14-00271.000	Jeffrey J. Watt	61725 Webb Heights Road Shadyside, OH 43947	Jeffrey J. Watt	61725 Webb Heights Road Shadyside, OH 43947
61	14-00271.000	Jeffrey J. Watt	61725 Webb Heights Road Shadyside, OH 43947	Evelyn M. Watt	111 Richalnd Avenue St. Clairsville, OH 43950
62	14-00025.000	Kimberly A. West and Joseph L. West	5 Carnahan Lane Wheeling, OH 26003	Kimberly A. West and Joseph L. West	5 Carnahan Lane Wheeling, OH 26003
63	15-00614.000	Moses H. Miller and Katie J. Miller	8170 Township Road 662 Dundee, OH 44624	Moses H. Miller and Katie J. Miller	8170 Township Road 662 Dundee, OH 44624
63	15-00614.000	Roy E. Wengerd and Eli Wengerd	8170 Township Road 662 Dundee, OH 44624	Roy E. Wengerd and Eli Wengerd	8170 Township Road 662 Dundee, OH 44624
64	14-00183.000	Lydella E. Honeywell	61220 Webb Heights Road Shadyside, OH 43947	Lydella E. Honeywell	61220 Webb Heights Road Shadyside, OH 43947
65	14-00305.000	<b>Life Estate</b> Connie L. Yonyon <b>Remaindermen</b> Alicia M. Yonyon Russell A. Yonyon Deborah L. Tierney	<b>Life Estate</b> 61460 Webb Heights Road Shadyside, OH 43947 <b>Remaindermen</b> 61460 Webb Heights Road Shadyside, OH 43947	<b>Life Estate</b> Connie L. Yonyon <b>Remaindermen</b> Alicia M. Yonyon Russell A. Yonyon Deborah L. Tierney	<b>Life Estate</b> 61460 Webb Heights Road Shadyside, OH 43947 <b>Remaindermen</b> 61460 Webb Heights Road Shadyside, OH 43947
66	14-00338.000	Jason R. Shepherd, Sr.	61420 Webb Heights Road Shadyside, OH 43947	Jason R. Shepherd, Sr.	61420 Webb Heights Road Shadyside, OH 43947
66	14-00338.000	Angela L. Farley and Michael T. Farley	3943 Windchime Lane Lakeland, FL 33811	Angela L. Farley and Michael T. Farley	3943 Windchime Lane Lakeland, FL 33811
67	14-00339.000	Darlene Marie Paliswat and Peter Thomas Paliswat	61382 Webb Heights Road Shadyside, OH 43947	Darlene Marie Paliswat and Peter Thomas Paliswat	61382 Webb Heights Road Shadyside, OH 43947
68	14-00301.000	Susan L. Morgan and William J. Morgan	61360 Webb Heights Road Shadyside, OH 43947	Susan L. Morgan and William J. Morgan	61360 Webb Heights Road Shadyside, OH 43947
69	14-00302.000	Susan L. Morgan and William J. Morgan	61360 Webb Heights Road Shadyside, OH 43947	Susan L. Morgan and William J. Morgan	61360 Webb Heights Road Shadyside, OH 43947
70	14-00303.000	Steven F. Kosek and Patricia L. Kosek	61280 Webb Heights Road Shadyside, OH 43947	Steven F. Kosek and Patricia L. Kosek	61280 Webb Heights Road Shadyside, OH 43947
71	14-00300.000	Mary Ann Byers	61250 Webb Heights Road Shadyside, OH 43947	Mary Ann Byers	61250 Webb Heights Road Shadyside, OH 43947
72	14-00127.000	Jeffery A. Trigg	61461 Webb Heights Road Shadyside, OH 43947	Jeffery A. Trigg	61461 Webb Heights Road Shadyside, OH 43947

Wassmann Unit B 5H  
(yellow highlight denotes 500ft offset)  
Questions 18- Landowner Royalty Listing  
Mead and Pultney Townships / Belmont County

Tract #	Parcel #	Surface Owner	Surface Owner Address	Royalty Owner	Royalty Owner Address
73	14-00139.000	Jimmie L. Manning, Jr. and Tamara Manning	61415 Webb Heights Road Shadyside, OH 43947	Jimmie L. Manning, Jr. and Tamara Manning	61415 Webb Heights Road Shadyside, OH 43947
74	14-00091.000	George J. Palmer and Theresa A. Palmer	61739 Webb Heights Road Shadyside, OH 43947	George J. Palmer and Theresa A. Palmer	61739 Webb Heights Road Shadyside, OH 43947
75	14-00038.000	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947
76	14-00157.006	Adam J. Hughes and Tracie Lynn Hughes	57256 New Cut Road Shadyside, OH 43947	Adam J. Hughes and Tracie Lynn Hughes	57256 New Cut Road Shadyside, OH 43947
77	14-00179.000	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947
78	14-00230.000	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947
79	14-00081.000	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947
80	14-00138.000	Martin W. Crumm, Jr. and Jessica Crumm	61369 Webb Heights Road Shadyside, OH 43947	Martin W. Crumm, Jr. and Jessica Crumm	61369 Webb Heights Road Shadyside, OH 43947
81	14-00363.003	Richard D. Thuring, Jr. and Connie D. Thuring	61285 Webb Heights Road Shadyside, OH 43947	Richard D. Thuring, Jr. and Connie D. Thuring	61285 Webb Heights Road Shadyside, OH 43947
82	14-00356.000	Richard D. Thuring, Jr. and Connie D. Thuring	61285 Webb Heights Road Shadyside, OH 43947	Richard D. Thuring, Jr. and Connie D. Thuring	61285 Webb Heights Road Shadyside, OH 43947
83	14-00363.001	Richard D. Thuring, Jr. and Connie D. Thuring	61285 Webb Heights Road Shadyside, OH 43947	Richard D. Thuring, Jr. and Connie D. Thuring	61285 Webb Heights Road Shadyside, OH 43947
84	14-00363.005	David B. Matthews and Tammy L. Matthews	61225 Webb Heights Road Shadyside, OH 43947	David B. Matthews and Tammy L. Matthews	61225 Webb Heights Road Shadyside, OH 43947
85	14-00358.000	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947
86	14-00363.002	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947
87	15-00676.000	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947
88	15-00675.000	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947	Robert G. Gibson, II	61461 Webb Heights Road Shadyside, OH 43947

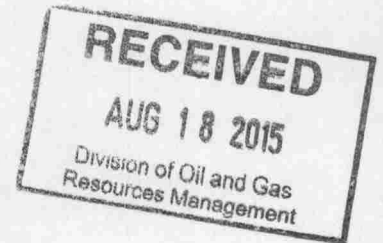


Wassmann Unit B 5H  
(yellow highlight denotes 500ft offset)  
Questions 18- Landowner Royalty Listing  
Mead and Pultney Townships / Belmont County

Tract #	Parcel #	Surface Owner	Surface Owner Address	Royalty Owner	Royalty Owner Address
89	14-00364.000	Thomas Edward Ball and Jill Ball	61139 Webb Heights Road Shadyside, OH 43947	Thomas Edward Ball and Jill Ball	61139 Webb Heights Road Shadyside, OH 43947
90	14-00363.004	Thomas Edward Ball and Jill Ball	61139 Webb Heights Road Shadyside, OH 43947	Thomas Edward Ball and Jill Ball	61139 Webb Heights Road Shadyside, OH 43947
91	14-00363.000	Thomas Edward Ball and Jill Ball	61139 Webb Heights Road Shadyside, OH 43947	Thomas Edward Ball and Jill Ball	61139 Webb Heights Road Shadyside, OH 43947
92	14-00183.001	Lydella E. Honeywell	61220 Webb Heights Road Shadyside, OH 43947	Lydella E. Honeywell	61220 Webb Heights Road Shadyside, OH 43947
93	14-00044.000	Donald L. Byers and Mary Anne Byers	61250 Webb Heights Road Shadyside, OH 43947	Donald L. Byers and Mary Anne Byers	61250 Webb Heights Road Shadyside, OH 43947
94	14-00329.000	Jesse T. Coen, II	61140 Webb Heights Road Shadyside, OH 43947	Jesse T. Coen, II	61140 Webb Heights Road Shadyside, OH 43947
95	14-00330.000	Christopher L. Violet	61080 Webb Heights Road Shadyside, OH 43947	Christopher L. Violet	61080 Webb Heights Road Shadyside, OH 43947
96	14-00024.000	Christopher L. Violet	61080 Webb Heights Road Shadyside, OH 43947	Christopher L. Violet	61080 Webb Heights Road Shadyside, OH 43947
97	14-00042.000	James E. Elliott	61060 Webb Heights Road Shadyside, OH 43947	James E. Elliott	61060 Webb Heights Road Shadyside, OH 43947
98	14-00129.000	Joseph E. Karkowski and Mindy B. Karkowski	61040 Webb Heights Road Shadyside, OH 43947	Joseph E. Karkowski and Mindy B. Karkowski	61040 Webb Heights Road Shadyside, OH 43947
99	26-01679.000	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947	Robert P. DeLong and Cecillia A. Delong	55125 New Cut Road Shadyside, OH 43947



XTO Energy Inc.  
190 Thorn Hill Road  
Warrendale PA 15086  
(724) 772-3500  
(724) 772-3505 Fax



August 14, 2015

Ohio Dept of Natural Resources  
Division of Oil & Gas Resources Management  
2045 Morse Road, Building F-2  
Columbus, OH 43229-6693

Re: Wassmann Unit B 5H  
Application for a Permit & Variance Request  
Pultney Township, Belmont County

To Whom it May Concern,

Please find enclosed for your review and approval an Application for a Permit for the proposed Wassmann Unit B 5H well located in Pultney Township, Belmont County, along with a check in the amount of \$500.00 covering the permit fee.

Also, enclosed is a Reduced Spacing Request from Heel/ First Take Point and Toe/Last Take Point to Unit Boundary for our proposed Wassmann Unit B 5H.

Should you have any question or need additional information, please feel free to contact me at (724) 772-8715.

Sincerely,  
XTO ENERGY, INC.

A handwritten signature in black ink, appearing to read 'Melissa Breitenbach', written over a faint, large 'X' watermark.

Melissa Breitenbach  
Regulatory Coordinator

# RESTORATION PLAN (Form 4)

Ohio Department of Natural Resources

Division of Oil and Gas Resources Management, 2045 Morse Road, Bldg. F-2, Columbus OH 43229-6693

RECEIVED

AUG 18 2015

Division of Oil and Gas Resources Management

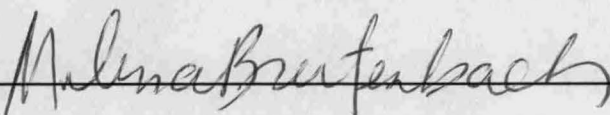
1. DATE OF APPLICATION: 12-Aug-15		3. API #:	
2. OWNER NAME, ADDRESS, & TELEPHONE NO.: XTO ENERGY, INC. 190 THORN HILL WARRENDALE, PA 15086 724-772-3500		4. WELL #: 5H	
		5. LEASE NAME: Wassmann Unit B	
		6. PROPERTY OWNER: Martha Wassmann-Winn	
		7. COUNTY: Belmont	
		8. CIVIL TOWNSHIP: T5, R3 Pultney	
		9. SECTION: 4 10. LOT:	
11. CURRENT LAND USE: <input type="checkbox"/> Cropland <input type="checkbox"/> Commercial <input type="checkbox"/> Pasture <input type="checkbox"/> Idle Land <input type="checkbox"/> Wetlands <input type="checkbox"/> Recreational <input type="checkbox"/> Residential <input type="checkbox"/> Industrial <input type="checkbox"/> Unreclaimed strip mine <input checked="" type="checkbox"/> Woodland: <input checked="" type="checkbox"/> Broadleaf <input type="checkbox"/> Needlelike		17. TYPE OF WELL: <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Gas <input type="checkbox"/> Other	
		18. STEEPEST SLOPE GRADIENT CROSSING SITE: <input type="checkbox"/> 0 to 2% <input type="checkbox"/> 2.1 to 8% <input type="checkbox"/> 8.1 to 10% <input type="checkbox"/> 10.1 to 24% <input checked="" type="checkbox"/> greater than 24%	
12. SLOPE GRADIENT & LENGTH DETERMINED FROM: <input checked="" type="checkbox"/> Ground Measurement <input type="checkbox"/> U.S. Geological Survey Topographical Maps <input type="checkbox"/> Other: (explain)		19. LENGTH OF STEEPEST SLOPE CROSSING SITE: <input checked="" type="checkbox"/> 1 to 100 ft. <input type="checkbox"/> 101 to 200 ft. <input type="checkbox"/> 201 to 400 ft. <input type="checkbox"/> greater than 400 ft.	
13. TYPE OF FALL VEGETAL COVER: <input type="checkbox"/> Little or no vegetal cover <input type="checkbox"/> Short grasses <input type="checkbox"/> Tall weeds or short brush (1 to 2 ft.) <input type="checkbox"/> Brush or bushes (2 to 6 ft.) <input type="checkbox"/> Agricultural crops <input checked="" type="checkbox"/> Trees with sparse low brush <input type="checkbox"/> Trees with dense low brush		20. RESTORATION OF DRILLING PITS: ** <input type="checkbox"/> Haul drilling fluids and fill pits <input checked="" type="checkbox"/> Use steel circulating tanks <input type="checkbox"/> Proposed alternative	
14. SOIL & RE-SOILING MATERIAL AT WELLSITE: <input checked="" type="checkbox"/> Stockpile and protect topsoil to be used when preparing seedbed <input checked="" type="checkbox"/> Use of soil additives (e.g., lime, fertilizer) <input type="checkbox"/> No re-soiling planned <input type="checkbox"/> Proposed alternative		21. BACKFILLING AND GRADING AT SITE: <input type="checkbox"/> Construct diversions channeled to naturally established drainage systems <input type="checkbox"/> Construct terraces across slopes <input type="checkbox"/> Grade to approximate original contour <input checked="" type="checkbox"/> Grade to minimize erosion & control offsite runoff <input type="checkbox"/> Proposed alternative	
15. DISPOSAL PLAN FOR TREES AND TREE STUMPS: <input type="checkbox"/> No trees disturbed <input type="checkbox"/> Haul to landfill <input checked="" type="checkbox"/> Cut into firewood <input type="checkbox"/> Sell to lumber company <input type="checkbox"/> Bury with landowner's approval <input checked="" type="checkbox"/> Mulch small trees and branches, erosion control <input type="checkbox"/> Use for wildlife habitat with landowner approval <input type="checkbox"/> Proposed alternative		22. VEGETATIVE COVER TO BE ESTABLISHED AT SITE: <input checked="" type="checkbox"/> Seeding plan <input type="checkbox"/> Sod <input type="checkbox"/> Agricultural crops <input type="checkbox"/> Trees and/or Bushes <input type="checkbox"/> Proposed alternative	
16. SURFACE AND SUBSURFACE DRAINAGE FACILITIES: <input checked="" type="checkbox"/> No existing drainage facilities for removal of surface and/or subsurface water <input type="checkbox"/> Tile drainage system underlying land to be disturbed <input type="checkbox"/> Drain pipe(s) underlying land to be disturbed <input type="checkbox"/> Surface drainage facilities on land to be disturbed		23. ADDITIONAL HOLES: <input type="checkbox"/> Rat/Mouse, if used, will be plugged	
		24. PROPOSED OR CURRENT LENGTH OF ACCESS ROAD: <input type="checkbox"/> 100 ft. or less <input type="checkbox"/> 101 to 500 ft. <input checked="" type="checkbox"/> 501 to 1500 ft. <input type="checkbox"/> greater than 1500 ft.	
16. SURFACE AND SUBSURFACE DRAINAGE FACILITIES: <input checked="" type="checkbox"/> No existing drainage facilities for removal of surface and/or subsurface water <input type="checkbox"/> Tile drainage system underlying land to be disturbed <input type="checkbox"/> Drain pipe(s) underlying land to be disturbed <input type="checkbox"/> Surface drainage facilities on land to be disturbed		25. CURRENT LAND USE OF PATH OF ACCESS ROAD: <input type="checkbox"/> Cropland <input type="checkbox"/> Pasture <input type="checkbox"/> Commercial <input type="checkbox"/> Idle land <input type="checkbox"/> Wetlands <input type="checkbox"/> Recreational <input type="checkbox"/> Industrial <input type="checkbox"/> Residential <input type="checkbox"/> Unreclaimed strip mine <input checked="" type="checkbox"/> Woodland: <input checked="" type="checkbox"/> Broadleaf <input type="checkbox"/> Needlelike	

\*\*PITS MUST BE FILLED WITHIN TWO MONTHS AFTER COMMENCEMENT OF THE WELL AND WITHIN FOURTEEN DAYS AFTER COMMENCEMENT OF THE WELL IN AN URBANIZED AREA.

REQUIRED BY SECTION 1509.06 (A)(10), OHIO REVISED CODE -- FAILED TO SUBMIT MAY RESULT IN AN ASSESSMENT OF CRIMINAL FINES NOT LESS THAN \$100.00 NOR MORE THAN \$2,000.00 OR CIVIL PENALTIES NOT LESS THAN \$4,000.00.

26. SURFACING MATERIAL FOR ACCESS ROAD: <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Brick and/or tile waste <input type="checkbox"/> Slag <input type="checkbox"/> Crushed stone <input type="checkbox"/> No surfacing material to be used <input type="checkbox"/> Proposed alternative _____	29. STEEPEST SLOPE GRADIENT ON ACCESS ROAD: <input type="checkbox"/> 0 to 5% <input type="checkbox"/> 6 to 10% <input checked="" type="checkbox"/> greater than 10%
27. PATH OF ACCESS ROAD TO BE DETERMINED BY: <input type="checkbox"/> Landowner <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Existing access road <input checked="" type="checkbox"/> Operator	30. APPROXIMATE LENGTH OF STEEPEST SLOPE ON ROAD: <input type="checkbox"/> 0 to 100 ft. <input checked="" type="checkbox"/> 101 to 200 ft. <input type="checkbox"/> 201 to 400 ft. <input type="checkbox"/> greater than 400 ft.
28. GRADING AND EROSION CONTROL PRACTICE ON ROAD: <input type="checkbox"/> Diversions <input type="checkbox"/> Filter strips <input type="checkbox"/> Drains <input checked="" type="checkbox"/> Riprap <input type="checkbox"/> Open top culverts <input type="checkbox"/> Water breaks <input type="checkbox"/> Outsloping of road <input checked="" type="checkbox"/> Pipe culverts <input type="checkbox"/> Proposed alternative _____	31. HAS LANDOWNER RECEIVED A COPY OF THIS RESTORATION PLAN? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The undersigned hereby agrees to implement all restoration operations identified on this form, and conform to all provisions of Section 1509.072 of the Ohio Revised Code, and to all Orders and rules issued by the Chief, Division of Oil and Gas Resources Management.

Signature of Owner/Authorized Agent 

Name (Typed or Printed) Melissa Breitenbach, Regulatory Coordinator Date 8/12/2015

RESTORATION PLAN MUST BE SUBMITTED TO THE DIVISION IN DUPLICATE.



Richard J Simmers, Chief  
The Ohio Department of Natural Resources  
The Division of Oil and Gas Resources Management  
2045 Morse Road, Building F-2  
Columbus, Ohio 43229-6693  
Phone: (614) 265-6922/Fax: (614) 265-6910

September 15, 2015

Attention: Board of Township Trustees  
Belmont County/Pultney Township  
P.O. Box 225  
Bellaire, Ohio 43906

Re: Wassmann Unit B, well number 5H

To Whom It May Concern:

Pursuant to your request, we are notifying you of an application that we have received from XTO Energy Inc. They have applied for a permit to drill a new Horizontal oil and gas well in Pultney Township. Attached, please find a copy of the application and surveyor's plat for this proposed well.

Should you have any questions or concerns about this proposed well site, please feel free to contact our regional office in Zanesville at (740) 588-0631.

Sincerely,

*Patty Nicklaus, Office Assistant 3*

Patty Nicklaus, Office Assistant 3  
Bonding and Surety Section  
Phone: (614) 265-6939

Enclosures

C: Permit file



# Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

## Memorandum for Proposed Wells Sites Without Affected Mines

**TO:** Patty Nicklaus, Office Assistant 3, Division of Oil and Gas Resources Management, Bonding and Surety Section

**FROM:** The Division of Mineral Resources Management, designated Affected Mine Review Committee (Brent Heavlin, Michael Kosek, John Ziants, James Bishop, Terry Beverly and Cassandra Morrison)

**Date:** September 15, 2015

**Subject:** Review of Oil and Gas Well Application: APATT027880

We have reviewed the aforementioned Oil and Gas Well permit application and find there are **NO** affected mines in the area referred to on the proposed well site map enclosed with the permit application.

Therefore, pursuant to 1509.08 of the Ohio Revised Code (ORC), we are recommending approval of the oil and gas permit for application number APATT027880.

C: Permit file