

#### west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

October 21, 2015

#### WELL WORK PERMIT

#### Horizontal 6A Well

This permit, API Well Number: 47-4902406, issued to XTO ENERGY, INC., 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

Operator's Well No: HUGHES 5H

Farm Name: ROCKWELL, FAYE

API Well Number: 47-4902406

Permit Type: Horizontal 6A Well

Date Issued: 10/21/2015

#### 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. <u>Failure to adhere to the specified permit</u> 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.

WW-6B
(04/15)

API NO. 47		
<b>OPERATOR WEL</b>	L NO.	Hughes 5H
Well Pad Name	: Hughe	s Pad

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

1) Well Operat	or: XTO Ene	rgy Inc.		494487940	Marion	Manning	Shinnston
•				Operator ID	County	District	Quadrangle
2) Operator's V	Vell Number: <u> </u>	Hughes 5H		Well P	ad Name: Hug	ghes Pad	
3) Farm Name/	Surface Owner	r: Faye Roo	ckwell	Public Ro	oad Access: Ha	arrison County Rt	. 3 (Robinson Wyatt Run)
4) Elevation, cu	urrent ground:	1,320'	El	evation, proposed	d post-construc	ction: 1,286'	
5) Well Type	(a) Gas X		Oil	Un	derground Stor	rage	
	Other						
	(b)If Gas S	hallow 2	X	Deep			
	Н	Iorizontal	X				
6) Existing Pad			-		<del></del>		
•	•		•	ipated Thickness pated Thickness:	•	` '	650 psi
8) Proposed To	tal Vertical De	pth: 7,490	1				
9) Formation at	t Total Vertical	Depth: Ma	arcellus	3			
10) Proposed T	otal Measured	Depth: 16	3,550'				· · · · · · · · · · · · · · · · · · ·
11) Proposed H	lorizontal Leg	Length: 8,	100'				, <u> </u>
12) Approxima	te Fresh Water	Strata Dept	hs:	88', 283', 373',	545', - 0	4907	
13) Method to	Determine Fres	sh Water De	pths: C	Offsetting Repor			
14) Approxima	te Saltwater De	epths: 1,30	0'				
15) Approxima	te Coal Seam I	Depths: 192	2', 354',	545'			
16) Approxima	te Depth to Pos	ssible Void (	(coal mi	ne, karst, other):	545'	<del></del>	
17) Does Propo directly overlyi				ns Yes X	N	40	
(a) If Yes, pro	ovide Mine Info	o: Name:	Robir	nson Run 95			
		Depth:	545'				
		Seam:	Pittst	ourgh			
		Owner:	Cons	olidation Coal C	ompany		
				WRI	- 15		
				4-1	- 15		

Page 1 of 3 10/23/2015 Received Office of Oil & Gas SEP 0 2 2015

# 4704902406

WW-6B
(04/15)

API	NO. 47			
	OPERATOR WEL	L NO.	Hughes 5H	
	Well Pad Name	Hughe	s Pad	

#### 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	24	New	PE&B	95	40	40	59
Fresh Water	13.375	New	H40	48	600	600	542
Coal							
Intermediate	9.625	New	J55	36	3,125	3,125	1,272
Production	5.5	New	J55	20	16,550	16,550	Lead 2,934'/Tail 6,700'
Tubing							
Liners							

WRH 4.28-15

TYPE	Size (in)	Wellbore Diameter (in)	<u>Wall</u> <u>Thickness</u> <u>(in)</u>	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24	28	0.375	940	40	Standard	1.19
Fresh Water	13.375	17.5	0.33	1730	490	Standard	1.19
Coal							
Intermediate	9.625	12.25	0.352	3520	2200	Standard	1.19
Production	5.5	8.5	0.361	12640	5720	50:50 POZ /Class H Tail	1.13 / 1.18
Tubing							
Liners							

#### **PACKERS**

Kind:		
Sizes:		
Depths Set:		

Page 2 of 3 10/23/2015 Paceived Office of Oil & Gas SEP 0 2 2015

### 4704902403

١	N	٧	۷	_	6	В
(	1	0	/	1	4	.)

API NO. 47-\_\_\_OPERATOR WELL NO. Hughes 5H
Well Pad Name: Hughes Pad

19) Describe propose	d well work	, including the	drilling and	plugging ba	ack of any p	oilot hole:
----------------------	-------------	-----------------	--------------	-------------	--------------	-------------

Drill a new horizontal Marcellus well, utilizing synthetic mud and a closed loop system for both drilling and completion. Install new casing with centralizers.

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

1. Acid Stage - Typically 1500 gallons of 7.5% hydrochloric acid to clear the perforation path in the wellbore. 1500 gals 15% HCl acid. 2. Sand / Proppant Stages - Several stages of pumping water combined with sand at a targeted 80 bpm rate. The maximum pressure and rate used is 10,000 psig and 120 bpm. The sand size may vary from 100 mesh to30/50 mesh size. 12,500 bbls slick water with 220,000 lbs 40/70, 270,000 lbs 100 mesh sands and 2,200 gals FR 133, 1,500 gals Bioplex 301 and 1,500 gals Bioplex 301 and 1,190 gals antiscale 30. 3. Flush Stage - Slickwater water stage to fill the wellbore to flush the sand from the wellbore. Depending on the water quality, a biocide, friction reducer, iron control, and scale inhibitor may be injected during the completion as well.

21) T	otal Area t	to be disturbed	including	roads, stockpile	area nits etc	(acres)	35.835 +/-
2111	UIAI AICA I	o de distulbed	. Including i	IOMUS. SIDEKDIIC	arca, Dus. Cit	Taciest.	00.000

22) Area to be disturbed for well pad only, less access road (acres): 6 +/-

#### 23) Describe centralizer placement for each casing string:

Conductor: None

Fresh Water: Every 3rd joint from shoe to surface Mine: Every 3rd joint from shoe to surface (if applicable) Intermediate: Every 3rd joint from shoe to surface

Production: Every 3rd joint from shoe to 1,000' above the kick-off point

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

Conductor: None

Fresh Water: Calcium Chloride and super flake Mine: Calcium Chloride and super flake (if applicable) Intermediate: Calcium Chloride and super flake

Production: Calcium Chloride, Bentonite, super flake, Air-Out, CR-1, FL-300, SEC10

#### 25) Proposed borehole conditioning procedures:

Conductor: Hole is auger drilled: No conditioning required.

Fresh Water: Condition hole with air at TD until visibly clean, run casing, circulate and clear 1.5x pipe volume with fresh water before cementing.

Mine: Condition hole with air at TD until visibly clean, run casing, circulate and clear 1.5x pipe volume with water before cementing (if applicable).

Intermediate: Condition hole with air at TD until visibly clean, run casing, circulate and clear 1.5x pipe volume with water before cementing. Production: Circulate hole with synthetic based drilling fluid at TD (1 bottoms up for each 2,000' of lateral drilled). TOOH and circulate minimum of 1 bottoms up and until returns are minimal at the base of the curve. Run casing, circulate and ensure good returns before cementing.

\*Note: Attach additional sheets as needed.

Page 3 of 3 10/23/2015

Received
Office of Oil & Gas

SEP 0 2 2015

#### **Hughes A 5H – Mine Void Encounter Plan**

Per communications with the WV Geology and Economic Survey there is a possible mine void in the Pittsburgh Coal seam under the Hughes Pad in Marion County, WV. In preparation for drilling through a mine void, we will nipple up an annular preventer to be able to handle any flow should the void actually be encountered. We expect it to come in around 545' TVD from GL. We plan to set 13 3/8" casing as a surface/coal protective string ~50' below the base of this void.

A cement basket will be run as close as possible to the top of the void.

A cement balance job will be performed to cement the shoe and the annulus below the mine if circulation cannot be established. A grout cement job will be performed on the annulus to cement above the mine.

Once cemented in place, we will continue on with our normal casing design, which would be to set 9 5/8" intermediate casing at ~3,125'.

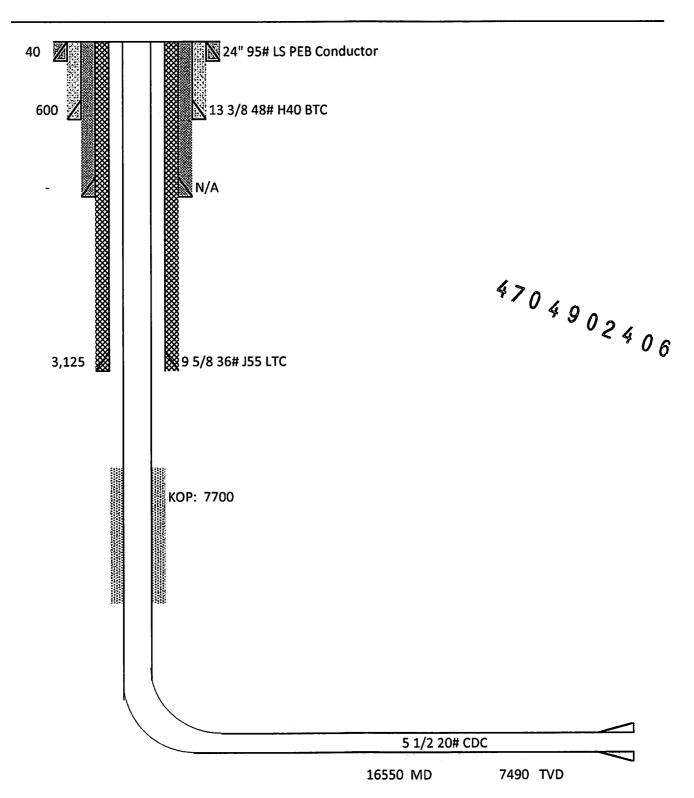
Morgan O'Brien Drilling Engineer XTO Appalachia Cell: 724-272-8097

Morgan\_OBrien@xtoenergy.com

4704902406

## HUGHES A 5H Marion County, West Virginia







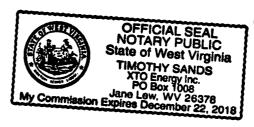
WW-9 (2/15)

470 49 02 API Number 47	4	0	6
Operator's Well No. Hughes			

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

#### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name_XTO Energy Inc.	OP Code 494487940
Watershed (HUC 10)_Bingamon Creek	Quadrangle Shinnston 7.5'
Do you anticipate using more than 5,000 bbls of water to complete	e 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 N	No If so, what ml.?
Proposed Disposal Method For Treated Pit Wastes:	
Land Application Underground Injection (UIC Permit N Reuse (at API Number Off Site Disposal (Supply form WW-9 Other (Explain	for disposal location)
Will closed loop system be used? If so, describe:	tem would entail 2 centrifuges & another cutting drying method: grinder, drying shakers or verti-g mud.
Drilling medium anticipated for this well (vertical and horizontal)	
-If oil based, what type? Synthetic, petroleum, etc. Synth	etic
Additives to be used in drilling medium? See additional page	
Drill cuttings disposal method? Leave in pit, landfill, removed off	fsite, etc. Landfill
-If left in pit and plan to solidify what medium will be use	ed? (cement, lime, sawdust) NA
-Landfill or offsite name/permit number? Meadowbrook La	andfill - #SWF 1032
Permittee shall provide written notice to the Office of Oil and Gas West Virginia solid waste facility. The notice shall be provided wi where it was properly disposed.	of any load of drill cuttings or associated waste rejected at any thin 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the West Virgi provisions of the permit are enforceable by law. Violations of an law or regulation can lead to enforcement action.  I certify under penalty of law that I have personally exapplication form and all attachments thereto and that, based of	ditions of the GENERAL WATER POLLUTION PERMIT issued nia Department of Environmental Protection. I understand that the ny term or condition of the general permit and/or other applicable examined and am familiar with the information submitted on this on my inquiry of those individuals immediately responsible for e, accurate, and complete. I am aware that there are significantly of fine or imprisonment.
Company Official Signature	
Company Official (Typed Name) Gary Beall	
Company Official Title Production Superintendent	
Subscribed and sworn before me this 27th day of Au  Till Saus  My commission expires /2/32/18	Notary Public
	Decolued



Office of Oil & Gas SEP 0 2 2015

Date: 9-29-15

Title: EDVIRONENTAL INSPECTOV

Field Reviewed?

### XTO Energy Inc. Well Site Safety Plan

Hughes 5H Well Hughes Pad

> 39.453972 -80.370627

810 Hawks Nest Rd. Mannington, WV 26582 well 5

4704902406

XTO ENERGY INC.

HOUSE POSSIBLE SOURCE

FAYE C ROCKWELL

LAST NAME

MAILING ADDRESS
316 EAST RUN RD

FARMINGTON CITY

4704902406

XT00G57-09

**HUGHES WATER OFFSET** 

(2000' OFFSET)

26571 ZIP BEARING

STATE ₹

S 56°50'53" W

3/2015 8/17/2015

Particle Par

DESIGNATED AGENT GARY BEALL

State WV

Zip Code 26378

Address P.O. BOX City JANE LEW

WELL OPERATOR XTO ENERGY INC.
Address 810 HOUSTON STREET
City FORT WORTH State TX

Zip Code\_

76102



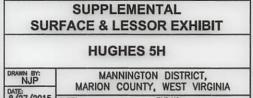
N 78'04' 185'

7 W

79°19' 627'







	HUGHES	5H
DRAWN BY: NJP		ON DISTRICT,
DATE: 8/27/2015	MARION COUNT	Y, WEST VIRGINIA
8/27/2015	SHEET:	FILE NO.
1"=1000"	2 OF 2	OG57-11

WW-6A1
(5/13)

Operator's Well	No.	Hughes 5H
•		

#### 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
1	Dan & Beverly Kelly et al	XTO Energy Inc.	1/8	1110/108
2	Faye C. Rockwell	LBJ Energy Associates, LLC	1/8	1023/284
3	Thomas F. & Nancy K. Moore et al	XTO Energy Inc.	1/8	1096/167
4	J.T. & Cordelia J. Crim	The Fairmont & Grafton Gas Co.	1/8	170/466
5	Reita J. Hall et al	XTO Energy Inc.	1/8	1055/337

#### 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:	XTO Energy Inc.	
Ву:	ln	
Its:	Production Superintendent	
	•	

Page 1 of \_\_\_\_

10/23/2015 Received Office of Oil & Gas

SEP 0 2 2015

#### **HUGHES 5H**

TMP	Deed Book	Page	Lessor	Lessee
1	1110	108	Beverly Kelly and Dan M. Kelly, married	XTO Energy Inc.
	1110	114	Maurice Heldreth and Judith Heldreth, married	XTO Energy Inc.
	1112	393	Shirley Paul and Jim Paul, married	XTO Energy Inc.
	1112	399	Marilyn Weese and Marvin Weese, married	XTO Energy Inc.
	1116	366	Johnathan Charles Miller, single and dealing in his sole and separate property	XTO Energy Inc.
	1118	125	Randy Lee Miller and Lynne E. Miller, married	XTO Energy Inc.
	1116	342	Debbie Kay Doney and Jerry E. Doney, married	XTO Energy Inc.
-	1116	369		XTO Energy Inc.
	1116	375	Gary Donald Miller, single and dealing in his sole and separate property	XTO Energy Inc.
	1116	372	Duane Dale Miller, single and dealing in his sole and separate property	XTO Energy Inc.
	1023	284	Faye C. Rockwell, widow	LBJ Energy Associates, LLC LBJ Energy to Linn Energy at 30-953, to XTO Energy at 33-200.
	- <del> </del>	<u> </u>	J	
2	1023	284	Faye C. Rockwell, widow	LBJ Energy Associates, LLC LBJ Energy to Linn Energy at 30-953, to XTO Energy at 33-200.
3	1096	167	Thomas Fredrick Moore and Nancy K. Moore, husband and wife	XTO Energy Inc.
	1096	165	Pauline J. Beatty, widow	XTO Energy Inc.
	1098	372	Minda Sue Shingleton and William J. Shingleton	XTO Energy Inc.
	1096	149	Linda Hickman	XTO Energy Inc.
	1097	255	Mary J. Osbourn, a/k/a Mary Jane Osbourn, a married woman dealing in her sole and separate property	XTO Energy Inc.
	1096	163	Elizabeth A Hildreth and Edward E. Hildreth Jr., wife and husband	XTO Energy Inc.

47049024C

4	170	466	J. T. Crim and Cordelia J. Crim, his wife	The Fairmont and Grafton Gas Co.
				to Pittsburgh and West Virginia Gas
				Company (Merger) at DB 1 PG 258;
				Pittsburgh and West Virginia Gas Company
				to Equitable Gas Company at DB 510 PG
				487 and DB 511 PG 529; Equitable Gas Co.
				to Equitrans, Inc. at AB 12 PG 279;
				Equitrans Inc. to Equitrans LP (Merger);
				Equitrans LP to Equitable Production-
				Eastern States, Inc. at AB 23 PG 899;
				Equitable Production - Eastern States, Inc.
				to Equitable Production Company (Merger);
				Equitable Production Company assigns the
				Crim #1 well (E-610) API 47-049-1449 and a
				40 acre diameter around said well to the
				depth of 4132'to Exploration Partners, LLC;
				Equitable Producrion Company to EQT
		į		Production Company Merger) at 61-558.
		:		Memorandum of Agreement between EQT
				Production Company and XTO Energy Inc.
				at BK/PG 1177/111.
<u> </u>	1055	1 227	Deite to a Hell also Die to a Hell Malle a second	lyro s
5	1055	337	Reita Jane Hall, aka, Rita Jane Hall Wells, a married	XTO Energy Inc.
			woman dealing in her sole and separate property	
	1055	331	Mary Roselyn Lee, aka, Mary Roselyn Talbott Lee, a	XTO Energy Inc.
			married woman dealing in her sole and separate	
		ļ	property	
	1055	623	Thomas Bowen Bennett, acting as Trustee for the Dora	XTO Energy Inc.
			Margaret Sheppard Hennen Ferguson Trust	
	1055	626	C. Howard Hardesty, widower	XTO Energy Inc.
	1055	637	Virginia Smith Cox, a married woman dealing in her sole	XTO Energy Inc.
· · · · · · · · · · · · · · · · · · ·			and separate property	
	1055	340	Ann Landis and Tim Landis, her husband	XTO Energy Inc.
	1055	334	George Lee Judy and Christianne M. Judy, his wife	XTO Energy Inc.
	<u> </u>	<u> </u>	<u> </u>	

# Received Office of ON ? Gas SEP 0 2 2015

		1	Total Control Control	lv== -
	1096	175	Martha Moore Salerno	XTO Energy Inc.
	1110	143	Dale Edward Beatty and Betty Beatty	XTO Energy Inc.
	1105	543	Robert Lee Betzing, married, dealing in his sole and separate property	XTO Energy Inc.
	1106	290	Helen McDonnell, dealing in her sole and separate property	XTO Energy Inc.
S 0	1106	293	John Richard Betzing, dealing in his sole and separate property	XTO Energy Inc.
\$ \$	1108	209	William Martin Betzing and Paula Gay Betzing, husband and wife	XTO Energy Inc.
0	1108	499	Linda Arthur married, dealing in her sole and separate property	XTO Energy Inc.
14	1113	451	Melody A. Clark, single	XTO Energy Inc.
2	1113	457	Jayantilal Patel and Patricia Patel AKA Patricia An Haught, husband and wife	XTO Energy Inc.
W.	1113	454	Robbin S. Kimble, single	XTO Energy Inc.
	1120	29	Michael Augustine Defazio and Paulette Defazio, married	XTO Energy Inc.
	1122	46	Beatrice Ann Defazio, single, dealing in her sole and separate property	XTO Energy Inc.
	1121	492	John Frances Davis and Mary Klyce Davis, husband and wife	XTO Energy Inc.
	1122	54	Mary Jo Miller a/k/a Mary Jo Richard, widow	XTO Energy Inc.
	1122	757	James Richard Kirby III, single	XTO Energy Inc.
	1166	306	Gary Marvin Cook, a married man dealing in his sole and separate property	XTO Energy Inc.
	1023	284	Faye C. Rockwell, widow	LBJ Energy Associates, LLC LBJ Energy to Linn Energy at 30-953, to XTO Energy at 33-200.
	1113	448	Carl Richard Siberski, a widower	XTO Energy Inc.

# Received Office of Oil & Gas SEP 0 2 2015

7 979 655 Paul E. Hawkins Waco Oil & Gas Co., Inc. Ira L. Morris and Betty Sue Morris assign t Linn Energy, L.L.C. at Assignment Book 25 638; Linn Energy Holdings, L.L.C. and Linn Operating, Inc. assigns to XTO Energy Inc. Assignment Book 33-200 and 40-608 Linn Energy, L.L.C. changed its name to Lir Energy Holdings, LLC. Certificate of Amendment to Certification of Formation of Linn Energy, L.L.C., dated May 31, 2005
filed of record at INC 2-300, in the Recorder's Office of Marion County. Assignment of Oil and Gas LeasesRecorde at Vol. 33, Pg. 200 Effective Date: April 1. 2008 Linn Energy Holdings, LLC, et al assigns to XTO Energy Inc., inthe Recorder's Office o Marion County.

# Received Office of Oil % Gas SEP 0 2 2015

#### MEMORANDUM OF AGREEMENT

STATE OF WEST VIRGINIA

§

KNOW ALL MEN BY THESE PRESENTS:

**COUNTY OF MARION** 

§

This Memorandum of Agreement is entered into this 12<sup>TH</sup> day of 40605T, 2015, between XTO Energy Inc., whose address is 810 Houston St., Fort Worth, TX 76102 ("XTO"), and EOT Production Company, a Pennsylvania corporation, with an office at 625 Liberty Avenue, Suite 1700, Pittsburgh, PA 15222 ("EQT").

- 1. PARTIES AND AGREEMENT REFERENCE: XTO and EQT entered into a letter agreement ("Letter Agreement") dated August 12, 2015 (the "Commencement Date") outlining their intent to pursue definitive agreements allowing XTO to develop those certain oil and gas leasehold rights owned by EQT in Marion County, WV by lease dated October 10, 1910 and recorded in Deed Book 170, Page 466, in the Office of the Clerk of the County Commission of the aforesaid County and State.
- 2. TERM: The rights granted in the Letter Agreement will terminate upon the earlier of (i) one year from the Commencement Date, or (ii) the parties entering into the definitive agreement(s) described in the Letter Agreement
- 3. MEMORANDUM FOR RECORDING PURPOSES ONLY: This Memorandum is for recording purposes only and does not supplement or supercede the parties' respective rights set forth in the Letter Agreement.

IN WITNESS WHEREOF, the parties have signed their names hereto as of the date first above written.

**XTO ENERGY INC** 

By Edwin S. Ryan, Jr.

Its: Senior Vice President | Land of XTO Energy Inc

RECEIVED Office of Oil and Gas

OCT 2.1 705

WV Department of Environmental Protection

By: Steven Prclipp

Its. Senior Vice President - Business Development & Land

#### ACKNOWLEDGEMENT

Before mc, 2000	nent, and acknowledged to me the deration therein expressed as his/h	d of XTO nat he/she er act and
COMMONWEALTH OF PENNSYLVANIA COUNTY OF ALLEGHENY  Before me, Shawn E. Columbe appeared Steven Prelipp, known to me to be the Se & Land of EQT Production Company substances acknowledged to me that he/she executed the instherem expressed as his/her act and deed. Given ur of August 2015. My Commission expires	strument for the purposes and cornder my hand and seal of office this	nent, and whene Protection
(Scal)  COMMONWEALTH OF PENNSYLVANIA  NOTARIAL SEAL  Shawn E. Columbus, Notary Public City of Pittsburgh, Allegheny County My Commission Expires April 8, 2018  LEMBER, PERHSYLVANIA ASSOCIATION OF NOTARIES	Notary Public  2015000100  Filed for MARION COU	Record in
Prepared by and when recorded, please return t Bryson Kuba, LP 714 Venture Drive # 187 Morgantown, West Virginia 26508	JANICE COS 08-21-2015 AGREE DEED STATE TAX COUNTY TAX	CD, COUNTY CLERK At 03:49 pm. 11.00 .00

#### West Virginia Secretary of State — Online Data Services

#### **Business and Licensing**

Online Data Services Help

#### **Business Organization Detail**

NOTICE: The West Virginia Secretary of State's Office makes every reasonable effort to ensure the accuracy of information. However, we make no representation or warranty as to the correctness or completeness of the initimation. II must not in the The West Virginia Secretary of State's datapase. 4 9 0 2 4 0 6 correctness or completeness of the information. If information is missing from this page, it is

**EQUITRANS, INC.** 

Organization Information								
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
C   Corporation	3/30/1988		3/30/1988	Foreign	Profit		4/25/1996	Merger

Business Purpose		Capital Stock	0.0000
Charter County	Foreign Country	Control Number	0
Charter State	DE	Excess Acres	208471
At Will Term		Member Managed	
At Will Term Years	0	Par Value	0.0000
Authorized Shares	0		

10/23/20 Received
Office of Oil &

**Officers** 

Туре	Name/Address
Director	FREDERICK H. ABREW 420 BLVD OF THE ALLIES PITTSBURGH, PA, 15219
Director	DONALD I. MORITZ SAME AS ABOVE
President	J. T. EGLER 420 BOULEVARD OF THE ALLIES PITTSBURGH, PA, 15219
Secretary	AUDREY C. HOELLER 420 BLVD. OF THE ALLIES PITTSBURGH, PA, 15219
Treasurer	ROBERT E DALEY SAME AS SEC.
Vice-President	J.R. MURPHY SAME AS PRES.
Туре	Name/Address

Date	Amendment
4/25/19	MERGER; MERGING EQUITRANS, INC., A QUAL DE CORP, WITH AND INTO EQT CAPITAL CORPORATION, A QUAL DE CORP, THE SURVIVOR.
3/30/19	CERTIFICATE OF EXCESS ACREAGE; 270162 ACRES EXCESS OF 10,000. TOTAL AUTHORIZED 280,162 ACRES.
Date	Amendment

Annual Reports				
Date	Filed For			
	1996			
	1995			
	1994	6.704902406		
	1993	0 1 9 0 2 4		
	1992	6.70		
	1991			
	1990			
	1989			
Date	Filed For			

For more information, please contact the Secretary of State's Office at 304-558-8000.

Tuesday, August 18, 2015 — 11:21 AM

© 2015 State of West Virginia

10/23/2015
Received
Office of Oil & Gas
SEP 0 2 2015

#### West Virginia Secretary of State — Online Data Services

#### **Business and Licensing**

Online Data Services Help

#### **Business Organization Detail**

NOTICE: The West Virginia Secretary of State's Office makes every reasonable effort to ensure the accuracy of information. However, we make no representation or warranty as to the correctness or completeness of the information. If information is missing from this page, it is not in the The West Virginia Secretary of State's database.

#### **EQT CAPITAL CORPORATION**

Organization Information								
Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
C   Corporation	11/22/1995		11/22/1995	Foreign	Profit			

Business Purpose		Capital Stock	0.0000
Charter County	Foreign Country	Control Number	0
Charter State	DE	Excess Acres	0
At Will Term		Member Managed	
At Will Term Years	0	Par Value	0.0000
Authorized Shares	0		
		47	04902406

Addresses				
Туре	Address			
Notice of Process Address	CT CORPORATION SYSTEM 5400 D BIG TYLER ROAD CHARLESTON, WV, 25313 USA	Received /20		
Principal Office Address	911 WASHINGTON AVENUE WILMINGTON, DE, 19801	Office of Oil & Ga SEP 0 2 2015		
Туре	Address			

Officers		
Туре	Name/Address	
President	A. MARK ABRAMOVIC 420 BLVD OF THE ALLIES PITTSBURGH, PA, 15219	
Secretary	AUDREY C. MOELLER SAME AS ABOVE	
Treasurer	KENNETH J. KUBACKI SAME AS ABOVE	
Туре	Name/Address	

Date	,	Amendment
2/5/20		MERGER: MERGIN WITH AND INTO EQT CORPORATION, A QUALIFIED PA CORPORATION, THE SURVIVOR
11/22/19		MERGER, MERGING KENTUCKY WEST VIRGINIA GAS COMPANY WITH AND INTO EQT CAPITAL CORPORATION, THE SURVIVOR
Date	,	Amendment

For more information, please contact the Secretary of State's Office at 304-558-8000.

Tuesday, August 18, 2015 — 11:18 AM

© 2015 State of West Virginia

4704902406

10/23/2015

Received
Office of Oil & Gas

SEP 0 2 2015



XTO Energy Inc. 810 Houston Street Fort Worth, TX 76102-6298 (817) 870-2800 (817) 885-1938 Fax

August 12, 2015

Office of Oil & Gas WVDEP 601 57<sup>th</sup> Street Charleston, WV 25304

RE: Rights to Drill Under Road - Hughes

To Whom It May Concern,

Based on extended research by XTO Energy's Land Department, and their brokers and title attorneys, we have all necessary mineral rights under Marion County Route 40/3 and Route 40, in the location of our planned well bore's for the Hughes 5H.

Sincerely,

Kaitlyn Lee Landman

Landman XTO Energy Inc. 810 Houston Street Fort Worth, TX. 76102 Office: (817) 885 – 2748

Fax: (817) 885 – 1806

Kaitlyn\_Lee@xtoenergy.com

4704902406

An ExxonMobil Subsidiary

Received 10/23/2015
Office of Oil & Gas
SEP 0 2 2015

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

Date of Notic	ce Certification: 8/31//5	API	I No. 47-		
		Оре	erator's W	ell No. Hugh	es 5H
				me: Hughes	
Notice has b	oeen given:			-	
	ie provisions in West Virginia Code §	22-6A, the Operator has provided	d the requi	red parties w	ith the Notice Forms listed
	tract of land as follows:	•	-	-	
State:	West Virginia	UTM NAD 83	ting: 5	54145	
County:	Marion	Noi	rthing: $\frac{1}{4}$	367327	
District:	Mannington	Public Road Access:	H	larrison County F	Rt. 3 (Robinson Wyatt Run)
Quadrangle:	Shinnston 7.5'	Generally used farm i	name: F	aye Rockwell	
Watershed:	Bingamon Creek	<del></del>			
prescribed by it has provide information re of giving the requirements Virginia Code	West Virginia Code § 22-6A-7(b), the secretary, shall be verified and sized the owners of the surface described equired by subsections (b) and (c), se surface owner notice of entry to su of subsection (b), section sixteen on e § 22-6A-11(b), the applicant shall thave been completed by the applicant	hall contain the following information of the subdivisions (1), (2) and (1), (2) and (2), (3), (4), (4), (5), (6), (7), (7), (7), (7), (7), (7), (7), (7	tion: (14) 4), subsect the requirement that the requirement to the rection tends to the rection the rection to the rection that the rection to the rection t	A certification (b), securition (b), securities was of this article surface ow	on from the operator that (interpretation ten of this article, the deemed satisfied as a result cle six-a; or (iii) the notice wher; and Pursuant to Wes
that the Ope	West Virginia Code § 22-6A, the Oprator has properly served the require	erator has attached proof to this N d parties with the following:	Notice Cert	tification	OOG OFFICE USE ONLY
		_			
☐ 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED SEISMIC ACTIVITY WAS CO		i i	☐ RECEIVED/ NOT REQUIRED
■ 2. NO	TICE OF ENTRY FOR PLAT SURV	YEY or NO PLAT SURVEY	WAS CON	DUCTED	☐ RECEIVED
☐ 3. NO	TICE OF INTENT TO DRILL or	NOTICE NOT REQUIRED NOTICE OF ENTRY FOR PLA WAS CONDUCTED or			☐ RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER BY S (PLEASE ATTACH)	SURFACE	OWNER	
■ 4. NO	TICE OF PLANNED OPERATION				☐ RECEIVED
■ 5. PUE	BLIC NOTICE	á	470	490	☐ RECEIVED
■ 6. NO	TICE 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.

Receive 23/2015
Office of Oil & Gas
SEP 0 2 2015

WW-6AC (1/12)

#### Certification of Notice is hereby given:

6A. I certify the above, to the re signature confir in this Notice ( obtaining the in	at as required under West Virginia Codequired parties through personal service mation. I certify under penalty of law the Certification and all attachments, and	le § 22-0 e, by reg hat I hav that ba n is true,	6A, I have segistered mail e personally sed on my in accurate and	the notice requirements within West Virginia Code § 22- erved the attached copies of the Notice Forms, identified or by any method of delivery that requires a receipt or examined and am familiar with the information submitted nquiry of those individuals immediately responsible for d complete. I am aware that there are significant penalties nment.
Well Operator:	XTO Energy Inc.		Address:	PO Box 1008
By:	On			Jane Lew, WV 26378
Its:	Production Superintendent		Facsimile:	304-884-6809
Telephone:	304-884-6000		Email:	
My Con	NOTAROFFICIAL SEAL NOTARY PUBLIC State of West Virginia TIMOTHY SANDS XTO Energy Inc. PO Box 1008 Jane Lew, WV 26378 Imission Expires December 22, 2018	Subscr ———— My Co	ibed and swo	orn before me this 31 day of Argust 2015.  Tink Sent Notary Public spires 12/22/18

#### 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 <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

4704902406

10/23/2015

Received
Office of Oil & Gas

SEP 0 2 7015

WW-6A	
(9-13)	

API NO. 47-	<del>-</del>	
OPERATOR WE	ELL NO. Hughes 5H	
Well Pad Name:	Hughes Pad	

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

Notic	ce Time Requirement: notice shall be provided no late	er than the filing date of permit application.
	of Notice: 831/15 Date Permit Application Filed:	4415
_	PERMIT FOR ANY	APPROVAL FOR THE OF AN IMPOUNDMENT OR PIT
Deliv	very method pursuant to West Virginia Code § 22-6.	A-10(b)
		ETHOD OF DELIVERY THAT REQUIRES A ECEIPT OR SIGNATURE CONFIRMATION
certification ce	icate of approval for the construction of an impoundment tered mail or by any method of delivery that requires a recent control plan required by section seven of this article, arface of the tract on which the well is or is proposed to be ad gas leasehold being developed by the proposed well we ibed in the erosion and sediment control plan submitted putor or lessee, in the event the tract of land on which the we coal seams; (4) The owners of record of the surface tract work, if the surface tract is to be used for the placement, coundment or pit as described in section nine of this article; a water well, spring or water supply source located within de water for consumption by humans or domestic animals used well work activity is to take place. (c)(1) If more than tection (b) of this section hold interests in the lands, the apple ds of the sheriff required to be maintained pursuant to section of this article to the contrary, notice to a lien holder is	g date of the application, the applicant for a permit for any well work or for a or pit as required by this article shall deliver, by personal service or by eipt or signature confirmation, copies of the application, the erosion and and the well plat to each of the following persons: (1) The owners of record of the located; (2) The owners of record of the surface tract or tracts overlying the ork, if the surface tract is to be used for roads or other land disturbance as ursuant to subsection (c), section seven of this article; (3) The coal owner, ell proposed to be drilled is located [sic] is known to be underlain by one or or tracts overlying the oil and gas leasehold being developed by the proposed construction, enlargement, alteration, repair, removal or abandonment of any (5) Any surface owner or water purveyor who is known to the applicant to a one thousand five hundred feet of the center of the well pad which is used to see any of the operator of any natural gas storage field within which the other tenants in common or other co-owners of interests described in plicant may serve the documents required upon the person described in the tion eight, article one, chapter eleven-a of this code. (2) Notwithstanding any is not notice to a landowner, unless the lien holder is the landowner. W. Va. also provide the Well Site Safety Plan ("WSSP") to the surface owner and any sting as provided in section 15 of this rule.
	pplication Notice ☑ WSSP Notice ☑ E&S Plan No	
30000	RFACE OWNER(s)	☐ COAL OWNER OR LESSEE
	e: Faye Rockwell	Name: Consolidation Coal Company
	ress: 316 East Run Rd.	Address: 1000 Consol Energy Drive
_	ngton, WV 26571	Canonsburg, PA 15317
Nam		☐ COAL OPERATOR
Addr	ress:	Name: Murray American Energy
		Address: 1 Bridge St.
	RFACE OWNER(s) (Road and/or Other Disturbance)	Monongah, WV 26554
	e: David Webb	☑ SURFACE OWNER OF WATER WELL
	ress: 931 Joetown Rd.	AND/OR WATER PURVEYOR(s)
	ngton, WV 26582	Name: Faye Rockwell
	e; Fara May Webb	Address: 316 East Run Rd.
	ress: 1084 Joetown Rd.	Farmington, WV 26571
-	ngton, WV 26582	☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Nam	RFACE OWNER(s) (Impoundments or Pits) e: ress:	Name: 4/04902406
		*Please attach additional forms if necessary

Receive0/23/2015
Office of Oil & Gas
SEP 0 2 2015

WW-6A
(8-13)

API NO. 47
OPERATOR WELL NO. Hughes 5H
Well Pad Name: Hughes Pad

#### Notice is hereby given:

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

#### This Notice Shall Include:

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

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

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

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

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

#### **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 respected 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

10/23/2015

Received
Office of Oil & Gas
SEP 0 2 2015

WW-6A (8-13)

API NO. 47-\_\_\_OPERATOR WELL NO. Hughes 5H
Well Pad Name: Hughes Pad

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

#### Water Well Testing:

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

#### Water Testing Laboratories:

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

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

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

#### Written Comment:

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

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

4704902406

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	
OPERATOR WELL NO. Hughes 5H	
Well Pad Name: Hughes Pad	

#### 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 <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> 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.

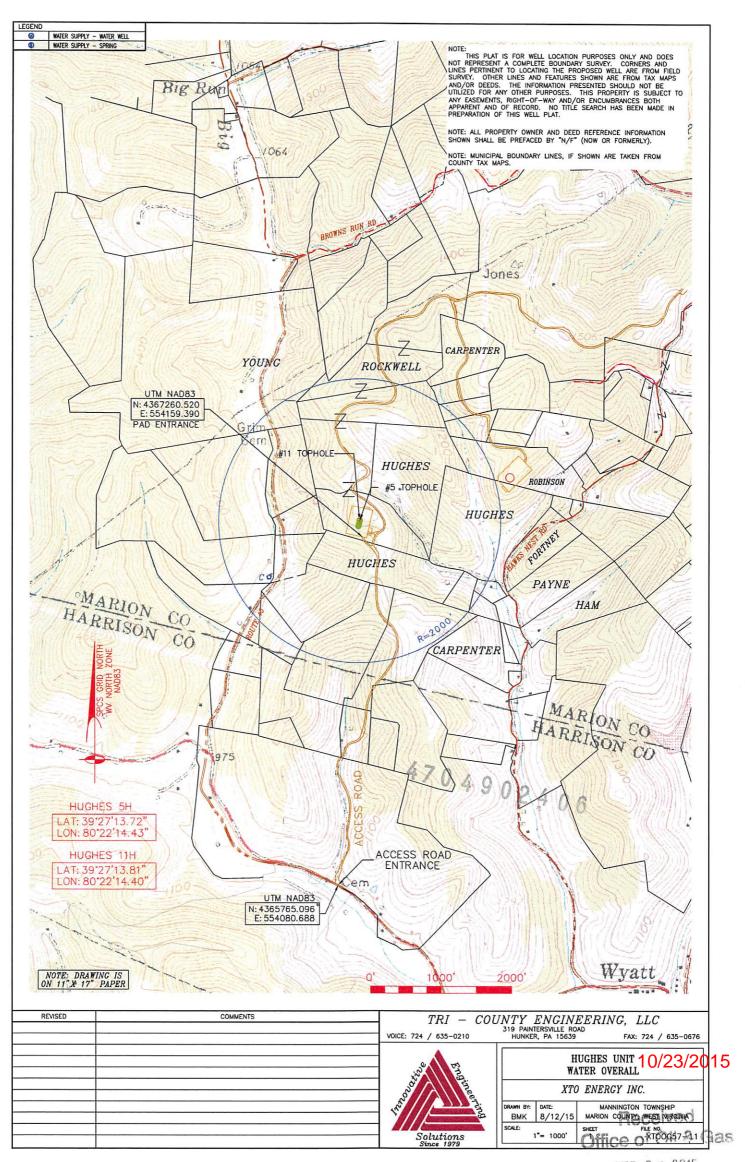
4704902406

10/23/2015

Received
Office of Oil & Gas

SEP 0 2 2015

WW-6A (8-13)	API NO. 47- OPERATOR WELL NO. Hughes 5H Well Pad Name: Hughes Pad
Notice is hereby given by: Well Operator: XTO Energy, Inc. Telephone: 304-884-6000 Email:	Address: PO Box 1008 Jane Lew, WV 26378
Oil and Gas Privacy Notice: The Office of Oil and Gas processes your personal info duties. Your personal information may be disclosed to needed to comply with statutory or regulatory requ	Facsimile: 304-884-6809  Sands Date: 10/19/15  Transition, such as name, address and telephone number, as part of our regulatory to other State agencies or third parties in the normal course of business or as irrements, including Freedom of Information Act requests. Our office will have any questions about our use or your personal information, please contact gov.
OFFICIAL SEAL NOTARY PUBLIC State of West Virginia DIANNER PICKLES PO Box 1008 Jane Lew, WV 26378 My Commission Expires September 26, 2018	Subscribed and sworn before me this 19 day of 0.4, 2015.  Notary Public Sept. 26, 2018



Hughes	
Faye Rockwell, 316 East Run Rd., Farmington, WV 26571	
David Webb, 931 Joetown Rd., Mannington, WV 26582	
Fara May Webb, 1084 Joetown Rd, Mannington, WV 26852	
Gerald Lucas Heirs, 1457 Wyatt Rd., Mannington, WV 26582	
Janet Nutter, 324 Elmhurst St., Morgantown, WV 26505	
John & Rita Heldreth, 12 Humanity St., Fairmont, WV 26554	
Kathleen Crim Stone, 5117 New Carlisle Pike, Springfield, OH 45504	
Perry Hughes, 70 Twin Creek Trl., Buffalo, MO 65622	
Faye Rockwell, 316 East Run Rd., Farmington, WV 26571	
Consolidation Coal Company, 1000 Consol Energy Drive, Canonsburg, PA 15317	
Murray American Energy, attn: Troy Freels, 1 Bridge St, Monongah, WV 26554	
Faye Rockwell, 316 East Run Rd., Farmington, WV 26571	
	Faye Rockwell, 316 East Run Rd., Farmington, WV 26571  David Webb, 931 Joetown Rd., Mannington, WV 26582  Fara May Webb, 1084 Joetown Rd, Mannington, WV 26852  Gerald Lucas Heirs, 1457 Wyatt Rd., Mannington, WV 26582  Janet Nutter, 324 Elmhurst St., Morgantown, WV 26505  John & Rita Heldreth, 12 Humanity St., Fairmont, WV 26554  Kathleen Crim Stone, 5117 New Carlisle Pike, Springfield, OH 45504  Perry Hughes, 70 Twin Creek Trl., Buffalo, MO 65622  Faye Rockwell, 316 East Run Rd., Farmington, WV 26571  Consolidation Coal Company, 1000 Consol Energy Drive, Canonsburg, PA 15317

4704902406

	С	POINT	XTO ENERGY INC.
	HOUSE POSSIBLE	SOURCE	INC.
	FAYE C ROCKWELL	LAST NAME	хтоос57-09
40 <sub>6</sub>	316 EAST RUN RD	MAILING ADDRESS	HUGHES WATER OFFSET
	FARMINGTON	CITY	(2000' OFFSET)
	٧W	STATE	
	26571	ZIP	
	S 56°50'53" W	BEARING	
	1544	DISTANCE	
Proce Office of SEP 0	<b>1 2</b> 2-58-34 <b>2</b> 3	DISTANCE PARCEL ID WITHING 3000'	23/2015 8/13/2015

4704902406

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

entry	1				least SEVEN (7) da	ys but no more than	FORTY-FIVE (4	5) days prior to
Deliv	very metho	d pursuant t	to West Virginia	Code § 2	2-6A-10a			
	PERSONA	L 🗆	REGISTERED	411	METHOD OF DEI	LIVERY THAT REC	DUIRES A	
	SERVICE		MAIL			NATURE CONFIRM		
on to but n benea owner and S Secre	the surface to more than ath such tracer of minera Sediment Co etary, which	tract to cond forty-five d ct that has fil Is underlying ontrol Manua statement sh	luct any plat surve ays prior to such e ed a declaration p g such tract in the d and the statutes	eys requirentry to: ( ursuant to county ta and rules of informa	ted pursuant to this a 1) The surface owner to section thirty-six, a to records. The notice related to oil and ga attion, including the a	cation, the operator's rticle. Such notice sher of such tract; (2) to article six, chapter two se shall include a state sexploration and produdress for a web page	nall be provided at a any owner or less centy-two of this comment that copies coduction may be obtained.	least seven days ee of coal seams ide; and (3) any of the state Erosion otained from the
Notio	ce is hereby	provided to	o:					
4	SURFACE	OWNER(s)			<b>■</b> COA	L OWNER OR LES	SEE	
Addr	ress: 316 E Farmi		6571		Name:Address:	*See Attached		-
Nam	e:				■ MIN	ERAL OWNER(s)		
. raai						Faye C. Rockwell	1	
Nam	e:					316 East Run Rd.	/	-
Addr	ress:					Farmington, WV 26 ch additional forms if neces	6571 essary	-
Pursi a pla State Cour Distr	t survey on :: nty:	t Virginia Co the tract of la West Virginia Marion Mannington	and as follows:		Approx. Lati Public Road Watershed:	ne undersigned well tude & Longitude: Access: ed farm name:	operator is plannin 39.453864, -80.3 Hawks Nest Rd Coal Lick Run Hughes Unit 5H	370659
may Char	be obtained leston, WV	from the Se 25304 (304	cretary, at the WV -926-0450). Copi	Departnes of suc	nent of Environment	nd rules related to oil al Protection headque tional information re default.aspx.	arters, located at 60	11 57 <sup>th</sup> Street, SE,
Noti	ice is herel	by given by	·•					
	Operator:	XTO Energ			Address:	P.O. Box 1008		
Tele	phone:	304-884-60				Jane Lew, WV 263	78	
Ema	il:				Facsimile:	304-884-6008	4	
The dutie	Office of O es. Your per ed to comp	rsonal inforn ply with sta	ocesses your pers nation may be dis tutory or regulat	sclosed to ory requi	o other State agenci- irements, including	ne, address and telephes or third parties in Freedom of Infornation	the normal cours	e of business or as ts. Our office will

DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

10/23/2015
Received
Office of Oil & Gas
SEP 0 2 2015

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

entry  Date of Notice: _August 7, 2015 Date of Planned Entry:		FORTY-FIVE (45) days prior to
Delivery method pursuant to West Virginia Code § 22-6A-10	a	
	OD OF DELIVERY THAT REQ PT OR SIGNATURE CONFIRM	
Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a on to the surface tract to conduct any plat surveys required pursubut no more than forty-five days prior to such entry to: (1) The sbeneath such tract that has filed a declaration pursuant to section owner of minerals underlying such tract in the county tax record and Sediment Control Manual and the statutes and rules related Secretary, which statement shall include contact information, include the surface owner to obtain copies from the secretary.	nant to this article. Such notice sha urface owner of such tract; (2) to thirty-six, article six, chapter twe s. The notice shall include a state to oil and gas exploration and pro-	all be provided at least seven days any owner or lessee of coal seams enty-two of this code; and (3) any ement that copies of the state Erosion duction may be obtained from the
Notice is hereby provided to:		
SURFACE OWNER(s)	☐ COAL OWNER OR LESS	SEE
Name: Faye C. Rockwell Address: 316 East Run Rd	Name:N/A Access Route Or Address:	nly
Farmington, WV 26571		
Name:	П .ип. т	
Address:	☐ MINERAL OWNER(s)	
Name:	Name: N/A Access Route Or	nly
Name:Address:	Address:	
	*please attach additional forms if neces	ssary
	given that the undersigned well of Approx. Latitude & Longitude: _	operator is planning entry to conduct  39.453864, -80.370659  Hawks Nest Rd
AND ADDRESS OF THE PARTY OF THE	Watershed:	Coal Lick Run
	Generally used farm name:	Hughes 5H
Copies of the state Erosion and Sediment Control Manual and the may be obtained from the Secretary, at the WV Department of I Charleston, WV 25304 (304-926-0450). Copies of such document obtained from the Secretary by visiting <a href="https://www.dep.wv.gov/oil-angle-a&lt;/td&gt;&lt;td&gt;Environmental Protection headqua&lt;br&gt;nents or additional information rel&lt;/td&gt;&lt;td&gt;arters, located at 601 57th Street, SE,&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Notice is hereby given by:&lt;/td&gt;&lt;td&gt;Address: P.O. Box 1008&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Well Operator: XTO Energy Inc. Telephone: 304-884-6000&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;70&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Email: 304-884-6000&lt;/td&gt;&lt;td&gt;Jane Lew, WV 2637&lt;br&gt;Facsimile: 304-884-6008&lt;/td&gt;&lt;td&gt;/8&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Oil and Gas Privacy Notice:  The Office of Oil and Gas processes your personal information duties. Your personal information may be disclosed to other needed to comply with statutory or regulatory requirements appropriately secure your personal information. If you have an DEP's Chief Privacy Officer at &lt;a href=" mailto:depprivacyofficer@wv.gov"="">depprivacyofficer@wv.gov</a> .	such as name, address and teleph State agencies or third parties in s, including Freedom of Inform	the normal course of business or as nation Act requests. Our office will

#### **Coal Owners:**

Consol Mining Company 1000 Consol Energy Dr. Canonsburg, PA 15314

Murray American Energy 1 Bridge St. Monongah, WV 26554

Faye C. Rockwell 316 East Run Rd. Farmington, WV 26571

Landowners	Faye Rockwell, 316 East Run Rd., Farmington, WV 26571
for Access Road	David Webb, 931 Joetown Rd., Mannington, WV 26582
	Fara May Webb, 1084 Joetown Rd, Mannington, WV 26852
	Gerald Lucas Heirs, 1457 Wyatt Rd., Mannington, WV 26582 —
	Janet Nutter, 324 Elmhurst St., Morgantown, WV 26505
	John & Rita Heldreth, 12 Humanity St., Fairmont, WV 26554
	Kathleen Crim Stone, 5117 New Carlisle Pike, Springfield, OH 45504
	Perry Hughes, 70 Twin Creek Trl., Buffalo, MO 65622
<del></del>	

E-10 E-00 O- E

WW-6A5 (1/12) Operator Well No. Hughes 5H

SEP 0 2 3.6

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

		Requirement: notice : e: 8/31/15		no later than the t Application File			application	on.		
Deliv	ery meth	od pursuant to Wes	t Virginia Code {	} 22-6A-16(c)						
		IED MAIL N RECEIPT REQUE	STED	HAND DELIVERY						
returi the p requi drilli dama	n receipt r lanned op red to be p ng of a ho ges to the he notices	. Va. Code § 22-6A-requested or hand deliperation. The notice provided by subsection orizontal well; and (2) a surface affected by cost required by this section.	ivery, give the sur required by this on (b), section ten B) A proposed sur oil and gas operati	face owner whos subsection shall of this article to face use and cor ons to the extent	include include a surfac mpensar	will be used fo e: (1) A copy e owner whose tion agreement mages are comp	or the drill of this containing t containing toensable u	ing of a horized ode section; (2) Il be used in co ong an offer of onder article si	ontal we ) The interior of the compension of th	ell notice of nformation on with the ensation for this chapter.
		by provided to the S listed in the records o								
	e: Faye Rock				ame: se	e attached				
	ess: 316 Ea				ddress:					
	ngton, WV 26			_					_	
State Coun Distr Quad Wate This Pursu to be horiz surfa infor heade	ity: ict: lrangle: rshed:  Notice SI uant to We provided ontal well ce affecte mation re	he surface owner's land West Virginia  Marion  Mannington  Shinnston 7.5'  Bingamon Creek  hall Include: est Virginia Code § 2 di by W. Va. Code § l; and (3) A proposed deby oil and gas oper elated to horizontal discounted at 601 57th soult.aspx.	2-6A-16(c), this respectively. The second of the extending may be obtained.	DTM N Public I General notice shall include surface owner sompensation agreent the damages tained from the	IAD 83 Road A Ily used  de: (1)A whose reement are con Secreta:	Easting: Northing: ccess: farm name: ccopy of this cland will be used to containing an inpensable undry, at the WV	Harrison Co Faye Rocks	ounty Rt. 3 (Robinson well from the conjunction with compensation six-b of this control of Environment of Envir	formation the deformation damped for damped for the deformant of the deformant of the deformation of the def	on required rilling of a nages to the Additional Protection
Wall	Operator	. VIO 5		Addr	Acc. 1	PO Box 1008				
	ohone:	XTO Energy Inc. 304-884-6000			-	Jane Lew, WV 2637	8			-
Emai		304-004-0000		Facsi	_	304-884-6809				
The dutie	Office of ( s. Your p ed to cor opriately s	Privacy Notice: Oil and Gas processes personal information mply with statutory secure your personal Privacy Officer at dept	may be disclosed or regulatory re- information. If yo	to other State a quirements, inclu ou have any quest	gencies uding F	or third partion reedom of In	es in the Iformation	<del>no</del> rmal course n <b>e</b> trequest	e of bus s. Our tion, ple	siness or as office will
								_	eiv <b>a</b> 6	)/23/2015
								Office of	,	51

Landowners	Faye Rockwell, 316 East Run Rd., Farmington, WV 26571
	David Webb, 931 Joetown Rd., Mannington, WV 26582
	Fara May Webb, 1084 Joetown Rd, Mannington, WV 26852
	Gerald Lucas Heirs, 1457 Wyatt Rd., Mannington, WV 26582
	Janet Nutter, 324 Elmhurst St., Morgantown, WV 26505
	John & Rita Heldreth, 12 Humanity St., Fairmont, WV 26554
	Kathleen Crim Stone, 5117 New Carlisle Pike, Springfield, OH 45504
	Perry Hughes, 70 Twin Creek Trl., Buffalo, MO 65622

FJO FOOFFOO



#### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

#### **Division of Highways**

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

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

July 21, 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 Hughes Well Pad, Marion County Hughes 5H

Dear Mr. Martin,

Earl Ray Tomblin

Governor

This well site will be accessed from Permit #04-2014-1246 issued to XTO Energy, Inc. for access to the State Road for a well site located off of Harrison County Route 3 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.

Day K. Clayton

Regional Maintenance Engineer Central Office O&G Coordinator

Cc: Tim Sands

XTO Energy, Inc. CH, OM, D-4

File

Received
Office of Gills Gas
SEP 0 2 205

10/23/2015

E.E.O./AFFIRMATIVE ACTION EMPLOYER

## Hydraulic Fracturing Fluid Product Component Information Disclosure Hydraulic Fracturing Fluid Composition:

Hydraulic Fracturing Fluid Com	ydraulic Fracturing Fluid Composition:						<i>&amp;</i>
Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HE Huid (% by mass)***	Comments
Water	XTO	Carrier/Base Fluid	Water	7,7 <del>6</del> 2-18-5	100.00%	<b>♥</b> 88.35%	(f.
Sand (Proppant)	Universal	Proppant	Water Silica Substrate & 7 () 4 9 0 2 4		100.00%	11.20%	52
Hydrochloric Acid (10%)	PPG Industries	Acidizing	Hydrochloric Acid	7647-01-0	10.00%	0.00%	77
-,			Other - (non-hazardous)		85.00%	0.00%	3 C &
Hydrochloric Acid (7.5%)	PPG Industries	Acidizing	Hydrochloric Acid	7647-01-0	7.50%	0.03%	Ü Ç
			Other - (non-hazardous)		92.50%	0.34%	95 938 35 95 95 95 95 95 95 95 95 95 95 95 95 95
Acid Inhibitor, Unihib G	GeoSafe	Acid Inhibitor	Proprietary Blend Surfactants		35.00%	0.00%	
			Short Chained Glycol Ether	112-34-5	50.00%	0.00%	ō
			Ethoxylated alcohol		35.00%	0.00%	
Biocide, EC6116A	Nalco	Biocide	Dibromoacetonitrile	3252-43-5	5.00%	0.00%	
	A N		2,2-Dibromo-3-nitrilopropionamide	10222-01-2	30.00%	0.00%	
			Polyethylene Glycol	25322-68-3	60.00%	0.01%	
			Other - (non-hazardous)	•	5.00%	0.00%	
Clay Stabilizer, Cla-Chek G	Shrieve	Clay Stabilizer	Water	7732-18-5	15.00%	0.00%	
		<del></del>	Other - (non-hazardous)		85.00%	0.00%	
Friction Reducer, Unislick ST-50	CESI Chemical	Friction Reducer	Petroleum distillates, hydrotreated light	64742-47-8	30.00%	0.02%	
•			Other - (non-hazardous)		70.00%	0.04%	
Scale Inhibitor, ScaleHib A	Nalco	Scale Inhibitor	Ethylene Glycol	107-21-1	30.00%	0.00%	
			Other - (non-hazardous)		70.00%	0.01%	·
Gel Breaker, LEB-10X	Universal	Gel Breaker	Ethylene Glycol	107-21-1	40.00%	0.00%	
			Other - (non-hazardous)		60.00%	0.00%	
Unigel 5F	Universal	Gel	Guar Gum	9000-30-0	99.00%	0.00%	- <u>-</u>
			Other - (non-hazardous)		1.00%	0.00%	· · · · · · · · · · · · · · · · · · ·
Slurry Gel, WGA-7 SLR	Universal	Gel	Guar Gum	9000-30-0	50.00%	0.00%	
			Petroleum Distillate	64742-47-8	55.00%	0.00%	
			Clay		5.00%	0.00%	
			Surfactant		5.00%	0.00%	
			Buffer		5.00%	0.00%	

### SEDIMENT CONTROL PLAN FOR THE HUGHES WELL PAD & ACCESS EAGLE & MANNINGTON DISTRICTION HARRISON & MARION COUNTIES, WES



API# 4902361



חסוכות	rbed ace	TAGE
PROPERTY OWNER	TAX I.D.	DISTURBED AREA
FARA MAY WBB	09-146-05	1.092 AC.
DAVID W WEBB	09-146-05.2	6.700 AC.
GERALD L LUCAS	12-59-9.2	0.100 AC.
CRIM FAMILY LIVING TRUST	12-59-55	1.600 AC.
JOHN G & RITA L HELDRETH	12-59-10	0.003 AC.
JANET NUTTER & BARBARA WAGNER	12-59-10.5	4.600 AC.
JOHN G & RITA L HELDRETH	12-59-10	6.700 AC.
CRIM FAMILY LIVING TRUST	12-59-55	0.040 AC.
FAYE C ROCKWELL	12-59-09	1.600 AC.
PERRY L HUGHES - ROAD	12-59-16	2.900 AC.
PERRY L HUGHES - PAD	12-59-16	1.300 AC.
FAYE C ROCKWELL - ROAD	12-59-08	4.500 AC.
FAYE C ROCKWELL - PAD	12-59-08	4.700 AC.

NO.	DESCRIPTION	DATE	BY
		DAIL	D1
TICE REGARDS	NG UNDERGROUND UTILITIES: NO WARR	MITY IS HADE THE	Pr
HUWS ALL EXIS	STING UNDERGROUND UTILITIES OF THAT	THE LOCATIONS OF	EVICTION
ILLIES SHOWN	HEREON ARE THE CORRECT LOCATION	S THE DEDICTION OF	UTILITIES
	OT RELIEVE THE CONTRACTOR(S) WHO	WILL BE PERFORMING W REGARDING EXCAVA	

Received Office of Oi

### SEDIMENT CONTROL PLAN **FOR THE**

**HUGHES WELL PAD & ACCESS ROAD EAGLE & MANNINGTON DISTRICTS** HARRISON & MARION COUNTIES, WEST VIRGINIA4704902406



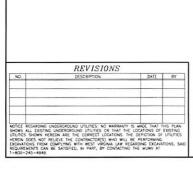
SITE LOCATION MAP MAP REF: SHINNSTON & WALLACE, W.

APPROVED WVDEP OOG A 2/25/2015

API# 4902361



DISTURBED ACERAGE				
PROPERTY OWNER	TAX I.D.	DISTURBED AREA		
FARA MAY WBB	09-146-05	1.092 AC.		
DAVID W WEBB	09-146-05.2	6.700 AC.		
GERALD L LUCAS	12-59-9.2	0.100 AC.		
CRIM FAMILY LIVING TRUST	12-59-55	1,600 AC.		
JOHN G & RITA L HELDRETH	12-59-10	0.003 AC.		
JANET NUTTER & BARBARA WAGNER	12-59-10.5	4.600 AC.		
JOHN G & RITA L HELDRETH	12-59-10	6.700 AC		
CRIM FAMILY LIVING TRUST	12-59-55	D.04D AC.		
FAYE C ROCKWELL	12-59-09	1,600 AC.		
PERRY L HUGHES - ROAD	12-59-16	2.900 AC.		
PERRY L HUGHES - PAD	12-59-16	1.300 AC.		
FAYE C ROCKWELL - ROAD	12-59-08	4.500 AC.		
FAYE C ROCKWELL -	12-59-08	4.700 AC.		





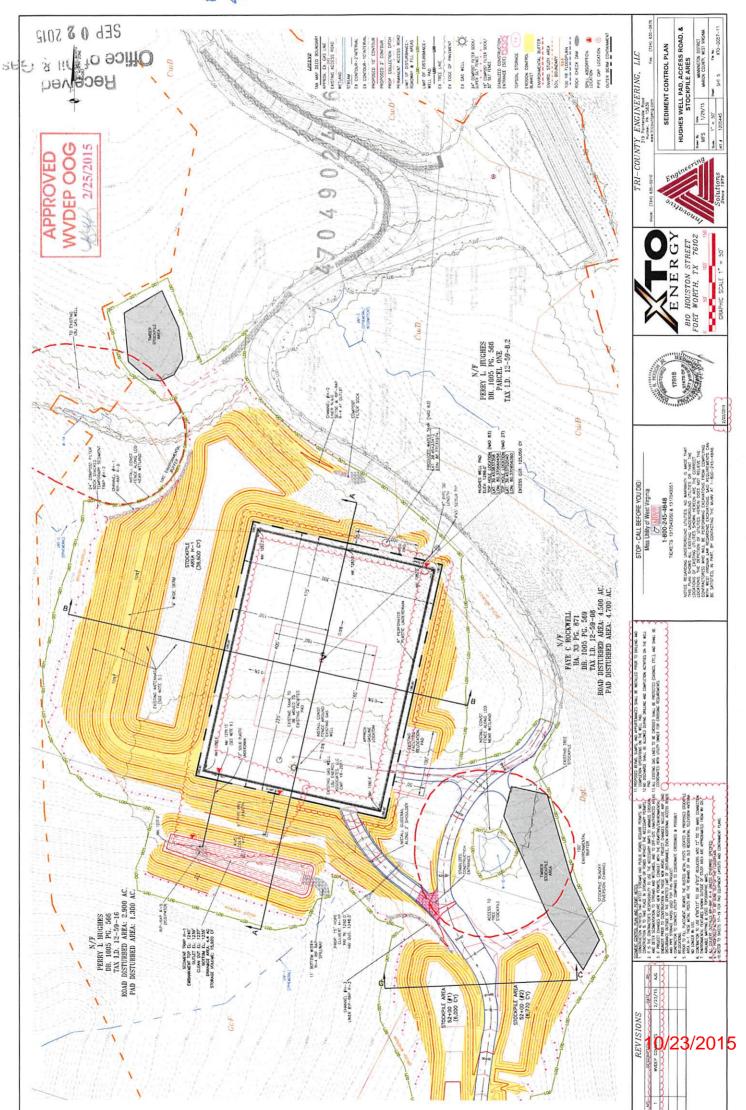
	DRAWING INDEX	
PLAN	TITLE	SHEET NUMBER
SEDIMENT CONTROL PLAN	v	
"SEDIMENT CONTROL PLAN"	E&S CONTROL PLAN - COVER	SHEET 1
	ACCESS ROAD TO HUGHES WELL PAD	SHEET 2
	ACCESS ROAD TO HUGHES WELL PAD	SHEET 3
	ACCESS ROAD & FILL AREA 2	SHEET 4
	HUGHES WELL PAD, ACCESS ROAD, & STOCKPILE AREAS	SHEET 5
	FILL AREA 1	SHEET 6
	FILL AREAS 3, 4, & 5	SHEET 7
	ACCESS ROAD PROFILES	SHEET 8
	STOCKPILE CROSS SECTIONS	SHEET 9
	ACCESS ROAD CROSS SECTIONS	SHEET 10
	ACCESS ROAD CROSS SECTIONS	SHEET 11
"DETAILS & NARRATIVE"	DETAILS	SHEET 12
	DETAILS	SHEET 13
	DETAILS	SHEET 14
	NARRATIVE	SHEET 15
	NARRATIVE	SHEET 16
"CONTAINMENT SET"	PAD LAYOUT (DRILL PHASE)	SHEET 17
	PAD LAYOUT (FRAC PHASE)	SHEET 18
	DETAILS	SHEET 19

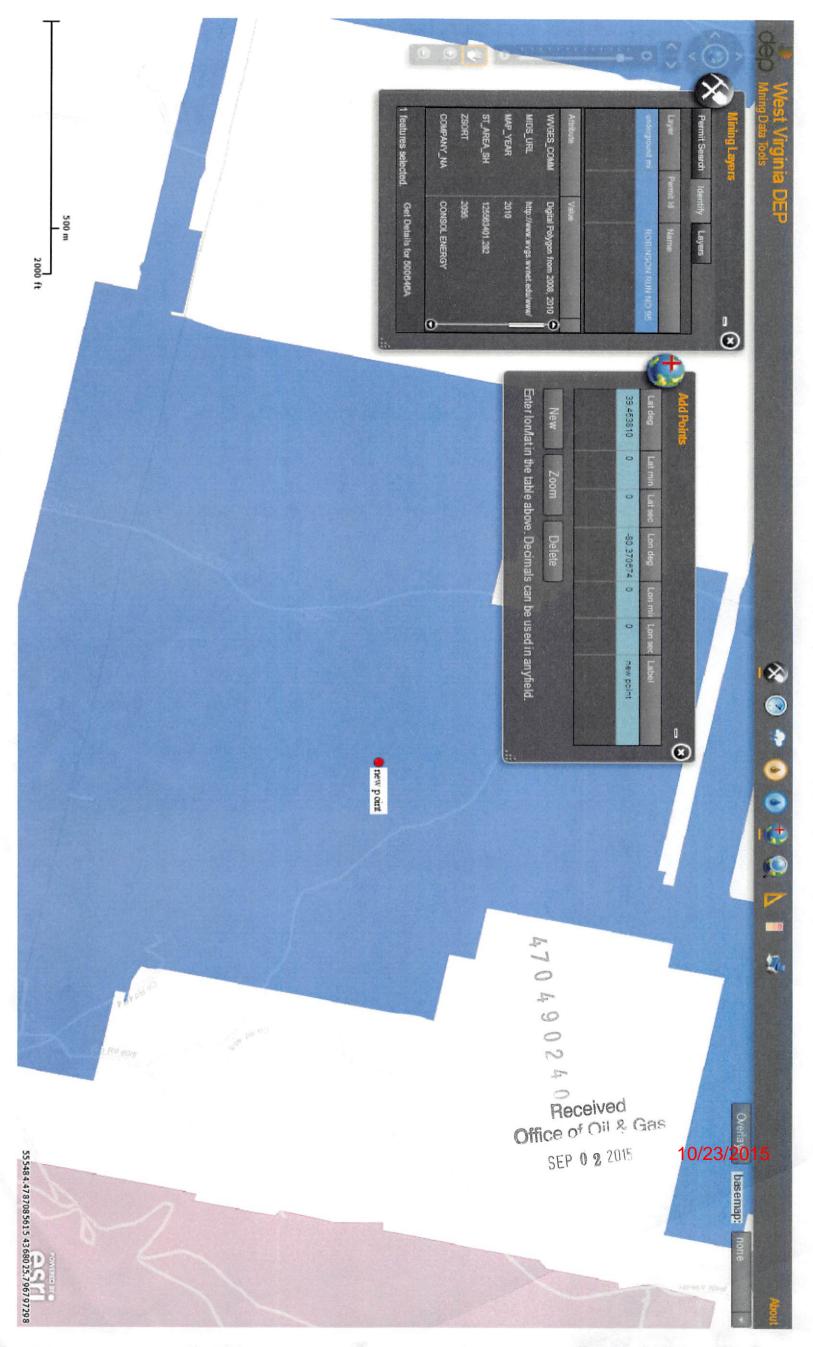


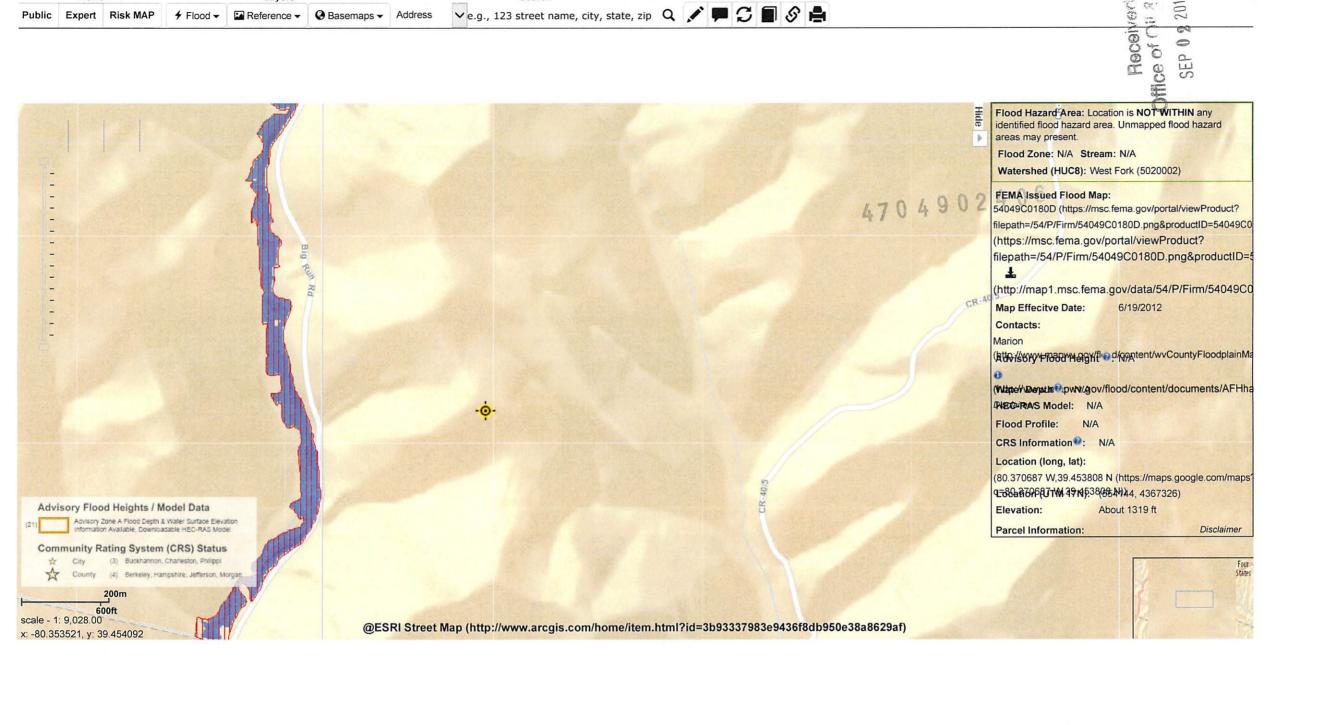


TRI-COUNTY ENGINEERING, LLC SEDIMENT CONTROL PLAN - COVER **HUGHES WELL PAD & ACCESS** 

2, 28, 15







Views

Layers