



west virginia department of environmental protection

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

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

Thursday, July 25, 2019

WELL WORK PLUGGING PERMIT
Vertical Plugging

XTO ENERGY, INC.
810 HOUSTON STREET

FORT WORTH, TX 76102

Re: Permit approval for Y4
47-033-02312-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: Y4
Farm Name: RITTENHOUSE, JUSTIN
U.S. WELL NUMBER: 47-033-02312-00-00
Vertical Plugging
Date Issued: 7/25/2019

I

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. This well is under a consent order and must be plugged under the terms of that agreement.

WW-4B
Rev. 2/01

1) Date 5/7, 2019
2) Operator's
Well No. Y4
3) API Well No. 47-033-02312 P

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

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

5) Location: Elevation 1,303' Watershed Tenmile Creek
District Sardis County Harrison Quadrangle Wolf Summit

6) Well Operator XTO Energy Inc. 7) Designated Agent Gary Beall
Address PO Box 1008 Address PO Box 1008
Jane Lew, WV 26378 Jane Lew, WV 26378

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Sam Ward Name _____
Address PO Box 2327 Address _____
Buckhannon, WV 26201

10) Work Order: The work order for the manner of plugging this well is as follows:
See attached

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MAY 14 2019
WV Department of
Environmental Protection

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

Work order approved by inspector S. P. Oberholtzer Date 4/9/2019

47-033-02312A

API Farm Name Well Number
47-033-02312 Rittenhouse, Justin Y4

Elevation: 1,303'

Plugging Procedure

Run tubing tools down the 2" tubing and check T.D. at 2,660'.

Pull the old tubing out and run good tubing back to 2,660'.

6% gel 2,660' - surface.

5 3/4 O.H.

Cement - 2,660' - 2,250' - covering gas at 2,638', 2,607', 2,557', & 2,356',
410' x 0.0321 = 13 bbl = 62 sks. Disp. 8 bbl.

Pull tubing up to 1,700', ^{WOC} RIH and tag cement top.

If cement top is ok, pull tubing out.

RIH with CBL tool and see where the 7" casing is free,
pull all 7" out or cut. - MINIMUM OF 100' CLASS A CEMENT ACROSS CUT.

6% gel 1,910' - surface.

Run tubing back to 1,910', cover gas at 1,855' and 1,646'.

Cement - 1,910' - 1,575' = 335' x 0.0695 = 24 bbl = 118 sks. Disp - 6 bbl.

Pull tubing out, RIH with CBL tools to find free 8" casing,
pull all 8" casing or cut. - MINIMUM OF 100' CLASS A CEMENT ACROSS CUT.

Elevation 1,303'.

Run tubing back to 1,390'.

6% gel - 1,390 - surface.

9.5 O.H.

Cement - 1,390' - 1,250' = 140' x 0.0874 = 12 bbl = 60 sks. Disp - 4 bbl.

6% gel 1,250' - 1,005'. Hit water & gas at 955'.

Cement - 1,005' - 900' = 105' x 0.0874 = 10 bbl = 48 sks. Disp 3 - 3 bbl.

Pull tubing out and RIH with CBL to see where or if the 10" casing
is free, and pull or cut. - MINIMUM OF 100' CLASS A CEMENT ACROSS CUT.

If can't pull, run tubing back to 585" - bottom of 10" = 533'.

Cement 585' - 375' = 210' x 0.0874 = 18 bbl = 85 sks. Disp - 1.5 bbl.

Coal at 400' - 408'.

6% gel 375' - 100'.

Cement 100' - surface = 100' x 0.1070 = 11 bbl = 53 sks.

Install 6" well monument.

Note: If we can't pull the 7" or 8" casing we will request permission
from DEP inspector to shoot perforation holes and squeeze cement as needed.

JWM

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*SDW
4/9/2019*

FORM IV-35
(Obverse)
[06-78]

DEPARTMENT OF MINES, OIL AND GAS DIVISION

Operator's Well No. Y-4
API Well No. 47 -
State County Perm

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas / Liquid Injection / Waste Disposal /
(If "Gas", Production / Underground storage / Deep / Shallow /)
LOCATION: Elevation: 1306 Watershed: Little Tenmile Creek
District: Sardis County: Harrison Quadrangle: Clarksburg, SW

WELL OPERATOR Eagle Gas Company DESIGNATED AGENT Lorna Hill
Address 211 Main Street Address 211 Main Street
Lumberport, W. Va. 26386 Lumberport, W. Va. 26386

PERMITTED WORK: Drill / Convert / Drill deeper / Redrill / Fracture or stimulate
Plug off old formation / Perforate new formation /
Other physical change in well (specify) _____

PERMIT ISSUED ON _____, 19____ OIL & GAS INSPECTOR FOR THIS WORK:
Name _____
Address _____
_____, 19____

GEOLOGICAL TARGET FORMATION: Fourth Sand Depth 2636 feet
Depth of completed well, 2660 feet Rotary / Cable Tools
Water strata depth: Fresh, 955 feet; salt, 1336 feet.
Coal seam depths: 400 Is coal being mined in the area?
Work was commenced February 14, 1918, and completed N/A, 19____

LOGGING AND TUBING PROGRAM

LOGGING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor	16"					15'		Kinds Anchor
Cash water								
Gal	10"		32			533'	533'	Sizes 6 5/8" x 2"
Intermediate	8"		24			1374'	1374'	
Production	7"		17			1792'	1792'	Depth set
Link	2"		4 1/2			2660'	2660'	
Perforations								Perforations: Top Bottom

WELL FLOW DATA

Producing formation Fourth Sand Pay zone depth 2638 feet
Gas: Initial open flow, 408 Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, 268 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, _____ hours
Static rock pressure, 78 psig (surface measurement) after 72 hours shut in
[If applicable due to multiple completion--]
Second producing formation _____ Pay zone depth _____ feet
Gas: Initial open flow, _____ Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, _____ Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, _____ hours
Static rock pressure, _____ psig (surface measurement) after _____ hours shut in

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FORM IV-35
(Reverse)

[06-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

N/A

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fractures and salt water, coal, oil and gas
Coal			400	408	
Little Dunkard			788	810	
Big Dunkard			932	996	Water & Gas 955'
Gas Sand			1148	1174	
First Salt Sand			1186	1202	
Second Salt Sand			1284	1363	Water 1336'
Third Salt Sand			1378	1426	
Fourth Salt Sand			1432	1487	
Maxon			1633	1782	Gas 1646' 10/10 Water 72"
Little Lime & Big Lime all together					
Big Indian			1782	1878	Gas 1855' 2/10 Water 2"
Squaw Sand			1898	1935	
Berea Sand			2002	2040	
Gantz Sand			2060	2087	
Fifty Foot			2346	2377	Gas 2356' - 2/10 Water in 2"
Thirty Foot			2414	2435	
Stray			2546	2578	Gas 2557' - 63/10 Water in
Gordon Sand			2587	2633	Gas 2607 - 70/10 Water in 2
Fourth Sand			2636	2654	Gas 2638
Total Depth				2660	

(Attach separate sheets to complete as necessary)

Eagle Gas Company
Well Operator

By _____
Its Chief Executive Officer

NOTE: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."

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WV Department of
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WW-4A
Revised 6-07

1) Date: 5/7/19
2) Operator's Well Number

Y4

3) API Well No.: 47 - 033 - 02312

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

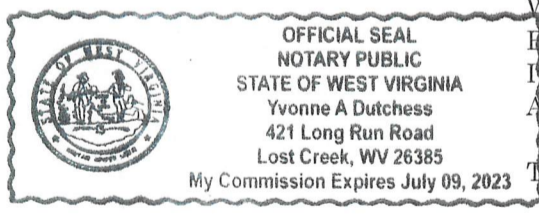
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Virginia Tetrick Estate, c/o Guy Corporation</u>	Name _____
Address <u>92 16th St. Fl. 2</u>	Address _____
<u>Wheeling, WV 26003</u>	_____
(b) Name <u>Patriot Mining Company Inc.</u>	(b) Coal Owner(s) with Declaration
Address <u>c/o Ark Land Co. Attn: Land Dept.</u>	Name <u>Grafton Coal Company</u>
<u>1 City Place Dr., St. Louis, MO 63141</u>	Address <u>PO Box 1050</u>
	<u>Bridgeport, WV 26330</u>
(c) Name _____	Name <u>Guy Corporation</u>
Address _____	Address <u>92 16th St.</u>
	<u>Wheeling, WV 26003</u>
6) Inspector <u>Sam Ward</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 2327</u>	Name <u>Consolidation Coal Company</u>
<u>Buckhannon, WV 26201</u>	Address <u>1000 Consol Energy Drive</u>
Telephone <u>304-389-7583</u>	<u>Canonsburg, PA 15317</u>

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

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

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

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



Well Operator XTO Energy Inc.
 By: Jane Lew
 Title: Regulatory Coordinator
 Address: PO Box 1008
Jane Lew, WV 26378
 Telephone: 304-884-6000

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 Office of Oil and Gas
 MAY 14 2019
 WV Department of
 Environmental Protection

Subscribed and sworn before me this 7th day of May 2019
Yvonne A. Dutchess Notary Public

My Commission Expires July 9, 2023.

Oil and Gas Privacy Notice

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

WW-9
(5/16)

API Number 47 - 033 - 02312
Operator's Well No. Y4

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) Tenmile Creek Quadrangle Wolf Summit

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: Fluids from plugging operations will be put into tanks.

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number 4707302523, 4708505151, 4708509721)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Meadowbrook Landfill SWF#1032, RES Water Recycling -WMGR123SW005 (PA)

4/9/2019
SDW

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

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

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

Additives to be used in drilling medium? NA

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Any solid waste from plugging will be taken to landfill.

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

-Landfill or offsite name/permit number? Meadowbrook Landfill SWF#1032

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

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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

Company Official Signature [Signature]

Company Official (Typed Name) Tim Sands

Company Official Title Regulatory Coordinator

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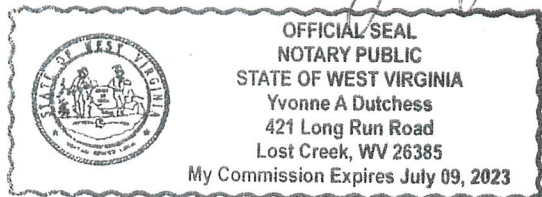
MAY 14 2019

WV Department of
Environmental Protection

Subscribed and sworn before me this 7th day of May, 2019

[Signature] Notary Public

My commission expires July 9, 2023



Form WW-9

Operator's Well No. Y4

Proposed Revegetation Treatment: Acres Disturbed 8.53 +/- Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH _____

Fertilizer type 10-20-20

Fertilizer amount 1000 lbs/acre

Mulch 3 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Kentucky Bluegrass	20
		Redtop	3
		Birdsfoot Trefoil	10

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

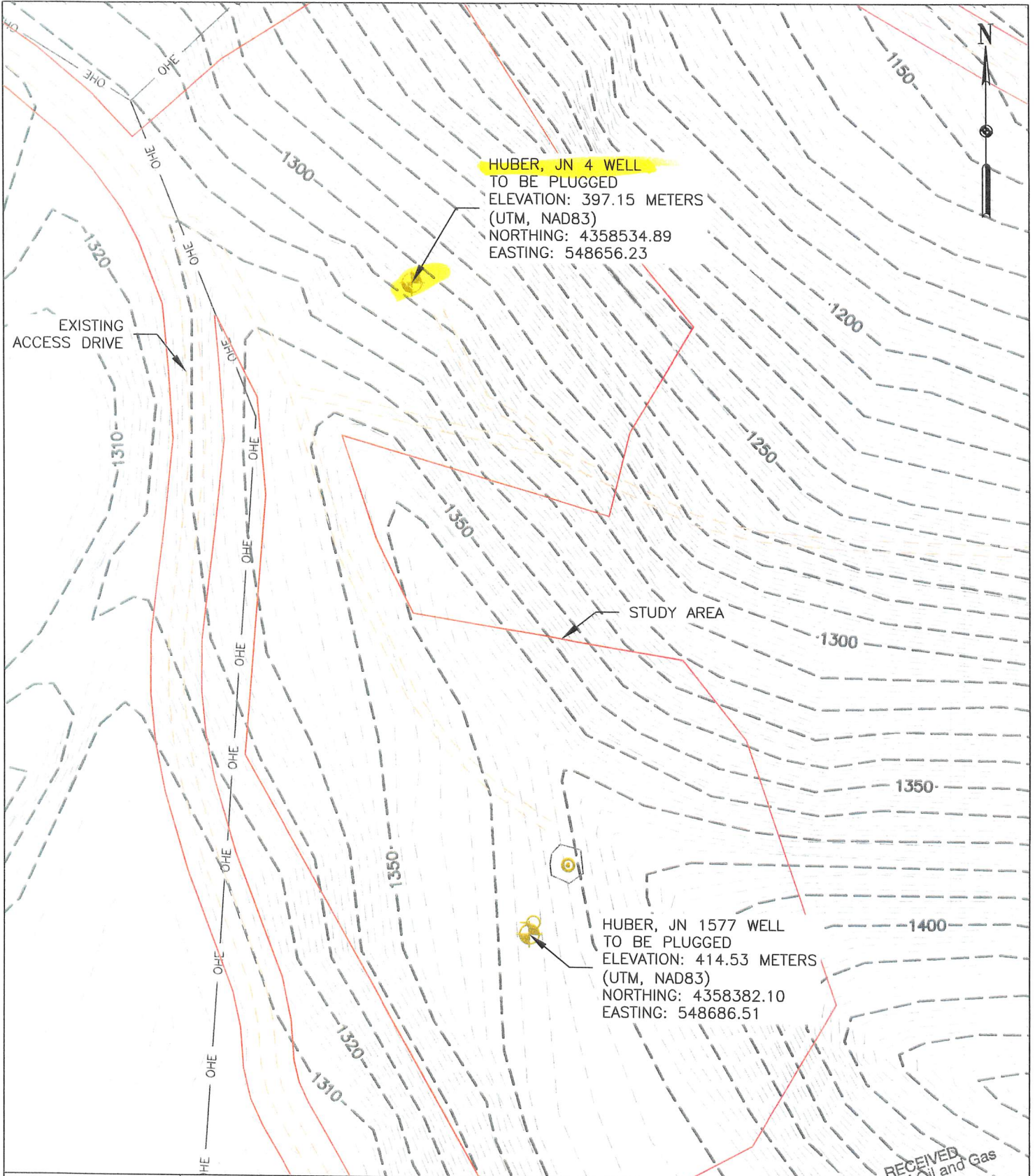
Plan Approved by: SLP Alonzo

Comments: _____

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Title: COG Inspector Date: 4/9/2019

Field Reviewed? () Yes (X) No



HUBER, JN 4 WELL
 TO BE PLUGGED
 ELEVATION: 397.15 METERS
 (UTM, NAD83)
 NORTHING: 4358534.89
 EASTING: 548656.23

HUBER, JN 1577 WELL
 TO BE PLUGGED
 ELEVATION: 414.53 METERS
 (UTM, NAD83)
 NORTHING: 4358382.10
 EASTING: 548686.51

SCALES
 HORIZ: 1"=100'
 VERT:
 CONTOUR INT: 2'

DESN BY: SDG
 DRWN BY: SDG
 RVMD BY: MMV
 FLD BK:
 BK PG:
 DATE: 3/8/19

REV. BY:	DATE:	DESC.:
REV. BY:	DATE:	DESC.:
REV. BY:	DATE:	DESC.:
REV. BY:	DATE:	DESC.:
REV. BY:	DATE:	DESC.:

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 MAY 14 2019

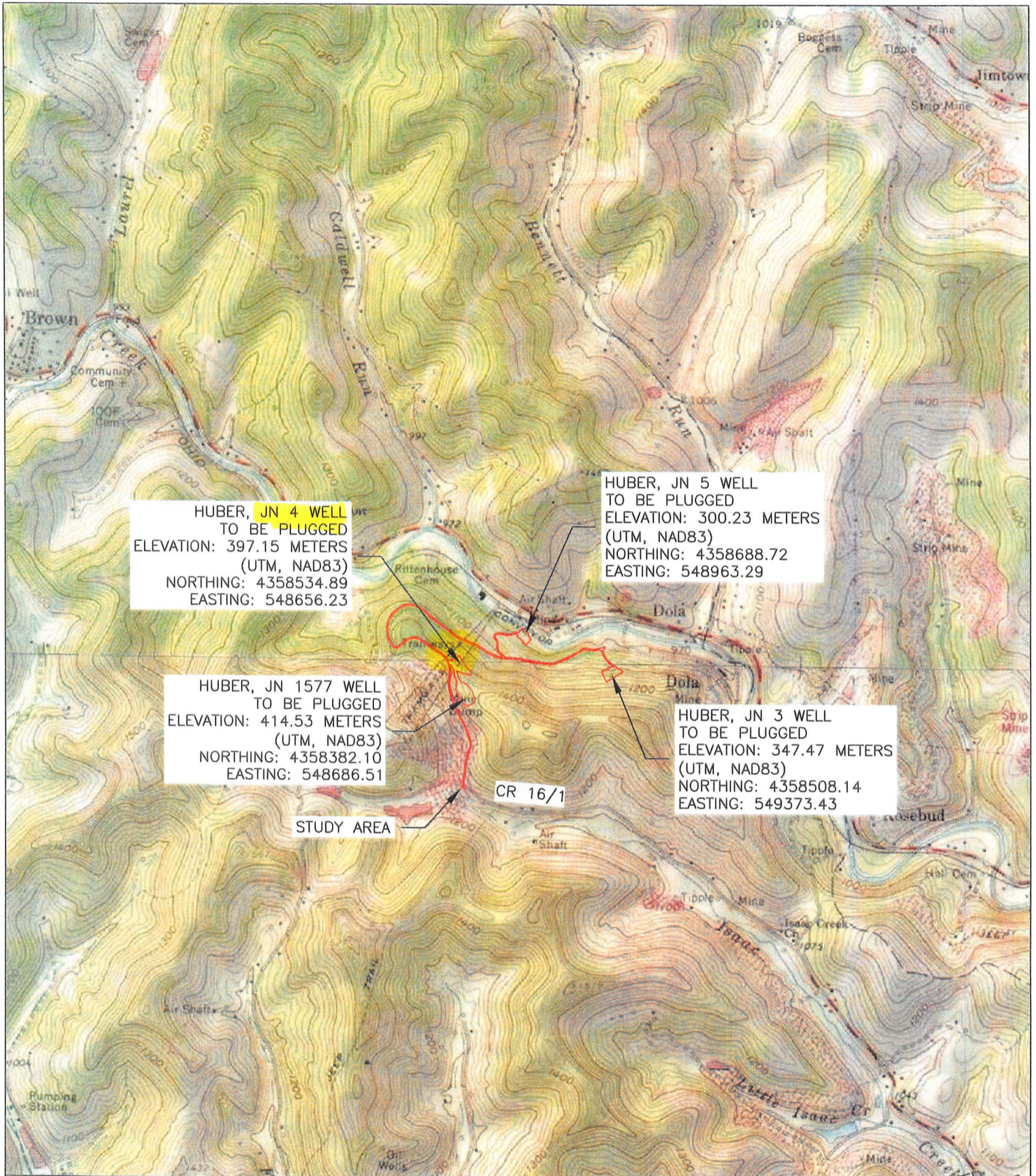
WV Department of Environmental Protection

SHEET NUMBER:
 1 OF 1

TOPOGRAPHIC MAP
HUBER, JN WELLS
 FOR: XTO ENERGY, INC.
 CR 16/1, SARDIS DISTRICT, HARRISON COUNTY, WEST VIRGINIA



MORRIS KNOWLES & ASSOCIATES, INC.
 A HAMMONTREE COMPANY
 ENGINEERS, PLANNERS, SURVEYORS
 443 ATHENA DRIVE DELMONT, PA 15626
 PHN: (724) 468-4622 FAX: (724) 468-8940
 www.morrisknowles.com



HUBER, JN 4 WELL
TO BE PLUGGED
ELEVATION: 397.15 METERS
(UTM, NAD83)
NORTHING: 4358534.89
EASTING: 548656.23

HUBER, JN 5 WELL
TO BE PLUGGED
ELEVATION: 300.23 METERS
(UTM, NAD83)
NORTHING: 4358688.72
EASTING: 548963.29

HUBER, JN 1577 WELL
TO BE PLUGGED
ELEVATION: 414.53 METERS
(UTM, NAD83)
NORTHING: 4358382.10
EASTING: 548686.51

HUBER, JN 3 WELL
TO BE PLUGGED
ELEVATION: 347.47 METERS
(UTM, NAD83)
NORTHING: 4358508.14
EASTING: 549373.43

STUDY AREA

CR 16/1

SCALES HORIZ: 1"=2000' VERT: CONTOUR INT: 20'	DESN BY: SDG DRWN BY: SDG RVWD BY: MMV FLD BK: BK PG: DATE: 03/8/19	REV. BY: _____ DATE: _____ DESC.: _____ REV. BY: _____ DATE: _____ DESC.: _____ REV. BY: _____ DATE: _____ DESC.: _____ REV. BY: _____ DATE: _____ DESC.: _____	RECEIVED Office of Oil and Gas MAY 14 2019 Department of Environmental Protection
	SHEET NUMBER: 1 OF 1	USGS MAP - WALLACE & WOLF SUMMIT QUADRANGLES HUBER, JN WELLS FOR: XTO ENERGY, INC. CR 16/1, SARDIS DISTRICT, HARRISON COUNTY, WEST VIRGINIA	
			MORRIS KNOWLES & ASSOCIATES, INC. A HAMMOND COMPANY ENGINEERS, PLANNERS, SURVEYORS 443 ATHENA DRIVE DELMONT, PA 15626 PHN: (724) 468-4622 FAX: (724) 468-8940 www.morrisknowles.com

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-033-02312 WELL NO.: Y4
 FARM NAME: Huber, Jn
 RESPONSIBLE PARTY NAME: XTO Energy, Inc.
 COUNTY: Harrison DISTRICT: Sardis
 QUADRANGLE: Wolf Summit
 SURFACE OWNER: Tetrick Virginia A Estate
 ROYALTY OWNER: See attached
 UTM GPS NORTHING: 4358534.89
 UTM GPS EASTING: 548656.23 GPS ELEVATION: 397.15 (1303')

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

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

Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

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

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Ti Sark
Signature

Regulatory Coordinator
Title

4/4/19
Date

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