



---

west virginia department of environmental protection

---

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

Jim Justice , Governor  
Austin Caperton , Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, July 31, 2017  
WELL WORK PERMIT  
Vertical / Plugging

XTO ENERGY, INC.  
810 HOUSTON STREET

FORT WORTH, TX 76102

Re: Permit approval for 1  
47-097-01274-00-00

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

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

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

James A. Martin  
Chief

Operator's Well Number: 1  
Farm Name: STRADER, FORMAN G.  
U.S. WELL NUMBER: 47-097-01274-00-00  
Vertical / Plugging  
Date Issued: 7/31/2017

Promoting a healthy environment.

08/04/2017

I

9701274P

## 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.

08/04/2017



47-097-01274

## Plugging Procedure

RIH with 2" tubing - 2454'

6% gel 2454' - surface = 40 bbls

Cement - 2454' - 2200' = 254' x .0163 = 4.1 bbl = 20 sks

Perfs - 2402 - 2406'

Tag cement and pull tubing

RIH to CBL 4.5 - Estimate TOC at 1900'

6% gel 1900' - Surface

Cut 4 1/2"

Cement - 1900' - 1750' = 150' x .0602 = 9 bbl = 44 sks

Gel - 1750' - 1500'

Elevation 1440'

Cement - 1500' - 1340' = 160' x .0602 = 9.7 bbl = 46 sks

Gel - 1340 - 910'

8 5/8" bottom @ 854'

Cement - 910' - 780' = 130' = 8.5 bbl - 44 sks

Gel - 780 - 700 CEMENT FROM 700' - 600' (COVER CORAL @ 639-645) GEL FROM 600' - 200'

Cement 200' - Surface = 200 x .0641 = 13 bbl = 62 sks

8 5/8" cemented to surface

JMM

Total Cement - 216 sks

Total Gel - 2000 lbs

Install Well Monument

RECEIVED  
Office of Oil and Gas

JUL 17 2017

WV Department of  
Environmental Protection

08/04/2017

9701274P

m OG-10



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS WELLS DIVISION

Rotary   
Spudder   
Cable Tools   
Storage

Tract No. Crawford  
Permit No. ups 1274

WELL RECORD

Oil or Gas Well Gas  
(KIND)

Company POM CORPORATION  
 Address Ann Arbor, Michigan  
 Farm Forman Guy Strader Acres 45.07  
 Location (waters) Snyder Run at Stone Coal Creek  
 Well No. Sp #109 Elev. 1440'  
 District Buckhannon County upshur  
 The surface of tract is owned in fee by F. G. Strader  
Buckhannon  
 Address Buckhannon, W. Va.  
 Mineral rights are owned by F. G. Strader  
 Address Buckhannon, W. Va.  
 Drilling commenced 1-18-70  
 Drilling completed 1-28-70  
 Date Shot From To  
 With

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			Size of
10x 11-3/4"	183'	183'	Depth set
8x 5/8"	854'	854'	
6x			
5 3/16			
4 1/2	2520'	2520'	Perf. top <u>2402'</u>
3			Perf. bottom <u>2406'</u>
2			Perf. top
Liners Used			Perf. bottom

Open Flow /10ths Water in Inch  
/10ths Merc. in Inch  
 Volume Cu. Ft.  
 Rock Pressure lbs. hrs.  
 Oil bbls. 1st 24 hrs.  
 Attach copy of cementing record.  
 CASING CEMENTED 4 1/2" SIZE 2520' No. Ft. 1-28-70 Date  
 Amount of cement used (bags)  
 Name of Service Co.

WELL ACIDIZED (DETAILS) None  
 FEET INCHES FEET INCHES  
 FEET INCHES FEET INCHES

WELL FRACTURED (DETAILS) Dowell Co. fractured Gordon zone using 670 bbl. treated water  
500 gal. acid, 30,000# 20-40 sand, 50 sks. of calcium chloride  
 RESULT AFTER TREATMENT (Initial open Flow or bbls.) Shore of Oil 800,000 Gas  
 ROCK PRESSURE AFTER TREATMENT 580 HOURS 48  
 Fresh Water Feet Salt Water Feet  
 Producing Sand Depth 2490

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	40			
Shale			40	118			
Sand			118	124			
Red Rock			124	140			
Sand			140	142			
Shale			142	175			
Sand			175	180			
Sand & Lime			180	247			
Red Rock			247	310			
Shale			310	448			
Shale & Red Rock			448	612			
Sand (Hard)			612	639			
Coal			639	645			
Sand & Shale			645	673			
			673	869	Water @ 675'		
			869	897			
Sand & Shale			897	1710			
Big Lime			1710	1790			
Lime			1790	1805			
Shale & Sand			1805	2114			
Sand & Shale			2114	2635			
Shale			2635	3785			
Sand & Shale			3785	4280			
Benson			4280	4295			
Shale			4295	4420			
Shale			4420	4500			
Total Depth				4500			

RECEIVED  
Office of Oil and Gas  
JUL 17 2017  
West Virginia Department of Environmental Protection

08/04/2017

RECEIVED

NOV 10 1970

(over)

9701274P

RECEIVED  
Office of Oil and Gas

JUL 17 2017

WW-4A  
Revised 6-07

1) Date: 7/13/17 WV Department of  
2) Operator's Well Number Environmental Protection

3) API Well No.: 47 - 097 - 01274

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

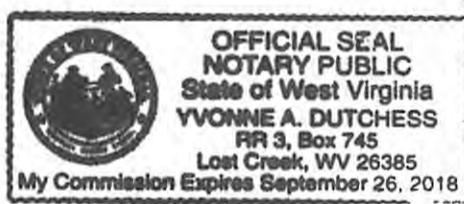
<b>4) Surface Owner(s) to be served:</b>	<b>5) (a) Coal Operator</b>
(a) Name <u>Joseph &amp; Mary Corder</u>	Name _____
Address <u>21 Tillman LN</u>	Address _____
<u>Buckhannon, WV 26201</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Joseph &amp; Mary Corder</u>
	Address <u>21 Tillman LN</u>
	<u>Buckhannon, WV 26201</u>
(c) Name _____	Name _____
Address _____	Address _____
<b>6) Inspector</b> <u>Bryan Harris</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 157</u>	Name _____
<u>Volga, WV 26238</u>	Address _____
Telephone <u>304-553-6087</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: [Signature]  
 Title: Regulatory Compliance Technician  
 Address PO Box 1008  
Jane Lew, WV 26378  
 Telephone 304-884-6000

Subscribed and sworn before me this 10<sup>th</sup> day of July 2017  
Yvonne A. Dutches Notary Public  
 My Commission Expires September 26, 2018

**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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

08/04/2017

9701274P

**Royalty Owners**

**47-097-01274**

Joseph A Corder

XTO Energy Inc.

RECEIVED  
Office of Oil and Gas  
JUL 17 2017  
08/04/2017  
WV Department of  
Environmental Protection

9701274P

WW-9  
(5/16)

API Number 47 - 097 - 01274  
Operator's Well No. 1

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

RECEIVED  
Office of Oil and Gas  
JUL 17 2017  
WV Department of  
Environmental Protection

Operator Name XTO Energy Inc. OP Code 494487940  
Watershed (HUC 10) Buckhannon River (050200103) Quadrangle Adrian

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.? \_\_\_\_\_

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))

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 *Tim Sands*

Company Official (Typed Name) Tim Sands

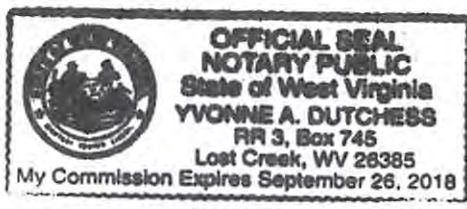
Company Official Title Regulatory Compliance Technician

Subscribed and sworn before me this 10<sup>th</sup> day of July, 2017

*Yvonne A. Dutchesse* Notary Public

My commission expires September 26, 2018

08/04/2017





9701274A

Form WW-9

Operator's Well No. 1

Proposed Revegetation Treatment: Acres Disturbed .35 +/- Prevegetation pH \_\_\_\_\_

Lime 4 Tons/acre or to correct to pH \_\_\_\_\_

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

RECEIVED  
Office of RECEIVED  
Office of Oil and Gas  
JUL 17 2017  
JUL 17 2017  
WV Dept.  
Environmental Protection  
WV Department of  
Environmental Protection

Seed Mixtures

**Temporary**

**Permanent**

Seed Type lbs/acre

Seed Type lbs/acre

Per Plans

Per Plans

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bryan O'Hara

Comments: \_\_\_\_\_

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

Title: Inspector Date: 7-12-17

Field Reviewed? (  ) Yes (  ) No

08/04/2017

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

Operator Name: XTO Energy Inc.

Watershed (HUC 10): Buckhannon River (050200103) Quad: Adrian

Farm Name: Strader, Forman G.

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

Fluids will not be discharged.

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

NA

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

NA

4. Summarize all activities at your facility that are already regulated for groundwater protection.

NA

RECEIVED  
Office of Oil and Gas  
JUL 17 2017

WV Department of  
Environmental Protection

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

08/04/2017

NA

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

NA

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

NA

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

NA

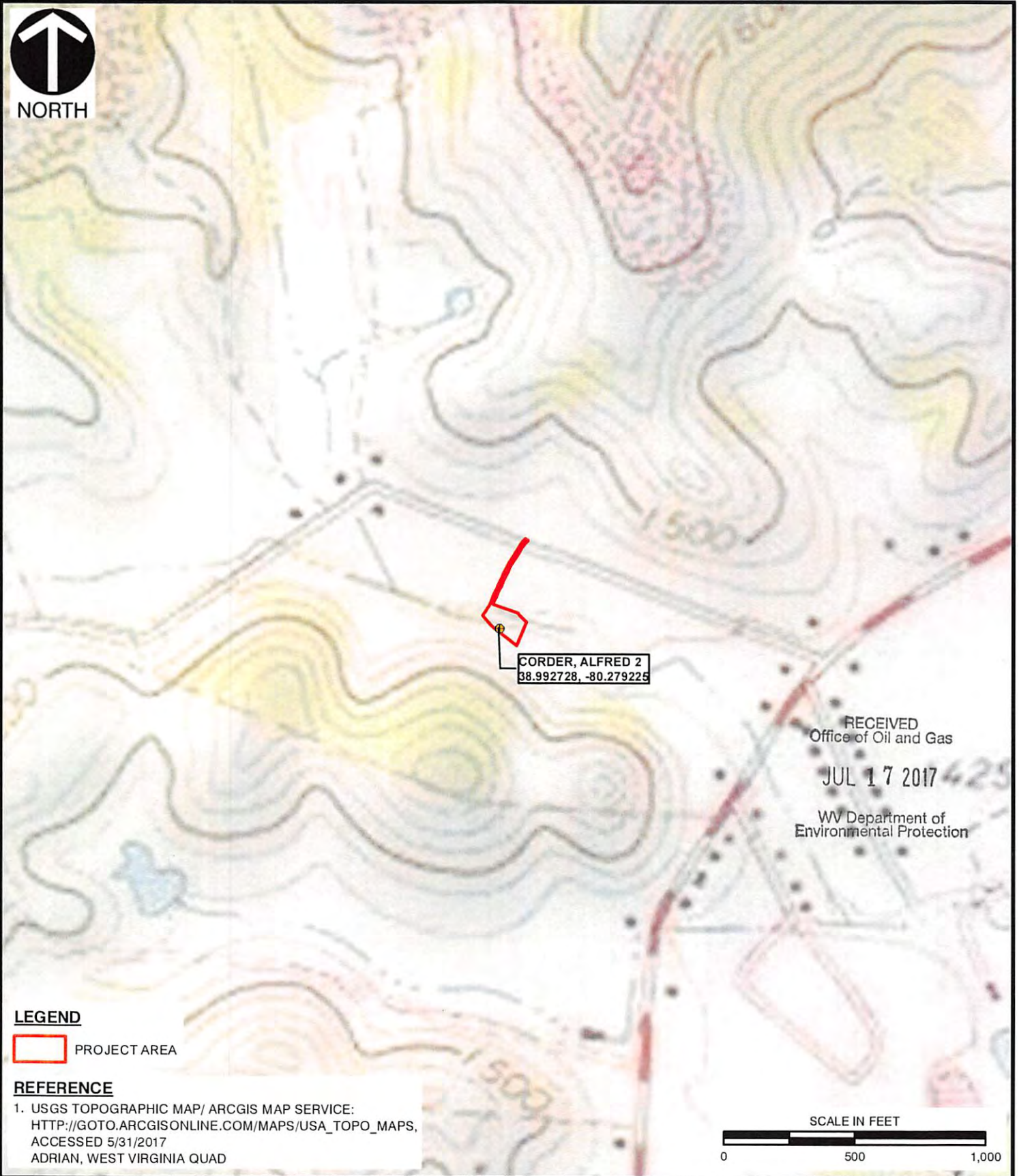
Signature: *Travis*

Date: 7/10/17

RECEIVED  
Office of Oil and Gas

JUL 17 2017 08/04/2017

WV Department of  
Environmental Protection



**LEGEND**

PROJECT AREA

**REFERENCE**

1. USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:  
[HTTP://GOTO.ARCGISONLINE.COM/MAPS/USA\\_TOPO\\_MAPS](http://gto.arcgis.com/maps/usa_topo_maps),  
 ACCESSED 5/31/2017  
 ADRIAN, WEST VIRGINIA QUAD

SCALE IN FEET



**Civil & Environmental Consultants, Inc.**

600 Marketplace Avenue, Suite 200 - Bridgeport, WV 26330-9121  
 Ph: 304-933-3119 · Toll: 855-488-9539 · Fax: 304-933-3327  
[www.cecinc.com](http://www.cecinc.com)

XTO ENERGY, INC.  
 CORDER, ALFRED 2 WELL PLUGGING  
 UPSHUR COUNTY, WEST VIRGINIA

USGS SITE LOCATION MAP

DRAWN BY:	GSK	CHECKED BY:	KAD	APPROVED BY:	BCL*	FIGURE NO:	08/04/2017
DATE:	05/31/2017	SCALE:	1" = 500'	PROJECT NO:	162-839.0001	* Hand signature on file	<b>1</b>

I:\svr-bridgeport\projects\2016\162-839-GIS\Maps\Task\_0001\XTO\162839\_0001\_FIG1\_XTO\_SITE.mxd 5/31/2017 10:17 AM (kcolazzi)



West Virginia Department of Environmental Protection  
Office of Oil and Gas

**WELL LOCATION FORM: GPS**

API: 47-097-01274 WELL NO.: 1

FARM NAME: Forman G. Strader

RESPONSIBLE PARTY NAME: XTO Energy, Inc.

COUNTY: Upsher DISTRICT: Buckhannon

QUADRANGLE: Adrian, WV

SURFACE OWNER: Joseph & Mary Corder

ROYALTY OWNER: See attached

UTM GPS NORTHING: 4316215.8

UTM GPS EASTING: 562420.2 GPS ELEVATION: 1439

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.

B.C. [Signature] Project Manager 6-13-17  
Signature Title Date

RECEIVED  
Office of Oil and Gas  
JUL 17 2017  
WV Department of  
Environmental Protection  
08/04/2017

9701274P

# ALFRED CORDER 2 WELL PLUGGING PROJECT EROSION AND SEDIMENT CONTROL PLAN XTO ENERGY, INC.

LAT./LONG: N 38.992728° W -80.279225°  
(LOCATION OF WELL)

RECEIVED  
Office of Oil and Gas

JUL 17 2017

WV Department of  
Environmental Protection

**PROJECT OWNER/APPLICANT**  
XTO ENERGY, INC.  
PO BOX 1004  
JANE LEW, WV 26378  
PH: (304) 884-6036  
CONTACT: TIM SANDS

**WVDOH**  
DISTRICT SEVEN  
PH: (304) 269-8400  
CONTACT: RON HOOTEN - DISTRICT ENGINEER

**CIVIL ENGINEER**  
CIVIL & ENVIRONMENTAL  
CONSULTANTS, INC.  
600 MARKETPLACE AVE - SUITE 200  
BRIDGEPORT, WV 26330  
PH: (304) 633-3118  
CONTACT: STEVEN A. CAIN, P.E.

**SPILL HOTLINE**  
WEST VIRGINIA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION (WVDEP)  
PH: (800) 642-3074  
NATIONAL RESPONSE CENTER  
PH: (800) 424-8822

LOCAL EMERGENCY SERVICES		
	NAME	TELEPHONE NO.
AMBULANCE		911
HOSPITAL EMERGENCY ROOM	ST. JOSEPH'S HOSPITAL OF BUCKHANNON	(304) 473-2000
FIRE DEPARTMENT	BUCKHANNON FIRE DEPARTMENT	(304) 472-2868
POLICE DEPARTMENT		911
POISON CONTROL CENTER	WEST VIRGINIA POISON CENTER	(800) 222-1222

B.C.H.  
7-12-17



**LOCATION MAP**  
ADRIAN USGS 7.5' QUAD  
SCALE IN FEET  
1 INCH = 1000 FEET



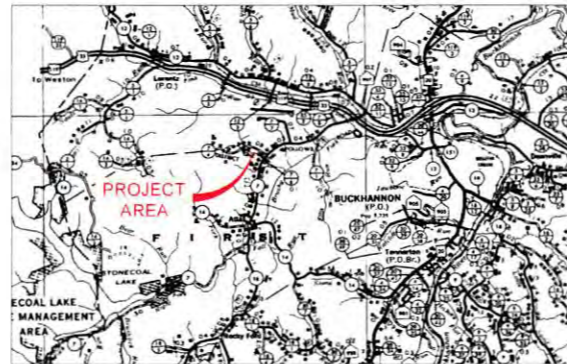
SHEET INDEX	
SHEET 1 OF 4	COVER SHEET
SHEET 2 OF 4	EROSION AND SEDIMENT CONTROL PLAN NOTES
SHEET 3 OF 4	EROSION AND SEDIMENT CONTROL PLAN
SHEET 4 OF 4	EROSION AND SEDIMENT CONTROL PLAN DETAILS

**PLAN REPRODUCTION WARNING**  
THE PLANS HAVE BEEN CREATED ON ANSI D (22" X 34") SHEETS. FOR REDUCTIONS, REFER TO GRAPHIC SCALE.  
THE PLANS HAVE BEEN CREATED FOR FULL COLOR PLOTTING. ANY SET OF THE PLANS THAT IS NOT PLOTTED IN FULL COLOR SHALL NOT BE CONSIDERED ADEQUATE FOR CONSTRUCTION PURPOSES.  
\*\*WARNING\*\* INFORMATION MAY BE LOST IN COPYING AND/OR GRAY SCALE PLOTTING.



ESTIMATED QUANTITIES				
	EST. QTY	UNITS	BID QTY	TOTAL COST
STABILIZED CONSTRUCTION ENTRANCE	750	SF		
TIMBER MAT BRIDGE*	1	EA		
PERMANENT SEEDING	1,664	SY		
12" COMPOST FILTER SOCK	150	LF		
ORANGE CONSTRUCTION FENCE	125	LF		

\* - SEE DIMENSIONS ON PLAN DRAWINGS



**VICINITY MAP**  
UPSHUR COUNTY ROAD MAPS  
SCALE IN FEET  
1 INCH = 1 MILE



REVISION RECORD	
NO.	DATE

**Civil & Environmental Consultants, Inc.**  
600 Marketplace Ave - Suite 200 - Bridgeport, WV 26330  
Ph: 304.933.3119 - 855.488.6930 - Fax: 304.933.3327  
www.cetinc.com

XTO ENERGY, INC.  
ALFRED CORDER 2 WELL PLUG  
BUCKHANNON DISTRICT  
UPSHUR COUNTY, WV

COVER SHEET	
DATE:	AUG 2016
DRAWN BY:	RDB
CHECKED BY:	ZND
PROJECT NO:	16-008
APPROVED BY:	SAC





9761274P



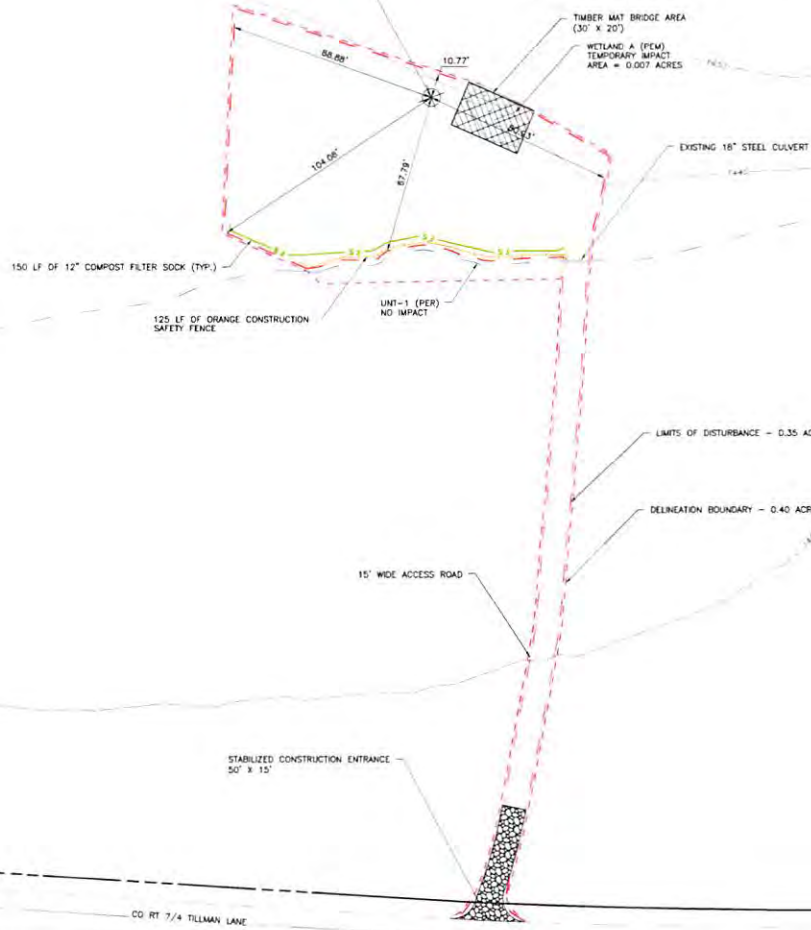
NORTH

API #47-007-01274  
ALFRED CORDER 2  
LAT: 36.992708  
LON: -82.279225  
N: 4316215.8 (UTM17)  
E: 5629402.2 (UTM17)  
ELEV: 1430'

**LEGEND**

- EXISTING ROAD
- EXISTING ROAD CENTERLINE
- EXISTING STREAM
- EXISTING WETLAND
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED TIMBER MAT
- DELINEATION STUDY AREA
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED 12" COMPOST FILTER SOCK
- PROPOSED ORANGE CONSTRUCTION SAFETY FENCE
- WELL HEAD

RECEIVED  
Office of Oil and Gas  
JUL 17 2017  
WV Department of  
Environmental Protection



NOTE:  
EXISTING ACCESS DRIVE SURFACE AND WELL HEAD AREA IS CURRENTLY VEGATED/BARE GROUND. CONTRACTOR TO MAKE ANY NECESSARY REPAIRS CAUSED BY PLUGGING ACTIVITIES AS INSTRUCTED BY THE CONSTRUCTION SUPERVISOR. ONCE PLUGGING OPERATIONS ARE COMPLETE ALL DISTURBED AREAS ARE TO BE SEEDED AND STABILIZED

SCALE IN FEET  
0 30 60



REVISION RECORD	
NO.	DATE

**EROSION & SEDIMENT CONTROL PLAN**

DATE: AUG 2018 (DRAWN BY: BDB)  
 DATE: AS SHOWN (CHECKED BY: ZMD)  
 PROJECT NO: 182-879  
 APPROVED BY: SAC

**3**

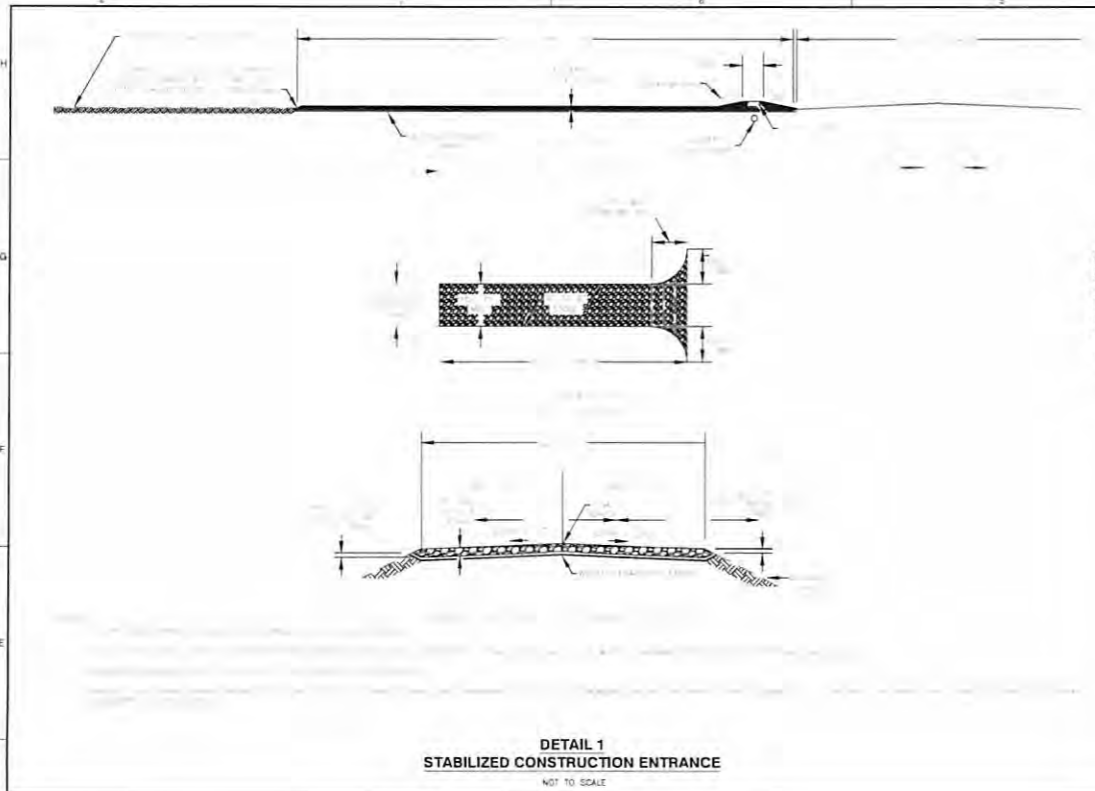
SHEET 3 OF 4

**CEC**  
**Civil & Environmental Consultants, Inc.**  
 600 Marketplace Ave - Suite 200 - Bridgeport, WV 26330  
 Ph: 304.933.3119 - 855.489.9539 - Fax: 304.933.3327  
 www.cecinc.com

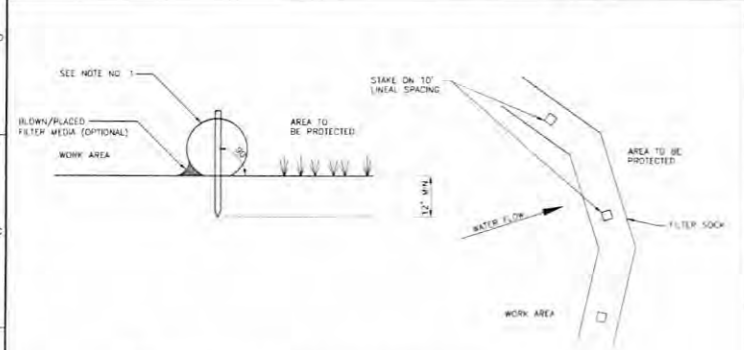
**XTO ENERGY, INC.**  
**ALFRED CORDER 2 WELL PLUG**  
**UPSHUR COUNTY, WV**



9701274P

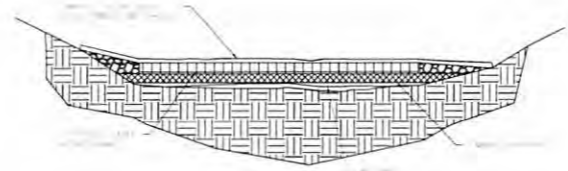


**DETAIL 1**  
**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE



- NOTE:
1. COMPOST FILTER SOCK TO BE FILTERKIX SUTSOXK OR APPROVED EQUIVALENT
  2. 12", 18", 24", and 30" COMPOST FILTER SOCK TO BE USED. SEE PLAN SHEET FOR SIZES AND LOCATIONS.
  3. ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE COMPOST FILTER SOCK.
  4. COMPOST FILTER SOCK SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED COMPOST FILTER SOCK SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
  5. COMPOST FILTER SOCK SHALL BE INSTALLED ON THE CONTOUR, PERPENDICULAR TO FLOW.

**DETAIL 3**  
**COMPOST FILTER SOCK**  
NOT TO SCALE

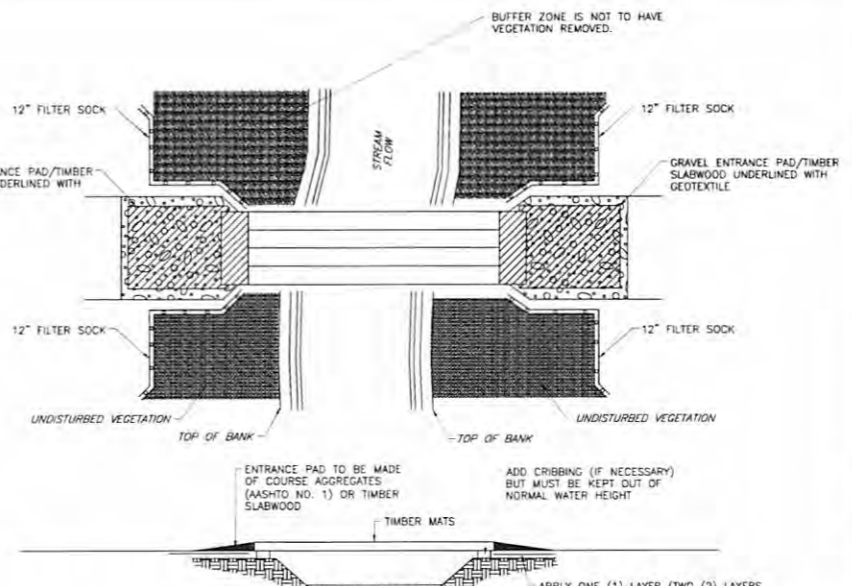


**DETAIL 4**  
**TIMBER MAT BRIDGE FOR WETLAND CROSSING**  
NOT TO SCALE

RECEIVED  
Office of Oil and Gas

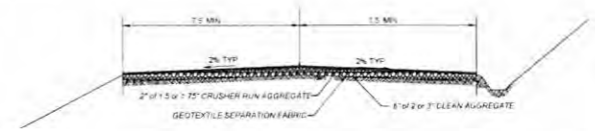
JUL 17 2017

WV Department of Environmental Protection



- NOTES:
- 1.) ONLY CLEARING EQUIPMENT AND EQUIPMENT NECESSARY FOR INSTALLATION OF EQUIPMENT BRIDGES MAY CROSS WATER BODIES PRIOR TO BRIDGE INSTALLATION. LIMIT THE CROSSING OF EACH WATER BODY TO ONE PER PIECE OF CLEARING EQUIPMENT.
  - 2.) INSTALL 12" FILTER SOCK ACROSS THE DISTURBED AREA OF THE RIGHT - OF - WAY.
  - 3.) APPLY GEO - TEXTILE UNDER ENTRANCE PADS.
  - 4.) EXCESS MUD IS TO BE REMOVED FROM THE ENTRANCE PADS AND MATS DURING CONSTRUCTION.
  - 5.) SECURE GEO-TEXTILE TO UNDER SIDE OF TIMBER MATS AND WRAP/SECURE TO SIDES TO PREVENT SEDIMENT/MUD FROM MIGRATION THROUGH MATS TO PROTECTED AREA BELOW.
  - 6.) DURING FINAL CLEAN UP WHEN MATS, CULVERT, CLEAN ROCK FILL, ETC. ARE REMOVED, INSTALL FILTER FENCE ACROSS THE ENTIRE RIGHT - OF - WAY ON BOTH SIDES OF STREAM.

**DETAIL 2**  
**TEMPORARY TIMBER MAT STREAM CROSSING DETAIL**  
NOT TO SCALE



**DETAIL 5**  
**TYPICAL CONSTRUCTION ACCESS ROAD REPAIR**  
NOT TO SCALE

- NOTES:
- EXISTING ACCESS DRIVE IS CURRENTLY VEGETATED. THE CONTRACTOR SHALL MAKE REPAIRS TO MINOR RUTTING WITHIN THE ACCESS ROAD PER THIS DETAIL OR AS INSTRUCTED BY THE CONSTRUCTION SUPERVISOR. THE ACCESS ROAD IS TO BE STABILIZED AND MAINTAINED THROUGHOUT CONSTRUCTION AS DIRECTED BY THE CONSTRUCTION SUPERVISOR. ONCE THE WORK IS COMPLETE, ANY DISTURBED AREAS MUST BE SEEDED AND STABILIZED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN NOTES.

NO.	DATE	REVISION RECORD

**C&E**  
**Civil & Environmental Consultants, Inc.**  
800 Marketplace Ave. - Suite 200 - Bridgeport, WV 26330  
Ph: 304.833.3119 - 855.486.9639 - Fax: 304.833.3327  
www.candec.com

**XTO ENERGY, INC.**  
**ALFRED CORDER 2 WELL PLUG**  
**UPSHUR COUNTY, WV**

DATE	BY	CHKD	BY	REVISION
AUG 2018	BSM/RY			

PROJECT NO. AS SHOWN  
APPROVED BY: \_\_\_\_\_

