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

July 17, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3304466, 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.

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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: GOFF 1 D0321
Farm Name: NORMAN, WILLIAM R.
API Well Number: 47-3304466
Permit Type: Plugging
Date Issued: 07/17/2015

Promoting a healthy environment.

3304466P

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.

3304466P

WW-4B
Rev. 2/01

1) Date _____, 20_____
2) Operator's
Well No. Goff 1
3) API Well No. 47 - 033 - 04466

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 1395 Watershed Little Elk Creek
District Sardis County Harrison Quadrangle Wallace

6) Well Operator XTO Energy Inc
Address PO Box 1008
Jane Lew, WV 26378

7) Designated Agent Gary Beall
Address PO Box 1008
Jane Lew, WV 26378

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

9) Plugging Contractor
Name _____
Address _____

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

RIH with tools and check TD at 5300', POOH and run 2" tubing down to 5300' and circulate 6% gel back to surface, then pump cement from 5300' up to 5075', perfs at 5218 - 5212', pull tubing up to 4900' and and reverse circulation up tubing to flush, then wait for cement to set up and RIH inside tubing to tag cement at 5075', if ok pull tubing up to 4225' and break circulation again and pump cement from 4225' up to 4000' , perfs at 4157' - 4137', pull tubing up to 3180' and pump cement up to 2650', perfs at 3115' - 2804', pull tubing out of well and run CBL in 4.5 casing, estimated TOC at 2050', cut casing at 2040' and break circulation with 6% gel to surface, then pump cement up to 1875', pull casing up to 1470' and pump cement up to 1225', bottom of 7" casing at 1372' and elevation at 1395', pull casing up to 250' and pump cement to surface. 7" casing is C.T.S. Install well monument.

Cement - 5300 - 5075' = 225' in 4.5" Cement - 2040-1875 = 165 in 6.5" Open hole
Cement - 4225 - 4000' = 225' in 4.5" Cement - 1470 - 1225 = 245' in 7"
Cement - 3180 - 2650' = 530' in 4.5" Cement - 250' - Surface = 250' in 7"

Good

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

Work order approved by inspector [signature] Date 5/27/2015

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WV Department of
Environmental Protection

3304466P

WR-35

DATE: 2-15-06
API: 47-033-04466

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name: Goff #1 Operator Well No. D0321

LOCATION: Elevation: 1,395.03' Quadrangle: Wallace
District: Sardis County: Harrison
Latitude: 4,270 Feet S. of 39 Deg. 25 Min. 00 Sec.
Longitude: 2,150 Feet W. of 80 Deg. 27 Min. 30 Sec.

Company: Devonian Gas Production,Inc.

Address: PO Box 907	Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. Ft.
Jane Lew, WV 26378	9 5/8"	80'	80'	N/A
	7"	1,372'	1,372'	To Surf.
Agent: John Haskins	4 1/2"		5,429'	320 sks
Inspector: Tim Bennett				
Date Permit Issued: 03/17/04				
Date Well Work Commenced: 09/16/04				
Date Well Work Completed: 09/23/04				
Verbal Plugging: N/A				
Date Permission Granted on: N/A				
Rotary X Cable Rig				
Total Depth (ft): 5,485'				
Fresh Water Depth (ft): 915'				
Salt Water Depth (ft):				

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Is coal being mined in the area (Y/N)? No
Coal Depths (ft): 571-574', 735-738',

OPEN FLOW DATA

Producing formations	Pay zone depth (ft)
Benson	5,280
Balltown	4,150
4th Sand	3,120
Gordon	3,000
30 Foot	2,890
50 Foot	2,810

Gas: Initial open flow 30 Mcf/d. Oil: Initial open flow N/A Bbl/d
Final open flow 750 Mcf/d. Final open flow N/A Bbl/d
Time to open flow between initial and final tests: 8 Hours
Static rock Pressure 500 psig (surface press.) after 72 Hours

NOTE: On back of this form put the following: 1) Details of perforated intervals, fracturing or stimulating, physical change, etc. 2) The well log which is a systematic detailed geological record of all formations, including coal encountered by the wellbore.

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Office of Chief
MAR 06 2006
WV Department of
Environmental Protection

Signed: [signature]
By: 2/15/06 AGENT
Date: 2/15/06

HAR 44466

3304466P

WW-4A
Revised 6-07

1) Date:
2) Operator's Well Number
Goff 1

3) API Well No.: 47 - 033 - 04466

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: William & Glenice Norman
Address: 3865 Gregorys Run Rd
Clarksburg, WV 26301

(b) Name
Address

(c) Name
Address

6) Inspector: Sam Ward
Address: PO Box 2327
Buckhannon, WV 26201
Telephone: 304-389-7583

5) (a) Coal Operator
Name
Address

(b) Coal Owner(s) with Declaration
Name: Laura Goff Davis
Address: PO Box 707
Clarksburg, WV 26301

Name: Cather C. Trust
Address: 315 Spring Ave.
Clarksburg, WV 26301

(c) Coal Lessee with Declaration
Name
Address

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.

OFFICIAL SEAL
NOTARY PUBLIC
State of West Virginia
DIANNE RICKLES
PO Box 1008
Jane Lew, WV 26378
My Commission Expires September 26, 2018

Well Operator: XTO Energy Inc.
By: [signature]
Its: Regulatory Compliance Technician
Address: PO Box 1008
Jane Lew, WV 26378
Telephone: 304-884-6000

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Subscribed and sworn before me this 1 day of June 2015
Dianne Rickles Notary Public
My Commission Expires Sept. 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 depprivacyoffier@wv.gov.

3304466P

Royalty Owner List					
Owner #	Owner Name	Address	City	State	Zip
801371	LAURA GOFF DAVIS	P. O. BOX 707	CLARKSBURG	WV	26301
809664	DIANA GOFF CATHER C TRUST	315 SPRING AVENUE	CLARKSBURG	WV	26301

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7014 0510 0001 6707 0049

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William & Glenice Norman
3865 Gregorys Run Rd.
Clarksburg, WV 26301

Goff 1
Plugging Application

for Instructions

7014 0510 0001 6707 0056

330446GP

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Total Postage & Fees $

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Laura Goff Davis
PO Box 707
Clarksburg, WV 26301

Goff 1
Plugging Application

for Instructions

7014 0510 0001 6707 0063

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Cather C. Trust
315 Spring Ave.
Clarksburg, WV 26301

Goff 1
Plugging Application

for Instructions

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3304466P

CK# 7735021
100.00

WW-9
(2/15)

API Number 47 - 033 - 04466
Operator's Well No. Goff 1

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) Little Elk Creek Quadrangle Wallace

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 a synthetic liner be used in the pit? Yes ☑ No ☐ If so, what ml.? Yes - 20 mil.

Proposed Disposal Method For Treated Pit Wastes:

- ____ Land Application
- ■ 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)

SDW 6/27/2015

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

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

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Company Official Signature [signature]

Company Official (Typed Name) Tim Sands

Company Official Title Regulatory Compliance Technician

Subscribed and sworn before me this 1 day of June, 20 15

Dianne Rickles Notary Public

My commission expires Sept. 26, 2018

OFFICIAL SEAL
NOTARY PUBLIC
State of West Virginia
DIANNE RICKLES
PO Box 1008
Jane Lew, WV 26378
My Commission Expires September 26, 2018

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Form WW-9

Operator's Well No. Goff 1

XTO Energy Inc.

Proposed Revegetation Treatment: Acres Disturbed 0.46 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:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: S. D. Warnick II

Comments: _____

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Title: OOG Inspector Date: 5/27/2015

Field Reviewed? (_____) Yes (X) No

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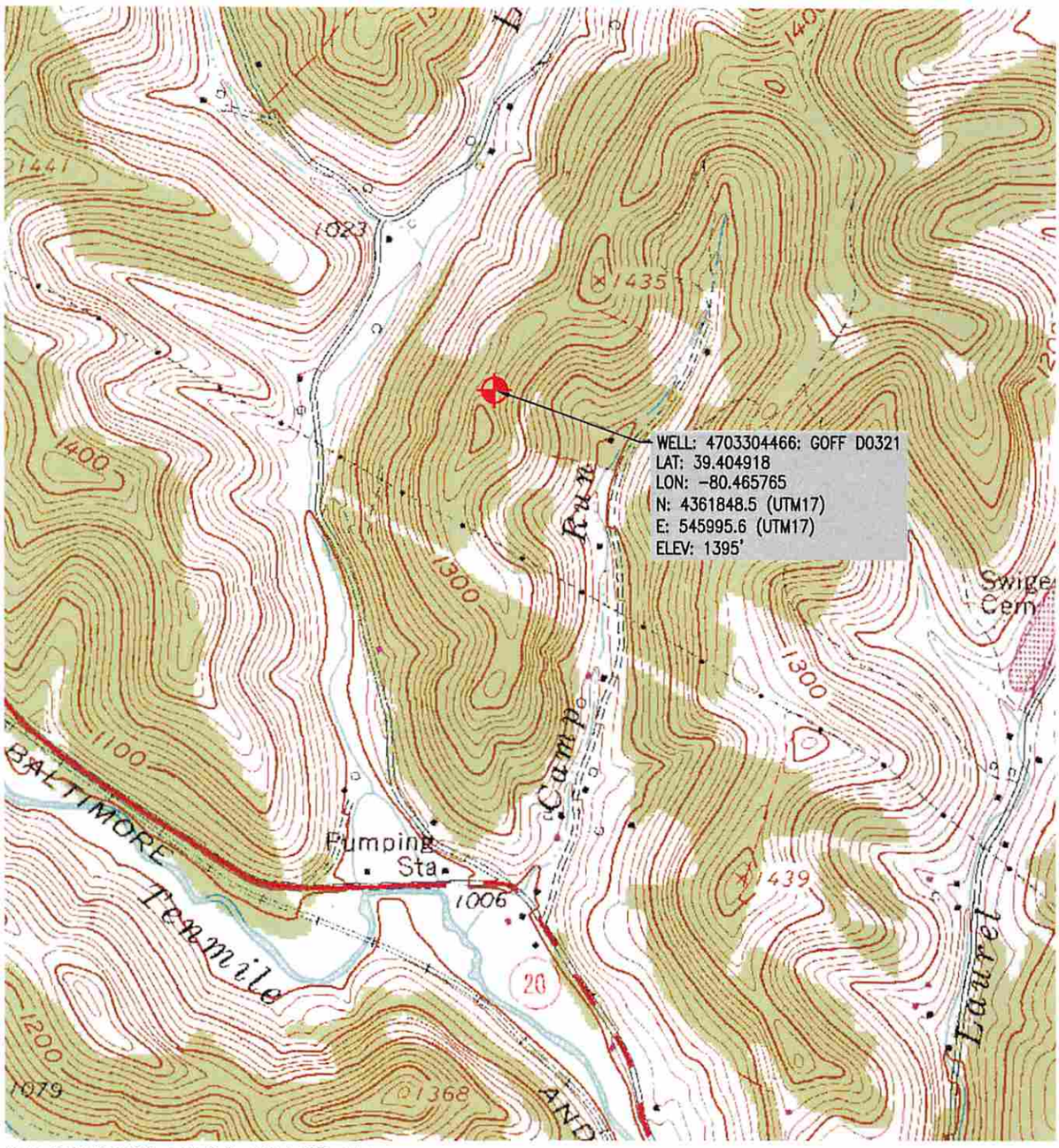

MAP REFERENCE: U.S.G.S. WALLACE, WV

WV NORTH ZONE
SPCS GRID NORTH

XTO ENERGY
810 HOUSTON STREET
FORT WORTH, TX 76102

0' 1000'
SCALE 1" = 1000'

TRI-COUNTY ENGINEERING, LLC
An ENERCON Company
319 Paintersville Road
Hunker, PA 15639
www.tricountyeng.com
Voice: (724) 635-0210 Fax: (724) 635-0676

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LOCATION MAP	
GOFF D0321 WELL PLUG	
DRAWN BY: ZJC	SARDIS DISTRICT, HARRISON COUNTY, WEST VIRGINIA
DATE: 5/13/2015	SHEET: 1 OF 1 / FILE NO. OG61-12
SCALE: AS NOTED	

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3304466P

WW-7
8-30-06

West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-033-04466 **WELL NO.:** D0321

FARM NAME: William R. Norman

RESPONSIBLE PARTY NAME: XTO Energy, Inc.

COUNTY: Harrison **DISTRICT:** Sardis

QUADRANGLE: Wallace

SURFACE OWNER: William R. Norman

ROYALTY OWNER: See attached list

UTM GPS NORTHING: 4361848.5

UTM GPS EASTING: 545995.6 **GPS ELEVATION:** 425m (1394')

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 X: Post Processed Differential X

Real-Time Differential ____

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

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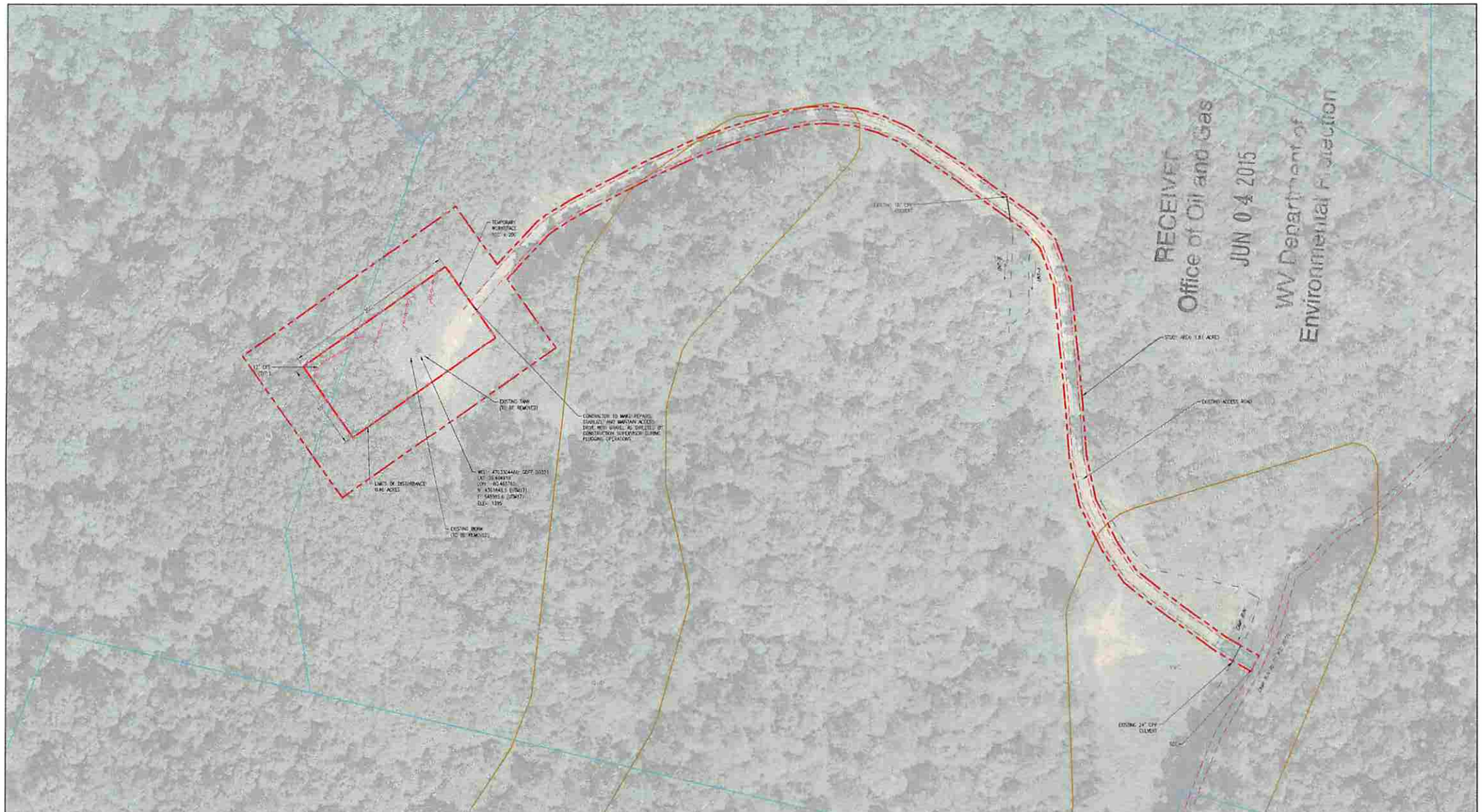
I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Signature	Title	Date
	Project Manager	May 15, 2015

3304466 P



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SPW
5/27/2015

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	-	-	-

UNDERGROUND UTILITIES, PIPELINES ARE APPROXIMATE OR THERE MAY BE OTHER UNDERGROUND UTILITIES THAT ARE NOT SHOWN. BEFORE ANY EXCAVATION OR CONSTRUCTION OPERATIONS BEGIN THE CONTRACTOR MUST CONTACT MISS UTILITY OF WEST VIRGINIA AND THE OWNERS OF THE UTILITIES TO VERIFY THEIR LOCATION.

LEGEND

EXISTING CONTOUR
PROPERTY LINE
EXPLORATORY WELL
STREAMS
SILT FENCE
LIMITS OF DISTURBANCE
ACCESS ROAD
ACTIVE ROAD
CONSTRUCTION BARRIER FENCE
STUDY AREA

NOTES:
1. ELEVATIONS ARE APPROXIMATE FROM WVU INTERNAL DETAILED TECHNICAL FIELD SURVEYS, AND ARCTITLE SURVEY.
2. PROPERTY LINES SHOWN ON SHEET ARE APPROXIMATE FROM COUNTY MAPPING.
3. AREA WAS SURVEYED AND NO INCLUDED WERE PRESENT.

N. NORTH ZONE
SPCS 1927 NAD83

DAVID R. HEDGES
REGISTERED
17818
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER
05/14/2015

PREPARED FOR:

XTO ENERGY
810 HOUSTON STREET
FORT WORTH, TX 76102

0 50 100 150
GRAPHIC SCALE 1" = 50'

TRI-COUNTY ENGINEERING, LLC
An DENERCON Company
319 Pennsville Road
Hurricane, PA 15639
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SEDIMENT CONTROL PLAN

GOFF D0321 WELL PLUG

SARDIS DISTRICT,
HARRISON COUNTY, WV.

DRAWN BY: JJC
DATE: 5/14/2015
SCALE: AS NOTED
SHEET: 1 OF 3
FILE NO.: DG61-12

3304466P

PROJECT DESCRIPTION:

TRI-COUNTY ENGINEERING, LLC (TCE), ON BEHALF OF XTO ENERGY, INC., PREPARED THIS SEDIMENT CONTROL PLAN FOR THE GOFF D0321 WELL PLUG PROJECT. THE PROJECT IS LOCATED APPROXIMATELY 8.5 MILES NORTHEAST OF LUMBERPORT IN THE SARDIS DISTRICT OF HARRISON COUNTY, WEST VIRGINIA.

THE PROPOSED GOFF D0321 WELL PLUG PROJECT INVOLVES THE PLUGGING AND ABANDONMENT OF THE GOFF D0321 SHALLOW GAS WELL. THE WELLHEAD, CASING, AND PRODUCTION EQUIPMENT WILL BE REMOVED. ONCE CEMENT PLUGS ARE PLACED WITHIN THE BOREHOLE, THE WELL PAD AREA WILL BE RECLAIMED AND GRADED TO BE CONSISTENT WITH THE GENERAL CONTOUR OF THE IMMEDIATE SURROUNDING LAND. THE SITE WILL BE SEEDED, AS REQUIRED, WITH A MIX APPROVED BY WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE PROJECT CONSISTS OF AN ACCESS ROAD APPROXIMATELY 12 FEET WIDE AND 1,370 FEET LONG, AND A WORKSPACE APPROXIMATELY 20,000 SQUARE FEET (0.46 ACRES). THE STUDY AREA FOR THE PROJECT WAS 78,970 SQUARE FEET (1.81 ACRES).

STANDARD EROSION AND SEDIMENTATION CONTROL MEASURES AND NOTES:

THE CONTRACTOR SHALL USE WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL.

BEST MANAGEMENT PRACTICES WILL BE USED DURING CONSTRUCTION TO HELP MINIMIZE SEDIMENTATION TO ANY STREAMS AND/OR WETLANDS AND TO KEEP MUD, DIRT, AND DEBRIS OFF THE PUBLIC ROADS THAT COULD BE DEPOSITED FROM THE EQUIPMENT USED FOR CONSTRUCTION OF THE PROJECT.

EROSION AND SEDIMENTATION CONTROL MEASURES TO BE USED FOR THIS PROJECT ARE COMPOST FILTER SOCKS, STABILIZED CONSTRUCTION ENTRANCE, AND TIMBER MAT BRIDGE FOR STREAM AND WETLAND CROSSINGS (WHEN APPLICABLE).

IF PROJECT LIMITS CHANGE FOR NEEDS OF CONSTRUCTION, AND ADDITIONAL WATERBODIES AND/OR WETLANDS ARE TO BE CROSSED OR IMPACTED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACQUIRE THE NECESSARY PERMITS PRIOR TO IMPACTING THOSE FEATURES.

IF OTHER ACCESSES ARE NEEDED OR BETTER ROUTES ARE DETERMINED, OBTAIN THE NECESSARY PERMITS PRIOR TO INITIATING WORK FOR THE NEW ROUTES. PROVIDE RECORD MARKUPS ON THE ON-SITE SCP DRAWINGS TO INCLUDE THE LOCATION OF THE ACCESS ROADS AND THE CONTROL MEASURES, SUCH AS STABILIZED CONSTRUCTION ENTRANCES, TO BE USED.

VEGETATIVE PRACTICES - TEMPORARY AND PERMANENT

PERMANENT VEGETATIVE STABILIZATION:
DISTURBED AREAS WILL RECEIVE TOPSOIL AND PERMANENT VEGETATIVE STABILIZATION, DEFINED AS A UNIFORM 70% PERENNIAL VEGETATIVE COVER. TILL SOIL TO A DEPTH OF 2". REMOVE ALL OBJECTS 2" OR LARGER. THESE AREAS WILL BE PERMANENTLY STABILIZED IN ACCORDANCE WITH THE SEEDING SPECIFICATIONS OF THIS PLAN.

TEMPORARY VEGETATIVE PRACTICES (INTERIM STABILIZATION):
SLOPE AREAS, SOIL STOCKPILES, OR EMBANKMENTS THAT WILL SIT IDLE DUE TO UNFORESEEN CIRCUMSTANCES DURING OPERATIONS OR THAT WILL REMAIN IN PLACE FOR MORE THAN TWO WEEKS SHALL RECEIVE TEMPORARY SEEDING. THESE AREAS WILL BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE SEEDING TABLES OF THIS PLAN.

THE PLANS AND SPECIFICATIONS FOR INSTALLING TOPSOIL SHALL BE IN KEEPING WITH THIS STANDARD AND SHALL DESCRIBE THE REQUIREMENTS FOR APPLYING THE PRACTICE TO ACHIEVE ITS INTENDED PURPOSE. AT A MINIMUM INCLUDE THE FOLLOWING ITEMS:

1. TOPSOIL SOURCE,
2. STOCKPILE LOCATION AND METHOD OF STABILIZATION PRIOR TO USE,
3. TOPSOIL/SUBSOIL BONDING PROCEDURES,
4. SITE PREPARATION PLANS AND METHODS OF APPLICATION, DISTRIBUTION AND COMPACTION.

SITE PREPARATION- BEFORE SPREADING TOPSOIL ASSURE THAT ALL NECESSARY SEDIMENT CONTROL PRACTICES, SUCH AS DIVERSIONS AND SEDIMENT BARRIERS ARE IN PLACE AND FUNCTIONING PROPERLY. THESE PRACTICES MUST BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.

GRADING- MAINTAIN GRADES ON THE AREAS TO BE TOPSOILED ACCORDING TO THE APPROVED PLAN AND DO NOT ALTER THEM BY ADDING TOPSOIL.

LIMING OF SUBSOIL- WHERE THE PH OF THE EXISTING SUBSOIL IS 6.0 OR LESS, OR THE SOIL IS COMPOSED OF HEAVY CLAYS, INCORPORATE AGRICULTURAL LIMESTONE IN AMOUNTS RECOMMENDED BY SOIL TESTS OR SPECIFIED FOR THE SEEDING MIXTURE TO BE USED. INCORPORATE LIME TO A DEPTH OF AT LEAST 2 INCHES BY DISKING.

HOUGHENING- IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, LOOSEN THE SUBGRADE BY DISKING OR SCARIFYING TO A DEPTH OF AT LEAST 4 INCHES, TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL IF NO AMENDMENTS HAVE BEEN INCORPORATED, LOOSEN THE SOIL TO A DEPTH OF AT LEAST 6 INCHES BEFORE SPREADING THE TOPSOIL.

SPREADING TOPSOIL- UNIFORMLY DISTRIBUTE TOPSOIL TO A MINIMUM COMPACTED DEPTH OF 2 INCHES ON 3:1 SLOPES AND 4 INCHES ON FLATTER SLOPES. TOPSOIL SHALL NOT BE SPREAD WHILE IT IS FROZEN OR SATURATED OR WHEN THE SUBSOIL IS FROZEN OR SATURATED. IRREGULARITIES IN THE SURFACE THAT RESULT FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED TO PREVENT THE FORMATION OF DEPRESSIONS OR PONDING OF WATER. COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL, BUT AVOID EXCESSIVE COMPACTION, AS IT INCREASES RUNOFF AND INHIBITS SEED GERMINATION AND SEEDLING GROWTH. LIGHT PACKING WITH A ROLLER IS RECOMMENDED WHERE HIGH-MAINTENANCE TURF IS TO BE ESTABLISHED. IN AREAS THAT ARE NOT GOING TO BE MOWED, THE SURFACE CAN BE LEFT ROUGH.
MAINTENANCE- AFTER TOPSOIL APPLICATION, FOLLOW PROCEDURES FOR SEEDBED PREPARATION. TAKE CARE TO AVOID EXCESSIVE MIXING OF TOPSOIL INTO THE SUBSOIL. PERMANENTLY STABILIZE THE SITE FOLLOWING APPROPRIATE PRACTICE STANDARDS AS QUICKLY AS PRACTICABLE. PERIODICALLY INSPECT THE SITE UNTIL PERMANENT STABILIZATION IS ACHIEVED. MAKE NECESSARY REPAIRS TO ERODED AREAS OR AREAS OF LIGHT VEGETATIVE COVER. ESTABLISH A VEGETATIVE COVER IN THE AREAS THAT WILL ADEQUATELY PREVENT RILLING.

SEEDBED PREPARATION- TO CONTROL EROSION ON BARE SOIL SURFACES, PLANTS MUST BE ABLE TO GERMINATE AND GROW. SEEDBED PREPARATION IS ESSENTIAL. IF THE AREA HAS BEEN RECENTLY LOOSENED OR DISTURBED, NO FURTHER ROUGHENING IS REQUIRED. WHEN THE AREA IS COMPACTED, CRUSTED, OR HARDENED, THE SOIL SURFACE MUST BE LOOSENED BY DISKING, RAKING, HARROWING, OR OTHER ACCEPTABLE MEANS (SEE SURFACE ROUGHENING SECTION).

SEEDING- SEED SHALL BE EVENLY APPLIED WITH A BROADCAST SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER. SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5 INCHES DEEP. SMALL SEEDS, SUCH AS ANNUAL RYE, SHALL BE PLANTED NO MORE THAN A QUARTER INCH DEEP. OTHER GRASSES AND LEGUMES SHALL BE PLANTED NO MORE THAN A HALF INCH DEEP.
MULCHING- TEMPORARY SEEDING, CONDUCTED IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS, SHALL BE MULCHED WITH STRAW OR HAY ACCORDING TO THE STANDARD FOR MULCHING. HYDROMULCHES (FIBER MULCH) MAY NOT PROVIDE ADEQUATE TEMPERATURE AND MOISTURE CONTROL.

BASIC SEDIMENT CONTROL PLAN ELEMENTS:

OBTAIN ALL PERMITS AND APPROVALS PRIOR TO CONSTRUCTION.

IF CONSTRUCTION LIMITS NEED TO BE EXPANDED BEYOND THE LIMITS OF DISTURBANCE AREA SHOWN ON THE PLANS, A PRE-CONSTRUCTION ENVIRONMENTAL EVALUATION WILL NEED TO BE CONDUCTED. CONTACT THE ENVIRONMENTAL BIOLOGIST TO CONDUCT A REVIEW ON THE NEW AREAS PRIOR TO CONSTRUCTION.

INSTALL THE STABILIZED CONSTRUCTION ENTRANCES AT THE ACCESS ROAD. STABILIZED CONSTRUCTION ENTRANCES MAY BE NEEDED AT THE ACCESS ROAD PENDING ITS USE AT THE TIME OF THIS PROJECT'S CONSTRUCTION.

MARK ALL CLEARING LIMITS AND SENSITIVE AREAS SUCH AS STREAMS, WETLANDS, ETC.

INSTALL ORANGE CONSTRUCTION FENCE NEAR STREAMS, WETLANDS AND STRUCTURES WITHIN THE LIMITS OF DISTURBANCE TO PROVIDE A PHYSICAL BARRIER TO DETER DISTURBANCE BY CONSTRUCTION ACTIVITIES.

ADD GRAVEL TO ACCESS ROAD AS NEEDED, BUT NO GRADING OR IMPACTS TO EXISTING DRAINAGE FEATURES ARE TO BE MODIFIED.

ON A DAILY BASIS, CLEAN THE ROADS THOROUGHLY BY REMOVING TRACKED SEDIMENT BY SHOVELING OR SWEEPING. STREET WASHING TO A WATERCOURSE OR STORM DRAIN SYSTEM IS NOT ALLOWED.

INSTALL COMPOST FILTER SOCK WHERE SHOWN, PARALLEL TO THE SLOPE AND ON THE DOWN-GRADIENT SIDE OF THE LIMITS OF DISTURBANCE TO PREVENT SEDIMENTATION FROM LEAVING THE PROJECT AREA.

CLEAR AND GRUB ALONG THE ROW. PRESERVE NATURAL VEGETATION AS MUCH AS POSSIBLE, WITHOUT SIGNIFICANT INTERFERENCE WITH CONSTRUCTION ACTIVITIES.

USE TIMBER MAT BRIDGES TO CROSS WATERBODIES AND WET AREAS, AS NEEDED.

RE-ESTABLISH THE GRADE TO THE PRE-CONSTRUCTION CONDITIONS.

RE-STABILIZE DISTURBED SOILS WITHIN 7 DAYS BY PLACING TEMPORARY SEEDING IF NOT FINAL GRADED, AND PERMANENT SEEDING WITH A NURSE CROP IF FINAL GRADED.

MULCH AND FERTILIZE AS STATED IN THIS PLAN.

PLACE ROLLED EROSION CONTROL PRODUCTS (RECP), MATS AND BLANKETS ON TOP OF SEEDED AREAS ON STEEP SLOPES WHERE SEEDING MAY BE DISPLACED BY RUNOFF. TYPICALLY, SLOPES GREATER THAN 3H:1V NEED TO HAVE AN EROSION CONTROL MAT OR BLANKET PLACE OVER THE SEEDED AREAS. SEED AND PLACE RECP ON THE STEEP SLOPES ADJACENT TO ANY AND ALL STREAMS IMMEDIATELY (WITHIN 7 DAYS) AFTER THE WELL PLUG IS REMOVED.

MAINTAIN ALL BEST MANAGEMENT PRACTICES (BMPS) AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.

ALL BMPS SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS OR MAINTENANCE SHOULD BE MADE IMMEDIATELY. THIS INCLUDES THE REMOVAL OF SEDIMENT THAT IS OVER HALF THE HEIGHT OF THE COMPOST FILTER SOCK (1 DAY PER WEEK OR AS STORM EVENTS REQUIRES).

TEMPORARY BMPS SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL RESULTING FROM REMOVAL OF BMPS OR VEGETATION SHALL BE PERMANENTLY STABILIZED. FINAL STABILIZATION MEANS THAT ALL SOIL-DISTURBING ACTIVITIES ARE COMPLETED, AND THAT EITHER A PERMANENT VEGETATIVE COVER OF THE TOTAL VEGETATED AREA WITH A DENSITY OF 70% OR GREATER HAS BEEN ESTABLISHED OR THAT THE SURFACE HAS BEEN STABILIZED BY HARD COVER SUCH AS PAVEMENT OR BUILDINGS (WHEN APPLICABLE).

NO NEW PERMANENT CUT OR FILL SLOPES ARE TO REMAIN ON-SITE. GRADING SHOULD BE DONE SUCH THAT POST-CONSTRUCTION CONTOURS SHOULD CLOSELY MATCH APPROXIMATE ORIGINAL CONTOURS AFTER CONSTRUCTION IS COMPLETE. ALL AREAS IN THE LOD THAT WERE VEGETATED IN THE EXISTING CONDITION ARE TO BE VEGETATED AFTER CONSTRUCTION.

MANAGING THE PROJECT:

THIS SEDIMENT CONTROL PLAN (SCP) IS TO REMAIN ON-SITE AT ALL TIMES DURING CONSTRUCTION. THE SCP SHALL BE MODIFIED WHENEVER THERE IS SIGNIFICANT CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF ANY BMP.

CLEARING AND GRUBBING ACTIVITIES SHOULD TAKE INTO CONSIDERATION MINIMIZING REMOVAL OF TREES AND DISTURBANCE AND COMPACTION OF NATIVE SOILS. ANY AREAS THAT REQUIRE PRESERVATION (IF CRITICAL OR SENSITIVE AREAS AND/OR REQUIRE BUFFERS) SHALL BE DELINEATED ON BOTH THE PLANS AND THE SITE.

ALL BMPS SHALL BE INSPECTED, MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED USE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE SEDIMENTATION AND EROSION IS BEING CONTROLLED ON-SITE, AND IS NOT IMPOSING ON ADJACENT PROPERTIES. BMPS, OTHER THAN STATED IN THIS PLAN, MAY NEED TO BE IMPLEMENTED.

SPILLS OR DISCHARGE OF POLLUTANTS ARE TO BE REPORTED WITHIN 24-HOURS TO THE APPROPRIATE AGENCIES.

WASTE MATERIALS AND DISPOSAL:

ALL POLLUTANTS, INCLUDING WASTE MATERIALS, SHOULD BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF SURFACE WATER. WOODY DEBRIS MAY BE CHIPPED AND SPREAD ON-SITE AS APPROVED BY THE LANDOWNER.

COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS AND NON-INERT WASTES PRESENT ON THE SITE.

MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO THE SURFACE WATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. PLACE PLASTIC BENEATH THE EQUIPMENT WHEN EMERGENCY REPAIRS ARE TO BE PERFORMED ON-SITE. IF RAINING, PLACE PLASTIC OVER THE VEHICLE.

GENERAL NOTES REGARDING RECLAMATION:

THE GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES INVOLVED IN THE SITE NO MORE THAN TEN DAYS AND NO LESS THAN THREE DAYS IN ADVANCE OF EXCAVATION EXCLUDING SATURDAY, SUNDAY, AND FEDERAL OR STATE HOLIDAYS. CONTACT MISS UTILITY OF WEST VIRGINIA AT 1-800-245-4848.

TRAFFIC SHALL BE MAINTAINED ON ALL ADJOINING STREETS AND DRIVES AT ALL TIMES IN ACCORDANCE WITH WV DOT'S REQUIREMENTS.

DISTURBED AREAS CREATED DUE TO WELL PLUG REMOVAL SHALL BE RECLAIMED, MULCHED AND SEEDED, TO REDUCE EROSION AND SEDIMENTATION.

API NUMBERS/ API IDENTIFICATION NUMBERS SHALL BE DISPLAYED AT THE WELL IN ACCORDANCE WITH STATE REQUIREMENTS.

LANDOWNERS SHALL BE GIVEN ADEQUATE NOTICE THAT CERTAIN SPECIFIED ACTIVITIES WILL BE OCCURRING ON THEIR PROPERTY.

PERMANENT STABILIZATION:

SPECIES:	KENTUCKY BLUEGRASS / RED TOP / BIRDSFOOT TREFOIL
% PURE LIVE SEED:	98%
APPLICATION RATE:	20 LBS/ACRE, 3 LBS/ACRE, AND 10 LBS/ACRE, RESPECTIVELY
FERTILIZER TYPE:	COMMERCIAL FERTILIZER 10-20-20
FERTILIZER APPL. RATE:	COMMERCIAL - 1000 LBS/ACRE
LIMING RATE:	3 TONS/ACRE
MULCH TYPE:	HAY & STRAW
MULCHING RATE:	2 TONS/ACRE
ANCHOR MATERIAL:	RECYCLED CELLULOSE FIBER/WOOD FIBER MIXTURE
ANCHORING METHOD:	HYDRAULIC SEEDING EQUIPMENT
RATE OF ANCHOR MATERIAL APPLICATION:	310 LBS/1000 SQ. YD.
SEEDING SEASON DATES:	YEAR ROUND

TEMPORARY STABILIZATION:

SPECIES:	ANNUAL RYEGRASS
% PURE LIVE SEED:	95%
APPLICATION RATE:	40 LBS/ACRE
FERTILIZER TYPE:	COMMERCIAL FERTILIZER 10-10-10
FERTILIZER APPL. RATE:	COMMERCIAL - 1000 LBS/ACRE
LIMING RATE:	2 TONS/ACRE
MULCH TYPE:	HAY & STRAW
MULCHING RATE:	3 TONS/ACRE

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JUN 04 2015
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Environmental Protection

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	-	-	-

DONALD W. MOSSOR REGISTERED 17818 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER
05/14/2015

PREPARED FOR:
XTO ENERGY
810 HOUSTON STREET
FORT WORTH, TX 76102

TRI-COUNTY ENGINEERING, LLC
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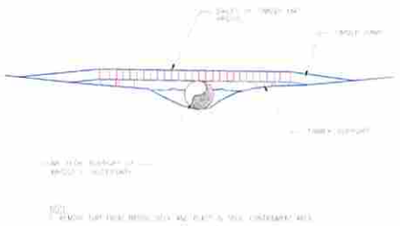
SEDIMENT CONTROL DETAILS

GOFF D0321 WELL PLUG

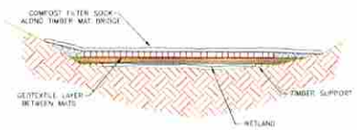
DRAWN BY: ZJC
DATE: 5/14/2015
SCALE: AS NOTED
SHEET: 2 OF 3
TCE No.: 0061-12

3304466P

BAILEY OR TIMBER MAT BRIDGE FOR STREAM CROSSING

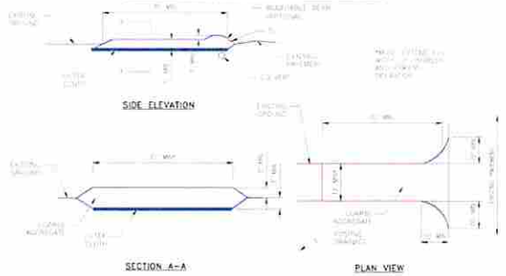


BAILEY OR TIMBER MAT BRIDGE FOR WETLAND CROSSING

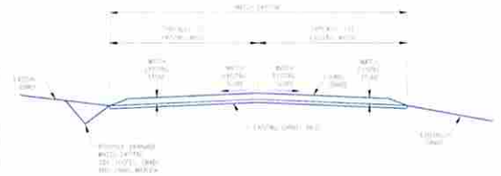


NOTE:
1. REMOVE DIRT FROM BRIDGE DECK AND PLACE IN SPOIL CONTAINMENT AREA.
2. BRIDGES SHOULD BE SECURELY ANCHORED AT ONLY ONE END USING STEEL CABLE OR CHAIN. ANCHORING AT ONLY ONE END WILL PREVENT CHANNEL OBSTRUCTION IN THE EVENT THAT FLOODWATERS FLOAT THE BRIDGE. ACCEPTABLE ANCHORS ARE LARGE TREES, LARGE BOULDERS, OR DRIVEN STEEL ANCHORS. ANCHORS SHALL BE SUFFICIENT TO PREVENT THE BRIDGE FROM FLOATING DOWNSTREAM AND POSSIBLY CAUSING AN OBSTRUCTION TO THE FLOW.

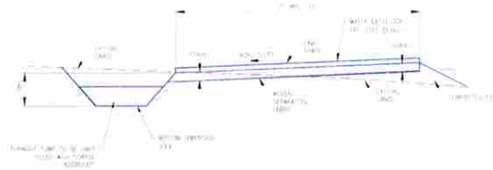
STABILIZED CONSTRUCTION ENTRANCE



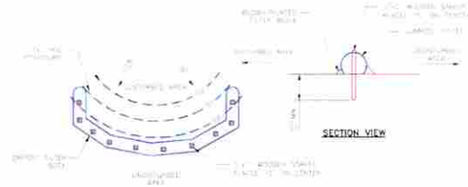
GRAVEL ROAD RESTORATION



ACCESS ROAD/LOW VOLUME DRIVEWAY



COMPOST FILTER SOCK (SEDIMENT BARRIER)



MATERIAL TYPE	[illegible]	[illegible]
MATERIAL CHARACTERISTICS	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
TENSILE STRENGTH		[illegible]
ULTIMATE TENSILE STRENGTH (MD/CD)	[illegible]	[illegible]
MINIMUM FUNCTIONAL LONGEVITY	[illegible]	[illegible]

ORGANIC MATTER CONTENT	[illegible]
ORGANIC MATTER	[illegible]
pH	[illegible]
MOISTURE CONTENT	[illegible]
PARTICLE SIZE	[illegible]
HEAVY METAL CONCENTRATIONS	[illegible]

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JUN 04 2015
WV Department of Environmental Protection

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NO.	DESCRIPTION	DATE	BY
1	-	-	-

PREPARED FOR:

XTO ENERGY
810 HOUSTON STREET
FORT WORTH, TX 76102

TRI-COUNTY ENGINEERING, LLC
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SEDIMENT CONTROL DETAILS

GOFF D0321 WELL PLUG

SARDIS DISTRICT, HARRISON COUNTY, WV

DRAWN BY	CHECKED BY
ZJG	
5/14/2015	
SCALE	SHEET
AS NOTED	3 OF 3
FILE NO.	DG61-12

*Well is on an Agreed Order

Operator: XTO ENERGY, INC.

API: 3304466

WELL No: GOFF 1 D0321

Reviewed by: gmm Date: 7/9/15

05 Day End of Comment: 06/09/15

NOD UNEMPL. OK I NOW

CHECKLIST FOR FILING A PERMIT

Plugging CK# 7735021 $100.00

- [x] WW-4B
- [x] Inspector signature on WW-4B
- [x] Completion / Well Records of Previous Work
- [x] WW-4A (Notarized)
- [x] Certified Mail Receipts, Waivers, or Affidavits of Personal Service
- [ ] Surface Owner Waiver
- [ ] Coal Owner / Lessee /Operator Waiver
- [x] WW-9 (Page 1) (Notarized)
- [x] Inspector Signature on WW-9 (Optional)
- [x] Topographic Map of location of well
- [x] WW-7

OR

- [ ] Mylar Plat (Surface owner on plat matches WW-4A)
- [x] Bond
- [x] Company is Registered with the SOS
- [x] Worker's Compensation / Unemployment Insurance account is OK OK 7/17/15
- [x] $100.00 check ($0.00 if no pit).

3304466 P

Ck # 7735021
$100.00

XTO ENERGY

WVDEP
Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304-2345

Re: Application to Plug and Abandon
Goff 1
Sardis District
Harrison County, WV

To Whom It May Concern:

In accordance with Article 22-6-23 of the West Virginia State Code regarding oil and gas operations, please find the attached application for the plugging and abandonment of the subject well. Notices of our intention to plug this wellbore have been sent to the surface owner, coal owners with declarations recorded, and coal operators associated with this well. Copies of the certified mail receipts are attached for your records. If you have any questions or need additional information, please feel free to contact me at 304-884-6000.

Sincerely,

Tim Sands
PO Box 1008
Jane Lew, WV 26378

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Office of Oil and Gas
JUN 04 2015
WV Department of
Environmental Protection