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**west virginia** department of environmental protection

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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

February 23, 2015

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-7900884, issued to CHESAPEAKE APPALACHIA, L.L.C., 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 penalties 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: 804120  
Farm Name: HODGE, J. A.  
**API Well Number: 47-7900884**  
**Permit Type: Plugging**  
Date Issued: 02/23/2015

**Promoting a healthy environment.**

**02/27/2015**

## 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

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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.

FORM WW-4 (B)  
Observe  
File Copy  
(Rev. 2/01)

1) Date: 12/19/2014  
2) Operator's Well No. 804120 P&A  
3) API Well No. 47-079-00884

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

OK 5224231

\$100.00

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

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

5) Location: Elevation 704' Watershed Fields Brook of Browns Creek  
 District Curry County Putnam Quadrangle Scott Depot, WV 7.5'

6) Well Operator Chesapeake Appalachia, L.L.C. 7) Designated Agent Jessica Greathouse  
 Address P.O. Box 18496 Address P.O. Box 6070  
Oklahoma City, OK 73154-0496 Charleston, WV 25362

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
 Name Jamie Stevens Name Chesapeake Appalachia, L.L.C.  
 Address 105 Kentuck Road Address P.O. Box 18496  
Kenna, WV 25248 Oklahoma City, OK 73154-0496

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

See Attached Sheet

Received  
Oil & Gas  
12/23/2014

OK  
Jasen

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

Work Order approved by Inspector \_\_\_\_\_ Date \_\_\_\_\_

02/27/2015

## 804120 P&amp;A Procedure

- 1) Prepare road and location, MIRU service rig
- 2) Run in hole with tools and check TD at approximately 2135'
- 3) Run W.S. to 2130', spot gel
- 4) Spot 100' cement plug 2130'-2030', pull W.S.
- 5) Cut 3 ½" at free-point (approximately 1900') and pull
- 6) Run W.S. to 1900', load hole with gel
- 7) Spot 100' cement plug 1900'-1800', pull W.S.
- 8) Attempt to pull 5 3/16" casing
  - A) If successful
    - a) Run W.S. to 1700', spot gel
    - b) Spot 100' cement plug 1700'-1600', pull W.S. to 1450'
    - c) Spot 100' cement plug 1450'-1350'
    - d) Proceed to step 9
  - B) If unsuccessful
    - a) Rip holes at approximately 1450' and 1385'
    - b) Run W.S. to 1730'
    - c) Spot 100' cement plug 1730'-1630', pull W.S. to 1450'
    - d) Spot 100' cement plug 1450'-1350', pull W.S.
    - e) Cut 5 3/16" at approximately 930', and pull
    - f) Proceed to step 9
- 9) Pull or run W.S. to 930', spot gel
- 10) Spot 100' cement plug 930'-830', pull W.S. to 550'
- 11) Spot 100' cement plug 550'-450', pull W.S.
- 12) Attempt to pull 8 ¼"
  - A) If successful
    - a) Run W.S. to 340', spot gel
    - b) Spot 100' cement plug 340'-240'
    - c) Proceed to step 13
  - B) If unsuccessful
    - a) Run W.S. to 340'
    - b) Spot 100' cement plug 340'-240', pull W.S.
    - c) Cut 8 ¼" at free-point (approximately 130') and pull
    - d) Proceed to step 13
- 13) Pull or run W.S. to 130'
- 14) Spot 130' cement plug 130'-surface
- 15) Pull W.S. and top off with cement

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Office of Oil & Gas  
DEC 23 2014

OK  
JW/m

02/27/2015



UNITED FUEL GAS COMPANY

079-884 79 00 884P

Well 804130

SERIAL WELL NO. 4120 LEASE NO. 30420 MAP SQUARE 46-63

API-47-079-00884

RECORD OF WELL No. 1 on the  
 L. A. Hodge Farm of 100 Acres  
 in Curry District  
 Putnam County  
 Field, State of W.Va.

Rig Commenced 193  
 Rig Completed 193  
 Drilling Commenced Dec. 15th, 1914 193  
 Drilling Completed Feb. 11, 1914 193  
 Drilling to cost per foot  
 Contractor is: J. W. Ramsey & Co.  
 Address:

Driller's Name Well purchased from the C.D.N.G.CO.  
 Jan. 1, 1930 by the U.F.G.Co.

CASING AND TUBING		
SIZE	USED IN DRILLING	LEFT IN WELL
16		
13		
10		
8 1/4	290	290
6 5/8	1450	
5 3/16	1680	1680
4 7/8		
4		
3		2358
2		

TEST BEFORE SHOT Dry Prod.	
10lbs. of Water in	inch
10lbs. of Merc. in	inch
Volume 1,006,000	Cu. ft
TEST AFTER SHOT	
7 of Water in	2 inch
10lbs. of Merc. in	inch
Volume 1,002,240	Cu. ft.
Rock Pressure	1000
Date Shot	12-14-31
Size of Torpedo	15
Oil Flowed	bbls. 1st 24 hrs.
Oil Pumped	bbls. 1st 24 hrs.

SHUT IN

Date \_\_\_\_\_ Tubing or Casing \_\_\_\_\_  
 2 in

Size of Packer 3x5-2/16  
 Kind of Packer Anchor set 1 D  
 1st Perf. Set 2126 from 2140  
 2nd Perf. Set 2104 from 2126

Well abandoned and  
 Plugged 193

Elevation 696.93 Level

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS
Sand, Lime & Slate	0	500	500
Sand	500	555	55
Slate and Lime	555	700	145
Lime	745	755	10
Sand	820	840	20
Salt Sand	925	1380	455
Maxon	1380	1410	30
Little Lime	1410	1440	30
Pencil Cave	1440	1450	10
Big Lime	1450	1650	200
Big Injun	1650	1680	30
Slate & Shells	1680	2024	344
Shells	2024	2032	8
Slate	2032	2078	46
Brown Shale	2078	2100	22
Berea Grit	2100	2127	27
Slate & Shells	2127	2140	13
Total Depth		2140	

Gas 515 - Oil at 520

Gas 2110

Well repaired and pocket of 13 feet drilled. Shot and tubed with 3" Dec. 14, - 19- 1931.

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 Office of Oil & Gas  
 DEC 23 2014

WW4-A  
Revised  
2/01

1) Date: 12/19/2014  
2) Operator's Well No. 804120 P&A  
3) API Well No. 47-079-00884

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
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:  
(a) Name Shirley Gene Fletcher  
Address 3567 Browns Creek Road  
St. Albans, WV 25177  
  
(b) Name James A. Hodges  
Address 3567 Browns Creek road  
St. Albans, WV 25177  
  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
  
6) Inspector Jamie Stevens  
Address 105 Kentuck Road  
Kenna, WV 25248  
  
Telephone 304-206-7775

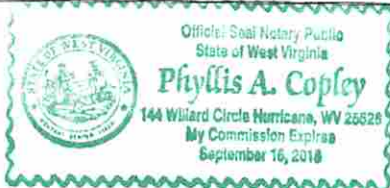
5) Coal Operator  
(a) Name None  
Address \_\_\_\_\_  
  
Coal Owner(s) with Declaration  
(b) Name Shirley Gene Fletcher  
Address 3567 Browns Creek Road  
St. Albans, WV 25177  
  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
  
Coal Lessee with Declaration  
(c) Name None  
Address \_\_\_\_\_  
  
Name \_\_\_\_\_  
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 the 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 the 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: Chesapeake Appalachia, L.L.C.  
By: [Signature]  
Its: Manager - Operations, Appalachia South  
Address: P.O. Box 18496  
Oklahoma City, OK 73154-0496  
Telephone: 405-935-4073

Subscribed and sworn before me this 19<sup>th</sup> day of December the year of 2014  
Phyllis A. Copley Notary Public  
My Commission Expires September 16, 2018  
Form WW-9

Received  
Office of Oil & Gas  
DEC 23 2014

02/27/2015

Well 804120  
 API 47-079-00884A

7014 2120 0001 1476 0504

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SAINT ALBANS WV 25177

**OFFICIAL USE**

Postage	\$ 1.40	0523
Certified Fee	\$ 3.30	01
Return Receipt Fee (Endorsement Required)	\$ 2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.40</b>	<b>12/22/2014</b>

Sent To: 804120 P&A (Access)  
 Street & or PO Box: James A. Hodges & Shirley Gene Fletcher  
 City, State: 3567 Browns Creek Road  
 PS Form: St. Albans, WV 25177

7010 3090 0002 9275 3806

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**OFFICIAL USE**

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Certified Fee	\$ 3.30	01
Return Receipt Fee (Endorsement Required)	\$ 2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.40</b>	<b>12/22/2014</b>

Sent To: 804120 P&A (Surface/Access/Coal)  
 Street, Apt. or PO Box: Shirley Gene Fletcher  
 City, State: 3567 Browns Creek Road  
 PS Form: St. Albans, WV 25177

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 Office of Oil & Gas  
 DEC 23 2014

02/27/2015



79 00884P

Rev. 02/01

API Number 47-079-00884  
Operator's Well No. 804120 P&A

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Chesapeake Appalachia, L.L.C. OP Code 494477557

Watershed Fields Brook of Browns Creek Quadrangle Scott Depot, WV 7.5'

Elevation 704' County Putnam District Curry

Description of anticipated Pit Waste: Plugging Returns/Cement

Will a synthetic liner be used in the pit? Yes 20 mc

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_ )

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Swabbing
- Plugging
- Other (Explain \_\_\_\_\_ )

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on December 31, 1999, 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 *David Gocke*

Company Official (Typed Name) David Gocke

Company Official Title Manager - Operations, Appalachia South

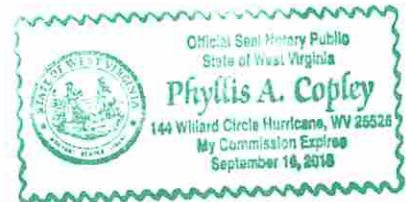
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Office of Oil & Gas  
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Subscribed and sworn before me this 19th day of December, 2014.

*Phyllis A. Copley*

Notary Public.

My Commission Expires September 16, 2018



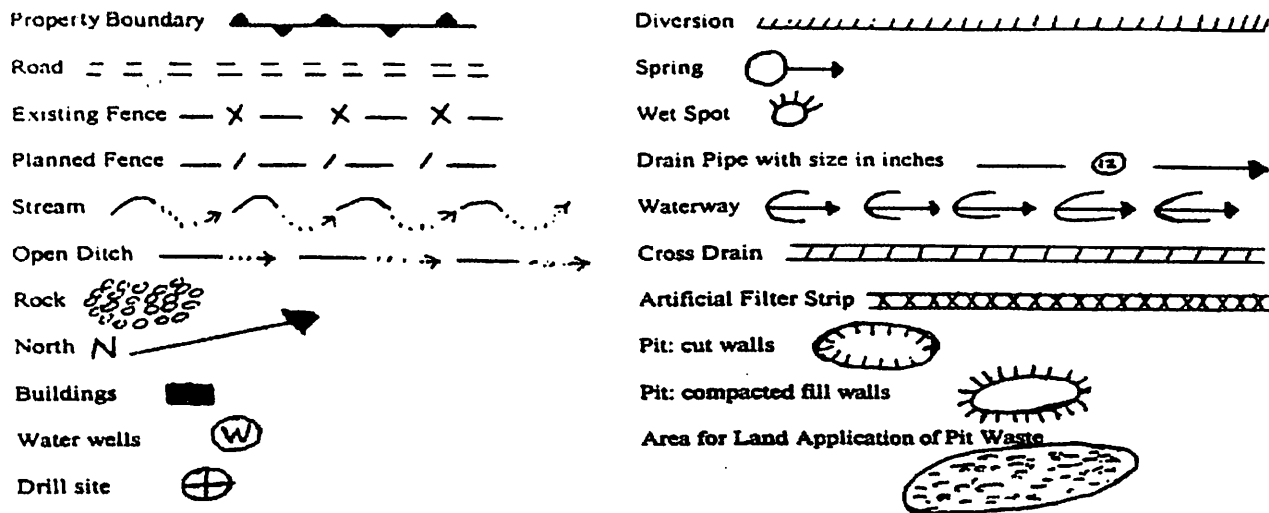
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Attachment #1

API #: 47-079-00884  
 Operator's Well No. 804120 P&A

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1.0 Prevegetation pH 6.1

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch Hay 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	ORCHARD GRASS	15
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15		

Attach:  
 Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Field Reviewed? ( ) Yes ( ) No

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 Office of Oil & Gas

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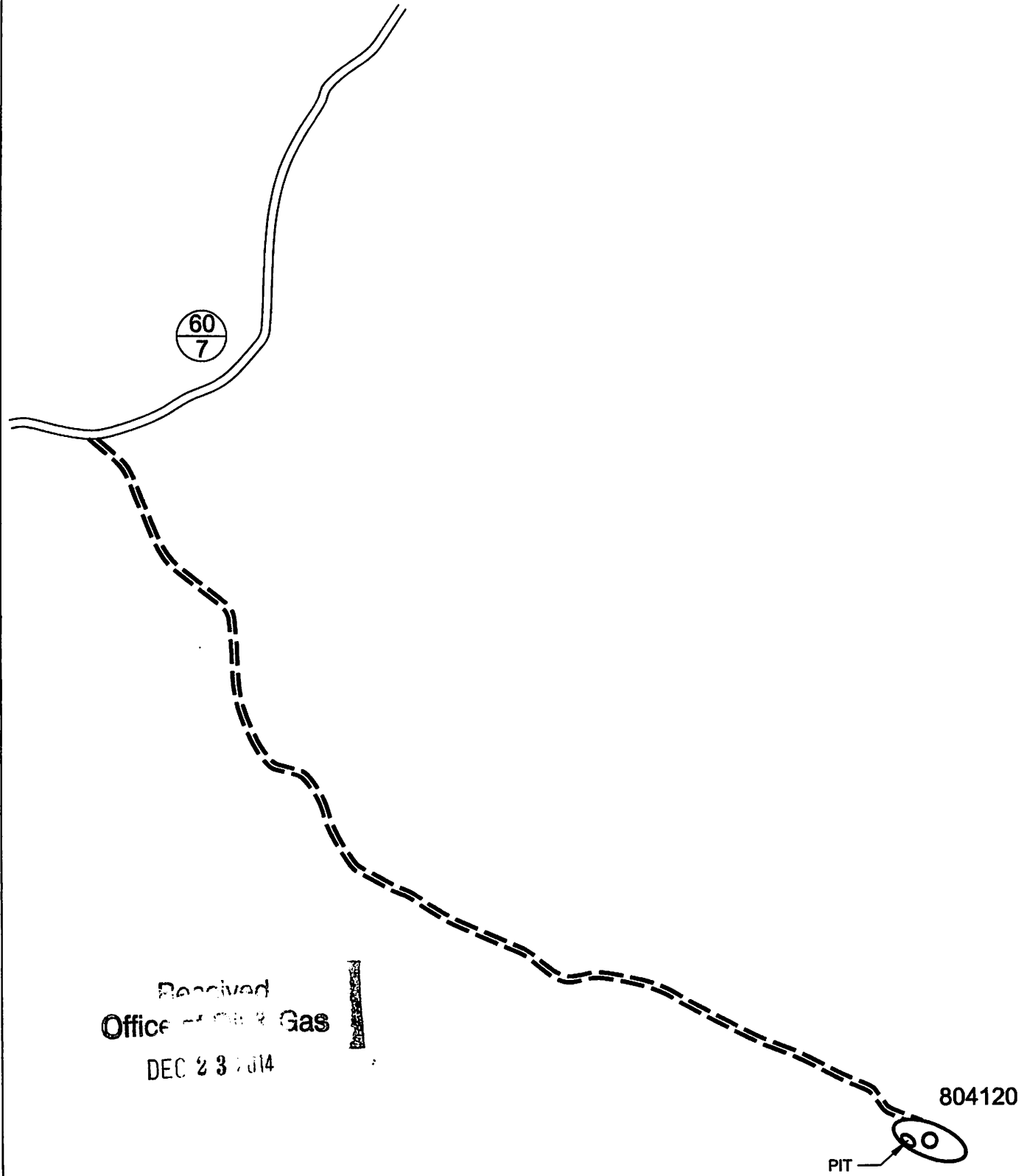
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7900884P

# CHESAPEAKE APPALACHIA, L.L.C.

## RECLAMATION DIAGRAM WELL LOCATION 804120

API 47-079-00884



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Office of Oil & Gas  
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### GENERAL NOTES

This drawing is a schematic representation of the well site and access road. Proposed structures such as well site, drilling pit, roadways, culverts, sediment barriers, etc. are shown in approximate pre-planning configurations.

All culvert pipes will be a minimum of 15 inches in diameter. All culvert pipes installed will be accompanied by an entrance sump with dimensions no less than 3 feet (width) x 3 feet (length) x 4 feet (deep). Culverts will be installed at an angle to ensure proper flow. The outfall of culverts will be protected from erosion and sedimentation using large rocks or other sediment controls deemed necessary in the prevention of erosion and sedimentation. Storm water from the ditches to the culverts will be directed to stable natural vegetative areas. Where culverts are not practical, operators will have other sediment control in place to minimize erosion and sedimentation.

Cross drains, broad based dips, water bars, and diversion ditches, will be employed during the construction phase. These erosion and sediment control structures will be used to control erosion and sedimentation during the construction phase, where applicable, and in areas that will allow. These structures will be considered permanent and used as such.

Permanent seeding: See Attachment #1.

02/27/2015



CHESAPEAKE APPALACHIA, L.L.C.

TOPOGRAPHICAL MAP OF ACCESS AND  
WELL LOCATION 804120

API 47-079-00884

7900884P



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Office of Oil & Gas

DEC 23 2014

CHESAPEAKE ENERGY CORPORATION - EASTERN DIVISION  
P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25523  
304 824-5141 - FAX 304 824-2247



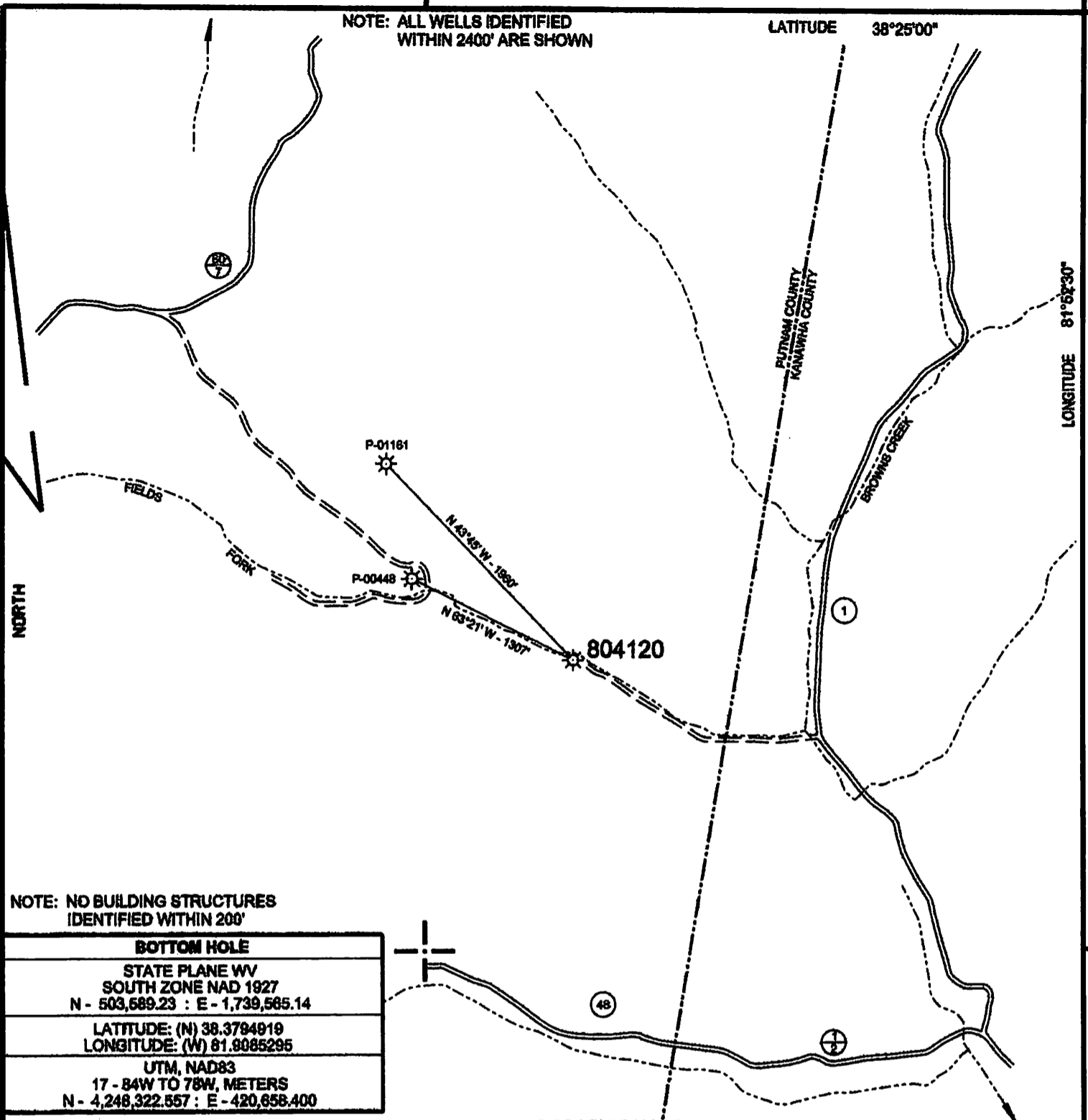
9,568'

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN

LATITUDE 38°25'00"

LONGITUDE 81°39'18"

13,548'



NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

<b>BOTTOM HOLE</b>
STATE PLANE WV SOUTH ZONE NAD 1927 N - 503,689.23 : E - 1,739,565.14
LATITUDE: (N) 38.3794919 LONGITUDE: (W) 81.8085295
UTM, NAD83 17 - 84W TO 78W, METERS N - 4,248,322.557 : E - 420,656.400

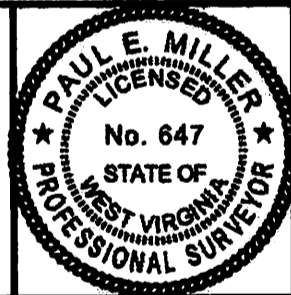


( + ) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 804120 P&A .DGN  
 DRAWING NO. 804120 P&A  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION MAPPING GRADE GPS

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) *Paul E. Miller*  
 R.P.E. \_\_\_\_\_ L.L.S. 647



STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OIL AND GAS DIVISION



DATE NOVEMBER 21, 2014  
 OPERATOR'S WELL NO. 804120  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 704' WATER SHED FIELDS BROOK OF BROWNS CREEK  
 DISTRICT CURRY COUNTY PUTNAM  
 QUADRANGLE SCOTT DEPOT, WV 7.5'

SURFACE OWNER SHIRLEY FLETCHER ACREAGE \_\_\_\_\_  
 OIL & GAS ROYALTY OWNER \_\_\_\_\_ LEASE ACREAGE \_\_\_\_\_

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
 STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW  
 FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON X CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION \_\_\_\_\_ ESTIMATED DEPTH \_\_\_\_\_  
 WELL OPERATOR CHESAPEAKE APPALACHIA LLC DESIGNATED AGENT JESSICA GREATHOUSE  
 ADDRESS PO BOX 18496 OKLAHOMA CITY, OK 73154-0496 ADDRESS PO BOX 6070 CHARLESTON, WV 25362

COUNTY NAME

PERMIT

02/27/2015

FORM WV-6