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

March 17, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4301907, 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 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: 6010
Farm Name: LINCOLN LAND ASSOC.
API Well Number: 47-4301907
Permit Type: Plugging
Date Issued: 03/17/2015

Promoting a healthy environment.

4301907P

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.

4301907P

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

1) Date: 2/11/2015
2) Operator's Well No. 806010 P&A
3) API Well No. 47-043-01907

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 ____
(Is Gas, Production X or Underground storage ___) Deep ____ Shallow X

5) Location: Elevation 732' Watershed Trace Fork of Mud River
District Carroll County Lincoln Quadrangle Hamlin, WV 7.5'

6) Well Operator Chesapeake Appalachia, L.L.C.
Address P.O. Box 18496
Oklahoma City, OK 73154-0496

7) Designated Agent Jessica Greathouse
Address P.O. Box 6070
Charleston, WV 25362

8) Oil and Gas Inspector to be notified
Name Ralph Triplett
Address 5539 McClellan Highway
Branchland, WV 25506

9) Plugging Contractor
Name Chesapeake Appalachia, L.L.C.
Address P.O. Box 18496
Oklahoma City, OK 73154-0496

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

See Attached Sheet

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

Work Order approved by Inspector _____ Date 2-23-15

Received
FEB 25 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

API #: 47-043-01907 P

806010 P&A Procedure

NOTE: 8 ¼" may have been pulled ELEV. 732

1) Prepare road and location, MIRU service rig
2) RIH with tools to check TD approximately at 2050'
3) TIH with W.S. to 2050', spot gel
4) Spot 100' cement plug 2050'-1950', pull W.S. (BEREA)
5) Cut 3" at free-point (approximately 1700') and pull
6) Run W.S. to 1700', spot gel
7) Spot 150' cement plug 1700'-1550', pull W.S. INJ.
8) RIH with tools to check top of plug (If TOC is below 1610' then reset plug)
9) Shoot or rip holes in 6 5/8" approximately at 1525', 1500', 1325' and 1300'
10) Run W.S. to 1525', spot gel
11) Spot 100' cement plug 1525'-1425', pull W.S. to 1325'
12) Spot 100' cement plug 1425'-1325', pull W.S.
13) Cut 6 5/8" at free-point (approximately 875') and pull
14) Run W.S. to 875', spot gel
15) Spot 150' cement plug 875'-725', pull W.S. WATER
16) RIH with tools to check TOC (If top of plug is below 775' then reset plug)
17) Determine if the 8 ¼" is in the well
18) If 8 ¼" is present then attempt to pull 8 ¼"
    A) If successful or 8 ¼" is not present
        a) Run W.S. to 375', spot gel
        b) Spot 100' cement plug 375'-275'
        c) Proceed to step ~~19~~ 20
    B) If unsuccessful
        a) Run W.S. to 375'
        b) Spot 100' cement plug 375'-275', pull W.S.
        c) Cut 8 ¼" at free-point (approximately 125') and pull
        d) Proceed to step 20
20) Pull or run W.S. to 125'
21) Spot 125' cement plug 125'-surface
22) Pull W.S. and top off with cement
23) Erect monument and reclaim as prescribed by law

Received
FEB 25 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

FORM H-97

HUNTINGTON DEVELOPMENT & GAS CO.

Well # 806010
API # 47-043-01967

Serial Well No. 184 (6010)
PARAGON PRINT. IM 5-25 53688

Lease No.

Map Square

RECORD OF WELL No. 6010 on the J. W. Jimison Farm of Acres
in Carroll District
Lincoln County
Field, State of W. Va.

Rig Commenced		192
Rig Completed		192
Drilling Commenced	10-22-17	192
Drilling Completed	11-26-17	192
Drilling to cost	per foot	
Contractor is:	G. L. Meabon	
Address:		
Driller's Names	Fred Meabon J. M. Chichester	

CASTING AND TUBING

SIZE	USED IN DRILLING	LEFT IN WELL
16		
13		
10		20
8¼		316
6⅝		1625
5 3-16		
4⅞		
4		
3		288
2		1800

SHUT IN 2088

Date

in Tubing or Casing

Size of Packer

Kind of Packer

1st Perf. Set from

2nd Perf. Set from

TEST BEFORE SHOT

of Water in inch 10ths

of Merc. in inch 10ths

Volume Cu. ft.

TEST AFTER SHOT

of Water in inch 10ths

of Merc. in inch 10ths

Volume 1,175,000 Cu. ft.

Rock Pressure 530

Date Shot 1917

Size of Torpedo 80 qts

Oil Flowed bbls. 1st 24 hrs.

Oil Pumped bbls. 1st 24 hrs.

Well abandoned and

Plugged 19

DRILLER'S RECORD

Formation	Top	Bottom	Thickness	Remarks
				Gas from Berea
Mud	0	10		
Sand	10	40		
slate	40	70		
Sand	70	120		
??	120	190		
Slate	190	230		
Sand	230	316		
Slate-reduce hole	316	325		
Sand	325	350		
Slate & sand shell	350	550		
Slate	550	650		
Sand	650	675		
Slate & sand shells	675	750		
Slate	750	810		
Salt sand gas	810	836		
Slate	836	846		
Sand	846	1195		
Water 880				
Black shale	1195	1200		
Maxton sand	1200	1280		
Little lime	1280	1295		
Pencil cave	1295	1300		
Big Lime	1300	1492		
Gas	1455			
Slate	1492	1497		
Keener	1497	1514		
Slate	1514	1524		
Injun sand	1524	1600		
Slate & lime shell	1600	1800		
Lime	1800	1815		
Slate & lime shells	1815	2035		
Brown shale	2035	2045		
Berea	2045	2065		
Slate	2065			
TOTAL DEPTH	2089			
TOTAL DEPTH	2089			

RECEIVED
Office of Oil and Gas
FEB 12 2015
WV Department of
Environmental Protection

2062
242
1820

4301907P

WW4-A
Revised
2/01

1) Date: 2/11/2015
2) Operator's Well No. 806010 P&A
3) API Well No. 47-043-01907

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 Helen Taylor
Address Box 8
Hamlin, WV 25523

(b) Name Barry & Rosilee Ashworth
Address 213 Trace Fork road
Culloden, WV 25510

(c) Name John Kevin Shank
Address 3166 Frogs Creek Road
Charleston, WV 25312

6) Inspector Ralph Triplett
Address 5539 McClellan Highway
Branchland, WV 25506

Telephone 304-389-0350

5) Coal Operator

(a) Name None
Address

Coal Owner(s) with Declaration

(b) Name Chesapeake Appalachia, L.L.C.
Address Attention: Fred Jones
P.O. Box 6070
Charleston, WV 25362-0070

Name Pocahontas Land Corporation
Address 800 Princeton Avenue
P.O. Box 1517
Bluefield, WV 24701

Coal Lessee with Declaration

(c) Name None
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.

Official Seal Notary Public
State of West Virginia
Phyllis A. Copley
144 Willard Circle Hurricane, WV 25526
My Commission Expires
September 16, 2018

Well Operator: Chesapeake Appalachia, L.L.C.
By: R.S. Schmitt
Its: Completion Superintendent
Address: P.O. Box 18496
Oklahoma City, OK 73154-0496
Telephone: 405-935-4073

Subscribed and sworn before me this 11th day of February the year of 2015

Phyllis A. Copley Notary Public

My Commission Expires September 16, 2018

Well 806010

API 47-043-01907 P

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

BLUEFIELD WV 24701

OFFICIAL USE

Postage	$ $1.40	0523
Certified Fee	$3.30	03
Return Receipt Fee (Endorsement Required)	$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
	$7.40	02/11/2015

7014 2120 0003 6636 5897

806010 P&A (coal)
Pocahontas Land Corporation
800 Princeton Avenue
P.O. Box 1517
Bluefield, WV 24701

PS Form 3800, July 2014 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

CHARLESTON WV 25312

OFFICIAL USE

Postage	$ $0.91	0523
Certified Fee	$3.30	03
Return Receipt Fee (Endorsement Required)	$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
	$6.91	02/11/2015

7014 2120 0003 6636 5880

806010 P&A (surface access)
John Kevin Shank
3166 Frogs Creek Road
Charleston, WV 25312

PS Form 3800, July 2014 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

HAMLIN WV 25523

OFFICIAL USE

Postage	$ $1.40	0523
Certified Fee	$3.30	03
Return Receipt Fee (Endorsement Required)	$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
	$7.40	02/11/2015

7014 2120 0003 6636 5866

806010 P&A (surface and access)
Helen Taylor
Box 8
Hamlin, WV 25523

PS Form 3800, July 2014 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

CULLODEN WV 25510

OFFICIAL USE

Postage	$ $1.40	0523
Certified Fee	$3.30	03
Return Receipt Fee (Endorsement Required)	$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
Total Postage & Fees	$ $7.40	02/11/2015

7014 2120 0003 6636 5873

806010 P&A (surface access)
Barry & Rosilee Ashworth
213 Trace Fork Road
Culloden, WV 25510

See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at *www.usps.com®*.

CHARLESTON WV 25362

OFFICIAL USE

Postage	$ $1.40	0523
Certified Fee	$3.30	03
Return Receipt Fee (Endorsement Required)	$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	
	$7.40	02/11/2015

7014 2120 0003 6636 5903

806010 P&A (coal)
Chesapeake Appalachia, L.L.C.
Attn: Fred Jones
P.O. Box 6070
Charleston, WV 25362-0070

See Reverse for Instructions

CK 5241364
$ 10000

RECEIVED
Office of Oil and Gas

FEB 12 2015

WV Department of
Environmental Protection

4301907P

Form WW-9
Rev. 02/01

API Number 47-043-01907
Operator's Well No. 806010 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 Trace Fork of Mud River Quadrangle Hamlin, WV 7.5'

Elevation 732' County Lincoln District Carroll

Description of anticipated Pit Waste: Plugging Returns/Cement

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

Proposed Disposal Method For Treated Pit Wastes:

X 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
X 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 R.E. Schindler

Company Official (Typed Name) Robert E. Schindler

Company Official Title Completion Superintendent

Subscribed and sworn before me this 11th day of February, 2015.

Phyllis A. Copley Notary Public.

My Commission Expires September 16, 2018

RECEIVED
Office of Oil and Gas
FEB 12 2015
WV Department of
Environmental Protection

Official Seal Notary Public
State of West Virginia
Phyllis A. Copley
144 Willard Circle Hurricane, WV 25526
My Commission Expires
September 16, 2018

4301907P

Attachment #1

API #: 47-043-01907
Operator's Well No. 806010 P&A

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells
Drill site
Diversion
Spring
Wet Spot
Drain Pipe with size in inches
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

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**
CHESAPEAKE CONTRACTOR'S MIX	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: inspector OOG

Date: 2-23-15

Field Reviewed? (✓) Yes ( ) No

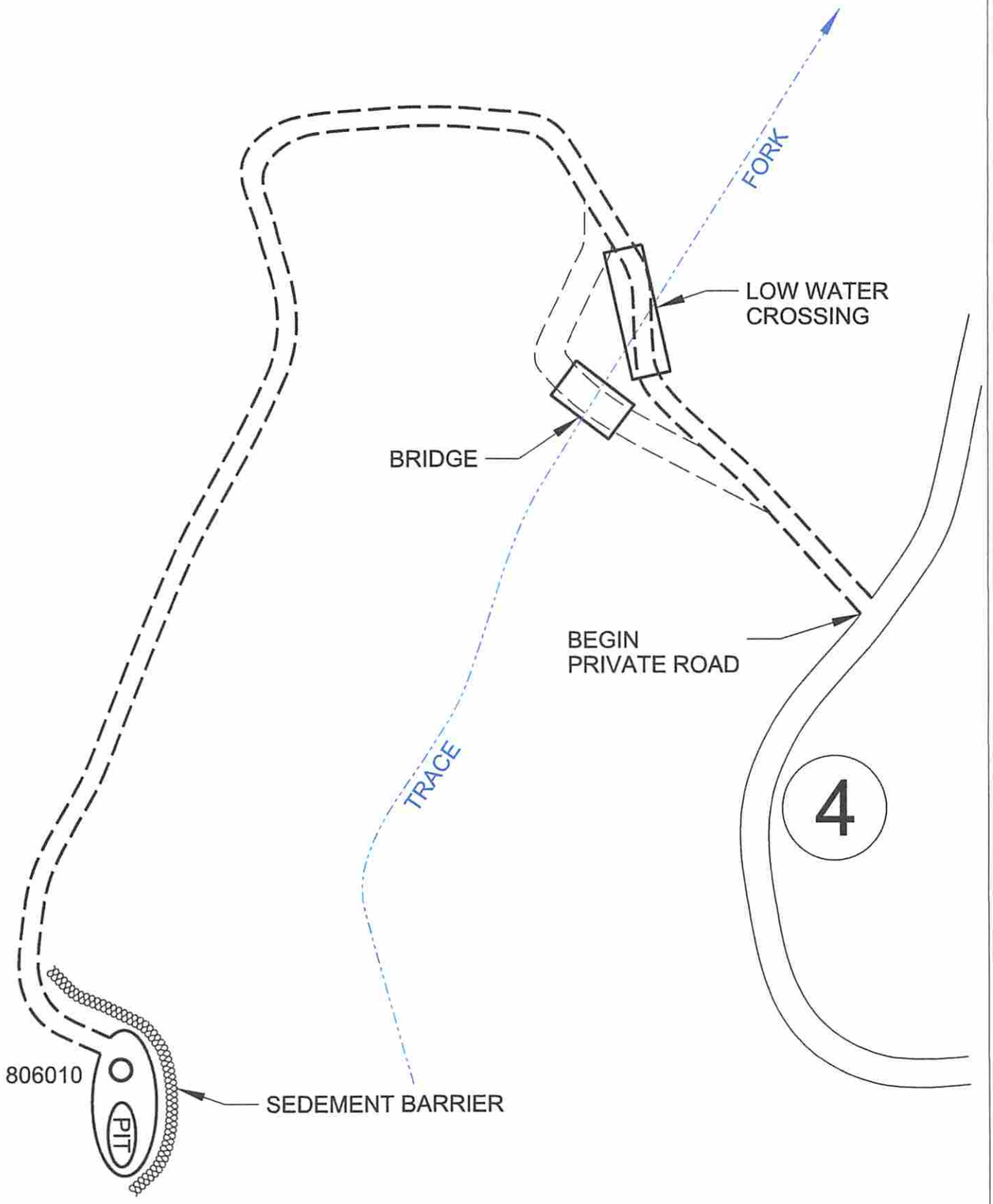
Received
FEB 25 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

4301907P

CHESAPEAKE APPALACHIA, L.L.C.

TOPOGRAPHICAL MAP OF ACCESS AND WELL LOCATION 806010

API 47-043-01907



RECEIVED
Office of Oil and Gas

FEB 12 2015

WV Department of
Environmental Protection

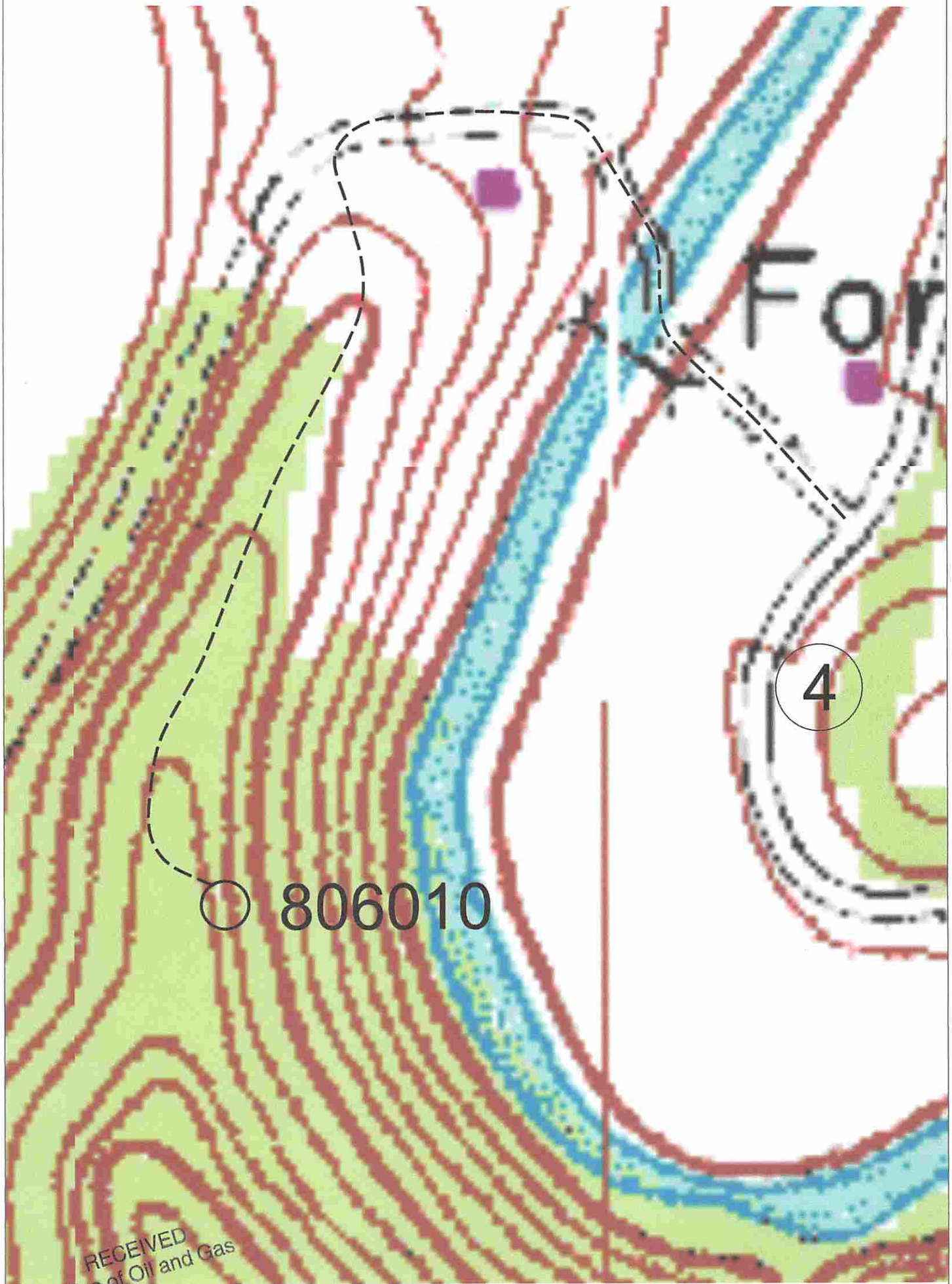
CHESAPEAKE ENERGY CORPORATION - EASTERN DIVISION
P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25523
304 824-5141 - FAX 304 824-2247

4301907P

CHESAPEAKE APPALACHIA, L.L.C.

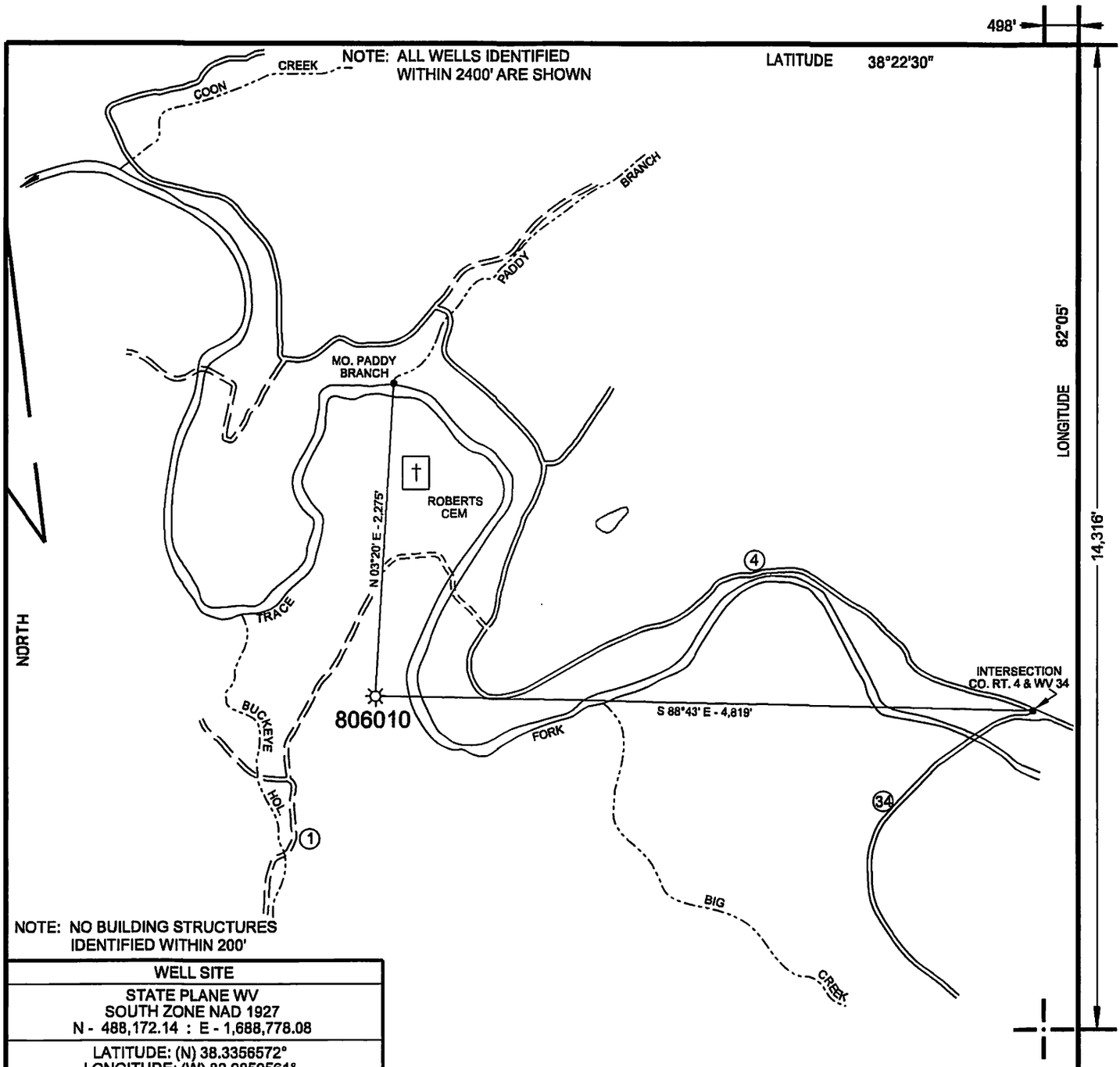
TOPOGRAPHICAL MAP OF ACCESS AND WELL LOCATION 806010

API 47-043-01907



RECEIVED
Office of Oil and Gas
FEB 12 2015
WV Department of
Environmental Protection

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



NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

WELL SITE
STATE PLANE WV SOUTH ZONE NAD 1927 N - 488,172.14 : E - 1,688,778.08
LATITUDE: (N) 38.3356572° LONGITUDE: (W) 82.0850561°
UTM NAD83 17 - 84W TO 78W, METERS N - 4,243,624.823 : E - 405,181.841

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

FILE NO. 806010 P&A.DGN
DRAWING NO. 806010 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

PAUL E. MILLER LICENSED No. 647 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE FEBRUARY 6, 2015
OPERATOR'S WELL NO. 806010
API WELL NO.
47 (STATE) 043 (COUNTY) 01907 P (PERMIT)

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 732' WATER SHED TRACE FORK OF MUD RIVER
DISTRICT CARROLL COUNTY LINCOLN
QUADRANGLE HAMLIN, WV 7.5'
SURFACE OWNER HELEN TAYLOR ACREAGE -
OIL & GAS ROYALTY OWNER CHESAPEAKE APPALACHIA, L.L.C. LEASE ACREAGE _____
LEASE NO. FEE OIL & GAS
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, L.L.C. DESIGNATED AGENT JESSICA GREATHOUSE
ADDRESS P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496 ADDRESS CHESAPEAKE APPLACHIA, L.L.C. PO BOX 6070, CHARLESTON, WV 25362

COUNTY NAME
PERMIT

FORM WW-6