



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

February 21, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-5900307, 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: 6896
Farm Name: TCO FEE TR 4
API Well Number: 47-5900307
Permit Type: Plugging
Date Issued: 02/21/2014

Promoting a healthy environment.

02/21/2014

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.

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

1) Date: 2/5/2014
2) Operator's Well No. 806896 P&A
3) API Well No. 47-059-00307

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

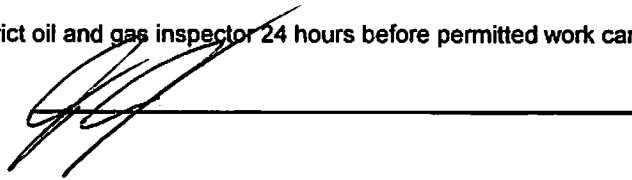
- 4) Well Type: Oil Gas X Liquid injection Waste disposal
(Is Gas, Production X or Underground storage) Deep Shallow X
- 5) Location: Elevation 1475' Watershed Old House Branch of East Fork of Twelvepole Creek
District Harvey County Mingo Quadrangle Trace, WV 7.5
- 6) Well Operator Chesapeake Appalachia, L.L.C. 7) Designated Agent Eric B. Gillespie
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
Name Jeremy James
Address P.O. Box 147
 Ona, WV 25545
- 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 2-19-14

806896 P&A Procedure

- 1) Prepare road and location, MIRU Service Rig
- 2) Run in hole and check TD with tools at approximately 2440'
- 3) Run W.S. to 2425', load hole with gel
- 4) Spot 100' cement plug 2425'-2325', pull W.S. to 2200'
- 5) Spot 100' cement plug 2200'-2100', pull W.S. to 1980'
- 6) Spot 100' cement plug 1980'-1880', pull W.S.
- 7) Run in hole with tools to check top of plug (If top of plug is not above 1900', then re-spot plug)
- 8) Cut 7" casing at free-point (approximately 1050') and pull
- 9) Run W.S. to 7" casing cut (approximately 1050') and load hole with gel
- 10) Spot 100' cement plug 1050'-950', pull W.S. to 840' Tag & re-spot if below 950'
- 11) Spot 100' cement plug 840'-740', pull W.S. to 670'
- 12) Spot ¹⁰⁰70' cement plug ⁷⁰⁰670'-600', pull W.S. to 390' 700-600
- 13) Spot ¹⁰⁰70' cement plug ⁴²⁰390'-320', pull W.S. to 125' 420-320
- 14) Spot ¹⁵⁰125' cement plug ¹⁵⁰125' - surface 150- surface
- 15) Pull W.S. and top off with cement
- 16) Erect monument and reclaim as prescribed by law

Plugs must be 100ft. minimum



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Well 804896 F
API 47-059-00307 P
B-1 Page 1 of 2

WELL RECORD

Permit No. MIN-307

Oil or Gas Well Gas
(KIND)

Company UNITED FUEL GAS COMPANY
Address P.O. Box 1273, Charleston 25, W.Va.
Farm U.F.G. Co. Fee Tr. #4 Acres 10.935,11
Location (waters) Old House Branch
Well No. 6896 Elev. 1474.99
District Harvey County Mingo
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by United Fuel Gas Company
Address Charleston, W.Va.
Drilling commenced 4-24-52
Drilling completed 8-22-52
Date Shot 8-25-52 From 2832 To 3657
With 5,466-2/3# DuPont Gelatin
Open Flow 20 /10ths Water in 1 Inch
_____ /10ths Merc. in _____ Inch
Volume 47,000 Cu. Ft.
Rock Pressure 295 lbs. 48 hrs.
Oil _____ bbls., 1st 24 hrs.
Fresh water 795' feet _____ feet
Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
18			Kind of Packer _____
13			
10		31'	Size of _____
7"		1933'	
8 1/8			Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT 90 FEET 36 INCHES
360 FEET 60 INCHES 635 FEET 48 INCHES
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Soil			0	9	water 795'		
Sand			9	90			
Coal			90	93			
Slate & Shells			93	360	Reduced hole at 1525'		
Coal			360	365			
Slate & Shells			365	385	Big Lime gas show 2084-2092'		
Sand			385	412	Show gas 3130'		
Slate & Shells			412	435			
Sand			435	485	Show gas 3540'		
Slate			485	494			
Sand			494	540			
Slate			540	555	Test before shot 2/10 W 1" 15 M		
Sand			555	610	Shot 8-25-52 with 5,466-2/3# DuPont		
Slate			610	635	Gelatin from 2832-3657		
Coal			635	639	Test 17 hours after shot 20/10 W 1"		
Slate & Shells			639	663	47 M		
Sand			663	710			
Slate & Shells			710	1050	FINAL OPEN FLOW - 47 M - Br. Shale		
Salt Sand			1050	1175	48 Hr. R.P. 295#		
Slate			1175	1223			
Salt Sand			1223	1515			
Slate & Shells			1515	1596	Shut in 8-25-52 in 7" casing.		
Sand			1596	1640			
Sand & Lime			1640	1845			
Slate			1845	1848			
Lime Shells			1848	1860			
Red Rock			1860	1873			
Slate			1873	1877			
Little Lime			1877	1902			
Pencil Cave			1902	1907			
Big Lime			1907	2150			
Keaner			2150	2170			
Injun Sand			2170	2190			
Slate & Shell			2190	2250			
Weir Shell			2250	2350			
Slate & Shells			2350	2720			
Coffee Shale			2720	2745			
Berea Grit			2745	2830			
Brown Shale			2830	2880			
Gray Shale			2880	3110			

Received

FEB 12 2014



(Over)

180

02/21/2014

Well 806896
 API 47-059-00307 P

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Brown Shale			3110	3245			pag 2 of 2
Gray Shale			3245	3535			
Brown Shale			3535	3645			
Slate & Shells			3645	3657			
Total depth			3657'				

Received

FEB 12 2014

Office of Oil and Gas
 WV Dept. of Environmental Protection

Date October 6, 19 52

APPROVED UNITED FUEL GAS COMPANY, Owner

By S.R. Ferrell
 (Title)

Manager Civil Engineering Department

02/21/2014

59 00 307 P

WW4-A
Revised
2/01

1) Date: 2/5/2014
2) Operator's Well No. 806896 P&A
3) API Well No. 47-059-00307

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 Heartwood Forestland
Address Attention: Craig Kaderavak ✓
19045 Stone Mountain Road
Abingdon, VA 24210

(b) Name _____
Address _____

(c) Name _____
Address _____

6) Inspector Jeremy James
Address P.O. Box 147
Ona, WV 25545
Telephone 304-951-2596

5) Coal Operator
(a) Name Argus Energy WV, LLC
Address 9104 Twelve Pole Creek Road ✓
Dunlow, WV 25511

Coal Owner(s) with Declaration
(b) Name Southern Region Industrial Realty, Inc.
Address Three Commercial Place ✓
Norfolk, VA 23510

Name _____
Address _____

Coal Lessee with Declaration
(c) Name Laurel Creek Company
Address P.O. Box 16429 ✓
Bristol, VA 24209

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

Received

Subscribed and sworn before me this 5th day of February the year of 2014

Phyllis A. Copley Notary Public

My Commission Expires September 16, 2018
Form WW-9

FEB 12 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

02/21/2014

Well 806896
A PI 47-059-00307P

7012 1640 0000 0167 9871

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Postage	\$ 1.40	
Certified Fee	3.30	
Return Receipt Fee (Endorsement Required)	2.70	
Restricted Delivery Fee (Endorsement Required)	0	
Total Postage & Fees	\$ 7.40	

Sent To: **806896 P&A** ✓
 Street, Apt. or PO Box: Heartwood Forestland
 City, State, ZIP: C/O Craig Kaderavak, Abingdon, VA 24210

PS Form 3800

7012 1640 0000 0167 9840

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OFFICIAL USE

ABINGDON VA 24210

Postage	\$ 11.40	0522	
Certified Fee	\$3.30	01	
Return Receipt Fee (Endorsement Required)	\$2.70		
Restricted Delivery Fee (Endorsement Required)	\$0.00		
Total Postage & Fees	\$ 17.40	02/11/2014	

Sent To: **806896 P&A** ✓
 Street, Apt. No. or PO Box No.: Southern Region Industrial Realty, Inc.
 City, State, ZIP: Three Commercial Place, Norfolk, VA 24210 23510

PS Form 3800

7012 1640 0000 0167 9857

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Postage	\$ 1.40	
Certified Fee	3.30	
Return Receipt Fee (Endorsement Required)	2.70	
Restricted Delivery Fee (Endorsement Required)	0	
Total Postage & Fees	\$ 7.40	

Sent To: **806896 P&A** ✓
 Street, Apt. or PO Box: Argus Energy-WV, LLC
 City, State, ZIP: 9104 Twelve Pole Creek Road, Dunlow, WV 25511

PS Form 3800

7012 1640 0000 0167 9864

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Postage	\$ 1.40	
Certified Fee	3.30	
Return Receipt Fee (Endorsement Required)	2.70	
Restricted Delivery Fee (Endorsement Required)	0	
Total Postage & Fees	\$ 7.40	

Sent To: **806896 P&A** ✓
 Street, Apt. or PO Box: Laurel Creek Company
 City, State, ZIP: P.O. Box 16429, Bristol, VA 24209

PS Form 3800

Received

FEB 12 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

02/21/2014

SURFACE OWNER WAIVER

Operator's Well Number 806896 P&A

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th Street
Charleston, WV 25304
(304) 926-0499

RECEIVED
Office of Oil and Gas

FEB 20 2014

WV Department of
Environmental Protection

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON ETC.

FOR EXECUTION BY A CORPORATION,
HEARTWOOD FORESTLAND FUND 3, L.P.

Name:

By:

Its:

By: Heartwood Forestland Advisors 3, LLC,
its general partner

By: The Forestland Group, LLC, its Manager

Signature

Date

Greg Keshner 2-14-14

Signature

Date

Rev. 02/01

API Number 47-059-00307
Operator's Well No. 806896 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 Old House Branch of East Fork of Twelvepole Creek Quadrangle Trace, WV 7.5'

Elevation 1475' County Mingo District Harvey

Description of anticipated Pit Waste: Plugging Returns/Cement

Will a synthetic liner be used in the pit? Yes

- 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

Subscribed and sworn before me this 5th day of February, 2014.

Phyllis A. Copley

Received
Notary Public.

My Commission Expires September 16, 2018

FEB 12 2014



Office of Oil and Gas
WV Dept. of Environmental Protection

02/21/2014

Attachment #1

API #: 47-059-00307
 Operator's Well No. 806896 P&A

LEGEND

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

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: inspector OOG

Date: 2-19-14

Field Reviewed? () Yes () No

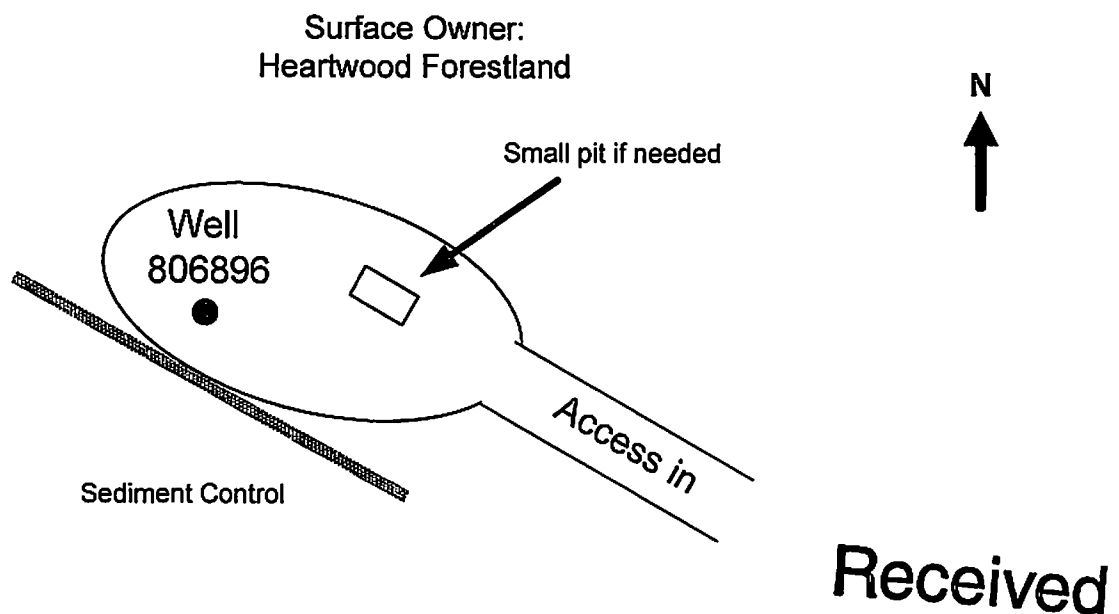
CHESAPEAKE APPALACHIA, L.L.C.

Diagram of Well 806896

API 47-059-00307

Field Office - Branchland

County -Mingo



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.

FEB 12 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

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 out fall 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, operator 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 areas that will allow. These structures will be considered permanent and used as such.

Permanent seeding: See Attachment #1

02/21/2014

Site Plan

CHESAPEAKE APPALACHIA, L.L.C.

5900307P

Topographical Map of Access and
Well Location 806896
API 47-059-00307
Field Office - Branchland
County - Mingo

DELORME

XMap® 7



Data use subject to license.
© DeLorme, XMap® 7.
www.delorme.com

Scale 1: 02/21/2014
Received
1" = 1,000.0 ft Data Zoom 14-1

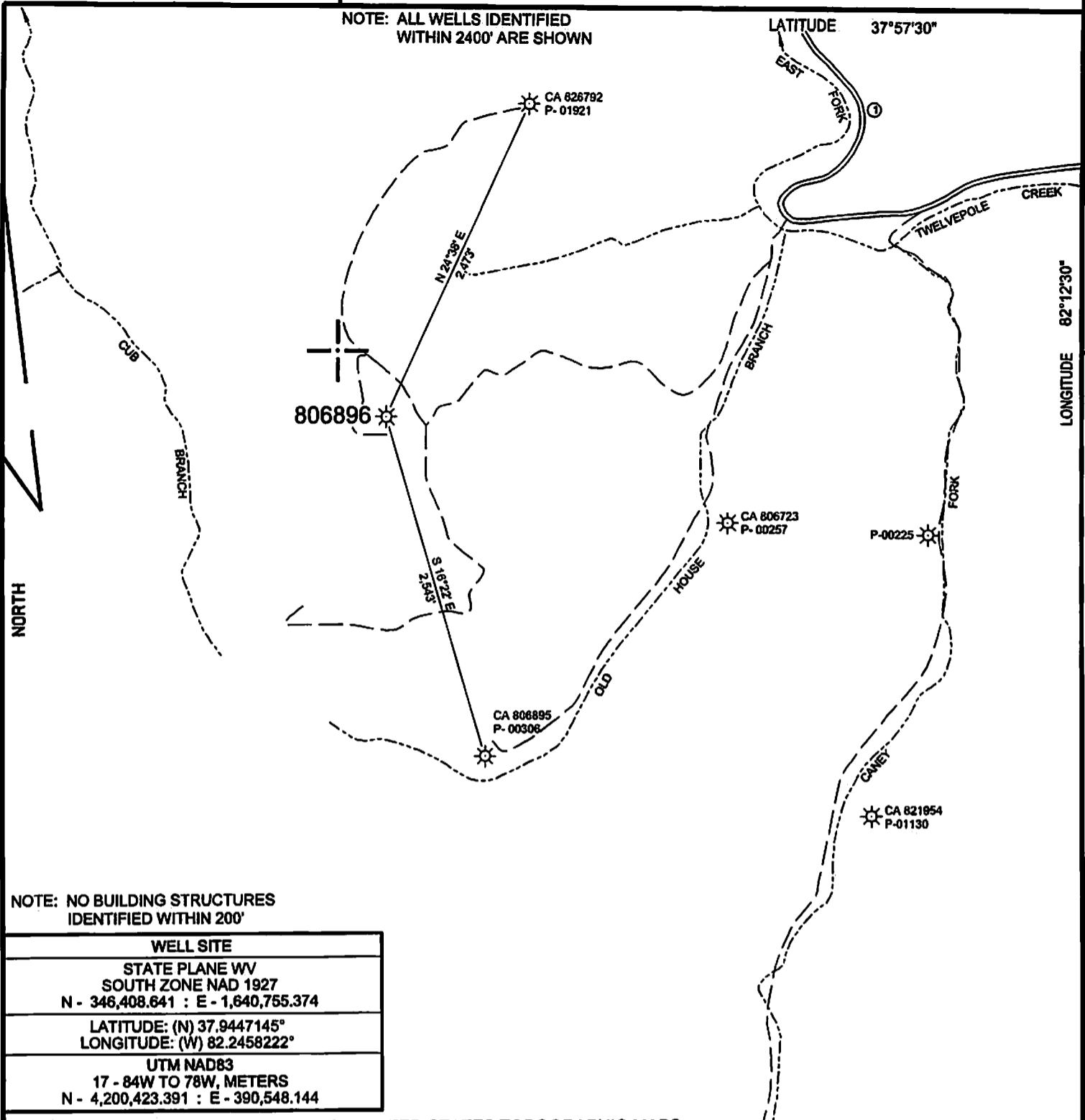
FEB 12 2010

Chesapeake Energy Corporation - Eastern Division
P.O. Box 579 • 8165 Court Avenue • Hamlin, WV 25523
304.824.5141 • fax 304.824.2247

Office of Oil and Gas
WV Dept. of Environmental Protection

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN

LATITUDE 37°57'30"



NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

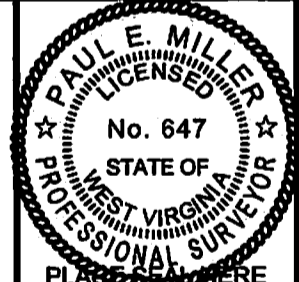
WELL SITE
STATE PLANE WV SOUTH ZONE NAD 1927 N - 346,408.641 : E - 1,640,755.374
LATITUDE: (N) 37.9447145° LONGITUDE: (W) 82.2458222°
UTM NAD83 17 - 84W TO 78W, METERS N - 4,200,423.391 : E - 390,548.144

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

FILE NO. CA806896P&A.DGN
 DRAWING NO. CA806896P&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 JANUARY 15, 20 14
 OPERATOR'S WELL NO. 806896
 API WELL NO. 47 059 00307 P
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1475' WATER SHED OLD HOUSE BRANCH OF EAST FORK OF TWELVEPOLE CREEK
 DISTRICT HARVEY COUNTY MINGO
 QUADRANGLE TRACE, WV 7.5'

SURFACE OWNER HEARTWOOD FORESTLAND FUND III ACREAGE 3,509.57
 OIL & GAS ROYALTY OWNER CHESAPEAKE APPALACHIA, L.L.C. LEASE ACREAGE _____
 LEASE NO. _____ FEE LAND _____

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 CLEAN OUT AND REPLUG

TARGET FORMATION _____ ESTIMATED DEPTH _____
 WELL OPERATOR CHESAPEAKE APPALACHIA, L.L.C. DESIGNATED AGENT ERIC B. GILLESPIE
 ADDRESS P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496 ADDRESS CHESAPEAKE APPALACHIA, L.L.C. PO BOX 6070, CHARLESTON, WV 25362

FORM WW-6

COUNTY NAME PERMIT

02/21/2014