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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: 47-4303156, 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: 824780  
Farm Name: ELKINS, DAVID JR.  
**API Well Number: 47-4303156**  
**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.

# Inspector's Signature sheets

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

1) Date: 11/25/2014  
2) Operator's Well No. 824780 P&A  
3) API Well No. 47-043-03156 P

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

OK 5220857  
\$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 1,150' Watershed Laurel Branch of Guyandotte River  
District Laurel Hill County Lincoln Quadrangle Branchland, 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 Ralph Triplett Name Chesapeake Appalachia, L.L.C.  
Address 5539 McClellan Highway Address P.O. Box 18496  
Branchland, WV 25506 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

Ralph D. Triplett

Date

December 2, 2014

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Office of Oil & Gas

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02/27/2015

824780 P&A Procedure

NOTE: There was a cast iron bridge plug set at 3080' to prevent water production from the Shale.

- 1) Prepare road and location, MIRU service rig
- 2) Run in hole with tools to check BP at 3080'
- 3) Spot 100' cement plug 3080'-2980'
- 4) Load hole with gel
- 5) Pull or run W.S. to 2500'
- 6) Spot 100' cement plug 2500'-2400', pull W.S. to 2000'
- 7) Spot 300' cement plug 2000'-1700', pull W.S.
- 8) Cut 4 1/2" at free-point (approximately 1000') and pull
- 9) Run W.S. to 1100', load hole with gel
- 10) Spot 150' cement plug 1100'-950', pull W.S. to 525'
- 11) Spot 100' cement plug 525'-425', pull W.S. to 170'
- 12) Spot 170' cement plug 170' – surface
- 13) Pull W.S. and top off with cement
- 14) Set monument and reclaim as prescribed by law

RDT  
12/2/14

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02/27/2015



WR-35

API #: 47-043-03156

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

Reviewed ACB

Well Operator's Report of Well Work

Farm name: David Elkins, Jr. Operator Well No.: 824780  
LOCATION: Elevation: 1131' Quadrangle: Branchland WV, 7.5'  
District: Laurel Hill County: Lincoln  
Latitude: 14620' S.of 38° 10' 00"  
Longitude: 8940' W.of 82° 07' 30"

Company: COLUMBIA NATURAL RESOURCES  
P. O. BOX 6070  
CHARLESTON, WV 25362-0070

Agent: Thomas Blake  
Inspector: Gary Scites  
Permit Issued: 2-15-02  
Well work Commenced: 2-27-02  
Well work Completed: 5-6-02  
Verbal Plugging:  
Permission Granted on:  
Rotary Rig  Cable Rig   
Total depth (ft.): 3780'  
Fresh water depths (ft.): 215'  
Salt water depths (ft.): 900', 1055', 1350'  
Is coal being mined in area (Y/N)? N  
Coal depths (ft): 83-86', 136-139', 500-505

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill-Up (cu.ft.)
13 3/8	21	21	
9 5/8	345	345	108
7	1776	1776	267
4 1/2		3743	251

OPEN FLOW DATA

Producing formation: Devonian Shale Pay zone depth (ft) 3160-3696  
Berea 2484-2494  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 252 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ 72 Hours  
Static rock Pressure 240 psig (surface pressure) after \_\_\_\_\_ 48 Hours

Producing formation: \_\_\_\_\_ Pay zone depth (ft) from \_\_\_\_\_ to \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ 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.

By: Jason Bach  
COLUMBIA NATURAL RESOURCES, INC  
Date: 05/08/2002

RECEIVED  
Office of Oil & Gas  
Permitting  
JUN 03 2002  
WV Department of  
Environmental Protection

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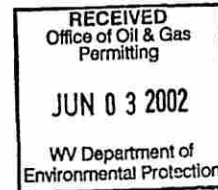
02/27/2015

**GEOLOGIC PROFILE**  
**47-043-03156**

GL - 1131' ASL

**FORMATION**

Coal	83'-86'
Coal	136'-139'
Coal	500'-505'
Salt Sand	1100'-1470'
Maxon	1610'-1700'
Little Lime	1700'-1740'
Big Lime	1740'-1910'
Big Injun	1946'-1976'
Berea	2474'-2496'
Lower Huron	3430'-3690'
T.D.	3780'



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4303156P

WELL # 824720

ENGINEER: J. BACH

**FRACTURING:**

1st STAGE: FRAC OF SHALE DATE FRACED 4-12-02  
ADDITIONAL FRACS Y N

# of Holes 49  
Perforations from 3160 - 3696 - Acid      gal.      HCL  
Breakdown @ 2742 PSI, Avg. Rate 60000 SCFM or      BPM  
Atp 2742 PSI, Total H2O      Bbl., Total Sand      # Total N2 1310000 Scf  
Pre I.S.I.P.      Post I.S.I.P. 1080 5 min 769; 10min 732; 15 min 714  
Max Press 2854 # Of 70 Balls      .405 psi/ft. Frac Gradient

2nd STAGE: FRAC OF Berea DATE FRACED 4-15-02  
ADDITIONAL FRACS Y N

# of Holes 21  
Perforations from 2424 - 2494 - Acid 250 gal. 15% HCL  
Breakdown @ 2854 PSI, Avg. Rate      SCFM or 5.6 BPM  
Atp 2635 PSI, Total H2O 107 Bbl., Total Sand 30553 # Total N2 370200 Scf  
Pre I.S.I.P. 2170 Post I.S.I.P. 2435 5 min 2280; 10min 2234; 15 min 2225  
Max Press 2690 # Of 1 Frac Balls 1.11 psi/ft. Frac Gradient

3rd STAGE: FRAC OF      DATE FRACED       
ADDITIONAL FRACS Y N

# of Holes       
Perforations from      -      - Acid      gal.      HCL  
Breakdown @      PSI, Avg. Rate      SCFM or      BPM  
Atp      PSI, Total H2O      Bbl., Total Sand      # Total N2      Scf  
Pre I.S.I.P.      Post I.S.I.P.      5 min     ; 10min     ; 15 min       
Max Press      # Of      Balls      psi/ft. Frac Gradient

4th STAGE: FRAC OF      DATE FRACED       
ADDITIONAL FRACS Y N

# of Holes       
Perforations from      -      - Acid      gal.      HCL  
Breakdown @      PSI, Avg. Rate      SCFM or      BPM  
Atp      PSI, Total H2O      Bbl., Total Sand      # Total N2      Scf  
Pre I.S.I.P.      Post I.S.I.P.      5 min     ; 10min     ; 15 min       
Max Press      # Of      Balls      psi/ft. Frac Gradient

NOTES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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WV Department of  
Environmental Protection

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DEC 03 2014

02/27/2015



WW4-A  
Revised  
2/01

1) Date: 11/25/2014  
2) Operator's Well No. 824780 P&A  
3) API Well No. 47-043-03156

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 David Elkins  
Address 4611 Pricer Creek Road  
Huntington, WV 25701  
  
(b) Name Please see additional  
Address sheet with access road  
owners  
  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
  
6) Inspector Ralph Triplett  
Address 5539 McClellan Highway  
Branchland, WV 25506  
  
Telephone 304-389-0350

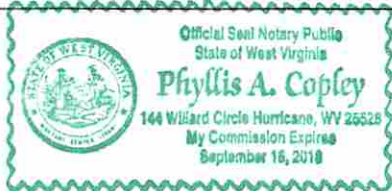
5) Coal Operator  
(a) Name None  
Address \_\_\_\_\_  
  
Coal Owner(s) with Declaration  
(b) Name Pocahontas Land Corporation  
Address 800 Princeton Avenue  
Bluefield, WV 24701  
  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
  
Coal Lessee with Declaration  
(c) Name None  
Address \_\_\_\_\_  
  
Name \_\_\_\_\_  
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 25<sup>th</sup> day of November the year of 2014  
Phyllis A. Copley Notary Public

My Commission expires: September 16, 2018

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Office of Oil & Gas  
DEC 03 2014  
02/27/2015



Well 824780 P&A  
API 47-043-03156

### Access Road Owners

Freddie Brewster  
P.O. Box 332  
Ranger, WV 25557

Kenneth Baker  
165 N. Morning Dove Drive  
Fayetteville, GA 30215

Anthony Sias  
380 Vanatters Creek  
Ranger, WV 25557

W.C. & Florence Webb  
13 Guyan River Road  
Ranger, WV 25557

Chris Baker  
Rt. 2 Box 490 McComas Road  
Salt Rock, WV 25559

Lawrence Johnson Jr.  
P.O. Box 406  
Ranger, WV 25557

Martin Land Company  
P.O. Box 1133  
Inez, KY 41224

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47-043-03156P

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Return Receipt Fee (Endorsement Required)	2.70	Postmark Here	
Restricted Delivery Fee (Endorsement Required)	0.00		
Total Postage & Fees	\$ 7.61		12/02/2014

Sent To  
 824780 P&A  
 Pocahontas Land Corp.  
 800 Princeton Avenue  
 Bluefield, WV 24701

PS Form 3800, July 2014

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Restricted Delivery Fee (Endorsement Required)	0.00		
Total Postage & Fees	\$ 7.61		12/02/2014

Sent To  
 824780 P&A (access road)  
 Chris Baker  
 Rt. 2 Box 490 McComas Road  
 Salt Rock, WV 25559

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Total Postage & Fees	\$ 7.61		12/02/2014

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 824780 (access road)  
 Freddie Brewster  
 P.O. Box 332  
 Ranger, WV 25557

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Total Postage & Fees	\$ 7.61		12/02/2014

Sent To  
 824780 P&A (access road)  
 Anthony Sias  
 380 Vanatters Creek  
 Ranger, WV 25557

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Restricted Delivery Fee (Endorsement Required)	0.00		
Total Postage & Fees	\$ 7.61		12/02/2014

Sent To  
 824780 P&A (access road)  
 Martin Land Company  
 P.O. Box 1133  
 Inez, KY 41224

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Restricted Delivery Fee (Endorsement Required)	0.00		
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Sent To  
 824780 P&A (surface owner)  
 David Elkins  
 4611 Pricer Creek Road  
 Huntington, WV 25701

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47-043-03156P

7014 2120 0001 1976 0511

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<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>	<b>12/02/2014</b>

Sent To: **824780 P&A (access road)**  
W.C. & Florence Webb  
13 Guyan River Road  
Ranger, WV 25557

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<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>	<b>12/02/2014</b>

Sent To: **824780 P&A (access road)**  
Kenneth Baker  
165 N. Morning Dove Drive  
Fayetteville, GA 30215

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Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.61</b>	<b>12/02/2014</b>

Sent To: **824780 P&A (access road)**  
Lawrence Johnson Jr.  
P.O. Box 406  
Ranger, WV 25557

PS Form 3800, July 2014 See Reverse for Instructions

02/27/2015



4303156P

Form WW-9  
Rev. 02/01

API Number 47-043-03156  
Operator's Well No. 824780 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 Laurel Branch of Guyandotte River Quadrangle Branchland, WV 7.5'  
Elevation 1,150' County Lincoln District Laurel Hill

Description of anticipated Pit Waste: Plugging Returns/Cement

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

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 25<sup>th</sup> day of November, 2014.

*Phyllis A. Copley*

Notary Public.

My Commission Expires September 16, 2018

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Office of Oil & Gas  
DEC. 03 2014



02/27/2015



Attachment #1

API #: 47-043-03156  
Operator's Well No. 824780 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: Raepl D. Tripod

Title: District Inspector

Date: December 2, 2014

Field Reviewed?  Yes  No

Received  
Office of Oil & Gas  
DEC 03 2014

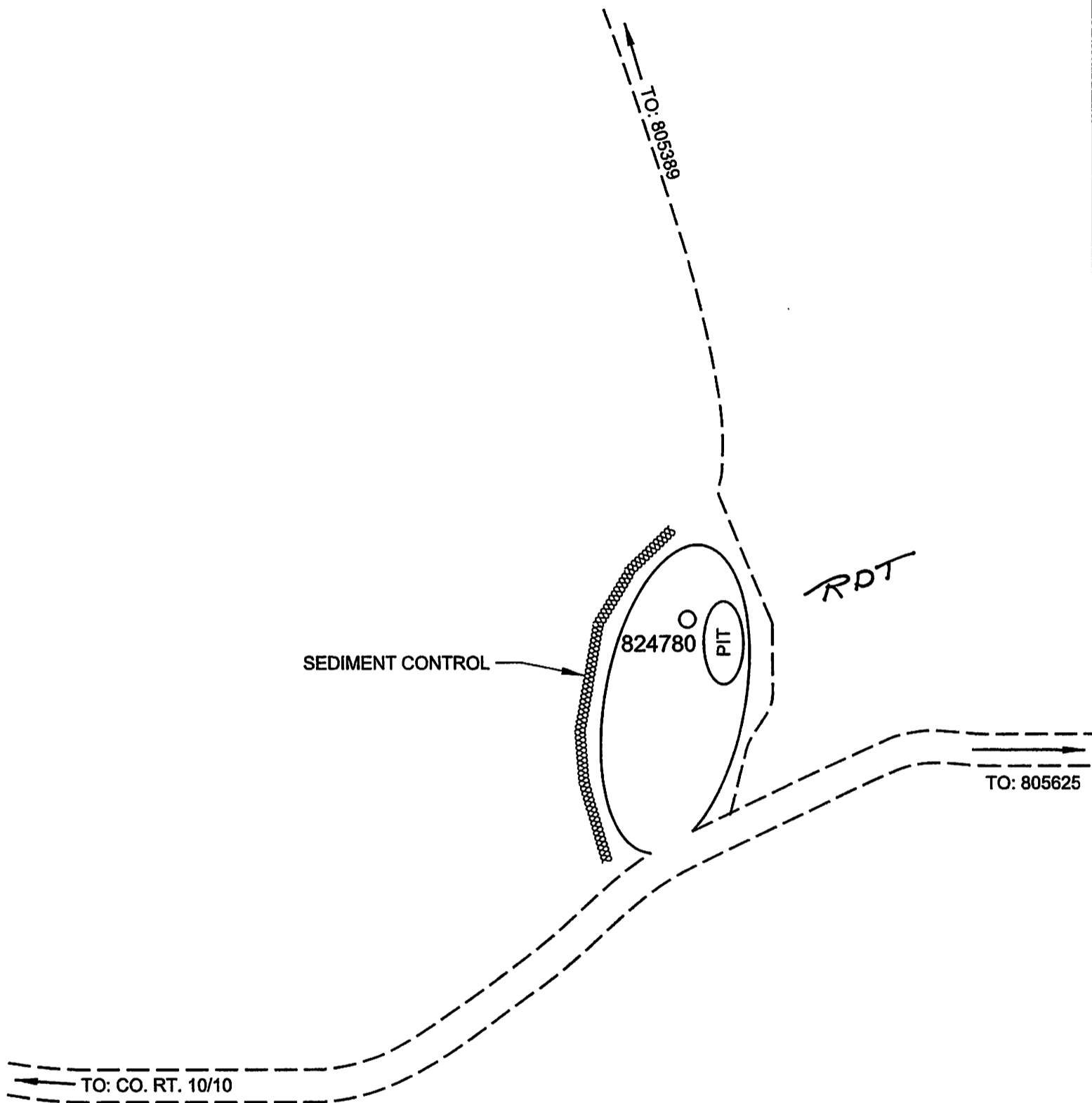
02/27/2015

4303156 P

# CHESAPEAKE APPALACHIA, L.L.C.

## RECLAMATION DIAGRAM WELL LOCATION 806089

API 47-043-03156



### 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 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 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.

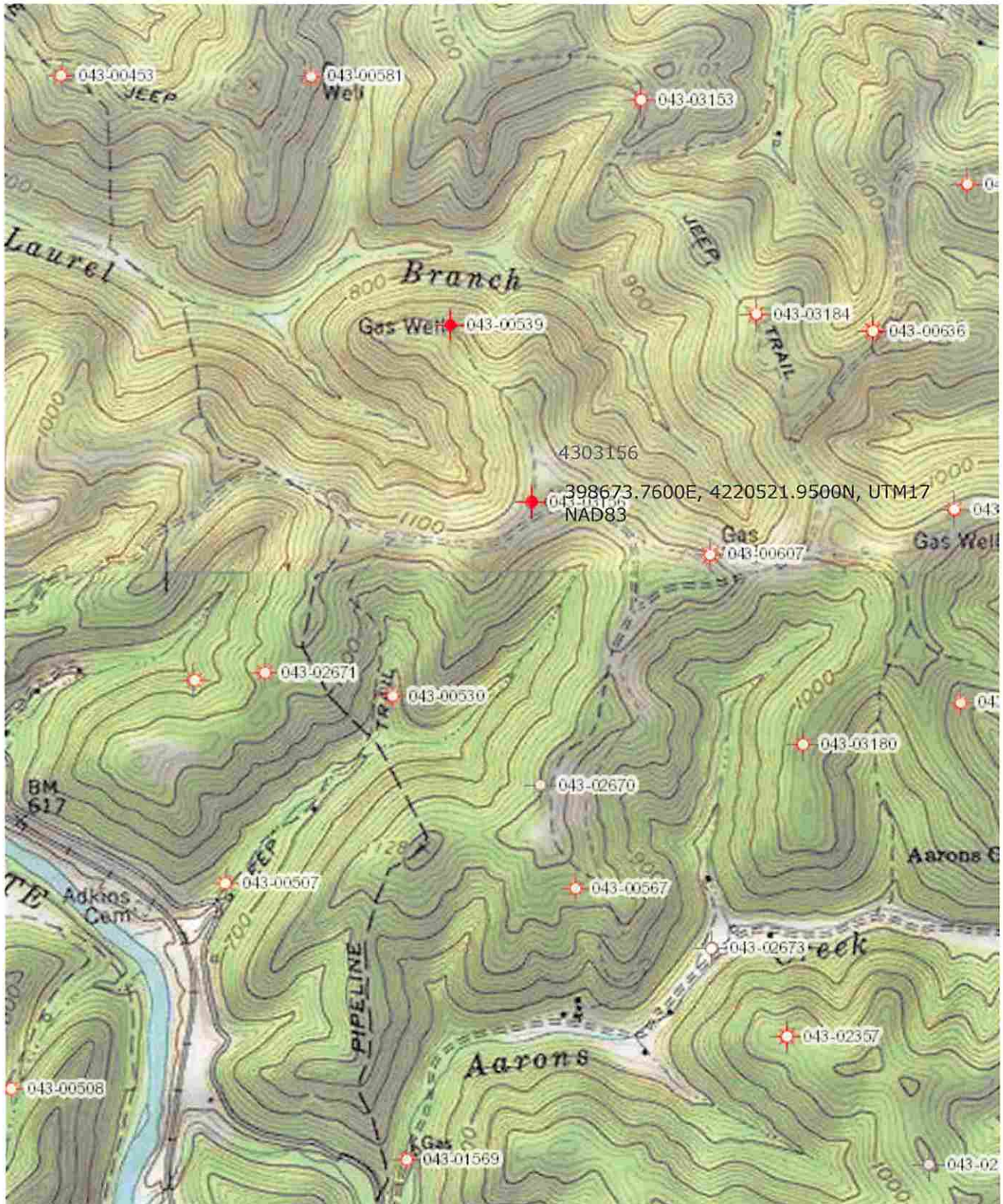
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Office of Oil & Gas

DEC 03 2014

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

4303156P



02/27/2015

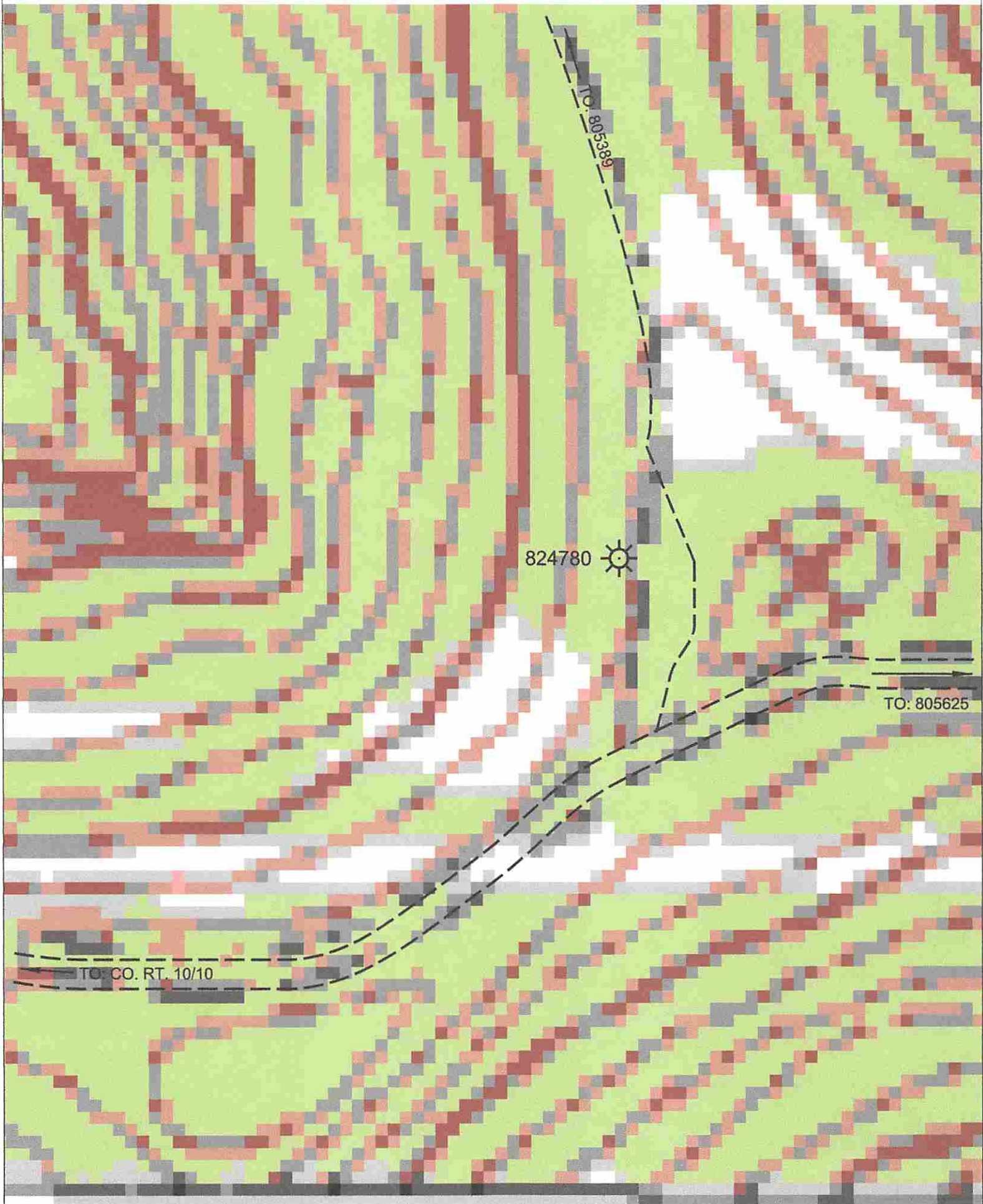


CHESAPEAKE APPALACHIA, L.L.C.

4303156P

TOPOGRAPHICAL MAP OF ACCESS AND  
WELL LOCATION 824780

API 47-043-03156



Received  
Office of Oil & Gas  
DEC 03 2014

02/27/2015



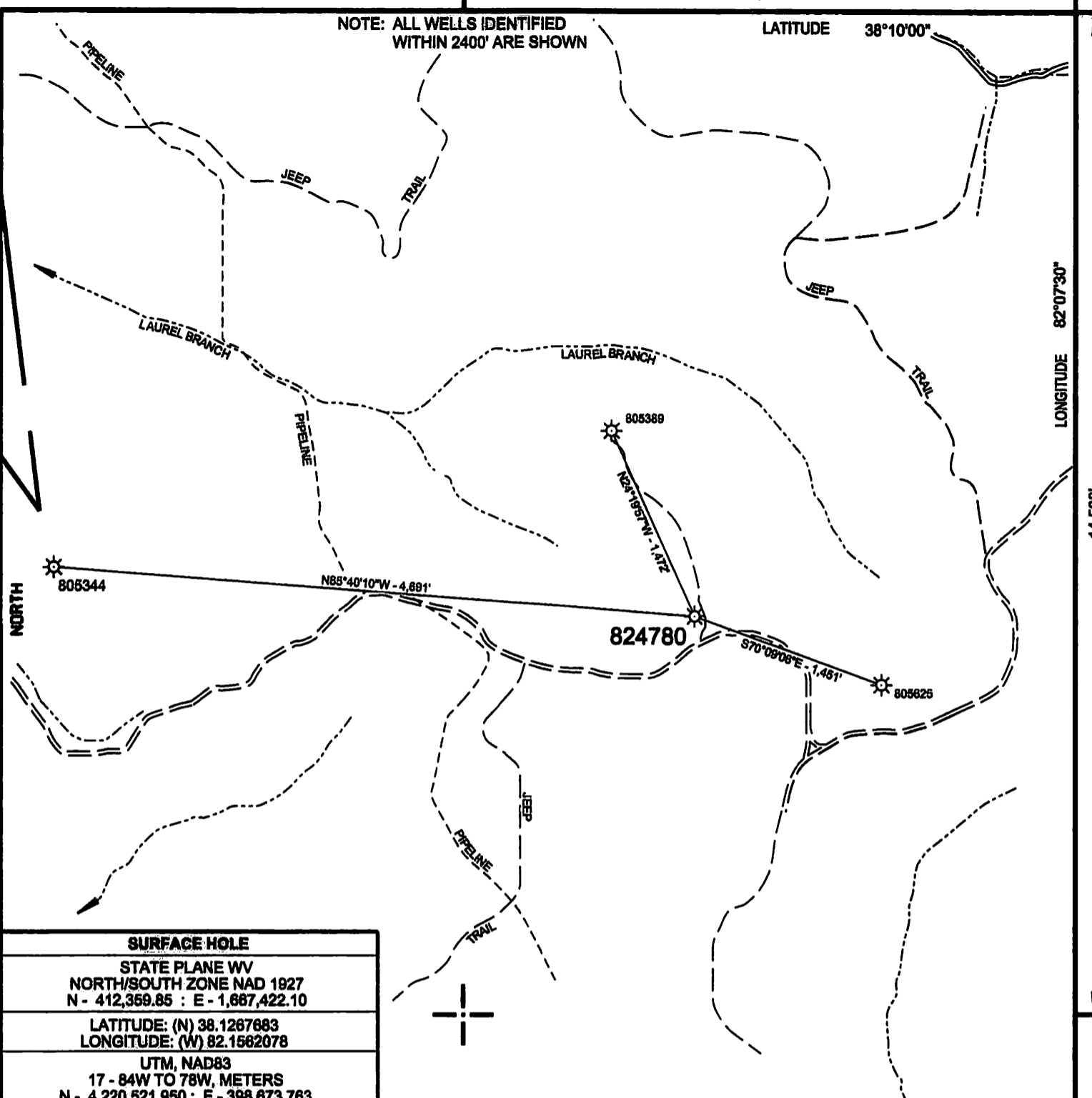
8,935'

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN

LATITUDE 38°10'00"

LONGITUDE 82°07'30"

14,508'



<b>SURFACE HOLE</b>
STATE PLANE WV NORTH/SOUTH ZONE NAD 1927 N - 412,359.85 : E - 1,867,422.10
LATITUDE: (N) 38.1267683 LONGITUDE: (W) 82.1562078
UTM, NAD83 17 - 84W TO 78W, METERS N - 4,220,521.950 : E - 388,673.783

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

FILE NO. 824780 P&A DGN.  
 DRAWING NO. 824780 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 OCTOBER 8, 20 14  
 OPERATOR'S WELL NO. 824780  
 API WELL NO. 47 043 03156 P  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1.150' WATER SHED LAUREL BRANCH OF GUYANDOTTE RIVER  
 DISTRICT LAUREL HILL COUNTY LINCOLN  
 QUADRANGLE BRANCHLAND, WV 7.5'  
 SURFACE OWNER DAVID ELKINS JR. ETAL 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  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 73154-0498 ADDRESS PO BOX 6070 CHARLESTON, WV 25362

COUNTY NAME PERMIT

02/27/2016