



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 28, 2014

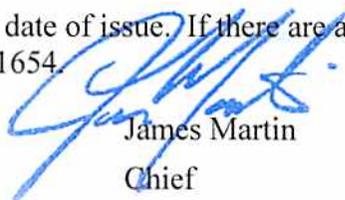
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3901946, 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: 9259

Farm Name: MORRIS, ROBERT F. & FRANCES

API Well Number: 47-3901946

Permit Type: Plugging

Date Issued: 07/28/2014

Promoting a healthy environment.

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.

3901946P

it of
Protection

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

1) Date: 5/27/2014
2) Operator's Well No. 809259 P&A
3) API Well No. 47-039-01946

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 820 ft Watershed George's Creek of Kanawha River
 District Malden County Kanawha Quadrangle Charleston East, 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 9) Plugging Contractor
 Name Terry Urban Name Chesapeake Appalachia, L.L.C.
 Address P.O. Box 1207 Address P.O. Box 18496
Clendenin, WV 25045 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
Office of Oil and Gas
JUN 06 2014
WV Department of
Environmental Protection

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 5-30-14

824-5141

809259 P&A PROCEDURE

- 1) Prepare road and location, MIRU service rig
- 2) RIH with tools to check TD at approximately 1370'
- 3) Run W.S. to 1370', load hole with gel
- 4) Spot 100' cement plug 1370'-1270', pull W.S.
- 5) Cut 3 1/2" at free-point (approximately 1170') and pull
- 6) Run W.S. to 1170', load hole with gel
- 7) Spot 120' cement plug 1170'-1050', pull W.S. to 800'
- 8) Spot 100' cement plug 800'-700', pull W.S.
- 9) Attempt to pull 8 5/8"
 - A) If successful:
 - a) Run W.S. to 450', load hole with gel
 - b) Spot 100' cement plug 450'-350'
 - c) Proceed to step #10
 - B) If unsuccessful:
 - a) Run W.S. to 450'
 - b) Spot 100' cement plug 450'-350', pull W.S.
 - c) Cut 8 5/8" at free-point (approximately 200') and pull
 - d) Proceed to step #10
- 10) Pull or run W.S. to 200'
- 11) Spot 200' cement plug 200' to surface
- 12) Pull W.S. and top off with cement
- 13) Erect monument and reclaim as prescribed by law

*Operator will
 Set more
 Plugs AT Elevation?
 All Oil & Gas bearing
 Formations*

[Signature]
 5-30-14

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

well 809259
API 47-039-01948

Quadrangle Charleston

Permit No. KAN-1946

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company United Fuel Gas Company
Address P. O. Box 1273 Charleston 25, W. Va.
Farm Georges Creek Land & Mining Co. Acres. 2663
Location (waters) Georges Creek
Well No. 9259 Elev. 843.80'
District Malden County Kanawha
The surface of tract is owned in fee by _____
Address _____

Mineral rights are owned by Georges Creek Land & Min. Co. 3314 "P" St. N. W. Address Washington D. C.
Drilling commenced 5-25-63
Drilling completed 6-27-63
Date Shot _____ From _____ To _____
With _____

Open Flow _____ /10ths Water in _____ Inch
150 /10ths Merc. in 3 Inch
Volume 4,287,000 Cu. Ft.
Rock Pressure 332 lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of <u>Shoe Float</u>
16			Size of <u>Shoe 3 1/2</u>
13		<u>34'</u>	Depth set _____
10		<u>393</u>	Perf. top _____
8 1/2			Perf. bottom _____
5 3/16		<u>1460</u>	Perf. top _____
3			Perf. bottom _____
2			
Liners Used			

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES
_____ FEET _____ INCHES

RESULT AFTER TREATMENT _____

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water _____ Feet _____ Salt Water _____ Feet _____

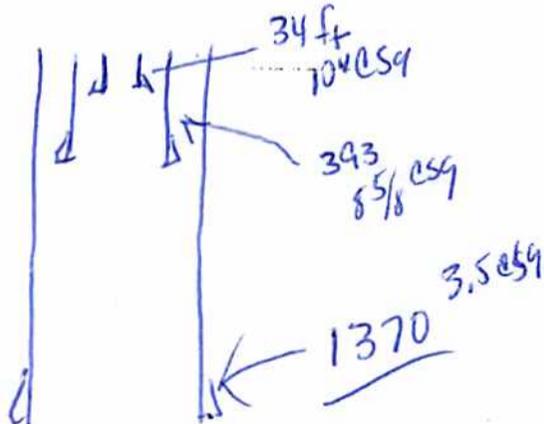
Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand & Gravel			0	25			
Slate			25	34			
Sand			34	45			conductive
Slate & Lime			45	58			
Hard Lime			58	74			
Slate-Shells			74	100			
Lime			100	167			
Slate-Shells			167	200			
Hard Lime			200	228			
Sand			228	400			surface sq
Slate-Shells			400	429			
Sand			429	475			
Broken S			475	505			Elevation plug
Sand			505	865			
Slate-Shells			865	880			
Hard Lime			880	920			
Hard Sand			920	1064			
Slate-Shells			1064	1077			
Red Rock & Slate			1077	1083			
Gritty Lime			1083	1105			
Maxon			1105	1155			first plug
Lime			1155	1193			
Slate			1193	1196			
Lime Shell			1196	1204			
Big Lime			1204	1388			
Injun Sand			1388	1420			
Slate			1420	1430			
Red Rock			1430	1457			
Total Depth			1457'				

(over)



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Office of Oil and Gas
JUN 06 2014

WV Department of Environmental Protection



[Signature]
5-30-14

39 01946P

WW4-A
Revised
2/01

1) Date: 5/27/2014
2) Operator's Well No. 809259 P&A
3) API Well No. 47-039-01946

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 Robert F. Morris and
Address Frances K. Morris
859 Georges Drive
Charleston, WV 25306
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Terry Urban
Address P.O. Box 1207
Clendenin, WV 25045
Telephone 304-549-5915

5) Coal Operator
(a) Name None
Address _____
Coal Owner(s) with Declaration
(b) Name Georges Creek Investments
Address P.O. Box 1747
Charleston, WV 25326
Name _____
Address _____
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.



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 27th day of May the year of 2014
Phyllis A. Copley Notary Public
My Commission Expires September 16, 2018
Form WW-9

Received
MAY 29 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

Well 809259 P&A
 API 47-039-01946 P

7012 3460 0000 4499 2678

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CHARLESTON, WV 25306

Postage	\$ 11.40	0523
Certified Fee	\$ 3.30	01
Return Receipt Fee (Endorsement Required)	\$ 2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
Total Postage & Fees	\$ 17.40	05/28/2014

Sent To: **809259 P&A**
 Robert F. Morris, Frances K. Morris
 Frances Chambers
 859 Georges Drive
 Charleston, WV 25306

PS Form 3800, Instructions

7012 3460 0000 4499 2661

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CHARLESTON, WV 25326

Postage	\$ 11.40	0523
Certified Fee	\$ 3.30	01
Return Receipt Fee (Endorsement Required)	\$ 2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$ 0.00	
Total Postage & Fees	\$ 17.40	05/28/2014

Sent To: **809259 P&A**
 Georges Creek Investments
 P.O. Box 1747
 Charleston, WV 25326

PS Form 3800, Instructions

Received

MAY 29 2014

Office of Oil and Gas
 WV Dept. of Environmental Protection

5/29

FORM WW-4 (B)
Reverse

API No. 47-039-01946
Farm Name Georges Creek LD - Robert & Frances Morris
Well No. 809259 P&A

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Received

JUN 23 2014

Date: 6-14-14
Office of Oil and Gas
WV Dept. of Environmental Protection

By: Anne W Heintz (member/manager)
Its: [Signature]

ADDRESS CORRECTION:

Please change the mailing address to the following:

GEORGES CREEK INVESTMENTS, LLC
c/o ANNE HEINTZ
4001 FOX HOLLOW COURT
MIDLAND, TX 79707-4633

RECEIVED
Office of Oil and Gas

JUN 23 2014

WV Department of
Environmental Protection

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 Georges Creek of Kanawha River Quadrangle Charleston East, WV 7.5'
Elevation 820 ft County Kanawha District Malden

Description of anticipated Pit Waste: Plugging Returns/Cement

Will a synthetic liner be used in the pit? Yes ATW 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 27th day of May, 2014.

Phyllis A. Copley Notary Public.

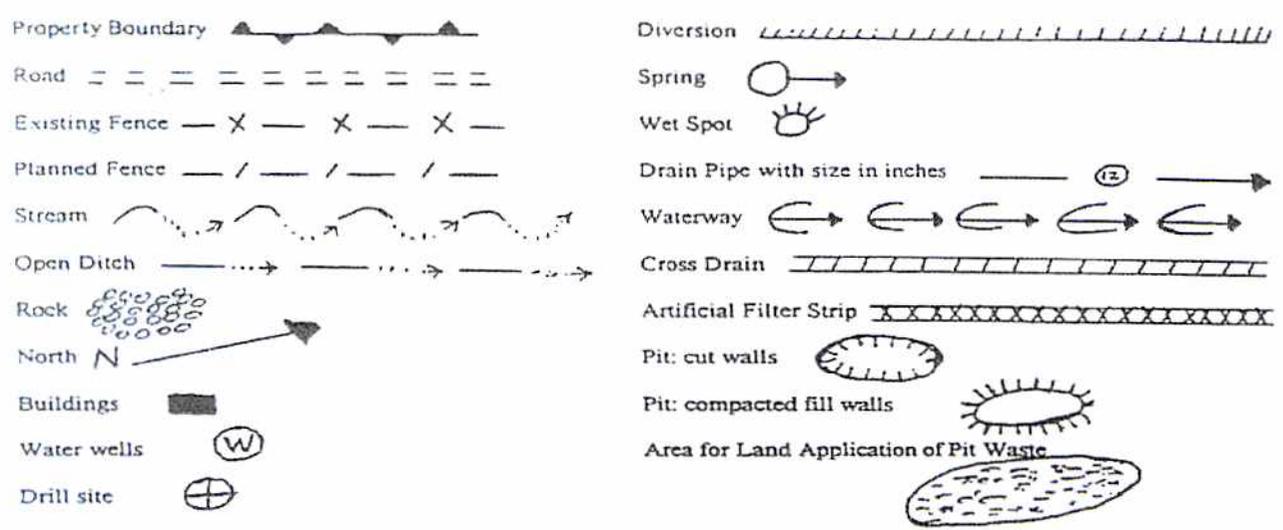
My Commission Expires September 16, 2018



Attachment #1

API #: 47-039-01946
 Operator's Well No. 809259 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.

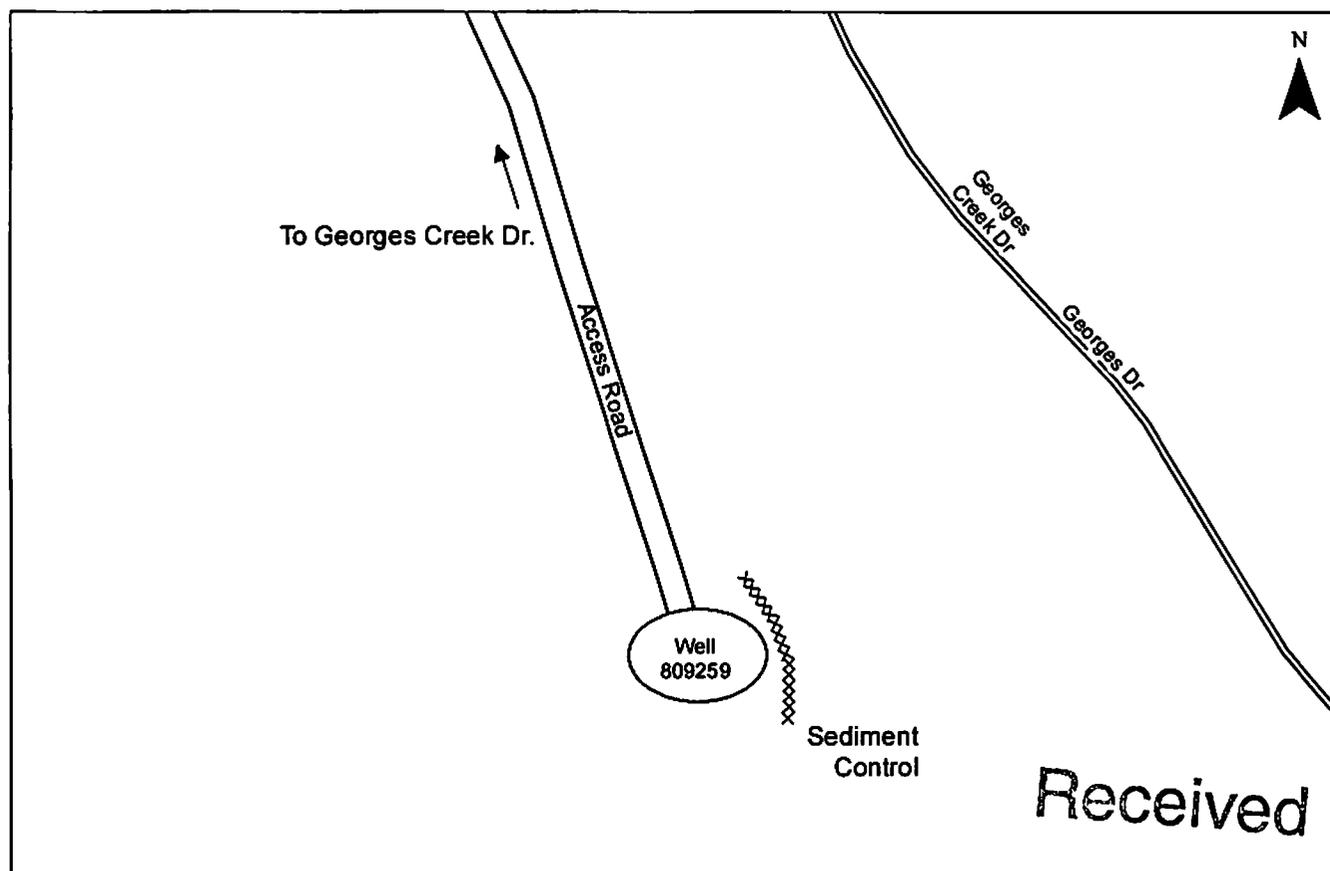
Plan Approved by: [Signature]
 Title: Inspector del Lago
 Date: 5-30-14

Field Reviewed? () Yes () No

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 Office of Oil and Gas
 JUN 06 2014
 WY Department of
 Environmental Protection

CHESAPEAKE APPALACHIA, L.L.C.

Diagram of Well 809259
 API 47-039-01946
 Field Office - Shrewsbury
 County - Kanawha



MAY 29 2014

Office of Oil and Gas
 WV Dept. of Environmental Protection

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, 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.

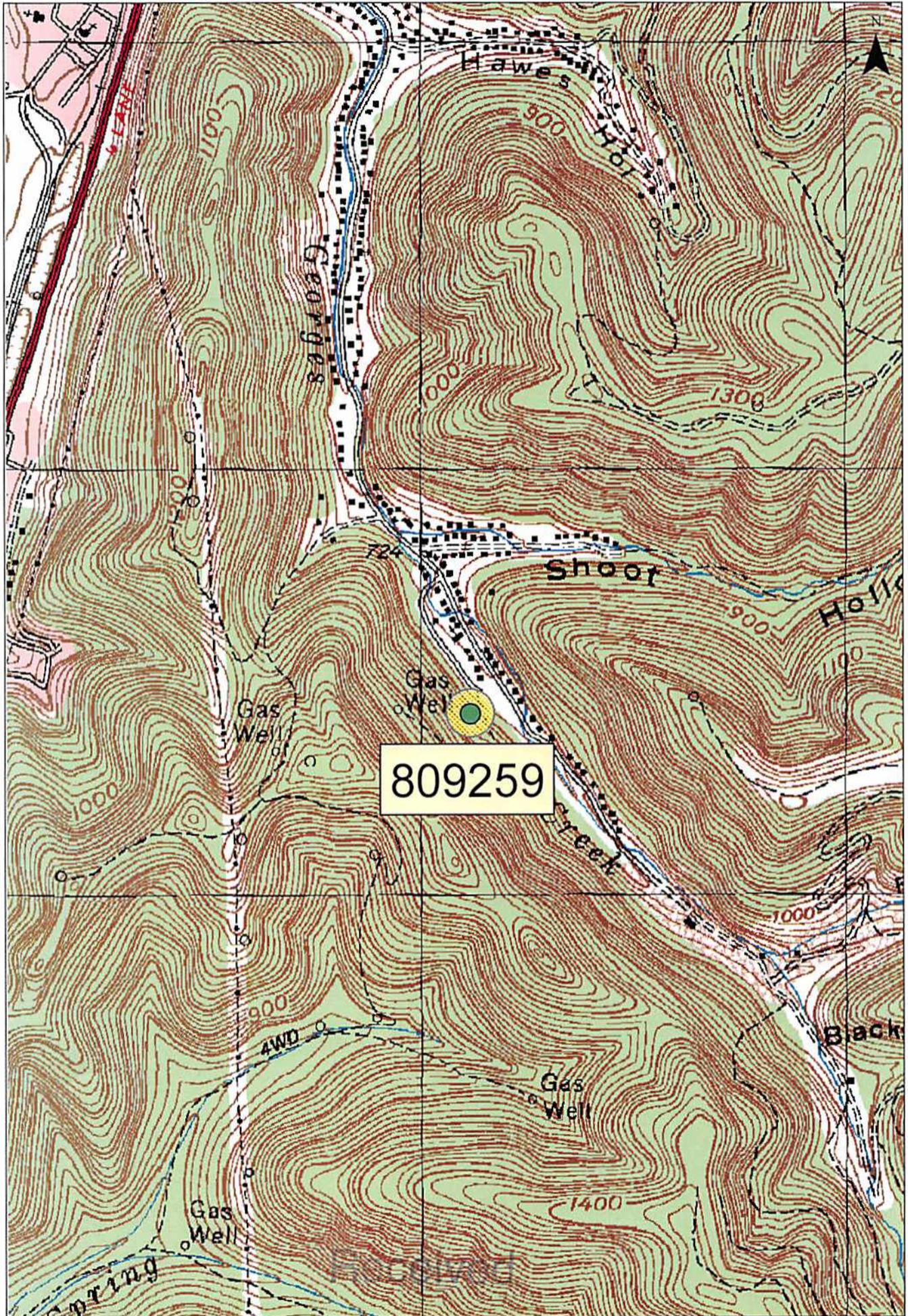
Permanent seeding: See Attachment #1

Site Plan

Prepared by: Lloyd Reynolds
 Date: 5/21/2014

CHESAPEAKE APPALACHIA, L.L.C.

Topographical Map of Access
and Well Location 809259
API 47-039-01946
Field Office - Shrewsbury
County - Kanawha



1:12,000

MAY 29 2014

0 500 1,000 2,000 Feet

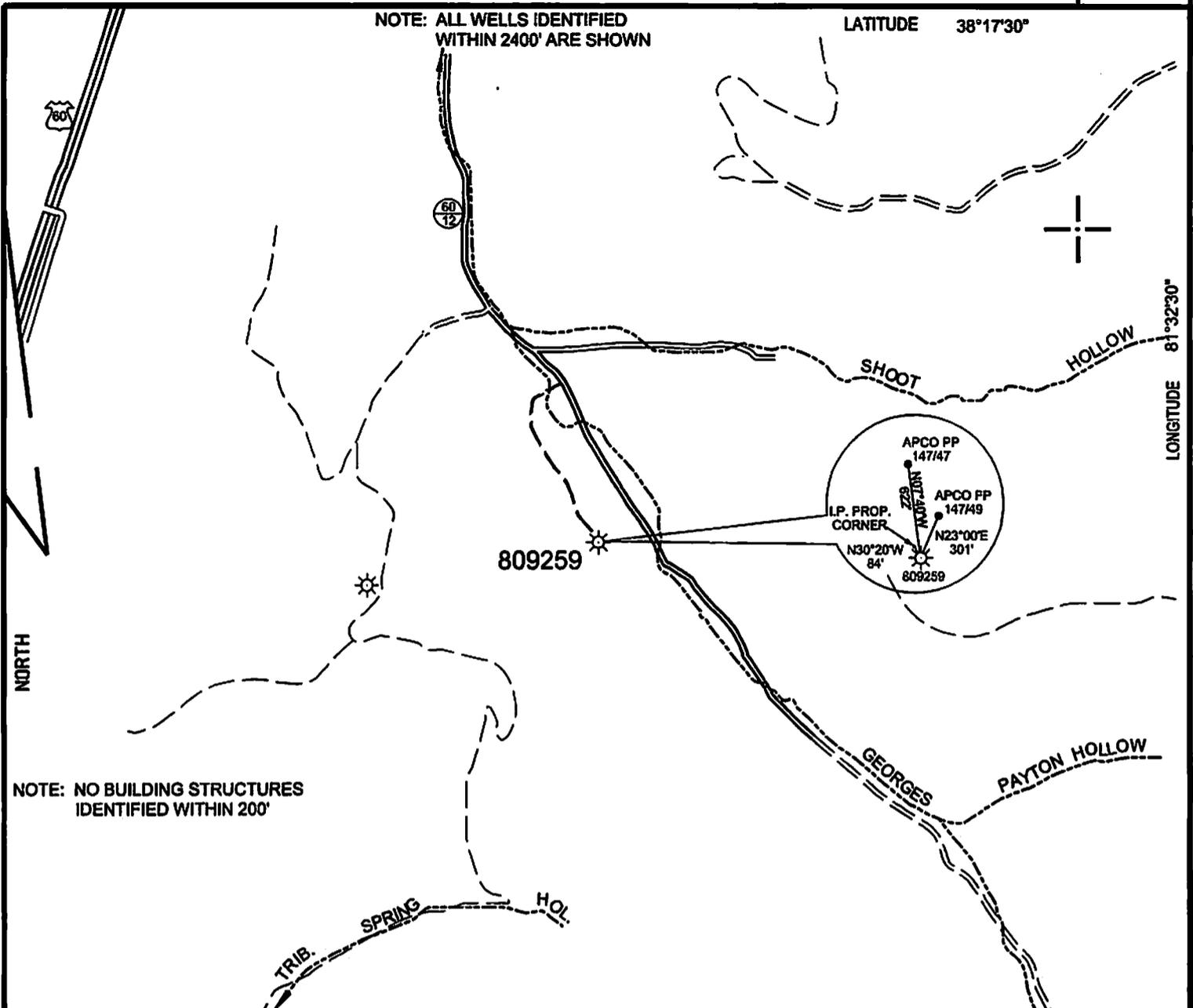


Office of Oil and Gas
WV Dept. of Environmental Protection

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

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN

LATITUDE 38°17'30"



NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

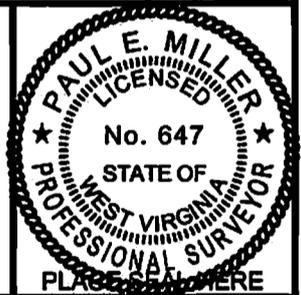
SURFACE HOLE
STATE PLANE WV NORTH/SOUTH ZONE NAD 1927 N - 467,845.87 : E - 1,842,864.15
LATITUDE: (N) 38.2835867 LONGITUDE: (W) 81.5474445
UTM, NAD83 17 - 84W TO 78W, METERS N - 4,237,430.871 : E - 452,135.195

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

FILE NO.	809259 P&A.DGN
DRAWING NO.	809259 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 MARCH 11, 2014
OPERATOR'S WELL NO. 809259
API WELL NO. _____

47 039 01946 P
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 820' WATER SHED GEORGES CREEK OF KANAWHA RIVER
DISTRICT MALDEN COUNTY KANAWHA
QUADRANGLE CHARLESTON EAST, WV 7.5'

SURFACE OWNER ROBERT F. MORRIS & FRANCES K. MORRIS ACREAGE 60
OIL & GAS ROYALTY OWNER GEORGES CREEK INVESTMENTS LEASE ACREAGE 60
LEASE NO. _____

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 ERIC B. GILLESPIE
ADDRESS PO BOX 6070 CHARLESTON, WV 25362 ADDRESS SAME

FORM WW-6

COUNTY NAME

PERMIT