



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 22, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3903050, 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: 0839
Farm Name: McCORKLE, W. A.
API Well Number: 47-3903050
Permit Type: Plugging
Date Issued: 02/22/2016

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.
4. This well is under a consent order and must be plugged under the terms of that agreement.

39 03050 e

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

1) Date: 2/8/2016
2) Operator's Well No. 800839 P&A
3) API Well No. 47-039-03050

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

CK # 6000900
\$100⁰⁰

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 1,349' Watershed Falling Rock Creek
District Elk County Kanawha Quadrangle Blue Creek, 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 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

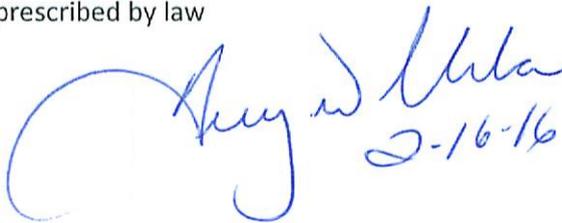
Operator to cover all Oil & Gas,
Water Zones & Elevation

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

Work Order approved by Inspector *Terry Urban* Date 2-16-16

PLUGGING PROCEDURE

- 1) Prepare road and location, MIRU Service Rig
 - 2) RIH with tools to check TD at approximately 2250'
 - 3) Attempt to pull 2" and packer
 - A) If successful
 - a) Run W.S. to approximately 2250', spot gel, pull W.S. to 2090'
 - b) Spot 100' cement plug 2090'-1990', pull W.S.
 - c) Rip or shoot holes in 6 5/8" at approximately 1880' and 1860'
 - d) Run W.S. to 1940'
 - e) Spot 200' cement plug 1940'-1740', pull W.S.
 - f) Proceed to step 4
 - B) If unsuccessful
 - a) Cut 2" at free-point (approximately 1955') and pull
 - b) Rip or shoot holes in 6 5/8" at approximately 1880' and 1860'
 - c) Run W.S. to 1960', spot gel
 - d) Spot 220' cement plug 1960'-1740', pull W.S.
 - e) Proceed to step 4
 - 4) Run in hole with tools to check TOC. If top of plug is below 1770', then add cement to top of plug
 - 5) Rip or shoot holes in 6 5/8" at approximately 1350' and 1325'
 - 6) Run W.S. to 1355', spot gel
 - 7) Spot 125' cement plug 1355'-1230', pull W.S.
 - 8) Cut 6 5/8" at free-point (approximately 1130') and pull
 - 9) Run W.S. to 1130', spot gel
 - 10) Spot 130' cement plug 1130'-1000', pull W.S.
 - 11) RIH with tools to check TOC. If top of plug is below 1030', then add cement to top of plug
 - 12) Run W.S. to 540', spot gel
 - 13) Spot 100' cement plug 540'-440', pull W.S. to 125'
- NOTE: If 6 5/8" cannot be pulled from at least 1100', then rip or shoot holes so plugs in steps 10 & 13 can be set, then pull 6 5/8" from where free.
- 14) Spot 125' cement plug 125'-surface
 - 15) Pull W.S. and top off with cement
 - 16) Erect monument and reclaim as prescribed by law


2-16-16

UNITED FUEL GAS COMPANY
(INCORPORATED)

039-3050P
Well 800839 PTA

ORIGINAL WELL NO. 839. LEASE NO. 432.

Map Sqs. 74-63

RECORD OF WELL No. 15. on the

W. A. McFORKLE Farm of **338** Acres
in **ELK/** **BIG SANDY** District
KANAWHA County
CLENDENIN Field, State of **W. VA.**

CASING AND CONDUCTOR

SIZE	USED IN DRILLING	LEFT IN WELL
Conductor		
13"		
10"		
8 1/4"	433'	
8"		
7 3/4"		
6 3/4"	1899'	1899'
6 1/4"		
5 1/2"		
5 1/4"		
4 3/4"		
2"		

GAS WELL

OPEN FLOW

in.		inch casing	
At Centre		At 1-7 Diam	
Pounds	Ounces	Pounds	Ounces

CLOSED IN

in	Tubing	Casing
1 Min.		Pounds
2 Min.		Pounds
3 Min.		Pounds
4 Min.		Pounds
5 Min.		Pounds
Rock Pressure		Pounds
18 Hrs.		

Rig Commenced 19
Rig Completed 19
Drilling Commenced **JUNE, 21ST.** 1916.
Drilling Completed **AUG. 9TH.** 1916.
Drilling to cost per foot
Contractor is: **SOUTH PENN DRILLING TOOLS**
Address: **CLENDENIN, W. VA.**
Drillers' Names **JEFF GROVES**

Shot 19
Size of Torpedo

OIL WELL

Size of Rods
Kind of Rods

1st DAY'S PRODUCTION

Gas calculated to be **1,592,000** cubic feet
Oil flowed barrels, pumped barrels
1st. Perforation
2nd. "

Size of Tubing 2 1/2" inch 2284
Size of Packer 2 x 6 1/2 x 16 Set 1915'
Kind of Packer **PAULACO** Well abandoned and plugged
Set 2267 ft. from **BOTTOM** 19
" 2015 " " "

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS	DATE
CONDUCTOR	0	16	16	WATER AT 1320'	
SLATE & SHELLS	0	500	500	HOLE FULL WATER AT 1355'	
COAL	500	507	7	6 3/4" CASING SHOE SET AT 1899'	
SLATE & SHELLS	507	1140	633	GAS 2265' to 2275'	
SALT SAND	1140	1450	310	STEEL LINE MEASUREMENTS AT 430' 1881'	
SLATE	1450	1453	3	2265' 2275'	
SAND	1453	1530	83	<i>Elevation 1349 as per Plat</i>	
LIME	1530	1575	45		
SAND	1575	1610	35		
LIME	1610	1645	35		
SLATE	1645	1650	5		
RED ROCK	1650	1700	50		
SLATE	1700	1725	25		
LIME	1725	1740	15	<i>- Big lime</i>	
SLATE	1740	1772	32		
MAXON SAND	1772	1810	38		
SLATE	1810	1812	2		
LITTLE LIME	1812	1842	30		
SLATE	1842	1847	5		
LIME	1847	1858	11		
SLATE	1858	1871	13		
BIG LIME	1871	2039	168	<i>} come with cement</i>	
BIG INJUN	2039	2070	31		
SQUAW SAND	2070	2110	40		
WEIR SAND	2110	2275	165		
TOTAL DEPTH		2275'			

APPROVED.

T.R. Partington
Supt.

WW4-A
Revised
2/01

1) Date: 2/8/2016
2) Operator's Well No. 800839 P&A
3) API Well No. 47-039-03050

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 Clyde Bare
Address 130 5th Avenue
South Charleston, WV 25303

5) Coal Operator
(a) Name None
Address _____

(b) Name _____
Address _____

Coal Owner(s) with Declaration
(b) Name See Attached List for Coal Owners
Address _____

(c) Name _____
Address _____

Name _____
Address _____

6) Inspector Terry Urban
Address P.O. Box 1207
Clendenin, WV 25045

Coal Lessee with Declaration
(c) Name None
Address _____

Telephone 304-549-5915

Scott Depot, WV 25560

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 5th day of February the year of 2016

Phyllis A. Copley
Notary Public

My Commission Expires September 16, 2018
Form WW-9

Received

FEB 10 2016

Office of Oil and Gas
WV Dept. of Environmental Protection

API Number 47-039-03050
Operator's Well No. 800839 P&A

COAL OWNERS

Marion Elizabet MacCorkle ✓
12029 Fox Field Circle
Richmond, Virginia 23233-1016

John L. MacCorkle ✓
222 Bird Court
South Charleston, WV 25303

Torquil MacCorkle Jr. ✓
110 Wagon Road Lane
Lexington, Virginia 24450

H.St.GT. Carmichael III & Suzanne L. ✓
619 Stonewall Street
Lexington, Virginia 24450

Gwendolyn B. MacCorkle ✓
5023 SW 59th Avenue
Miami, Florida 33155

Isabel L. Kindon ✓
7516 Sweet Briar Drive
College Park, Maryland 20740

Received

FEB 10 2016

Office of Oil and Gas
WV Dept. 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 Falling Rock Creek Quadrangle Blue Creek, WV 7.5'
Elevation 1,349' County Kanawha District Elk

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: 14 2-16-16
 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*

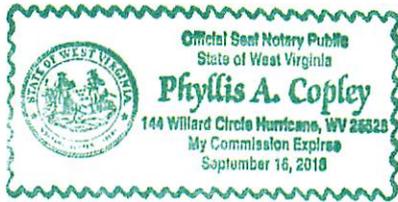
Company Official (Typed Name) David Gocke

Company Official Title Manager - Operations, Appalachia South

Subscribed and sworn before me this 8th day of February, 2016.

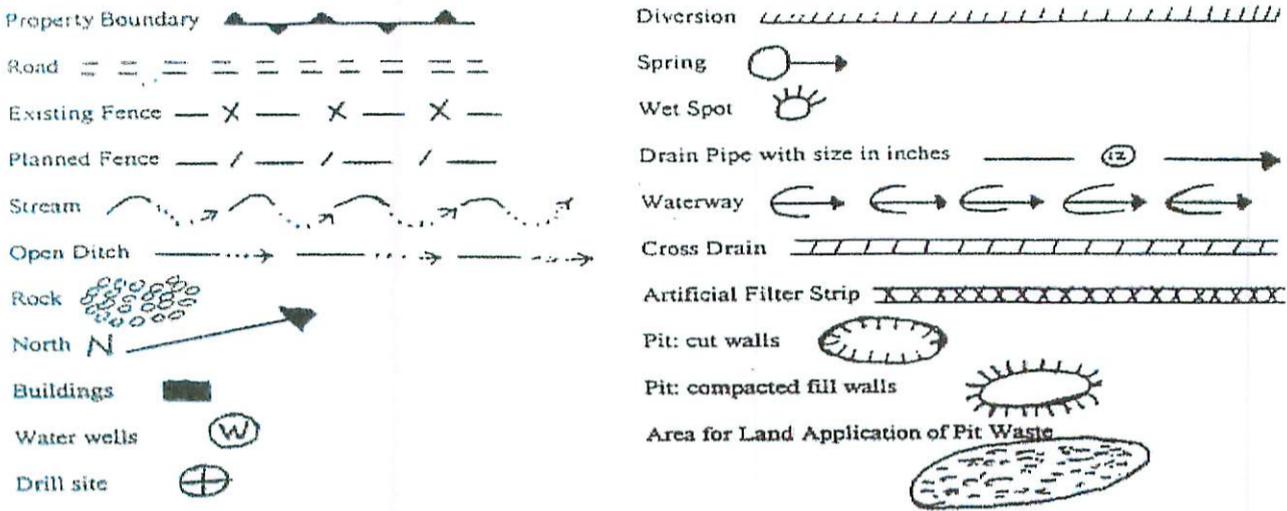
Phyllis A. Copley Notary Public.

My Commission Expires September 16, 2018



API #: 47-039-03050
 Operator's Well No. 800839 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 Tons/acre (500 lbs minimum)
 Mulch Weed Free Straw 2 Tons/acre

Seed Mixtures

October 1st to April 30th		May 1st to September 30th	
Creeping Red Fescue	68.60%	Creeping Red Fescue	68.60%
Wheat	14.76%	Wheat	17.18%
Annual Ryegrass	9.80%	Annual Ryegrass	9.80%
Ladino Clover	3.21%	Ladino Clover	4.97%

Total seeding will be 50 lbs/acre

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

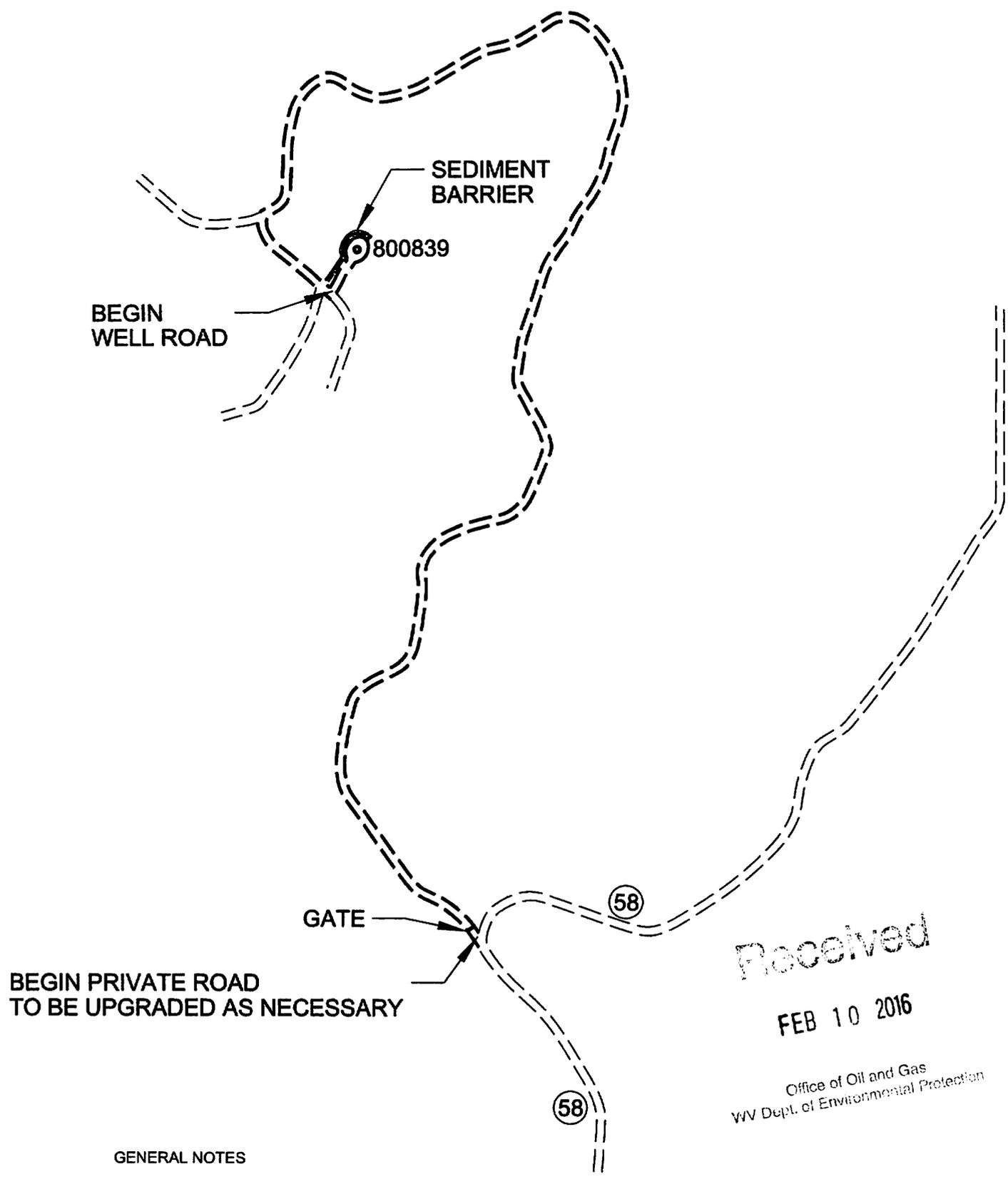
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Arnynd White*
 Title: *Field Insp DelleGass*
 Date: *2-16-16*
 Field Reviewed? () Yes () No

CHESAPEAKE APPALACHIA, L.L.C.

RECLAMATION DIAGRAM WELL LOCATION 800839

API 47-039-03050



BEGIN PRIVATE ROAD
TO BE UPGRADED AS NECESSARY

Received

FEB 10 2016

Office of Oil and Gas
WV Dept. of Environmental Protection

GENERAL NOTES

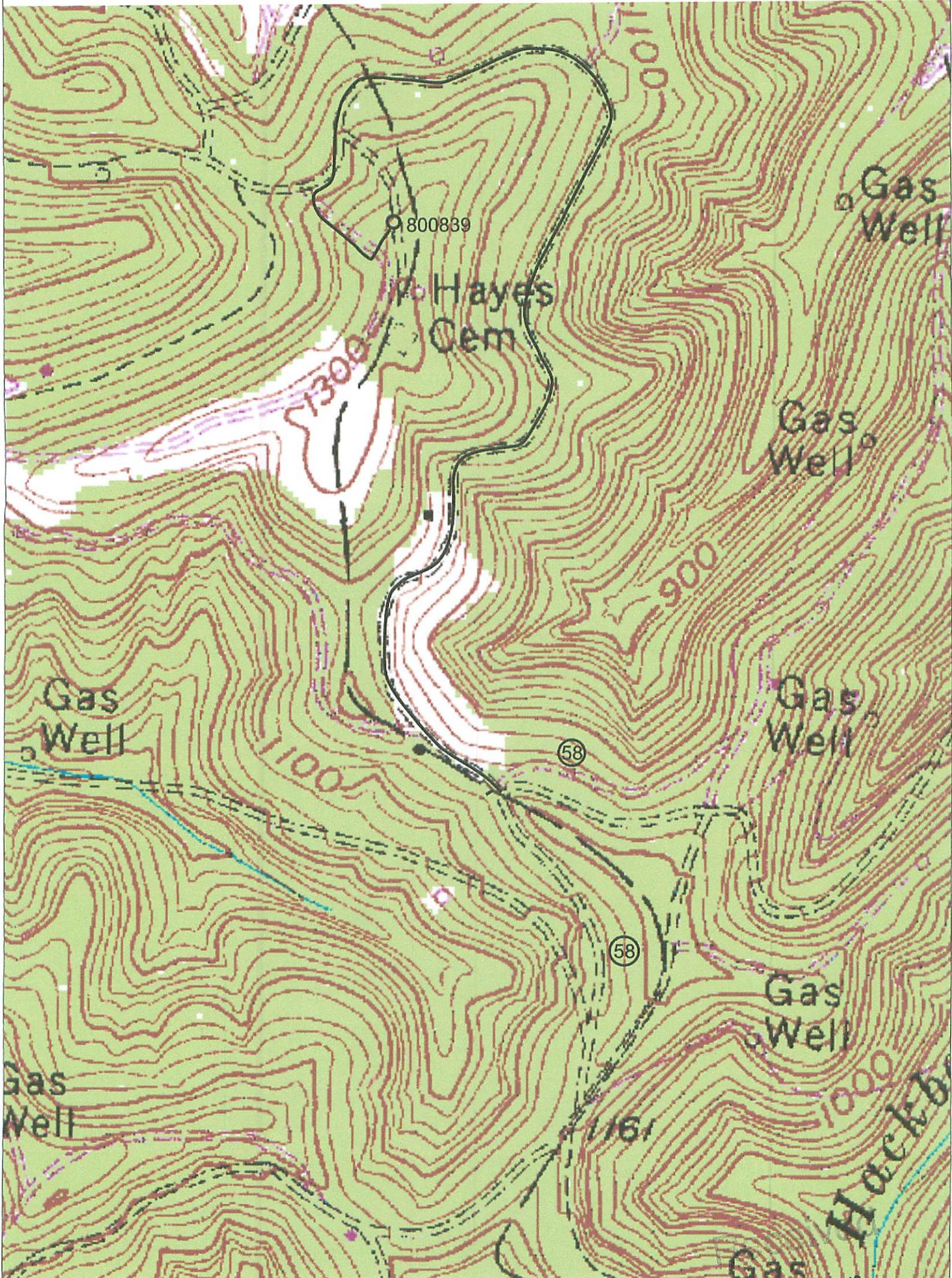
This drawing is a schematic representation of the well site and access road. Proposed structures such as well site, drilling pit, roadways, culverts, sediment barriers, etc. are shown in approximate pre-planning configurations.

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 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.

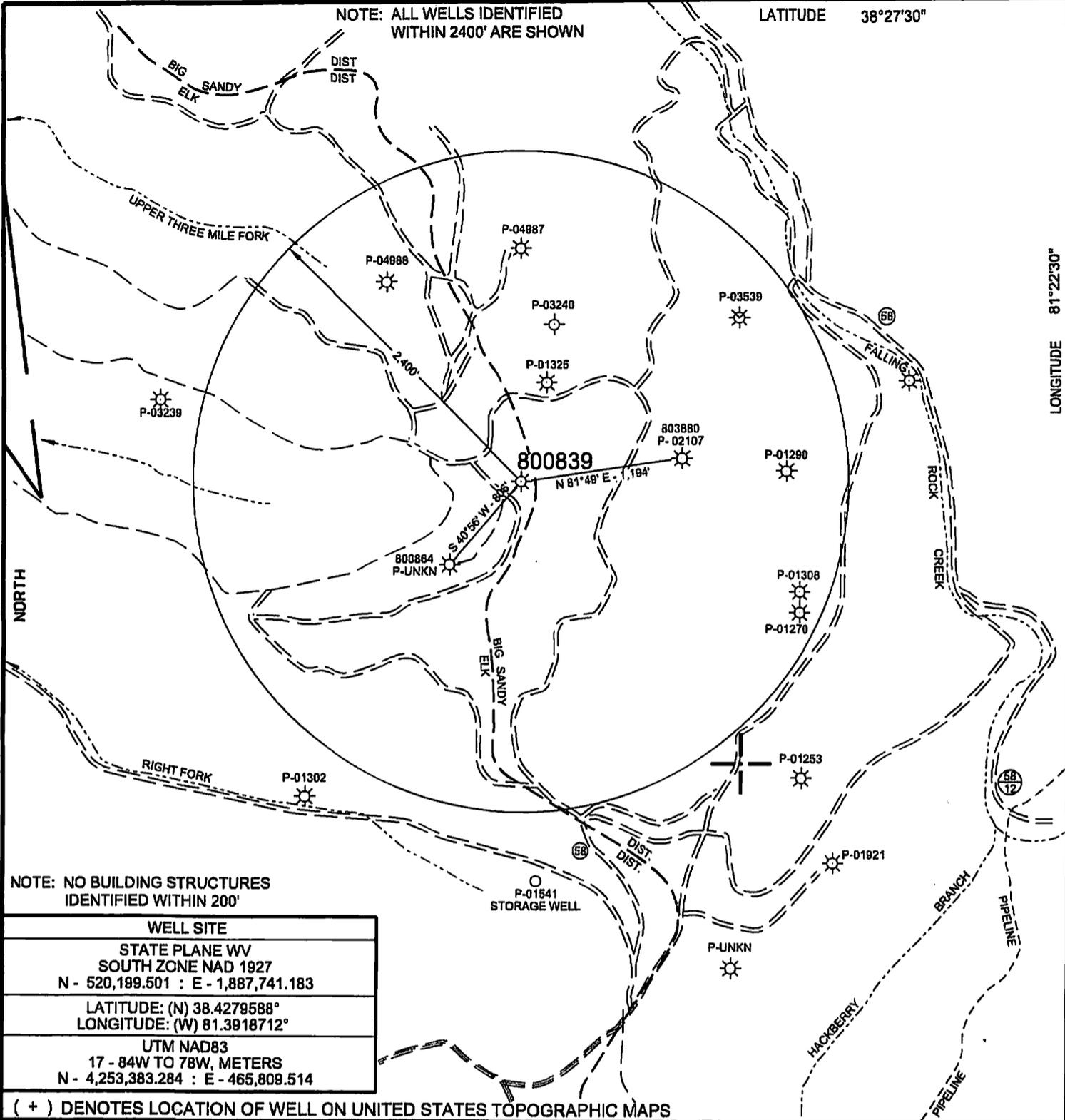
CHESAPEAKE APPALACHIA, L.L.C.
TOPOGRAPHICAL MAP OF ACCESS AND
WELL LOCATION 800839
API 47-039-03050



FEB 10 2016

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN

LATITUDE 38°27'30"



NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

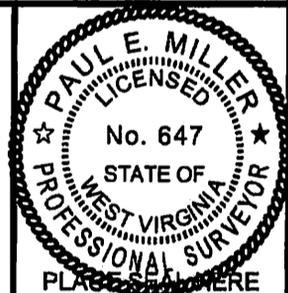
WELL SITE	
STATE PLANE WV SOUTH ZONE NAD 1927 N - 520,199.501 : E - 1,887,741.183	
LATITUDE: (N) 38.4279588° LONGITUDE: (W) 81.3918712°	
UTM NAD83 17 - 84W TO 78W, METERS N - 4,253,383.284 : E - 465,809.514	

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

FILE NO.	800839 P&A.DGN
DRAWING NO.	800839 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 FEBRUARY 4, 20 16
OPERATOR'S WELL NO. 800839
API WELL NO. _____

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1,349' WATER SHED FALLING ROCK CREEK

DISTRICT ELK COUNTY KANAWHA
QUADRANGLE BLUE CREEK, WV 7.5'

SURFACE OWNER CLYDE BARE ACREAGE 37.5
OIL & GAS ROYALTY OWNER JOHN L. MCCORKLE, et. al. LEASE ACREAGE 338
LEASE NO. 1-004832

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 APPALACHIA, L.L.C. PO BOX 6070, CHARLESTON, WV 25382

FORM WW-6

COUNTY NAME

PERMIT