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

June 24, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4301943, 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: 4133
Farm Name: LINCOLN LAND ASSOC.
API Well Number: 47-4301943
Permit Type: Plugging
Date Issued: 06/24/2015

Promoting a healthy environment.

4301943

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.

4301943P

Inspector's signed copy

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

1) Date: 4/17/2015
2) Operator's Well No. 804133 P&A
3) API Well No. 47-043-01943

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 780' Watershed Middle Fork of Mud River
District Duval County Lincoln Quadrangle Hager, 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 Ralph D. Triplett Date 04/27/15

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Office of Oil & Gas
APR 29 2015

API: 47-043-01943 P

804133 P&A Procedure

NOTE: Well has two 3" packers (anchor packer at 1998' and seed bag packer at 1763').

1) Prepare road and location, MIRU service rig

2) Run in hole to check TD (approximately 2200'). (NOTE: There is a bailer lost in hole between 2200' and 2280'.)

3) Attempt to pull 3" and packers

   A) If successful

      a) Run W.S. to 2200', spot gel

      b) Spot 100' cement plug 2200'-2100'

      c) Proceed to step 4

   B) If unsuccessful

      a) Run W.S. to 2200', spot gel

      b) Spot 150' cement plug 2200'-2050', pull W.S.

      c) Cut 3" at free-point (approximately 1745') and pull

      d) Proceed to step 4

OK
RDT
04/27/15

4) Pull or run W.S. to 1745', spot gel

5) Spot 100' cement plug 1745'-1645', pull W.S. to 1590'

6) Spot 100' cement plug 1590'-1490', pull W.S. (NOTE: If 3 ½" cut is higher, plugs in 5 & 6 may be combined to make one long plug.)

7) Run in hole with tools to check top of plug. If TOC is below 1525' then reset plug.

8) Cut 6 5/8" at free-point (approximately 930') and pull

9) Run W.S. to 930', spot gel

10) Spot 150' cement plug 930'-780', pull W.S.

11) Attempt to pull 8 ¼"

   A) If successful or if 8 ¼" is not present

      a) Run W.S. to 330', spot gel

      b) Spot 100' cement plug 330'-230'

      c) Proceed to step 12

   B) If unsuccessful

      a) Run W.S. to 330', spot gel

      b) Spot 100' cement plug 330'-230', pull W.S.

      c) Cut 8 ¼" at free-point (approximately 190') and pull

      d) Proceed to step 12

12) Pull or run W.S. to 190', spot gel

13) Spot 190' cement plug 190' – surface

14) Pull W.S. and top off with cement

15) Erect monument and reclaim as prescribed by law

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043-01943 P
Well 80 4133

UNITED FUEL GAS COMPANY

SERIAL WELL NO. 4133 LEASE NO. 30362 MAP SQUARE 40-51

March 16,1927

RECORD OF WELL No. 1 on the
F. E. May Farm of L.L.A. Acres
in Duval District
Lincoln County
Field, State of W.Va.

Rig Commenced		193
Rig Completed		193
Drilling Commenced	Sept. 17, 1914	193
Drilling Completed	Oct. 27, 1914	193
Drilling to cost	per foot	

Contractor is: Wayland Oil & Gas Co.
Address:

Driller's Name Well purchased from the C'D.N.G.Co.3 in by the U.F.G.Co. Jan. 1, 1930.

CASING AND TUBING

SIZE	USED IN DRILLING	LEFT IN WELL
16		
13		
10		
8 1/4	257	257
6 5/8	1540	1540
5 3/16		
4 7/8		
4		
3		2288
2		

SHUT IN
Date
Size of Packer 3x6-5/8 Tubing or Casing
Kind of Packer Anchor set at 1999'
1st Perf. Set from
2nd Perf. Set from

TEST
13 10ths. of Water in 2 inch
10ths. of Merc. in inch
Volume 176,000 Cu. ft.

TEST AFTER SHOT
10ths. of Water in inch
10ths. of Merc. in inch
Volume Cu. ft.
Rock Pressure 175#

Date Shot 10-28-1914
Size of Torpedo 90 qts.
Oil Flowed bbls. 1st 24 hrs.
Oil Pumped bbls. 1st 24 hrs.

Well abandoned and
Plugged 193

DRILLER'S RECORD Foreign Well No.3267

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Red Rock and Slate		150	150	Used 1-3X6-5/8" seed bag packer.
Sand	150	245	95	Well repaired, pocket drilled and
Slate	245	275	30	retubed with 3" March 1927.
Sand	275	480	205	
Slate & Shells	480	600	120	
Sand	600	840	240	
Lime Shells	840	920	80	
Salt Sand	920	1500	580	
Slate	1500	1505	5	
Little Lime	1505	1535	30	
Pencil Cave	1535	1538	3	
Big Lime	1538	1725	187	
Big Injun	1725	1770	45	
Slate and Shells	1770	1990	220	
Slate	1990	2196	206	
Brown Shale	2196	2211	15	
Berea Sand	2211	2229	18	
Total Depth		2280		
				Test of well July 1924, 395,000 cu.ft.
				Rock pressure 225#

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UNITED FUEL GAS COMPANY (INCORPORATED)

Well 804133 P+A
API 47-043-01943
F-2690

Serial Well No. 41 33 Lease No. L-40 Map Square 40-51

JARRETT PRINTING CO., CHARLESTON

RECORD OF WELL No. 4133 Seven on the Lincoln Land Ass'n Farm of Acres in Duval District Lincoln County Turkey Creek Field, State of W. Va.

Rig Commenced 192
Rig Completed 192
Drilling Commenced September 17, 1914 192
Drilling Completed October 27, 1914 192
Drilling to cost per foot
Contractor is: Wayland Oil & Gas Co.,
Address: Tango, W. Va.

Drillers' Names C. M. Means
E. W. Williamson

CASING AND TUBING

Size	Used in Drilling	Left in Well
16		
13		
10		
8 1-4	257	
6 5-8	1540	1540
5 3-16		
4 7-8		
4		
3		
2	2130	2130

SHUT IN
Date
2 in Tubing or Casing
Size of Packer 2" X 6-5/8
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 Cu. ft.
Rock pressure
Date shot 10-28-14
Size of Torpedo 90 qt.
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
Red Rock & Slate	0	150	150	
Sand & Slate	150	460	310	Water at 165 and 300.
Slate & Shells	480	600	120	
Sand	600	840	240	
Lime Shells	840	920	80	Water in Salt Sand at 930'.
Salt Sand	920	1500	580	
Slate	1500	1505	5	
Little Lime	1505	1535	30	
Pencil Cave	1535	1538	3	
Big Lime	1538	1725	187	
Big Injun	1725	1770	45	
Slate & Shells	1770	1990	220	
Slate	1990	2196	206	
Brown Shale	2196	2211	15	Small show of gas in Berea Sand.
Berea Sand	2211	2229	18	
Total Depth		2229		

9-27-20 R. P. 220#.
Volume 680241

4301943P

WW4-A
Revised
2/01

1) Date: 4/17/2015
2) Operator's Well No. 804133 P&A
3) API Well No. 47-043-01943

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 Treassa F. Cecil
Address P.O. Box 183
Griffithsville, WV 25521

(b) Name Deloris Lovejoy
Address 1 First American Way
Westlake, TX 76262

(c) Name Lowel & Regeana Bias
Address 5488 Straight Fork
Griffithsville, WV 25521

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

Telephone 304-389-0350

5) Coal Operator
(a) Name None

Coal Owner(s) with Declaration
(b) Name Pocahontas Land Corporation
Address 800 Princeton Avenue
P.O. Box 1517
Bluefield, WV 24701

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

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.

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. E. Schneider
Its: Completion Superintendent
Address: P.O. Box 18496
Oklahoma City, OK 73154-0496
Telephone: 405-935-4073

Subscribed and sworn before me this 17th day of April the year of 2015
Phyllis A. Copley
Notary Public

My Commission Expires September 16, 2018

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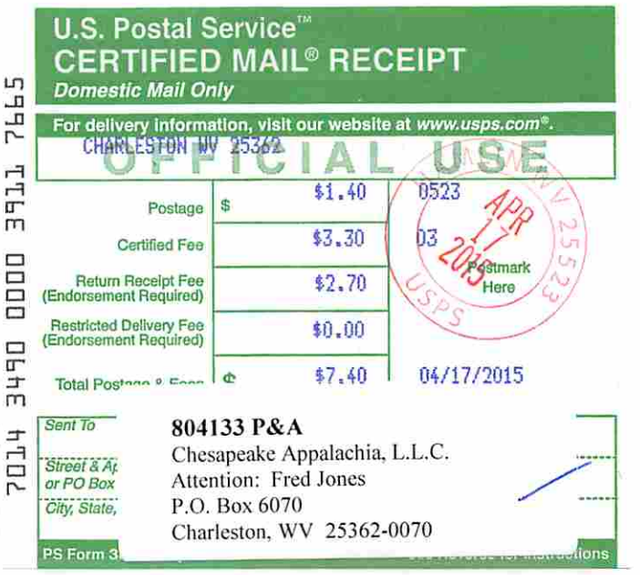
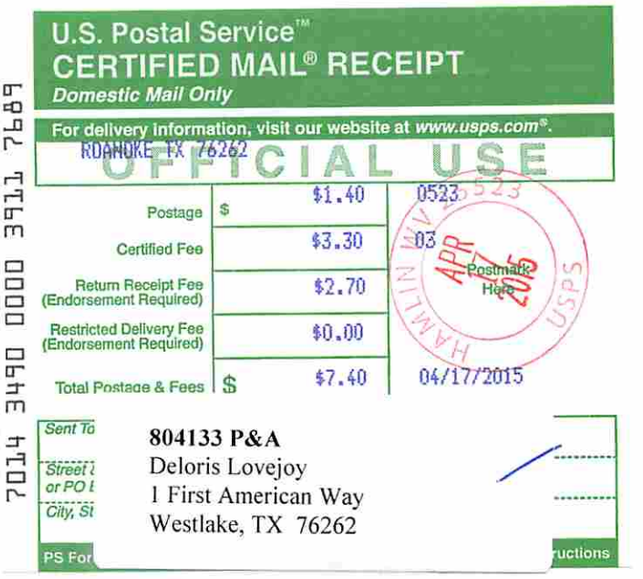
Office of Oil and Gas
APR 22 2015
WV Department of
Environmental Protection

Well 804133 P&A

API 47-043-01943P





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APR 22 2015
WV Department of
Environmental Protection

4301943 P

Form WW-9
Rev. 02/01

API Number 47-043-01943
Operator's Well No. 804133 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 Middle Fork of Mud River Quadrangle Hager, WV 7.5'

Elevation 780' County Lincoln District Duval

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:

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 Completions Superintendent

Subscribed and sworn before me this 17th day of April, 2015.

Phyllis A. Copley Notary Public.

My Commission Expires September 16, 2018

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

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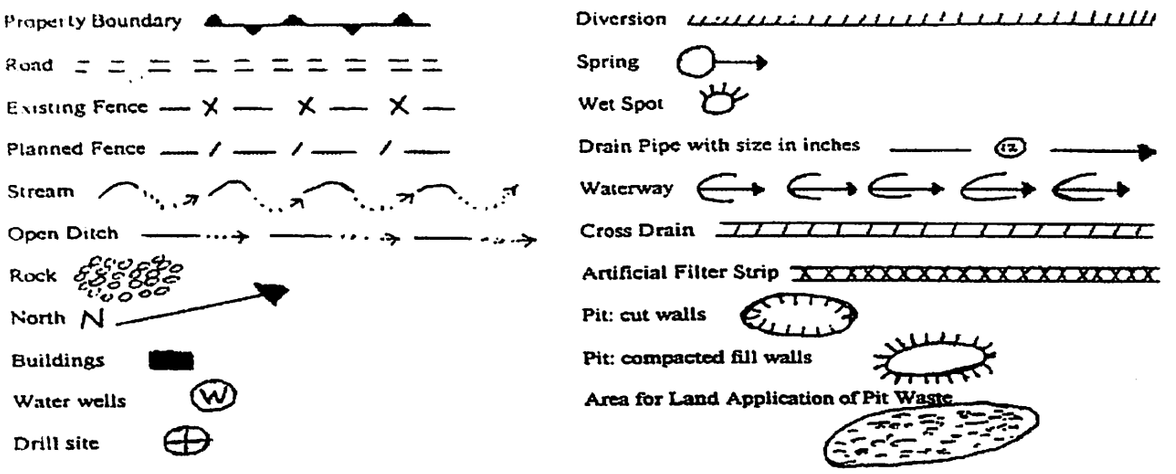
4301943P

Attachment #1

API #: 47-043-01943
Operator's Well No. 804133 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**
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: Ralph D. Triplett

Title: District Inspector

Date: April 27, 2015

Field Reviewed? (✓) Yes ( ) No

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Office of Oil & Gas
APR 29 2015

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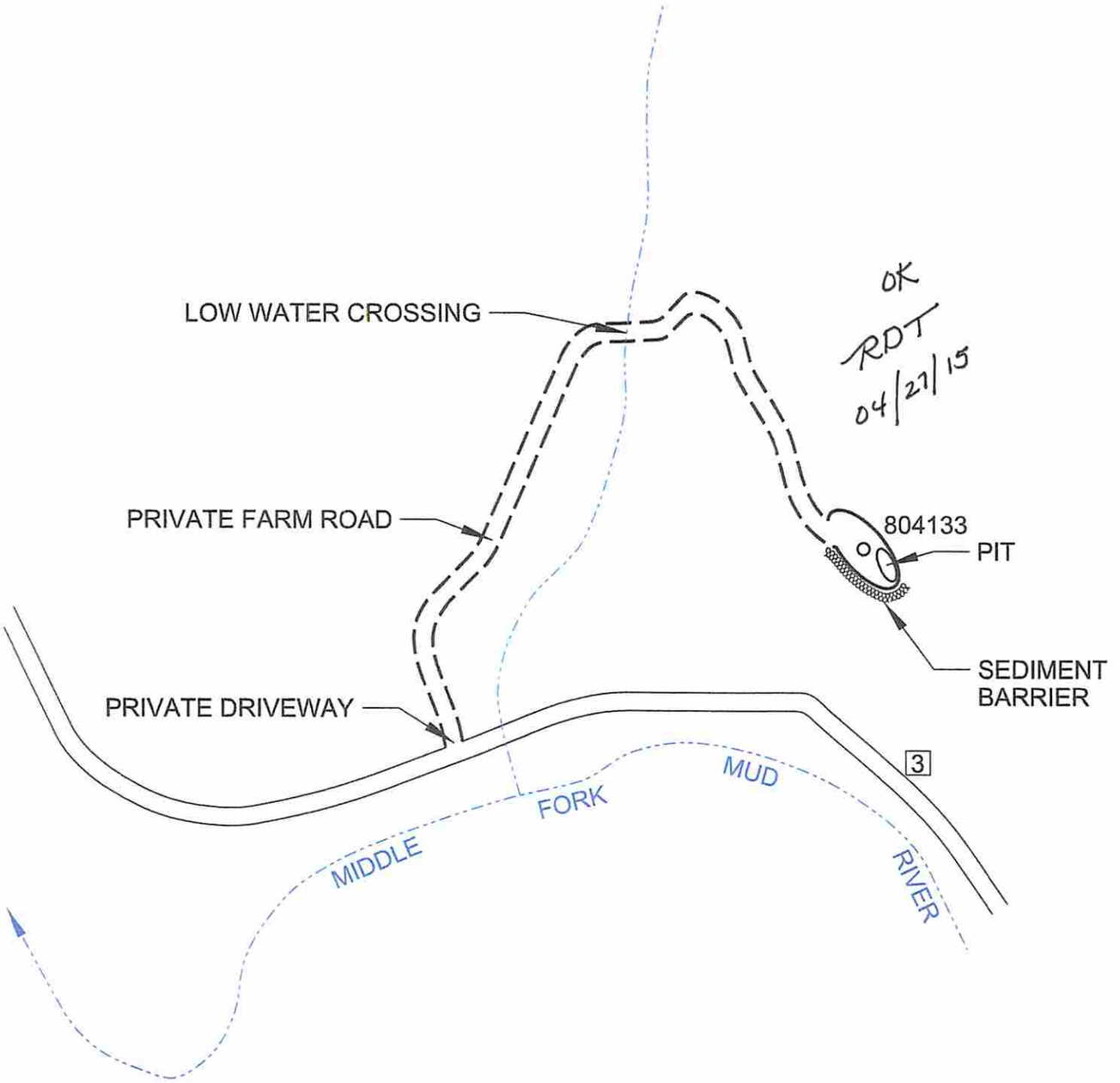
CHESAPEAKE APPALACHIA, L.L.C.

RECLAMATION DIAGRAM
WELL LOCATION 804133

API 47-043-01943



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 show in approximate pre-planning configurations.

All culvert pipes will be a minimum of 15 inches in diameter. all culvert pipes installed will be accomanied 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 roacks of 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 contruction 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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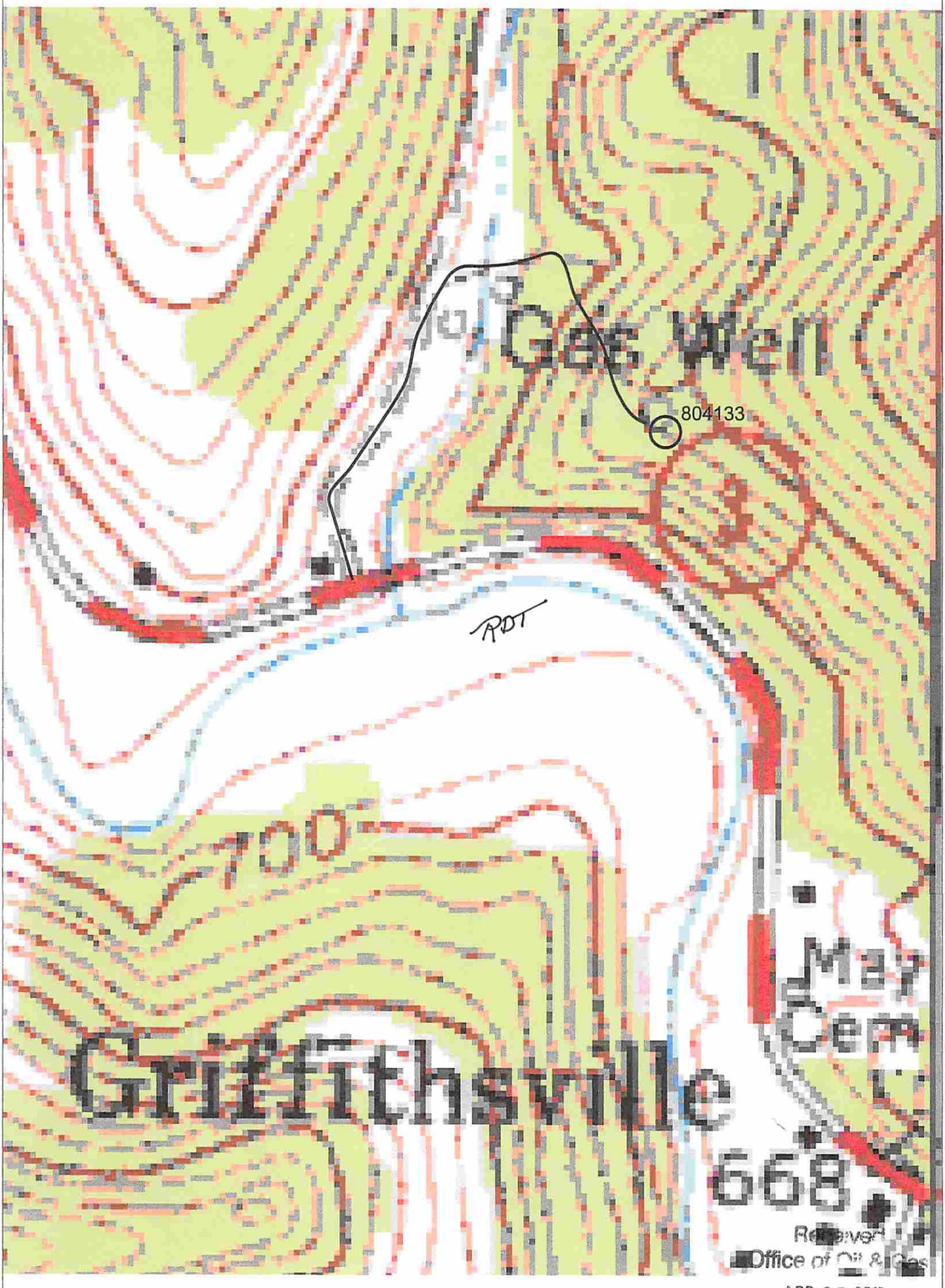
CHESAPEAKE ENERGY CORPORATION - EASTERN DIVISION
P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25523
304 824-5141 - FAX 304 824-2247

4301943P

CHESAPEAKE APPALACHIA, L.L.C.

TOPOGRAPHICAL MAP OF ACCESS AND WELL LOCATION 804133

API 47-043-01943



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

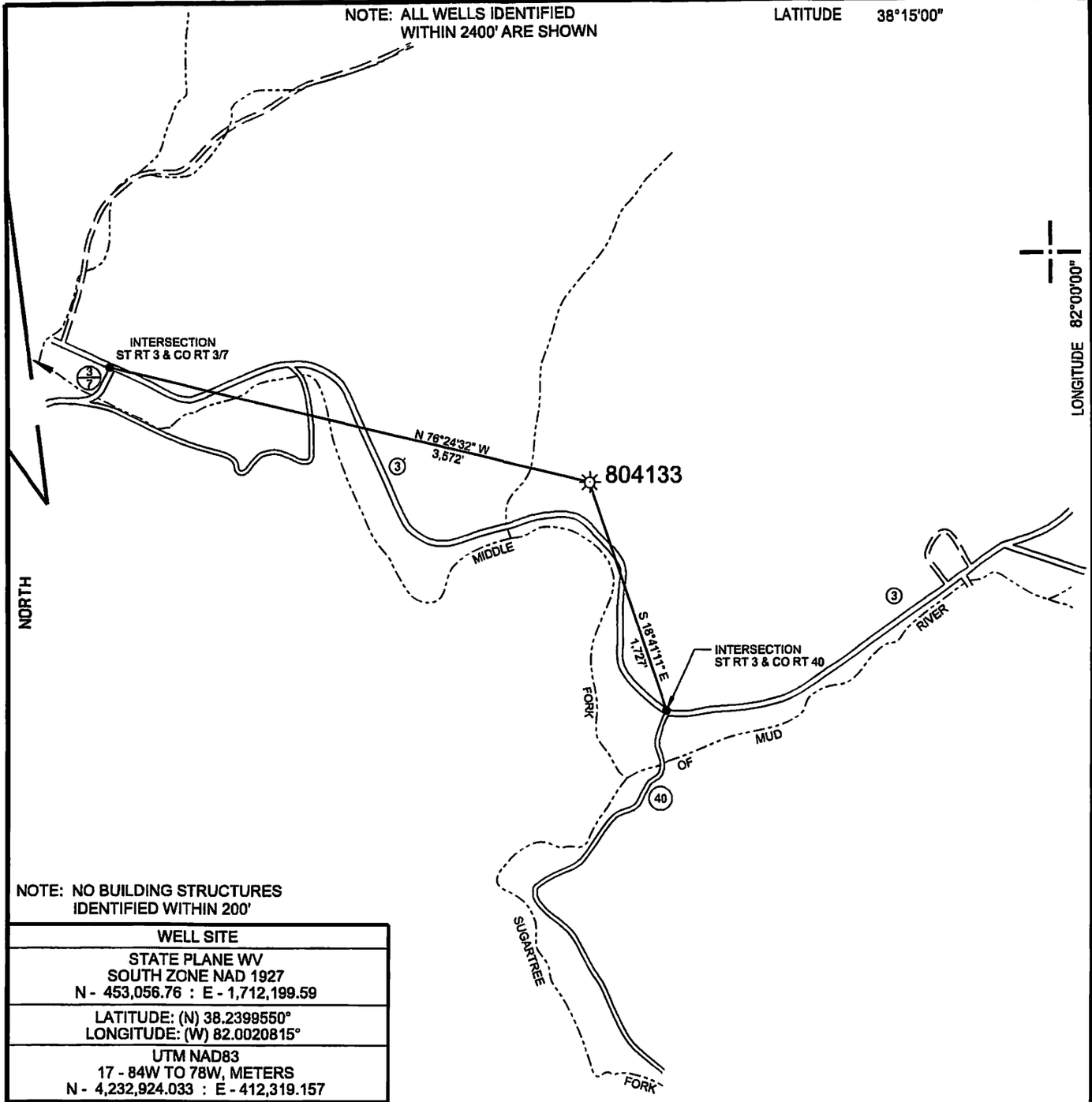
598'

3,657'

NOTE: ALL WELLS IDENTIFIED WITHIN 2400' ARE SHOWN

LATITUDE 38°15'00"

LONGITUDE 82°00'00"



NOTE: NO BUILDING STRUCTURES IDENTIFIED WITHIN 200'

WELL SITE
STATE PLANE WV SOUTH ZONE NAD 1927 N - 453,056.76 : E - 1,712,199.59
LATITUDE: (N) 38.2399550° LONGITUDE: (W) 82.0020815°
UTM NAD83 17 - 84W TO 78W, METERS N - 4,232,924.033 : E - 412,319.157

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

FILE NO. 804133.DGN
DRAWING NO. 804133 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) _____

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 MARCH 3, 20 15
OPERATOR'S WELL NO. 804133
API WELL NO.
47 (STATE) 043 (COUNTY) 01943 P (PERMIT)

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

LOCATION: ELEVATION 780' WATER SHED MIDDLE FORK OF MUD RIVER
DISTRICT DUVAL COUNTY LINCOLN
QUADRANGLE HAGER, WV 7.5'

SURFACE OWNER TREASSA F. CECIL ACREAGE --
OIL & GAS ROYALTY OWNER ---- 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

FORM WW-6

COUNTY NAME

PERMIT

I

NOW

Operator: CHESAPEAKE APPALACHIA, L.L.C.

API: 4301943

WELL No: 4133

Reviewed by: g nm Date: 6/18/15

15 Day End of Comment: 04/27/15

* Well is on an Agreed Order *

CHECKLIST FOR FILING A PERMIT

Plugging

CK # 5254705
$100.00

- [ ] WW-4B
- [x] Inspector signature on WW-4B
- [x] Completion / Well Records of Previous Work
- [x] WW-4A (Notarized)
- [x] Certified Mail Receipts, Waivers, or Affidavits of Personal Service
- [ ] Surface Owner Waiver
- [ ] Coal Owner / Lessee /Operator Waiver
- [x] WW-9 (Page 1) (Notarized)
- [x] Inspector Signature on WW-9 (Optional)
- [x] Topographic Map of location of well
- [ ] WW-7

OR

- [x] Mylar Plat (Surface owner on plat matches WW-4A)
- [x] Bond
- [x] Company is Registered with the SOS
- [x] Worker's Compensation / Unemployment Insurance account is OK
- [x] $100.00 check ($0.00 if no pit)