



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

October 16, 2013

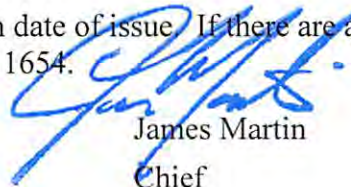
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-7700129, 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: 911883 (B-1)
Farm Name: WARD, LAIRD L.
API Well Number: 47-7700129
Permit Type: Plugging
Date Issued: 10/16/2013

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.

7700129P

WW-4B
Rev. 2/01

1) Date August 30, 2013, 2013
2) Operator's
Well No. 911883
3) API Well No. 47-077 - 00129

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 ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1836' Watershed Monongahela
District Valley 08 County Preston 77 Quadrangle Thornton 638

6) Well Operator Chesapeake Appalachia, LLC 7) Designated Agent Eric B. Gillespie
Address P.O. Box 1300 Address P.O. Box 6070
Jane Lew, WV 26378 Charleston, WV 25301

8) Oil and Gas Inspector to be notified Name Sam Ward
Address PO Box 2327
Buckhannon, WV 26201
9) Plugging Contractor Name R & J Well Service
Address P.O. Box 37
Hueysville, KY 41640

10) Work Order: The work order for the manner of plugging this well is as follows:
MIRU construction equipment to BR&L (remove any tanks, separators, well lines, meter runs, exc.) MIRU service rig & needed BOP equipment. NOTE: Blow down well to pit or provided tank. Last recorded pressure was: SITP: 800 psi & SICP: 900 psi. TOOH strapping with 7541' of 2 3/8" tubing to surface. RU Wireline and set 4 1/2" 11.6# CIBP @ 7,500' (79' above top shot). RD Wireline and bleed down any trapped pressure. NOTE: Do NOT set CIBP in a casing collar. TIH with 2 3/8" tubing to CIBP @ 7,500'.
Load hole with 117 bbls of 6% gelled water or break surface with circulation. Pump 7 sks of Class A cement (100' cement plug), flush tubing with 28.5 bbls 6% gelled water. TOOH with 2 3/8" tubing to surface. SD & WOC for 4 hours. TIH w/ 2 3/8" tubing or sandline and tag plug @ 7,400' +/- . If plug is not at 7,400', SD and contact the Chesapeake engineer for recalculation. RU Wireline and Shoot 4 1/2" 11.6# casing at 6,500' +/- . Pull and laydown casing. TIH strapping 2 3/8" tubing to an estimated TD of 6,550' +/- . Pump 18 sks of Class A cement (100' cement plug), flush tubing with 25 bbls 6% gelled water. TOOH with 2 3/8" tubing to surface. SD & WOC for 4 hours. TIH w/ 2 3/8" tubing or sandline and tag plug @ 6,450' +/- . If plug is not at 6,450', SD and contact the Chesapeake engineer for recalculation. TIH strapping 2 3/8" tubing to an estimated TD of 1,914' +/- . (Elevation Plug: 1,864').
Pump 115 bbl of 6% gelled water or break circulation. Pump 35 sks of Class A cement (100' cement plug - elevation plug). Flush tubing with 7 bbls of 6% gelled water. TOOH with 2 3/8" tubing to surface. SD & WOC for 4 hours. TIH w/ 2 3/8" tubing or sandline and tag plug @ 1,814' +/- . If plug is not at 1,814', SD and contact the Chesapeake

engineer for recalculation. TIH with 2 3/8" tubing to 1,037'. (Intermediate Casing Shoe.) (see additional sheet)
Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Received

Work order approved by inspector S. D. Warratt Date SEP 19 2013
9/18/2013

PROCEDURE

SET 250' CEMENT PLUG ACROSS PERFORATIONS FROM 7800' - 7550'.

g. WV 47

1. **Contact the WV State Inspector 48 hours prior to operations.**
2. **Safety is the highest priority.** Hold wellsite safety meetings prior to each significant operation. Review critical parameters and objectives as well as emergency action plans.
3. MIRU construction equipment to BR&L (remove any tanks, separators, well lines, meter runs, exc.)
4. MIRU service rig & needed BOP equipment. **NOTE: Blow down well to pit or provided tank. Last recorded pressure was: SITP: 800 psi & SICP: 900 psi**
5. TOOH strapping with 7541' of 2 3/8" tubing to surface.
6. RU Wireline and set 4 1/2" 11.6# CIBP @ 7,500' (79' above top shot). RD Wireline and bleed down any trapped pressure. **NOTE: Do NOT set CIBP in a casing collar**
7. TIH with 2 3/8" tubing to CIBP @ 7,500'.
8. Load hole with 117 bbls of 6% gelled water or break surface with circulation.
9. Pump 7 sks of Class A cement (100' cement plug), flush tubing with 28.5 bbls 6% gelled water
10. TOOH with 2 3/8" tubing to surface. **SD & WOC for 4 hours.**
11. TIH w/ 2 3/8" tubing or sandline and tag plug @ 7,400' +/- . If plug is not at 7,400', SD and contact the Chesapeake engineer for recalculation.
12. RU Wireline and Shoot 4 1/2" 11.6# casing at 6,500' +/- . Pull and laydown casing.
13. TIH strapping 2 3/8" tubing to an estimated TD of 6,550' +/- .
14. Pump 18 sks of Class A cement (100' cement plug), flush tubing with 25 bbls 6% gelled water
15. TOOH with 2 3/8" tubing to surface. **SD & WOC for 4 hours.**
16. TIH w/ 2 3/8" tubing or sandline and tag plug @ 6,450' +/- . If plug is not at 6,450', SD and contact the Chesapeake engineer for recalculation.
17. TIH strapping 2 3/8" tubing to an estimated TD of 1,914' +/- . (Elevation Plug: 1,864')
18. Pump 115 bbl of 6% gelled water or break circulation.
19. Pump 35 sks of Class A cement (100' cement plug – elevation plug). Flush tubing with 7 bbls of 6 %gelled water.
20. TOOH with 2 3/8" tubing to surface. **SD & WOC for 4 hours.**
21. TIH w/ 2 3/8" tubing or sandline and tag plug @ 1,814' +/- . If plug is not at 1,814', SD and contact the Chesapeake engineer for recalculation.
22. TIH with 2 3/8" tubing to 1,037' . (Intermediate Casing Shoe)
23. Pump 36 sks of Class A cement (100' cement plug – Intermediate Casing Shoe plug). Flush tubing with 3.5 bbls of 6 %gelled water.
24. TOOH with 2 3/8" tubing to surface. **SD & WOC for 4 hours.**
25. RIH w/ sandline tools & tag plug @ 937' +/- . If plug is not at 937', SD and contact the Chesapeake engineer for recalculation.
26. TIH strapping 2 3/8" tubing to an estimated TD of ²⁰⁰100' +/- .
27. Pump ⁷⁴37 sks of Class A cement (100' cement plug). TOOH w/ tubing. ^{200'}
28. Top off well with required Class A cement as needed.
29. Install a 36 inch casing monument w/ ^{200'}2" vent. Install an Aluminum plat monument with **ALL required WV dates and WV API number.**

Received

SEP 19 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

30. RDMO all service equipment providers and reclaim location to WV State requirements.

6% GEL BETWEEN ALL PLUGS

Received

SEP 19 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

WELL DATA

Location (Surface)	Lat. NA / Long. NA
TD	7,977'
PBTD	7,947'
Marker Joint	NA

CASING AND TUBULAR DATA

STRING	SIZE	WEIGHT/GRADE	DEPTH	THREAD	TOC
Surface	13 3/8"	48 #	32'	J-55	Surface
Intermediate	9 5/8"	36 #	987'	J-55	Surface
Production	4 1/2"	11.6 #	7,972'	J-55	6625'
Tubing	2-3/8"	4.7#/J-55	7,541'	8 Round	Hanging

CAPACITIES

SIZE	WEIGHT	CAPACITY (GAL/FT.)	CAPACITY (BBL/FT.)
13 3/8"	48 #	6.5962	0.1570
9 5/8"	36 #	3.2470	0.0773
4 1/2"	11.6 #	0.06528	0.0155
2-3/8"	4.7#/J-55	0.16239	0.00387
8 3/4"	OH	3.1237	0.0744
7 7/8"	OH	2.5302	0.0602

SIZE	WEIGHT	CAPACITY (CU FT/FT.)	CAPACITY (BBL/FT.)
13 3/8"	48 #	0.8818	0.1570
9 5/8"	36 #	0.4341	0.0773
4 1/2"	11.6 #	0.0873	0.0155
2-3/8"	4.7#/J-55	0.02171	0.00387
8 3/4"	OH	0.4176	0.0744
7 7/8"	OH	0.3382	0.0602

WELLHEAD EQUIPMENT

COMPONENT	SIZE & RATING
Manufacturer	2 1/16" 3K
Tubing Spool	7 1/16" 3K
Casing Spool	11" 3K
Bradenhead	

DRIVING DIRECTIONS

I-79 to I-68 East to exit 1 (Route 119 south) 6.6 miles to Brewer/Kelly Road, turn left onto Brewer Road. Go .2 miles on Brewer Road and turn left. Go 2 miles to the fork and go left to the location.

SCOPE OF OPERATION

1. Safety is the highest priority. Control costs and avoid unnecessary expenditures.
2. TOOH strapping 2 3/8" tubing.
3. RU Wireline and set CIBP @ 7,500'
4. TIH with 2 3/8" tubing to estimated TD of 7,947'.
5. Pump required cement and gel plugs per state requirements
6. Plat a well monument with WV State API number

Received

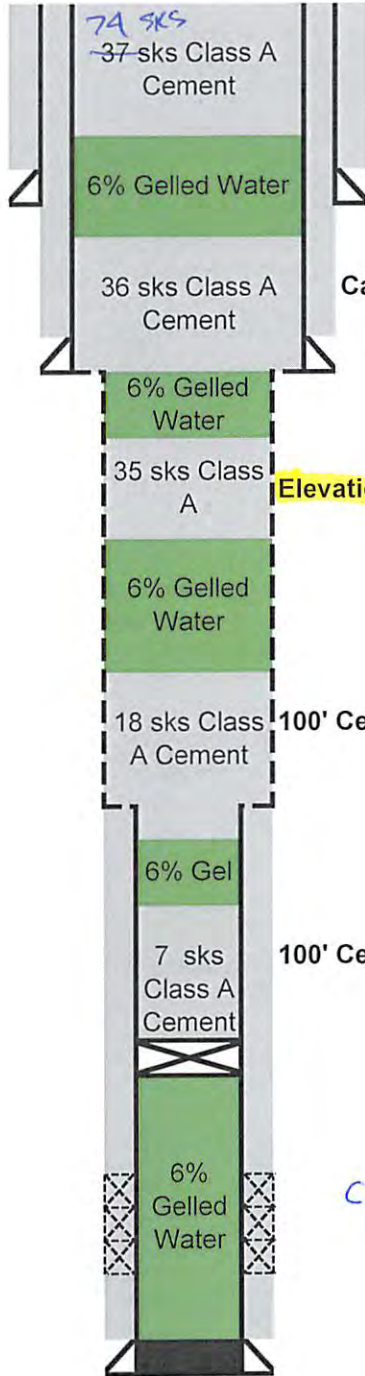
Office of Oil and Gas
WV Dept. of Environmental Protection

6% GEL BETWEEN ALL PLUGS

7700129A

Well ID Ward B-1 - 911883

Friday, August 30, 2013



Plug from Surface to 100'
SURFACE TO 200'

ELEV 1836'

13 3/8" csg set @ 32'

Casing Shoe Plug from 937' to 1,037' ✓

9 5/8" csg set @ 987'

Elevation Plug from 1,015' to 1,145'
1914' - 1814'

ELEV. 1836'

100' Cement Plug

Cut 4 1/2" 6,500'

4 1/2" TOC 6,625'

100' Cement Plug

CIBP 7,500'

COVER PERFORATIONS WITH 250' CEMENT PLUG
FROM 7800' - 7550'

41 Holes 7,579' to 7,783'

TD @ 7,947'
4 1/2" csg set @ 7,972'

JRM

SDW

9/18/2013



Cement
Perforated Zone
6% Gel
CIBP



SEP 19 2013



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

- Rotary
- Spudder
- Cable Tools
- Storage

Quadrangle Thornton

WELL RECORD

Permit No. 2571-109 /29

Oil or Gas Well Gas
(KIND)

Company Halliburton
Address Monticello, Virginia
Farm 11,700' W of 79 Dec. 50th; 1900'
Location (waters) 5 of 99 Dec. 20th
Well No. 1 Elev. 1836.2'
District Valley County Preston
The surface of tract is owned in fee by See reverse side
Address _____
Mineral rights are owned by See reverse side
Address _____
Drilling commenced May 2, 1968
Drilling completed May 21, 1968
Date Shot None From _____ To _____
With _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16. <u>1 1/2"</u>	<u>Set</u>		(55' size) by Halli.
13. <u>1 3/4"</u>	<u>52'</u>	<u>32.41'</u>	(55' size) by Halli.
10. <u>2 3/8"</u>	<u>1005.24'</u>	<u>922.41'</u>	Size of _____
8 3/4"			
6 3/4"			Depth set _____
5 3/16"	<u>7080'</u>	<u>7972.52'</u>	(500' size) by Halli.
4 1/2"			Perf. top <u>See attach.</u>
3"			Perf. bottom <u>None</u>
2"			Perf. top _____
Liners Used			Perf. bottom _____

Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume 2,823 bbl/day (CAOP) _____ Cu. Ft.
Rock Pressure 3300' lbs. 444' hrs.
Oil None bbls. 1st 24 hrs.
WELL ACIDIZED (DETAILS) None - see frac treatment
WELL FRACTURED (DETAILS) See reverse side.

Attach copy of cementing record. 7972.52'
CASING CEMENTED 6 1/2" SIZE No. Fr. 5/17/68 Date
Amount of cement used (bags) 200 bags
Name of Service Co. Halliburton
COAL WAS ENCOUNTERED AT None FEET INCHES
_____ FEET INCHES FEET INCHES
_____ FEET INCHES FEET INCHES

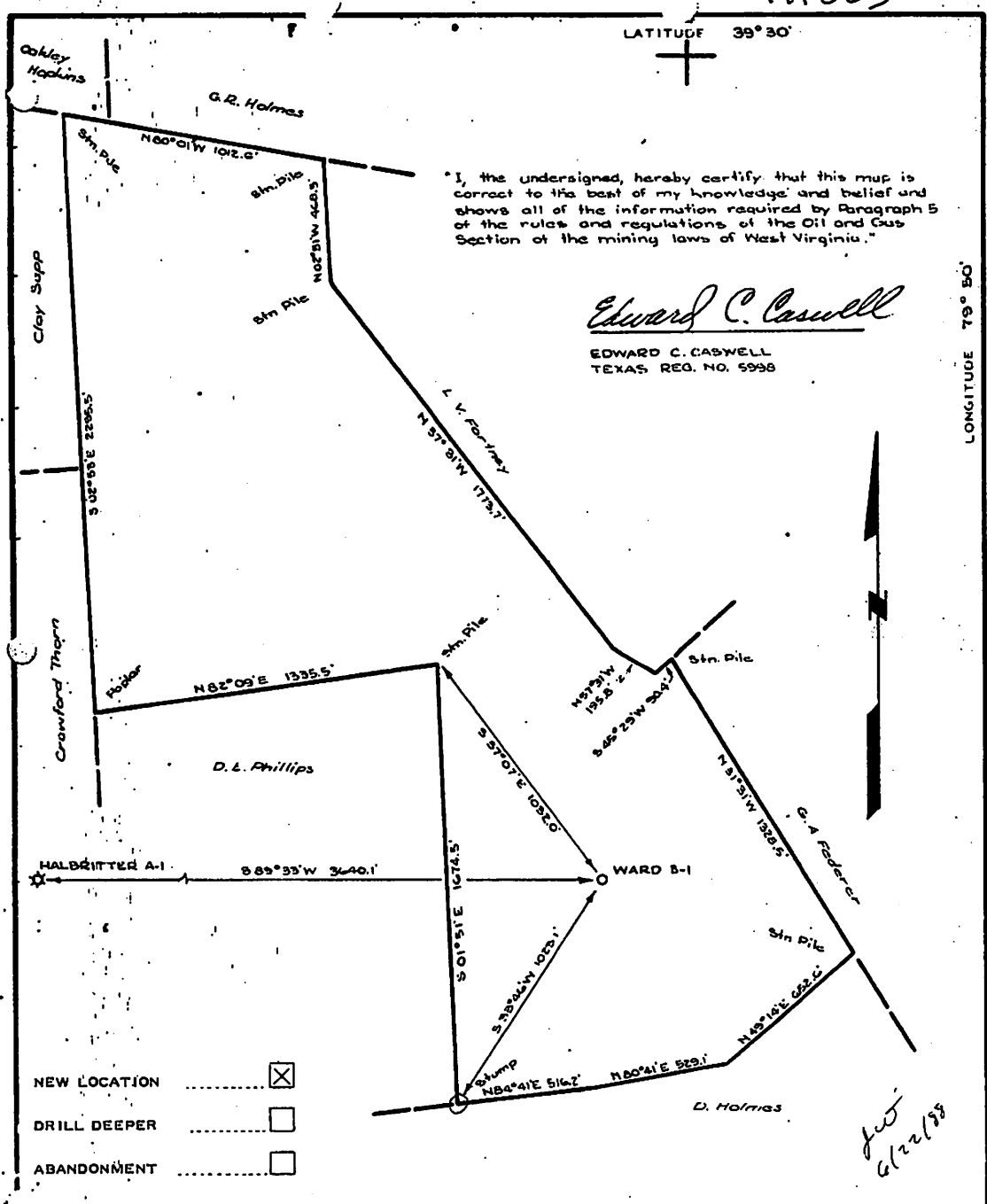
RESULT AFTER TREATMENT (Initial open flow or bbls.) See gas volume above
ROCK PRESSURE AFTER TREATMENT _____ HOURS
Fresh Water None Feet Salt Water _____ Feet
Producing Sand Onondaga Chert Depth 7930' - 7947.65'

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
<u>DRILLER'S LOG:</u>					<u>GEOMAX LOG:</u>		
Surface Soil	Hard Sand		0'	81'	FORMATION:	81'	80'
Line, Shale & Sand			81'	151'	any more	645'	614'
Sand			151'	100'	Heir	938'	1000'
Sand & Shale			100'	282'	50 Foot	1143'	1212'
Shale & Lino			282'	485'	30 Foot	1242'	1300'
Red Shale & Lino			485'	662'	Gordon	1422'	1480'
Line & Shale			662'	955'	5th Sand		
Line			955'	1012'	Bayard	1912'	1994'
Line & Shale			1012'	1069'	Speckley	2523'	2526'
Shale			1069'	7118'	Elroy	3468'	3503'
Tully Line			7118'	7163'	Benson	3737'	
Tully Line & Shale			7163'	7320'	Tully	7115'	7203'
Shale & Lino			7320'	7507'	Onondaga	7560'	7576'
Chert			7507'	7653'	Chert	7576'	7647'
Sand			7653'	7963'	Criskany	7847'	7908'
Line & Sand			7963'	7930'	Holdorborg	7903'	
			7930'	7947.65'			

Received

SEP 19 2013

411883



"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all of the information required by Paragraph 5 of the rules and regulations of the Oil and Gas Section of the mining laws of West Virginia."

Edward C. Caswell

EDWARD C. CASWELL
TEXAS REG. NO. 5998

- NEW LOCATION
- DRILL DEEPER
- ABANDONMENT

COMPANY PHILLIPS PETROLEUM COMPANY
 ADDRESS BARTLESVILLE, OKLAHOMA
 FARM LAIRD L. WARD
 TRACT _____ ACRES 1.12 LEASE NO. 123394
 WELL FARM NO. B-1 SERIAL NO. _____
 ELEVATION SPIRIT LEVEL 1836.2'
 QUADRANGLE THORNTON
 COUNTY PRESTON DISTRICT VALLEY
 ENGINEER Edward C. Caswell
 ENGINEER'S REGISTRATION NO. 5998 - TEXAS
 FILE NO. _____ DRAWING NO. _____
 DATE MARCH 12, 1968 SCALE 1" = 500'

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL AND GAS DIVISION
CHARLESTON

WELL LOCATION MAP
FILE NO. Pres-129

+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS, SCALE 1 TO 62,500. LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

- DENOTES ONE INCH SPACES ON BORDER LINE OF ORIGINAL TRACING.

Office of Oil and Gas
WV Dept. of Environmental Protection

Received

SEP 19 2013

7700129A

WW-4A
Revised 6-07

1) Date: August 30, 2013
2) Operator's Well Number
911883
3) API Well No.: 47 - 077 - 00129

STATE OF WEST VIRGINIA
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:	5) (a) Coal Operator
(a) Name <u>James Buck II & Todd Brookes Buck Kincaid</u>	Name _____
Address <u>3285 Embly's Gap Road</u>	Address _____
<u>Roseland, VA 22967</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Sam Ward</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 2327</u>	Name _____
<u>Buckhannon, WV 26201</u>	Address _____
Telephone <u>304-389-7583</u>	_____

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 this 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 this 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, LLC

By: Dee Southall

Its: Regulatory Analyst

Address P.O. Box 1300

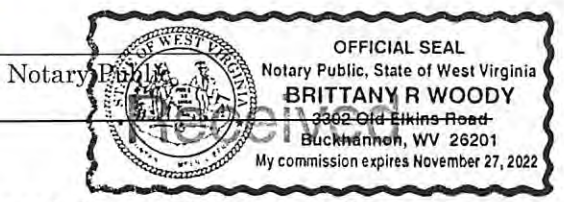
Jane Lew, wv 26378

Telephone 304-517-1416 EXT. 86024

Subscribed and sworn before me this 13th day of September

Brittany R Woody

My Commission Expires 11/27/2022



Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

7700129P

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ROSELAND, VA 22967

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0002 7258 4978

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Certified Fee	\$3.10	04	
Return Receipt Fee (Endorsement Required)	\$2.55		Postmark Here
Restricted Delivery Fee	\$0.00		

James Buck II & Todd Brookes Buck Kincaid
 3285 Embly's Gap Road
 Roseland, VA 22967

\$6.77 09/18/2013



PS Form 3800, August 2006 See Reverse for Instructions

Received

SEP 19 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

77001294

WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 077 - 00129
Operator's Well No. 911883

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, LLC OP Code 494477557

Watershed Monongahela Quadrangle Thornton

Elevation 1836' County Preston District Valley

Description of anticipated Pit Waste: Water from plugging process

Will a synthetic liner be used in the pit? yes

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 2D0072539/2D0413175/2D0610306/2D0610317)
- Reuse (at API Number at next anticipated well, API# will be included on the WR34/&or permit addendum)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain flowback will be put in steel tanks and reused or taken to permitted disposal facility)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain _____)
- Swabbing
- Plugging

SPW
9/18/2013

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, 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 [Signature]

Company Official (Typed Name) Dee Southall

Company Official Title Regulatory Analyst

Received

SEP 19 2013

Subscribed and sworn before me this 13th day of September, 2013 Office of Oil and Gas
WV Dept. of Environmental Protection

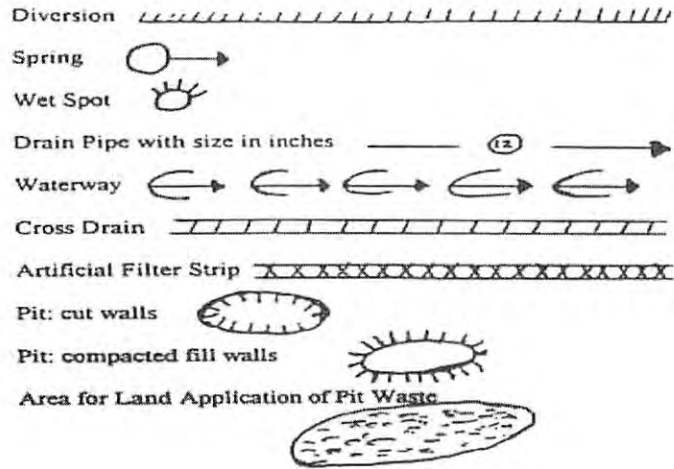
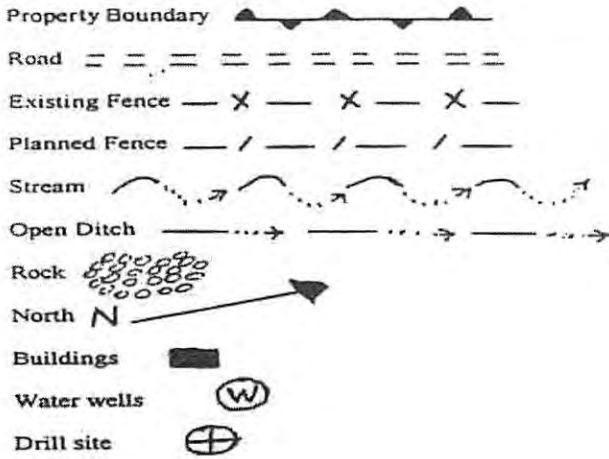
Brittany R Woody

Notary Public

My commission expires 11/27/22



LEGEND



Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH _____

Lime ^{as determined by pH test min. 2} _____ Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) ⁵⁰⁰ _____ lbs/acre (500 lbs minimum)

Mulch ^{Hay/Straw} _____ Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Orchard Grass	20		Orchard Grass	20	
Red Top	15		Red Top	15	
White Clover	15		White Clover	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: J. P. D. Warratt

Comments: Pre-seed mulch as soon as reasonably possible. Upgrade ETS as necessary per WV DEP ETS manual

Title: _____ Oil and Gas Inspector

Date: 9/18/2013

Received

Field Reviewed? () Yes (X) No

SEP 19 2013



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Well: Ward B-1
 Permit : 4707700129
 Quad: Newburg
 District: Valley
 County: Preston
 State: WV

Geographic NAD83 UTM 17N
 Latitude 39.494679
 Longitude -79.874808
UTM NAD83 (Meters)
 596757.0 E
 4372271.0 N

SEP 19 2013



Office of Oil and Gas
 WV Dept. of Environmental Protection

0 500 1,000 2,000 Feet

WW-7

8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API:47-077-00129

WELL NO.: 911883

FARM NAME: Laird L. Ward

RESPONSIBLE PARTY NAME: Chesapeake Appalachia, LLC

COUNTY: Preston DISTRICT: Valley

QUADRANGLE: Thornton/Newburg

SURFACE OWNER: James Buck II & Todd Brookes Buck Kincaid

ROYALTY OWNER: James Buck II & Todd Brookes Buck Kincaid

UTM GPS NORTHING: 4372271.0

UTM GPS EASTING: 596757.0

GPS ELEVATION: 1836'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS ____ : Post Processed Differential ____
Real-Time Differential ____

Mapping Grade GPS ____ : Post Processed Differential ____
Real-Time Differential ____

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Signature _____
Date 9/11/13

Title Reg Analyst
Office of Oil and Gas
WV Dept. of Environmental Protection

Received

SEP 19 2013



7700129 A

Received
Danielle Southall
Regulatory Analyst II

SEP 19 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

September 18, 2013

CK# 5070073
\$100.⁰⁰

Mr. Jeff McLaughlin
WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

Re: Plugging Permit for well 911883 API #47-077-00129

Dear Jeff:

Enclosed please find a Plugging Permit Application for the above captioned well. This well is situated on in Valley District, Preston County, West Virginia.

If you have any questions or require additional information, please do not hesitate to contact me at (304) 517-1416 ext. 86024.

Sincerely,

Chesapeake Appalachia, LLC



Dee Southall

Enclosures



Ward B-1
Preston County, WV
Property Number: 911883
API Number: 47-077-00129
AFE Number: TBD
Plugging Procedure

August 29, 2013

Discussion

Approval is requested to perform the initial Chert/Oriskany plugging on the Ward B-1 Well. This vertical Chert/Oriskany well is located in Preston County, WV. The Ward B-1 was TD'ed to a desired depth of 7980' on 05/18/1968. An acid/slickwater completion was then performed on the Chert/Oriskany. The wells production is very low volume and currently SI. In addition, the wellhead is in very poor condition. The Ward B-1 is recommended to be plugged and abandoned.

Well Data

See attached wellbore diagram.

Procedure

See attached procedure.

Approvals

		Chris Doyle
Senior V. P. - Production		
		John Reinhart
V. P. - Operations - Eastern Division		
		Rich Snyder
Geologic Manager		
		George Bradley
Land Manager		
		Gary Gould
District Manager		
		Shawn Jackson
Asset Manager		

SEP 19 2013

PERSONNEL / PHONE LIST**Central District Team**

Asset Manager	Shawn Jackson	Office: (405) 935-6276 Mobile (405) 365-9974
District Manager	Gary Gould	Office: (405) 935-4060 Mobile: (405) 249-4514
Operations Manager	Zack Arnold	Office: (304) 517-1416 ext 86028 Mobile: (304) 203-8059
Completion Superintendent	Chad Satterfield	Office: (304) 517-1416 ext 86062 Mobile: (304) 439-5353
Production Superintendent	Manny Johnson	Office: (740) 695-1623 ext 87804 Mobile: (304) 439-1331
Land Man	Randy Orsburn	Office: (304) 517-1416 ext 86020
WV State Inspector	Sam Ward	Cell: (304)-389-7583

Received

SEP 19 2013

Office of Oil and Gas
WV Dept. of Environmental Protection