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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](http://www.dep.wv.gov)

January 09, 2015

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-5101288, issued to CHEVRON APPALACHIA, LLC, 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: STARCOVIC 1H  
Farm Name: STARCOVIC, STEPHEN  
**API Well Number: 47-5101288**  
**Permit Type: Plugging**  
Date Issued: 01/09/2015

**Promoting a healthy environment.**

**01/09/2015**

## 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.

WW-4B  
Rev. 2/01

DEC 31 2014  
WV Department of  
Environmental Protection

1) Date \_\_\_\_\_, 20\_\_\_\_  
2) Operator's  
Well No. 1H  
3) API Well No. 47-051 - 01288

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 \_\_\_

5) Location: Elevation 1186 \_\_\_\_\_ Watershed Grave Creek  
District Cameron \_\_\_\_\_ County Marshall \_\_\_\_\_ Quadrangle Cameron 7.5'

6) Well Operator Chevron Appalachia, LLC 7) Designated Agent N/A  
Address 800 Mountain View Drive  
Smithfield, PA 15478 Address \_\_\_\_\_

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name James Nicholson Name See Work Order  
Address P.O. Box 44 Address \_\_\_\_\_  
Moundsville, WV 26041

10) Work Order: The work order for the manner of plugging this well is as follows:  
See Work Order

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

Work order approved by inspector James Nicholson Date 12/31/2014





NOV 8 1 2014

CHIEF OIL & GAS LLC  
WV Department of Environmental Protection

WELLBORE DATA AND SKETCH

Well: Starcovic #1H	Quad: Cameron 7.5', Cameron District	Updated: 12/16/14
County: Marshall	State: West Virginia	Status: SI, W/O Pipeline
Directions: See Prognosis	Location: 400' S Lat 39° 50' 00"	Survey:
Well Type: Horizontal Well	275' W Long 80° 35' 00"	API # 47-051-01288
Elevation: GL: 1168'	Note: All depths MD unless noted	
DF: 1185'	Build Location: Start: 7/6/09 End: 7/21/09	
KB: 1186'	Spud: 8/24/09	
24" Hole @ 80'	Release Rig: 9/11/09	
20" Conductor @ 80' Sanded-in	Completed: 12/22/09	
17 1/2" Hole @ 1182'	First Production:	
13 3/8" 54.5# Surface Csg @ 1172'	Set a 200', 25 sxs cmt bal. plug at 2550', 1200', and 200'	
Cemented w/ 850 sxs	Bottom Hole Location (Scaled)	
TOC @ surface	Survey: 2992' N 15° W FSHL	
12 1/4" Hole @ 2510'	True Lat N 39° 49' 56.1"	
9 5/8" 36# Intermediate Csg @ 2495'	True Long W 80° 35' 03.5" NAD27	
Cemented w/ 780 sxs	AirFoam Drilling Method - Rotary	
TOC @ surface	Rig - Union Drilling, LP #43 (KB: 18')	
7 7/8" Hole @ 10365' MD (6827' TVD)	6% Bentonite gel between all cmt plugs	
TOC @ 2050' by CBL		
KOP: 6410'		
Target Centerline - 6915' TVD		
Pen, Marcellus - 7028' MD (6888' TVD) VS 345'		
Maximum Deflection - 21.2 degree @ 6894'		
Maximum Angle - 92.8 degree @ 9112'		
Displacement - 3676' N 27.3 W		
Landing Point - 7200' MD (6915' TVD) VS 515'		
MWD Gamma run. No OH logs run.		
12/16/09: Pumpco Frac w/ 7,732 BFW (Treated) & 174,700# 100 Mesh & 180,400# 40/70 Sand & 40# 40/70 RC Sand. LTR: 88,556 bbls - 11th Stg	Marcellus: 7028' - 10298' 980 Holes	
12/16/09: Pumpco Frac w/ 8,019 BFW (Treated) & 175,200# 100 Mesh & 225,900# 40/70 Sand & 35,100# 40/70 RC Sd. LTR: 80,824 bbls - 10th Stg		
12/16/09: Pumpco Frac w/ 7,914 BFW (Treated) & 174,300# 100 Mesh & 225,700# 40/70 Sand & 31,000# 40/70 RC Sd. LTR: 72,805 bbls - 9th Stg		
12/15/09: Pumpco Frac w/ 7,977 BFW (Treated) & 174,900# 100 Mesh & 215,500# 40/70 Sand & 42,100# 40/70 RC Sd. LTR: 64,891 bbls - 8th Stg	Set a 5-1/2" CIBP at 6800'. Spot 75 sxs of 15.6ppg, 1.18 yield, class "A" cmt on top of CIBP. TOC @ 6100'	
12/15/09: Pumpco Frac w/ 8,026 BFW (Treated) & 173,900# 100 Mesh & 215,900# 40/70 Sand & 48,900# 40/70 RC Sd. LTR: 56,914 bbls - 7th Stg		
12/15/09: Pumpco Frac w/ 8,253 BFW (Treated) & 169,600# 100 Mesh & 218,000# 40/70 Sand & 46,900# 40/70 RC Sd. LTR: 48,888 bbls - 6th Stg		
12/14/09: Pumpco Frac w/ 8,179 BFW (Treated) & 174,100# 100 Mesh & 216,700# 40/70 Sand & 42,500# 40/70 RC Sd. LTR: 40,635 bbls - 5th Stg	FILL w/ FRESH WATER SAM	
12/14/09: Pumpco Frac w/ 8,123 BFW (Treated) & 172,900# 100 Mesh & 214,500# 40/70 Sand & 41,600# 40/70 RC Sd. LTR: 32,456 bbls - 4th Stg	PBD: 10335 TD: 10365'	
12/12/09: Pumpco Frac w/ 8,338 BFW Treated & 176,200# 100 Mesh & 227,600# 40/70 Sand & 27,700# 40/70 RC Sd. LTR: 16,221 bbls - 2nd Stg	5 1/2" 20# P-110 Csg @ 10337' Cemented w/ 960 sxs	
12/14/09: Pumpco Frac w/ 8,112 BFW (Treated) & 173,100# 100 Mesh & 220,000# 40/70 Sand & 7,500# 40/70 RC Sd. LTR: 24,333 bbls - 3rd Stg	12/12/09: Pumpco Frac w/ 7,883 BFW Treated & 174,600# 100 Mesh & 193,900# 40/70 Sand. LTR: 7,883 bbls - 1st Stg	



**Site Prep**

**Notify WV DEP Oil and Gas Inspector 48hrs prior to MIRU rig**

1. Hold Tailgate Safety Meeting and review JSA
2. MIRU containment (per site layout and needs) and surface rental equipment
3. MIRU mud tanks and auxiliary equipment
4. RU flowback lines.

**Procedure**

5. Mobilize work-over rig and pumping equipment to location
6. Spot rig and equipment in place
7. Check pressure on all casing and tubing strings. Note pressures on report.  
Bleed off pressure and kill well with kill weight fluid if needed.
8. MIRU E-line with 5k lubricator and test to 250 psi low for 5 minutes and 5,000 psi high.
9. RIH with a tbg plug and set in profile nipple at 6762'.
10. Test the tbg plug to 1000psi and record.
11. Set BPV inside the tubing hanger and ND tree.
12. NU the class III BOP and equipment (rams, manifold, lines etc). Ensure that 5k tbg safety valve is in the open position on the floor when handling tbg.
13. Test all breaks and BOP to 250 psi low for 5 minutes and 5,000 psi high (if pressure is higher, test to 500psi above known SITP) for 10 minutes, chart and record data with barton chart recorder and keep on file on location.
14. Retrieve BPV
15. *Fill the 5-1/2" csg lateral with 79bbbls of fresh water*
16. TOOH with 2-3/8", 4.7#, N-80 tubing and BHA.
17. R/U W/L and RIH with 4.5" gauge ring to 6800'.
18. POOH with gauge ring. Make note if any tight spots.
19. RIH with 5-1/2" CIBP and set at 6800'.
20. RIH with 2-3/8" tbg and tag top of CIBP at 6800'. Break circulation with 140bbbls of fresh water. Test 5-1/2" CIBP to 1000psi.





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21. Spot a 700' plug with 75 sxs, 88.5 cuft of 15.6ppg, 1.18 yield, class "A" cmt.  
From 6800- 6100' TOC @ 6100'.
22. Spot a 200' plug from 2550' – 2350' with 25 sxs, 29.5 cuft of 15.6ppg, 1.18 yield,  
class "A" cmt. TOC @ 2350'.
23. Spot a 200' plug from 1200' – 1000' with 25 sxs, 29.5 cuft of 15.6ppg, 1.18 yield,  
class "A" cmt. TOC @ 1000'.
24. Spot a 200' plug from 200' to surface' with 25 sxs, 29.5 cuft of 15.6ppg, 1.18  
yield, class "A" cmt. TOC surface.
25. NOTE: 6% Bentonite Gel will be run between all plugs
26. ND the BOP and NU the tree. Test the tree to 3000psi and record.
27. RD work-over rig and equipment and move to next location.

01/09/2015



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## Starcovic 1H

### "Temporary Abandonment Procedure"

Expected Start Date: January 6, 2015

MUST BE PLUGGED  
AS A PERMANENT  
PLUG. gmm

	1H
AFE Number	
API Number	47-051-01288

Service Rig Company  
Wellhead  
Downhole Tools

Nabors  
Weatherford  
Baker Hughes

County  
Township  
Latitude  
Longitude

Marshall  
Cameron, WV  
39° 50' 00"  
80° 35' 00"

#### Objective:

Temporary abandonment of Starcovic 1H in accordance West Virginia's DEP requirements.

#### Completion Design Review:

Listed below are the members of the well team who were in attendance and agreement with the completion procedure as discussed.

Revised by:	Tony Raphael – Well Abandonment Engineer	12/30/14
Review by:	Garland Bledsoe – Project Manger	12/30/14
Revised by:	David Beasley – Completion Engineer	
Reviewed by:	Lisa Branden– Petroleum Engineer	
Reviewed by:	Pam Gellek – Production Engineer	
Reviewed by:	Matt Bower - Petroleum Engineer	



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### IFO: Incident Free Operations

Chevron is committed to providing a safe working environment for all personnel through the tenets we live by such as **Do it safely or not at all. Stop Work Authority** means all personnel not only have the right but the responsibility to stop any potentially unsafe job.

**Report all injuries, no matter how minor, 24/7 to Axiom Medical at 1-877-502-9466**

### Directions to Location

From Pittsburgh: Merge onto I-79 S via EXIT 64A toward Washington (20.9m), Merge onto I-70 W via EXIT 38 toward Wheeling (6.6m), Take EXIT 11 toward PA-221/Taylorstown. Turn right onto Prosperity Pike/PA-18/PA-221. Continue to follow PA-18. Once in Graysville turn right onto W Roy Furman Hwy/PA-21 (Crossing into West Virginia) W Roy Furman Hwy/PA-21 becomes WV-891. WV-891 becomes US-250 S (Waynesburg Ave). continue until you get in Camerom. Turn right onto Loudenville Rd/County Hwy-25. Turn left onto Main St/County Hwy-25. Continue to follow County Hwy-25. .3 miles past summit street, Turn right onto unmade gravel road which will lead to the site location.

From Waynesburg PA, go West on SR 21 (26.1 mi) into West Virginia, continue on SR 891 (2.0 mi) to SR 250, follow Rt. 250 south towards Cameron for (3.7 mi), make a right on Loudenville Rd, follow for (0.5 mi) to the stop sign, make a right, then a left to stay on Loudenville Rd, follow for (0.8 Mi) to the location lease entrance on the Right.







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**Well Information**

Well #	Top Perf		RKB	Marker Joint	PBTD
	MD	TVD	MD	MD	MD
1H	7,140		18'		10,335'

Dimensions and Pressure Data					
Size	Depth	Weight	Grade	Burst	Collapse
20"	80'				
13 3/8"	1172'	54.5 lbs/ft	J-55		
9 5/8"	2495'	36 lbs/ft	K-55		
5 1/2"	10,337'	20 lbs/ft	P-110	12,640 psi	11,080 psi

Capacity	
5 1/2"# 20 P-110 CSG	0.02210 bbl/ft

**Current Status**

Well is currently on line and flowing approximately 1.1 MMCFD of gas a day at 750 psi on the tubing. Less than 1 bbl of condensate produced per day.

DEC 21 2014



WV Department of Environmental Protection

Starcovic 1H Wellbore Schematic (Current)

CHIEF OIL & GAS LLC

WELLBORE DATA AND SKETCH		
Well: Starcovic #1H	Quad: Cameron 7.5', Cameron District	Updated: 1/26/10
County: Marshall	State: West Virginia	Status: SI, W/O Pipeline
Directions: See Prologs	Location: 40° 3' Lat 38° 50' 00"	Survey:
Well Type: Horizontal Well	37° W Long 80° 38' 00"	API #: 47-051-01288
Division: QL: 1165'	Completed Well	Hole: All depths MD unless noted
DF: 1165'		Build Location: Start: 7/4/09 End: 7/21/09
KB: 1165'		Spud: 8/24/09
24" Hole @ 60'		Release Rig: 8/11/09
20" Conductor @ 80' Ganded-in		Completed: 12/22/09
17 1/2" Hole @ 1182'		First Production:
13 3/8" 54.5# Surface Csg @ 1172'		AirFoam Drilling Method - Rotary
Cemented w/ 850 sxs		Rig - Union Drilling, LP #43 (KB-18)
TOC @ surface		Bottom Hole Location (Boiled)
12 1/4" Hole @ 2412'		Survey: 2892° N 16° W PSHL
9 5/8" 35# Intermediate Csg @ 2495'		True Lat N 58° 49' 58.1"
Cemented w/ 780 sxs		True Long W 80° 38' 03.5" NAD 27
TOC @ surface		
7 7/8" Hole @ 10365' MD (4827' TVD)		
TOC @ 10960' by OBL		
KOP: 6410'		
Target Centerline - 6315' TVD		
Pen. Marcellus - 7023' MD (6888' TVD) VS 345'		
Maximum Deflection - 31.2 degree @ 6894'		
Maximum Angle - 52.8 degree @ 5112'		
Displacement - 3878' N 27.3 W		
Landing Point - 7200' MD (6918' TVD) VS 515'		
MWD Gamma run. No OH logs run.		
12/15/09: Pumpco Frac w/ 7,732 BFW (Treated) & 174,700# 100 Mesh & 180,400# 40/70 Sand & 40# 40/70 RC Sand. LTR: 65,598 bbbls - 11th Stg		EOT @ 7075'
12/16/09: Pumpco Frac w/ 8,019 BFW (Treated) & 179,200# 100 Mesh & 225,900# 40/70 Sand & 35,100# 40/70 RC Sand. LTR: 80,824 bbbls - 10th Stg		Marcellus: Top @ 7023'
12/16/09: Pumpco Frac w/ 7,914 BFW (Treated) & 174,300# 100 Mesh & 226,700# 40/70 Sand & 31,000# 40/70 RC Sand. LTR: 75,855 bbbls - 9th Stg		11th Stg Perfs: 7140' - 7356'
12/15/09: Pumpco Frac w/ 7,977 BFW (Treated) & 174,900# 100 Mesh & 216,600# 40/70 Sand & 42,100# 40/70 RC Sand. LTR: 64,991 bbbls - 8th Stg		10th Stg Perfs: 7439' - 7662'
12/15/09: Pumpco Frac w/ 8,026 BFW (Treated) & 173,900# 100 Mesh & 216,900# 40/70 Sand & 48,900# 40/70 RC Sand. LTR: 56,914 bbbls - 7th Stg		9th Stg Perfs: 7732' - 7930'
12/15/09: Pumpco Frac w/ 8,253 BFW (Treated) & 169,600# 100 Mesh & 216,000# 40/70 Sand & 46,900# 40/70 RC Sand. LTR: 48,888 bbbls - 6th Stg		8th Stg Perfs: 8050' - 8225'
12/14/09: Pumpco Frac w/ 8,179 BFW (Treated) & 174,100# 100 Mesh & 216,700# 40/70 Sand & 42,800# 40/70 RC Sand. LTR: 40,636 bbbls - 5th Stg		7th Stg Perfs: 8299' - 8522'
12/14/09: Pumpco Frac w/ 8,123 BFW (Treated) & 172,900# 100 Mesh & 214,600# 40/70 Sand & 41,600# 40/70 RC Sand. LTR: 33,456 bbbls - 4th Stg		6th Stg Perfs: 8592' - 8818'
12/12/09: Pumpco Frac w/ 8,338 BFW Treated & 176,300# 100 Mesh & 227,600# 40/70 Sand & 37,700# 40/70 RC Sand. LTR: 16,221 bbbls - 3rd Stg		5th Stg Perfs: 8898' - 9114'
12/12/09: Pumpco Frac w/ 7,893 BFW Treated & 174,800# 100 Mesh & 193,900# 40/70 Sand & 37,700# 40/70 RC Sand. LTR: 16,221 bbbls - 2nd Stg		4th Stg Perfs: 9184' - 9410'
12/12/09: Pumpco Frac w/ 8,112 BFW (Treated) & 173,100# 100 Mesh & 220,000# 40/70 Sand & 37,500# 40/70 RC Sand. LTR: 24,333 bbbls - 3rd Stg		3rd Stg Perfs: 9480' - 9709'
12/12/09: Pumpco Frac w/ 7,893 BFW Treated & 174,800# 100 Mesh & 193,900# 40/70 Sand & 37,700# 40/70 RC Sand. LTR: 16,221 bbbls - 2nd Stg		2nd Stg Perfs: 9778' - 10002'
12/12/09: Pumpco Frac w/ 7,893 BFW Treated & 174,800# 100 Mesh & 193,900# 40/70 Sand & 37,700# 40/70 RC Sand. LTR: 16,221 bbbls - 1st Stg		1st Stg Perfs: 10072' - 10295'

Starcovic 1H Wellbore Schematic (Proposed T/A)




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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

Joe Manchin III, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.wvdep.org](http://www.wvdep.org)

July 01, 2009

**WELL WORK PERMIT**

**Horizontal Well**

This permit, API Well Number: 47-5101288, issued to AB RESOURCES PA, LLC, 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.

Please be advised that form WR-35, well operators report of well work, is to be submitted to this office within 90 days of completion of drilling, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

  
 James Martin  
 Chief

**Operator's Well No: STARCOVIC 1H**  
**Farm Name: STARCOVIC, STEPHEN**  
**API Well Number: 47-5101288**  
**Permit Type: Horizontal Well**  
**Date Issued: 07/01/2009**

**Promoting a healthy environment.**

01/09/2015



5101288P

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Office of Oil & Gas  
JUN 22 2010  
WV Department of Environmental Protection

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 06/17/2010  
API #: 47-051-01288

Farm name: Starcovic Operator Well No.: 1H

LOCATION: Elevation: 1186 KB' Quadrangle: CAMERON 7.5'

District: CAMERON County: MARSHALL  
Latitude: 400 Feet South of 39 Deg. 50 Min. 00 Sec.  
Longitude 275 Feet West of 80 Deg. 35 Min. 00 Sec.

Company: AB RESOURCES

Address:6802 W Snowville Rd. Suite E Brecksville, OH 44141	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
	13 3/8	1172	1172	1814
	9 5/8	2495	2495	1474
Agent:CT Corporation Systems	5 1/2	10377	10377	1607
Inspector:Tristan Jenkins				
Date Permit Issued:7/1/2009				
Date Well Work Commenced:8/24/2009				
Date Well Work Completed: 12/22/2009				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Vertical Depth (ft):6915				
Total Measured Depth (ft):10430				
Fresh Water Depth (ft.):na				
Salt Water Depth (ft.):na				
Is coal being mined in area (N/Y)?Y				
Coal Depths (ft.):857				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation MRCL Pay zone depth (ft) 7028  
Gas: Initial open flow 0 MCF/d Oil: Initial open flow NA Bbl/d  
Final open flow 7464 MCF/d Final open flow NA Bbl/d  
Time of open flow between initial and final tests 59 Hours  
Static rock Pressure 2150 psig (surface pressure) after 59 Hours

Second producing formation NA Pay zone depth (ft)  
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

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments 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.

James K Wilson  
Signature

6/17/10  
Date

01/09/2015



51012869

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Office of Oil and Gas

WW-4A  
Revised 6-07

1) Date: December 22, 2014  
2) Operator's Well Number  
Starcovic 1H

DEC 23 2014  
WV Department of  
Environmental Protection

3) API Well No.: 47 - 051 - 01288

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 Stephen M & Kimberly A Starcovic	Name _____
Address RD 4 Box 152, 152 Loudersville Rd. Cameron, WV 26033	Address _____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name Consolidated Coal Company
	Address 1000 Consol Energy Drive Canonsburg, PA 15317
(c) Name _____	Name Stephen M & Kimberly A Starcovic
Address _____	Address RD 4 Box 152, 152 Loudersville Rd. Cameron, WV 26033
6) Inspector James Nicholson	(c) Coal Lessee with Declaration
Address P.O. Box 44 Moundsville, WV 26041	Name _____
Telephone 304-552-3874	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 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 Chevron Appalachia, LLC  
 By: [Signature]  
 Its: Construction Permitting Team Lead  
 Address 800 Mountain View Drive  
Smithfield, PA 15478  
 Telephone 724-564-370

COMMONWEALTH OF PENNSYLVANIA  
 NOTARIAL SEAL  
 Laura Savage, Notary Public  
 Georges Twp., Fayette County  
 My Commission Expires Sept. 17, 2018  
 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Subscribed and sworn before me this 23 day of December, 2014  
Laura A. Savage  
 Notary Public  
 My Commission Expires September 17 2018

Oil and Gas Privacy Notice

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01/09/2015



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 PS Form 38

Consolidated Coal Company  
 Engineering & Operations  
 Support/Coal  
 Attn: Analyst  
 1000 Consol Energy Drive  
 Canonsbura, PA 15317

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Office of Oil and Gas

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Environmental Protection

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Stephen M. & Kimberly A. Starcovic  
 RD 4 Box 152  
 152 Loudenville Rd  
 Cameron, WV 26033

01/09/2015

WW-9  
(9/13)

API Number 47 - 051 - 01288  
Operator's Well No. Starovic 1H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Chevron Appalachia, LLC OP Code 49449935

Watershed (HUC 10) Grave Creek Quadrangle Cameron 7.5'

Elevation 1170' County Marshall District Cameron

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? \_\_\_\_\_

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 \_\_\_\_\_ )

ANY EFFLUENT MUST BE CONTAINED  
IN TANKS AND DISPOSED OF PROPERLY.  
gwm

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. NA Plugging well

-If oil based, what type? Synthetic, petroleum, etc. \_\_\_\_\_

Additives to be used in drilling medium? \_\_\_\_\_

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) \_\_\_\_\_

-Landfill or offsite name/permit number? \_\_\_\_\_

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) Branden Welmer

Company Official Title Permitting Team Lead

Subscribed and sworn before me this 9th day of January, 2015

Kristen Brooks Notary Public

My commission expires September 2, 2018

COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
Kristen Brooks, Notary Public  
Smithfield Boro, Fayette County  
My Commission Expires Sept. 2, 2018  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Form WW-9

Operator's Well No. Starovic 1H

Chevron Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed \_\_\_\_\_ Prevegetation pH \_\_\_\_\_

Lime \_\_\_\_\_ Tons/acre or to correct to pH \_\_\_\_\_

Fertilizer type \_\_\_\_\_

Fertilizer amount \_\_\_\_\_ lbs/acre

Mulch \_\_\_\_\_ Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Attach:  
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

\_\_\_\_\_

Plan Approved by: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

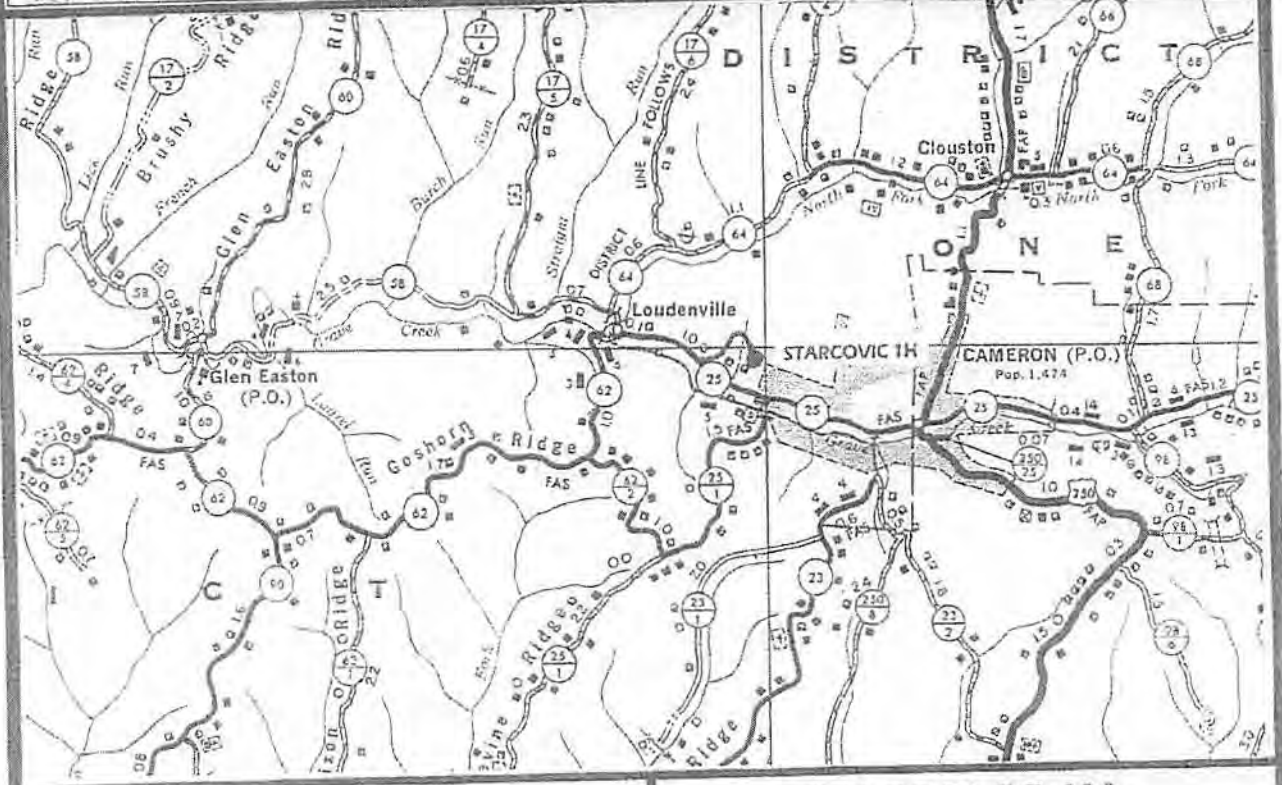
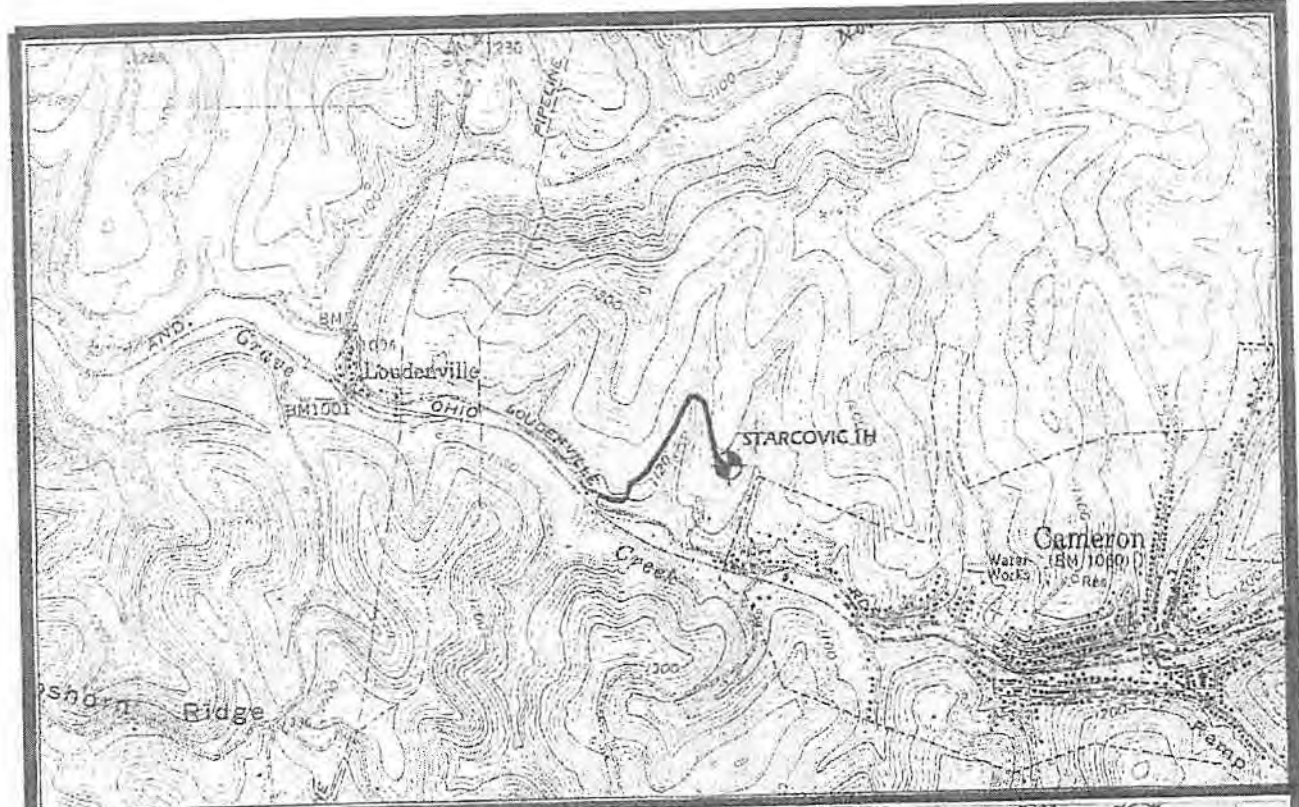
\_\_\_\_\_

\_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Field Reviewed? ( ) Yes ( ) No



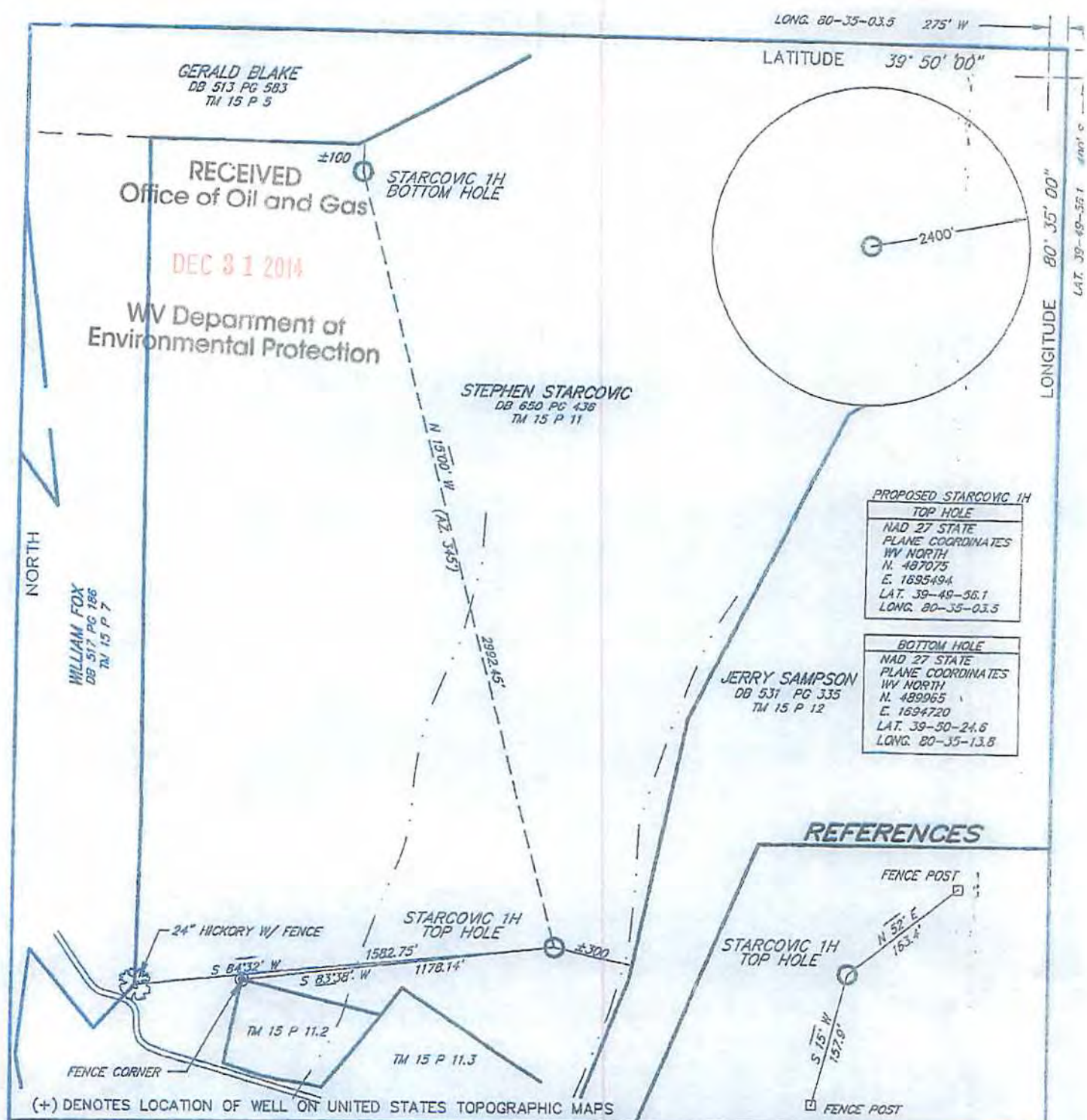


AB PA RESOURCES LLC

**STARCOVIC 1H**  
 LOCATION MAP  
 CAMERON QUADRANGLE SCALE: 1" = 2000'  
 MARSHALL COUNTY HIGHWAY MAP SCALE: 1" = 1 MILE







**PROPOSED STARCOVIC 1H TOP HOLE**  
 NAD 27 STATE PLANE COORDINATES WV NORTH  
 N. 487075  
 E. 1685494  
 LAT. 39-49-56.1  
 LONG. 80-35-03.5

**BOTTOM HOLE**  
 NAD 27 STATE PLANE COORDINATES WV NORTH  
 N. 489965  
 E. 1694720  
 LAT. 39-50-24.6  
 LONG. 80-35-13.8

**REFERENCES**



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

FILE NO. 07146  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 : 2500  
 PROVEN SOURCE OF ELEVATION GPS OBSERVATION

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. \_\_\_\_\_ I.L.S. 1956

PLACE SEAL HERE

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**



DATE JUNE 18, 20 09  
 OPERATOR'S WELL NO. STARCOVIC 1H  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP X SHALLOW \_\_\_  
 LOCATION: ELEVATION 1168.2 WATERSHED GRAVE CREEK  
 DISTRICT CAMERON COUNTY MARSHALL  
 QUADRANGLE CAMERON 7.5'

47 - 051 - 01288 <sup>P</sup>  
 STATE COUNTY PERMIT

SURFACE OWNER STEPHEN STARCOVIC ACREAGE 168.0  
 OIL & GAS ROYALTY OWNER STEPHEN STARCOVIC LEASE ACREAGE 168.0  
 LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION Marcellus ESTIMATED DEPTH 6985 TVD 9735 MD  
 WELL OPERATOR A B RESOURCES PA LLC DESIGNATED AGENT CT Corporation System  
 ADDRESS 6802 W. SNOWVILLE ROAD SUITE E ADDRESS 707 Virginia Street, East  
BRECKSVILLE, OHIO 44141 Charleston, WV 25301

01/09/2015

COUNTY NAME

PERMIT

FURMA WW-5