



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Monday, November 2, 2020
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359
SPRING, TX 773914954

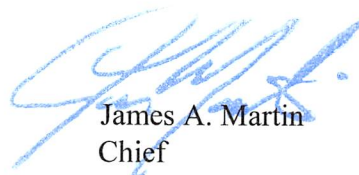
Re: Permit Modification Approval for VIOLET COSS BRK 206H
47-009-00241-00-00

Cement yield on Casing Plan Updated

SWN PRODUCTION COMPANY, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is positioned above the printed name and title.

James A. Martin
Chief

Operator's Well Number: VIOLET COSS BRK 206H
Farm Name: LINDA COEN (LIFE ESTATE-VIOLET L COSS
U.S. WELL NUMBER: 47-009-00241-00-00
Horizontal 6A New Drill
Date Modification Issued: 11/02/2020

Promoting a healthy environment.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: SWN Production Co., LLC 494512924 009-Brook 01-Buffal 620-Steubenville
Operator ID County District Quadrangle

2) Operator's Well Number: Violet Coss BRK 206H Well Pad Name: Violet Coss BRK

3) Farm Name/Surface Owner: Linda Coen (Life Estate-Violet L Coss) Public Road Access: Coss Road

4) Elevation, current ground: 1173' Elevation, proposed post-construction: 1173'

5) Well Type (a) Gas Oil Underground Storage
Other

(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No Yes

C-2-110 12-5-19

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Down-Dip Well to the South, Target Top TVD- 5762', Target Base TVD- 5824', Anticipated Thickness- 62', Associated Pressure- 3786

*old
MWD
BW*

8) Proposed Total Vertical Depth: 5811'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 18,763'

11) Proposed Horizontal Leg Length: 11,262.30'

12) Approximate Fresh Water Strata Depths: 334'

13) Method to Determine Fresh Water Depths: Deepest Nearby Springs

14) Approximate Saltwater Depths: 507' Princeton High Salinity Sandstone & Salinity Profile Calculation(Violet Coss BRK 8H API 47-009-00146)

15) Approximate Coal Seam Depths: 209'

16) Approximate Depth to Possible Void (coal mine, karst, other): Possible Void 209'

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

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OCT 23 2020


WV Department of
Environmental Protection

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

WW-6B
(04/15)

API NO. 47- 009 -
 OPERATOR WELL NO. Violet Coss BRK 206H
 Well Pad Name: Violet Coss BRK

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	388'	388'	382 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	1630'	1630'	635 sx/CTS
Production	5 1/2"	New	HCP-110	20#	18763'	18763'	lead 771sx/Tail 3053sx/100' inside in: 
Tubing							
Liners							

Di. BLO
10-15-20

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.20/30% Excess
Fresh Water	13 3/8"	17.5"	0.380	2730	633	Class A	1.20/30% Excess
Coal	See	Surface	Casing				
Intermediate	9 5/8"	12 1/4"	0.352	3520	1768	Class A	1.19/40% Excess
Production	5 1/2"	8 3/4"-8 1/2"	0.361	14360	10,500	Class A	1.19/5% Excess
Tubing							
Liners							

New Mud BW

PACKERS

Kind:				RECEIVED Office of Oil and Gas OCT 23 2020 WV Dept. of Environmental Protection
Sizes:				
Depths Set:				



9-00241

SWN Production Company, LLC
1300 Fort Pierpont Dr, Ste 201
Morgantown, WV 26508
Tel: 304 884 1610
Fax: 304 471 2497
www.swn.com

206H

October 22, 2020

Ms. Laura Adkins
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Proposed Expedited Modification: Violet Coss BRK 6H, Violet Coss BRK 10H, & Violet Coss BRK 206H

Dear Ms. Adkins

Enclosed please find a modification for the above captioned well. We made changes to the cement yield on page two of the 6B per the DEP inspector's request. This well is situated on the Edge's property, in Sand Hill District, Marshall County, West Virginia. Enclosed documents:

-Updated 6B

If you have any questions or desire additional information, please me at 304-884-1613

Thank you.

Sincerely,

Brittany Woody
Senior Regulatory Analyst
Southwestern Energy Production Company, LLC

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Office of Oil and Gas

OCT 23 2020

WV Department of
Environmental Protection

CK# 1053064
Amt \$5000
Date 10/13/20



The Right People doing the Right Things,
wisely investing the cash flow from our
underlying Assets, will create Value+[®]