



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

Jim Justice, Governor
Austin Caperton, Cabinet Secretary
www.dep.wv.gov

September 14, 2017
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit Modification Approval for EDWARD DREMAK OHI 3H
47-069-00213-00-00

Modified Casing Depths due to Water Depth Adjustment

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.

James A. Martin
Chief

Operator's Well Number: EDWARD DREMAK OHI 3H
Farm Name: DREMAK, EDWARD & JOANNE
U.S. WELL NUMBER: 47-069-00213-00-00
Horizontal 6A / New Drill
Date Issued: September 14, 2017

Promoting a healthy environment.

09/15/2017

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 069-Ohio 4-Richieg 641-Tiltonsville

Operator ID County District Quadrangle

2) Operator's Well Number: Edward Dremak OHI 3H Well Pad Name: Edward Dremak OHI Pad

3) Farm Name/Surface Owner: Edward Dremak & Lorenna Dremak Public Road Access: Waddells Run Road

4) Elevation, current ground: 1087' Elevation, proposed post-construction: 1087'

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

(b) If Gas Shallow Deep Horizontal Existing Pad: Yes or No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation-Marcellus, Target Top TVD-5788', Anticipated Thickness-33', Associated Pressure-3488.4

8) Proposed Total Vertical Depth: 5809'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 15230'

11) Proposed Horizontal Leg Length: 7802'

12) Approximate Fresh Water Strata Depths: 259'

13) Method to Determine Fresh Water Depths: nearby spring at 855SS used for livestock in the past

14) Approximate Saltwater Depths: 750' estimate from nearby salinity profile analysis, logs on first well.

15) Approximate Coal Seam Depths: 274'

16) Approximate Depth to Possible Void (coal mine, karst, other): Possible Void 274'

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

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

WW-68
(04/15)

API NO. 47-059 - 00213 Mon
 OPERATOR WELL NO. Edward Drezak O&H 3H
 Well Pad Name: Edward Drezak O&H Pad

18) CASING AND TUBING PROGRAM

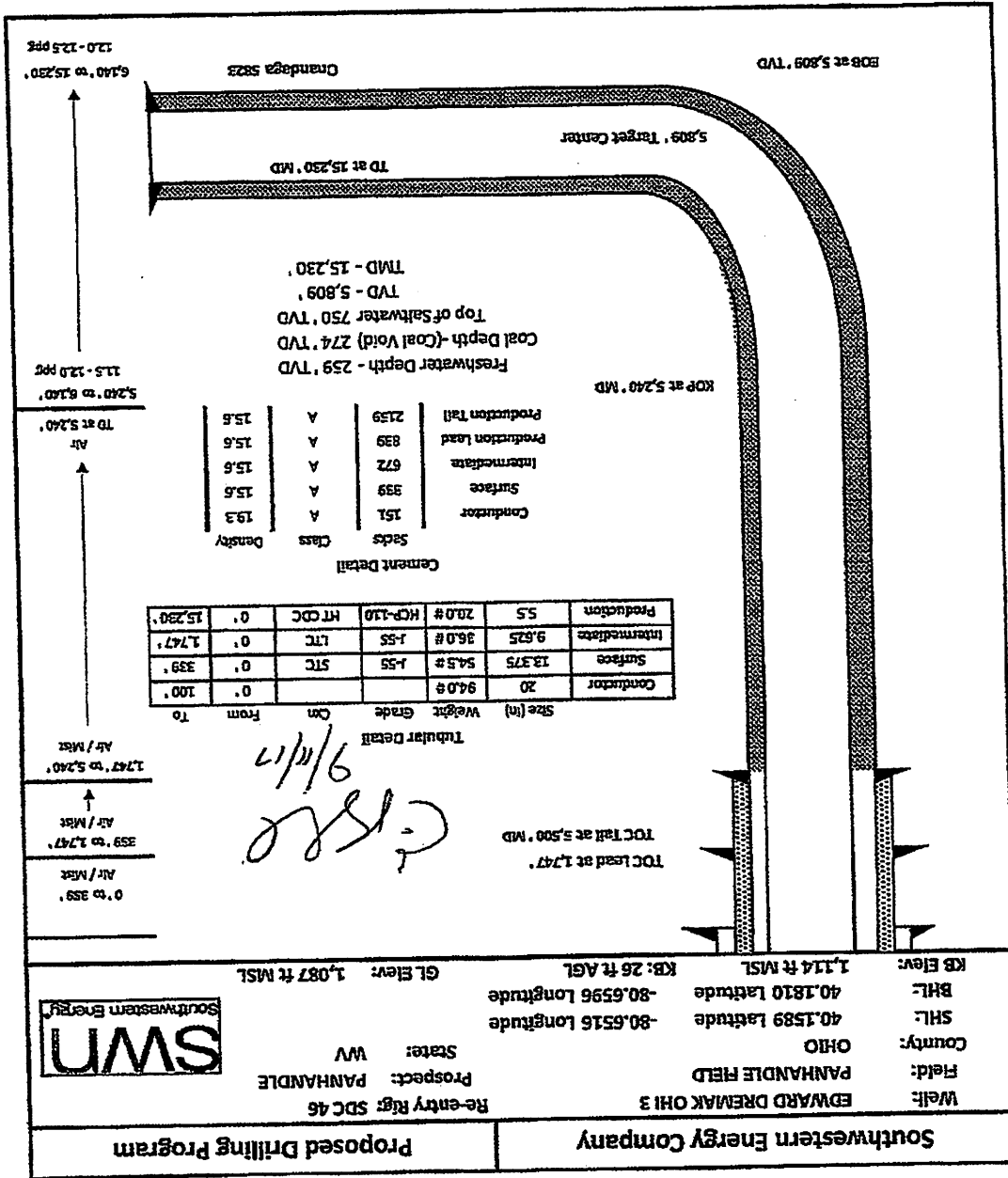
TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	339'	339'	339 sx/CTS
Coal	9 5/8"	New	J-55	36#	1747'	1747'	672 sx/CTS
Intermediate	7"	New	J-55	36#	If Needed	If Needed	If Needed/As Needed
Production	5 1/2"	New	HCP-110	20#	15230'	15230'	But Check For Flow Tube Program
Tubing	2 3/8"	New	HCP-110	4.7#	Approx. 5809'	Approx. 5809'	
Liners							

E. Drezak 9/16/17

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	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Intermediate	7"	8 3/4"	0.317	4360	3250	Class A	1.20/50% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/50% Excess
Tubing	2 3/8"	4.778"	0.190	Approx 8193'	Approx 8193'		
Liners							

PACKERS

Kind:	10K Arrowset AS-1X			
Sizes:	5 1/2"			
Depths Set:				



69-00-213/MD

09/15/2017

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Casey V. Saunders, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	WVSPN NAD 27	Easting:	<u>1,678,070.495</u>
County:	<u>Ohio</u>		Northing:	<u>606,214.383</u>
District:	<u>Richland</u>	Public Road Access:		
Quadrangle:	<u>TILTONSVILLE</u>	Generally used farm name:		
Watershed:				

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, **provided that Southwestern Energy Production Company, LLC drills the well on WV North NAD27 coordinates of North 606,214.383, East 1,678,070.495. This statement does not serve as notice that Consol Pennsylvania Coal Company has waived its rights to mine all the coal or accept any responsibility for any damage to the well or surface facilities associated with the well by mining activity. This Voluntary Statement of No Objection does not waive CPCC's Common Law Property Rights in the State of West Virginia.**

*Please check the box that applies <input type="checkbox"/> SURFACE OWNER <input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance) <input type="checkbox"/> SURFACE OWNER (Impoundments/Pits) <input checked="" type="checkbox"/> COAL OWNER OR LESSEE <input checked="" type="checkbox"/> COAL OPERATOR <input type="checkbox"/> WATER PURVEYOR <input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD	FOR EXECUTION BY A NATURAL PERSON Signature: _____ Print Name: _____ Date: _____
	FOR EXECUTION BY A CORPORATION, ETC. Company: <u>Consol Pennsylvania Coal Company</u> By: <u>Casey Saunders</u> Its: <u>Manager Coal-Gas Coordination</u> Signature: <u>Casey V. Saunders</u> Date: <u>9/12/2017</u>

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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.

09/15/2017

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The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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.

09/15/2017