

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, June 25, 2018 PERMIT MODIFICATION APPROVAL Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit Modification Approval for BENJAMIN HONECKER OHI 10

47-069-00244-00-00

Lateral Extension

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: BENJAMIN HONECKER OHI 10H

Farm Name: JANET L. HONECKER (LIFE ESTATE) & ELIZAB

U.S. WELL NUMBER: 47-069-00244-00-00

Horizontal 6A New Drill

Date Modification Issued: June 25, 2018

Promoting a healthy environment.

WW-6B (04/15)

API NO. 47-069	_ 00244	
OPERATOR WE	LL NO.	Berjamin Hosester OH IOH
Well Pad Name	e: Benjan	nin Hanocker OHI PAD

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 3- Liberty 247-Bethany
Operator ID County District Quadrangle
2) Operator's Well Number: Benjamin Honecker OHI 10H Well Pad Name: Benjamin Honecker OHI PAD
B) Farm Name/Surface Owner: Benjamin Honecker Public Road Access: Short Creek Road
4) Elevation, current ground: 1104' Elevation, proposed post-construction: 1104'
5) Well Type (a) Gas X Oil Underground Storage
Other
(b) If Gas Shallow X Deep
6) Existing Pad: Yes or No Yes Service
6) Existing Pad: Yes or No Yes 7.23.18
7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s): Target Formation-Marcellus, Up-Dip Well to the South, Target Top TVD-6132, Target Base TVD-6174, Anticipated Thickness-42 Associated Pressure-4013
3) Proposed Total Vertical Depth: 6147'
9) Formation at Total Vertical Depth: Marcellus
10) Proposed Total Measured Depth: 20250'
11) Proposed Horizontal Leg Length: 8146.94'
12) Approximate Fresh Water Strata Depths: 324'
13) Method to Determine Fresh Water Depths: Salinity Profile
14) Approximate Saltwater Depths: 404' Salinity Profile
15) Approximate Coal Seam Depths: 267'
16) Approximate Depth to Possible Void (coal mine, karst, other): 267' Possible void
17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X
(a) If Yes, provide Mine Info: Name:
Depth:
Seam:
Owner:

Page 1 of 3

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APR 2 5 2018

WV Department of Environmental Protection WW-6B (04/15) API NO. 47- 069 - 00244

OPERATOR WELL NO. Despine Honoclar OH 194

Well Pad Name: Benjamia Honoclar OH 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#	375'	375'	375 sx/CTS
Coal							
Intermediate	9 5/8"	New	J-55	36#	1646'	1646'	637 sx/CTS
Production	5 1/2"	New	HCP-110	20#	20250'	20250'	and Sizin Tal Zizin Into Personal dis
Tubing							
Liners							

(BEO4.23.14

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	<u>Cement</u> <u>Yield</u> (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							
Liners							

PACKERS

Kind:		
Sizes:		
Depths Set:		

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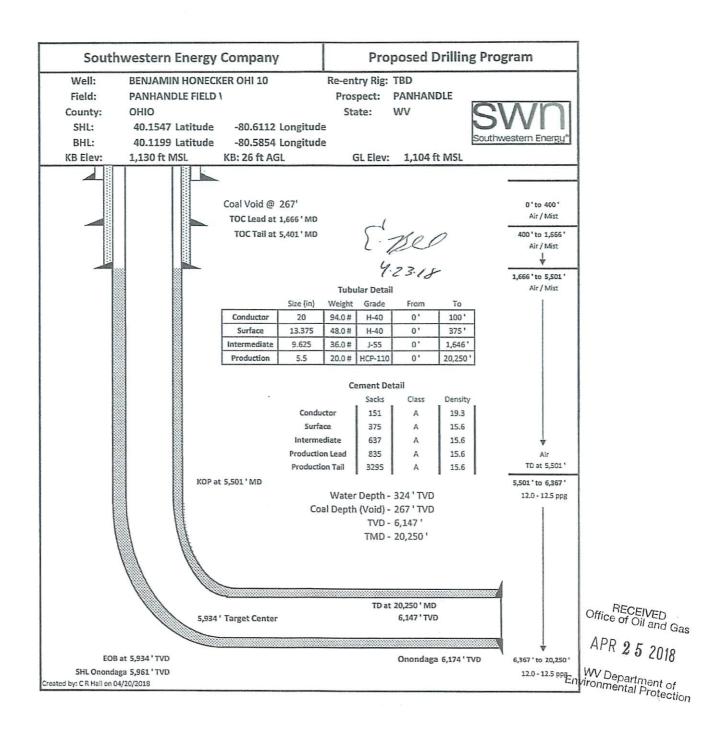
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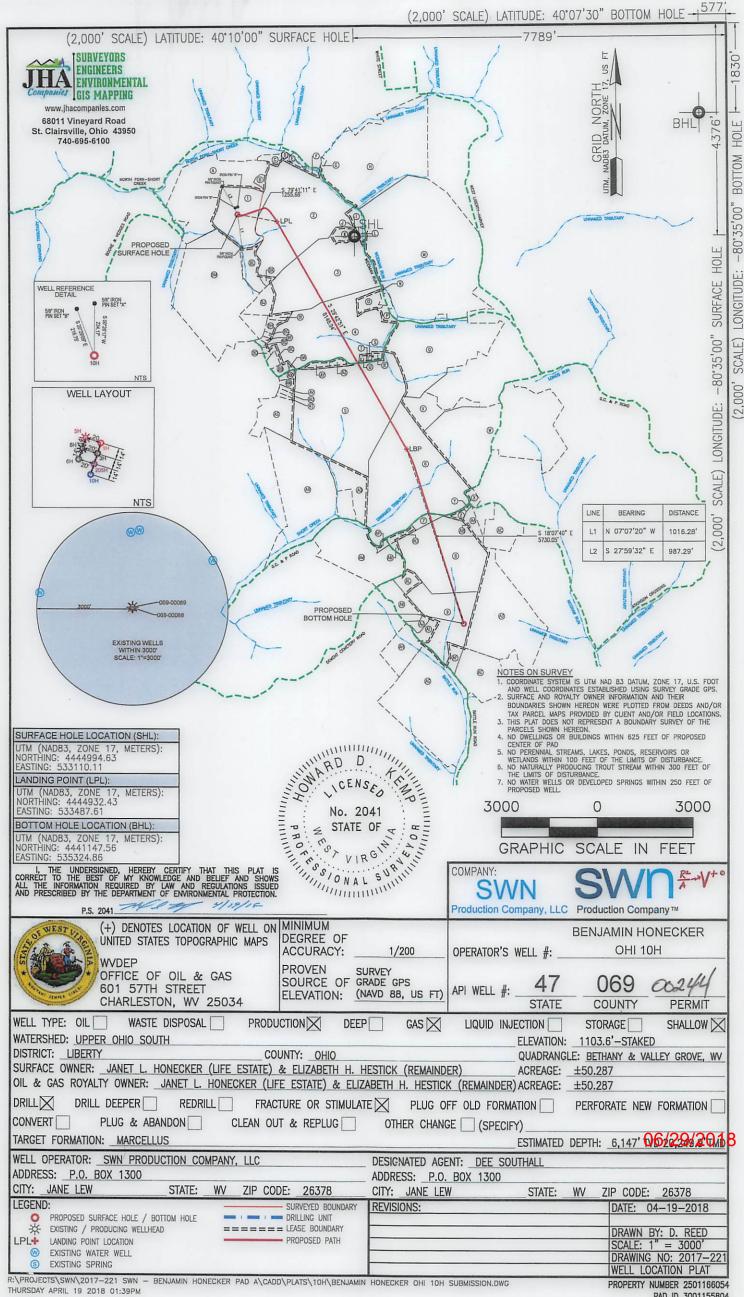
WV Department of Environmental Protection WW-6B (10/14) API NO. 47-069 - 00244

OPERATOR WELL NO. Geograph Honoclos ON 104

Well Pad Name: Borgamin Honoclos ON IPAD

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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:	
Drill and stimulate any potential zones between and including the Benson to Marcellus. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface. Run casing not less than 20' below void nor more than 50' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50' below and cts.)	
20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:	1
Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. The well is produced through surface facilities consisting of high pressure production unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 80 barrels a minute.	
21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 10.54	
22) Area to be disturbed for well pad only, less access road (acres): 5.96	
23) Describe centralizer placement for each casing string:	
All casing strings will be ran with a centralizer at a minimum of 1 per every 3 joints of casing.	
24) Describe all cement additives associated with each cement type:	
See Attachment ***	
25) Proposed borehole conditioning procedures:	l
All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and continuing until operator is satisfied with borehole conditions.	
*Note: Attach additional sheets as needed.	PECEIVED Office of Oil and Gas
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47-069-00244

	WELL BORE TABLE FOR SURFACE / ROYALTY OW	NERS
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	JANET L. HONECKER (LIFE ESTATE) & ELIZABETH H. HESTICK (REMAINDER) (S)/(R)	03-L4-124
TRACT	SURFACE OWNER	TAX PARCEL
2	JANET L. HONECKER & ELIZABETH H. HESTICK	03-L4-103
3	JANET L. HONECKER & ELIZABETH H. HESTICK	03-L4-104
4	HOLLAND PARK, LLC	03-L4-105
5	BELLE LANE, LLC	03-L4-109
6	WAYNE L. WILHELM & MARGUERITE B. WILHELM	03-L7-4
7	JAMES MARTIN PURPURA AND ROBERT E. MCADAMS, TRUSTEES OF THE JAMES MARTIN PURPURA LIVING TRUST DATED APRIL 4, 2012	03-L7-12
8	JAMES A. & CAROL L. PARSONS	03-L7-11
9	TUNNEL RIDGE, LLC	03-L7-45

TRACT	ADJOINING OWNERS TABLE SURFACE OWNER	TAX PARCEL
A	JANET L. HONECKER (LIFE ESTATE) & ELIZABETH H. HESTICK (REMAINDER)	03-L1-42
В	DEBRA & DAVID HAMSTEAD	03-L1-42.1
С	STEPHANIE A. ENNIS	09-WL10-8
D	WILLIAM R. & R.L. MYERS	09-WL10-9
Ε	CYNTHIA L. JOHNSON	09-WL10-11.1
F	THEODORE & SHIRLEY PAVLIC	09-WL10-11
G	JOHN C. & S.L. PERRY	09-WL10-14
Н	WEST LIBERTY STATE COLLEGE	03-L1-35
1	KAREN S. & DONALD R. GRUBB	03-L4-104.1
J	CAROLYN & DENVER BARKER	03-L4-104.6
K	CAROLYN S. & DENVER BARKER	03-L4-104.3
L	CAROLYN S. & DENVER BARKER	03-L4-104.5
М	LORI JO MCGLUMPHY	03-L4-110
N	DIXIE M. & L. LAUDERMILT	03-L4-106.1
0	DIXIE M. LAUDERMILT	03-L4-105.8
Р	WINDSOR POWER HOUSE COAL COMPANY	03-L4-105.7
Q	MICHAEL J. & P.T. MILLER	03-L4-117
R	DELBERT K., JR. & L.K. MYERS	03-L4-107
S	RUDY, JR. & J.A. FAZZINI	03-L4-105.3
T	RUDY, JR. & J.A. FAZZINI	03-L4-105.9
U	RICARDO & BUMBAUGH D.L. PACHECO	03-L4-105.1
٧	EDWARD L. & B.W. STUPAK	03-L4-118.1
W	HERBERT P. & C.A. MINCH	03-L4-120
Х	RICHARD J. SCHNELLE & CALVIN W. SCHNELLE	03-L7-8
Y	RENEE LYNN MOSA	03-L7-9
Z	JAMES M. PURPURA	03-L7-10
AA	JAMES P. & TRACY C. MILLER	03-L7-9.2
AB	JAMES P. & TRACY C. MILLER	03-L7-9.1
AC	MILO H. CRISWELL	03-L7-6.3
AD	JOHN L, II & J.M. SMITH	03-L7-48
AE	PAUL J. ROBRECHT	03-L7-47
AF	B. EILEEN GILMORE	03-L7-46
AG	ROBERT W. & DONNA LASCH	03-L10-40
AH	STEPHEN P. & D.K.S. SNYDER	03-L7-42.1
Al	TUNNEL RIDGE, LLC	03-L7-44
AJ	HELEN L. TOMINACK	03-L7-43
AK	MARY LOU HUDNALL	03-L7-40
AL	LP. & M.L. HUDNALL	03-L7-41
AM	ROBERT W. & D. LASCH	03-L7-16
AN	ERNEST L. & H.D. HERRON	03-L7-14
AO	ELLSWORTH R. & L.K. RINE	03-L7-13
AP	BEVERLY J. HOFFER	03-L7-15
AQ	ROBERT J. GRIMES	03-L7-3
AR	HERMAN J. & MARY C. STORCH	03-L7-2
AS	CATHERINE & DAVID EVANS	03-L4-13.1
AT	DAVID R. & MARTIE A. KELLER	03-L4-13.2
AU	MARTIE A. MORSE	03-L4-100
AV	THOMAS N. & G.L. PENTINO	03-L4-99
AW	EDWARD & L.K. CIHY	03-L4-97
AX	GARY V. HAND	03-L4-96
AY	JOHN C. & A.F. MYERS	03-L4-108
AZ	LEE J. & M.B. DUVALL	03-L4-105.11
BA	CHRISTOPHER G. WINIESDORFFER	03-L4-105.15
BB	JOHN E. & R.M. WINIESDORFFER	03-L4-105.2
BC	DAVID R. & CARRIE A. HANNA	03-L4-105.6
BD	MACK W. DUVALL	03-L4-105.5
BE	ARLIE R., J.R AND BOND B. MCCARDLE	03-L4-105.17
BF	DORA M. MCCARDLE	03-L4-105.13
BG	PAUL F. ADAMS	03-L4-105.16
ВН	ELIZABETH ANN BAKER	03-L4-105.14
BI	MICHAEL E. SAMPSON	03-L4-105.4
BJ	RACHEL ANN SINCAVICH	03-L4-2
BK	JANET L. HONECKER (LIFE ESTATE) & ELIZABETH H. HESTICK REMAINDER	03-L4-104.4
BL	PAUL M. MCKAY & DEBORAH A. MCKAY	03-L4-123
1977	PAUL M. MCKAY & DEBORAH A. MCKAY	03-L4-1

06/29/2018

REVISIONS:	COMPANY:	SWN Production Company, LLC	S Product	ion Company™
	OPERATOR'S WELL #:	BENJAMIN H OHI 1		DRAWN BY: D. REED
	DISTRICT: LIBERTY	COUNTY: OHIO	STATE: WV	SCALE: N/A DRAWING NO: 2017-221 WELL LOCATION PLAT

WW-6A1 (5/13) Operator's Well No. Benjamin Honecker OHI 10H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or			D 1	D 1/D
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

See Exhibit

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- · County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:	SWN Production Company, LLC.
By:	RODI
Its:	Landman
	Page 1 of

Office of Oil and Gas

APR 25 2018

WW Department of Environmental Protection

Exhibit "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC, Operator

APR 2

Benjamin Honecker OHI 10H Ohio County, West Virginia

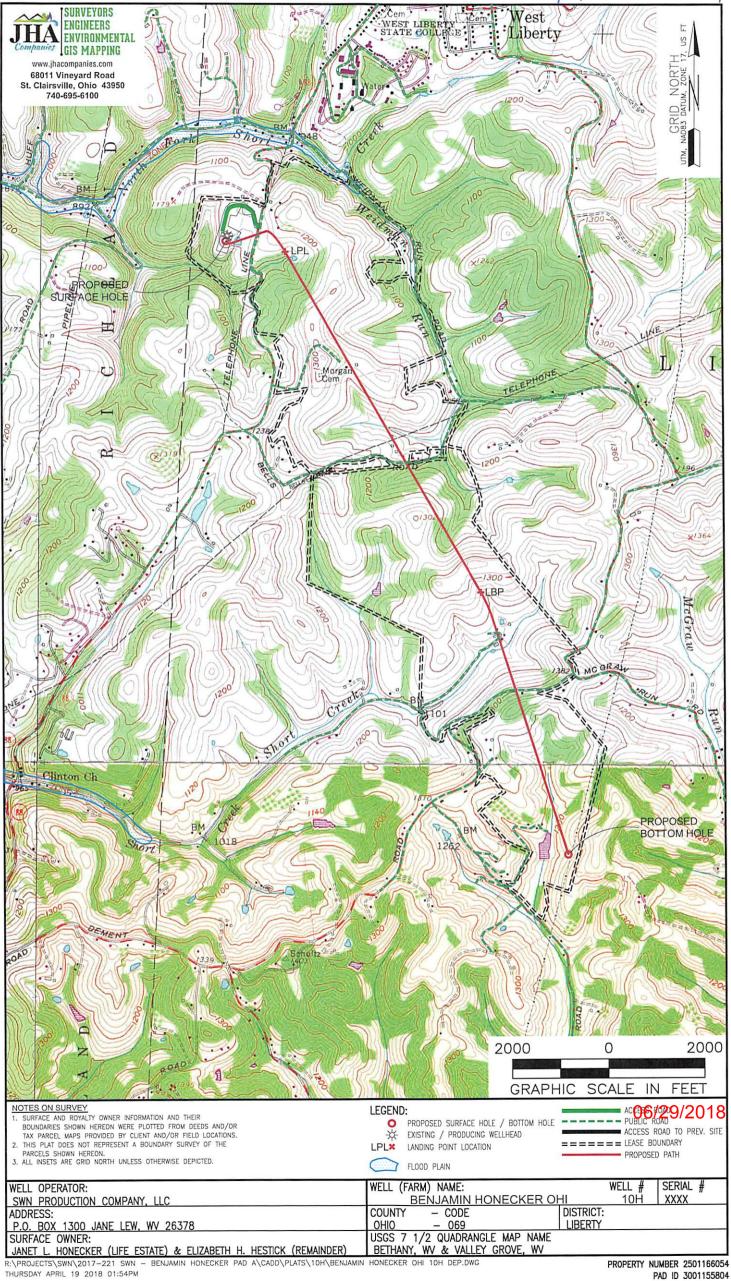
2	03-L4-124 03-L4-103	Janet L. Honecker, a widow, Life Estate, and Elizabeth H. Hestick, a married woman dealing in her sole and	Great Lakes Energy Partners, L.L.C.	14.0%	779/138
2					, , 5, 150
2	02 14 102		Chesapeake Appalachia, L.L.C.		808/391
2	02 14 102	separate property, Remainderman	SWN Production Company, LLC		883/515
	02-F4-T02	Janet L. Honecker, a widow, Life Estate, and Elizabeth H.	Great Lakes Energy Partners, L.L.C.	14.0%	779/138
		Hestick, a married woman dealing in her sole and	Chesapeake Appalachia, L.L.C.		808/391
		separate property, Remainderman	SWN Production Company, LLC		883/515
3	03-L4-104	Janet L. Honecker, a widow, Life Estate, and Elizabeth H.	Great Lakes Energy Partners, L.L.C.	12.5%	780/13
		Hestick, also known as Elizabeth R. Honecker, a married	Chesapeake Appalachia, L.L.C.		808/570
		woman dealing in her sole and separate property,	SWN Production Company, LLC		883/515
		Remainderman			
4	03-L4-105	Holland Park, Limited Liability Corporation: By - Lee Paull	Fortuna Energy Inc.	12.5%	772/523
		III, Member	Range Resources - Appalachia, LLC		786/418
			Chesapeake Appalachia, L.L.C.		808/493
			SWN Production Company, LLC		883/539
5	03-L4-109	Lee C. Paull III and June W. Paull h&w	Fortuna Energy Inc.	12.5%	766/362
			Range Resources - Appalachia, LLC		786/348
			Chesapeake Appalachia, L.L.C.		808/500
			SWN Production Company, LLC		885/776
6	03-L7-4	Wayne L. Wilhelm and Marguerite B. Wilhelm, husband	NPAR, LLC	18%	822/605
		and wife	Chevron U.S.A. Inc.		827/299
			Chesapeake Appalachia, L.L.C.		858/359
			SWN Production Company, LLC		883/611
7	03-L7-12	The James Martin Purpura Living Trust, James	Chesapeake Appalachia, L.L.C.	16%	880/143
		Martin Purpura and Robert E. McAdams, Trustees	SWN Production Company, LLC		895/512

Exhibit "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC, Operator

Benjamin Honecker OHI 10H Ohio County, West Virginia

TAX ID	LESSOR	LESSEE	ROYALTY	BK/PG
8 03-L7-11	James A. Parsons and Carol L. Parsons,	NPAR, LLC	18%	815/466
		Chevron U.S.A. Inc.		827/269
		Chesapeake Appalachia, L.L.C.		858/359
		SWN Production Company, LLC		883/623
9 03-L7-45	Alliance Resource GP, LLC	SWN Production Company, LLC	18%	927/384
	03-L7-11	03-L7-11 James A. Parsons and Carol L. Parsons, individually and as husband and wife	03-L7-11 James A. Parsons and Carol L. Parsons, individually and as husband and wife Chevron U.S.A. Inc. Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	03-L7-11 James A. Parsons and Carol L. Parsons, NPAR, LLC 18% individually and as husband and wife Chevron U.S.A. Inc. Chesapeake Appalachia, L.L.C. SWN Production Company, LLC





47-069-00244

SWN Production Company, LLC P O Box 12359 Spring, Texas 77391-2359 www.swn.com

April 19, 2018

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

RE: SWN's proposed New Well: Benjamin Honecker OHI 10H in Ohio County, West Virginia, Drilling under Apple Pie Ridge Road, Weidman Run Road, and G.C. & P. Road.

Dear Ms. Adkins:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under Apple Pie Ridge Road, Weidman Run Road, and G.C. & P. Road. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Sincerely,

Bradley Wilson

Landman

SWN Production Company, LLC

PO Box 12359

Spring, TX 77391-2359

10000 Energy Drive Spring, TX 77389-4954 $\frac{R^2}{A}$ \sim $V^{+\circ}$

The Right People doing the Right Things, wisely Investing the cash flow from our underlying Assets, will create Value+9

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APR 25 2018

Environmen Con 2012018



SWN Production Company, LLC

179 Innovation Drive Jane Lew, WV 26378 Tel: 304 884 1610 Fax: 304 471 2497 www.swn.com

47-069-00244

April 24, 2018

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

RE: Modification: Benjamin Honecker OHI 10H

Dear Ms. Adkins

Enclosed please find the updated 6B, plat, casing, and leases for the above captioned well. We are extending the lateral. These wells are situated on the Honecker's property, in Ohio County, West Virginia.

If you have any questions or desire additional information, please me at 304-884-1614.

Thank you.

Sincerely,

Dee Southall

Senior Regulatory Analyst

Southwestern Energy Production Company, LLC

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APR 2 5 2018

WV Department of Environmental Protection

