



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

Earl Ray Tomblin , Governor
Randy C. Huffman , Cabinet Secretary
www.dep.wv.gov

Wednesday, November 16, 2016
WELL WORK PERMIT
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit approval for GLADYS BRIGGS MSH 210H
47-051-01885-00-00

This well work permit 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 any additional specific 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 permitted well work, 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 35 CSR 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- 0450.


James A. Martin
Chief

Operator's Well Number: GLADYS BRIGGS MSH 210H
Farm Name: RIGGS, GLADYS R.
U.S. WELL NUMBER: 47-051-01885-00-00
Horizontal 6A / New Drill
Date Issued: 11/16/2016

Promoting a healthy environment.

11/18/2016

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
9. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

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 51-Marshall Liberty Cameron
Operator ID County District Quadrangle

2) Operator's Well Number: Gladys Briggs MSH 210H Well Pad Name: Gladys Briggs MSH Pad

3) Farm Name/Surface Owner: Gladys R. Briggs Public Road Access: Fish Creek Road

4) Elevation, current ground: 1382' Elevation, proposed post-construction: 1382'

5) Well Type (a) Gas Oil Underground Storage

Other _____

(b) If Gas Shallow Deep _____

Horizontal

6) Existing Pad: Yes or No yes

Handwritten signature and date: 10/28/15

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Target Formation- Marcellus, Target Top TVD-7133', Target Base TVD-7118', Anticipated Thickness-35', Associated Pressure-4250

8) Proposed Total Vertical Depth: 7150' - 7168'?

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14,604'

11) Proposed Horizontal Leg Length: ~~400.83'~~ 41009' ^{6v}

12) Approximate Fresh Water Strata Depths: 732'

13) Method to Determine Fresh Water Depths: from log analysis and nearby water wells

14) Approximate Saltwater Depths: 1741'

15) Approximate Coal Seam Depths: 1099'

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

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: McElroy
Depth: 1099'
Seam: Pittsburgh
Owner: Consol Energy

Handwritten signature and date: 11/18/2016
OCT 12 2016
Page 1 of 3
11/18/2016

SI-01885

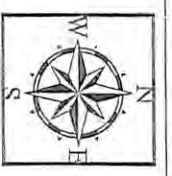
Legend

Model: MineCAD20111003

0 245 490 980 1,470 1,960 Feet

Gladys Briggs MSH

11/18/2016




Coal / Marcellus South

Gladys Briggs Pod

1	Coal
2	Marcellus
3	Other
4	Water
5	Other
6	Other
7	Other
8	Other
9	Other
10	Other
11	Other
12	Other
13	Other
14	Other
15	Other
16	Other
17	Other
18	Other
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21	Other
22	Other
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37	Other
38	Other
39	Other
40	Other
41	Other
42	Other
43	Other
44	Other
45	Other
46	Other
47	Other
48	Other
49	Other
50	Other

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	J-55	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	J-55	54.5#	793'	793'	716 sx/CTS
Coal	9 5/8"	New	J-55	40#	2640'	2640'	986 sx/CTS
Intermediate	7"	New	P-110	20#	If Needed	If Needed	If Needed/As Needed
Production	5 1/2"	New	P-110	20#	14,604'	14,604'	Lead 1053sx 1611 tall sz/100' inside 
Tubing	2 3/8"	New	P-110	4.7#	Approx. 7150'	Approx. 7150'	
Liners							

Handwritten: 10/28/15

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Max. Associated Surface Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	0.020	Class A	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	0.020	Class A	1.19/50% Excess
Coal	9 5/8"	12 1/4"	0.395	3950	0.020	Class A	1.19/50% Excess
Intermediate	7"	8 3/4"	0.317	4360	0.020	Class A	1.20/15% Excess
Production	5 1/2"	8 3/4"	0.361	12360	0.020	Class A	1.20/15% Excess
Tubing	2 3/8"	4.778"	0.190				
Liners							

PACKERS

Kind:	10K Arrowset AS1-X			
Sizes:	5 1/2"			
Depths Set:				

Stamp: RECEIVED

Stamp: OCT 19 2016

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:

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 units, 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): 8.4

22) Area to be disturbed for well pad only, less access road (acres): 4.9

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:

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.

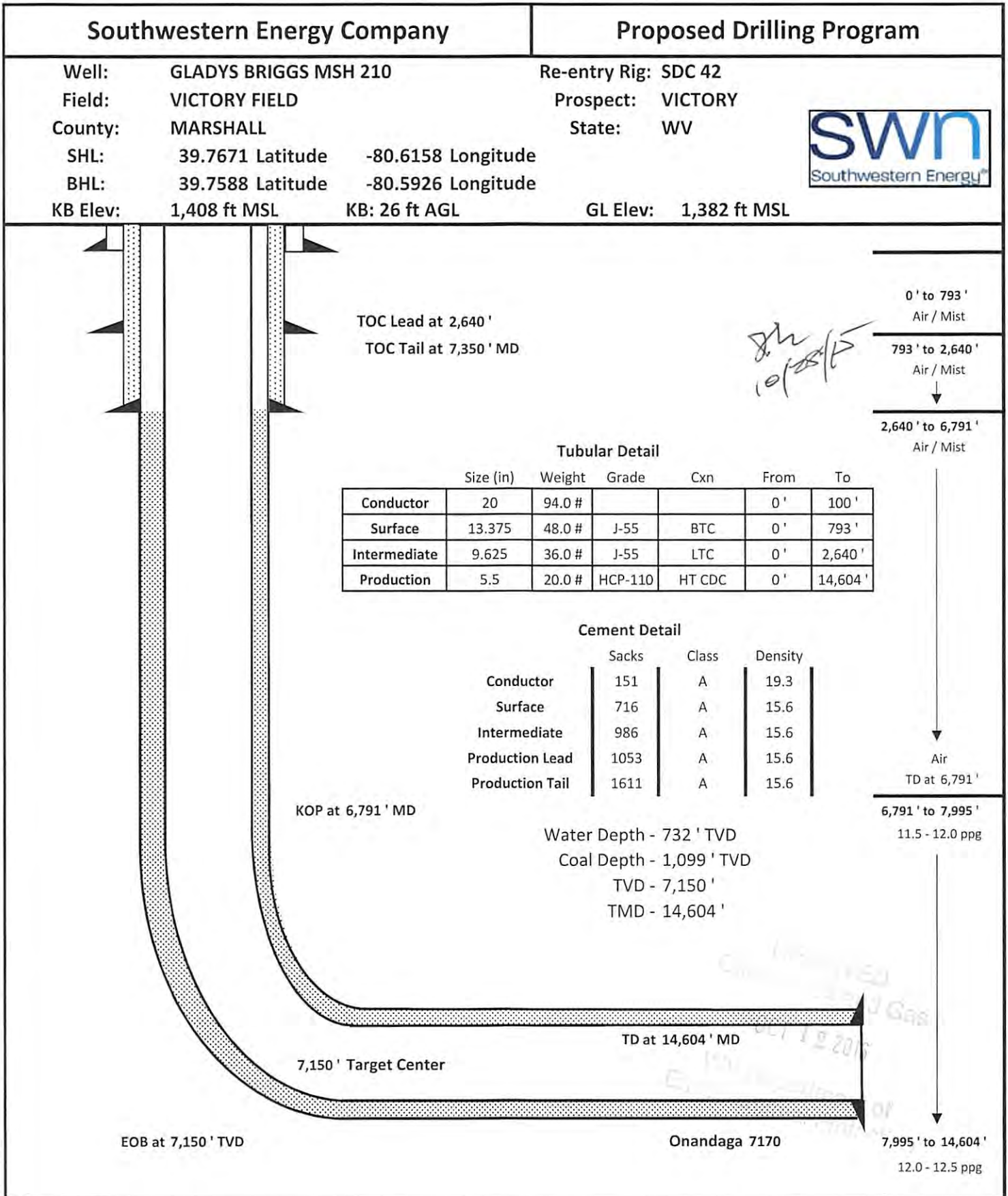
*Note: Attach additional sheets as needed.

Schlumberger Cement Additives

	Product Name	Product Use	Chemical Name	CAS Number
Surface	S001	accelerator	calcium chloride	10043-52-4
	S001	accelerator	calcium chloride	10043-52-4
Kick Off Plug	D080	dispersant	sodium polynaphthalene sulfonate	9008-63-3
	D801	retarder	aromatic polymer derivative	proprietary
	D047	antifoam	polypropylene glycol	25322-69-4
Production-Lead	D167	fluid loss	aliphatic amide polymer	proprietary
	D154	extender	non-crystalline silica	7631-86-9
	D400	gas migration	boric acid	10043-35-3
	D046	antifoam	polypropylene glycol	25322-69-4
			fullers earth (attapulgate)	8031-18-3
	D201	retarder	chrySTALLine silica	14808-60-7
			metal oxide	proprietary
	D202	dispersant	sulphonated synthetic polymer	proprietary
formaldehyde (impurity)			proprietary	
Production-Tail	D046	antifoam	polypropylene glycol	25322-69-4
			fullers earth (attapulgate)	8031-18-3
	D167	fluid loss	aliphatic amide polymer	proprietary
	D065	dispersant	sodium polynaphthalene sulfonate	9008-63-3
			sodium sulfate	7757-82-6
	D201	retarder	chrySTALLine silica	14808-60-7
			metal oxide	proprietary
D153	anti-settling	chrySTALLine silica	14808-60-7	

OCT 13 2016
 Schlumberger
 Cement Additives

SI-01885



11/18/2016

Producing Zones Not Perforated																																								

WW-9
(9/13)

API Number 47 - 89 - 01885
Operator's Well No. Gladys Briggs MSH 210H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Co., LLC OP Code 494512924

Watershed (HUC 10) Fish Creek of Upper Ohio River 2 Quadrangle Cameron

Elevation 1382' County Marshall District Liberty

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: closed loop system in place at this time- cuttings will be taken to a permitted landfill.

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 2D0072539/ 2D0413175/ 2D0610306/ 2D0610317)
- Reuse (at API Number at next anticipated well, API# will be included with the WR-34/DDMR &/or permit addendum.)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain flow back fluids will be put in steel tanks and reused or taken to a permitted disposal facility.

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air and salt saturate mud

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base

Additives to be used in drilling medium? see attached sheets

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

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

-Landfill or offsite name/permit number? meadow SWF- 1032, SS Grading SWF- 4902, Northwestern SWF- 1025, Short Creek 1034/WW0109517/CID28726, Carbon Limestone 28726/CID28726 Arden Landfill 10072, American 02-12954, Country wide 38390/CID38390, Pine Grove 13688

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 Supervisor

Subscribed and sworn before me this 27th day of October, 2015

Brittany R Woody
My commission expires 11/27/22



51-01885

Form WW-9

Operator's Well No. Gladys Briggs MSH 210H

SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 8.4 Prevegetation pH _____

Lime as determined by pH test min. 2 _____ Tons/acre or to correct to pH 4.9

Fertilizer type 10-20-20

Fertilizer amount 600 lbs/acre

Mulch Hay/Straw 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
White Grove	15	White Grove	15
Red Top	15	Red Top	15
Orchard Grass	20	Orchard Grass	20

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: *James K. Tolson*
Comments: _____

Title: Oil and Gas Inspector

Date: 10/28/15

Field Reviewed? Yes No

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Oil and Gas
OCT 12 2015
WV Department of Environmental Protection

SI-01 8CS

**Marcellus Well Drilling Procedures
And Site Safety Plan**

SWN Production Co., LLC

47 - 051 -

Well name: Gladys Briggs MSH 210H
Cameron, Quad
Liberty, District
Marshall County, West Virginia

Submitted by:

10/20/2015

Danielle Southall

Date:

Title Regulatory Supervisor

SWN Production Co., LLC

Approved by:

Date:

10/28/15

Title: Oil & Gas Inspector

Approved by:

Date:

Title:

SWN Production Co., LLC – Confidential

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West Virginia Department of
Energy, Oil and Gas
OCT 12 2016
West Virginia Department of
Environmental Protection

11/18/2016

**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 –

- (1) 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 Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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See "Exhibit" A

**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: Brandi Williams

Its: Staff Landman

RECEIVED
Office of Oil and Gas
OCT 18 2016
Environmental Department

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
1	7-16-02	James Rodney Briggs	121.4290	1-254788-000	David Bonar, single; Harrison J. Briggs and Gladys R. Briggs, his wife	The Manufacturers Light and Heat Company	12.50%	309/354
		Roger Jacob Briggs			The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204
		John Dean Briggs			Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
2	7-16-3	James Rodney Briggs	10.0000	1-254966-000	W. H. Loper and Bertie Loper	T.L. Davis	12.50%	146/489
		Roger Jacob Briggs			T.L. Davis	W.H. Young		146/493
		John Dean Briggs			W.H. Young	J.E. Davis		146/494
					J.E. Davis	J.W. Miller		146/495
					J.E. Davis and Hettie M. Davis, his wife	Jefferson Oil Company		147/254
					J.W. Miller and Jeannette K. Miller, his wife	Jefferson Oil Company		147/255
					Jefferson Oil Company	Carnegie Natural Gas Company		177/74
					Carnegie Natural Gas Company	The Manufacturers Light and Heat Company		3/93
					The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204
					Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
	Chesapeake Appalachia, LLC	SWN Production Company, LLC	33/110					
3	7-16-4	John Dean Briggs and Patty Kay Briggs (h/w/JT)	81.2500	1-254966-000	W.H. Loper and Bertie Loper, his wife	T.L. Davis	12.50%	146/489
					T.L. Davis	W.H. Young		146/493
					W.H. Young	J.E. Davis		146/494
					J.E. Davis	J.W. Miller		146/494
					J.E. Davis and Hettie M. Davis, his wife	Jefferson Oil Company		147/254
					J.W. Miller and Jeannette K. Miller, his wife	Jefferson Oil Company		147/255
					Jefferson Oil Company	Carnegie Natural Gas Company		177/74
					Carnegie Natural Gas Company	The Manufacturers Light and Heat Company		3/93
					The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204
					Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
	Chesapeake Appalachia, LLC	SWN Production Company, LLC	33/110					

DOT 7-9-2011

51-01885

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
4	7-16-29	Thelma Yeater, Life Estate Remaindermen: John Lee Yeater Susan Jane Yeater Joseph Edward Yeater	40.4140	1-254725-000	James M. Rine and Mary B. Rine, his wife, and Frank Hopkins and Austia M. Hopkins, his wife	E.C. Beardsley	12.50%	137/429
					E.C. Beardsley	The Wheeling Natural Gas Company		150/49
					The Wheeling Natural Gas Company	The Manufacturers Light and Heat Company		148/389
					The Manufacturers Light and Heat Company	Union Gasoline & Oil Corporation		197/120
					Union Gasoline & Oil Corporation	The Preston Oil Company		2/136
					The Preston Oil Company	The Manufacturers Light and Heat Company		2/225
					The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204
					Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
5	7-16-29.1	Richard M. Yeater and Debra S. Yeater (h/w, JT)	18.3890	1-254725-000	James M. Rine and Mary B. Rine, his wife, and Frank Hopkins and Austia M. Hopkins, his wife	E.C. Beardsley	12.50%	137/429
					E.C. Beardsley	The Wheeling Natural Gas Company		150/49
					The Wheeling Natural Gas Company	The Manufacturers Light and Heat Company		148/389
					The Manufacturers Light and Heat Company	Union Gasoline & Oil Corporation		197/120
					Union Gasoline & Oil Corporation	The Preston Oil Company		2/136
					The Preston Oil Company	The Manufacturers Light and Heat Company		2/225
					The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204
					Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
6	7-16-24	George R. Cumpston and Nancy K. Cumpston (h/w, JT)	115.7190	1-237974-001	William R. Woodruff and Wanda M. Woodruff, his wife	Chesapeake Appalachia, LLC	12.50%	659/279
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-005	Connie J. Brown, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	12.50%	659/540
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

OCT 12 2016

51-01855

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
				1-237974-007	Theo Sue Mager, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	12.50%	659/588
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-008	Richard K. Cumpston, a/k/a Richard Cumpston, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	660/162
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-009	Terry Cumpston, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	660/165
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-006	Norma L. Williams, a single woman	Chesapeake Appalachia, LLC	12.50%	660/342
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-010	O.E. Burge and Sarah Burge, a/k/a Sarah L. Burge, his wife	Chesapeake Appalachia, LLC	12.50%	660/345
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-011	Olive M. Martin, a married woman dealing in her sole and separate proeprty, and Barry A. Martin, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	660/589
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-013	Linda Suzette Sills and Michael J. Sills, her husband	Chesapeake Appalachia, LLC	12.50%	662/52
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-012	Elmer D. Parks, a/k/a Elmer David Parks, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	662/448
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-015	Johnnie K. Crawford, f/k/a Johnnie K. Woodruff, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	12.50%	664/81
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-016	Glen Kermit Wendt and Marilyn Virginia Wendt, his wife	Chesapeake Appalachia, LLC	12.50%	664/90
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

07/11/2015

S1-01855

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
				WV0000039-001	Mountain Minerals, LLC	Chesapeake Appalachia, LLC	12.50%	679/433
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-030	Jeanne Guzek, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	12.50%	686/149
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-034	Anne C. Gleine, a/k/a Anne Campbell Gleine, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	715/530
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
				1-237974-032	Nancy K. Cumpston, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	18.00%	716/434
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-033	George R. Cumpston, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	18.00%	716/438
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-036	Loy K. Chaplin, a widower	Chesapeake Appalachia, LLC	17.00%	734/546
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-035	Almeda C. Leichter, a widow	Chesapeake Appalachia, LLC	17.00%	734/551
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-037	Edith Postlethwaite, a widow	Chesapeake Appalachia, LLC	17.00%	735/482
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-048	Archie J. Chaplin, a single man	Chesapeake Appalachia, LLC	17.00%	739/505
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-047	Violet Rose Menas, a/k/a Rose Menas, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	739/646
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-041	Ralph Chaplin, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	740/512
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-040	Martha J. Segó, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	740/517
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

9/27/2015

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Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
				1-237974-039	Floyd D. Chaplin, a/k/a Floyd Chaplin and Betsy A. Chaplin, his wife	Chesapeake Appalachia, LLC	17.00%	740/522
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-046	Terry L. Riter, a/k/a Terry Riter, a single man	Chesapeake Appalachia, LLC	17.00%	740/537
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-045	Marlene M. DeMarco, a widow	Chesapeake Appalachia, LLC	17.00%	740/542
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-042	Merl Chaplin, a/k/a Merl L. Chaplin, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	740/572
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-043	Phyllis E. Bogzevitz, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	740/577
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-044	Alberta E. Cheon, a widow	Chesapeake Appalachia, LLC	17.00%	740/582
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-038	Barbara K. O'Brien, a/k/a Barbara K. O'Brian, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	740/609
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-049	Harry Riter, Jr., a single man	Chesapeake Appalachia, LLC	17.00%	741/358
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-050	Estate of JoClare H. Holmes, a/k/a JoClare Howard Holmes, a/k/a Jo Clare Holmes, by Gerald P. Holmes, acting as Executor, and JoClare H. Holmes Trust, dated July 15, 1997, by Gerald P. Holmes and Carol S. Holmes, acting as Trustees, and Gerald P. Holmes, a widower	Chesapeake Appalachia, LLC	17.00%	747/199
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-237974-052	F. James Chaplin, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	757/199
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				47-0000256-001	Maria Bell, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	18.00%	808/146
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

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Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
				47-0000265-001	Frederick Komorowski, a/k/a Fredrick Komorowski, Jr., a/k/a Fredrick Komorowski and Evelyn Komorowski, his wife	Chesapeake Appalachia, LLC	18.00%	819/481
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				47-0000992-001	Susan Gall Smith and Nelson R. Smith, Wife and Husband	Chesapeake Appalachia, LLC		846/155
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
				Pending	James Chaplin a/k/a James R. Chaplin, a single man acting in his sole and separate property	Fossil Creek Ohio, LLC	18.00%	838/531
				Agreement	Fossil Creek Ohio, LLC	SWN Production Company, LLC		901/77
				Sublease	Columbia Gas Transmission, LLC	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				Pending	Guy Buzzard	SWN Production Company, LLC	15.00%	895/373
7	7-16-27	George R. Cumpston	20.0000	47-0000005-000	Tierra Oil Company, a/k/a Tierra Oil Company, L.L.C.	Chesapeake Appalachia, LLC	17.00%	795/22
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
8	7-16-26.1	John M. Butler	19.5600	1-348015-001	John A. Grow, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	18.00%	740/65
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-002	Judith Collins, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	741/275
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-003	Joseph R. Jones, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	742/92
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-004	Jerry Crane Jones, a single man	Chesapeake Appalachia, LLC	17.00%	742/205
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-005	Bette N. Houck, a widow	Chesapeake Appalachia, LLC	17.00%	742/344
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-006	Deborah Kay Kincaid, a/k/a Deborah Kincaid, a single woman	Chesapeake Appalachia, LLC	17.00%	745/256
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

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Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
				1-348015-007	Daniel W. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	745/274
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-008	John A. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	746/85
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-010	Lawrence A. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	746/91
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-009	Gregory T. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	747/298
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-011	David S. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	747/370
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-013	Chestnut Holdings, Inc.	Chesapeake Appalachia, LLC	17.00%	758/399
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-014	Pam Dennis, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	760/98
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				47-0000882-001	Cathy Yontz and William A. Yontz, Wife and Husband	Chesapeake Appalachia, LLC	12.50%	840/264
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				Pending	Kathy Ann Larsen, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	880/174
				Pending	Barbara Wilkins	SWN Production Company, LLC	15.00%	894/630
				Pending	Alice Jennings	SWN Production Company, LLC	15.00%	894/597
				Memo Attached	Sherri Balch	SWN Production Company, LLC	15.00%	Pending
				Memo Attached	Frankie Balch	SWN Production Company, LLC	15.00%	Pending
				Memo Attached	Judith Cettell	SWN Production Company, LLC	18.00%	Pending
				Memo Attached	Lynda Hapner	SWN Production Company, LLC	18.00%	Pending
				Memo Attached	Nancye Bechard	SWN Production Company, LLC	18.00%	Pending
				Pending	Richard Denham, Jr.	SWN Production Company, LLC	15.00%	894/632
				Memo Attached	Sara Burns	SWN Production Company, LLC	18.00%	Pending

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Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
9	7-16-26	David T. Butler, Life Estate <u>Remaindermen:</u> John Butler Benjamin Butler	26.3400	1-348015-001	John A. Grow, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	18.00%	740/65
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-002	Judith Collins, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	741/275
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-003	Joseph R. Jones, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	742/92
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-004	Jerry Crane Jones, a single man	Chesapeake Appalachia, LLC	17.00%	742/205
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-005	Bette N. Houck, a widow	Chesapeake Appalachia, LLC	17.00%	742/344
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-006	Deborah Kay Kincaid, a/k/a Deborah Kincaid, a single woman	Chesapeake Appalachia, LLC	17.00%	745/256
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-007	Daniel W. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	745/274
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-008	John A. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	746/85
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-010	Lawrence A. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	746/91
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-009	Gregory T. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	747/298
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-011	David S. Dever, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	747/370
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-013	Chestnut Holdings, Inc.	Chesapeake Appalachia, LLC	17.00%	758/399

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Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348015-014	Pam Dennis, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	760/98
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				47-0000882-001	Cathy Yontz and William A. Yontz, Wife and Husband	Chesapeake Appalachia, LLC	12.50%	840/264
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				Pending	Kathy Ann Larsen, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	Pending
				Pending	Barbara Wilkins	SWN Production Company, LLC	15.00%	894/630
				Pending	Alice Jennings	SWN Production Company, LLC	15.00%	894/597
				Memo Attached	Sherri Balch	SWN Production Company, LLC	15.00%	Pending
				Memo Attached	Frankie Balch	SWN Production Company, LLC	15.00%	Pending
				Memo Attached	Judith Cettell	SWN Production Company, LLC	18.00%	Pending
				Memo Attached	Lynda Hapner	SWN Production Company, LLC	18.00%	Pending
				Memo Attached	Nancye Bechard	SWN Production Company, LLC	18.00%	Pending
				Pending	Richard Denham, Jr	SWN Production Company, LLC	15.00%	894/632
				Memo Attached	Sara Burns	SWN Production Company, LLC	18.00%	Pending
10	7-16-39	John Matthew Butler	43.5600	1-269641-001	Martha Jane Chambers, widow	Chesapeake Appalachia, LLC	12.50%	679/270
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-269641-003	June Marie Rush, widow	Chesapeake Appalachia, LLC	12.50%	679/279
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-269641-004	Lisa Warren, single, f/k/a Lisa Chambers	Chesapeake Appalachia, LLC	12.50%	679/283
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-269641-006	Kathryn A. Kinsey, widow	Chesapeake Appalachia, LLC	12.50%	679/288
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-269641-005	Robert C. Richardson, widower	Chesapeake Appalachia, LLC	12.50%	679/292
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-269641-009	Delora H. Gehrdes and James Gehrdes, her husband	Chesapeake Appalachia, LLC	12.50%	680/106
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-269641-008	Stephen W. Burge, married dealing in his sole right	Chesapeake Appalachia, LLC	14.00%	680/272
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

OCT 15 2015

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Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
				1-269641-007	Kenneth Lloyd Hostetler, widower	Chesapeake Appalachia, LLC	12.50%	680/301
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-269641-013	National City Bank of Pennsylvania, successor to First National Bank and Trust Company of Waynesburg, Pennsylvania, Testamentary Trustee	Chesapeake Appalachia, LLC	12.50%	686/189
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				Memo Attached	Claudia L. Raven, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	Pending
				Memo Attached	Carol J. Spence, widow	SWN Production Company, LLC	15.00%	Pending
				Memo Attached	Gail Richardson Barner, married dealing in her sole and separate property	SWN Production Company, LLC	15.00%	Pending
11	07-16-01	Vincent E. Lemasters	4.0000	1-254725-000	James M. Rine and Mary B. Rine, his wife, and Frank Hopkins and Austia M. Hopkins, his wife	E.C. Beardsley	12.50%	137/429
					E.C. Beardsley	The Wheeling Natural Gas Company		150/49
					The Wheeling Natural Gas Company	The Manufacturers Light and Heat Company		148/389
					The Manufacturers Light and Heat Company	Union Gasoline & Oil Corporation		197/120
					Union Gasoline & Oil Corporation	The Preston Oil Company		2/136
					The Preston Oil Company	The Manufacturers Light and Heat Company		2/225
					The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204
					Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
12	07-16-02.1	Jack Briggs	1.0170	1-254788-000	David Bonar, Single; Harrison J. Briggs and Gladys R. Briggs, his wife	The Manufacturers Light and Heat Company	12.50%	309/354
					The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204
					Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
13	07-16-02.2	John D. Briggs and Patty K. Briggs (h/w, JT)	1.0340	1-254788-000	David Bonar, Single; Harrison J. Briggs and Gladys R. Briggs, his wife	The Manufacturers Light and Heat Company	12.50%	309/354
					The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204
					Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281

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Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

OCT 28 2016
 OCT 28 2016

SHL ← 9,118' BHL ← 2,604'

JACKSON SURVEYING INC.

P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

Latitude: 39°47'30" N

NOTES ON SURVEY

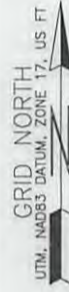
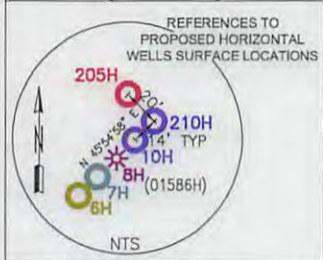
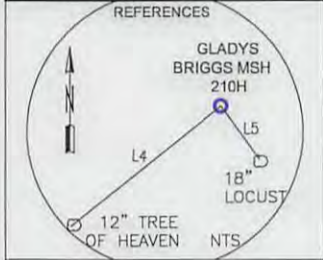
- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
- ALL WELLS WITHIN 500' OF THE HORIZONTAL LEG ARE SHOWN ON THIS PLAT BASED UPON INFORMATION TAKEN FROM DEP MAPPING AND AERIAL PHOTOS

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS & JOHN DEAN BRIGGS (S)	7-16-02	121.43
2	JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS & JOHN DEAN BRIGGS (S)	7-16-3	10.00
3	JOHN DEAN BRIGGS & PATTY KAY BRIGGS (S)	7-16-4	81.25
4	THELMA YEATER (LIFE) REMAINDERMEN: JOHN LEE YEATER, SUSAN JANE YEATER & JOSEPH EDWARD YEATER (S)	7-16-29	40.41
5	RICHARD M. YEATER & DEBRA S. YEATER (S)	7-16-29.1	18.39
6	GEORGE R. CUMPSTON & NANCY K. CUMPSTON (S)	7-16-24	115.72
7	GEORGE R. CUMPSTON (S)	7-16-27	20.00
8	JOHN M. BUTLER (S)	7-16-26.1	19.56
9	DAVID T. BUTLER (LIFE) REMAINDERMEN: JOHN BUTLER & BENJAMIN BUTLER (S)	7-16-26	26.34
10	JOHN MATTHEW BUTLER (S)	7-16-39	43.58
11	VINCENT E. LEMASTERS (S)	07-16-01	4.00
12	JACK BRIGGS (S)	07-16-02.1	1.02
13	JOHN D. BRIGGS & PATTY K. BRIGGS (S)	07-16-02.2	1.03

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,401,982.369
EASTING: 532,908.000

LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,402,361.136
EASTING: 533,355.176

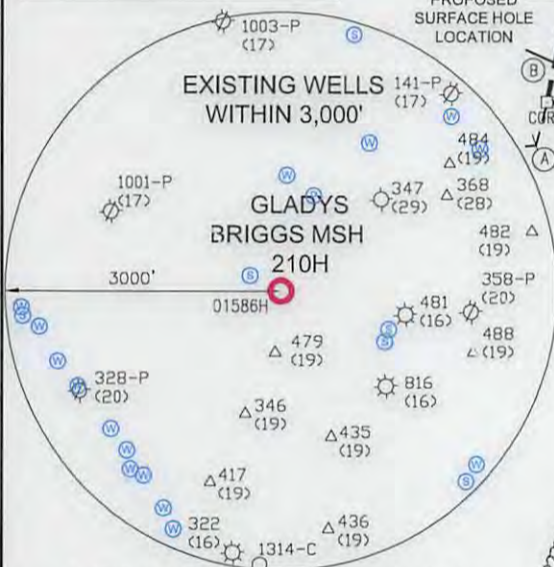
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,401,065.230
EASTING: 534,897.546



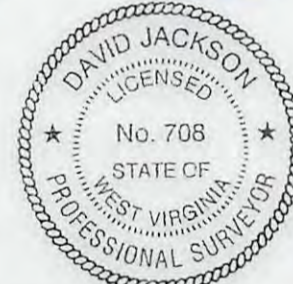
LINE	BEARING	DISTANCE	DESCRIPTION
L1	S 63°08'29" W	789.92'	SHL TO CNR FP
L2	N 25°21'38" E	1,668.60'	SHL TO ROOFBOLT
L3	N 49°44'05" E	1,922.66'	SHL TO LPL
L4	S 51°05'23" W	536.31'	SHL TO 12" TREE OF HEAVEN
L5	S 31°12'43" E	180.94'	SHL TO 18" LOCUST
L6	N 63°43'03" W	376.59'	SHL TO WATER RESERVOIR (SPRING)

LEGEND

- WATERWELL (W)
- SPRING (S)
- STREAM (ST)
- SURFACE OWNER (S)
- DIVISION LINES BETWEEN LEASE TRACTS (---)
- ADJOINERS LINES (---)



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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



P.S. 708 *David L Jackson*

COMPANY: **SWN** Production Company, LLC

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

MINIMUM DEGREE OF ACCURACY: 1/200

PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)

GLADYS BRIGGS MSH

OPERATOR'S WELL #: 210H

API WELL #: 47 051 01885

STATE COUNTY PERMIT

WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS LIQUID INJECTION STORAGE SHALLOW

WATERSHED: FISH CREEK OF UPPER OHIO RIVER 2 ELEVATION: 1,382.2'

DISTRICT: LIBERTY COUNTY: MARSHALL QUADRANGLE: CAMERON 7 1/2'

SURFACE OWNER: JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS & JOHN DEAN BRIGGS ACREAGE: 121.43

OIL & GAS ROYALTY OWNER: DAVID BONAR; HARRISON J. BRIGGS & GLADYS R. BRIGGS ACREAGE: 121.43

DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,150' TVD 14,601' TD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: DEE SOUTHALL

ADDRESS: P.O. BOX 1300 ADDRESS: P.O. BOX 1300

CITY: JANE LEW STATE: WV ZIP CODE: 26378 CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND: PROPOSED SURFACE HOLE / BOTTOM HOLE EXISTING / PRODUCING WELLHEAD ABANDONED WELL PLUGGED & ABANDONED WELL CUT CONDUCTOR

--- LEASE BOUNDARY

--- MARCELLUS DHP

--- ABANDONED PATH

REVISIONS: REVISED OWNERSHIP & DHP 08-31-2016 REVISED OWNERSHIP 09-02-2016

DATE: 10-30-2015

DRAWN BY: N. MANO

SCALE: 1" = 2000'

DRAWING NO:

WELL LOCATION PLAT

JACKSON SURVEYING
 INC.
 P.O. Box 1460
 677 W. Main St.
 Clarksburg, WV 26302
 304-623-5851

ADJOINING OWNERS

TRACT	ADJOINING SURFACE OWNER (S)	TAX PARCEL	ACRES
A	MASON DIXON FARMS LLC (S)	07-17-19	22.80
B	D. GREIG PAETZOLD ET UX (S)	07-10-08	50.77
C	DONALD G. BUZZARD ET EX (S)	07-10-07	164.13
D	PRESTON A. YEATER & HEATHER L. YEATER (S)	07-16-29.4	17.91
E	PRESTON A. YEATER & HEATHER L. YEATER (S)	07-16-29.2	4.92
F	MARILYN V. CLARK (S)	07-10-11	25.00
G	JAMES M. CLARK (S)	07-10-09	15.00
H	VINCENT E. LEMASTERS (S)	07-10-24	44.08
I	WILLIAM A. YEATER & STEPHANIE F. YEATER (S)	07-16-29.3	41.50
J	RUSSELL ALLEN DOTSON JR. & JODI D. DOTSON (S)	07-16-28	69.12
K	JOHN E. RIGGS & DALENA L. RIGGS (S)	07-16-33.1	12.00
L	DONALD REX QUIGLEY ET UX (S)	07-16-33	71.50
M	DAVID L. ELSON ET UX (S)	07-16-34	25.00
N	LAWRENCE WESLEY QUIGLEY ET UX (S)	07-16-36	146.78
O	LOUIS S. MCCLELLAND EST. (S)	07-16-37	13.74
P	JOHN E. RIGGS JR. ET UX (S)	07-16-38	3.25
Q	JOHN E. RIGGS JR. (S)	07-16-41	10.00
R	JUDITH A. BURGE & VIRGINIA L. BAILEY ET AL (S)	07-16-40	10.52
S	ROBERT THOMAS BARR (LIFE) (S)	07-16-25.1	75.79
T	DANNY ZIEGLER & MARK ROBERTS (S)	07-16-25.2	1.72
U	BEN F. ALLMAN (S)	07-16-25	0.72
V	GAIL CUMPTSON (S)	07-16-20	14.73
W	JAMES F. & JAMIE ANN DRUSCHEL ET AL (S)	07-19-23	4.43
X	CHARLES E. HORNER ET UX (LIFE) (S)	07-19-26	28.34
Y	CHARLES E. HORNER ET UX (LIFE) (S)	07-19-18	26.77
Z	CHARLES E. HORNER ET UX (LIFE) (S)	07-16-22	26.67
AA	CHARLES E. HORNER ET UX (LIFE) (S)	07-16-23	7.06
BB	MASON DIXON FARMS LLC (S)	07-16-06	69.72
CC	WILLIAM ZERVOS JR. (S)	07-16-21	3.00
DD	MICHAEL J. HORNER & ANNA M. HORNER (S)	07-16-23.1	24.99
EE	CHARLES C. COOK ET UX (S)	07-16-09	11.21
FF	COLUMBIA GAS TRANSMISSION CORP. (S)	07-19-10	55.15
GG	JACK J. BRIGGS (S)	07-16-05	37.88

REVISIONS:

- ▲ REVISED OWNERSHIP & DHP 08-31-2016
- ▲ REVISED OWNERSHIP 09-02-2016

COMPANY:

SWN
 Production Company, LLC

SWN *R⁺ V⁺ A⁺* **11/18/2016**
 Production Company™

OPERATOR'S GLADYS BRIGGS MSH

WELL #: 210H

LOCATION: LIBERTY DISTRICT,
 MARSHALL COUNTY, WEST VIRGINIA

DATE: 10-30-2015

DRAWN BY: N. MANO

SCALE: N/A

DRAWING NO:

ADJOINING OWNERS

MEMORANDUM OF OIL AND GAS LEASE

1/18/15

This Memorandum of Oil and Gas Lease made this 17th day of December 2015 by and between **Sherri Balch, single, dealing in her sole and separate property, of 1028 Emerson St., Denver, CO 80218** hereinafter collectively called "Lessor," and **SWN Production Company, L.L.C.**, a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated December 17, 2015, and made effective December 17, 2015, which provides for a **Five (5)** year primary term and an option to renew for an additional **Five (5)** year term covering Lessor's interest in the following described lands:

Tax Map No: 7-16-26 / 7-16-26.1, 7-16-25 / 7-16-25.2 (48.33 total acres 0.07866 net mineral acres)

bounded formerly or currently as follows:

- On the North by lands of: Butler/Dotson/Ziegler
- On the East by lands of: Butler/Riggs
- On the South by lands of: Butler/Allman
- On the West by lands of: Cumpston/Ziegler/Allman

Containing 48.33 Leasehold acres, 0.07866 net mineral acres and located in the Township/District of **Liberty, Marshall** County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of The Estate of Grafton Jones Est. No. 485624 dated 7/30/64 and probated 9/24/65 in Los Angeles Co., CA Book , Page . This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:

LESSOR:



SHERRI BALCH

WITNESS:

SWN Production Company, L.L.C.
A Texas limited liability company

Stephen M. Guidry
Vice President - Land

ACKNOWLEDGMENT

(Lessor)

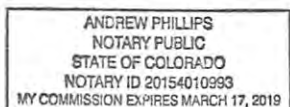
STATE OF Colorado)

) SS:

COUNTY OF Arapahoe)

On this the 17, day of December 2015, before me, a notary public, the undersigned authority, personally appeared Sherrri Balch known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



(S E A L)

My Commission Expires: March 17, 2019

Signature/Notary Public: [Signature]

Name/Notary Public (print): Andrew Phillips

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)

) SS:

COUNTY OF HARRIS)

On this the _____ day of _____, 2015, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____

Signature/Notary Public: _____

Name/Notary Public (print): _____

(S E A L)

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.

Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389.

MEMORANDUM OF OIL AND GAS LEASE

ms-wv

This Memorandum of Oil and Gas Lease made this 24 day of April, 2015 by and between Kathy Ann Larsen, a married woman, dealing in her sole and separate property of 27392 Via Fineza, Mission Viejo, CA 92691, hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated April 24, 2015, and made effective April 24, 2015, which provides for a Five (5) year primary term and an option to renew for an additional Five (5) year term covering Lessor's interest in the following described lands:

SEE EXHIBITS "A" & "B" ATTACHED HERETO AND MADE A PART HEREOF

bounded formerly or currently as follows:

- On the North by lands of:
- On the East by lands of:
- On the South by lands of:
- On the West by lands of:

Containing 45.9 acres and located in the Township/District of Liberty, Marshall County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of AFFIDAVIT dated 05/02/2015 and recorded in said County and State in Marshall, WV Book 26, Page 96. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:

LESSOR:

Kathy Ann Larsen
Kathy Ann Larsen

WITNESS:

SWN Production Company, L.L.C.
A Texas limited liability company

Stephen M. Guidry
Stephen M. Guidry
Vice President - Land

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the ___ day of _____, 2015, by and between Kathy Ann Larsen, a married woman, dealing in her sole and separate property of 27392 Via Fineza, Mission Viejo, CA 92691, as Lessor(s) and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: David R. Butler
On the East by lands of: John Matthew Butler
On the South by lands of: John Matthew Butler
On the West by lands of: George R. Cumpston, Ben F. Allan, etux,
Danny Zeigler, etal.

Said lands being identified for tax purposes as tract or parcel number 7-16-26 as of the date of this lease and containing 26.34 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Jeremiah N. Magers, etux,
Donald Rex Quigley, etux & Allen Russell Dotson, Jr., etux.
On the East by lands of: Jeremiah N. Magers & David T. Butler.
On the South by lands of: David T. Butler
On the West by lands of: Allen Russell Dotson, Jr., etux & George R.
Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-26.1 as of the date of this lease and containing 19.56 acres, more or less.

Signed for Identification this 2nd day of May, 2015.

LESSOR:

Kathy Ann Larsen
Kathy Ann Larsen

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.

Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389

END OF EXHIBIT "A"

11/18/2016

EXHIBIT "B"

Attached to and made a part of that certain oil and gas lease dated the ____ day of ____, 2015, by and between Kathy Ann Larsen, a married woman, dealing in her sole and separate property of, 27392 Via Fineza, Mission Viejo, CA 92691, as Lessor(s) and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

The following provisions shall supplement the printed provisions of the Lease; and, in the event of any conflict between the following supplemental provisions and the provisions of the printed Lease, this Addendum shall prevail and control:

1. Royalty: All references made in Paragraph (B) 2 of the section entitled "PAYMENT TO LESSOR" as to one-eighth (1/8) royalty shall be amended to fifteen Percent (15%).

Signed for Identification on this day of 5/2, 2015.

LESSOR

Kathy Ann Larsen
Kathy Ann Larsen

END OF EXHIBIT "B"

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.

Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

ACKNOWLEDGMENT
(Lessor)

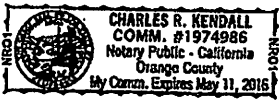
STATE OF CALIFORNIA)
) SS:
COUNTY OF ORANGE)

On this the 2nd day of May, 2015, before me, a notary public, the undersigned authority, personally appeared Kathy Ann Larsen, a married woman, dealing in her sole and separate property, known to me (or satisfactorily proven) to be the persons whose names are subscribed to the within instrument, and acknowledged that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: 5/11/2016
Signature/Notary Public: [Signature] notary public
Name/Notary Public (print): CHARLES R. KENDALL

(SEAL)



Jan Pest
MARSHALL County 12:20:53 PM
Instrument No 1392093
Date Recorded 10/30/2015
Document Type O&G
Pages Recorded 4
Book-Page 880-174
Recording Fee \$5.00
Additional \$6.00

CORPORATE ACKNOWLEDGMENT

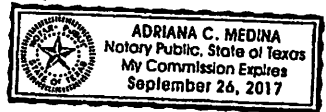
STATE OF TEXAS)
) SS:
COUNTY OF HARRIS)

On this the 22nd day of October, 2015, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: September 26, 2017
Signature/Notary Public: [Signature]
Name/Notary Public (print): Adriana C. Medina

(SEAL)



Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.

STATE OF WEST VIRGINIA, MARSHALL COUNTY, SCT.:

I, JAN PEST, Clerk of the County Commission of said County, do hereby certify that the annexed writing, bearing date on the 24th day of April, 2015 was presented for and by me, admitted to record in my office upon the above certificate as to the parties therein named this 30th day of October, 2015 at 12:20 o'clock P.M.

TESTE: [Signature] Clerk 11/18/2016


MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into this 15th of November 2015, between SWN Production Company, LLC ("Southwestern"), whose address is 10000 Energy Drive Spring, TX 77389, Gulfport Energy Corporation ("Gulfport"), whose address is 14313 N. May, Suite 100, Oklahoma City, OK 73134 and Fossil Creek Ohio, LLC (Fossil Creek), whose address is 1400 Brown Trail, Suite B, Bedford, TX 76002

1. **PARTIES AND AGREEMENT REFERENCE:** Southwestern, Gulfport and Fossil Creek entered into a lease commitment agreement ("Agreement") dated November 15th, 2015 (the "Commencement Date") outlining their intent to pursue definitive agreements allowing Southwestern to develop those certain oil and gas interests controlled by Gulfport and Fossil Creek in Marshall County, WV covering Tax Parcel Numbers 07-16-39, 07-16-24, and 07-16-24.1.
2. **TERM:** The rights granted in the Agreement will terminate upon the earlier of (i) one year from the Commencement Date, or (ii) the parties entering into the definitive agreement(s) described in the Letter Agreement.
3. **MEMORANDUM FOR RECORDING PURPOSES ONLY:** This Memorandum is for recording purposes only and does not supplement or supercede the parties' respective rights set forth in the Letter Agreement. This Memorandum may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute but one agreement.

IN WITNESS WHEREOF, the parties have signed their names hereto as of the date first above written.

Gulfport Energy Corporation

By: 
Name: Lester Zitkus *jm*
Title: Vice-President - Land
Date: _____

Fossil Creek Ohio, LLC

By: _____
Name: Chris Rowntree
Title: Manager
Date: _____

SWN Production Company, LLC

By: _____
Name: Stephen M. Guidry
Title: Vice-President - Land
Date: _____

11/18/2016

CORPORATE ACKNOWLEDGEMENT

STATE OF OKLAHOMA

COUNTY OF OKLAHOMA

ON this 18th day of November, 2015, before me appeared Lester A. Zinkus, to me personally known, who being by me duly sworn, did say that he is the Vice President Land, of Gulfport Energy Corporation., who acknowledged said instrument to be the free act and deed of said corporation.

My Commission expires: 1/27/18

Commission Number: _____

[Signature]
Notary Public



LIMITED LIABILITY COMPANY ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

ON this ____ day of _____, 2015, before me appeared Chris Rowntree, to me personally known, who being by me duly sworn, did say that he is the Manager of Fossil Creek Ohio, LLC who acknowledged said instrument to be the free act and deed of said company.

My Commission expires: _____

Commission Number: _____

Notary Public

CORPORATE ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

BE IT KNOWN, that on this _____ day of _____, 2015, before me, the undersigned authority, personally came and appeared Stephen M. Guidry appearing herein in his capacity as Vice President - Land of SWN Production Company, LLC, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said limited liability company with full authority of its Board of Directors, and that the said instrument is the free act and deed of the said limited liability company and was executed for the uses, purposes and benefits therein expressed,

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____

Signature/Notary Public: _____

Name/Notary Public (print): _____

SI-01885

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into this 18th of November 2015, between SWN Production Company, LLC ("Southwestern"), whose address is 10000 Energy Drive Spring, TX 77389, Gulfport Energy Corporation ("Gulfport"), whose address is 14313 N. May, Suite 100, Oklahoma City, OK 73134 and Fossil Creek Ohio, LLC (Fossil Creek), whose address is 1400 Brown Trail, Suite B, Bedford, TX 76002

- PARTIES AND AGREEMENT REFERENCE:** Southwestern, Gulfport and Fossil Creek entered into a lease commitment agreement ("Agreement") dated November 15th, 2015 (the "Commencement Date") outlining their intent to pursue definitive agreements allowing Southwestern to develop those certain oil and gas interests controlled by Gulfport and Fossil Creek in Marshall County, WV covering **Tax Parcel Numbers 07-16-39, 07-16-24, and 07-16-24.1.**
- TERM:** The rights granted in the Agreement will terminate upon the earlier of (i) one year from the Commencement Date, or (ii) the parties entering into the definitive agreement(s) described in the Letter Agreement.
- MEMORANDUM FOR RECORDING PURPOSES ONLY:** This Memorandum is for recording purposes only and does not supplement or supercede the parties' respective rights set forth in the Letter Agreement. This Memorandum may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute but one agreement.

IN WITNESS WHEREOF, the parties have signed their names hereto as of the date first above written.

Gulfport Energy Corporation
 By: _____
 Name: Lester Zitkus
 Title: Vice-President - Land
 Date: _____

Fossil Creek Ohio, LLC
 By: 
 Name: Chris Rowntree
 Title: Manager
 Date: 4/8/2016

SWN Production Company, LLC
 By: _____
 Name: Stephen M. Guidry
 Title: Vice-President - Land
 Date: _____

Jan Pest
 MARSHALL County 12:16:50 PM
 Instrument No 1413572
 Date Recorded 09/02/2016
 Document Type AGR
 Pages Recorded 2
 Book-Page 901-77
 Recording Fee \$5.00
 Additional \$6.00

51-01855

CORPORATE ACKNOWLEDGEMENT

STATE OF OKLAHOMA

COUNTY OF OKLAHOMA

ON this ___ day of _____, 2015, before me appeared _____, to me personally known, who being by me duly sworn, did say that he is the _____, of Gulfport Energy Corporation., who acknowledged said instrument to be the free act and deed of said corporation.

My Commission expires:

Commission Number: _____ Notary Public _____

LIMITED LIABILITY COMPANY ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

ON this ___ day of _____, 2015, before me appeared Chris Rowntree, to me personally known, who being by me duly sworn, did say that he is the Manager of Fossil Creek Ohio, LLC who acknowledged said instrument to be the free act and deed of said company.

My Commission expires:

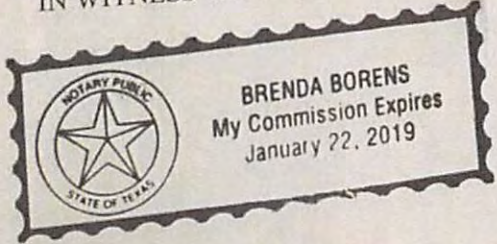
Commission Number: _____ Notary Public _____

CORPORATE ACKNOWLEDGEMENT

STATE OF Texas
COUNTY OF Harris

BE IT KNOWN, that on this 18th day of November 2015, before me, the undersigned authority, personally came and appeared Stephen M. Guidry appearing herein in his capacity as Vice President - Land of SWN Production Company, LLC, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said limited liability company with full authority of its Board of Directors, and that the said instrument is the free act and deed of the said limited liability company and was executed for the uses, purposes and benefits therein expressed.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



My Commission Expires: 1-22-2019
Signature/Notary Public: Brenda Borens
Name/Notary Public (print): Brenda Borens

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement is entered into this 18th of November 2015, between SWN Production Company, LLC ("Southwestern"), whose address is 10000 Energy Drive Spring, TX 77389, Gulfport Energy Corporation ("Gulfport"), whose address is 14313 N. May, Suite 100, Oklahoma City, OK 73134 and Fossil Creek Ohio, LLC (Fossil Creek), whose address is 1400 Brown Trail, Suite B, Bedford, TX 76002

1. **PARTIES AND AGREEMENT REFERENCE:** Southwestern, Gulfport and Fossil Creek entered into a lease commitment agreement ("Agreement") dated November 15th, 2015 (the "Commencement Date") outlining their intent to pursue definitive agreements allowing Southwestern to develop those certain oil and gas interests controlled by Gulfport and Fossil Creek in Marshall County, WV covering **Tax Parcel Numbers 07-16-39, 07-16-24, and 07-16-24.1.**
2. **TERM:** The rights granted in the Agreement will terminate upon the earlier of (i) one year from the Commencement Date, or (ii) the parties entering into the definitive agreement(s) described in the Letter Agreement.
3. **MEMORANDUM FOR RECORDING PURPOSES ONLY:** This Memorandum is for recording purposes only and does not supplement or supercede the parties' respective rights set forth in the Letter Agreement. This Memorandum may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute but one agreement.

IN WITNESS WHEREOF, the parties have signed their names hereto as of the date first above written.

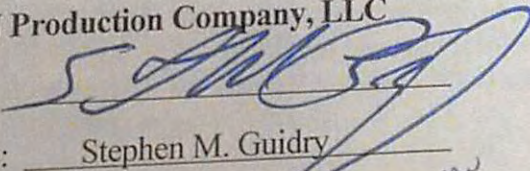
Gulfport Energy Corporation

By: _____
Name: Lester Zitkus
Title: Vice-President - Land
Date: _____

Fossil Creek Ohio, LLC

By: _____
Name: Chris Rowntree
Title: Manager
Date: _____

SWN Production Company, LLC

By: 
Name: Stephen M. Guidry
Title: Vice-President - Land
Date: 11-18-15

Jan Pest
MARSHALL County 12:19:25 PM
Instrument No 1413573
Date Recorded 09/02/2016
Document Type AGR
Pages Recorded 2
Book-Page 901-79
Recording Fee \$5.00
Additional \$6.00

SI-01885

CORPORATE ACKNOWLEDGEMENT

STATE OF OKLAHOMA

COUNTY OF OKLAHOMA

ON this _____ day of _____, 2015, before me appeared _____, to me personally known, who being by me duly sworn, did say that he is the _____, of Gulfport Energy Corporation., who acknowledged said instrument to be the free act and deed of said corporation.

My Commission expires:

Commission Number: _____

Notary Public

LIMITED LIABILITY COMPANY ACKNOWLEDGEMENT

STATE OF Texas

COUNTY OF Tarrant

ON this 8th day of April, 2015, before me appeared Chris Rowntree, to me personally known, who being by me duly sworn, did say that he is the Manager of Fossil Creek Ohio, LLC who acknowledged said instrument to be the free act and deed of said company.

My Commission expires: 4-19-17

Commission Number: _____

Notary Public



CORPORATE ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

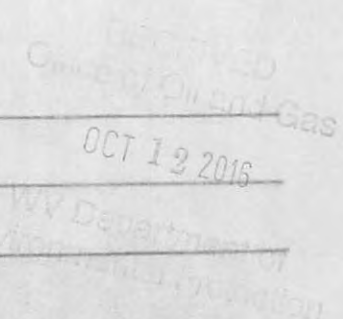
BE IT KNOWN, that on this _____ day of _____, 2015, before me, the undersigned authority, personally came and appeared Stephen M. Guidry appearing herein in his capacity as Vice President - Land of SWN Production Company, LLC, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said limited liability company with full authority of its Board of Directors, and that the said instrument is the free act and deed of the said limited liability company and was executed for the uses, purposes and benefits therein expressed.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____

Signature/Notary Public: _____

Name/Notary Public (print): _____



11/18/2016

SI-01885

MEMORANDUM OF OIL AND GAS LEASE

This Memorandum of Oil and Gas Lease made this 30th day of August, 2016 by and between Gail Richardson Barner, married dealing in her sole and separate property, of 200 Park Street, Inglis, FL 34449 hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated 30th day of August, 2016, and made effective 15th day of August, 2016 which provides for a Five (5) year primary term and an option to renew for an additional Five (5) year term covering Lessor's interest in the following described lands:

Tax Map No: 7-16-38, 7-16-39

See Exhibit "A" attached hereto and made part of

Containing 46.81 acres and located in the Township/District of Liberty, Marshall County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of Deed dated May 15th, 2007 and recorded in Marshall County, West Virginia in Book 660, Page 74. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:

LESSOR:

Gail Richardson Barner
Gail Richardson Barner

Gail Richardson Barner
Gail Richardson Barner

WITNESS:

SWN Production Company, L.L.C.
A Texas limited liability company

Stephen M. Guidry
Vice President - Land

SI-01885

ACKNOWLEDGMENT
(Lessor)

STATE OF FLORIDA)
COUNTY OF LEVY) SS:

On this the 30 day of AUGUST, 2016, before me, a notary public, the undersigned authority, personally appeared Gail Richardson Barney, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: FEBRUARY 17, 2017
Signature/Notary Public: [Signature]
Name/Notary Public (print): RICHARD P. CARLIANA

982757100

(SEAL)



RICHARD P. CARLIANA
NOTARY PUBLIC
MY COMMISSION # EE48402
EXPIRES: February 17, 2017

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)
COUNTY OF HARRIS) SS:

On this the _____ day of _____, 2016, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(SEAL)

Document prepared by: SWN Production Company, L.L.C. 10000 Energy Drive, Spring, TX 77389.
Recorder: Return to SWN Production Company, L.L.C. Lease Records, 10000 Energy Drive, Spring, Texas 77389.

SI-01855

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the 30 day of August, 2016, by Gail Richardson Barner, married dealing in her sole and separate property, of 200 Park Street, Ingle, FL 34449, as Lessor and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to-wit:

On the North by lands of: Orjilev, Donald Rex, ET UX & Elson, David L, ET UX
On the East by lands of: McClelland, Louis S.
On the South by lands of: North Fish Creek/ Barr, Robert Thomas
On the West by lands of: Butler, David T.

Said lands being identified for tax purposes as tract or parcel number 7-16-38 as of the date of this lease and containing 3.25 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to-wit:

On the North by lands of: Orjilev, Donald Rex, ET UX & Elson, David L, ET UX
On the East by lands of: McClelland, Louis S.
On the South by lands of: North Fish Creek/ Barr, Robert Thomas
On the West by lands of: Butler, David T.

Said lands being identified for tax purposes as tract or parcel number 7-16-39 as of the date of this lease and containing 43.56 acres, more or less.

Signed for Identification this 30th day of AUGUST, 2016.

LESSOR:

Gail Richardson Barner
Gail Richardson Barner

Document prepared by: SWN Production Company, L.L.C., 10200 Energy Drive, Spring, TX 77389.

Recorder: Return to SWN Production Company, L.L.C., Lease Records, 10200 Energy Drive, Spring, Texas 77389

END OF EXHIBIT "A"

MEMORANDUM OF OIL AND GAS LEASE

This Memorandum of Oil and Gas Lease made this _____ day of August, 2016 by and between Claudia L. Raven, a married woman dealing in her sole and separate property, of 1983 Clinton Avenue North, Rochester, NY 14621 hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated _____ day of August, 2016, and made effective 15th day of August, 2016 which provides for a Five (5) year primary term and an option to renew for an additional Five (5) year term covering Lessor's interest in the following described lands:

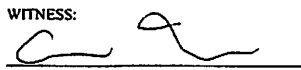
Tax Map No: 7-16-38, 7-16-39

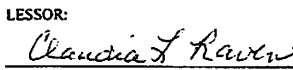
See Exhibit "A" attached hereto and made part of

Containing 46.81 acres and located in the Township/District of Liberty, Marshall County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of Deed dated May 15th, 2007 and recorded in Marshall County, West Virginia in Book 660, Page 74. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:


LESSOR:

Claudia L. Raven

WITNESS:

SWN Production Company, L.L.C.
A Texas limited liability company

Stephen M. Guidry
Vice President - Land

ACKNOWLEDGMENT
(Lessor)

STATE OF New York)
COUNTY OF Monroe) SS:

On this the 30th day of August, 2016, before me, a notary public, the undersigned authority, personally appeared Claudia L. Raven, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: 6/23/2018
Signature/Notary Public: Adelina Santiago
Name/Notary Public (print): Adelina Santiago

(SEAL)

ADELIA SANTIAGO
Notary Public, State of New York
Maroon County Reg #0184336837
Commission Expires 06/23/18

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)
COUNTY OF HARRIS) SS:

On this the _____ day of _____, 2016, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(SEAL)

Document prepared by: SWN Production Company, L.L.C. 10000 Energy Drive, Spring, TX 77389
Recorder Return to SWN Production Company, L.L.C. Lease Records, 10000 Energy Drive, Spring, Texas 77389.

SI-01885

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the _____ day of August, 2016, by Claudia L. Raven, a married dealing in her sole and separate property, of 1983 Clinton Avenue North, Rochester, NY 14621, as Lessor and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Quigley, Donald Rex, ET UX & Elson, David L., ET UX
- On the East by lands of: McClelland, Louis S.
- On the South by lands of: North Fish Creek/ Barr, Robert Thomas
- On the West by lands of: Butler, David T.

5127-01

Said lands being identified for tax purposes as tract or parcel number 7-16-38 as of the date of this lease and containing 3.25 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Quigley, Donald Rex, ET UX & Elson, David L., ET UX
- On the East by lands of: McClelland, Louis S.
- On the South by lands of: North Fish Creek/ Barr, Robert Thomas
- On the West by lands of: Butler, David T.

Said lands being identified for tax purposes as tract or parcel number 7-16-39 as of the date of this lease and containing 33.56 acres, more or less.

Signed for Identification this 30th day of August, 2016.

LESSOR:
Claudia L. Raven
Claudia L. Raven

Document prepared by SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389

Revised: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389

END OF EXHIBIT "A"

MEMORANDUM OF OIL AND GAS LEASE

This Memorandum of Oil and Gas Lease made this 26 day of August, 2016 by and between Carol J. Spence, widow, of PO Box 892, Inglis, Florida 34449 hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated 26 day of August, 2016, and made effective 15th day of August, 2016 which provides for a Five (5) year primary term and an option to renew for an additional Five (5) year term covering Lessor's interest in the following described lands:


Tax Map No: 7-16-38, 7-16-39

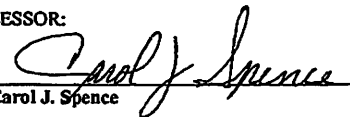
See Exhibit "A" attached hereto and made part of

Containing 46.81 acres and located in the Township/District of Liberty, Marshall County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of Deed dated May 15th, 2007 and recorded in Marshall County, West Virginia in Book 660, Page 74. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:


LESSOR:

Carol J. Spence

WITNESS:

SWN Production Company, L.L.C.
A Texas limited liability company

Stephen M. Guidry
Vice President - Land

ACKNOWLEDGMENT
(Lessor)

STATE OF Florida)
) SS:
COUNTY OF Levy)

On this the 26th day of August 2016, before me, a notary public, the undersigned authority, personally appeared Carol J. Spence, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



SHELLEY ALUMBAUGH
MY COMMISSION # EE 878758
EXPIRES: June 15, 2017
Recalls Three Budget Notary Services

My Commission Expires: 6-15-17
Signature/Notary Public: [Signature]
Name/Notary Public (print): Shelley Alumbaugh

(SEAL)

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)
) SS:
COUNTY OF HARRIS)

On this the _____ day of _____, 2016, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(SEAL)

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.
Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389.

51-01885

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the 16 day of August, 2016, by Carol J. Spence, widow, of PO Box 892, Inglis, Florida 34449, as Lessor and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Quigley, Donald Rex, ET UX & Elson, David L, ET UX
On the East by lands of: McClelland, Louis S.
On the South by lands of: North Fish Creek/ Barr, Robert Thomas
On the West by lands of: Butler, David T.

Said lands being identified for tax purposes as tract or parcel number 7-16-38 as of the date of this lease and containing 3.25 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Quigley, Donald Rex, ET UX & Elson, David L, ET UX
On the East by lands of: McClelland, Louis S.
On the South by lands of: North Fish Creek/ Barr, Robert Thomas
On the West by lands of: Butler, David T.

Said lands being identified for tax purposes as tract or parcel number 7-16-39 as of the date of this lease and containing 43.56 acres, more or less.

Signed for Identification this 26 day of AUGUST, 2016.

LESSOR:

Carol J. Spence
Carol J. Spence

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.

Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389

END OF EXHIBIT "A"

11/18/2016

MEMORANDUM OF OIL AND GAS LEASE

L1585V

10381.130

This Memorandum of Oil and Gas Lease made this 1st day of October, 2016 by and between Judith Cettel, a married woman dealing in her sole and separate property of 309 Oregon St., #401, Cincinnati, OH, 45202, hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated 1st day of September, 2016, and made effective 5th day of September, 2016 which provides for a Two (2) year primary term and an option to renew for an additional Two (2) year term covering Lessor's interest in the following described lands:

Tax Map No: 7-16-26, 7-16-26.1, 7-16-25, 7-16-25.2

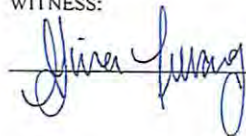
See Exhibit "A" attached hereto and made part of

Containing 48.33 acres and located in the Township/District of Liberty, Marshall County; State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of Certificate of Transfer dated April 26, 1991 and recorded in Butler County, Ohio and State in Book 1722, Page 545. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.


WITNESS:



LESSOR:


Judith Cettel

WITNESS:



SWN Production Company, L.L.C.
A Texas limited liability company

Stephen M. Guidry
Vice President - Land

ACKNOWLEDGMENT
(Lessor)

STATE OF Ohio)
COUNTY OF Hamilton) SS:

On this the 6th day of October 2016, before me, a notary public, the undersigned authority, personally appeared Judith Cettel, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: 1-19-2020
Signature/Notary Public: Gina Truong
Name/Notary Public (print): Gina Truong



Gina Truong
Notary Public, State of Ohio
My Commission Expires 01-19-2020

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)
COUNTY OF HARRIS) SS:

On this the _____ day of _____, 2016, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(SEAL)

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.
Recorder: Return to SWN Production Company, LLC, Lense Records, 10000 Energy Drive, Spring, Texas 77389.

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the 1st day of October, 2016, by Judith Cettel, a married woman dealing in her sole and separate property of 309 Oregon St., #401, Cincinnati, OH, 45202, as Lessor and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: David R. Butler
- On the East by lands of: John Matthew Butler
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, Ben F. Allan, etux
Danny Zeigler, etal.

Said lands being identified for tax purposes as tract or parcel number 7-16-26 as of the date of this lease and containing 26.34 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Jeremiah N. Magers, etux
Donald Rex Quigley, etux & Allen Russell Dotson, Jr., etux.
- On the East by lands of: Jeremiah N. Magers & David T. Butler
- On the South by lands of: David T. Butler
- On the West by lands of: Allen Russell Dotson, Jr., etux & George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-26.1 as of the date of this lease and containing 19.56 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Danny Ziegler & Mark Roberts
- On the East by lands of: David T. Butler
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25 as of the date of this lease and containing .725 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Danny Ziegler & Mark Roberts
- On the East by lands of: David T. Butler
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25.2 as of the date of this lease and containing 1.715 acres, more or less.

Signed for Identification this 6 day of October, 2016.

LESSOR:



Judith Cettel

END OF EXHIBIT "A"

MEMORANDUM OF OIL AND GAS LEASE

9107 01 100

This Memorandum of Oil and Gas Lease made this 27 day of September, 2016 by and between **Lynda Hapner**, a single woman dealing in her sole and separate property of **925 Twin Oaks Dr., Dayton, OH 45431**, hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated 27th day of September, 2016, and made effective 27th day of September, 2016 which provides for a Two (2) year primary term and an option to renew for an additional Two (2) year term covering Lessor's interest in the following described lands:

Tax Map No: 7-16-26, 7-16-26.1, 7-16-25, 7-16-25.2

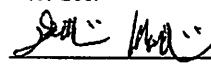
See Exhibit "A" attached hereto and made part of

Containing 48.33 acres and located in the Township/District of Liberty, Marshall County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of Certificate of Transfer dated April 26, 1991 and recorded in Butler County, Ohio and State in Book 1722, Page 545. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

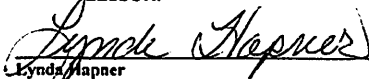
This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:



LESSOR:


Lynda Hapner

WITNESS:



SWN Production Company, L.L.C.
A Texas Limited Liability Company

Stephen M. Guidry
Vice President - Land

ACKNOWLEDGMENT
(Lessor)

STATE OF Ohio)
) SS:
COUNTY OF Montgomery)

On this the 27 day of September 2016, before me, a notary public, the undersigned authority, personally appeared Lynda Hander, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: April 5, 2017
Signature/Notary Public: Christine L. Doster
Name/Notary Public (print): Christina L. Doster



CHRISTINE L. DOSTER, Notary Public
In and for the State of Ohio
My Commission Expires April 5, 2017

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)
) SS:
COUNTY OF HARRIS)

On this the 27 day of Sept, 2016, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(S E A L)

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389
Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389.

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the 27 day of September, 2016, by Lynda Hanner, a married woman dealing in her sole and separate property of 925 Twin Oaks Dr., Dayton, OH 45431, as Lessor and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

9:07 7-16-26
That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: David R. Butler
On the East by lands of: John Matthew Butler
On the South by lands of: John Matthew Butler
On the West by lands of: George R. Cumpston, Ben F. Allan, etux,
Danny Zeigler, etal.

Said lands being identified for tax purposes as tract or parcel number 7-16-26 as of the date of this lease and containing 26.34 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Jeremiah N. Magers, etux,
Donald Rex Quigley, etux & Allen Russell Dotson, Jr., etux.
On the East by lands of: Jeremiah N. Magers & David T. Butler,
On the South by lands of: David T. Butler
On the West by lands of: Allen Russell Dotson, Jr., etux & George R,
Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-26.1 as of the date of this lease and containing 19.56 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Danny Ziegler & Mark Roberts,
On the East by lands of: David T. Butler,
On the South by lands of: John Matthew Butler
On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25 as of the date of this lease and containing 0.725 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Danny Ziegler & Mark Roberts,
On the East by lands of: David T. Butler,
On the South by lands of: John Matthew Butler
On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25.2 as of the date of this lease and containing 1.715 acres, more or less.

Signed for Identification this 27 day of September, 2016.

LESSOR

Lynda Hanner
Lynda Hanner

MEMORANDUM OF OIL AND GAS LEASE

This Memorandum of Oil and Gas Lease made this 28 day of September, 2016 by and between Sara Burns, a married woman dealing in her sole and separate property of 136 N. Wexford Dr., Oaks Harbor, OH 43449, hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated 28 day of September, 2016, and made effective 5th day of September, 2016 which provides for a Two (2) year primary term and an option to renew for an additional Two (2) year term covering Lessor's interest in the following described lands:

Tax Map No: 7-16-26, 7-16-26.1, 7-16-25, 7-16-25.2

See Exhibit "A" attached hereto and made part of

Containing 48.33 acres and located in the Township/District of Liberty, Marshall County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of Certificate of Transfer dated April 26, 1991 and recorded in Butler County, Ohio and State in Book 1722, Page 545. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:

James R. Davis

LESSOR:

Sara Burns
Sara Burns

WITNESS:

SWN Production Company, L.L.C.
A Texas limited liability company

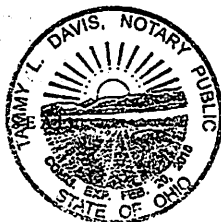
Stephen M. Guidry
Vice President - Land

ACKNOWLEDGMENT
(Lessor)

STATE OF Ohio)
COUNTY OF Deawa) SS:

On this the 28 day of September 2016, before me, a notary public, the undersigned authority, personally appeared Sara Burris, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



My Commission Expires: 2/2018
Signature/Notary Public: Tammie L. Davis
Name/Notary Public (print): Tammie L. Davis

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)
COUNTY OF HARRIS) SS:

On this the _____ day of _____, 2016, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(S E A L)

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.
Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389.

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the 28 day of September, 2016, by Sara Burns, a married woman dealing in her sole and separate property of 136 N. Wexford Dr., Oaks Harbor, OH 43449, as Lessor and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

973 01 100

- On the North by lands of: David R. Butler
- On the East by lands of: John Matthew Butler
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, Ben F. Allan, etux, Danny Zeigler, etal.

Said lands being identified for tax purposes as tract or parcel number 7-16-26 as of the date of this lease and containing 26.34 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Jeremiah N. Magers, etux, Donald Rex Ouglev, etux & Allen Russell Dotson, Jr., etux, Jeremiah N. Magers & David T. Butler.
- On the East by lands of: Jeremiah N. Magers & David T. Butler.
- On the South by lands of: David T. Butler
- On the West by lands of: Allen Russell Dotson, Jr., etux & George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-26.1 as of the date of this lease and containing 19.56 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Danny Ziegler & Mark Roberts.
- On the East by lands of: David T. Butler.
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25 as of the date of this lease and containing 0.725 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Danny Ziegler & Mark Roberts.
- On the East by lands of: David T. Butler.
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25.2 as of the date of this lease and containing 1.715 acres, more or less.

Signed for Identification this 28 day of September, 2016.

LESSOR:
Sara Burns
Sara Burns

END OF EXHIBIT "A"

51-01885

MEMORANDUM OF OIL AND GAS LEASE

This Memorandum of Oil and Gas Lease made this 27th day of September, 2016 by and between Nancy Bechard, a married woman dealing in her sole and separate property of 78 Newfane Rd., Bedford, NH, 03110, hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated 9/27/2016 day of September, 2016, and made effective 5th day of September, 2016 which provides for a Two (2) year primary term covering Lessor's interest in the following described lands:

Tax Map No: 7-16-26, 7-16-26.1, 7-16-25, 7-16-25.2

See Exhibit "A" attached hereto and made part of

Containing 48.33 acres and located in the Township/District of Liberty, Marshall County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of Certificate of Transfer dated April 26, 1991 and recorded in Butler County, Ohio and State in Book 1722, Page 545. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:
Kathleen M. Maurer

LESSOR:
Nancy Bechard
Nancy Bechard

WITNESS:

SWN Production Company, L.L.C.
A Texas Limited Liability Company

Stephen M. Guidry
Vice President - Land

RECORDED
INDEXED
OCT 13 2016

NB

11/18/2016

51-01885

ACKNOWLEDGMENT
(Lessor)

STATE OF New Hampshire)
) SS:
COUNTY OF HILLSBOROUGH)

On this the 27 day of September 2016, before me, a notary public, the undersigned authority, personally appeared Nancy Bechard, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

KATHLEEN M. MORRIS, Notary Public
My Commission Expires: October 1, 2019
Signature/Notary Public: Kathleen M. Morris
Name/Notary Public (print): KATHLEEN M. MORRIS

(S E A L)

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)
) SS:
COUNTY OF HARRIS)

On this the _____ day of _____, 2016, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(S E A L)

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.

Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389.

COMMERCIAL
OCT 12 2016
NOTARY PUBLIC

MB

51-01885

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the 17th day of September, 2016 by Nancy Bechard, a married woman dealing in her sole and separate property, of 78 Newfane Rd., Bedford, NH 03110, as Lessor and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: David R. Butler
- On the East by lands of: John Matthew Butler
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, Ben F. Allan, etux,
Danny Zeigler, etal.

Said lands being identified for tax purposes as tract or parcel number 7-16-26 as of the date of this lease and containing 26.34 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Jeremiah N. Magers, etux,
Donald Rex Quigley, etux & Allen Russell Dotson, Jr., etux.
- On the East by lands of: Jeremiah N. Magers & David T. Butler,
- On the South by lands of: David T. Butler
- On the West by lands of: Allen Russell Dotson, Jr., etux & George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-26.1 as of the date of this lease and containing 19.56 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Danny Ziegler & Mark Roberts,
- On the East by lands of: David T. Butler,
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25 as of the date of this lease and containing 0.725 acres, more or less.

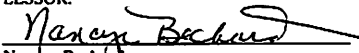
ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

- On the North by lands of: Danny Ziegler & Mark Roberts,
- On the East by lands of: David T. Butler,
- On the South by lands of: John Matthew Butler
- On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25.2 as of the date of this lease and containing 1.715 acres, more or less.

Signed for Identification this 17 day of September, 2016.

LESSOR:

Nancy Bechard

END OF EXHIBIT "A"

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389
Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389

OCT 19 2016

NB

11/18/2016

51-01885

MEMORANDUM OF OIL AND GAS LEASE

U/S-WV

This Memorandum of Oil and Gas Lease made this 17th day of December 2015 by and between **Sherri Balch, single, dealing in her sole and separate property**, of **1028 Emerson St., Denver, CO 80218** hereinafter collectively called "Lessor," and **SWN Production Company, L.L.C.**, a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated December 17, 2015, and made effective December 17, 2015, which provides for a **Five (5)** year primary term and an option to renew for an additional **Five (5)** year term covering Lessor's interest in the following described lands:

Tax Map No: 7-16-26 / 7-16-26.1, 7-16-25 / 7-16-25.2 (48.33 total acres 0.07866 net mineral acres)

bounded formerly or currently as follows:


- On the North by lands of: Butler/Dotson/Ziegler
- On the East by lands of: Butler/Riggs
- On the South by lands of: Butler/Allman
- On the West by lands of: Cumpston/Ziegler/Allman

Containing 48.33 Leasehold acres, 0.07866 net mineral acres and located in the Township/District of **Liberty, Marshall** County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. Said lands were conveyed to Lessor by virtue of The Estate of Grafton Jones Est. No. 485624 dated 7/30/64 and probated 9/24/65 in Los Angeles Co., CA Book , Page . This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:

LESSOR:


SHERRI BALCH

WITNESS:

SWN Production Company, L.L.C.
A Texas limited liability company

Stephen M. Guidry
Vice President - Land

51-01885

ACKNOWLEDGMENT

(Lessor)

STATE OF Colorado)

COUNTY OF Arapahoe)

) SS:

On this the 17 day of December 2015, before me, a notary public, the undersigned authority, personally appeared Sherri Balch known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

ANDREW PHILLIPS
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20154010993
MY COMMISSION EXPIRES MARCH 17, 2019

(S E A L)

My Commission Expires: March 17, 2019

Signature/Notary Public: [Signature]

Name/Notary Public (print): Andrew Phillips

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)

COUNTY OF HARRIS)

) SS:

On this the _____ day of _____, 2015, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____

Signature/Notary Public: _____

Name/Notary Public (print): _____

(S E A L)

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.

Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389.

11/18/2016

51-01885

MEMORANDUM OF OIL AND GAS LEASE

This Memorandum of Oil and Gas Lease made this 20th day of August, 2016 by and between **Frank S. Balch, Jr., a single man** of **3700 Morse Avenue Space 6, Sacramento, CA 95821**, hereinafter collectively called "Lessor," and **SWN Production Company, L.L.C.**, a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessee."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas Lease dated 20th day of August, 2016, and made effective 17th day of August, 2016 which provides for a **Five (5)** year primary term and an option to renew for an additional **Five (5)** year term covering Lessor's interest in the following described lands:

Tax Map No: 7-16-26, 7-16-26.1, 7-16-25, 7-16-25.2

See Exhibit "A" attached hereto and made part of

Containing **48.33** acres and located in the Township/District of **Liberty, Marshall** County, State of West Virginia, for the purpose of drilling, operating for, producing and removing oil and gas and all the constituents thereof. This Lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This Lease also grants to Lessee a Right of First Refusal to match any offer to top lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lessor.

This Memorandum of Oil and Gas Lease is being made and filed for the purpose of giving third parties notice of the existence of the Lease described above. The execution, delivery and recordation of this Memorandum of Oil and Gas Lease shall have no effect upon, and is not intended as an amendment of the terms and conditions of the Lease. It is the intent of the Lessor to lease all of Lessor's interest in and to the properties described herein, whether or not the tracts recited herein are properly described, and further it is understood this lease includes all rights owned by the Lessor in the properties described herein.

IN WITNESS WHEREOF this Memorandum of Oil and Gas Lease is executed as of the date first above written.

WITNESS:


LESSOR:

Frank S. Balch, Jr.

WITNESS:

SWN Production Company, L.L.C.
A Texas limited liability company

Stephen M. Guidry
Vice President - Land

SI-01885

ACKNOWLEDGMENT

(Lessor)

STATE OF _____)
COUNTY OF _____) SS:

On this the _____ day of _____, 2016, before me, a notary public, the undersigned authority, personally appeared Frank S. Balch, Jr., known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(S E A L)

SEE ATTACHED
NOTARY

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)
COUNTY OF HARRIS) SS:

On this the _____ day of _____, 2016, before me the undersigned Notary Public, personally appeared Stephen M. Guidry, who acknowledged himself to be the Vice-President - Land of SWN Production Company, L.L.C., a Texas limited liability company, and that he as such officer, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as Vice-President - Land.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: _____
Signature/Notary Public: _____
Name/Notary Public (print): _____

(S E A L)

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389.
Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389.

EXHIBIT "A"

Attached to and made a part of that certain oil and gas lease dated the 26th day of August, 2016, by Frank S. Balch, Jr., a single man of 3700 Morse Avenue Space 6, Sacramento, CA 95821, as Lessor and SWN Production Company, L.L.C., a Texas limited liability company, as Lessee, to-wit:

DESCRIPTION:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: David R. Butler
On the East by lands of: John Matthew Butler
On the South by lands of: John Matthew Butler
On the West by lands of: George R. Cumpston, Ben F. Allan, etux,
Danny Zeigler, etal.

Said lands being identified for tax purposes as tract or parcel number 7-16-26 as of the date of this lease and containing 26.34 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Jeremiah N. Magers, etux,
Donald Rex Quigley, etux & Allen Russell Dotson, Jr., etux,
On the East by lands of: Jeremiah N. Magers & David T. Butler,
On the South by lands of: David T. Butler
On the West by lands of: Allen Russell Dotson, Jr., etux & George R.
Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-26.1 as of the date of this lease and containing 19.56 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Danny Ziegler & Mark Roberts,
On the East by lands of: David T. Butler,
On the South by lands of: John Matthew Butler
On the West by lands of: George R. Cumpston, etux

Said lands being identified for tax purposes as tract or parcel number 7-16-25 as of the date of this lease and containing .725 acres, more or less.

ALSO:

That certain tract of or parcel of land being situated in the District of Liberty, County of Marshall, State of West Virginia, and being bounded now or formerly substantially as follows, to wit:

On the North by lands of: Danny Ziegler & Mark Roberts,
On the East by lands of: David T. Butler,
On the South by lands of: John Matthew Butler
On the West by lands of: George R. Cumpston, etux

1.715 Said lands being identified for tax purposes as tract or parcel number 7-16-25.2 as of the date of this lease and containing 7.715 acres, more or less.

Signed for Identification this 26th day of August, 2016.

LESSOR:

Frank S. Balch, Jr.

Document prepared by: SWN Production Company, LLC, 10000 Energy Drive, Spring, TX 77389
Recorder: Return to SWN Production Company, LLC, Lease Records, 10000 Energy Drive, Spring, Texas 77389

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

County of Sacramento)

On 8-26-2016 before me, Khalion Gansukh - Notary Public
(here insert name and title of the officer)

personally appeared FRANK S. Balch, JR
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Khalion
Notary Public Signature (Notary Public Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT
Oil and Gas LEASE
(Title or description of attached document)
Part of oil
(Title or description of attached document continued)
Number of Pages _____ Document Date _____

CAPACITY CLAIMED BY THE SIGNER
 Individual (s)
 Corporate Officer
(Title)
 Partner(s)
 Attorney-in-Fact
 Trustee(s)
 Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

- This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.*
- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
 - Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
 - The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
 - Print the name(s) of document signer(s) who personally appear at the time of notarization.
 - Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. he/she/they; is/are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
 - The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
 - Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
 - Securely attach this document to the signed document with a staple.

SWN

Southwestern Energy®

PO Box 1300
Jane Lew, WV 26378
PHONE: (832) 796-1610

October 20, 2015

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

RE: SWN's proposed Gladys Briggs MSH 6H, Gladys Briggs UD-B MSH 7H, Gladys Briggs MSH 10H & Gladys Briggs MSH 210H in Marshall County, West Virginia, Drilling under Fish Creek Road and Fish Ridge 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 Fish Creek Road and Fish Ridge 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,

SWN Production Company, LLC
PO Box 1300
Jane Lew, WV 26378

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

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION**

Date of Notice Certification: 10/11/16

API No. 47-56 - 01885
Operator's Well No. Gladys Briggs MSH 210H
Well Pad Name: Gladys Briggs MSH Pad

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>WV</u>	UTM NAD 83	Easting:	<u>532907.991</u>
County:	<u>Marshall</u>		Northing:	<u>4401982.366</u>
District:	<u>Liberty</u>	Public Road Access:	<u>Fish Ridge Road</u>	
Quadrangle:	<u>Cameron</u>	Generally used farm name:	<u>Gladys Briggs</u>	
Watershed:	<u>Fish Creek of Upper Ohio River 2</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

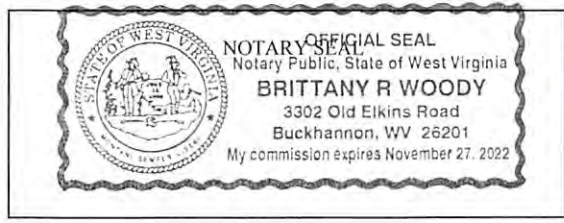
51-01885

WW-6AC
(1/12)

Certification of Notice is hereby given:

THEREFORE, I _____, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator:	<u>SWN Production Co., LLC</u>	Address:	<u>P.O. Box 12359</u>
By:	<u>Dee Southall</u>		<u>Spring, TX 77391-4954</u>
Its:	<u>Regulatory Supervisor</u>	Facsimile:	<u>92816182780@fax.com</u>
Telephone:	<u>832-796-1614</u>	Email:	<u>Dee_Southall@swn.com</u>



Subscribed and sworn before me this 27th day of October 2015
Brittany R Woody Notary Public
 My Commission Expires 11/27/22

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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 10/11/16 **Date Permit Application Filed:** 10/11/16

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)
Name: Jack Briggs
Address: 307 Briggs Lane
Cameron, WV 26033

Name: James Rodney Briggs
Address: 531 Briggs Lane
Cameron, WV 26033

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: _____
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: Consolidated Coal Company
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: see attachment #1
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: Columbia Gas Transmission, LLC Att: John Shelton
Address: 1700 MacCorkle Ave SE / PO Box 1273
Charleston, WV 25325

*Please attach additional forms if necessary

Attachment #1

SI-01885

Gladys Briggs MSH Pad - Water Purveyors w/in 1500'

Landowner

James Briggs

Jack Briggs

Address

531 Briggs Lane Cameron, WV 26033 ✓

307 Briggs Lane, Cameron, WV 26033 ✓

RECEIVED
DEPT. OF LAND & CAS.
OCT 19 2015

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/11/16 Date Permit Application Filed: 10/11/16

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

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- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: Roger Jacob Briggs

Address: 531 Briggs Lane

Cameron, WV 26033

Name: Preston & Heather L. Yeater

Address: 3663 Fish Ridge Rd

Cameron, WV 26033

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____

Address: _____

Name: _____

Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: Consolidated Coal Company

Address: 1000 Consol Energy Drive

Canonsburg, PA 15317

COAL OPERATOR

Name: _____

Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: _____

Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: Columbia Gas Transmission, LLC Att: John Shelton

Address: 1700 MacCorkle Ave SE / PO Box 1273

Charleston, WV 25325

*Please attach additional forms if necessary

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION**

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/11/16 **Date Permit Application Filed:** 10/11/16

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)
 Name: John D. & Patty Briggs
 Address: 342 Briggs Lane
Cameron, WV 26033
 Name: Vincent E. Lemasters
 Address: 103 Briggs Lane
Cameron, WV 26033

SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: _____
 Address: _____
 Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
 Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: Consolidated Coal Company
 Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
 Name: _____
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: _____
 Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
 Name: Columbia Gas Transmission, LLC At: John Shelton
 Address: 1700 MacCorkle Ave SE / PO Box 1273
Charleston, WV 25325

*Please attach additional forms if necessary

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION**

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 10/11/14 **Date Permit Application Filed:** 10/11/14

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: Thelma Yeater

Address: 82 Fish Ridge Rd

Cameron, WV 26033

Name: _____

Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____

Address: _____

Name: _____

Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: Consolidated Coal Company

Address: 1000 Consol Energy Drive

Canonsburg, PA 15317

COAL OPERATOR

Name: _____

Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: _____

Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: Columbia Gas Transmission, LLC Attn: John Shelton

Address: 1700 MacCorkle Ave SE / PO Box 1273

Charleston, WV 25325

*Please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

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. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

WW-6A
(8-13)

API NO. 47-69 - 01885
OPERATOR WELL NO. Gladys Briggs MSH 210H
Well Pad Name: Gladys Briggs MSH Pad

Notice is hereby given by:

Well Operator: SWN Production Co., LLC
Telephone: 832-796-1000
Email: Dee_Southall@swn.com



Address: P.O. Box 12359
Spring, TX 77391-4954
Facsimile: 92816182780@fax.com

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 or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.



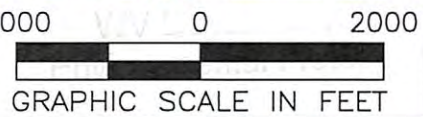
Subscribed and sworn before me this 27th day of October 2015.
Brittany R Woody Notary Public
My Commission Expires 11/27/22

51-01855

JACKSON SURVEYING
INC.
P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851



WELL: GLADYS BRIGGS MSH 210H
QUAD: CAMERON 7 1/2 W



NAME AND DISTANCE TO THE NEAREST STREAM: FISH CREEK IS LOCATED ±0.49 MILES SW OF THE CENTER OF THE DRILL PAD.		STREAM CROSSING COORDINATES (NAD 83): NO NEW CROSSINGS.		COMPANY: SWN Production Company, LLC		SWN ^{R+V+} Production Company™	
WELL RESTRICTIONS: WELL PAD, LOD, & E & S CONTROL FEATURES TO PERENNIAL STREAM, LAKE, POND, RESERVOIR OR WETLAND: >100 FEET WELL PAD, LOD, & E & S CONTROL FEATURES TO NATURALLY PRODUCING TROUT STREAM: >300 FEET WELL PAD, LOD, & E & S CONTROL FEATURES TO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY: >1000 FEET WELL SHL TO EXISTING WATER WELL OR DEVELOPED SPRING: >250 FEET CENTER OF PAD TO OCCUPIED DWELLING STRUCTURE: >625 FEET CENTER OF PAD TO AGRICULTURAL BUILDINGS LARGER THAN 2500 SQ FT: >625 FEET				OPERATOR'S GLADYS BRIGGS MSH		WELL #: 210H	
FEMA FLOOD INFORMATION: BY GRAPHIC PLOTTING ONLY FEMA FIRM INCORPORATED AREA OF MARSHALL COUNTY, WEST VIRGINIA; MAP NUMBER 54051C0200 E; EFFECTIVE DATE: SEPTEMBER 25, 2009.				LOCATION: LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA		SURFACE HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 39.767133' LONGITUDE: -80.615781'	
LEGEND: ○ PROPOSED SURFACE HOLE / BOTTOM HOLE ⊙ EXISTING / PRODUCING WELLHEAD ⊗ ABANDONED WELL ⊗ PLUGGED & ABANDONED WELL △ CUT CONDUCTOR ⊙ EXISTING SPRING ⊙ EXISTING WATER WELL — ACCESS ROAD — ACCESS ROAD TO PREV. SITE — MARCELLUS DHP — COUNTY ROAD				BOTTOM HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 39.758790' LONGITUDE: -80.592601'		REVISIONS: △ REVISED OWNERSHIP & DHP 08-31-2016 △ REVISED OWNERSHIP 09-02-2016	
				DATE: 10-30-2015		DRAWN BY: N. MANO	
						SCALE: 1" = 2000'	
						DRAWING NO:	
						TOPOGRAPHIC MAP	

11/18/2016

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/16

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: John D. & Patty Briggs
Address: 342 Briggs Lane
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 532,907.991
County: Marshall Northing: 4,401,982.366
District: Liberty Public Road Access: Fish Ridge Road
Quadrangle: Cameron Generally used farm name: _____
Watershed: Big Run

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Company, LLC
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1611
Email: Micah_Feather@swn.com
Facsimile: _____

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1614
Email: Danielle_Southall@swn.com
Facsimile: _____

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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/16

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Thelma Yeater
Address: 82 Fish Ridge Rd.
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 532,907.991
County: Marshall Northing: 4,401,982.366
District: Liberty Public Road Access: Fish Ridge Road
Quadrangle: Cameron Generally used farm name: _____
Watershed: Big Run

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Company, LLC
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1611
Email: Micah_Feather@swn.com
Facsimile: _____

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1614
Email: Danielle_Southall@swn.com
Facsimile: _____

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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/19/15

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

- HAND DELIVERY
- CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Preston & Heather L. Yeater
Address: 3663 Fish Ridge Rd
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>532,907.991</u>
County:	<u>Marshall</u>		Northing:	<u>4,401,982.366</u>
District:	<u>Liberty</u>	Public Road Access:	<u>Fish Ridge Road</u>	
Quadrangle:	<u>Cameron</u>	Generally used farm name:	_____	
Watershed:	<u>Big Run</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Company, LLC
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1611
Email: Micah_Feather@swn.com
Facsimile: _____

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1614
Email: Danielle_Southall@swn.com
Facsimile: _____

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** *[Signature]*

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Vincent E. Lemasters
Address: 103 Briggs Lane
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia **UTM NAD 83 Easting:** 532,907.991
County: Marshall **Northing:** 4,401,982.366
District: Liberty **Public Road Access:** Fish Ridge Road
Quadrangle: Cameron **Generally used farm name:** _____
Watershed: Big Run

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Company, LLC
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1611
Email: Micah_Feather@swn.com
Facsimile: _____

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Innovation Drive
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Telephone: 304-884-1614
Email: Danielle_Southall@swn.com
Facsimile: _____

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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION**

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

CERTIFIED MAIL **HAND**
RETURN RECEIPT REQUESTED **DELIVERY**

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Vincent E. Lemasters **Name:** _____
Address: 103 Briggs Lane **Address:** _____
Cameron, WV 26033 _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia **UTM NAD 83 Easting:** 532,907.991
County: Marshall **Northing:** 4,401,982.366
District: Liberty **Public Road Access:** Fish Ridge Road
Quadrangle: Cameron **Generally used farm name:** _____
Watershed: Big Run

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: SWN Production Company, LLC **Address:** PO Box 1300, 179 Innovation Drive
Telephone: 304-884-1614 Jane Lew, WV 26378
Email: Danielle_Southall@swn.com **Facsimile:** _____

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**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/16

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Roger Jacob Briggs
Address: 531 Briggs Lane
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 532,907.991
County: Marshall Northing: 4,401,982.366
District: Liberty Public Road Access: Fish Ridge Road
Quadrangle: Cameron Generally used farm name: _____
Watershed: Big Run

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Company, LLC
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1611
Email: Micah_Feather@swn.com
Facsimile: _____

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1614
Email: Danielle_Southall@swn.com
Facsimile: _____

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**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY **CERTIFIED MAIL RETURN RECEIPT REQUESTED**

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: James Rodney Briggs
Address: 531 Briggs Lane
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>532,907,991</u>
County: <u>Marshall</u>	Northing: <u>4,401,982.366</u>
District: <u>Liberty</u>	Public Road Access: <u>Fish Ridge Road</u>
Quadrangle: <u>Cameron</u>	Generally used farm name: _____
Watershed: <u>Big Run</u>	

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Company, LLC
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1611
Email: Micah_Feather@swn.com
Facsimile: _____

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1614
Email: Danielle_Southall@swn.com
Facsimile: _____

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**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

- HAND DELIVERY
- CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Jack Briggs /
Address: 307 Briggs Lane
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>532,907.991</u>
County:	<u>Marshall</u>		Northing:	<u>4,401,982.366</u>
District:	<u>Liberty</u>	Public Road Access:	<u>Fish Ridge Road</u>	
Quadrangle:	<u>Cameron</u>	Generally used farm name:	_____	
Watershed:	<u>Big Run</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: SWN Production Company, LLC
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1611
Email: Micah_Feather@swn.com
Facsimile: _____

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Telephone: 304-884-1614
Email: Danielle_Southall@swn.com
Facsimile: 304-471-2497

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51-01885

WW-6A5
(1/12)

Operator Well No. Glady's Briggs MSH 210H

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION**

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.
Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/16

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: <u>John D. & Patty Briggs</u>	Name: _____
Address: <u>342 Briggs Lane</u>	Address: _____
<u>Cameron, WV 26033</u>	_____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>532,907.991</u>
County: <u>Marshall</u>	Northing: <u>4,401,982.366</u>
District: <u>Liberty</u>	Public Road Access: <u>Fish Ridge Road</u>
Quadrangle: <u>Cameron</u>	Generally used farm name: _____
Watershed: <u>Big Run</u>	

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: <u>SWN Production Company, LLC</u>	Address: <u>PO Box 1300, 179 Innovation Drive</u>
Telephone: <u>304-884-1614</u>	<u>Jane Lew, WV 26378</u>
Email: <u>Danielle_Southall@swn.com</u>	Facsimile: _____

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11/18/2016

SI-01865

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION**

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Thelma Yeater
Address: 82 Fish Ridge Rd.
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>532,907.991</u>
County:	<u>Marshall</u>		Northing:	<u>4,401,982.366</u>
District:	<u>Liberty</u>	Public Road Access:	<u>Fish Ridge Road</u>	
Quadrangle:	<u>Cameron</u>	Generally used farm name:	_____	
Watershed:	<u>Big Run</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: SWN Production Company, LLC
Telephone: 304-884-1614
Email: Danielle_Southall@swn.com

Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Facsimile: _____

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/16

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

CERTIFIED MAIL **HAND**
RETURN RECEIPT REQUESTED **DELIVERY**

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Preston & Heather L. Yeater **Name:** _____
Address: 3663 Fish Ridge Rd. **Address:** _____
Cameron, WV 26033 _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>532,907.991</u>
County: <u>Marshall</u>	Northing: <u>4,401,982.366</u>
District: <u>Liberty</u>	Public Road Access: <u>Fish Ridge Road</u>
Quadrangle: <u>Cameron</u>	Generally used farm name: _____
Watershed: <u>Blg Run</u>	

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: <u>SWN Production Company, LLC</u>	Address: <u>PO Box 1300, 179 Innovation Drive</u>
Telephone: <u>304-884-1614</u>	<u>Jane Lew, WV 26378</u>
Email: <u>Danielle_Southall@swn.com</u>	Facsimile: _____

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51-4885

WW-6A5
(1/12)

Operator Well No. Glady's Briggs MSH 210H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/16

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: <u>Roger Jacob Briggs</u>	Name: _____
Address: <u>531 Briggs Lane</u> <u>Cameron, WV 26033</u>	Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>532,907.991</u>
County: <u>Marshall</u>		Northing: <u>4,401,982.366</u>
District: <u>Liberty</u>	Public Road Access: <u>Fish Ridge Road</u>	
Quadrangle: <u>Cameron</u>	Generally used farm name: _____	
Watershed: <u>Big Run</u>		

This Notice Shall Include:

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Well Operator: <u>SWN Production Company, LLC</u>	Address: <u>PO Box 1300, 179 Innovation Drive</u>
Telephone: <u>304-884-1614</u>	<u>Jane Lew, WV 26378</u>
Email: <u>Danielle_Southall@swn.com</u>	Facsimile: _____

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**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION**

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/15

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: James Rodney Briggs ✓ **Name:** _____
Address: 531 Briggs Lane _____
Cameron, WV 26033 _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>532,907.991</u>
County: <u>Marshall</u>		Northing: <u>4,401,982.366</u>
District: <u>Liberty</u>	Public Road Access: <u>Fish Ridge Road</u>	
Quadrangle: <u>Cameron</u>	Generally used farm name: _____	
Watershed: <u>Big Run</u>		

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: SWN Production Company, LLC **Address:** PO Box 1300, 179 Innovation Drive
Telephone: 304-884-1614 Jane Lew, WV 26378
Email: Danielle_Southall@swn.com **Facsimile:** _____

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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

OCT 27 2015

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

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Date of Notice: 10/22/2015 **Date Permit Application Filed:** 10/11/16

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

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- RETURN RECEIPT REQUESTED DELIVERY

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Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Jack Briggs
Address: 307 Briggs Lane
Cameron, WV 26033

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>532,907.991</u>
County:	<u>Marshall</u>		Northing:	<u>4,401,982.366</u>
District:	<u>Liberty</u>	Public Road Access:	<u>Fish Ridge Road</u>	
Quadrangle:	<u>Cameron</u>	Generally used farm name:	_____	
Watershed:	<u>Big Run</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: SWN Production Company, LLC
Telephone: 304-884-1614
Email: Danielle_Southall@swn.com

Address: PO Box 1300, 179 Innovation Drive
Jane Lew, WV 26378
Facsimile: _____

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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

November 17, 2015

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Gladys Briggs Pad, Marshall County

Gladys Briggs MSH 210H

Dear Mr. Martin,

The West Virginia Division of Highways has transferred Permit #06-2012-0489 for the subject site to Southwestern Energy for access to the State Road for the well site located off of Marshall County Route 94 SLS.

The operator has signed an OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office Oil & Gas Coordinator

Cc: Brittany Woody
Southwestern Energy
CH, OM, D-6
File

Supplier Name	Product Name	Product Use	Chemical Name	CAS Number
BAKER HUGHES	ALPHA 1427	Biocide	Didecyl Dimethyl Ammonium Chloride	007173-51-1
			Ethanol	000064-17-5
			Glutaraldehyde (Pentenediol)	000111-30-8
			Quaternary Ammonium Compound	068424-85-1
			Water	007732-18-5
	BF-7L	Buffer	Potassium Carbonate	000584-08-7
	ClayCare	Clay Stabilizer	Choline Chloride	000067-48-1
			Water	007732-18-5
	Enzyme G-I	Breaker	No Hazardous Components	NONE
	ENZYME G-NE	Breaker	No Hazardous Components	NONE
	FRW-18	Friction Reducer	Petroleum Distillate Hydrotreated Light	064742-47-8
	GW-3LDF	Gel	Petroleum Distillate Blend	N/A-014
			Polysaccharide Blend	N/A-021
	SCALETROL 720	Scale Inhibitor	Diethylene Glycol	000111-46-6
			Ethylene Glycol	000107-21-1
XLW-32	Crosslinker	Boric Acid	010043-35-3	
		Methanol (Methyl Alcohol)	000067-56-1	
FRAC TECH SERVICES	APB01 (AMMONIUM PERSUFATE BREAKER)	Breaker	Ammonium Persulfate	007727-54-0
	B05 (LOW PH BUFFER)	Buffer	Acetic acid	000064-19-7
	BXL03 Borate XL Delayed High Temp	Crosslinker	No Hazardous Components	NONE
	FRW-200	Friction Reducer	No Hazardous Components	NONE
	HVG01 (TURQUOISE-1 BULK)	Gelling Agent	Petroleum Distillate Hydrotreated Light	064742-47-8
	KCLS-4	Clay Stabilizer	No Hazardous Components	NONE
	LTB-1	Breaker	Ammonium Persulfate	N/A

Environmental Protection

51-01885

Supplier Name	Product Name	Product Use	Chemical Name	CAS Number
NALCO ONESOURCE	EC6110A	Biocide	Ethanol	000064-17-5
			Glutaraldehyde (Pentanediol)	000111-30-8
			Quaternary Ammonium Compounds	N/A-063
	EC6629A	Biocide	No Hazardous Components	NONE
WEATHERFORD	WBK-133 OXIDIZER	Breaker	Ammonium Persulfate	007727-54-0
	WBK-134	Breaker	Ammonium Persulfate	007727-54-0
			Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7
	WCS-631LC	Clay Stabilizer	Proprietary Non Hazardous Salt	N/A-229
			Water	007732-18-5
	WFR-55LA	Friction Reducer	No Hazardous Components	NONE
	WGA-15L	Gel	Petroleum Distillate Hydrotreated Light	064742-47-8
	WPB-584-L	Buffer	Potassium Carbonate	000584-08-7
			Potassium Hydroxide	001310-58-3
	WXL-101LE	Corsslinker	No Hazardous Components	NONE
	WXL-101LM	Crosslinker	Petroleum Distillate Hydrotreated Light	064742-47-8
WXL-105L	Crosslinker	Water	007732-18-5	
		Ethylene Glycol	000107-21-1	
		Boric Acid	010043-35-3	
		Ethanolamine	000141-43-5	
SCHLUMBERGER	B244 Green-Cide 25G	Biocide	Glutaraldehyde	111-30-8
	L071 Temporary Clay Stabilizer	Clay Stabilizer	Cholinium Chloride	67-48-1
	Breaker J218	Breaker	Diammonium Peroxidisulphate	7727-54-0
	EB-Clean* J475 Breaker		Diammonium Peroxidisulphate	7727-54-0
	Friction Reducer B315	Friction Reducer	Distillates (petroleum), Hydrotreated light Aliphatic Alcohol Glycol Ether	64742-47-8 Proprietary
	Friction Reducer J609		Ammonium Sulfate	7783-20-2
Supplier Name	Product Name	Product Use	Chemical Name	CAS Number

11/18/2016

SCHLUMBERGER	Water Gelling Agent J580	Gel	Carbohydrate Polymer	Proprietary
	Scale Inhibitor B317	Scale Inhibitor	Trisodium ortho phosphate Ethane-1, 2-diol	7601-54-9 107-21-1
	Borate Crosslinker J532	Crosslinker	Aliphatic polyol Sodium tetraborate decahydrate	Proprietary 1303- 96-4
	Crosslinker J610		Aliphatic polyol Potassium hydroxide	Proprietary 1310- 58-3

OCT 18 2016
 OCT 18 2016
 OCT 18 2016



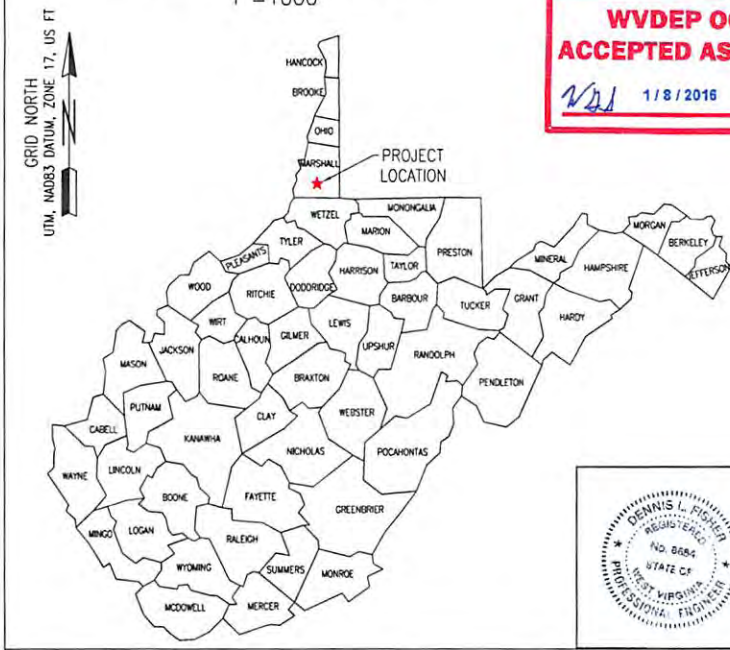
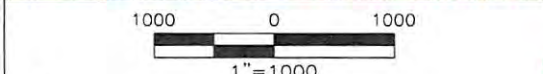
**GLADYS BRIGGS MSH PAD
CONSTRUCTION AND RECLAMATION PLAN
AS-BUILT
LIBERTY DISTRICT, MARSHALL COUNTY, WV
AUGUST 2015**

TOTAL DISTURBED AREA: 8.4 ACRES
ROAD DISTURBED AREA: 3.5 ACRES
PAD DISTURBED AREA: 4.9 ACRES

SHEET INDEX

- TS1. TITLE SHEET
- EP2.1 EVACUATION ROUTE/ PREVAILING WIND
- EP2.2 EVACUATION ROUTE/ PREVAILING WIND
- AS3.1 ASBUILT OVERVIEW
- AS3.2 ASBUILT
- AS3.3 ASBUILT
- AS3.4 ASBUILT
- AS3.5 ASBUILT
- AS3.6 ASBUILT
- AS3.7 ASBUILT
- ASR4.1 CONSTRUCTION AND RECLAMATION ACCESS ROAD PROFILE
- MRD5.1 RECLAMATION PLAN OVERVIEW
- MRD5.2 RECLAMATION PLAN
- MRD5.3 RECLAMATION PLAN
- MRD5.4 RECLAMATION PLAN
- MRD5.5 RECLAMATION PLAN
- MRD5.6 RECLAMATION PLAN
- MRD5.7 RECLAMATION PLAN
- MRD6.3 RECLAMATION DETAILS
- MRD6.4 RECLAMATION DETAILS

REVISION	DATE
CHANGES ON SHEETS AS3.7, ASR4.1, & MRD5.7	10-16-2015
CHANGES ON SHEETS AS3.7 & MRD5.7. ALSO ADDED SHEET MRD6.4	11-23-2015
CELLAR DETAIL AS3.7, MRD5.7, & MRD6.4	01-07-2016



**WVDEP OOG
ACCEPTED AS-BUILT**

VJL 1/8/2016

COORDINATES:
SITE ENTRANCE
(NAD83)
LAT: 39.771899
LONG: 80.607187

AT BRIGGS PAD
(NAD83)
LAT: 39.767864
LONG: 80.615884

CENTER OF PAD
(NAD83)
LAT: 39.767143
LONG: 80.615970

GATHERING AREA
(NAD83)
LAT: 39.771728
LONG: 80.608802

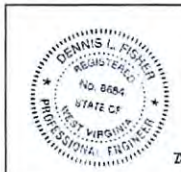
EXISTING WELL:
BRIGGS MSH 8H
(NAD83)
LAT: 39.767080
LONG: 80.615852

PROPOSED WELLS:
BRIGGS MSH 6H
(NAD83)
LAT: 39.767053
LONG: 80.615888

BRIGGS MSH 10H
(NAD83)
LAT: 39.767107
LONG: 80.615817

BRIGGS MSH 205H
(NAD83)
LAT: 39.767173
LONG: 80.615830

BRIGGS MSH 210H
(NAD83)
LAT: 39.767133
LONG: 80.615781



Dennis L. Fisher
Dennis L. Fisher R/P E BEB: 01-07-2016
Date:



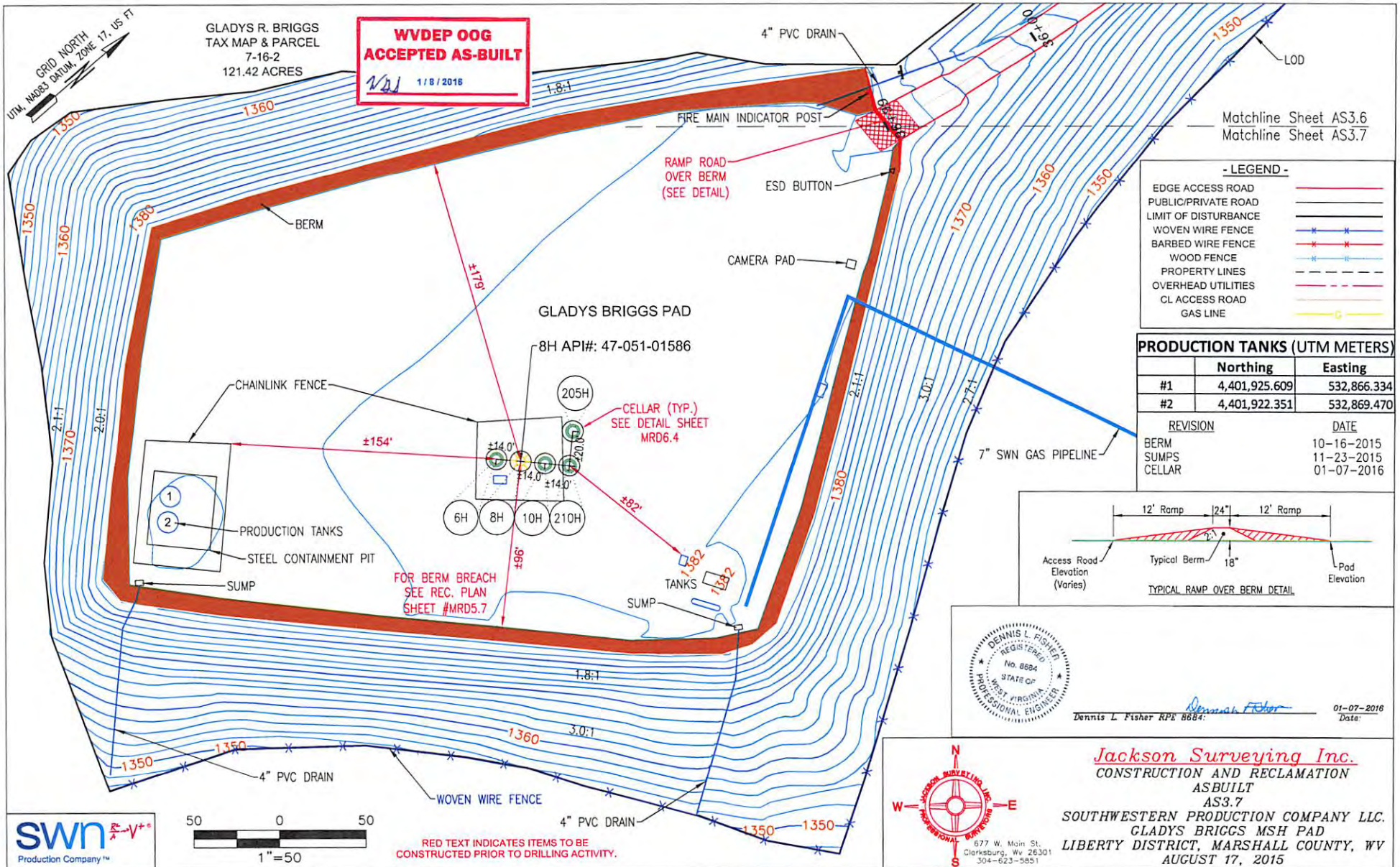
Jackson Surveying Inc.
TITLE SHEET
TS.1
SOUTHWESTERN PRODUCTION COMPANY LLC.
GLADYS BRIGGS MSH PAD
LIBERTY DISTRICT, MARSHALL COUNTY, WV
AUGUST 17, 2015

677 W. Main St.
Clarksburg, Wv 26301
304-623-5851

GRID NORTH
UTM, NAD83 DATUM, ZONE 17, US FT

GLADYS R. BRIGGS
TAX MAP & PARCEL
7-16-2
121.42 ACRES

**WVDEP OOG
ACCEPTED AS-BUILT**
1/8/2016



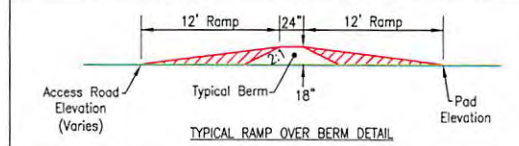
- LEGEND -

- EDGE ACCESS ROAD
- PUBLIC/Private ROAD
- LIMIT OF DISTURBANCE
- WOVEN WIRE FENCE
- BARBED WIRE FENCE
- WOOD FENCE
- PROPERTY LINES
- OVERHEAD UTILITIES
- CL ACCESS ROAD
- GAS LINE

PRODUCTION TANKS (UTM METERS)

	Northing	Easting
#1	4,401,925.609	532,866.334
#2	4,401,922.351	532,869.470

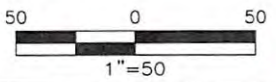
REVISION	DATE
BERM	10-16-2015
SUMPS	11-23-2015
CELLAR	01-07-2016



Dennis L. Fisher RPE 8884
Date: 01-07-2016

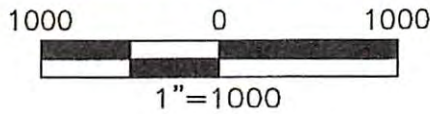
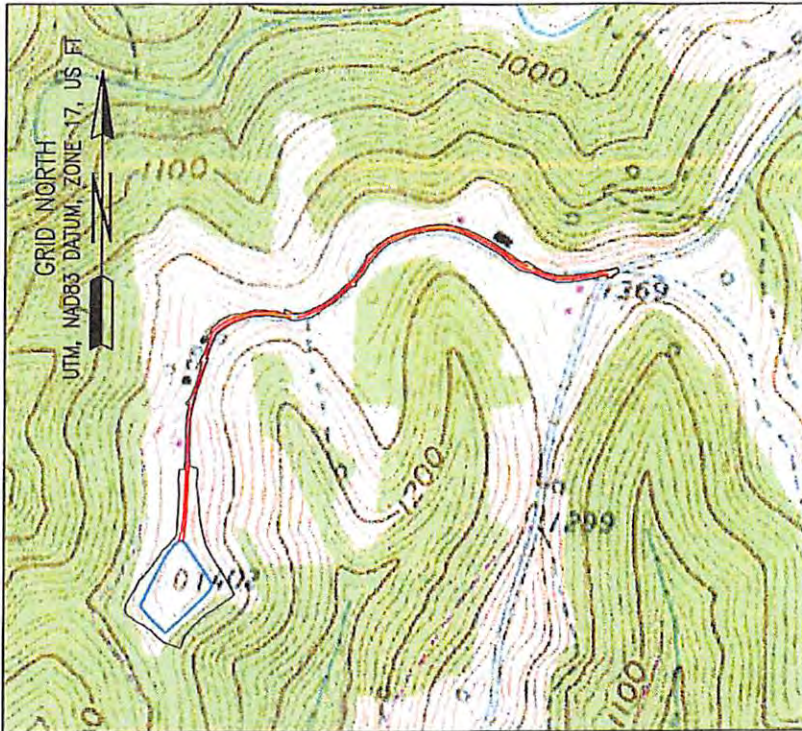


Jackson Surveying Inc.
CONSTRUCTION AND RECLAMATION
ASBUILT
AS3.7
SOUTHWESTERN PRODUCTION COMPANY LLC.
GLADYS BRIGGS MSH PAD
LIBERTY DISTRICT, MARSHALL COUNTY, WV
AUGUST 17, 2015

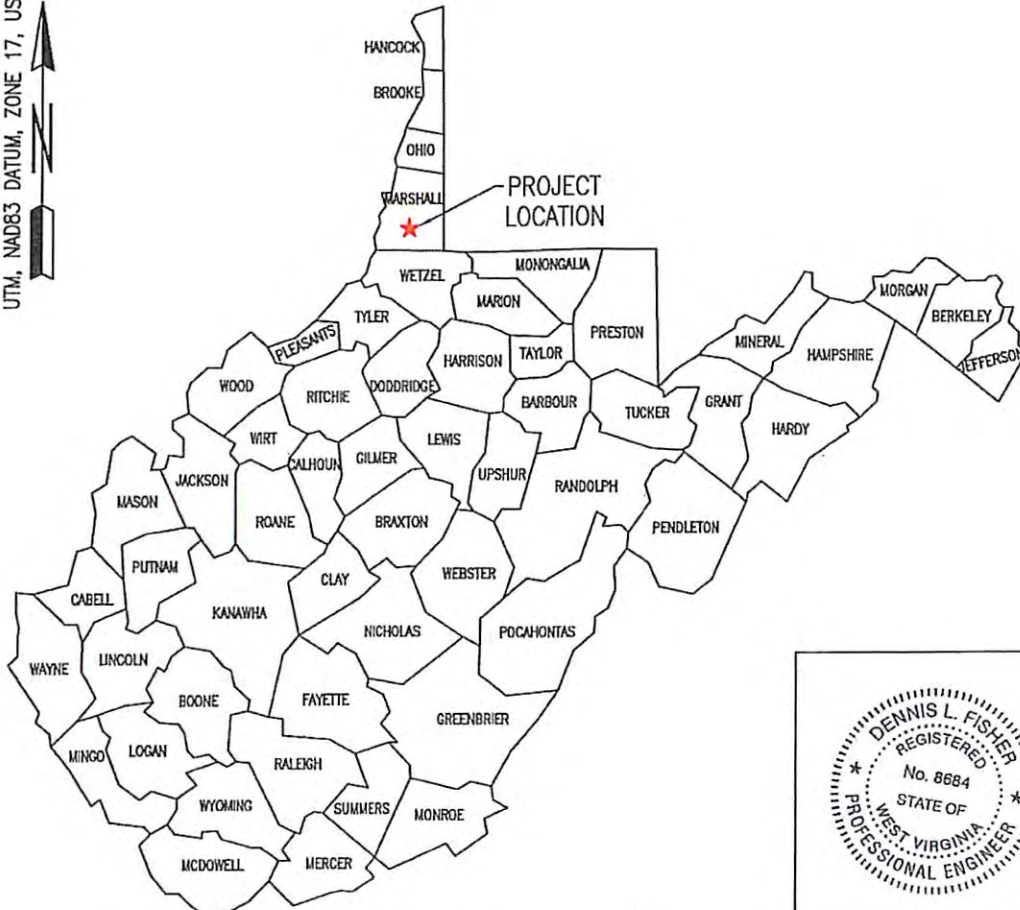


RED TEXT INDICATES ITEMS TO BE
CONSTRUCTED PRIOR TO DRILLING ACTIVITY.

GLADYS BRIGGS
 CONSTRUCTION AND
 AS-BUILT
 LIBERTY DISTRICT, MARSHALL COUNTY
 AUGUST 2016



GRID NORTH
 UTM, NAD83 DATUM, ZONE 17, US FT



TOTAL DISTURBED
 ROAD DISTURBED
 PAD DISTURBED

COORDINATES
 SITE ELEVATION
 (NAIP)
 LAT: 39.12
 LONG: 80.75
 AT BRIGGS
 (NAIP)
 LAT: 39.12
 LONG: 80.75
 CENTER POINT
 (NAIP)
 LAT: 39.12
 LONG: 80.75
 GATHERING POINT
 (NAIP)
 LAT: 39.12
 LONG: 80.75



Dennis L. Fisher RPE 8684

11/18/2016

**BRIGGS MSH PAD
RECLAMATION PLAN
GLADYS BRIGGS MSH PAD
LIBERTY DISTRICT, MARSHALL COUNTY, WV
AUGUST 17, 2015**

SHEET INDEX

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- MRD5.6 RECLAMATION PLAN
- MRD5.7 RECLAMATION PLAN
- MRD6.3 RECLAMATION DETAILS

AREA: 8.4 ACRES
AREA: 3.5 ACRES
AREA: 4.9 ACRES

EXISTING WELL:
BRIGGS MSH 8H
(NAD83)
LAT: 39.767080
LONG: 80.615852

PROPOSED WELLS:
BRIGGS MSH 6H
(NAD83)
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LONG: 80.615888

BRIGGS MSH 10H
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LAT: 39.767107
LONG: 80.615817

BRIGGS MSH 205H
(NAD83)
LAT: 39.767173
LONG: 80.615830

BRIGGS MSH 210H
(NAD83)
LAT: 39.767133
LONG: 80.615781

REVISION	DATE
CHANGES ON SHEETS AS3.7, ASR4.1, & MRD5.7	10-16-2015

John
10/28/15

LOCATIONS:
BRIGGS MSH PAD
(NAD83)
LAT: 39.71899
LONG: 80.607187

BRIGGS MSH PAD
(NAD83)
LAT: 39.67864
LONG: 80.615884

BRIGGS MSH PAD
(NAD83)
LAT: 39.67143
LONG: 80.615970

BRIGGS MSH PAD
(NAD83)
LAT: 39.71728
LONG: 80.608802

WEST VIRGINIA 811
CALL BEFORE YOU DIG! Dial 811 or 800.245.4848
www.WV811.com

SWN $\frac{R^2}{A} \rightarrow V^+$
Production Company™

Fisher
10-16-2015
Date:

Jackson Surveying Inc.
TITLE SHEET
TS.1
SOUTHWESTERN PRODUCTION COMPANY LLC.
GLADYS BRIGGS MSH PAD
LIBERTY DISTRICT, MARSHALL COUNTY, WV
AUGUST 17, 2015