

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

September 20, 2016 PERMIT MODIFICATION APPROVAL Horizontal 6A / Horizontal 6A Well - 1

SWN PRODUCTION COMPANY, LLC POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit Modification Approval for GLADYS BRIGGS MSH 205H

47-051-01873-00-00

Lateral Modifications

SWN PRODUCTION COMPANY, LLC

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

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

Operator's Well Number: GLADYS BRIGGS MSH 205H Farm Name: JAMES R., ROGER J. & JOHN D. BRIGGS

A. Martin

U.S. WELL NUMBER: 47-051-01873-00-00 Horizontal 6A / Horizontal 6A Well - 1

Date Issued: September 20, 2016

Promoting a healthy environment.

API NO. 47-51 - 501873 MOD OPERATOR WELL NO. Gladys Briggs MSH 205H Well Pad Name: Gladys Briggs MSH Pad

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

1) Well Operator: SWN Produ	action Co., LLC	494512924	Marshall	4-Liberty	278-Cameron
API > 47-051-018	73	Operator ID	County	District	Quadrangle
2) Operator's Well Number: Gl	adys Briggs MSI	H 205H Well Pad	Name: Glady	s Briggs M	1SH Pad
3) Farm Name/Surface Owner:	Gladys R. Briggs	Public Roa	d Access: Fish	Ridge Ro	ad
4) Elevation, current ground:	1382' Ele	evation, proposed	post-construction	on: 1382'	
5) Well Type (a) Gas X Other	Oil	Unde	erground Storag	е	
***	llow <u>x</u> izontal x	Deep			112/2-11
6) Existing Pad: Yes or No yes		3			N 8/30/16
7) Proposed Target Formation(s) Target Formation- Marcellus, Target	1			, ,	
8) Proposed Total Vertical Depth	n: 7,153'				
9) Formation at Total Vertical D	epth: Marcellus			No.	
10) Proposed Total Measured De	epth: 16,394'				
II) Proposed Horizontal Leg Le	ngth: 8451'				
12) Approximate Fresh Water St	rata Depths:	732'			
13) Method to Determine Fresh	Water Depths: fr	om log analysis a	and nearby wa	ter wells	
14) Approximate Saltwater Dept	hs: 1741'	10-300-			
15) Approximate Coal Seam Dep	pths: 1099'				
16) Approximate Depth to Possi	ble Void (coal mir	ne, karst, other):	None that we a	are aware	of.
 Does Proposed well location directly overlying or adjacent to 		Yes		X-COVE	end Gas
(a) If Yes, provide Mine Info:	Name:		Office	9	2016
	Depth:			SEP 0 6	7010
	Seam:		- 14	Bunt	iment of
	Owner:		Covide	onments	al Protection

APINO. 47-51 - 301873 May

OPERATOR WELL NO. Gladys Briggs MSH 205H
Well Pad Name: Gladys Briggs MSH Pad

18)

CASING AND TUBING PROGRAM

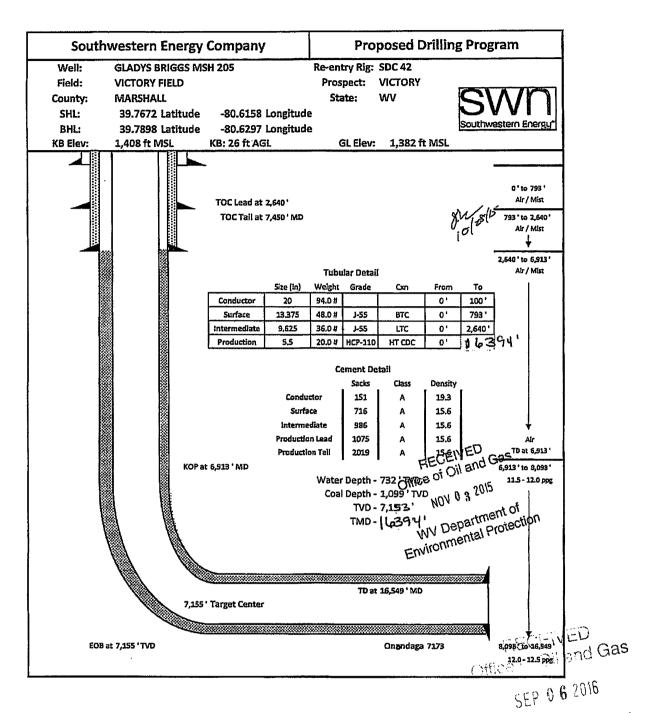
TYPE	Size (in)	New or Used	<u>Grade</u>	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	J-55	54.5#	793'	793'	716 sx/CTS
Coal	9 5/8"	New	J-55	40#	2640'	2640'	986 sx/CTS
Intermediate	7"	New	HCP-110	20#	If Needed	If Needed	If Needed/As Needed
Production	5 1/2"	New	HCP-110	20#	16,394'	16,394'	Lead 1075sx 2019ud sv/100 builds b
Tubing	2 3/8'	New	P-110	4.7#	Approx. 7,155'	Approx. 7,155'	
Liners							

JN 8/30/16

ТҮРЕ	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:			



And Department of Environmental Protection

API	Operator	Status	Latitude	Longitude	Vertical TD	Producing Formation	
051-00347	Consolidation Coal Co. River Operations - Rd. #4 Box 425 Moundsville WV 26041	Plugged (Abandoned on Plat)	***	***	3046'	4th Sand, Slate	Γ
051-00368	The Manufacturers Light & Heat Company - 800 Union Trust Bldg. Pittsburgh PA	Active Storage	***	***	2320'	Big Injun Sand	
051-00484	Columbia Gas Transmission Corp 1700 MacCorkle Ave SE Charleston WV 25325-1273	Active Storage	***	***	2302'	Big Injun Sand	
051-00141	The Manufacturers Light & Heat Company - 800 Union Trust Bldg. Pittsburgh PA	Plugged (Abandoned on Plat)	***	***	2940'	Gordon	
051-01004	Consolidation Coal Co. River Operations - Rd. #4 Box 425 Moundsville WV 26041	Plugged	***	***	Unknown	Unknown	Г
051-00969	Consolidation Coal Co. River Operations - Rd. #4 Box 425 Moundsville WV 26041	Plugged	***	***	Unknown	Unknown	
051-00968	Consolidation Coal Co. River Operations - Rd. #4 Box 425 Moundsville WV 26041	Plugged	***	***	Unknown	Unknown	
051-00110	Carnegie Natural Gas Co 1014 Frick Bldg. Pittsburgh PA	Plugged	***	***	3281'	Slate	
							Г
							Г
							Γ
							Γ
					· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	Γ
			·	·			_

WW-6A1 (5/13) Operator's Well No. Gladys Briggs MSH 205H

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

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

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

Number	Grantor Lessor etc	Grantee Lessee etc.	Royalty	Rook/Page
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

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: Branch welliam

Its: Staff Landman

Page 1 of 1

RECEIVED
Office of Oil and Gas

AUG 2 2 2016

WV Department of Environmental Protection 09/23/2016

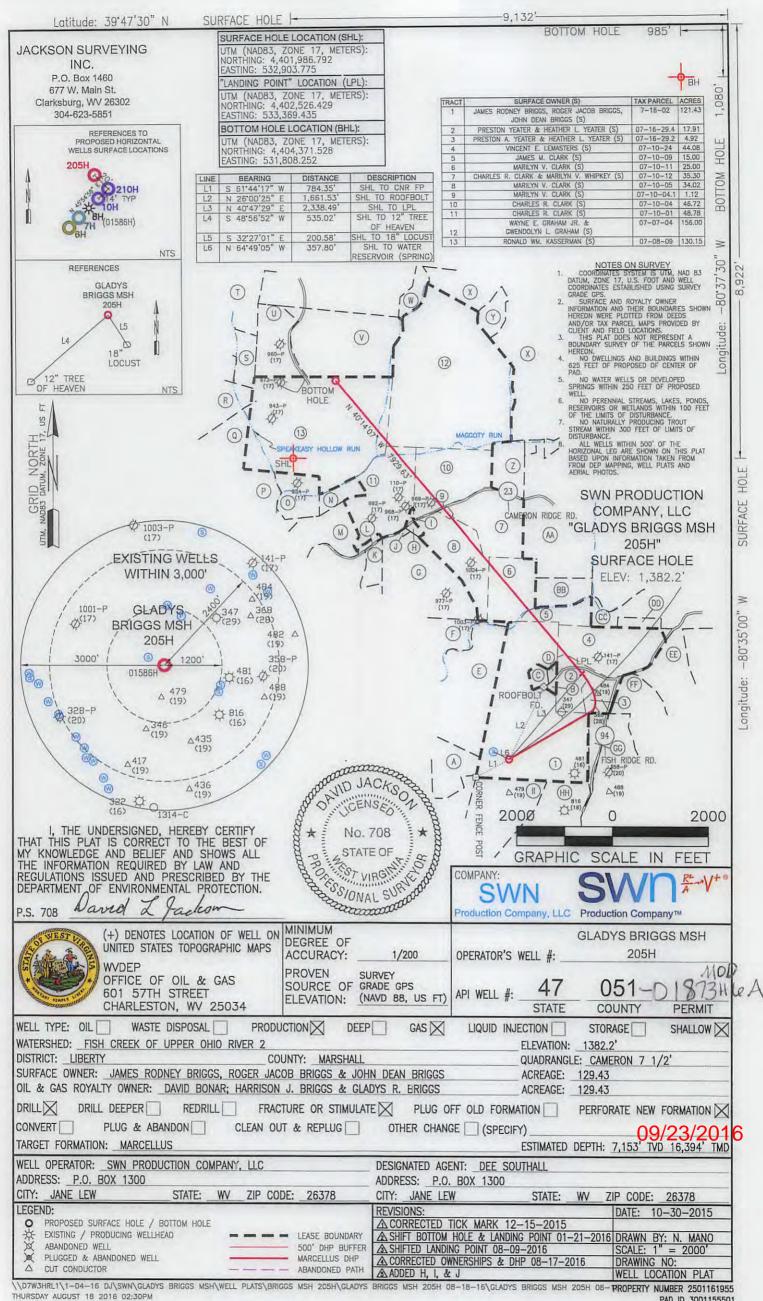
••	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
_	1				David Bonar, single; Harrison J. Briggs and Gladys R.			
1	07-16-02	James Rodney Briggs	121.4290	1-254788-000	Briggs, his wife	The Manufacturers Light and Heat Company	12.50%	309/354
		Roger Jacob Briggs			The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
		John Dean Briggs			Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
_					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		Preston Yeater and			James M. Rine and Mary B. Rine, his wife, and Frank			-
2	07-16-29.4	Heather L. Yeater (h/w, JT)	17.9100	1-254725-000	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 Transmision Corporation		422/204
					Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/28
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/32
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
	1	Preston A. Yeater and			James M. Rine and Mary B. Rine, his wife, and Frank			34/302
3	07-16-29.2	Heather L. Yeater (h/w, JT)	4.9160	1-254725-000	Hopkins and Austia M. Hopkins, his wife	E.C. Beardsley	12.50%	137/42
<u> </u>	0. 20 20.2			<u> </u>	E.C. Beardsley	The Wheeling Natural Gas Company		150/49
					The Wheeling Natural Gas Company	The Manufacturers Light and Heat Company		148/38
					The Manufacturers Light and Heat Company	Union Gasoline & Oil Corporation		197/12
					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 Transmision Corporation		422/20
			<u> </u>		Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/28
			17.12 17.12	b	Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
			0,5	<u>E:</u>	Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
			∃c ≥	ð	Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582

#	ТМР	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
4	07-10-24	Vincent E. Lemasters	44.0750	1-236956-013	Pearl Lough, f/k/a Pearl Williams, a widow	Chesapeake Appalachia, LLC	12.50%	692/397
				•	Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
					A. Jane Davis, a married woman dealing in her sole			
				1-236956-015	and separate property	Chesapeake Appalachia, LLC	12.50%	693/558
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-022	Ronald Young, a single man	Chesapeake Appalachia, LLC	17.00%	747/528
-						SWN Production Company, LLC		33/110
				1-236956-021	O.W. Young, a/k/a Orville W. Young, a single man	Chesapeake Appalachia, LLC	17.00%	732/406
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-007	Guy Buzzard, a single man	Chesapeake Appalachia, LLC	12.50%	668/414
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-002	D. Vane Starkey, a widower	Chesapeake Appalachia, LLC	12.50%	659/62
					Chesapeake Appalachia, LLC	SWN Production Company, LLC	,	33/110
					Howard E. Williams, a married man dealing in his			
				1-236956-004	sole and separate property	Chesapeake Appalachia, LLC	12.50%	659/200
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
					Ralph E. Williams, a married man dealing in his sole			
				1-236956-001	and separate property	Chesapeake Appalachia, LLC	12.50%	658/484
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-014	Harry E. Johnson, Sr., a widower	Chesapeake Appalachia, LLC	12.50%	693/562
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-006	James L. and Elsie J. Mercer, his wife	Chesapeake Appalachia, LLC	12.50%	659/382
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-005	Alma O. Pierce, a widow	Chesapeake Appalachia, LLC	12.50%	659/206
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-012	Elnor M. Horner, a/k/a Elnor Marie Horner, a widow	Chesapeake Appalachia, LLC	12.50%	690/260
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
					Sandra K. Dodd, a/k/a Sandy K. Dodd, a single			
				1-236956-016	woman	Chesapeake Appalachia, LLC	12.50%	698/363
		m				SWN Production Company, LLC		33/110
		Delice Delice			Donald L. Withers, a married man dealing in his sole			
		Wird of the state	,	1-236956-019		Chesapeake Appalachia, LLC	12.50%	695/203
		L B G	1		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		6 2 2 2016 Lepartment of						

			1		William G. Withers, III, a married man dealing in his			
				1-236956-017	sole and separate property	Chesapeake Appalachia, LLC	12.50%	698/366
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
- 1				1-236956-018	Karon Sue Vallee, a/k/a Karen Sue Vallee, a widow	Chesapeake Appalachia, LLC	12.50%	695/195
		-			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-003	Delmar W. Williams and Mary Lou Williams, his wife		12.50%	659/197
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
					Nile L. Williams, a married man dealing in his sole			
				1-236956-008	and separate property	Chesapeake Appalachia, LLC	12.50%	666/172
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
	·				Larry C. Williams, a married man dealing in his sole			
				1-236956-009	and separate property	Chesapeake Appalachia, LLC	12.50%	666/168
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236956-020	Chestnut Holdings, Inc., a Florida corporation	Chesapeake Appalachia, LLC	17.00%	725/295
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
5 0	7-10-09	James M. Clark	15.0000	1-254874-000	Olive Prendergast, widow	The Manufacturers Light and Heat Company	14.00%	360/341
					The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
					Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
6 0	7-10-11	Marilyn V. Clark	25.0000	1-254874-000	Olive Prendergast, widow	The Manufacturers Light and Heat Company	14.00%	360/341
					The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
					Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		Charles R. Clark and			Lovina Clark, widow; Dora Reynolds, widow;			
7 0	7-10-12	Marilyn V⇒Whipkey (JT).	35.3000	1-254833-000	Reverdy Reynolds and Golda F. Reynolds, his wife	The Manufacturers Light and Heat Company	12.50%	353/232
					The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
		AD & SE			Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
		1 20 元 0位			Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
\bot		2 2			Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
- 1		and Gas 2016 2016 2017 Protection			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
					Sarah Jane Kingree and Ben Kingree III, her husband (an undivided 1/2 interest) Alexander Foster			
					Reynolds and Edith Reynolds, his wife, and Alexander Foster Reynolds, as committee for Arthur			1
					Reynolds, an incompetent person (an undivided 1/2			1
					interest) and Gladys Reynolds, wife of Arthur			1
				1-254801-000		The Manufacturers Light and Heat Company	12.50%	361/300
					The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
			-		Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
-					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
					Sarah Jane Kingree and Ben Kingree III, her husband,			
					an undivided 1/2 interest, Alexander Foster			
					Reynolds and Edith Reynolds, his wife, and			
					Alexander Foster Reynolds, as committee for Arthur			
					Reynolds, an incompetent person (an undivided 1/2			1
					interest) and Gladys Reynolds, wife of Arthur			1
8	07-10-05	Marilyn V. Clark	34.0217	1-254800-000	Reynolds	The Manufacturers Light and Heat Company	12.50%	361/295
					The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
					Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
					Sarah Jane Kingree and Ben Kingree III, her husband			
					(an undivided 1/2 interest) Alexander Foster			
	1	m			Reynolds and Edith Reynolds, his wife, and			l
		Office WW Enviro			Alexander Foster Reynolds, as committee for Arthur			1
		Office Office P MV Environ			Reynolds, an incompetent person (an undivided 1/2			1
		AND ONTO			interest) and Gladys Reynolds, wife of Arthur			1
9	07-10-04.1	Marilynzy. Clark	1.1160	1-254801-000	Reynolds	The Manufacturers Light and Heat Company	12.50%	361/300
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>		The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
		9 20 n			Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
		3 e 6 d C			Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
		Gas Control			Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
	<u> </u>	Of S			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
	1	 	<u> </u>	<u> </u>	1	17		

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
					Sarah Jane Kingree and Ben Kingree III, her husband (an undivided 1/2 interest) Alexander Foster Reynolds and Edith Reynolds, his wife, and Alexander Foster Reynolds, as committee for Arthur Reynolds, an incompetent person (an undivided 1/2 interest) and Gladys Reynolds, wife of Arthur			
10	07-10-04	Charles R. Clark	46.7223	1-254801-000	Reynolds	The Manufacturers Light and Heat Company	12.50%	361/300
					The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
					Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
					Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
11	07-10-01	Charles R. Clark	48.7800	1-254920-000	Hilda Pell Sinco and Michael Sinco, her husband, Alexander Foster Reynolds, Ada Reynolds, and Alexander Foster Reynolds as Committee for Arthur Reynolds, an incompetent person	The Manufacturers Light and Heat Company	12.50%	363/455
	07-10-01	Charles II. Clark	40.7000	1 254520 000	The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation	12.50%	422/204
	 					i		
					Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
	 	-			Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
					Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
12	07-07-04	Wayne E. Graham Jr. and Gwendolyn L. Graham (h/w, JT)	156.00	1-348294-001	William K. Walton, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	18.00%	758/120
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-348294-002	Marietta Stover, a widow, by her Attorney-In-Fact, Marvie S. Alexander	Chesapeake Appalachia, LLC	18.00%	761/25
		m			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		ny Of		1-348294-003	Margie M. Davenport, a widow	Chesapeake Appalachia, LLC	18.00%	779/546
		3 2 6			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		AUG Dec		Pending	William E. Graham Jr. aka Wayne E. Graham Jr. & Gwendolyn L. Graham, husband and wife	SWN Production Company, LLC	16.00%	894/623
13	07-08-09	Ronald Wm Kasserman	130.1500	1-254901-000	William Woodburn and Ann B. Woodburn, his wife	The Manufacturers Light and Heat Company	14.00%	381/385
		an 20			The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204
		3 4 5 0 0			Columbia Gas Transmision Corporation	Columbia Natural Resources, LLC		642/281
		1 Gas			Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63
		ior			Columbia Gas Transmision Corporation	Chesapeake Appalachia, LLC		662/322
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110



51-0 1873 HbA

JACKSON SURVEYING INC.

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

ADJOINING OWNERS

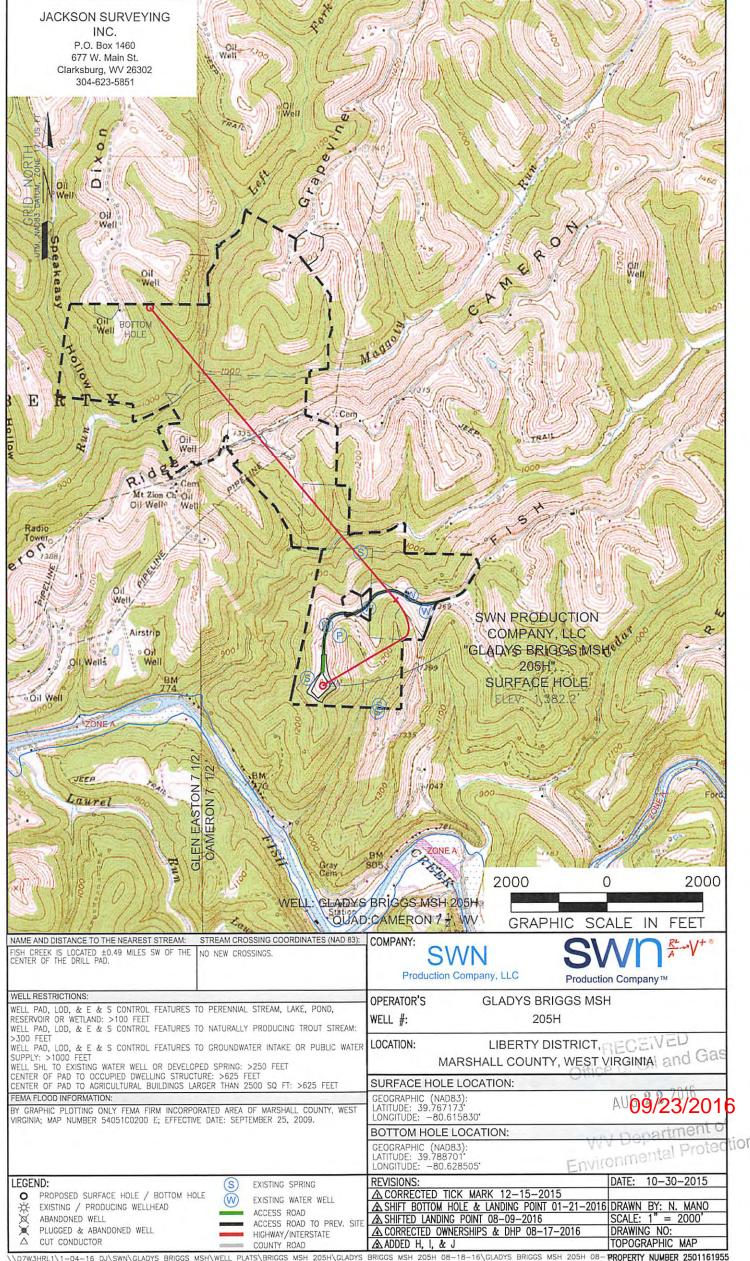
TRACT	ADJOINING SURFACE OWNER (S)	TAX PARCEL	ACRES
A	MASON DIXON FARMS LLC	07-17-19	22.80
В	JOHN D. BRIGGS & PATTY K. BRIGGS	07-16-02.2	1.03
C	VINCENT E. LEMASTERS	07-16-01	4.00
D	JACK BRIGGS	07-16-02.1	1.02
E	MCELROY COAL COMPANY	07-10-08	50.77
F	DONALD G. BUZZARD ET UX	07-10-07	164.13
G	ALVIN RICKEY ANDERSON ET AL	07-10-06	63.19
H	PAUL F. STERN	07-10-03	1.00
1	WINIFRED M. STERN	07-10-02	1.40
J	WINIFRED M. STERN	07-10-06.1	0.28
K	PAUL & SUSAN ASTON	07-09-26	8.50
L	ALVIN R. & JACKIE L. ANDERSON	07-10-01.1	1.46
M	CHARLES R. CLARK	07-09-28.2	34.00
N	EILEEN HINERMAN	07-09-25	5.00
0	GARY L. DOBBS	07-09-24	18.00
P	PAUL & SUSAN ASTON	07-09-21	100.00
Q	JOHN A. DOBBS ET UX	07-09-23	60.25
R	JOHN A. DOBBS ET UX	07-08-08	51.97
S	JOHN A. DOBBS ET UX	07-08-04	65.65
T	DANNY R. & FRANCES V. KERNS ESTS.	07-08-02	94.00
U	BLAINE E. STERN JR.	07-08-12	33.00
V	BLAINE E. STERN JR.	07-08-11	60.62
W	CONSOLIDATION COAL COMPANY	07-07-03	12.00
X	TERRY L. STRAYER	07-07-05	30.98
Y	WAYNE E. GRAHAM	07-07-05.1	5.82
Z	PAMELA J. HOWARD	07-10-15	15.51
AA	GARY RAY DOBBS ET AL	07-10-18	131.97
BB	JAMES M. CLARK	07-10-10	14.68
CC	HAROLD E. & ANITA RUSH	07-10-23	41.13
DD	HAROLD E. & ANITA RUSH	07-10-23.1	1.33
EE	WILLIAM A. & STEPHANIE F. YEATER	07-16-29.3	41.50
FF	THELMA YEATER	07-16-29	40.41
GG	GLADYS R. BRIGGS	07-16-03	10.00
HH	JACK J. BRIGGS	07-16-05	37.88
11	MASON DIXON FARMS LLC	07-16-06	69.72

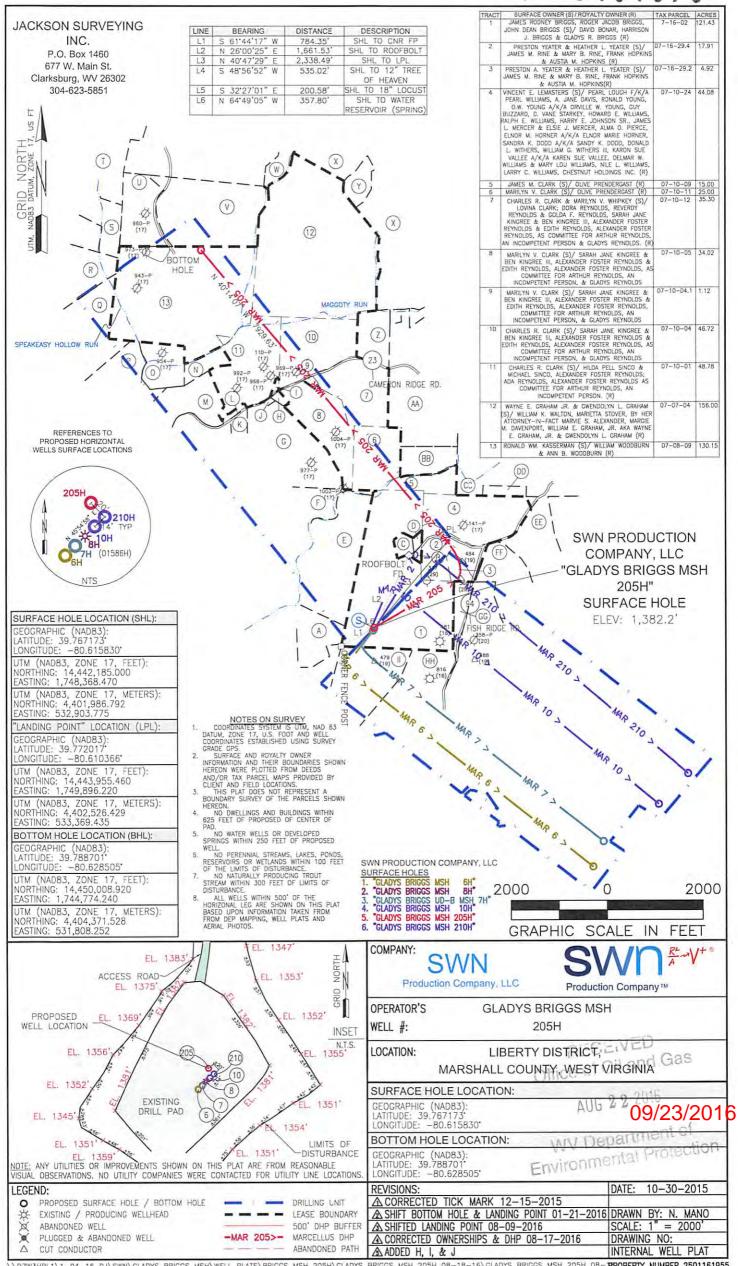
09/23/2016 COMPANY: **REVISIONS:** △ CORRECTED TICK MARK 12—15—2015

△ SHIFT BOTTOM HOLE & LANDING POINT 01—21—2016

△ SHIFTED LANDING POINT 08—09—2016

△ CORRECTED OWNERSHIPS & DHP 08—17—2016 SWN Production Company, LLC Production Company™ DATE: 10-30-2015 OPERATOR'S **GLADYS BRIGGS MSH** ADDED H, I, & J WELL #: 205H DRAWN BY: N. MANO SCALE: N/A DRAWING NO: ADJOINING OWNERS LOCATION: LIBERTY DISTRICT,





Adkins, Laura L

From:

Adkins, Laura L

Sent:

Thursday, September 15, 2016 9:54 AM

To:

'Dee Southall'; 'Brittany Woody'

Subject:

Mod for Gladys Briggs MSH 205H 51-01873

Ladies,

I will need an area of review for the revised lateral.

Thank you,

Laura

Btw, me work cell no longer works so if you need me, text me on my personal cell at 304-546-8682.

Laura L. Adkins

Environmental Resource Specialist III Permit Review WVDEP Office of Oil and Gas 601 57th Street, SE Charleston, WV 25304 304-926-0499 ext. 1495

THE ITEMS REQUESTED IN THIS EMAIL WILL NEED TO BE RECEIVED BY THE OFFICE OF OIL AND GAS WITHIN **20 DAYS** TO AVOID THE PERMIT APPLICATION BEING RETURNED. IF AN OPERATOR WISHES TO RESUBMIT AN APPLICATION THAT HAS BEEN RETURNED, THE OPERATOR IS REQUIRED TO COMPLETE AND SUBMIT NEW FORMS, MYLAR PLAT AND ASSOCIATED FEES.



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

September 1, 2016

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

RE: Proposed New Well Gladys Briggs MSH 205H API# 47-051-01873

Dear Ms. Adkins:

Enclosed please find a new WW-6B, and wbd for the above captioned well. We would like to modify the TVD and TMD. This well are situated on the Brigg's property in Marshall County, West Virginia.

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

Thank you.

Sincerely

Dee Southall

Regulatory Supervisor

Southwestern Energy Production Company, LLC

PO Box 1300

Jane Lew, WV 26378

Office of Qil and Gas

SEP 0 6 2016

WV Department of Environmental Protection

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