west virginia department of environmental protection

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

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

January 08, 2016

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-5101873, issued to SWN PRODUCTION COMPANY, LLC, 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: GLADYS BRIGGS MSH 205H
Farm Name: JAMES R., ROGER J. & JOHN D. I
API Well Number: 47-5101873
Permit Type: Horizontal 6A Well
Date Issued: 01/08/2016

API Number: 51-01873

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.

WW-6B
(10/14)

API NO. 47-51 - 01823 H6A
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 Production Co., LLC	494512924	51-Marshall	Liberty-4	Cameron - 278
		Operator ID	County	District	Quadrangle

2) Operator's Well Number: Gladys Briggs MSH 205H 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 x Oil _____ Underground Storage _____
Other _____
(b)If Gas Shallow x Deep _____
Horizontal x

6) Existing Pad: Yes or No yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Target Formation- Marcellus, Target Top TVD-7138', Target Base TVD-7173', Anticipated Thickness-35', Associated Pressure- 4350

8) Proposed Total Vertical Depth: 7155'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: ~~16,549'~~ ~~16,337'~~ 16,549'

11) Proposed Horizontal Leg Length: ~~480.83'~~ 8451' BW

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 x No _____

(a) If Yes, provide Mine Info: Name: McElroy
Depth: 1099'
Seam: Pittsburgh
Owner: Consol Energy

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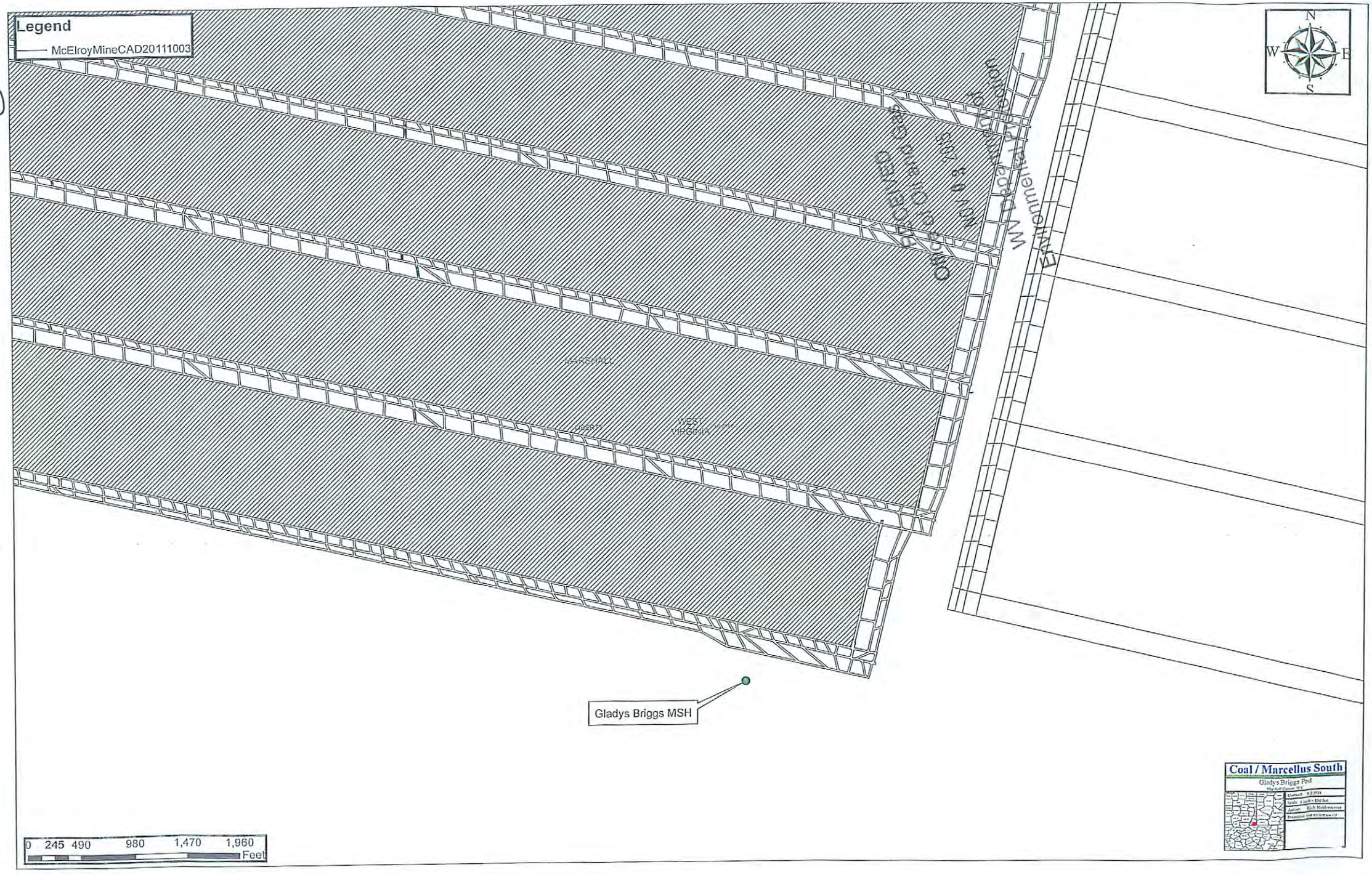
51-01873 Hoh


Legend
McElroyMineCAD20111003
MARSHALL
WEST VIRGINIA
Gladys Briggs MSH
0 245 490 980 1,470 1,960
Feet
N
W
E
S
Coal / Marcellus South
Gladys Briggs Pad

WW-6B
(10/14)

API NO. 47- 69 - 01873H6A
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	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#	16,549'	16,549'	Lead 1030sx 1360 tail sx/100' inside int
Tubing	2 3/8'	New	P-110	4.7#	Approx. 7,155'	Approx. 7,155'	
Liners							

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							

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PACKERS

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

WW-6B
(10/14)

API NO. 47-051 - 01873
OPERATOR WELL NO. Gladys Briggs MSH 205H
Well Pad Name: Gladys Briggs MSH Pad

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 unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 80 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 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

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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.

51-01873

Schlumberger Cement Additives

	Product Name	Product Use	Chemical Name	CAS Number
Surface	S001	accelerator	calcium chloride	10043-52-4
Intermediate	S001	accelerator	calcium chloride	10043-52-4
Kick Off Plug	D080	dispersant	sodium polynaphthalene sulfonate	9008-63-3
	D801	retarder	aromatic polymer derivative	propriatary
	D047	antifoam	polypropylene glycol	25322-69-4
Production-Lead	D167	fluid loss	aliphatic amide polymer	propriatary
	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 (attapulgite)	8031-18-3
	D201	retarder	chrystalline silica	14808-60-7
			metal oxide	propriatary
	D202	dispersant	sulphonated synthetic polymer	propriatary
			formaldehyde (impurity)	propriatary
Production-Tail	D046	antifoam	polypropylene glycol	25322-69-4
			fullers earth (attapulgite)	8031-18-3
	D167	fluid loss	aliphatic amide polymer	propriatary
	D065	dispersant	sodium polynaphthalene sulfonate	9008-63-3
			sodium sulfate	7757-82-6
	D201	retarder	chrystalline silica	14808-60-7
			metal oxide	propriatary
	D153	anti-settling	chrystalline silica	14808-60-7

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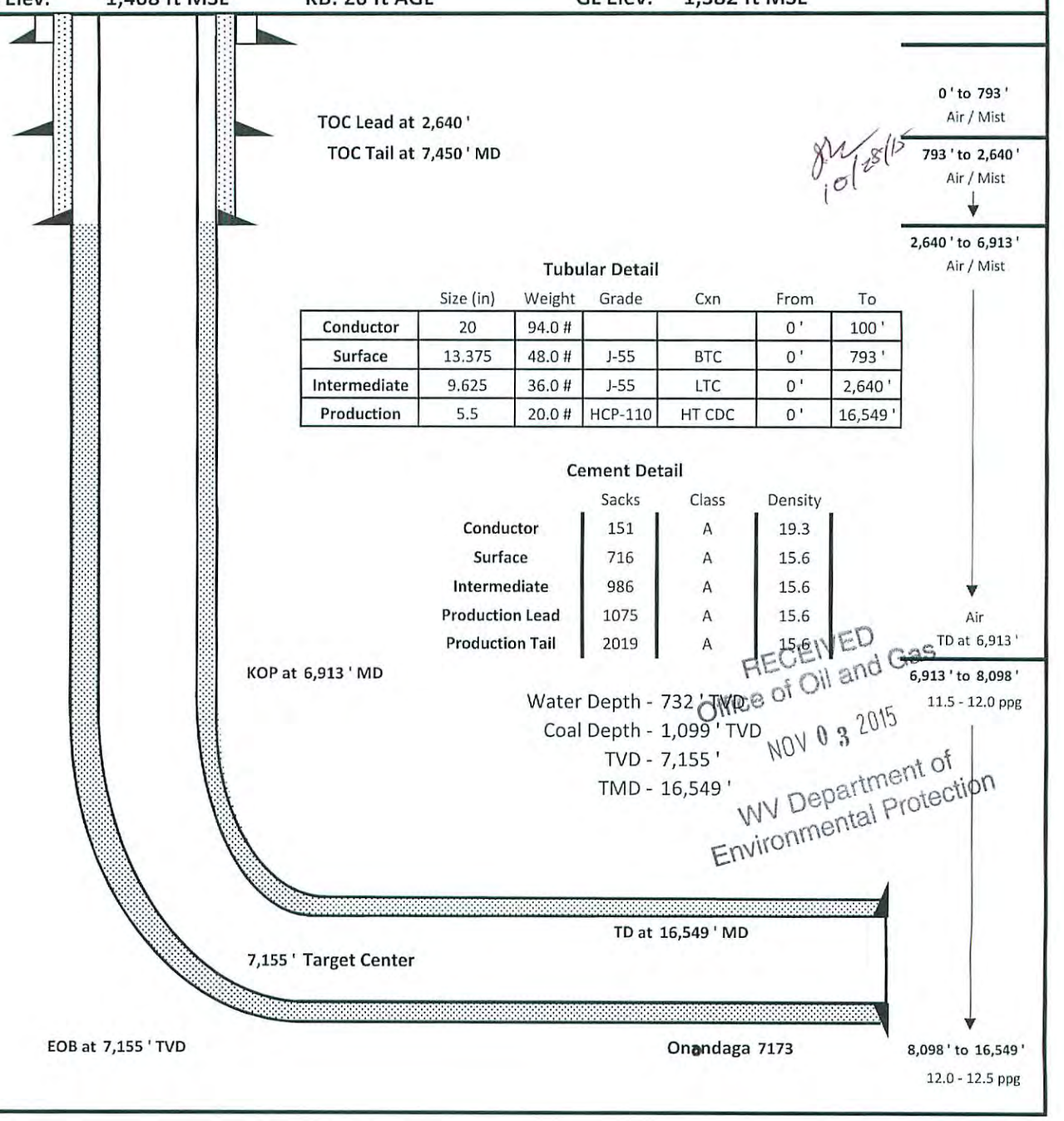
51-01823

Southwestern Energy Company			Proposed Drilling Program	
Well:	GLADYS BRIGGS MSH 205		Re-entry Rig:	SDC 42
Field:	VICTORY FIELD		Prospect:	VICTORY
County:	MARSHALL		State:	WV
SHL:	39.7672 Latitude	-80.6158 Longitude		
BHL:	39.7898 Latitude	-80.6297 Longitude		
KB Elev:	1,408 ft MSL	KB: 26 ft AGL	GL Elev:	1,382 ft MSL



Tubular Detail

	Size (in)	Weight	Grade	Cxn	From	To
Conductor	20	94.0 #			0 '	100 '
Surface	13.375	48.0 #	J-55	BTC	0 '	793 '
Intermediate	9.625	36.0 #	J-55	LTC	0 '	2,640 '
Production	5.5	20.0 #	HCP-110	HT CDC	0 '	16,549 '

Cement Detail

	Sacks	Class	Density
Conductor	151	A	19.3
Surface	716	A	15.6
Intermediate	986	A	15.6
Production Lead	1075	A	15.6
Production Tail	2019	A	15.6

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WW-9
(9/13)

API Number 47 - 51 - 01873 H6A
Operator's Well No. Gladys Briggs MSH 205H

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/WV0109517/CID28726, Carbon Limestone 28726/CID28726
Arden Landfill 100172, 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

Company Official (Typed Name) Dee Southall

Company Official Title Regulatory Supervisor

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Subscribed and sworn before me this 27th day of October, 20 15

Brittany R Woody Notary Public

My commission expires 11/27/22

OFFICIAL SEAL
Notary Public, State of West Virginia
BRITTANY R WOODY
3302 Old Elkins Road
Buckhannon, WV 26201
My commission expires November 27, 2022

51-01893

Form WW-9

Operator's Well No. Gladys Briggs MSH 205H

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: [signature]

Comments: _____

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Title: Oil and Gas Inspector Date: 10/28/15

Field Reviewed? (✓) Yes ( ) No

SI-01873

Marcellus Well Drilling Procedures
And Site Safety Plan

SWN Production Co., LLC

47 - 051 -
Well name: Gladys Briggs MSH 205H
Cameron, Quad
Liberty, District
Marshall County, West Virginia

Submitted by:

Danielle Southall Date: 10/20/2015

Title Regulatory Supervisor SWN Production Co., LLC

Approved by:

Date: 12/28/15

Title: Oil & Gas Inspector

Approved by:

Date:

Title:

SWN Production Co., LLC – Confidential

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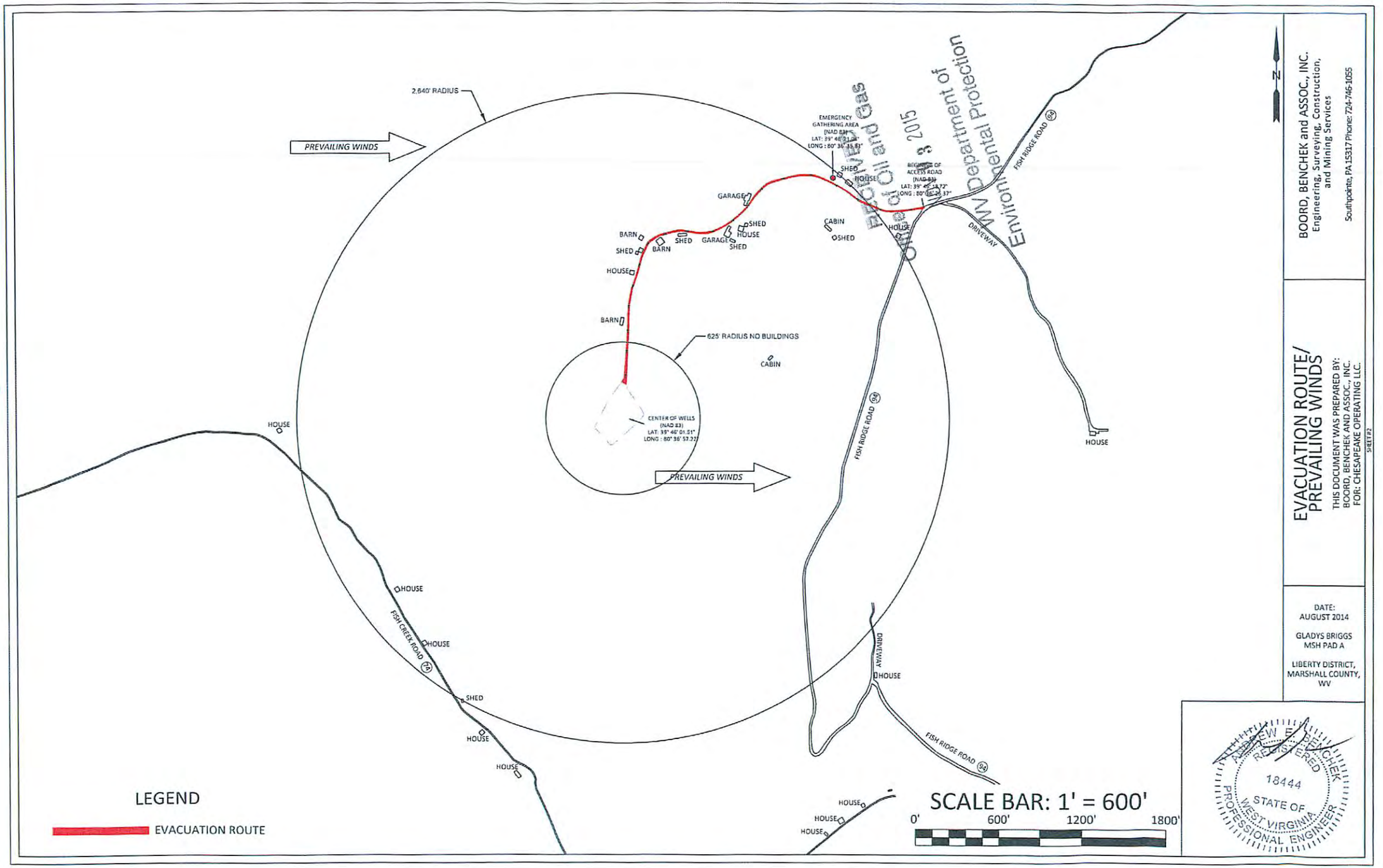
51-01873

Attachment #5



Latitude: 39°47'30" N — 9,132' — Longitude: -80°35'00" W — 8,922'

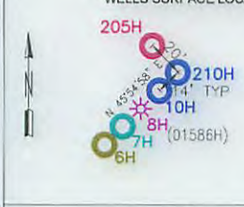
JACKSON SURVEYING INC.
P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,401,986.789 EASTING: 532,903.785
"LANDING POINT" LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,402,526.420 EASTING: 533,369.432
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,404,491.963 EASTING: 531,706.391

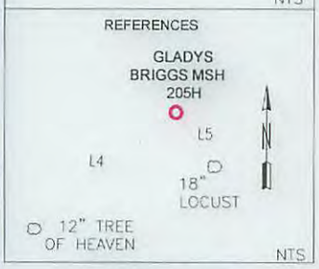
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
7	MARILYN V. CLARK (S)/ SARAH JANE KINGREE & BEN KINGREE III, ALEXANDER FOSTER REYNOLDS & EDITH REYNOLDS, ALEXANDER FOSTER REYNOLDS, AS COMMITTEE FOR ARTHUR REYNOLDS, AN INCOMPETENT PERSON, & GLADYS REYNOLDS	07-10-04.1	1.12
8	CHARLES R. CLARK (S)/ SARAH JANE KINGREE & BEN KINGREE III, ALEXANDER FOSTER REYNOLDS & EDITH REYNOLDS, ALEXANDER FOSTER REYNOLDS, AS COMMITTEE FOR ARTHUR REYNOLDS, AN INCOMPETENT PERSON, & GLADYS REYNOLDS	07-10-04	46.72
9	CHARLES R. CLARK (S)/S.N. COLE & IDA COLE, HILDA PELL SINCO & MICHAEL SINCO, ALEXANDER FOSTER REYNOLDS; ADA REYNOLDS, ALEXANDER FOSTER REYNOLDS AS COMMITTEE FOR ARTHUR REYNOLDS, AN INCOMPETENT PERSON (R)	07-10-01	48.78
10	WAYNE E. GRAHAM JR. & GWENDOLYN L. GRAHAM (S)/ WILLIAM K. WALTON, MARIETTA STOVER, BY HER ATTORNEY-IN-FACT MARVIE S. ALEXANDER, MARGIE M. DAVENPORT (R)	07-07-04	156.00
11	RONALD WM. KASSERMAN (S)/ WILLIAM WOODBURN & ANN B. WOODBURN (R)	07-08-09	130.15

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS, JOHN DEAN BRIGGS (S)/ DAVID BONAR, HARRISON J. BRIGGS & GLADYS R. BRIGGS (R)	7-16-02	121.43
2	PRESTON YEATER & HEATHER L. YEATER (S)/ JAMES M. RINE & MARY B. RINE, FRANK HOPKINS & AUSTIA M. HOPKINS (R)	07-16-29.4	17.91
3	VINCENT E. LEMASTERS (S)/ PEARL LOUGH F/K/A PEARL WILLIAMS, A. JANE DAVIS, RONALD YOUNG, O.W. YOUNG A/K/A ORVILLE W. YOUNG, GUY BUZZARD, D. VANE STARKEY, HOWARD E. WILLIAMS, RALPH E. WILLIAMS, HARRY E. JOHNSON SR., JAMES L. MERCER & ELSIE J. MERCER, ALMA O. PIERCE, ELNOR M. HORNER A/K/A ELNOR MARIE HORNER, SANDRA K. DODD A/K/A SANDY K. DODD, DONALD L. WITHERS, WILLIAM G. WITHERS III, KARON SUE VALLEE A/K/A KAREN SUE VALLEE, DELMAR W. WILLIAMS & MARY LOU WILLIAMS, NILE L. WILLIAMS, LARRY C. WILLIAMS, CHESTNUT HOLDINGS INC. (R)	07-10-24	44.08
4	JAMES M. CLARK (S)/ OLIVE PRENDERGAST (R)	07-10-09	15.00
5	MARILYN V. CLARK (S)/ OLIVE PRENDERGAST (R)	07-10-11	25.00
6	MARILYN V. CLARK (S)/ SARAH JANE KINGREE & BEN KINGREE III, ALEXANDER FOSTER REYNOLDS & EDITH REYNOLDS, ALEXANDER FOSTER REYNOLDS, AS COMMITTEE FOR ARTHUR REYNOLDS, AN INCOMPETENT PERSON, & GLADYS REYNOLDS	07-10-05	34.02

REFERENCES TO PROPOSED HORIZONTAL WELLS SURFACE LOCATIONS

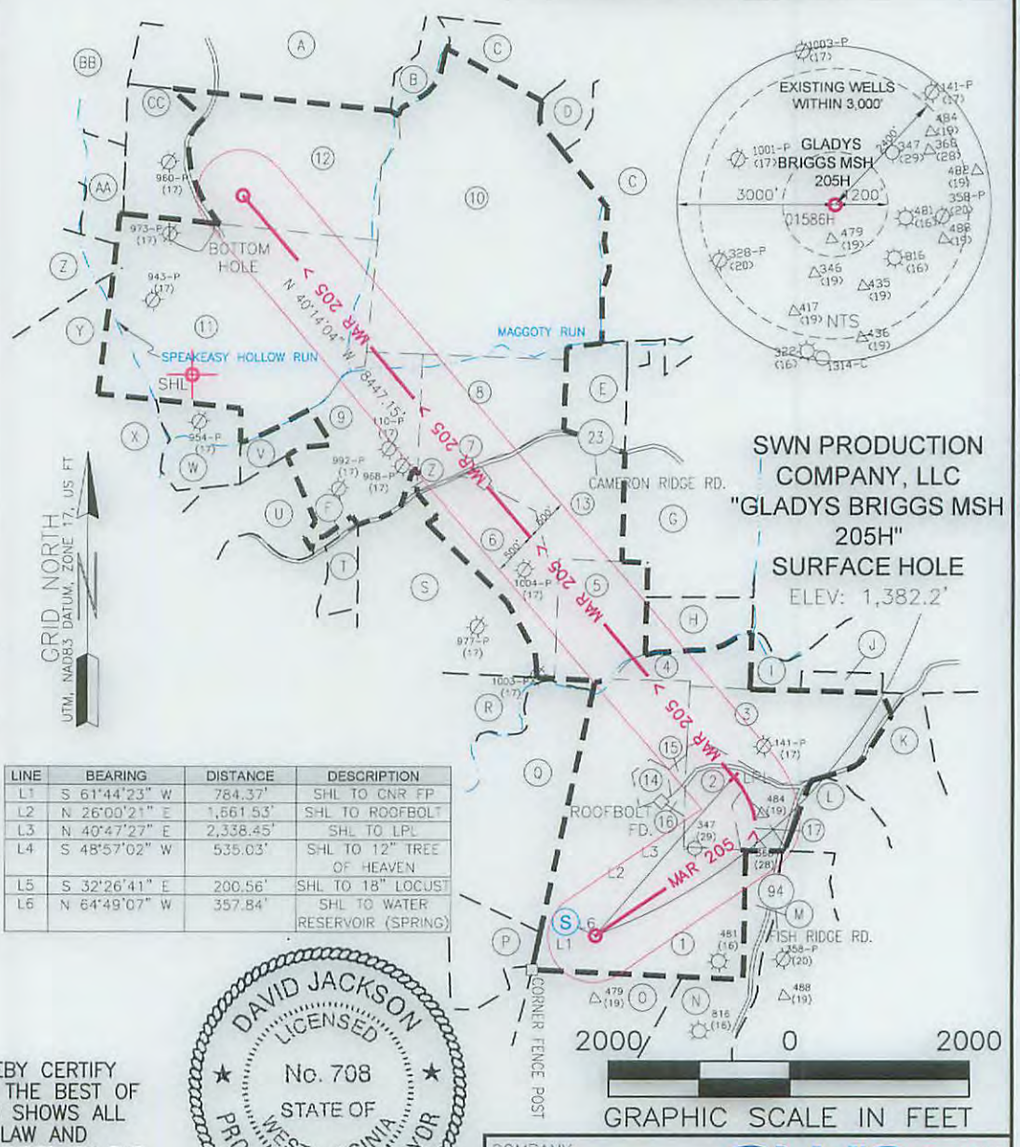


REFERENCES



NOTES ON SURVEY

1. COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
2. 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.
3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
5. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
6. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 1000 FEET OF THE LIMITS OF DISTURBANCE.
7. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
8. ALL WELLS WITHIN 500' OF THE HORIZONAL LEG ARE SHOWN ON THIS PLAT BASED UPON INFORMATION TAKEN FROM FROM DEP MAPPING, WELL PLATS AND AERIAL PHOTOS.



LINE	BEARING	DISTANCE	DESCRIPTION
L1	S 61°44'23" W	784.37'	SHL TO CNR FP
L2	N 26°00'21" E	1,561.53'	SHL TO ROOFBOLT
L3	N 40°47'27" E	2,338.45'	SHL TO LPL
L4	S 48°57'02" W	535.03'	SHL TO 12" TREE OF HEAVEN
L5	S 32°26'41" E	200.56'	SHL TO 18" LOCUST
L6	N 64°49'07" W	357.84'	SHL TO WATER RESERVOIR (SPRING)

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 — SWN Production Company™

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

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY: 1/200

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

OPERATOR'S WELL #: GLADYS BRIGGS MSH 205H

API WELL #: 47 (STATE) 051 (COUNTY) 01873H6A (PERMIT)

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

WATERSHED: FISH CREEK OF UPPER OHIO RIVER 2 ELEVATION: 1382.2'

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

SURFACE OWNER: JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS & JOHN DEAN BRIGGS ACREAGE: 129.43

OIL & GAS ROYALTY OWNER: DAVID BONAR; HARRISON J. BRIGGS & GLADYS R. BRIGGS ACREAGE: 129.43

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: 7,153' TVD 16,394' TMD

WELL OPERATOR	DESIGNATED AGENT
SWN PRODUCTION COMPANY, LLC	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
- 500' DHP BUFFER
- -MAR 205>- MARCELLUS DHP
- ABANDONED PATH

REVISIONS:	DATE: 10-30-2015
⚠ CORRECTED TICK MARK 12-15-2015	
	DRAWN BY: N. MANO
	SCALE: 1" = 2000'
	DRAWING NO:
	WELL LOCATION PLAT

\\D7W3HRL1\1-05-15 DJ E\SOUTHWESTERN ENERGY\GLADYS BRIGGS MSH\WELL PLATS\BRIGGS MSH 205H\GLADYS BRIGGS MSH 205H 12-15-2015\GLADYS
TUESDAY DECEMBER 22 2015 10:21AM

PROPERTY NUMBER 2501161955
PAD ID 3001155501

47-051-01873

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

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
12	BLAINE E. STERN JR. (S)/ DORIS J. LONG A/K/A DORIS JEANNINE LONG & ROBERT L. LONG; SARAH L. CLAYTON & RALPH L. CLAYTON, DEBRA L. FAIRCHILD A/K/A DEBRA LYNN FAIRCHILD, TERRY L. DOBBINS A/K/A TERRI LEE DOBBINS, MICHAEL T. BOGGS A/K/A MICHAEL TROY BOGGS, RUSSELL A. BOGGS A/K/A RUSSELL ALAN BOGGS, ROBERT E. BOGGS A/K/A ROBERT EARNEST BOGGS, HAROLD E. DOBBS A/K/A HAROLD ELWOOD DOBBS, RONALD W. KERNS, PATRICIA A CECIL & WYLIE J. CECIL, MARY L. LOGSDON, TERRY K. LOGSDON, CAROL J. DEBOLT & JACK E. DEBOLT, KAREN S. MCCONNELL, BILLIE JO CUNNINGHAM, J. RUSSELL LOGSDON, SHIRLEY E. BURTON, WILLIAM N. LOGSDON, JANICE LEE EARNEST A/K/A JANICE L. EARNEST, DONNA FAYE EARNEST A/K/A DONNA F. EARNEST, DOROTHY L. HARRIS, CYNTHIA L. HIPPENSTEAL & RICHARD T. HIPPENSTEAL, HILL E. CHUSS, HEIDI J. WALTON, LELA RICHTER WITMER A/K/A LELA WITMER, HURLESS T. RICHTER; JUDY KAY HUFF, JULIA E. HUFF, ROXIE GAIL SHEPARD ESTATE A/K/A ROXIE G. SHEPARD ESTATE, BY LELA RICHTER WITMER A/K/A LELA WITMER ACTING AS EXECUTRIX, PATSY ELLEN SHEPHERD, LLOYD RICHTER & DONNA E. RICHTER, DALE W. RICHTER & DELORES L. RICHTER. (R)	07-08-11	60.62
13	CHARLES R. CLARK & MARILYN V. WHIPKEY (S)/ LOVINA CLARK; DORA REYNOLDS, REVERDY REYNOLDS & GOLDA F. REYNOLDS, SARAH JANE KINGREE & BEN KINGREE II, ALEXANDER FOSTER REYNOLDS & EDITH REYNOLDS, ALEXANDER FOSTER REYNOLDS, AS COMMITTEE FOR ARTHUR REYNOLDS, AN INCOMPETENT PERSON & GLADYS REYNOLDS. (R)	07-10-12	35.30
14	VINCENT E. LEMASTERS (S)/ JAMES M. RINE & MARY B. RINE, FRANK HOPKINS & AUSTIA M. HOPKINS (R)	07-16-01	4.00
15	JACK BRIGGS (S)/ DAVID BONAR, HARRISON J. BRIGGS & GLADYS R. BRIGGS (R)	07-16-02.1	1.02
16	JOHN D. BRIGGS & PATTY K. BRIGGS (S)/ DAVID BONAR; HARRISON J. BRIGGS & GLADYS R. BRIGGS (R)	07-16-02.2	1.03
17	PRESTON A. YEATER & HEATHER L. YEATER (S)/ JAMES M. RINE & MARY B. RINE, FRANK HOPKINS & AUSTIA M. HOPKINS(R)	07-16-29.2	4.92

ADJOINING OWNERS

TRACT	ADJOINING SURFACE OWNER (S)	TAX PARCEL	ACRES
A	BLAINE E. STERN JR. (S)	07-08-13	104.92
B	CONSOLIDATION COAL COMPANY (S)	07-07-03	12.00
C	TERRY L. STRAYER (S)	07-07-05	30.98
D	WAYNE E. GRAHAM (S)	07-07-05.1	5.82
E	PAMELA J. HOWARD (S)	07-10-15	15.51
F	ALVIN R. & JACKIE L. ANDERSON (S)	07-10-01.1	1.46
G	GARY RAY DOBBS ET AL (S)	07-10-18	131.97
H	JAMES M. CLARK (S)	07-10-10	14.68
I	HAROLD E. & ANITA RUSH (S)	07-10-23	41.13
J	HAROLD E. & ANITA RUSH (S)	07-10-23.1	1.33
K	WILLIAM A. & STEPHANIE F. YEATER (S)	07-16-29.3	41.50
L	THELMA YEATER (LIFE) (S)	07-16-29	40.41
M	GLADYS R. BRIGGS (S)	07-16-03	10.00
N	JACK J. BRIGGS (S)	07-16-05	37.88
O	MASON DIXON FARMS LLC (S)	07-16-06	69.72
P	MASON DIXON FARMS LLC (S)	07-17-19	22.80
Q	MCELROY COAL COMPANY (S)	07-10-08	50.77
R	DONALD G. BUZZARD ET UX (S)	07-10-07	164.13
S	ALVIN RICKEY ANDERSON ET AL (S)	07-10-06	63.19
T	PAUL & SUSAN ASTON (S)	07-09-26	8.50
U	CHARLES R. CLARK (S)	07-09-28.2	34.00
V	EILEEN HINERMAN (S)	07-09-25	5.00
W	GARY L. DOBBS (S)	07-09-24	18.00
X	PAUL & SUSAN ASTON (S)	07-09-21	100.00
Y	JOHN A. DOBBS ET UX (S)	07-09-23	60.25
Z	JOHN A. DOBBS ET UX (S)	07-08-08	51.97
AA	JOHN A. DOBBS ET UX (S)	07-08-04	65.65
BB	DANNY R. & FRANCES V. KERNS ESTS. (S)	07-08-02	94.00
CC	BLAINE E. STERN JR. (S)	07-08-12	33.00

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WV Department of
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REVISIONS:	COMPANY: SWN Production Company, LLC / SWN Production Company™	
	OPERATOR'S WELL #: GLADYS BRIGGS MSH 205H	DATE: 10-30-2015
	LOCATION: LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA	DRAWN BY: N. MANO SCALE: N/A DRAWING NO: ADJOINING OWNERS

\\D7W3HRL1\1-05-15 DJ E\SOUTHWESTERN ENERGY\GLADYS BRIGGS MSH\WELL PLATS\BRIGGS MSH 205H\GLADYS BRIGGS MSH 205H 10-30-2015\GLADYS
FRIDAY OCTOBER 30 2015 11:40AM

PROPERTY NUMBER 2501161955
PAD ID 3001155501

51-01873

WW-6A1
(5/13)

Operator's Well No. Gladys Briggs MSH 6H

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

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: Sr. Landman

51-01873

WW-6A1
(5/13)

Operator's Well No. Gladys Briggs MSH 205H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
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IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

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Well Operator: SWN Production Company, LLC
By: Brandi Williams
Its: Sr. Landman

Briggs 205

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Exhibit A

#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
1	James Rodney Briggs	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 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
2	Preston Yeater and Heather L. Yeater (h/w, JT)	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 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		34/582
3	Vincent E. Lemasters	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
		1-236956-015	A. Jane Davis, a married woman dealing in her sole 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
			Chesapeake Appalachia, LLC	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

51-01873

Exhibit A

#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
		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
		1-236956-004	Howard E. Williams, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	659/200
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-236956-001	Ralph E. Williams, a married man dealing in his sole 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
		1-236956-016	Sandra K. Dodd, a/k/a Sandy K. Dodd, a single woman	Chesapeake Appalachia, LLC	12.50%	698/363
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-236956-019	Donald L. Withers, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	695/203
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-236956-017	William G. Withers, III, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	698/366
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-236956-018	Karon Sue Vallee, a/k/a Karen Sue Vallee, a widow	Chesapeake Appalachia, LLC	12.50%	695/195

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81-01823

Exhibit A

#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-236956-003	Delmar W. Williams and Mary Lou Williams, his wife	Chesapeake Appalachia, LLC	12.50%	659/197
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-236956-008	Nile L. Williams, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	666/172
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-236956-009	Larry C. Williams, a married man dealing in his sole 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
4	James M. Clark ✓	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
5	Marilyn V. Clark ✓	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

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SL-01873

Exhibit A

#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
6	Marilyn V. Clark	1-254800-000	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 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
7	Marilyn V. Clark	1-254801-000	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 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

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NOV 03 2015
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Environmental Protection

51-01853

Exhibit A

#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
8 ✓	Charles R. Clark	1-254801-000	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 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
9 ✓	Charles R. Clark	1-254975-000	S.N. Cole & Ida Cole, his wife	Carnegie Natural Gas Company	12.50%	186/269
			Carnegie Natural Gas Company	The Manufacturers Light and Heat Company		3/93
			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
		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
			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

51-01823

Exhibit A

#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
10	Wayne E. Graham Jr. and Gwendolyn L. Graham (h/w, JT)	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
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-348294-003	Margie M. Davenport, a widow	Chesapeake Appalachia, LLC	18.00%	779/546
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		Pending	William E. Graham Jr. aka Wayne E. Graham Jr. & Gwendolyn L. Graham, husband and wife	SWN Production Company, LLC	16.00%	Pending
11	Ronald Wm. Kasserman	1-254901-000	William Woodburn and Ann B. Woodburn, his wife	The Manufacturers Light and Heat Company	14.00%	381/385
			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
12	Blaine E. Stern, Jr.	1-327681-013	Doris J. Long, a/k/a Doris Jeannine Long and Robert L. Long, her husband	Chesapeake Appalachia, LLC	17.00%	728/110
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-014	Sarah L. Clayton and Ralph L. Clayton, her husband	Chesapeake Appalachia, LLC	17.00%	728/500
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-010	Debra L. Fairchild, a/k/a Debra Lynn Fairchild, a single woman	Chesapeake Appalachia, LLC	17.00%	727/278
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-009	Terry L. Dobbins, a/k/a Terri Lee Dobbins, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	726/149
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

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Exhibit A

#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
		1-327681-011	Michael T. Boggs, a/k/a Michael Troy Boggs, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	728/120
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-012	Russell A. Boggs, a/k/a Russell Alan Boggs, a single man	Chesapeake Appalachia, LLC	17.00%	728/115
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-007	Robert E. Boggs, a/k/a Robert Earnest Boggs, a single man	Chesapeake Appalachia, LLC	17.00%	726/37
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-015	Harold E. Dobbs, a/k/a Harold Elwood Dobbs, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	735/470
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-008	Ronald W. Kerns, a single man	Chesapeake Appalachia, LLC	17.00%	726/27
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-018	Patricia A. Cecil and Wylie J. Cecil, her husband	Chesapeake Appalachia, LLC	17.00%	758/156
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-016	Mary L. Logsdon, a widow	Chesapeake Appalachia, LLC	17.00%	758/138
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-020	Terry K. Logsdon, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	758/144
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-019	Carol J. Debolt and Jack E. Debolt, her husband	Chesapeake Appalachia, LLC	17.00%	758/150
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-021	Karen S. McConnell, a widow	Chesapeake Appalachia, LLC	17.00%	759/575
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-017	Billie Jo Cunningham, a single woman	Chesapeake Appalachia, LLC	17.00%	758/162
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

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Exhibit A

#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
		1-327681-005	J. Russell Logsdon, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	724/191
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-004	Shirley E. Burton, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	724/186
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-006	William N. Logsdon, a widower	Chesapeake Appalachia, LLC	17.00%	724/483
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-003	Janice Lee Earnest, a/k/a Janice L. Earnest, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	724/181
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-001	Donna Faye Earnest, a/k/a Donna F. Earnest, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	724/171
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-002	Dorothy L. Harris, a single woman	Chesapeake Appalachia, LLC	17.00%	724/176
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-022	Cynthia L. Hippensteal and Richard T. Hippensteal, her husband	Chesapeake Appalachia, LLC	17.00%	771/545
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-029	Hill E. Chuss, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	774/206
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-023	Heidi J. Walton, a single woman	Chesapeake Appalachia, LLC	17.00%	771/539
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-025	Lela Richter Witmer, a/k/a Lela Witmer, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	773/303
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-028	Hurless T. Richter, a widower	Chesapeake Appalachia, LLC	17.00%	774/200
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

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#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
		1-327681-032	Judy Kay Huff, a widow	Chesapeake Appalachia, LLC	17.00%	787/298
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-031	Julia E. Huff, a widow	Chesapeake Appalachia, LLC	17.00%	787/328
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-026	Roxie Gail Shepard Estate, a/k/a Roxie G. Shepard Estate, by Lela Richter Witmer, a/k/a Lela Witmer, acting as Executrix	Chesapeake Appalachia, LLC	17.00%	773/309
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-030	Patsy Ellen Shepherd, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	787/334
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-027	Lloyd Richter and Donna E. Richter, his wife	Chesapeake Appalachia, LLC	17.00%	774/194
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
		1-327681-024	Dale W. Richter and Delores I. Richter, his wife	Chesapeake Appalachia, LLC	17.00%	772/120
			Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
13	Charles R. Clark and Marilyn V. Whipkey (JT)	1-254833-000	Lovina Clark, widow; Dora Reynolds, widow; 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
			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
		1-254801-000	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 Reynolds	The Manufacturers Light and Heat Company	12.50%	361/300
			The Manufacturers Light and Heat Company	Columbia Gas Transmision Corporation		422/204

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#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
			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
14	Vincent E. Lemasters	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 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		34/582
15	Jack Briggs	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 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
16	John D. Briggs and Patty K. Briggs (h/w, JT)	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 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

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#	SURFACE OWNER	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
17	Preston A. Yeater and Heather L. Yeater (h/w, JT)	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		2/228
			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		34/582

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S1-01823

51-01873

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 205H in Marshall County, West Virginia, Drilling under Cameron Ridge 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 Cameron Ridge 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,

Brenda Williams

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

$\frac{R^2}{A} \rightarrow V+^{\circ}$

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

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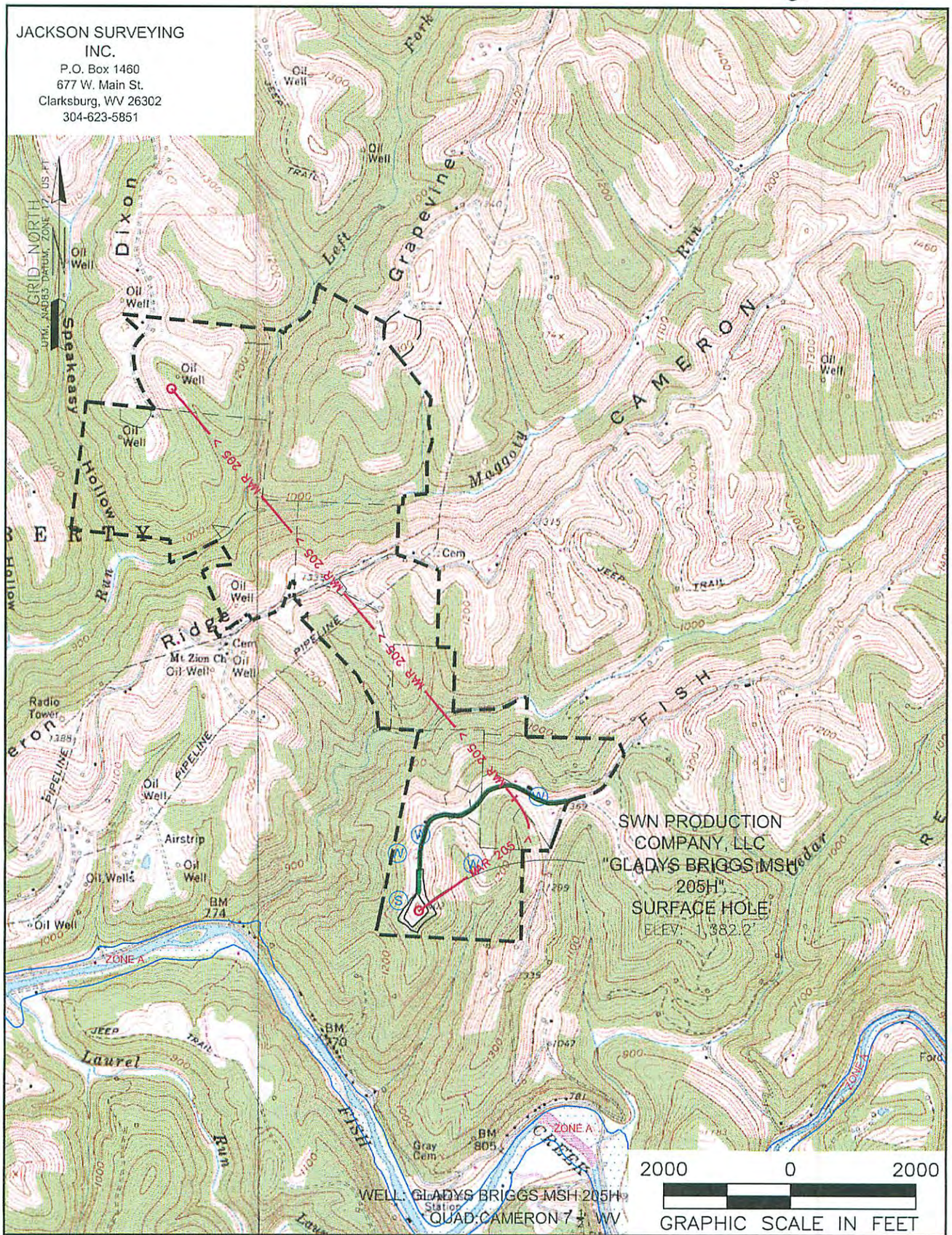
JACKSON SURVEYING
INC.
P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851



NAME AND DISTANCE TO THE NEAREST STREAM:	STREAM CROSSING COORDINATES (NAD 83):
FISH CREEK IS LOCATED ±0.49 MILES SW OF THE CENTER OF THE DRILL PAD.	NO NEW CROSSINGS.

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

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.

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- ABANDONED WELL
- PLUGGED & ABANDONED WELL
- CUT CONDUCTOR
- (S) EXISTING SPRING
- (W) EXISTING WATER WELL
- ACCESS ROAD
- ACCESS ROAD TO PREV. SITE
- HIGHWAY/INTERSTATE
- COUNTY ROAD

COMPANY: SWN Production Company, LLC

SWN Production Company™

OPERATOR'S WELL #: GLADYS BRIGGS MSH 205H

LOCATION: LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA

SURFACE HOLE LOCATION:

GEOGRAPHIC (NAD83):
LATITUDE: 39.767173°
LONGITUDE: -80.615830°

BOTTOM HOLE LOCATION:

GEOGRAPHIC (NAD83):
LATITUDE: 39.789790°
LONGITUDE: -80.629689°

REVISIONS:	DATE: 10-30-2015
	DRAWN BY: N. MANO
	SCALE: 1" = 2000'
	DRAWING NO:
	TOPOGRAPHIC MAP

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\\D7W3HRL1\1-05-15 DJ E\SOUTHWESTERN ENERGY\GLADYS BRIGGS MSH\WELL PLATS\BRIGGS MSH 205H\GLADYS BRIGGS MSH 205H 10-30-2015\GLADYS
FRIDAY OCTOBER 30 2015 11:40AM

PROPERTY NUMBER 2501161955
PAD ID 3001155501

WW-6AC
(1/12)

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

Date of Notice Certification: _____

API No. 47- 61 - 01873
Operator's Well No. Gladys Briggs MSH 205H
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:	WV	UTM NAD 83 Easting:	532903.785
County:	Marshall	Northing:	4401986.789
District:	Liberty	Public Road Access:	Fish Ridge Road
Quadrangle:	Cameron	Generally used farm name:	Gladys Briggs
Watershed:	Fish Creek of Upper Ohio River 2		

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.

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: *PLEASE CHECK ALL THAT APPLY	OOG OFFICE USE ONLY
☐ 1. NOTICE OF SEISMIC ACTIVITY or ☒ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	☐ RECEIVED/ NOT REQUIRED
☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ☒ NO PLAT SURVEY WAS CONDUCTED	☐ RECEIVED
☒ 3. NOTICE OF INTENT TO DRILL or ☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or ☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	☐ RECEIVED/ NOT REQUIRED
☒ 4. NOTICE OF PLANNED OPERATION	☐ RECEIVED
☒ 5. PUBLIC NOTICE	☐ RECEIVED
☒ 6. NOTICE OF APPLICATION	☐ RECEIVED

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.

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

NOTARY SEAL OFFICIAL SEAL
Notary Public, State of West Virginia
BRITTANY R WOODY
3302 Old Elkins Road
Buckhannon, WV 26201
My commission expires November 27, 2022

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.

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51-018 B

Attachment #1

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

Landowner	Address
James Briggs	531 Briggs Lane Cameron, WV 26033
Jack Briggs	307 Briggs Lane, Cameron, WV 26033

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WW-6A
(9-13)

API NO. 47- 61 - 01873
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
NOTICE OF APPLICATION

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

Date of Notice: _____ **Date Permit Application Filed:** _____

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: Jame 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: _____
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

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WW-6A
(9-13)

API NO. 47- 51 - 01873
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
NOTICE OF APPLICATION

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

Date of Notice: _____ **Date Permit Application Filed:** _____

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: 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

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API NO. 47- 51 - 01873
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
NOTICE OF APPLICATION

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

Date of Notice: _____ **Date Permit Application Filed:** _____

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- Attn: John Shelton ✓
Address: 1700 MacCorkle Ave SE / PO Box 1273
Charleston, WV 25325

*Please attach additional forms if necessary

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API NO. 47- 51 - 01873
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
NOTICE OF APPLICATION

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

Date of Notice: _____ **Date Permit Application Filed:** _____

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 Att: John Shelton
Address: 1700 MacCorkle Ave SE / PO Box 1273
Charleston, WV 25325

*Please attach additional forms if necessary

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(8-13)

API NO. 47-61 - 01873
OPERATOR WELL NO. Gladys Briggs MSH 205H
Well Pad Name: Gladys Briggs MSH Pad

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

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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

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WV Department of
Environmental Protection

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.**

WW-6A
(8-13)

API NO. 47- 61 - 01873
OPERATOR WELL NO. Gladys Briggs MSH 205H
Well Pad Name: Gladys Briggs MSH Pad

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.

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API NO. 47- 61 - 01873
OPERATOR WELL NO. Gladys Briggs MSH 205H
Well Pad Name: Gladys Briggs MSH Pad

Notice is hereby given by:

Well Operator: SWN Production Co., LLC
Address: P.O. Box 12359
Spring, TX 77391-4954
Telephone: 832-796-1000
Email: Dee_Southall@swn.com
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 depprivacyofficer@wv.gov.

OFFICIAL SEAL
Notary Public, State of West Virginia
BRITTANY R WOODY
3302 Old Elkins Road
Buckhannon, WV 26201
My commission expires November 27, 2022

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

Brittany R Woody Notary Public

My Commission Expires 11/27/22

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(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name:

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.

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Office of Oil and Gas
NOV 02 2015
WV Department of
Environmental Protection

S1-01873

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name:

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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WV Department of
Environmental Protection

WW-6A4
(1/12)

51-01873
Operator Well No. Gladys Briggs MSH 205H

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:** _____

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: West Virginia
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name: _____

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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WV Department of
Environmental Protection

51-01873

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name:

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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Environmental Protection

51-01873

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name: _____

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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51-01873

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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: West Virginia
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903,785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name: _____

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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Environmental Protection

51-01873

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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: West Virginia
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name:

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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Office of Oil and Gas
NOV 03 2015
WV Department of
Environmental Protection

51-01873

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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

☒ CERTIFIED MAIL
RETURN RECEIPT REQUESTED

☐ HAND
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: 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(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
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name:

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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51-01873

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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

☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND 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: West Virginia
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name:

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:
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Office of Oil and Gas
NOV 03 2015
WV Department of
Environmental Protection

51-01873

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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

☒ CERTIFIED MAIL
RETURN RECEIPT REQUESTED

☐ HAND
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
Address: 3663 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:	West Virginia	UTM NAD 83 Easting:	532,903.785
County:	Marshall	Northing:	4,401,986.789
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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Environmental Protection

51-01873

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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

☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND 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
Address: 103 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: West Virginia
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name: _____

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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WV Department of
Environmental Protection

S1-01873

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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

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

Name: _____
Address: _____

Notice is hereby given:
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State: West Virginia
County: Marshall
District: Liberty
Quadrangle: Cameron
Watershed: Big Run

UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
Generally used farm name:

This Notice Shall Include:
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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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51-01873

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 205H

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:** _____

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

Name: _____
Address: _____

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County: Marshall
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UTM NAD 83 Easting: 532,903.785
Northing: 4,401,986.789
Public Road Access: Fish Ridge Road
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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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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: _____

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51-01823

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 (Pentanediol)	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

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NOV 03 2015
WV Department of
Environmental Protection

SI-01873

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

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Environmental Protection

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

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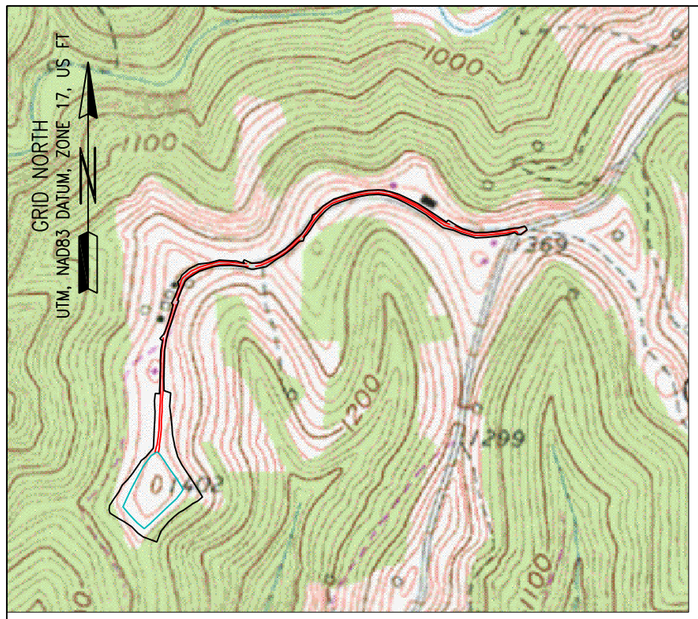
WV Department of
Environmental Protection

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



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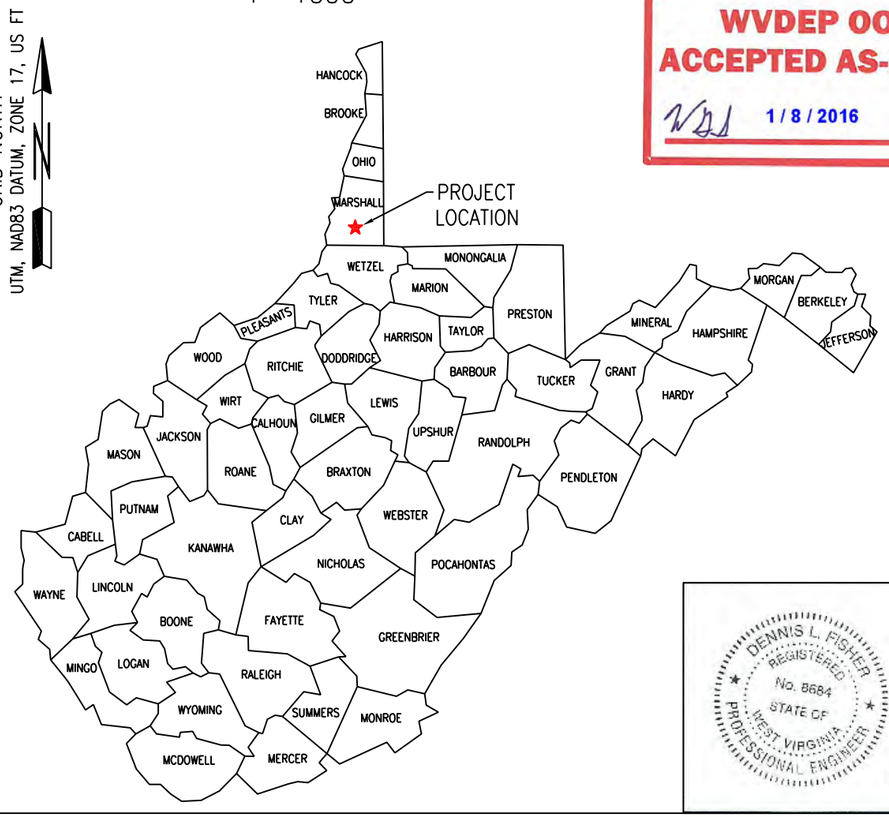

WVDEP OOG
ACCEPTED AS-BUILT
1 / 8 / 2016

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

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

SHEET INDEX

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EP2.2 EVACUATION ROUTE/ PREVAILING WIND
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AS3.2 ASBUILT
AS3.3 ASBUILT
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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

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

swn Production Company™

DENNIS L. FISHER REGISTERED No. 8684 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

Dennis L. Fisher RPE 8684:

01-07-2016
Date:

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

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

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

4" PVC DRAIN
LOD
FIRE MAIN INDICATOR POST
Matchline Sheet AS3.6
Matchline Sheet AS3.7
RAMP ROAD OVER BERM (SEE DETAIL)
ESD BUTTON
BERM
CAMERA PAD
±179'
GLADYS BRIGGS PAD
8H API#: 47-051-01586
CHAINLINK FENCE
205H
CELLAR (TYP.) SEE DETAIL SHEET MRD6.4
±154'
±14.0'
±20.0'
±82'
±96'
1
2
PRODUCTION TANKS
STEEL CONTAINMENT PIT
SUMP
6H
8H
10H
210H
FOR BERM BREACH SEE REC. PLAN SHEET #MRD5.7
TANKS
SUMP
7" SWN GAS PIPELINE
4" PVC DRAIN
WOVEN WIRE FENCE
4" PVC DRAIN
1.8:1
2.1:1
2.0:1
3.0:1
2.7:1
1350
1360
1370
1380
1382
1392

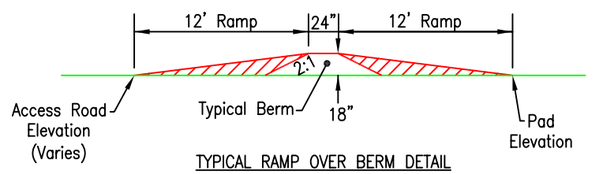
- LEGEND -

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

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



TYPICAL RAMP OVER BERM DETAIL

DENNIS L. FISHER
REGISTERED
No. 8684
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Dennis L. Fisher RPE 8684: 01-07-2016 Date:

SWN Production Company™

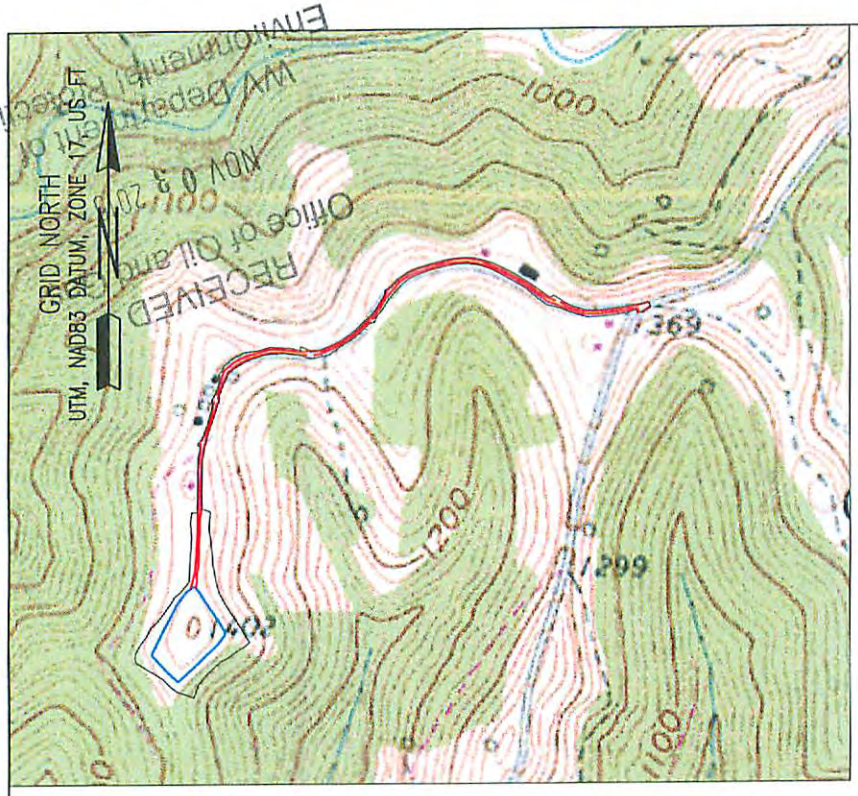
50 0 50
1"=50

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

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

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

GLADYS BRI
CONSTRUCTION AN
AS-
LIBERTY DISTRICT, M
AUGU

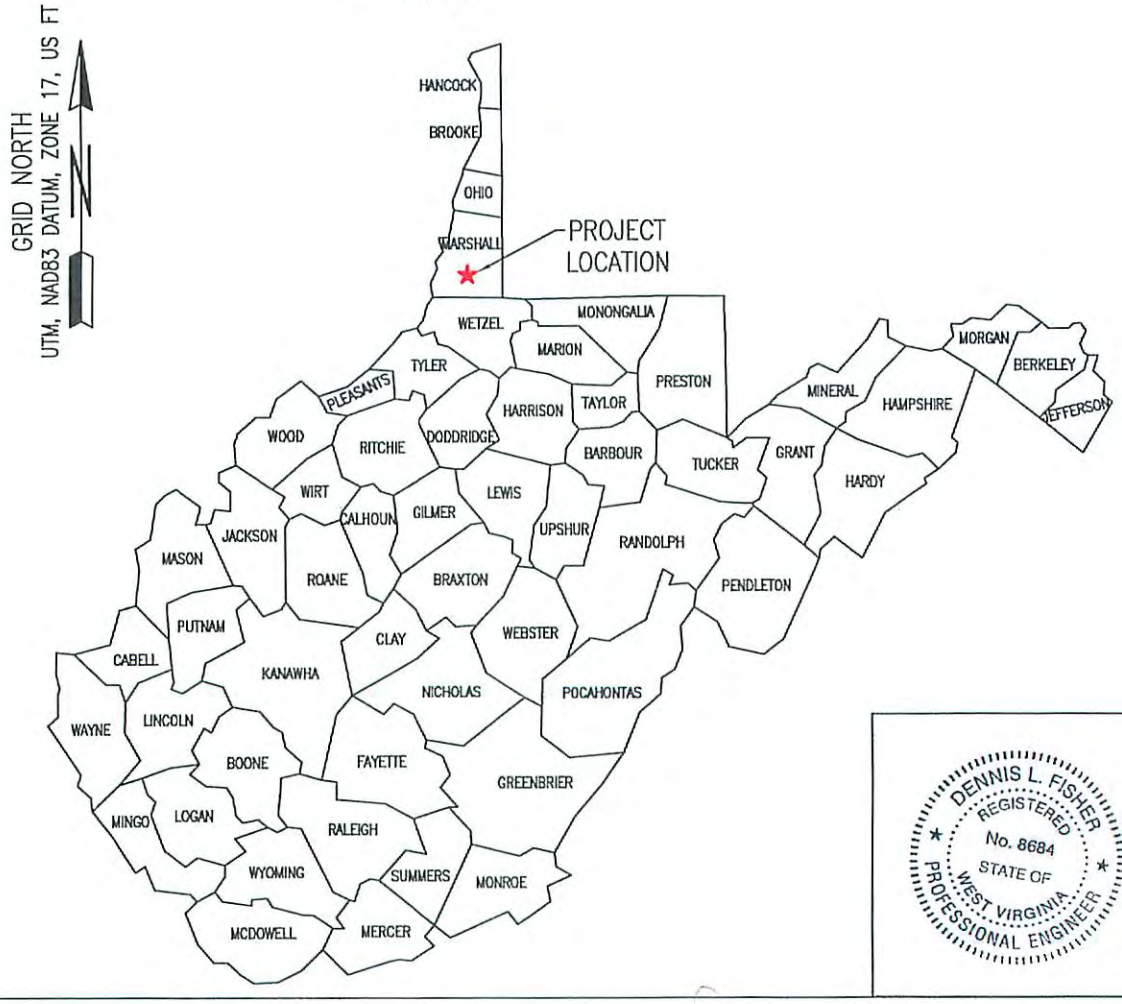


1000 0 1000

1"=1000

TOTAL DISTURBE
ROAD DISTURBE
PAD DISTURBE

COO
SITE
LAT:
LONG
AT E
LAT:
LONG
CENT
LAT:
LONG
GATH
LAT:
LONG



DENNIS L. FISHER
REGISTERED
No. 8684
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

Dennis L. Fisher RPE 8684:

GGS MSH PAD
D RECLAMATION PLAN
BUILT
ARSHALL COUNTY, WV
ST 2015

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

INATES:
NTRANCE
D83)
.771899
0.607187

GGS PAD
D83)
.767864
0.615884

OF PAD
D83)
.767143
0.615970

NG AREA
D83)
.771728
0.608802

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

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

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

10/28/15

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

SWN Production Company™

10-16-2015
Date:

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

Jackson Surveying Inc.

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