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: 47-5101788, 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 6H
Farm Name: BRIGGS, HARRISON J. & GLADY
API Well Number: 47-5101788
Permit Type: Horizontal 6A Well
Date Issued: 01/08/2016

API Number: 51-01788

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 - 01788
OPERATOR WELL NO. Gladys Briggs MSH 6H
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	Cameron
		Operator ID	County	District	Quadrangle

2) Operator's Well Number: Gladys Briggs MSH 6H 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

MM 10/28/15

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Target Formation- Marcellus, Target Top TVD-7144' Target Base TVD-7179' Anticipated Thickness-35', Associated Pressure-4250

8) Proposed Total Vertical Depth: 7161'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 13,366'

11) Proposed Horizontal Leg Length: ~~6060'~~ TD 5687'

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): None that we are aware of.

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

Received
Office of Oil & Gas
NOV 09 2015

WW-6B
(10/14)

API NO. 47-~~69~~ - 01788
OPERATOR WELL NO. Gladys Briggs MSH 6H
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#	13,366'	13,366'	Lead 997 sx 1392 tail sx/100' inside int
Tubing	2 3/8'	New	P-110	4.7#	Approx. 7161'	Approx. 7161'	
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	81	Class A	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Intermediate	7"	8 3/4"	0.317	4360	3250	Class A	1.20/15% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/15% Excess
Tubing	2 3/8"	4.778"	0.190				
Liners							

PACKERS

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

Received
Office of Oil & Gas
NOV 09 2015

51-01788

Schlumberger Cement Additives

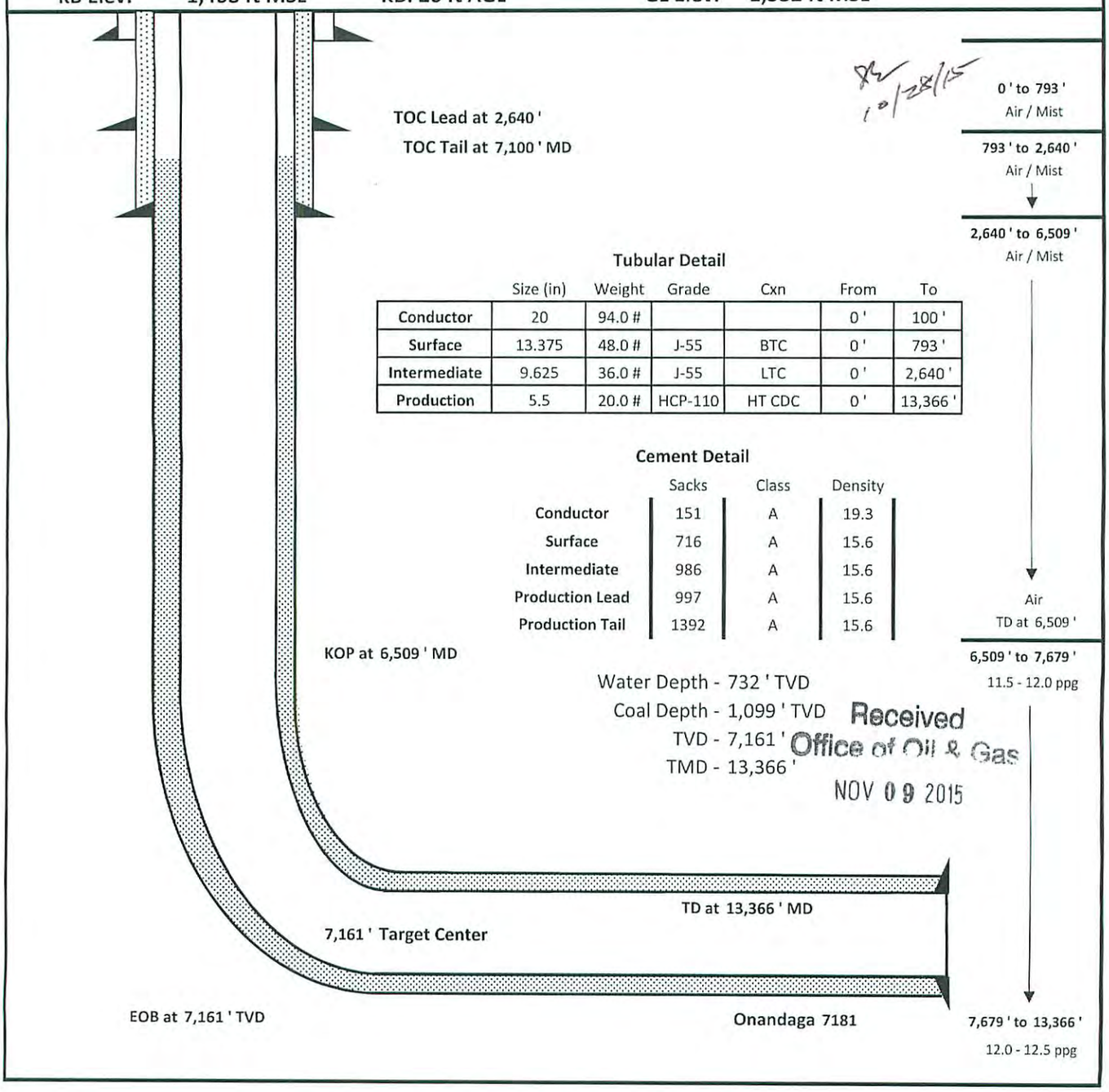
	Product Name	Product Use	Chemical Name	CAS Number
Surface	S001	accelerator	calcium chloride	10043-52-4
Intermediate	S001	accelerator	calcium chloride	10043-52-4
Kick Off Plug	D080	dispersant	sodium polynaphthalene sulfonate	9008-63-3
	D801	retarder	aromatic polymer derivative	propriatary
	D047	antifoam	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

Received
Office of Oil & Gas
NOV 09 2015

SI-01788

Southwestern Energy Company	Proposed Drilling Program

Well:	GLADYS BRIGGS MSH 6		Re-entry Rig:	SDC 42	
Field:	VICTORY FIELD		Prospect:	VICTORY	
County:	MARSHALL		State:	WV	
SHL:	39.767	Latitude -80.61592	Longitude		
BHL:	39.7535	Latitude -80.5997	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 '	13,366 '

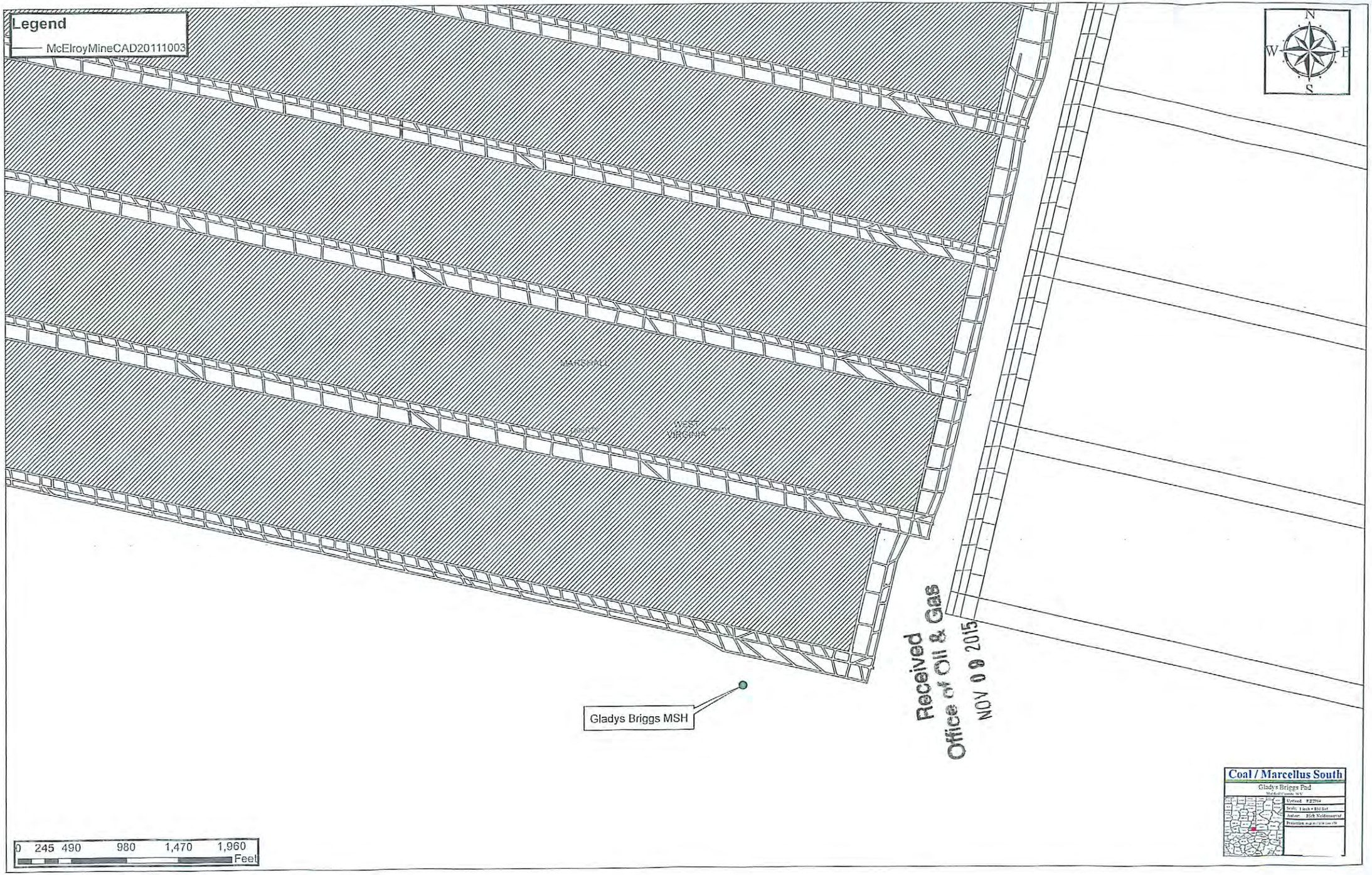
Cement Detail

	Sacks	Class	Density
Conductor	151	A	19.3
Surface	716	A	15.6
Intermediate	986	A	15.6
Production Lead	997	A	15.6
Production Tail	1392	A	15.6

Water Depth - 732 ' TVD
Coal Depth - 1,099 ' TVD
TVD - 7,161 '
TMD - 13,366 '

Received
Office of Oil & Gas
NOV 09 2015

SI-01788



Received
Office of Oil & Gas
NOV 09 2015

WW-9
(9/13)

API Number 47 - 69 - 01788
Operator's Well No. Gladys Briggs MSH 6H

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 51-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.

Received
Office of Oil & Gas
NOV 09 2015

Company Official Signature

Company Official (Typed Name) Dee Southall

Company Official Title Regulatory Supervisor

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

Brittany R Woody 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

Marcellus Well Drilling Procedures
And Site Safety Plan

SWN Production Co., LLC

47 - 051 - 01788
Well name: Gladys Briggs MSH 6H
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:

Jim Nicholson Date: 11/2/2015

Title: Oil & Gas Inspector

Approved by:

_____ Date: _____

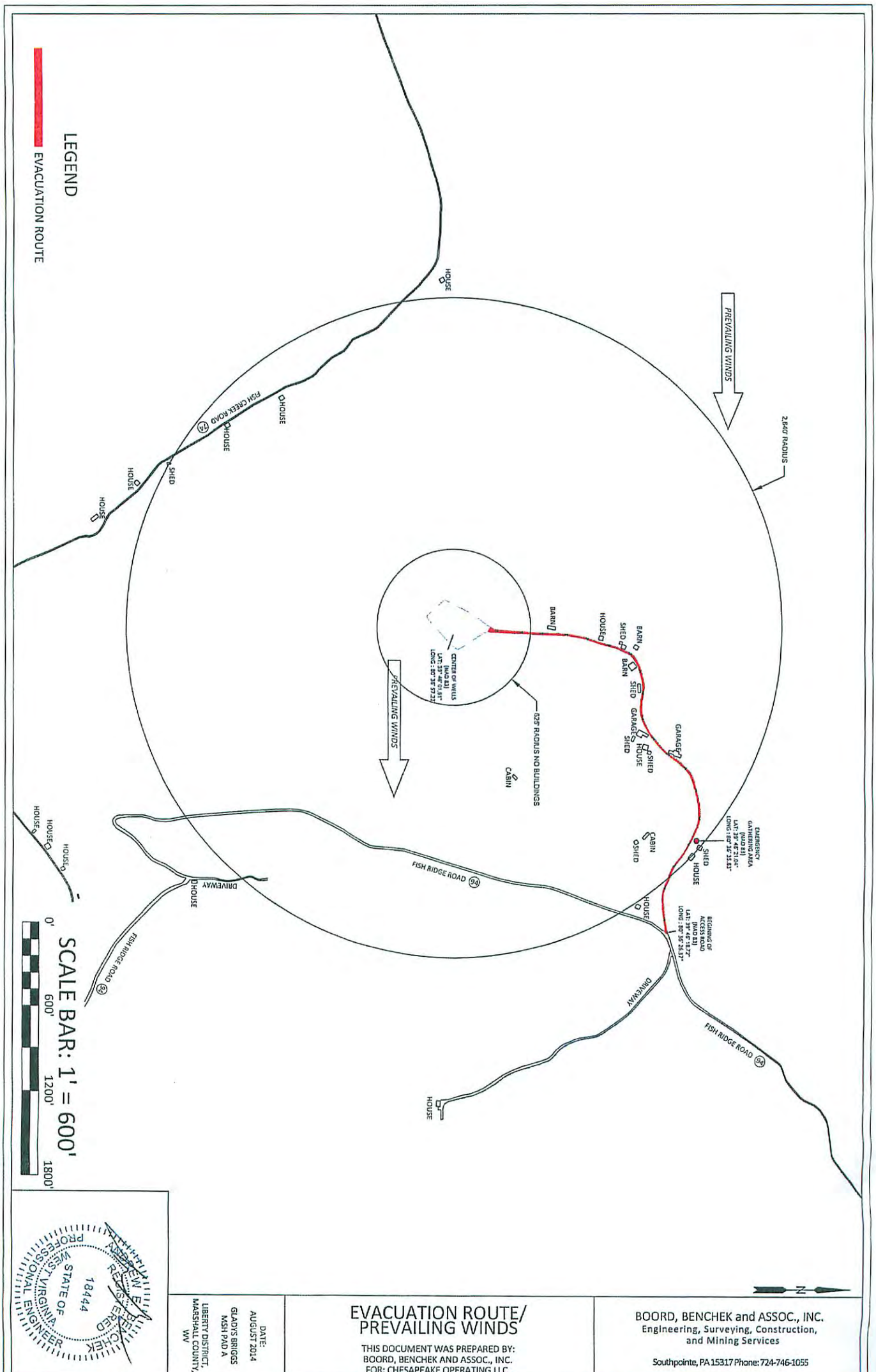
Title: _____

SWN Production Co., LLC – Confidential

Received
Office of Oil & Gas
NOV 09 2015

Attachment #5

S1-01788



ANDREW E. BENCHEK
REGISTERED
18444
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: AUGUST 2014
GLADYS BRIGGS MSH PAD A
LIBERTY DISTRICT, MARSHALL COUNTY, WV

EVACUATION ROUTE/ PREVAILING WINDS

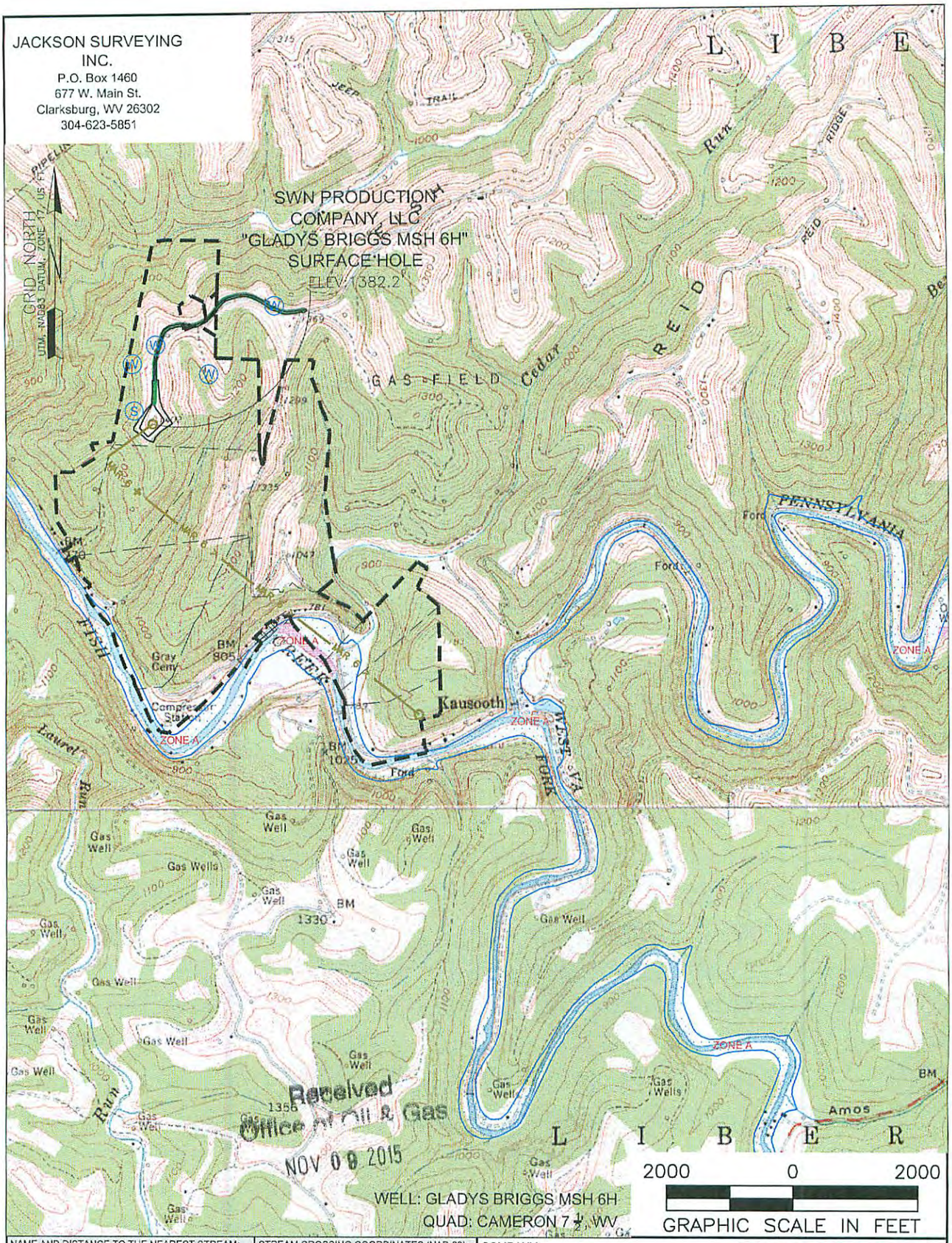
THIS DOCUMENT WAS PREPARED BY:
BOORD, BENCHEK AND ASSOC., INC.
FOR: CHESAPEAKE OPERATING LLC.

BOORD, BENCHEK and ASSOC., INC.
Engineering, Surveying, Construction, and Mining Services
Southpointe, PA 15317 Phone: 724-746-1055

SHEET #2

47-051-01788

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.

COMPANY: SWN Production Company, LLC — SWN Production Company™

OPERATOR'S WELL #: GLADYS BRIGGS MSH 6H

LOCATION: LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA

SURFACE HOLE LOCATION:

GEOGRAPHIC (NAD83):
LATITUDE: 39.767027°
LONGITUDE: -80.615924°

BOTTOM HOLE LOCATION:

GEOGRAPHIC (NAD83):
LATITUDE: 39.754313°
LONGITUDE: -80.601016

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

REVISIONS:	DATE: 11-05-2015
⚠ 11-02-2015 BOTTOM HOLE ADJUSTED.	
	DRAWN BY: N. MANO
	SCALE: 1" = 2000'
	DRAWING NO:
	TOPOGRAPHIC MAP

E:\1-05-15 DJ\SOUTHWESTERN ENERGY\GLADYS BRIGGS MSH\WELL PLATS\BRIGGS MSH 6H\GLADYS BRIGGS MSH 6H 11-05-15\GLADYS BRIGGS MSH 6H 11-
THURSDAY NOVEMBER 05 2015 10:48AM

PROPERTY NUMBER 2501161964
PAD ID 3001155501

Latitude: 39°47'30" N

9,159'

8,976'

Longitude: -80°35'00" W

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

LINE	BEARING	DISTANCE	DESCRIPTION
L1	S 64°25'30" W	736.89'	SHL TO CNR FP
L2	N 26°00'43" E	1,720.89'	SHL TO ROOFBOLT
L3	S 12°49'45" W	1,102.92'	SHL TO LPL
L4	S 51°41'21" W	480.85'	SHL TO 12" TREE OF HEAVEN
L5	S 49°04'37" E	177.06'	SHL TO 18" LOCUST
L6	N 55°22'28" W	361.70'	SHL TO WATER RESERVOIR

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	MASON DIXON FARMS LLC (S)/ W. H. LOPER & BERTIE LOPER (R)	7-16-06	69.72
3	JACK J. BRIGGS (S)/ T.D. EMERY & SADIE B. EMERY (R)	7-16-05	37.88
4	MASON DIXON FARMS LLC (S)/ JANET L. POCHAN, PATRICIA PHILLIPS & EDWARD S. PHILLIPS, MARY IRENE CRUMLEY DODD, A/K/A IRENE CRUMLEY, ARTHUR LAVERNE GRAY, C. DWAINE GRAY AND VIRGINIA W. GRAY, CARL E. SCHONER JR., CLARK RICHARD GRAY AND LILLIAN GRAY, MARGARET A. GOETZ, F/K/A MARGARET A. GRAY, MERLE M. HINKLE (LIFE ESTATE) BY HER ATTORNEY-IN-FACT, WILLIAM F. HINKLE AND WILLIAM F. HINKLE (REMAINDER), MARILYN J. MINCKS AND EUGENE F. MINCKS, DAVY LOU ASHTON, JOSEPH ASHTON, HAYHURST COMPANY, PAUL DOUGLAS GRAY AND SALLY S. GRAY, JOHN LEWIS GRAY AND JUDY GRAY (R)	7-16-07	64.73
5	COLUMBIA GAS TRANSMISSION CORP. (S)/ WILMA M. GATTEN A/K/A WILMA G. KESTNER BY HER ATTORNEY-IN-FACT MARGARET A. FALLOVA (R)	7-19-10 7-16-08	55.15
6	JOHN DEAN BRIGGS & PATTY KAY BRIGGS (S)/ W.H. LOPER & BERTIE LOPER (R)	7-16-04	81.25
7	EDWARD SILCOX (S)/ O.E. BURGE & SARAH BURGE A/K/A SARAH L. BURGE (R)	7-16-09	11.21
8	ROBERT M. SCHIFFER (S)/ O.E. BURGE & SARAH BURGE A/K/A SARAH L. BURGE (R)	7-16-19	0.22
9	ROBERT M. SCHIFFER & SANDRA L. SCHIFFER (S)/ O.E. BURGE & SARAH BURGE A/K/A SARAH L. BURGE (R)	7-16-20	0.79
10	WILLIAM ZERVOS JR. (S)/ THE TRUST OF HAROLD L. YEATER A/K/A THE LIVING TRUST OF HAROLD L. YEATER DATED 1/ 29/ 1999 BY STEPHEN L. YEATER AND DEBORAH Y. SHAW ACTING AS CO-TRUSTEES, RICHARD LEE PARRISH AND TERI LEE PARRISH, ALLEN L. YEATER, RACHEL A. YEATER, KAREN Y. JONES, CHESTNUT HOLDINGS INC., CHEASAPEAKE APPALACHIA LLC (R)	7-16-21	3.00

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,401,970.552 EASTING: 532,895.802
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,401,642.773 EASTING: 532,821.156
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,400,565.056 EASTING: 534,178.933

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

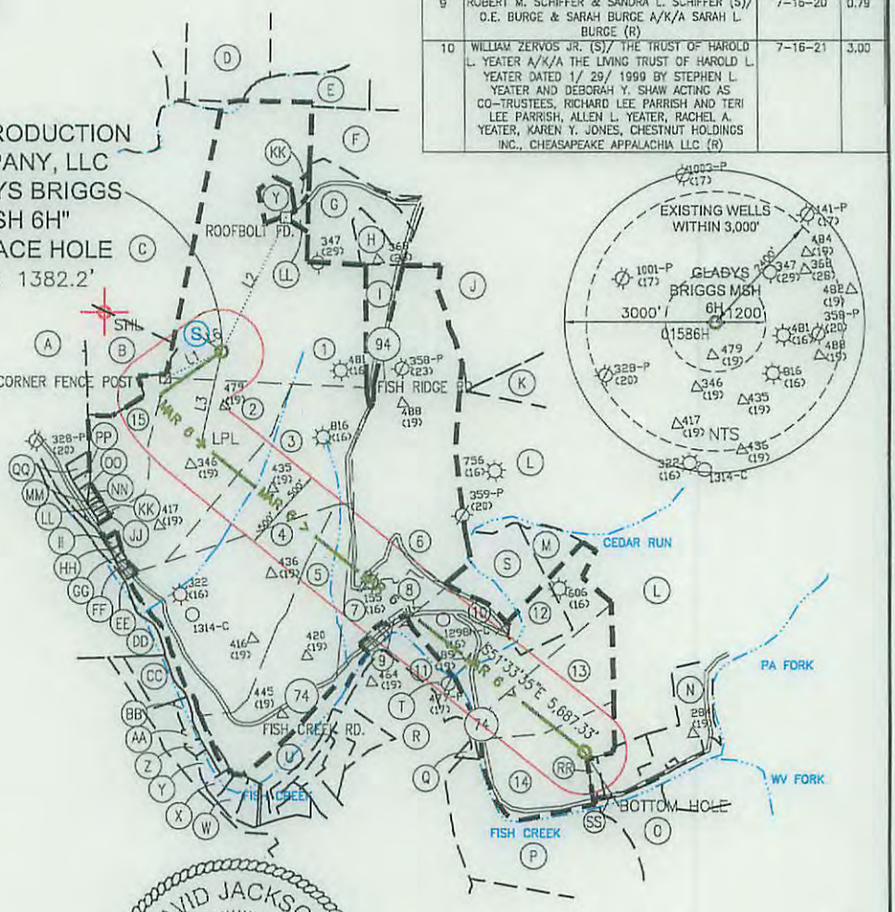
REFERENCES TO PROPOSED HORIZONTAL WELLS SURFACE LOCATIONS

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 100 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 DEP MAPPING AND AERIAL PHOTOS

SWN PRODUCTION COMPANY, LLC
"GLADYS BRIGGS MSH 6H"
SURFACE HOLE
ELEV: 1382.2'



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

DAVID JACKSON LICENSED No. 708 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

2000 0 2000
GRAPHIC SCALE IN FEET

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 6H

API WELL #: 47 (STATE) 051 (COUNTY) 01788H6A (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: 7,161' TVD 13,366' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	DESIGNATED AGENT: DEE SOUTHALL
ADDRESS: P.O. BOX 1300	ADDRESS: P.O. BOX 1300
CITY: JANE LEW STATE: WV ZIP CODE: 26378	CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:
- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- ABANDONED WELL
- PLUGGED & ABANDONED WELL
- CUT CONDUCTOR
- LEASE BOUNDARY
- 500' DHP BUFFER
- MAR 6 > MARCELLUS DHP
- ABANDONED PATH

REVISIONS:	DATE: 11-05-2015
⚠11-02-2015 BOTTOM HOLE ADJUSTED.	
	DRAWN BY: N. MANO
	SCALE: 1" = 2000'
	DRAWING NO:
	WELL LOCATION PLAT

E:\1-05-15 DJ\SOUTHWESTERN ENERGY\GLADYS BRIGGS MSH\WELL PLATS\BRIGGS MSH 6H\GLADYS BRIGGS MSH 6H 11-05-15\GLADYS BRIGGS MSH 6H 11-
THURSDAY NOVEMBER 05 2015 10:46AM

PROPERTY NUMBER 2501161964
PAD ID 3001155501

47-051-01788

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

ADJOINING OWNERS

TRACT	ADJOINING SURFACE OWNER (S)	TAX PARCEL	ACRES
A	MASON DIXON FARMS LLC (S)	07-17-33	217.08
B	MASON DIXON FARMS LLC (S)	07-17-19	22.80
C	MCELROY COAL COMPANY (S)	07-10-08	50.77
D	MARILYN V. CLARK (S)	07-10-11	25.00
E	JAMES M. CLARK (S)	07-10-09	15.00
F	VINCENT E. LEMASTERS (S)	07-10-24	44.08
G	PRESTON & HEATHER L. YEATER (S)	07-16-29.4	17.91
H	PRESTON A. YEATER ET UX (S)	07-16-29.2	4.92
I	GLADYS R. BRIGGS (S)	07-16-03	10.00
J	THELMA YEATER (LIFE) (S)	07-16-29	40.41
K	RICHARD M. YEATER ET UX (S)	07-16-29.1	18.39
L	GEORGE R. CUMPSTON ET UX (S)	07-16-24	122.87
M	CHARLES E. HORNER ET UX (LIFE) (S)	07-16-23	7.06
N	GAIL CUMPSTON (S)	07-19-20	14.73
O	PEGGY M. GRIBBEN (S)	07-19-28	112.16
P	NICK ZELIC ET UX (S)	07-19-27	36.00
Q	SAMMY SUHODOLSKI (S)	07-19-17	0.84
R	JOHN M. & TERESA L. HORNER (S)	07-19-12	75.03
S	MICHAEL J. HORNER (S)	07-16-23.1	24.99
T	CHARLES E. HORNER ET UX (LIFE) (S)	07-16-23	16.71
U	MARY ESTHER GRIMM (LIFE) (S)	07-19-10.1	5.00
W	CAROLYN RUTH FRANCIS (S)	07-19-07	2.40
X	MASON DIXON FARMS LLC (S)	07-19-06	1.19
Y	CAROLYN JO & DENNY R. MORRIS (S)	07-19-05	1.33
Z	MICHAEL E. & DONNA D. RICHARDS (S)	07-19-03	0.45
AA	KATHRYN L. LEACH (S)	07-19-02	0.56
BB	MICHAEL & DONNA RICHARDS (S)	07-19-08.2	1.00
CC	MASON DIXON FARMS LLC (S)	07-19-08.9	6.07
DD	MASON DIXON FARMS LLC (S)	07-17-33	217.08
EE	JERRY WHORTON ET UX (S)	07-16-07.1	0.32
FF	JERRY & CYNTHIA C WHORTON (S)	07-17-32	0.29
GG	JERRY & CYNTHIA C. WHORTON (S)	07-17-31	0.24
HH	JAMES STEPHEN BARKER (S)	07-17-30	0.26
II	RALPH MARTIN TAYLOR (S)	07-17-29	0.50
JJ	KAREN K. CHAMPION (S)	07-17-26.1	0.33
KK	EDWARD YOHO (S)	07-17-26	0.20
LL	PHILLIP L. LOGSDON (S)	07-17-25	0.29
MM	PHILLIP L. LOGSDON (S)	07-17-24	0.29
NN	KEVIN B. MCELWEE (S)	07-17-23	LOT
OO	KEVIN B. MCELWEE (S)	07-17-22	0.42
PP	CHRISTINA Y. RICHMOND (S)	07-17-21	0.63
QQ	MASON DIXON FARMS LLC (S)	07-17-21	1.30
RR	JAMES E. REGIEC SR. & JAMES E. REGIEC (S)	07-19-23.1	1.17
SS	JAMES F. DRUSCHEL & JAMIE ANN DRUSCHEL, JACK S. HUGGINS AND TERRY L. HUGGINS, JOSEPH SEDINGER AND MICKEY D. SEDINGER, SHEILA J. MCGILL (S)	07-19-23	4.43

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
11	DELORSE A. HORNER (LIFE ESTATE) REMAINDERMEN: DOROTHY S. PRICE & MITCHELL J. PRICE (S)/ RICHARD LEE PARRISH AND TERI LEE PARRISH, RACHEL A. YEATER, KAREN Y. JONES, ALLEN L. YEATER, THE TRUST OF HAROLD L. YEATER, A/K/A THE LIVING TRUST OF HAROLD L. YEATER DATED 1/ 29 /1999 BY STEPHEN L. YEATER AND DEBORAH Y. SHAW, ACTING AS CO-TRUSTEES, CHESTNUT HOLDINGS INC., MOUNTAIN MINERALS LLC (R)	7-16-23	16.71
12	DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ LARRY W. YEATER, CHESTNUT HOLDINGS INC. (R)	7-16-22	18.67
13	DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ CHESTNUT HOLDINGS INC. (R)	7-19-18	26.77
14	DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ DONALD REX QUIGLEY, FREDA QUIGLEY, SANDRA SUE CUMPSTON AND KEITH D. CUMPSTON, JAMES L. REID AND SHERRY L. REID, JUNE A. REID A/K/A JUNE REID	7-19-26	28.34
15	MASON DIXON FARMS LLC (S) / W. H. LOPER AND BERTIE LOPER (R)	7-17-19.1	20.00

Received
Office of Oil & Gas
NOV 09 2015

REVISIONS:	COMPANY:		
⚠11-02-2015 BOTTOM HOLE ADJUSTED.	SWN Production Company, LLC	SWN Production Company™	
	OPERATOR'S WELL #:	GLADYS BRIGGS MSH 6H	DATE: 11-05-2015
	LOCATION:	LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA	DRAWN BY: N. MANO SCALE: N/A DRAWING NO: ADJOINING OWNERS

E:\1-05-15 DJ\SOUTHWESTERN ENERGY\GLADYS BRIGGS MSH\WELL PLATS\BRIGGS MSH 6H\GLADYS BRIGGS MSH 6H 11-05-15\GLADYS BRIGGS MSH 6H 11-
THURSDAY NOVEMBER 05 2015 10:48AM

PROPERTY NUMBER 2501161964
PAD ID 3001155501

SI-01788

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 Lockhart
Its: Sr. Landman

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
1	7-16-02	James Rodney Briggs	121.4290	1-254788-000	David Bonar, single; Harrison J. Briggs and Gladys R. Briggs, his wife	The Manufacturers Light and Heat Company	12.50%	309/354
		Roger Jacob Briggs			The Manufacturers Light and Heat Company	Columbia Gas 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	7-16-06	Mason Dixon Farms, LLC	69.7200	1-254733-000	W. H. Loper and Bertie Loper	Wheeling Natural Gas Company	12.50%	139/493
					Wheeling Natural Gas Company	The Manufacturers Light and Heat Company		3/40 148/389
					The Manufacturers Light and Heat Company	Union Gasoline and Oil Corporation		197/120
					Union Gasoline and 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		33/110
3	7-16-05	Jack J. Briggs	37.8800	1-254732-000	T.D. Emery and Sadie B. Emery, his wife	The Wheeling Natural Gas Company	12.50%	132/443
					Wheeling Natural Gas Company	The Manufacturers Light and Heat Company		3/40 148/389
					The Manufacturers Light and Heat Company	Union Gasoline and Oil Corporation		197/120
					Union Gasoline and 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		33/110
4	7-16-07	Mason Dixon Farms, LLC	64.7334	1-240107-001	Janet L. Pochan, a single woman	Chesapeake Appalachia, LLC	12.50%	660/409
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-002	Patricia Phillips and Edward S. Phillips, her husband	Chesapeake Appalachia, LLC	12.50%	660/500

Received
Office of Oil & Gas
NOV 09 2015

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-003	Mary Irene Crumley Dodd, a/k/a Irene Crumley, a widow	Chesapeake Appalachia, LLC	12.50%	660/503
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-004	Arthur Laverne Gray, a widower	Chesapeake Appalachia, LLC	12.50%	661/103
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-005	C. Dwaine Gray and Virginia W. Gray, his wife	Chesapeake Appalachia, LLC	12.50%	661/556
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-006	Carl E. Schoner Jr., a widower	Chesapeake Appalachia, LLC	12.50%	661/562
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-007	Clark Richard Gray and Lillian Gray, his wife	Chesapeake Appalachia, LLC	12.50%	661/553
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-009	Margaret A. Goetz, f/k/a Margaret A. Gray, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	12.50%	662/7
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-010	Merle M. Hinkle, a widow (Life Estate Interest), by her Attorney-In-Fact, William F. Hinkle, and William F. Hinkle, a married man dealing in his sole and separate property, (Remainder Interest)	Chesapeake Appalachia, LLC	12.50%	662/627
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-011	Marilyn J. Mincks and Eugene F. Mincks, her husband	Chesapeake Appalachia, LLC	12.50%	663/298
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
				1-240107-012	Davy Lou Ashton, a single woman	Chesapeake Appalachia, LLC	12.50%	663/286
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-013	Joseph Ashton, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	663/295
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-014	Hayhurst Company, a Florida Partnership	Chesapeake Appalachia, LLC	12.50%	667/246
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-015	Paul Douglas Gray and Sally S. Gray, his wife	Chesapeake Appalachia, LLC	12.50%	679/16

Received
Office of Oil & Gas
NOV 09 2015

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-240107-016	John Lewis Gray and Judy Gray, his wife	Chesapeake Appalachia, LLC	12.50%	679/13
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
5	7-19-10 7-16-08	Columbia Gas Transmission, LLC	55.1500	1-236873-000	Wilma M. Gatten, f/k/a Wilma G. Kestner, a widow, by her Attorney-In-Fact, Margaret A. Fallova	Chesapeake Appalachia, LLC	12.50%	658/217
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
6	7-16-04	John Dean Briggs and Patty Kay Briggs (h/w,JT)	81.2500	1-254966-000	W.H. Loper and Bertie Loper, his wife	T.L. Davis	12.50%	146/489
					T.L. Davis	W.H. Young		146/493
					W.H. Young	J.E. Davis		146/494
					J.E. Davis	J.W. Miller		146/494
					J.E. Davis and Hettie M. Davis, his wife	Jefferson Oil Company		147/254
					J.W. Miller and Jeannette K. Miller, his wife	Jefferson Oil Company		147/255
					Jefferson Oil Company	Carnegie Natural Gas Company		177/74
					Carnegie Natural Gas Company	The Manufacturers Light and Heat Company		3/93
					The Manufacturers Light and Heat Company	Columbia Gas 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	7-16-09	Edward Silcox	11.2080	1-240093-001	O.E. Burge and Sarah Burge, a/k/a Sarah L. Burge, his wife	Chesapeake Appalachia, LLC	12.50%	660/348
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				Sublease	NiSource Energy Ventures, LLC	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
8	7-16-19	Robert M. Schiffer	0.2600	1-240093-001	O.E. Burge and Sarah Burge, a/k/a Sarah L. Burge, his wife	Chesapeake Appalachia, LLC	12.50%	660/348
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				Sublease	NiSource Energy Ventures, LLC	Columbia Natural Resources, LLC		642/281

Received
Office of Oil & Gas
NOV 09 2015

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
					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	7-16-20	Robert M. Schiffer and Sandra L. Schiffer (h/w, JT)	0.7920	1-240093-001	O.E. Burge and Sarah Burge, a/k/a Sarah L. Burge, his wife	Chesapeake Appalachia, LLC	12.50%	660/348
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				Sublease	NiSource Energy Ventures, LLC	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
10	7-16-21	William Zervos, Jr.	3.0000	1-236953-009	The Trust of Harold L. Yeater, a/k/a The Living Trust of Harold L. Yeater, dated January 29, 1999, by Stephen L. Yeater and Deborah Y. Shaw, acting as Co-Trustees	Chesapeake Appalachia, LLC	17.00%	765/131
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-241162-001	Richard Lee Parrish and Teri Lee Parrish, his wife	Chesapeake Appalachia, LLC	12.50%	663/292
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-241162-006	Allen L. Yeater, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	720/218
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-241162-007	Rachel A. Yeater, a single woman	Chesapeake Appalachia, LLC	17.00%	748/448
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-241162-008	Karen Y. Jones, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	749/114
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-241162-009	Chestnut Holdings, Inc., a Florida Corporation	Chesapeake Appalachia, LLC	17.00%	758/396
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				WV0000303-001	Chesapeake Appalachia, LLC	Chesapeake Appalachia, LLC	15.00%	772/475
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
				WV0000303-002	Chesapeake Appalachia, LLC	Chesapeake Appalachia, LLC	15.00%	772/481
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582

Received
Office of Oil & Gas
NOV 09 2015

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
11	7-16-23	Delorse A. Horner, Life Estate Remaindermen: Dorothy S. Price and Mitchell J. Price (h/w, JT)	16.7070	1-236953-004	Richard Lee Parrish and Teri Lee Parrish, his wife	Chesapeake Appalachia, LLC	12.50%	659/209
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236953-006	Rachel A. Yeater, a single woman	Chesapeake Appalachia, LLC	17.00%	749/149
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236953-007	Karen Y. Jones, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	749/125
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236953-008	Allen L. Yeater, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	752/561
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236953-009	The Trust of Harold L. Yeater, a/k/a The Living Trust of Harold L. Yeater, dated January 29, 1999, by Stephen L. Yeater and Deborah Y. Shaw, acting as Co-Trustees	Chesapeake Appalachia, LLC	17.00%	765/131
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-236953-010	Chestnut Holdings, Inc., a Florida Corporation	Chesapeake Appalachia, LLC	17.00%	789/362
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				WV0000041-001	Mountain Minerals LLC	Chesapeake Appalachia, LLC	15.00%	679/465
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		34/582
12	7-16-22	Delorse A. Horner, Life Estate Remaindermen: Dorothy S. Price and Mitchell J. Price (h/w, JT)	26.6682	1-235785-001	Larry W. Yeater, widower	Chesapeake Appalachia, LLC	12.50%	657/279
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-235785-003	Chestnut Holdings Inc., a Florida Corporation	Chesapeake Appalachia, LLC	17.00%	767/104
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
13	7-19-18	Delorse A. Horner, Life Estate Remaindermen: Dorothy S. Price and Mitchell J. Price (h/w, JT)	26.7700	1-235786-000	Chestnut Holdings Inc., a Florida Corporation	Chesapeake Appalachia, LLC	17.00%	766/345

Received
Office of Oil & Gas
NOV 0 9 2015

Exhibit A

#	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	LESSEE	ROYALTY	BK/PG
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
14	7-19-26	Delorse A. Horner, Life Estate Remaindermen: Dorothy S. Price and Mitchell J. Price (h/w, JT)	28.3400	1-226007-005	Donald Rex Quigley, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	716/223
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-226007-006	Freda Quigley, a widow	Chesapeake Appalachia, LLC	17.00%	716/219
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-226007-008	Sandra Sue Cumpston and Keith D. Cumpston, her husband	Chesapeake Appalachia, LLC	17.00%	787/525
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-226007-009	James L. Reid and Sherry L. Reid, his wife	Chesapeake Appalachia, LLC	17.00%	787/519
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110
				1-226007-010	June A. Reid, a/k/a June Reid, a widow	Chesapeake Appalachia, LLC	17.00%	794/15
					Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110

Received
Office of Oil & Gas
NOV 09 2015

51-01769

51-01788

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

October 20, 2015

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

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

Dear Ms. Adkins:

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

Thank you.

Sincerely,

Brandi Mullins

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+

Received
Office of Oil & Gas
NOV 09 2015

WW-6AC
(1/12)

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

Date of Notice Certification: 10/8/14

API No. 47- 51 - 01798
Operator's Well No. Gladys Briggs MSH 6H
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:	532898.9
County:	51-Marshall	Northing:	4401973.4
District:	4-Liberty	Public Road Access:	Fish Ridge Road
Quadrangle:	278-Cameron	Generally used farm name:	Gladys Briggs
Watershed:	Fish Creek		

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

Received
Office of Oil & Gas
OCT 09 2014

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.

WW-6AC
(1/12)

51-01788

Certification of Notice is hereby given:

THEREFORE, I Dee Southall, 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:	Chesapeake Appalachia, LLC	Address:	PO Box 1300
By:	Dee Southall		Jane Lew, WV 26378
Its:	Regulatory Analyst II	Facsimile:	304-471-2497
Telephone:	304-517-1416	Email:	danielle.southall@chk.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 25th day of August 2014

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.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A
(9-13)

API NO. 47- 51 - 01788
OPERATOR WELL NO. Gladys Briggs MSH 6H
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: 10/8/14 **Date Permit Application Filed:** 10/8/14

Notice of:

☑ PERMIT FOR ANY WELL WORK

☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

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

☐ PERSONAL SERVICE

☑ REGISTERED MAIL

☐ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

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

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

☑ SURFACE OWNER(s)
Name: James Rodney Briggs
Address: 531 Briggs Lane
Cameron, WV 26033
Name: John D. & Patty K. Briggs
Address: 342 Briggs Lane
Cameron, WV 26033

☑ SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Jack Briggs
Address: 307 Briggs Lane
Cameron, WV 26033
Name: Vincent E. Lemasters
Address: 103 Briggs Lane
Cameron, WV 26003

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

☑ COAL OWNER OR LESSEE
Name: Consol Energy, Inc. %Leatherwood
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317-6506

☐ COAL OPERATOR
Name:
Address:

☑ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: ***SEE ATTACHMENT***
Address:

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name:
Address:

*Please attach additional forms if necessary

Received
Office of Oil & Gas
OCT 09 2014

WW-6A
(9-13)

API NO. 47- 51 - 01788
OPERATOR WELL NO. Gladys Briggs MSH 6H
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: Thelma Yeater
Address: 82 Fish Ridge Rd
Cameron, WV 26033
Name: _____
Address: _____

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

☐ COAL OWNER OR LESSEE
Name: _____
Address: _____

☐ COAL OPERATOR
Name: _____
Address: _____

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

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

Received
Office of Oil & Gas
OCT 09 2014

WW-6A
(8-13)

API NO. 47- 51 - 01788
OPERATOR WELL NO. Gladys Briggs MSH 6H
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 impact of silica 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

Received
Office of Oil & Gas
OCT 09 2014

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

Received
Office of Oil & Gas
OCT 09 2014

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- 51 - 01788
OPERATOR WELL NO. Gladys Briggs MSH 6H
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.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A
(8-13)

API NO. 47- 51 - 01788
OPERATOR WELL NO. Gladys Briggs MSH 6H
Well Pad Name: Gladys Briggs MSH Pad

Notice is hereby given by:

Well Operator: Chesapeake Appalachia, LLC
Telephone: 304-517-1416
Email: Danielle.Southall@chk.com

Address: PO Box 1300
Jane Lew, WV 26378
Facsimile: 304-471-2497

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 25th day of August 2014

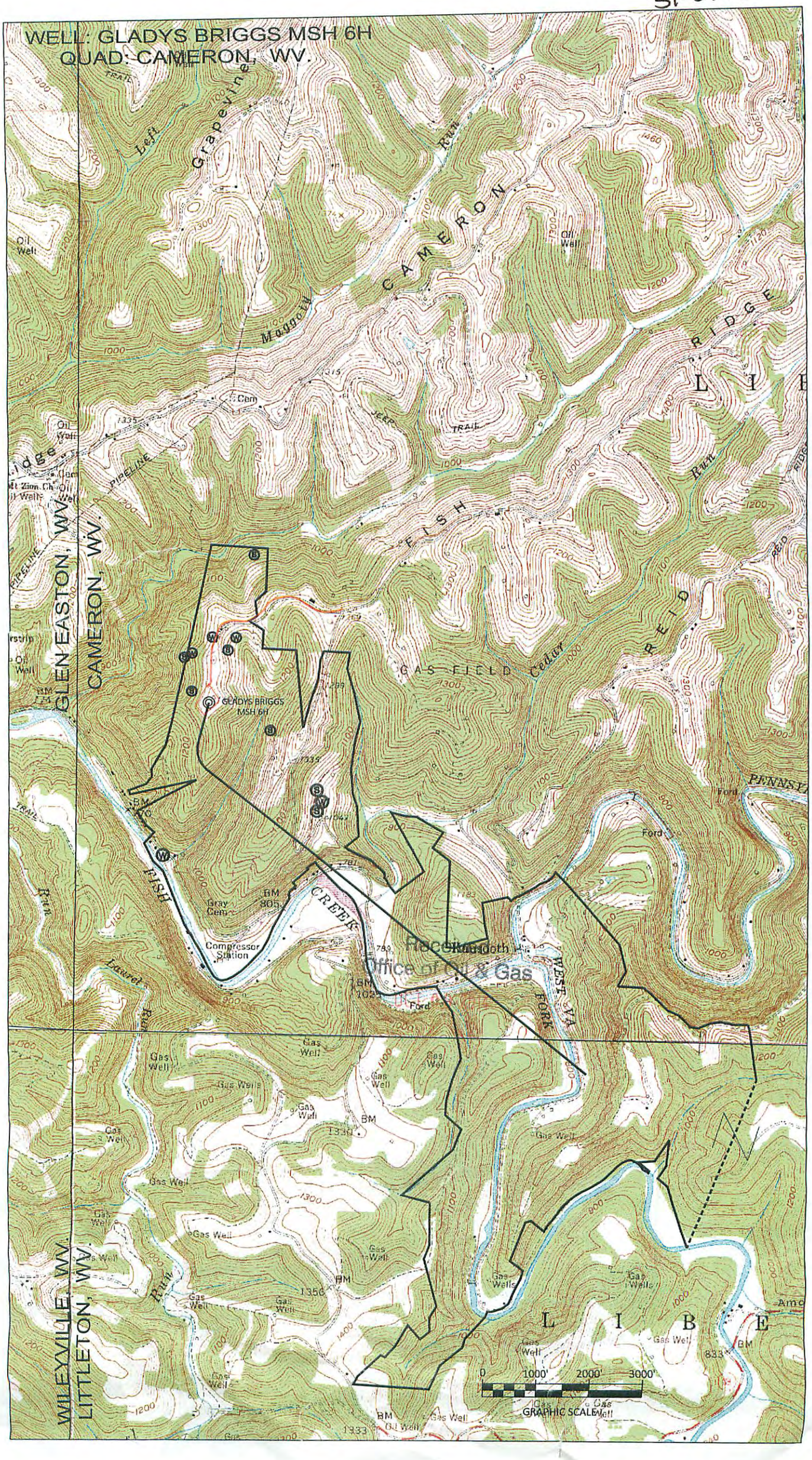
Brittany R Woody Notary Public

My Commission Expires 11/27/22

Received
Office of Oil & Gas
OCT 09 2014

51-01788

WELL: GLADYS BRIGGS MSH 6H
QUAD: CAMERON, WV.



Property Owner(s)	Owner Address	City	State	Zip	Owner Phone No.
BRIGGS, GLADYS R. ESTATE c/o JOHN BRIGGS	342 BRIGGS LANE	CAMERON	WV	26033	(304)686-3768
BRIGGS, JACK J.	307 BRIGGS LANE	CAMERON	WV	26033	(304)686-3521

Received
Office of Oil & Gas
OCT 09 2014

8810-15

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 09/02/2014 **Date Permit Application Filed:** 10/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: micah.feather@chk.com
Facsimile: 304-471-2497

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: Danielle.Southall@chk.com
Facsimile: 304-471-2497

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 09/02/2014 **Date Permit Application Filed:** 10/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: micah.feather@chk.com
Facsimile: 304-471-2497

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: Danielle.Southall@chk.com
Facsimile: 304-471-2497

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.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 09/02/2014 **Date Permit Application Filed:** 10/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: micah.feather@chk.com
Facsimile: 304-471-2497

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: Danielle.Southall@chk.com
Facsimile: 304-471-2497

Received
Office of Oil & Gas
OCT 09 2014

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.

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 09/02/2014 **Date Permit Application Filed:** 10/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: micah.feather@chk.com
Facsimile: 304-471-2497

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: Danielle.Southall@chk.com
Facsimile: 304-471-2497

Received
Office of Oil & Gas
OCT 09 2014

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.

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 09/02/2014 **Date Permit Application Filed:** 10/8/14

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. Lamasters
Address: 103 Briggs Lane
Cameron, WV 26033

Name:
Address:

Notice is hereby given:

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

State:	West Virginia	UTM NAD 83 Easting:	532898.9
County:	Marshall	Northing:	4401973.4
District:	Liberty	Public Road Access:	Fish Ridge Road
Quadrangle:	Cameron	Generally used farm name:	
Watershed:	Big Run		

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator:	Chesapeake Appalachia LLC	Authorized Representative:	Danielle Southall
Address:	PO Box 1300, 179 Chesapeake Drive	Address:	PO Box 1300, 179 Chesapeake Drive
	Jane Lew, WV 26378		Jane Lew, WV 26378
Telephone:	304-517-1416	Telephone:	304-517-1416
Email:	micah.feather@chk.com	Email:	Danielle.Southall@chk.com
Facsimile:	304-471-2497	Facsimile:	304-471-2497

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 09/02/2014 **Date Permit Application Filed:** 10/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: micah.feather@chk.com
Facsimile: 304-471-2497

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: Danielle.Southall@chk.com
Facsimile: 304-471-2497

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.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A4
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 09/02/2014 **Date Permit Application Filed:** 10/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: micah.feather@chk.com
Facsimile: 304-471-2497

Authorized Representative: Danielle Southall
Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Telephone: 304-517-1416
Email: Danielle.Southall@chk.com
Facsimile: 304-471-2497

Received
Office of Oil & Gas
OCT 09 2014

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.

Operator Well No. Gladys Briggs MSH 6H

WW-6A5
(1/12)

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: 08/29/2014 **Date Permit Application Filed:** 12/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Telephone: 304-517-1416
Email: danielle.southall@chk.com

Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

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.

Received
Office of Oil & Gas
DEC 09 2014

Received
Office of Oil & Gas
DEC 09 14

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 08/29/2014 **Date Permit Application Filed:** 10/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Telephone: 304-517-1416
Email: danielle.southall@chk.com

Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

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.

Received
Office of Oil & Gas
OCT 09 2014

Received
Office of
OCT 0 2

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 08/29/2014 **Date Permit Application Filed:** 10/8/14

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: Roger Jacob Briggs
Address: 531 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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Telephone: 304-517-1416
Email: danielle.southall@chk.com

Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

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.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 08/29/2014 **Date Permit Application Filed:** 10/8/14

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

UTM NAD 83 Easting: 532898.9
Northing: 4401973.4
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.

Received
Office of Oil & Gas
OCT 09 2014

Well Operator: Chesapeake Appalachia LLC
Telephone: 304-517-1416
Email: danielle.southall@chk.com

Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

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.

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 08/29/2014 **Date Permit Application Filed:** 10/8/14

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

Name:
Address:

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

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

UTM NAD 83 Easting: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Telephone: 304-517-1416
Email: danielle.southall@chk.com

Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

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.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 08/29/2014 **Date Permit Application Filed:** 10/8/14

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: James Rodney Briggs
Address: 531 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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Telephone: 304-517-1416
Email: danielle.southall@chk.com

Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

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.

Received
Office of Oil & Gas
OCT 09 2014

WW-6A5
(1/12)

Operator Well No. Gladys Briggs MSH 6H

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: 08/29/2014 **Date Permit Application Filed:** 10/8/14

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: 532898.9
Northing: 4401973.4
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: Chesapeake Appalachia LLC
Telephone: 304-517-1416
Email: danielle.southall@chk.com

Address: PO Box 1300, 179 Chesapeake Drive
Jane Lew, WV 26378
Facsimile: 304-471-2497

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.

Received
Office of Oil & Gas
OCT 09 2014

WW-6AW
(1-12)

API NO.
OPERATOR WELL NO. Gladys Briggs 6H
Well Pad Name: Gladys Briggs

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

VOLUNTARY STATEMENT OF NO OBJECTION

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

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

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

VOLUNTARY STATEMENT OF NO OBJECTION

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

State:	West Virginia	WVSPN NAD 27	Easting:	1,686,271.990
County:	Marshall		Northing:	463,410.318
District:	Liberty	Public Road Access:		
Quadrangle:	CAMERON	Generally used farm name:		BRIGGS, GLADYS R.
Watershed:	Fish Creek			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, **provided that CHESAPEAKE APPALACHIA, L.L.C. drills the well on WV North NAD27 coordinates of North 463,410.318, East 1,686,271.990.**

*Please check the box that applies

- ☐ SURFACE OWNER
- ☐ SURFACE OWNER (Road and/or Other Disturbance)
- ☐ SURFACE OWNER (Impoundments/Pits)
- ☐ COAL OWNER OR LESSEE
- ☒ COAL OPERATOR
- ☐ WATER PURVEYOR
- ☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD

FOR EXECUTION BY A NATURAL PERSON

Signature: _____
Print Name: _____
Date: _____

FOR EXECUTION BY A CORPORATION, ETC.

Company: CONSOLIDATION COAL COMPANY
By: Alex O'Neill
Its: Coal, Oil & Gas Relations Manager
Signature: _____
Date: 9/4/2014

Received
Office of Oil & Gas
OCT 09 2014

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

WW-6AW
(1-12)

API NO. _____
OPERATOR WELL NO. **Gladys Briggs MSH 6H**
Well Pad Name: **Gladys Briggs MSH**

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

VOLUNTARY STATEMENT OF NO OBJECTION

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

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

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

VOLUNTARY STATEMENT OF NO OBJECTION

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

State:	**West Virginia**	WVSPN NAD 27	Easting:	**1,686,271.990**
County:	**Marshall**		Northing:	**463,410.318**
District:	**Liberty**	Public Road Access:		**Fish Creek Road**
Quadrangle:	**CAMERON**	Generally used farm name:		
Watershed:	**Big Run**			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, **provided that CHESAPEAKE APPALACHIA, L.L.C. drills the well on WV North NAD27 coordinates of North 463,410.318, East 1,686,271.990 and in accordance with the Joint Cooperation Agreement dated June 2, 2009.**

*Please check the box that applies

- ☐ SURFACE OWNER
- ☐ SURFACE OWNER (Road and/or Other Disturbance)
- ☐ SURFACE OWNER (Impoundments/Pits)
- ☒ COAL OWNER OR LESSEE
- ☐ COAL OPERATOR
- ☐ WATER PURVEYOR
- ☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Received
Office of Oil & Gas
OCT 09 2014

FOR EXECUTION BY A NATURAL PERSON

Signature: _____
Print Name: _____
Date: _____

FOR EXECUTION BY A CORPORATION, ETC.

Company: **CONSOL Mining Company LLC**
By: **Ryan Arp**
Its: **Project Engineer**
Signature: _____
Date: **9/4/2014**

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.

51-01788

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways
1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

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

March 26, 2015

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

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

Gladys Briggs MSH 6H

Dear Mr. Martin,

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

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

Very Truly Yours,

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

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

Received
Office of Oil and Gas
WV Dept. of Environmental Protection

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

Received
Office of Oil & Gas
OCT 09 2014

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

Received
Office of Oil & Gas
OCT 09 2014

Supplier Name	Product Name	Product Use	Chemical Name	CAS Number
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

Received
Office of Oil & Gas
OCT 09 2014

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

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

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
)83)
771728
.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

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

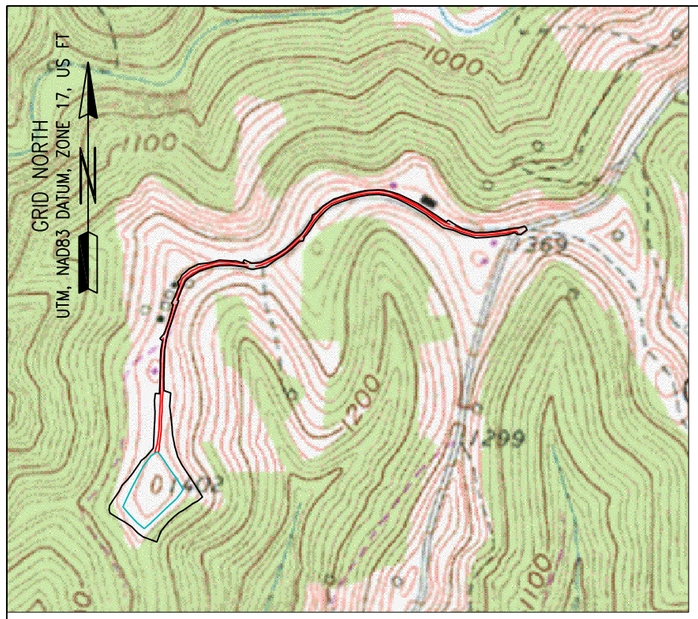
SWN Production Company™

10-16-2015
Date:

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

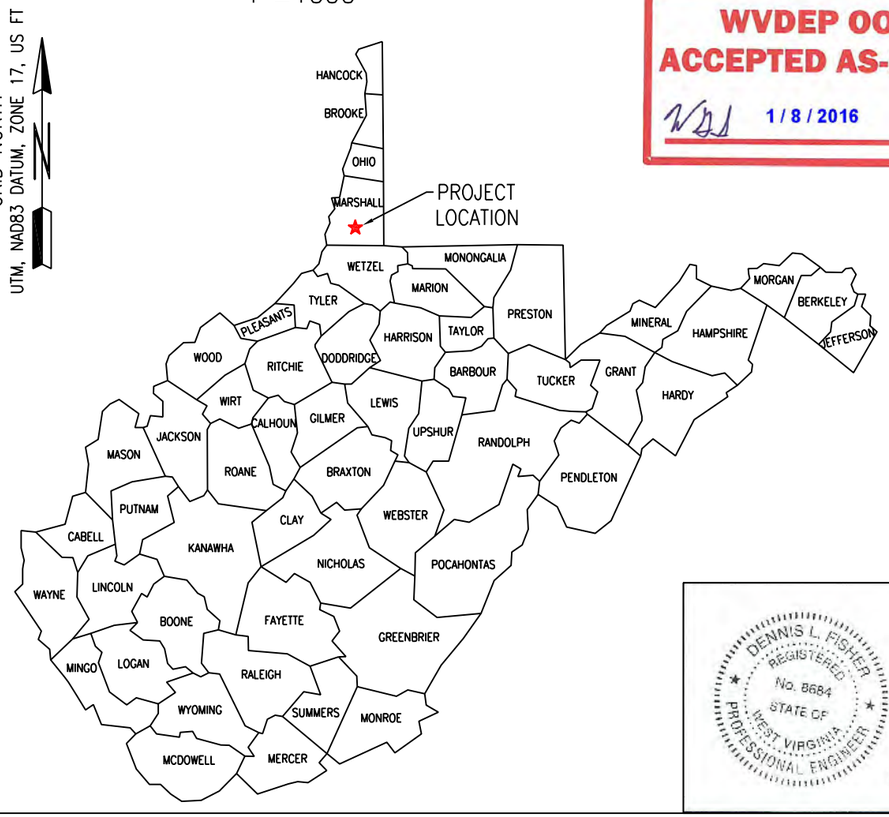
Jackson Surveying Inc.
TITLE SHEET
TS.1
SOUTHWESTERN PRODUCTION COMPANY LLC.
GLADYS BRIGGS MSH PAD
LIBERTY DISTRICT, MARSHALL COUNTY, WV
AUGUST 17, 2015

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



1000 0 1000

1"=1000



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

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

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

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

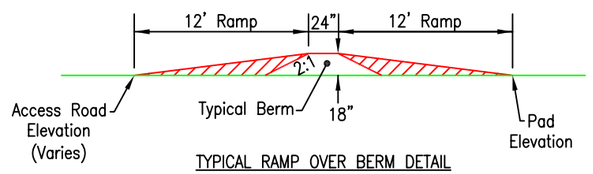
- LEGEND -

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