

west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Wednesday, June 6, 2018 WELL WORK PERMIT Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit approval for SANDRA PARR

47-009-00251-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin

Chief

Operator's Well Number: SANDRA PARR

Farm Name: ANTHONY BRUCE PARR, ET .

U.S. WELL NUMBER: 47-009-00251-00-00

Horizontal 6A New Drill Date Issued: 6/6/2018

API Number: 47 009 0025

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

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. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. 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.
- 10. 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.

API Number: 47 009 0025

PERMIT CONDITIONS

11. 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 (04/15) API NO. 47-009

OPERATOR WELL NO. Sandra Parr BRK 201H
Well Pad Name: Sandra Parr BRK Pad

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

1) Well Operator: SWN Produ	iction Co., LLC	494512924	009- Brooke	3-Buffalo	247-Bethany
Parameter Parame		Operator ID	County	District	Quadrangle
2) Operator's Well Number: Sa	ndra Parr BRK	201H Well Pa	d Name: Sand	a Parr BR	K Pad
3) Farm Name/Surface Owner:	Anthony Bruce Par	r, ET AL Public Ros	ad Access: Atch	nison Road	1
4) Elevation, current ground:	1276' E	Elevation, proposed	post-construction	on: 1276'	
5) Well Type (a) Gas <u>×</u> Other	Oil _	Und	erground Storag	ge	
(b)If Gas Sha	llow x	Deep			
Hor	rizontal x		1	000	
6) Existing Pad: Yes or No Yes	3		_ (.	see	1.10-18
 Proposed Target Formation(s) Target Formation- Marcellus, Up-Dip Well), Depth(s), Anti	cipated Thickness	and Expected Pr	ressure(s):	Associated Pressure, 4189
		TVD- 6400, Target Base 1	VD- 6445 , Anticipated	THICKNESS 40,	ASSOCIATED 1838UIC 4100
8) Proposed Total Vertical Dept					
9) Formation at Total Vertical D	epth: Marcellu	IS			
10) Proposed Total Measured D	epth: 16334'	V			
11) Proposed Horizontal Leg Le	ngth: 9378.98	· V			
12) Approximate Fresh Water S	trata Depths:	336' ✓			RECEIVED
13) Method to Determine Fresh	Water Depths:	Robert Caldwell S	Spring		MAR 2 1 2018
14) Approximate Saltwater Dep	ths: 759' TVD -	Salinity Profile			
15) Approximate Coal Seam De		1		Env	WV Department of vironmental Protection
16) Approximate Depth to Possi		nine, karst, other):	None that we	are aware	of.
17) Does Proposed well location directly overlying or adjacent to	n contain coal se	ams	No		
(a) If Yes, provide Mine Info:	Name:				
	Depth:				
	Seam:				
	Owner:				

WW-6B (04/15) API NO. 47- 009 -

OPERATOR WELL NO. Sandra Parr BRK 201H
Well Pad Name: Sandra Parr BRK Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	<u>Grade</u>	Weight per ft. (Ib/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	436'	436'	423 sx/CTS
Coal	9 5/8"	New	J-55	36#	2026'	2026'	781 sx/CTS
Intermediate	7"	New	J-55	20#	If Needed/As Needed	If Needed/As Needed	If Needed/As Needed
Production	5 1/2"	New	HCP-110	20#	16334'	16334'	Lead 865sx/ Tall 2313sx/ 100' Inside
Tubing							
Liners							

C BRO 1.10-18

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal 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	1.20/50% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/50% Excess
Tubing	1						
Liners							

PACKERS

Kind:			
Sizes:			
Depths Set:			

WW-6B (10/14) API NO. 47- 009

OPERATOR WELL NO. Sandra Parr BRK 201H

Well Pad Name: Sandra Parr BRK Pad

4700900251

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and stimulate any potential zones between and including the Benson to Marcellus. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface or run external casing packer/cementing stage tool above void interval and perform 2 stage cementing operation dependent upon depth of void. Run casing not less than 20' below void nor more than 75' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50' below and cts.)

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. The well is produced through surface facilities consisting of high pressure production unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 100 barrels a minute.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 20.37
- 22) Area to be disturbed for well pad only, less access road (acres): 4.78
- 23) Describe centralizer placement for each casing string:

All casing strings will be ran with a centralizer at a minimum of 1 per every 3 joints of casing

24) Describe all cement additives associated with each cement type:

See Attachment ***

RECEIVED Office of Oil and Gas

MAR 2 1 2018

WV Department of Environmental Protection

25) Proposed borehole conditioning procedures:

All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and continuing until operator is satisfied with borehole conditions.

^{*}Note: Attach additional sheets as needed.



4700900251

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

March 14, 2018

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

RE: Proposed New Well Sandra Parr BRK 1H

Dear Ms. Adkins

SWN has reviewed the area of the above mentioned well and discovered no shallow wells within 500' of the lateral. This well is situated on the Parr's property, in Buffalo District, Brooke County, West Virginia.

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

Thank you.

Sincerely,

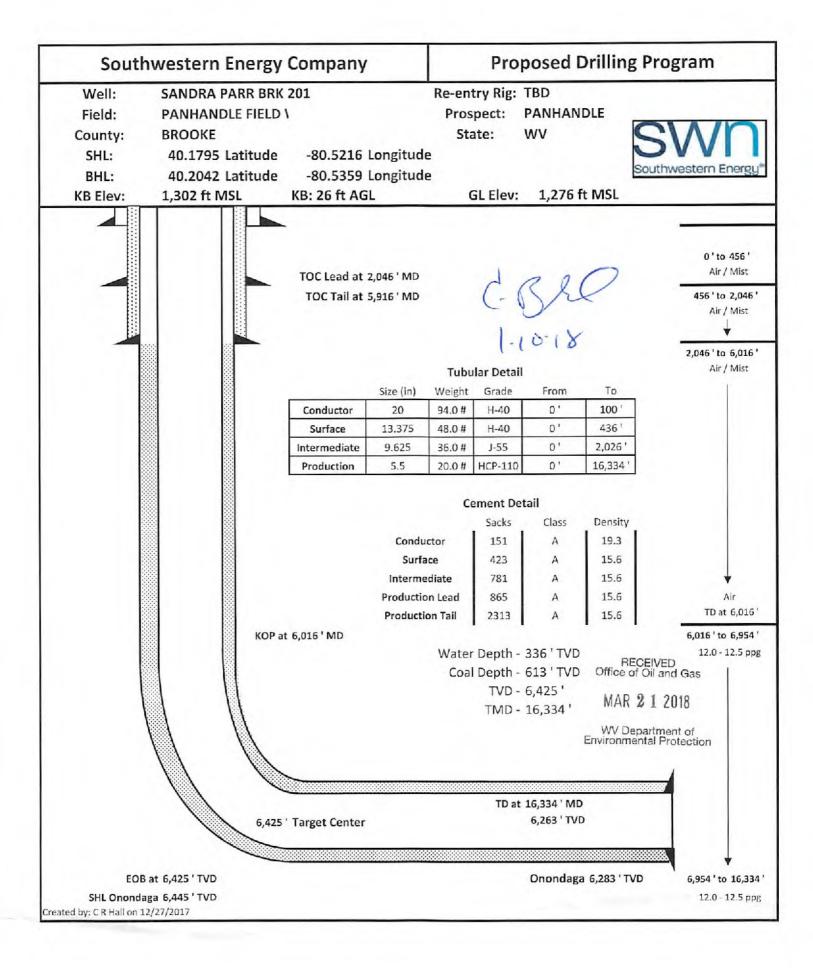
Dee Southall

Senior Regulatory Analyst

RECEIVED Office of Oil and Gas

MAR 2 1 2018





Schlumberger (Cement Additives
----------------	------------------

	Product Name		ch	12.22.
_	Product Name	Product Use	Chemical Name	CAS Number
Surface	S001	accelerator	calcium chloride	10043-52-4
Intermediate Surface	5001	accelerator	calcium chloride	10043-52-4
	D080	dispersant	sodium polynaphthalene sulfonate	9008-63-3
ğ "	D801	retarder	aromatic polymer derivative	propriatary
Kick Off Plug	D047	antifoam	polypropylene glycol	25322-69-4
	D167	fluid loss	aliphatic amide polymer	propriatary
	D154	extender	non-crystalline silica	7631-86-9
	D400	gas migration	boric acid	10043-35-3
			polypropylene glycol	25322-69-4
pag	D046	antifoam	fullers earth (attapulgite)	8031-18-3
Production-Lead			chrystalline silica	14808-60-7
읦	D201	retarder	metal oxide	propriatary
npc			sulphonated synthetic polymer	propriatary
J.d	D202	dispersant	formaldehyde (impurity)	propriatary
			polypropylene glycol	25322-69-4
	D046	antifoam	fullers earth (attapulgite)	8031-18-3
	D167	fluid loss	aliphatic amide polymer	propriatary
夏		1.	sodium polynaphthalene sulfonate	9008-63-3
<u> </u>	D065	dispersant	sodium sulfate	7757-82-6
Production-Tail	[chrystalline silica	14808-60-7
npo.	D201	retarder	metal oxide	propriatary
	D153	anti-settling	chrystalline silica	14808-60-7

RECEIVED Office of Oil and Gas

MAR 2 1 2018

API Number 47 - 009

Operator's Well No. Sandra Parr BRK 201H

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) Buffalo Creek	Quadrangle Bethany
Do you anticipate using more than 5,000 bbls of water to Will a pit be used? Yes No	complete the proposed well work? Yes 🗸 No
If so, please describe anticipated pit waste:	
Will a synthetic liner be used in the pit? Yes	No ✓ If so, what ml.?
Proposed Disposal Method For Treated Pit Wast	tes:
Reuse (at API Number_atnexts Off Site Disposal (Supply for	Permit Number 34-155-22460 34-059-2466*, 34-119-28775, 34-165-23795, 34-121 23995, 34-155-21863) anticipated well, API# will be included with the WR-34/DDMR &/or permit addendum. In WW-9 for disposal location) s 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 ho	rizontal)? Air, freshwater, oil based, etc. Air drill to KOP, fluid drill with SOBM from KOP to TD
-If oil based, what type? Synthetic, petroleum, e	etc. Synthetic Oil Base
Additives to be used in drilling medium? Attachment 3A	
Drill cuttings disposal method? Leave in pit, landfill, ren	noved offsite, etc. landfill
-If left in pit and plan to solidify what medium w	vill be used? (cement, lime, sawdust)
-Landfill or offsite name/permit number? Meadow Arden Landfill 10072, Apex Sanitary Landf	will SWF- 1032, Short Creek SWF-1034,Carbon Limestone MSWL018781, Wetzel County 1021
	and Gas of any load of drill cuttings or associated waste rejected at any wided within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the W provisions of the permit are enforceable by law. Violati law or regulation can lead to enforcement action. I certify under penalty of law that I have pers application form and all attachments thereto and that,	s and conditions of the GENERAL WATER POLLUTION PERMIT issued test Virginia Department of Environmental Protection. I understand that the tons of any term or condition of the general permit and/or other applicable conally examined and am familiar with the information submitted on this based on my inquiry of those individuals immediately responsible for in is true, accurate, and complete. I am aware that there are significant possibility of fine or imprisonment.
Company Official Signature	RECEIVED Office of Oil and Gas
Company Official (Typed Name) Dee Southall	
Company Official Title Senior Regulatory Analyst	MAR 2 1 2018
	WV Department of Environmental Protection
Subscribed and sworn before me this 21th day	On an malina
Buttany K Moody	Notary Public
My commission expires	OFFICIAL SEAL William Cobin. State of West Vi

47 009 00251

Operator's Well No. Sandra Parr BRK 201H

Proposed Revegetation Trea	tment: Acres Disturbed	20.37	Prevegetation pF	·
Lime as determined by pH to	Tons/acre or to con	rrect to pH 4.78		
Fertilizer type 10-	20-20			
Fertilizer amount 6	000	lbs/acre		
Mulch_ Hay/Strav	w 2.5	Tons/acre		
		Seed Mixtures		
To	emporary		Perma	nent
Seed Type Attachment 3B	lbs/acre		Seed Type	lbs/acre
tttaomment ob		_		
Attach: Drawing(s) of road, location	, pit and proposed area for	or land application (un	less engineered plans in	cluding this info have bee
Orawing(s) of road, location provided)			less engineered plans in	cluding this info have bee
Drawing(s) of road, location			less engineered plans in	cluding this info have bed
Orawing(s) of road, location provided) Photocopied section of invo		eet.		
Orawing(s) of road, location provided)				cluding this info have bed
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		
Orawing(s) of road, location provided) Photocopied section of invo	lved 7.5' topographic she	(-10-18		

47 009 0025 (

Attachment 3A <u>Drilling Mediums</u>

Synthetic Oil

Brine

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers

RECEIVED
Office of Oil and Gas

MAR 2 1 2018



WVD Seeding Specification



To Order Seed contact Lyndsi Eddy Flippo office 570-996-4271 cell 501-269-5451 lyndsi_eddy@swn.com

50lbs per acre of Winter Wheat

(please allow 7 to 10 days for delivery)

NON-ORGANIC PROPERTIES		
Seed Mixture: ROW Mix	swi	N Supplied
Orchardgrass	40%	
Timothy	15%	
Annual Ryegrass	15%	
Brown Top Millet	5%	
Red Top	5%	
Medium Red Clover	5%	All legumes are
White Clover	5%	innoculated at 5x normal
Birdsfoot Trefoil	5%	rate
Rough Bluegrass	5%	
Apply @ 100lbs per acre April 16th- Oct. 14th	(Apply @ 200lbs per acre Oct. 15th-April 15th PLUS

SOIL AMENDMENTS

10-20-20 Fertilizer *Apply @ 500lbs per Acre
Pelletized Lime Apply @ 2 Tons per Acre
*unless otherwise dictated by soil test results

Seeding Calculation Information:

1452' of 30' ROW/LOD is One Acre 871' of 50' ROW/LOD is One Acre 622' of 70' ROW/LOD is One Acre

Synopsis:

Every 622 linear feet in a 70' ROW/LOD, you should be using (2) 50lb bags of seed, (4) 50lb bags of fertilizer and (80) 50lb bags of Lime (2x seed in winter months + 50lb Winter Wheat/ac).

Special Considerations:

Landowner Special Considerations including CREP program participants require additional guidance that is not given here. Discuss these requirements with SWN supervision at the beginning of the project to allow time for special seed delivery.

ORGANIC PROPERTIES		
Seed Mixture: SWN Production Organ	nic Mix	SWN Supplied
Organic Timothy	50%	
Organic Red or White Clover	50%	
OR		
Organic Perennial Ryegrass	50%	
Organic Red or White Clover	50%	
Apply @ 100lbs per acre		Apply @ 200lbs per acre
April 16th- Oct. 14th		Oct. 15th- April 15th
Organic Fertilizer @ 200lbs per Acre		Pelletized Lime @ 2 Tons per Acre

Seed Mixture: Wetland Mix	CM/N Complied	
	SWN Supplied	_
VA Wild Ryegrass	20%	
Annual Ryegrass	20%	
Fowl Bluegrass	20%	
Cosmos 'Sensation'	10%	
Redtop	5%	
Golden Tickseed	5%	
Maryland Senna	5%	
Showy Tickseed	5%	
Fox Sedge	2.5%	
Soft Rush	2.5%	
Woolgrass	2.5%	
Swamp Verbena	2.5%	
Apply @ 25lbs per acre	Apply @ 50lbs per acre	

NO FERTILIZER OR LIME INSIDE WETLAND LIMITS

April 16th- Oct. 14th

47 009 CB

Oct. 15th-April 15th

47009 00251

MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN



SWN Production Company, LLC 179 Innovation Drive Jane Lew, West Virginia 26378

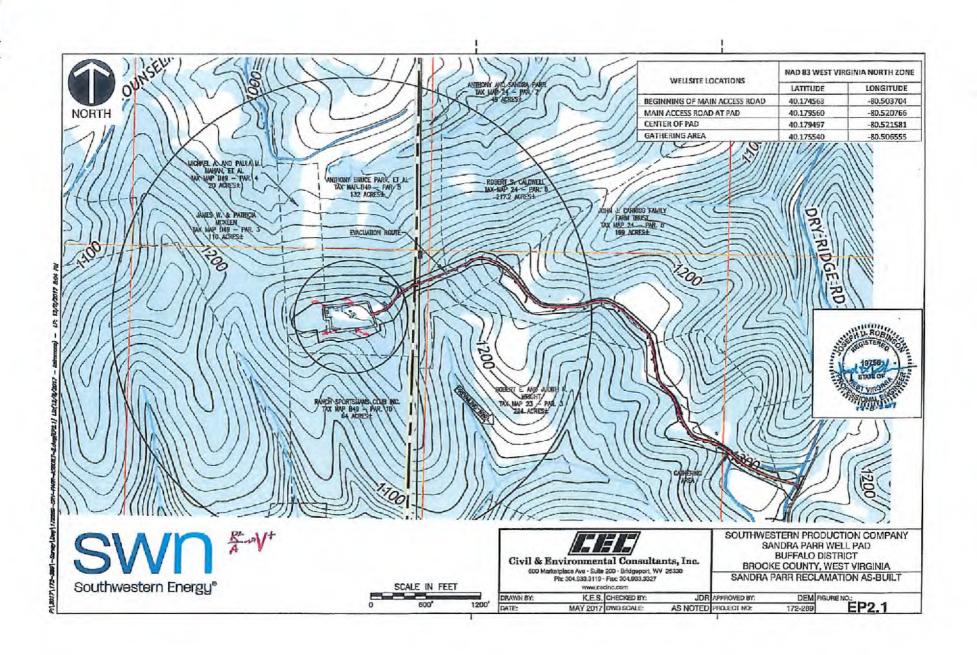
API NO. 47-XXX-XXXXX
WELL NAME: Sandra Parr BRK 201H
Bethany QUAD
Buffalo DISTRICT
Brooke COUNTY, WEST VIRGINIA

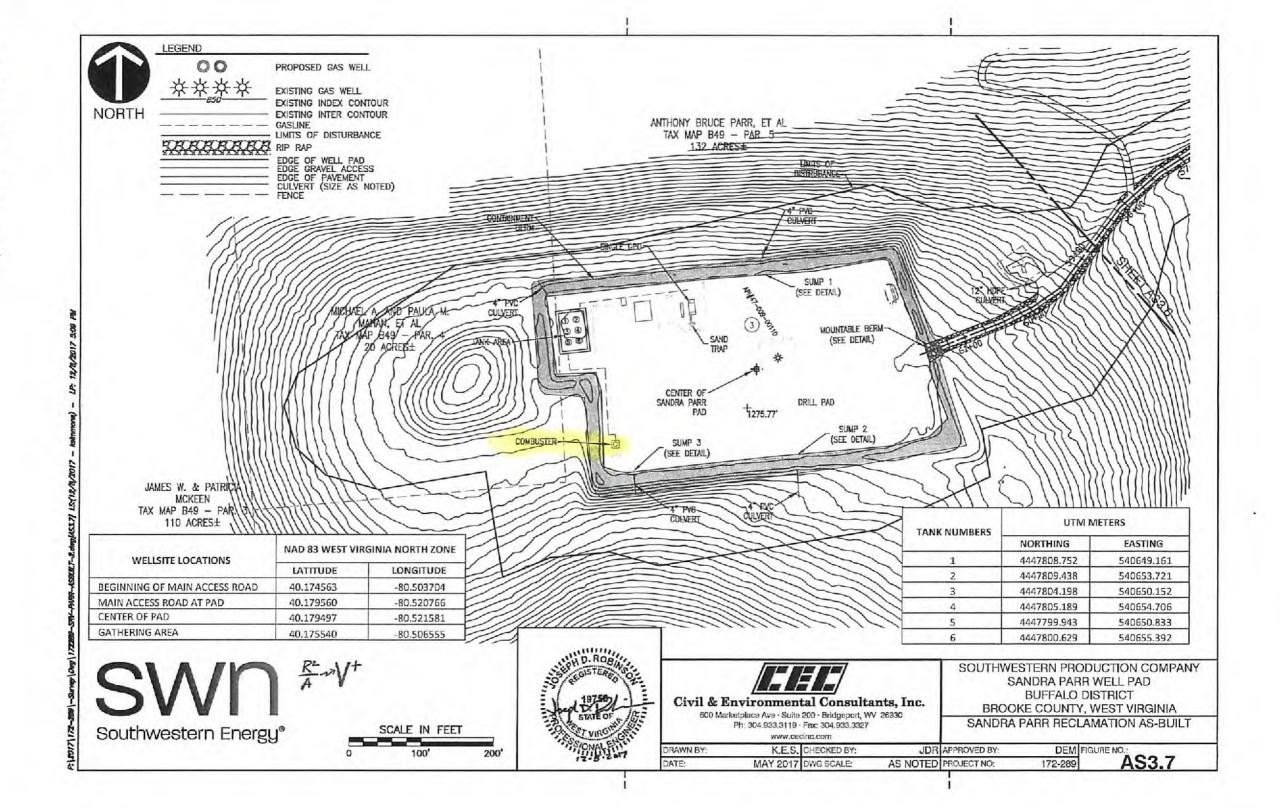
	And the second	
Submitted by: Dee Southall	Date:	12/27/2017
Senior Regulatory		
Title: Analyst	SWN Pro	oduction Co., LLC
Title: Oil to languary	Date:	1.10-18
Approved by:		
	Date:	
Title:		

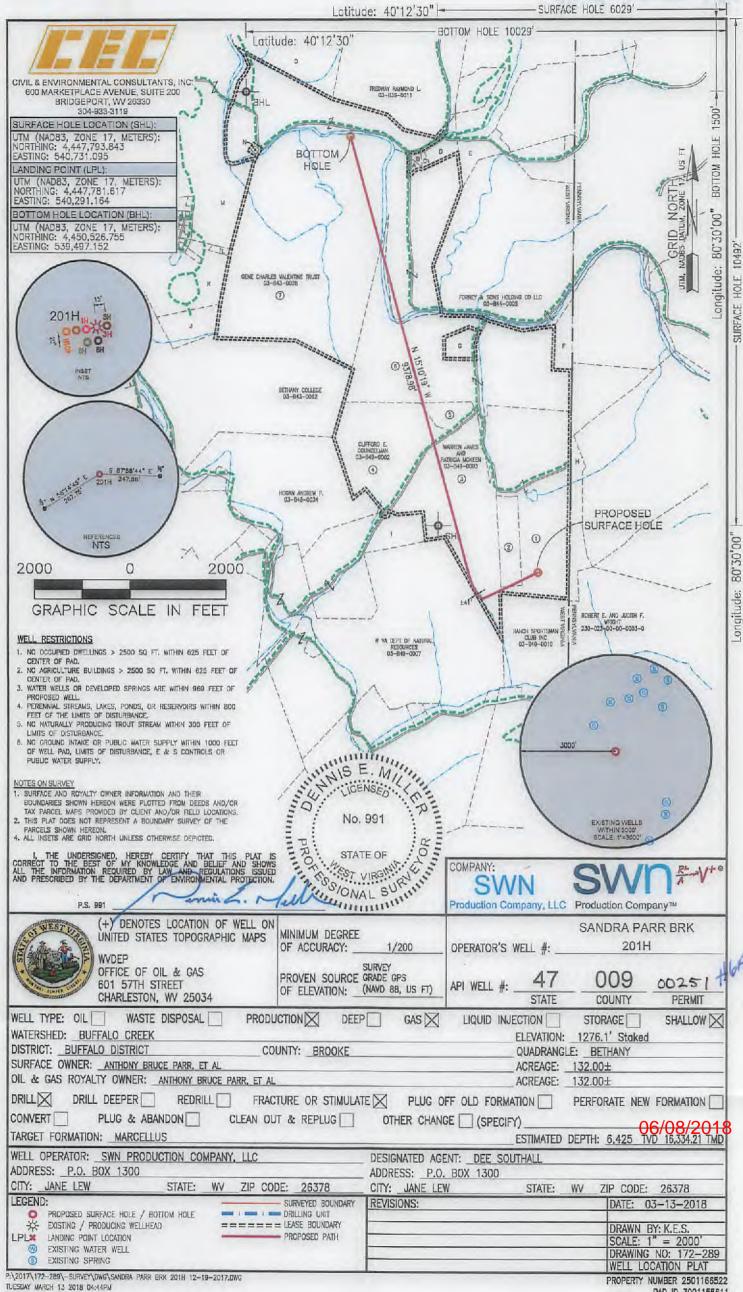
SWN PRODUCTION COMPANY, LLC - CONFIDENTIAL

Office of Oil and Gas
MAR 2 1 2018

WV Department of Environmental Protection







47 209 00251



	WELL BORE TABLE FOR SURFACE OWNE	RS
TRACT	SURFACE OWNER	TAX PARCEL
1	ANTHONY BRUCE PARR, SANDRA L. PARR, RAYMOND LEE, NANCY J. PARR, MICHAEL MAHAN AND PAULA MAHAN	03-B49-0005
2	ANTHONY PARR, SANDRA PARR, RAYMOND PARR, NANCY PARR, LEONARD BOYCE AND KAREN BOYCE	03-B49-0004
3	WARREN JAMES AND PATRICIA MCKEEN	03-849-0003
4	CLIFFORD E. COUNSELMAN	03-849-0002
5	CLIFFORD E. COUNSELMAN	03-844-0013
6	STATE OF WEST VIRGINIA DEPARTMENT OF COMMERCE, DIVISION OF NATURAL RESOURCES, WILDLIFE RESOURCES SECTION	03-B44-0014
7	GENE CHARLES VALENTINE TRUST	03-843-0028

	ADJOINING OWNERS TABLE	
TRACT	SURFACE OWNER	TAX PARCEL
A	PHILLIS A. SWAIN	03-B44-0010
В	PHILLIS A. SWAIN	03-B44-0009
C	PHILLIS A. SWAIN	03-B44-0008
D	NEEL CURTIS LEE & LOUANN L.	03-B44-0007
E	MAIN MILDRED	03-B44-0006
F	CHARLES TOWARD JR. AND JAYME L. DEVOS	03-844-0012
G	LELAND MACKEY	03-B44-0014.1
Н	ANTHONY BRUCE PARR, SANDRA L. PARR, RAYMOND LEE, NANCY J. PARR, MICHAEL MAHAN AND PAULA MAHAN	024-00-00-000
1	WEST VIRGINIA BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION	03-B49-0001
J	DONNI SAMUEL J. & MELANE	03-B43-0057
K	GENE CHARLES VALENTINE TRUST	03-B43-0049.3
L	MARY E. COLLINS	03-843-0049
M	BETHANY COLLEGE	03-B38-0031
N	UNKNOWN HEIRS OR ASSIGNS OF CLYDE B. ROBERTS	03-B43-29
0	OWEN MARK W. (2) AND KRUETZ VIRGINIA BEALL (2)	03-B38-0024

| COMPANY: | SWN | Production Company, LLC | Production Company | Produc

WW-6A1 (5/13) Operator's Well No. Sandra Parr BRK 201H

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.	
Indiffoct	Oranioi, Dessoi, etc.	Grantec, Lessee, etc.	

Royalty

Book/Page

See Attached 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

Office of Oil and Gas

MAR 2 1 2018

WV Department of Environmental Protection

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, L.L.C.	
By: <	Hell	
Its:	Staff Landman	

Page 1 of 2

		_												
Z		6)	5)	4	3)	2	2)					1)	*	:
03-B43-0028-0000		03-B44-0014-0000	03-844-0013-0000	03-B44-0002-0000	U3-B49-00U3-000U		03-849-0004-0000					03-849-0005-0000	TMP	Attached to and m
Bounty Minerals, LLC	Bethany College	Bethany College, a Corporation, fka The Trustee of	Clifford E. Counselman	Clifford E. Counselman	Warren James McKeen and Patricia C. McKeen	Starr	John L. Latimer and Angela Latimer and Deborah S.				Starr	L. Latimer and Angela Latimer and Deborah S.	LESSOR	EXHIBIT "A" Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW Sandra Parr BRK 201H Brooke County, West Virginia
SWN Production Company, LLC	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	SWN Production Company, LLC	SWN Production Company, LLC	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, L.L.C.	Chesapeake Appalachia, L.L.C.	Range Resources - Appalachia, L.L.C.	Great Lakes Energy Partners, LLC	Phillips Production Company	LESSIE	-6A1, by SWN Produ
18.00%		18.00%	18.000%	18.000%	18.00%		18.00%					18.00%	ROYALTY	RECEIVED Ction of the Office of Oil and Gas. MAR 2 1 2018 Man W. Department of Ction of Oil and Gas. WV Department of Ction of Oil and Gas. WV Department of Ction of Oil and Gas. WV Department of Ction of Oil and Gas.
Attached	30/480	15/239	39/206	39/206	39/209	30/480	16/605	30/480	10/552	20/733	9/395	9/85	BK/PG	erator

MEMORANDUM OF OIL AND GAS LEASE

This Memorandum of Oil and Gas Lease made this 21" day of November 2017, by and between Bounty Minerals LLC, a Texas Limited Linbility Cumpany, of 777 Main St., Suite 3:00, Fort Worth, TX 76:102, hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessoo,"

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) eash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessoe an Oil and Gas lease dated November 21, 2017, and made effective November 21, 2017 which provides for an Eighteen (18) month primary term and an option to renew for an additional Eighteen (18) month primary term covering Lessor's interest in the following described lands in Buffalo District(s), Brooke County, West Virginia:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE PART HEREOF FOR LAND IDENTIFICATION

described for the purposes of this agreement as containing a total of 457.766155 Land acres. This lease may be extended beyond the primary term by certain activities including, without limitation, conducting operations, producing oil or gas, or making prescribed payments. This lease also grants to Lessee a Right of First Refusal to match any offer to top-lease the leased premises, which right may be exercised by Lessee within fifteen (15) days after receipt of proper notice from Lesser.

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

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

WITNESS:

LESSORIST

Bounty Minerals, LLC

By:

WITNESS:

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

Brett Massad Land Director

Office of Oil and Gas

MAR 2 1 2018

CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS	1	
COUNTY OF TAI	rapt)	
Bonnty Mineral authorized to de	day of November, 2017 before me, the undersigned officer, personally really, who neknowledged himsoffnerself to be the	_of me of
IN WITNESS V	HBREOP, I hereunto set my hand and official seal.	
	My Commission Expires: 5-23-2020	
	Signature/Notary Public: Line R. Palmer Name/Notary Public (print): Track R. Palmer	
	Name/Notary Public (print): Track R. Palmer	
	TRACIE R. PALMER Notary Public, State of Texas Comm. Expires 05-23-2020	

Notary ID 130673412

RECEIVED Office of Oil and Gas

MAR 2 1 2018

CORPORATE ACKNOWLEDGMENT

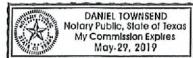
STATE OF TEXAS COUNTY OF HARRIS

On this, the day of Section 2016 before me, the undersigned officer, personally appeared Brett Massad, who acknowledged himself/herself to be the Land Director of SWN Production Company L.L.C., a Texas Limited Liability Company, and that he/she as such Land Director, being authorized to do so, executed foregoing instrument for the purpose therein contained by signing the name of the corporation by himself as SWN Production Company L.L.C. a Texas Limited Liability Company.

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

My Commission Expires:

Signature/Notary Public: Name/Notary Public (print):



Office of Oil and Gas

MAR 2 1 2018

Exhibit "A"

THIS EXHIBIT "A" is attached to and wholly incorporated into that certain Memorandum of Oil and Gas Leaso ("Lease") dated the 21st day of, November, 2017, by and between <u>Bounty Minerals LLC, a Texas Limited Liability Company, of 777 Main St., Suite 3400, Fort Worth, TX 76102</u>, as Lessor, and SWN Production Company, LLC, as Lessee, covering 457.766155 acres, more or less, situated in Buffalo District(s), Brooke County, West Virginia:

<u>DESCRIPTION</u>, The Land is located in the District(s) of <u>Buffalo</u> in the County of <u>Bracke</u>, in the State of West Virginia, and described as follows:

Property Tax Parcel Identification Number: <u>Tax Parcel I.D., 3-B43-28</u> and is bounded formerly or currently as follows:
On the North by lands of: <u>03-B38-24, 3-B39-11;</u>
On the East by lands of <u>03-B44-5.14;</u>
On the South by lands of <u>03-B43-62</u>
On the West by lands of <u>03-B43-49, 3, 03-B38-31;</u>

Property Tax Parcel Identification Number: Tax Parcel I.D.3-B43-35.8 and is bounded formerly or currenly as follows:
On the North by lands of 03-B38-31;
On the East by lands of 03-B38-31;
On the South by lands of 03-B43-49.3;
On the West by lands of 03-B43-33;

Property Tax Parcel Identification Number: Tax Parcel I.D.3-B43-49.3 and is bounded formerly or currently as follows:
On the North by lands of 03-B43-35.8:
On the East by lands of 03-B43-28;
On the South by lands of 03-B43-57;
On the West by lands of 03-B43-33;

Proporty Tax Percel Identification Number: <u>Tax Percel I.D., 3-B43-33</u> and is bounded formerly or currently as follows:
On the North by lands of: <u>03-B43-31</u>;
On the Best by lands of: <u>03-B43-35.8</u>;
On the South by lands of: <u>03-B43-58.60</u>;
On the West by lands of: <u>03-B38-31</u>;

Including all lands acquired by Lessors in <u>Bonk 347 at Pago 473</u>, the abuve properties being situated in Buffalo District, Brooke County, WV, and containing a total of 696.1673 acres, more or less, and including contiguous lands owned by Lessor. INSOFAR AND ONLY INSOFAR as to the lands located outside of the following units: Mark Owen South Unit, as described and depicted on the Declaration of Pooled Unit, recorded at Book 351 and Pago 21, Brooke County, West Virginia; Worthley South Unit, as described and depicted on the Declaration of Pooled Unit, recorded at Book 355 and Page 730, Brooke County, West Virginia; and Thomas Parkinson South Unit, as described and depicted on the Declaration of Pooled Unit, recorded at Book 376 and Page 299 containing a total of 457.766155 acres, more or less, and including contiguous lands owned by Lessor.

RECEIVED and Gas

MAR 2 1 2018



SWN Production Company, LLC 179 Innovation Drive Jane Lew, WV 26378 Tet: 304 884 1610 Fax: 304 471 2497 www.swn.com

March 9, 2018

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

RE: SWN's proposed New Well: Sandra Parr BRK 201H in Brooke County, West Virginia, Drilling under Counsleman's Hill 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 Counsleman's Hill 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

Michael Wilder, RPL

Staff Landman

SWN Production Company, LLC

RECEIVED
Office of Oil and Gas

MAR 2 1 2018

WV Department of Environmental Protection

R2 NV+

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

1011

Date of Notic	e Certification: 31918		API No. 47	7- 009 -
	At II.		Operator's	s Well No. Sandra Parr BRK 201H
			Well Pad I	Name: Sandra Parr BRK Pad
Notice has I	oeen given:			
		§ 22-6A, the Operator has pro	vided the rec	quired parties with the Notice Forms listed
	tract of land as follows:			Julian and the second and a second a second and a second
State:	West Virginia	UTM NAD 83	Easting:	540731.095
County:	009- Brooke	UTM NAD 83	Northing:	4447793.843
District:	Buffalo	Public Road Acc	ess:	Atchison Road
Quadrangle:	Bethany	Generally used f	arm name:	Sandra Parr
Watershed:	Buffalo Creek			
	-			
prescribed by	the secretary, shall be verified and	shall contain the following inf	ormation: (1-	is section shall be on a form as may be 4) A certification from the operator that (i)
				section (b), section ten of this article, the quirement was deemed satisfied as a result

prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (1) 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:

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 INOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	☐ RECEIVED/ NOT REQUIRED
\blacksquare 2. NOTICE OF ENTRY FOR PLAT SURVEY or \square 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	☐ RECEIVED/ NOT REQUIRED
☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	150
■ 4. NOTICE OF PLANNED OPERATION	☐ RECEIVED
■ 5. PUBLIC NOTICE	☐ RECEIVED
■ 6. NOTICE OF APPLICATION	On the State Gas
	MAR 2 1 2018

Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that 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.

By:

Its:

Certification of Notice is hereby given:

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

Well Operator: SWN Production Co., LLC

Dee Southall

Senior Regulatory Analyst

Telephone: 304-884-1610

Address: P.O. Box 1300

Jane Lew, WV 26378

Facsimile: 304-884-1690

Email: Dee_Southall@swn.com

OFFICIAL SEAL

NOTARY SEADE NI Wint Virginia
BRITTANY RIWOODY

3002 Cld Elkinia Road

Buckliamon WV (200)

Vy saminson (1)

Subscribed and sworn before me this

day of

Notary Public

My Commission Expires

Oil and Gas Privacy Notice:

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

RECEIVED Office of Oil and Gas

MAR 2 1 2018

WW-6A (9-13) API NO. 47- 009 OPERATOR WELL NO. Sandra Parr BRK 201H
Well Pad Name: Sandra Parr BRK Pad

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

Notice Time Requirement: no	otice shall be provid	ied no later than the ming date of permit application.
Date of Notice:	te Permit Applicat	ion Filed: 34918
PERMIT FOR ANY	CERTIFIC	CATE OF APPROVAL FOR THE
WELL WORK		UCTION OF AN IMPOUNDMENT OR PIT
Delivery method pursuant to	West Virginia Co	de § 22-6A-10(b)
	1.5-5.75	
	REGISTERED MAIL	☐ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION
registered mail or by any method sediment control plan required by the surface of the tract on which oil and gas leasehold being developerator or lessee, in the event the more coal seams; (4) The owners well work, if the surface tract is impoundment or pit as described have a water well, spring or water provide water for consumption by proposed well work activity is to subsection (b) of this section hold records of the sheriff required to provision of this article to the co-	d of delivery that requests section seven of the the well is or is propelloped by the proposed iment control plan such that the control plan such that the used for the plant of the such that the section nine of the crosupply source located by humans or domest to take place. (c)(1) If the land that the plant of the maintained pursue on trary, notice to a lie in part, that the operation	oundment or pit as required by this article shall deliver, by personal service or by uires a receipt or signature confirmation, copies of the application, the erosion and his article, and the well plat to each of the following persons: (1) The owners of record of posed to be located; (2) The owners of record of the surface tract or tracts overlying the ed well work, if the surface tract is to be used for roads or other land disturbance as abmitted pursuant to subsection (c), section seven of this article; (3) The coal owner, hich the well proposed to be drilled is located [sic] is known to be underlain by one or rface tract or tracts overlying the oil and gas leasehold being developed by the proposed accement, construction, enlargement, alteration, repair, removal or abandonment of any his article; (5) Any surface owner or water purveyor who is known to the applicant to need within one thousand five hundred feet of the center of the well pad which is used to tic animals; and (6) The operator of any natural gas storage field within which the finore than three tenants in common or other co-owners of interests described in hids, the applicant may serve the documents required upon the person described in the uant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any en holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. ator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any d water testing as provided in section 15 of this rule.
☑ Application Notice ☑ WS	SSP Notice E&	S Plan Notice Well Plat Notice is hereby provided to:
☑ SURFACE OWNER(s)	/	☐ COAL OWNER OR LESSEE
Name: Anthony Bruce Parr, ET AL		Name: Windsor Coal Company
Address: 120 Jamison Ln.		Address: 1000 Consol Energy Drive
Wellsburg, WV 26070		Canonsburg, PA 15317
Name:		☐ COAL OPERATOR
Address:		Name:
		Address:
☐ SURFACE OWNER(s) (Roa		
Name:		☑ SURFACE OWNER OF WATER WELL
Address:		AND/OR WATER PURVEYOR(s)
		Name: See Attachment 13A
Name:		Address:
Address:		
		☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
☐ SURFACE OWNER(s) (Imp		Name:
Name:		Name: RECEIVEL Office of Oil and 3:
Address:		
		*Please attach additional forms if necessary MAR 2 1 2018

MAHAN MICHAEL A & PAULA M; PARR ANTHONY, SANDRA ETAL 120 JAMISON LN WELLSBURG 8 260709733

RECEIVED Office of Oil and Gas

MAR 2 1 2018

APINO. 47-04 7 0 0 9 0 0 2 5 1

OPERATOR WELL NO. Sanora Parr BRK 201H
Well Pad Name: Sandra Parr BRK 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.Sci.org/months/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/frameany, existing water well or developed spring used for human or domestic animal consumption. The center of well pads may For Bertoland Within six. hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements, (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

MAR 2 1 2018

WW-6A (8-13) API NO. 47-009 - 25 OPERATOR WELL NO. Sandra Parr BRK 201H
Well Pad Name: Sandra Parr BRK Pad

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:

Office of Oil and Gas

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

MAR 2 1 2018

WV Department of Environmental Protection

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

WW-6A (8-13) API NO. 47-009 - 000 Sondra Parr BRK 201H
Well Pad Name: Sandra Parr BRK 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.

Office of Oil and Ga.

MAR 2 1 2018

WV Department of Environmental Protection

WW-6A (8-13) API NO. 47-009 - 25-1
OPERATOR WELL NO. Sandra Parr BRK 201H
Well Pad Name: Sandra Parr BRK Pad

Notice is hereby given by:

Well Operator: SWN Production Co., LLC

Telephone: 304-884-1610 Email: Dee_Southall@swn.com Address: P.O. Box 1300 Jane Lew, WV 26378

Facsimile: 304-884-1690

Oil and Gas Privacy Notice:

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

OFFICIAL SEAL

Notary Public, State of West Virginia

BRITTANY R WOODY

3002 Did Elkins Road

Buckhannon, WV 22201

My complission expirate Vevember 27, 2022

Subscribed and sworn before me this

day of

Notary Public

My Commission Expires

Office of Oil and Gas

MAR 2 I 2018

Operator Well No. Sandra Parr BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

		Requirement:	Notice shall be prov	vided at least SE	VEN (7) da	ys but no more thar	FORTY-FI	VE (45) days prior to
Date		e: 11/2/2017	Date of Pla	nned Entry: 11/9	/2017			
Deli	very meth	od pursuant	to West Virginia C	ode § 22-6A-10a				
	PERSON	IAL 🔳	REGISTERED	П метно	D OF DEL	IVERY THAT RE	OUIRES A	
	SERVICE		MAIL			NATURE CONFIR		
on to but r bene own and Secr enab	o the surfa no more the eath such the er of mine Sediment etary, while the surfa	ce tract to con- can forty-five d ract that has fiverals underlying Control Manusch statement si face owner to con-	duct any plat survey lays prior to such en led a declaration pur g such tract in the co al and the statutes ar hall include contact obtain copies from the	s required pursua try to: (1) The su rsuant to section to ounty tax records and rules related to information, incl	ant to this and rface owner thirty-six, and The notice of oil and gas	rticle. Such notice s r of such tract; (2) t rticle six, chapter to e shall include a sta s exploration and pr	shall be provided to any owner of wenty-two of stement that corroduction may	notice of planned entry ded at least seven days or lessee of coal seams this code; and (3) any opies of the state Erosion y be obtained from the cretary's web site, to
		by provided t				Anna in the second		
		E OWNER(s)				L OWNER OR LE	SSEE	
		Anthony Parr McKims Ridge Road		-/		dsor Coal Company		
	ress: 20101				Address: Canonsburg,	1000 Consol Energy Drive PA 15317		
	Control of the second			-	- Santansburg,	A 10011		
Add	ress:				■ MINI	ERAL OWNER(s)		
					Name: Sar	ndra & Anthony Parr	1	
Nam				4		2810 McKims Ridge Road		
Add	ress:			4	Colliers, WV 2			
-				-1.	*please attac	h additional forms if no	cessary	
Purs	uant to We at survey o	reby given: est Virginia Co on the tract of I West Virginia Brooke	ode § 22-6A-10(a), 1 and as follows:	A _I		ude & Longitude:	operator is p 40.179524, -80.5 Dry Ridge Road	lanning entry to conduct
Dist	rict:	Wellsburg		W	atershed:		Buffalo Creek	
Qua	drangle:	Bethany		Ge	enerally use	d farm name:	Sandra Parr	
may Char obta	be obtained leston, Wined from	ed from the Se V 25304 (304 the Secretary l reby given by	cretary, at the WV I -926-0450). Copies by visiting <u>www.de</u> p	Department of En s of such docume o.wv.gov/oil-and-	vironmenta nts or addit	ll Protection headquional information re default.aspx.	larters, locate	loration and production d at 601 57th Street, SE, contal drilling payebe Office of Oil and Gas MAR 2 1 2018
	phone:	304-884-1610	HON COMPANY, LLG		Addiess:	PO BOX 1300		WV Department of
Ema			wn.com or britteny_woody@	lews com	Facsimile:	JANE LEW, WV 26378		Environmental Protection
		des_southanties		awil.Com	acominic.			
	7-32-0							

Oil and Gas Privacy Notice:

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

Operator Well No. Sandra Parr BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

entry		July of the second second	ided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to
Date of Notic	e: 11/2/2017	Date of Plan	nned Entry: 11/9/2017
Delivery met	hod pursuant	to West Virginia Co	ode § 22-6A-10a
_			
LI PERSO		REGISTERED	METHOD OF DELIVERY THAT REQUIRES A
SERVIC	.E	MAIL	RECEIPT OR SIGNATURE CONFIRMATION
on to the surf but no more t beneath such owner of min and Sediment Secretary, wh	ace tract to cond han forty-five d tract that has fil erals underlying Control Manua ich statement sl	duct any plat surveys lays prior to such ent led a declaration purs g such tract in the cor al and the statutes an	Prior to filing a permit application, the operator shall provide notice of planned entry is required pursuant to this article. Such notice shall be provided at least seven days ary to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams suant to section thirty-six, article six, chapter twenty-two of this code; and (3) any unty tax records. The notice shall include a statement that copies of the state Erosio d rules related to oil and gas exploration and production may be obtained from the information, including the address for a web page on the Secretary's web site, to e secretary.
Notice is her	eby provided t	0:	
■ SURFAC	CE OWNER(s)		COAL OWNER OR LESSEE
Name: Sandra			Name: Windsor Coal Company
	McKims Ridge Road		Address: 1000 Consol Energy Drive
Colliers, WV 26035			Canonsburg, PA 15317
Name:			4.000 00.000
Address:			■ MINERAL OWNER(s)
Mamai			Name: Sandra & Anthony Parr RECEIVED
Name:			Address: 2810 McKims Ridge Road Office of Oil and Ga
Address.			1/1/10 1 1 1/1/10
			*please attach additional forms if necessary MAK Z 1 2010
			W Departmen
Pursuant to Wa a plat survey State:	est Virginia Co on the tract of la West Virginia	ode § 22-6A-10(a), no and as follows:	Environmental Protect otice is hereby given that the undersigned well operator is planning entry to conduct Approx. Latitude & Longitude: 40.179524, -80.521620
Pursuant to Was plat survey of State: County:	Vest Virginia Co on the tract of la West Virginia Brooke	ode § 22-6A-10(a), n and as follows:	otice is hereby given that the undersigned well operator is planning entry to conduct Approx. Latitude & Longitude: 40.179524, -80.521620 Public Road Access: Dry Ridge Road
Pursuant to Wa plat survey of State: County: District:	est Virginia Co on the tract of la West Virginia Brooke Wellsburg	ode § 22-6A-10(a), nand as follows:	Approx. Latitude & Longitude: Public Road Access: Watershed: Dry Ridge Road Buffalo Creek
Notice is he Pursuant to W a plat survey State: County: District: Quadrangle:	Vest Virginia Co on the tract of la West Virginia Brooke	ode § 22-6A-10(a), nand as follows:	otice is hereby given that the undersigned well operator is planning entry to conduct Approx. Latitude & Longitude: 40.179524, -80.521620 Public Road Access: Dry Ridge Road
Pursuant to Wa plat survey State: County: District: Quadrangle: Copies of the may be obtain Charleston, Wobtained from	Vest Virginia Coon the tract of la West Virginia Brooke Wellsburg Bethany state Erosion and the Secretary by the Secretary by the state of the secretary by	and as follows: and Sediment Control cretary, at the WV D -926-0450). Copies by visiting www.dep.	Approx. Latitude & Longitude: Public Road Access: Watershed: Dry Ridge Road Buffalo Creek
Pursuant to Wa plat survey State: County: District: Quadrangle: Copies of the may be obtain Charleston, Wobtained from Notice is her	Vest Virginia Coon the tract of la West Virginia Brooke Wellsburg Bathany state Erosion and led from the Sec. V 25304 (304) the Secretary by the by given by	and as follows: and Sediment Control cretary, at the WV D -926-0450). Copies by visiting www.dep.	Approx. Latitude & Longitude: Approx. Latitude & Longitude: Public Road Access: Watershed: Generally used farm name: Manual and the statutes and rules related to oil and gas exploration and production epartment of Environmental Protection headquarters, located at 601 57th Street, SE, of such documents or additional information related to horizontal drilling may be www.gov/oil-and-gas/pages/default.aspx .
Pursuant to Wa a plat survey of State: County: District: Quadrangle: Copies of the may be obtain Charleston, Wobtained from Notice is her Well Operator	Vest Virginia Coon the tract of la West Virginia Brooke Wellsburg Bathany state Erosion and led from the Sec. V 25304 (304) the Secretary by the by given by	and as follows: and Sediment Control cretary, at the WV D -926-0450). Copies by visiting www.dep.	Approx. Latitude & Longitude: Approx. Latitude & Longitude: Public Road Access: Watershed: Generally used farm name: Manual and the statutes and rules related to oil and gas exploration and production epartment of Environmental Protection headquarters, located at 601 57th Street, SE, of such documents or additional information related to horizontal drilling may be
Pursuant to Wa plat survey State: County: District: Quadrangle: Copies of the may be obtain Charleston, Wobtained from Notice is her	Vest Virginia Coon the tract of la West Virginia Brooke Wellsburg Bathany state Erosion and led from the Sec. V 25304 (304) the Secretary by the by given by	and as follows: and Sediment Control cretary, at the WV D -926-0450). Copies by visiting www.dep.	Approx. Latitude & Longitude: Approx. Latitude & Longitude: Public Road Access: Watershed: Generally used farm name: Manual and the statutes and rules related to oil and gas exploration and production repartment of Environmental Protection headquarters, located at 601 57th Street, SE, of such documents or additional information related to horizontal drilling may be www.gov/oil-and-gas/pages/default.aspx.

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. Sandra Parr BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Date of Notice: 11222017 Date of Planned Entry: 11822017 Delivery method pursuant to West Virginia Code § 22-6A-10a PERSONAL REGISTERED METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosia and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary. Notice is hereby provided to: SURFACE OWNER(s) Name: Address: Address: Mame: Address: Address: Minieral Owner(s) Name: Address: Minieral Owner(s) Name: Address: Address: Address: Address: Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Vegina Approx. Latitude & Longitude: Approx. Latitude & Longitude: Sandra Parr	Notice Time R entry	Requirement:	Notice shall be prov	vided at least SEVEN (7) da	ys but no more that	n FORTY-FIVE (45) days prior to
PERSONAL REGISTERED MAIL REGISTERED RECEIPT OR SIGNATURE CONFIRMATION Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry no to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosia and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production and production and secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary. Notice is hereby provided to: SURFACE OWNER(s) Name: Address: Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: Survey of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and aga exploration and production may be obtained from the Secretary, at the WV Department of		11/2/2017	Date of Pla	nned Entry: 11/9/2017		
Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosia and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary. Notice is hereby provided to: SURFACE OWNER(s) Name: Address: Approx. Latitude & Longitude: Address: Bethavy Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production an	Delivery meth	od pursuant	to West Virginia C	ode § 22-6A-10a		
Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosia and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary. Notice is hereby provided to: SURFACE OWNER(s) Name: Address: Approx. Latitude & Longitude: Address: Bethavy Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production an	PERSON	AI.	REGISTERED	☐ METHOD OF DEL	IVERY THAT RE	COLURES A
on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosio and Sediment Control Manual and the stantes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary. Notice is hereby provided to: SURFACE OWNER(s) SURFACE OWNER(s) Name: Address: Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Viginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Viginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Viginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Viginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Viginia Code § 22-6A-10(a), notice is hereby given						
SURFACE OWNER(s) Name: Address: Name: Address: Name: Address: Name: Address: Image: Address: Image: Address: Image: Address: Image: Add	on to the surface but no more the beneath such tr owner of miner and Sediment (Secretary, whice enable the surfa-	ce tract to cond an forty-five d ract that has fil rals underlying Control Manua ch statement sl ace owner to o	duct any plat survey, ays prior to such en ed a declaration pur g such tract in the coul and the statutes an all include contact btain copies from the	s required pursuant to this a try to: (1) The surface ownersuant to section thirty-six, a punty tax records. The notice and rules related to oil and gatinformation, including the a	rticle. Such notice s r of such tract; (2) the rticle six, chapter to e shall include a state s exploration and p.	shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any atement that copies of the state Erosion roduction may be obtained from the
Name:			o:	Пос	. ONATED OD I D	2000
Address: Name: Address: MINERAL OWNER(s)						
Name: Address: MINERAL OWNER(s)	Address:			Name:		
Name: Address: Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: Notice is hereby given: Pursuant to West Virginia Approx. Latitude & Longitude: Approx. Latitude & Longitude: Notice is hereby given betwary Watershed: Dry Ridge Road Dry Ridge						
Name: Address:	Name:			7		
Name:	Address:			■ MINI	ERAL OWNER(s)	
Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Virginia Approx. Latitude & Longitude: 40.17952480.521620 County: Brocke Public Road Access: Dry Ridge Road District: Wellsburg Watershed: Buffalo Creek Quadrangle: Bethany Generally used farm name: Sandra Parr Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx. RECEIVED Office of Oil and Game Watershop Secretary				_ Name: Lec		
*please attach additional forms if necessary Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State:				Address:		
Notice is hereby given: Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Virginia Approx. Latitude & Longitude: 40.179524, -80.521620 County: Brocke Public Road Access: Dry Ridge Road District: Wellsburg Watershed: Buffalo Creek Quadrangle: Bethany Generally used farm name: Sandra Parr Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx. **RECEIVED** Office of Oil and Gather Company, LLC Address: Po Box 1300 MAR 2 1 2018 Telephone: 304-884-1610 JANE LEW, WV 26378	Address:			Wellsburg, W		
Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows: State: West Virginia Approx. Latitude & Longitude: 40.179524, -80.521620 County: Brocke Public Road Access: Dry Ridge Road District: Wellsburg Watershed: Buffalo Creek Quadrangle: Bethany Generally used farm name: Sandra Parr Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx. RECEIVED Office of Oil and Getain and Getain Street Setators and Setators and Setators				*please attac	h additional forms if ne	cessary
County: Brocke Public Road Access: Dry Ridge Road District: Wellsburg Watershed: Buffalo Creek Quadrangle: Bethany Generally used farm name: Sandra Parr Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx . Notice is hereby given by: Well Operator: SWN PRODUCTION COMPANY, LLC Address: PO BOX 1300 MAR 2 1 2018 Telephone: 304-884-1510 JANE LEW, WV 26378	Pursuant to We a plat survey or	est Virginia Co n the tract of la	ode § 22-6A-10(a), r and as follows:			
District: Wellsburg Bethany Watershed: Buffalo Creek Quadrangle: Bethany Generally used farm name: Sandra Parr Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx . Notice is hereby given by: Well Operator: SWN PRODUCTION COMPANY, LLC Address: PO BOX 1300 MAR 2 1 2018 Telephone: 304-884-1510 JANE LEW, WV 26378						
Quadrangle: Bethany Generally used farm name: Sandra Parr Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx . Notice is hereby given by: Well Operator: SWN PRODUCTION COMPANY, LLC Address: PO BOX 1300 Telephone: 304-884-1610 JANE LEW, WV 26378		Wellsburg		Watershed:	TCCCSS.	
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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx . Notice is hereby given by: Well Operator: SWN PRODUCTION COMPANY, LLC Address: PO BOX 1300 Telephone: SOM PRODUCTION COMPANY, LLC JAME LEW, WV 26378		Bethany		Generally use	d farm name:	
Well Operator: SWN PRODUCTION COMPANY, LLC Address: PO BOX 1300 MAR 2 1 2018 Telephone: 304-884-1610 JANE LEW, WV 26378	may be obtaine Charleston, WY obtained from t	ed from the Sec V 25304 (304- the Secretary b	cretary, at the WV II. 1926-0450). Copies by visiting <u>www.dep</u>	Department of Environmenta of such documents or addit	Il Protection headquional information re	uarters, located at 601 57 th Street, SE, elated to horizontal drilling may be Office of Oil and Gas
Telephone: 304-884-1610 JANE LEW, WV 26378				Address:	PO BOX 1300	MAR 2 1 2018
D	Telephone:					
- Total Protect	Email:	dee_southall@sv	vn.com or brittany_woody@	swn.com Facsimile:		Environmental Project
						mai crotection

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 deprivacvofficer@wv.gov.

Operator Well No. Sandra Parr BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to

entry Date of Notice	: 11/2/2017	Date of Pla	nned Entry: 11/9/2017		_		
Delivery meth	od pursuant	to West Virginia C	ode § 22-6A-10a				
☐ PERSON	AL I	REGISTERED	П метнор от	DEL	IVERY THAT RE	OUIRES A	
SERVICE		MAIL			ATURE CONFIR		
on to the surface but no more that beneath such trowner of miner and Sediment C Secretary, whice enable the surface	ce tract to cond an forty-five d ract that has fil rals underlying Control Manua ch statement shace owner to o	duct any plat survey ays prior to such en ed a declaration pur g such tract in the co all and the statutes ar hall include contact obtain copies from the	Prior to filing a permit is required pursuant to stry to: (1) The surface resuant to section thirty-ounty tax records. The nd rules related to oil as information, including the secretary.	this ar owner six, ar notice nd gas	ticle. Such notice s of such tract; (2) the ticle six, chapter to shall include a state exploration and pr	shall be provided a to any owner or le wenty-two of this atement that copie roduction may be	at least seven days ssee of coal seams code; and (3) any s of the state Erosion obtained from the
Notice is herel		0:	_				
SURFACE					LOWNER OR LE		
Name: Nancy Par Address: 536 Ro	rr .		Nam	ie:		3	
Address: 536 Ro	ockdale Road 37		Add	ress: _			
			-				
Address:				MINE	ERAL OWNER(s)		
			Nam	e: Nan			_
Name:			_ Add:		536 Rockdale Road		_
Address:			Follan		v 26037 h additional forms if ne	cessary	 /-
Notice is here	ehv given:		_			,	
		de § 22-6A-10(a), r	notice is hereby given t	that th	e undersioned well	operator is plann	ing entry to conduct
a plat survey or	n the tract of la	and as follows:			- unaviolghea men	operator to primit	ang vinay to vollanov
State:	West Virginia	Service Services	Approx.	Latitu	ade & Longitude:	40.179524, -80.521620	
County:	Brooke		Public F	Road A	Access:	Dry Ridge Road	
4	Wellsburg		Watersh	ed:		Buffalo Creek	
Quadrangle:	Bethany		General	ly use	d farm name:	Sandra Parr	
may be obtaine Charleston, WY	ed from the Sec V 25304 (304	cretary, at the WV I -926-0450). Copies	ol Manual and the statur Department of Environs of such documents or o.wv.gov/oil-and-gas/p	menta additi	I Protection headquonal information re	arters, located at	601 57th Street, SE.
Notice is here	eby given by	:					MAD O - ani-
	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	ON COMPANY, LLC	Addre	ess:	PO BOX 1300		MAR 2 1 2018
Notice is here	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		Addre	ess:	PO BOX 1300 JANE LEW, WV 26378		MAR 2 1 2018 WV Department of a protection mental Protection

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. Sandra Parr BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

citty	tice: 11/2/2017		vided at least SEVEN (7) nned Entry: 11/9/2017	days but no more th	an FORTY-FIVE (4	5) days prior to
Delivery m	ethod pursuant	to West Virginia C				
☐ PERSO					FOLUDDO	
SERVI	79.00.00)	MAIL	RECEIPT OR SI	ELIVERY THAT R GNATURE CONFI	EQUIRES A RMATION	
but no more beneath such owner of min and Sedimer Secretary, wenable the su	than forty-five of that forty-five of the tract that has finerals underlying the Control Manual which statement sinerace owner to control	lays prior to such ent led a declaration pur- g such tract in the co- al and the statutes an hall include contact in obtain copies from the	Prior to filing a permit apps s required pursuant to this try to: (1) The surface ow suant to section thirty-six sunty tax records. The not d rules related to oil and g information, including the se secretary.	article. Such notice her of such tract; (2) article six, chapter ice shall include a s	shall be provided at to any owner or less twenty-two of this co tatement that copies	least seven days ee of coal seams de; and (3) any of the state Erosion
	reby provided t					
	CE OWNER(s)		□ co	AL OWNER OR LI	ESSEE	
Name:						
Address:			Address			3
Name:			-			-
Address:			_ II MI	VERAL OWNER(s)		
Name:			Name: _J			
Address:			Address	3266 West Hampton Poin	te Drive	
				outh Carolina 29501 ach additional forms if no	cessarv	
Pursuant to V	ereby given: West Virginia Co on the tract of la West Virginia	ard as follows.	otice is hereby given that			entry to conduct
County:	Brooke		D 11' D .	itude & Longitude:		
District:	Wellsburg		Watershed:	Access:	Dry Ridge Road	
Quadrangle:	Bethany		Generally us	ed farm name:	Buffalo Creek Sandra Parr	
					AT THE STATE OF STATE	
Charleston, W	VV 25304 (304-	926-0450). Copies of	Manual and the statutes a epartment of Environment of such documents or addi wv.gov/oil-and-gas/pages	al Protection headqu		1 57 th Street, SE, rilling may be
Charleston, Wood	VV 25304 (304- the Secretary by	926-0450). Copies of visiting www.dep.v	of such documents or additional	al Protection headqu		I 57 th Street, SE, rilling may be RECEIVED Office of Oil and Gas
Charleston, Wobtained from	VV 25304 (304- of the Secretary by reby given by:	926-0450). Copies of y visiting <u>www.dep.v</u>	of such documents or addi wv.gov/oil-and-gas/pages	al Protection headq tional information r <u>'default.aspx</u> .		1 57 th Street, SE, rilling may be
Charleston, Wood	VV 25304 (304- of the Secretary by reby given by:	926-0450). Copies of visiting www.dep.v	of such documents or additional	al Protection headqu	uarters, located at 60 elated to horizontal d	I 57 th Street, SE, rilling may be RECEIVED Office of Oil and Gas

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 "P's Chief Privacy Officer at depprivacyofficer@wv.gov.

Operator Well No. Sandra Parr BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

entry		/2017 Date of Plan			TFORT 1-FIVE (45) days prior to
Deli	very method p	ursuant to West Virginia C	ode § 22-6A-10a		
	PERSONAL SERVICE	REGISTERED MAIL	☐ METHOD OF DEI RECEIPT OR SIGN		
on to but n bene owne and S Secre enab	the surface tra- o more than for ath such tract the er of minerals used Gediment Contra- etary, which sta- le the surface of	et to conduct any plat surveys rty-five days prior to such en- nat has filed a declaration pur nderlying such tract in the co- ol Manual and the statutes an stement shall include contact wher to obtain copies from the	s required pursuant to this a try to: (1) The surface ownersuant to section thirty-six, a punty tax records. The notice and rules related to oil and gat information, including the a	rticle. Such notice s or of such tract; (2) the article six, chapter to be shall include a state s exploration and pro-	shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any attement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to
_	ce is hereby pr		П		
	SURFACE OW			L OWNER OR LE	5-22
Nam	e:		Name:		/
Addr					
Nam		10			
Addr	ess:		■ MIN	ERAL OWNER(s)	1
			_ Name: De	And the second second second second	
Nam	e:		Address:	120 Walker Road	
Addr	ess:		Follansbee, V		
			*please attac	ch additional forms if ne	cessary
Noti	ce is hereby g	vivon:			
			notice is hereby given that the	a undersigned well	operator is planning entry to conduct
a pla	t survey on the	tract of land as follows:	ionee is hereby given that th	ie undersigned wen	operator is planning entry to conduct
State			Approx. Latit	tude & Longitude:	40.17952480.521620
Cour			Public Pood		Dry Ridge Road
Distr		urg		100000.	Buffalo Creek
Quad	lrangle: Bethan	у	Generally use	ed farm name:	Sandra Parr
may Char obtai	be obtained fro leston, WV 25: ned from the So	m the Secretary, at the WV I 304 (304-926-0450). Copies ecretary by visiting <u>www.dep</u>	Department of Environments of such documents or addit	al Protection headquional information re	il and gas exploration and production parters, located at 601 57th Street, SE, elated to horizontal drilling may be RECEIVED Office of Oil and Gas
	ce is hereby g		4.11		MAR 2 1 2018
		N PRODUCTION COMPANY, LLC	Address:	PO BOX 1300	WAR & I ZUIO
I clei		-884-1610		JANE LEW, WV 26378	140/50
Emai	1.	southall@swn.com or brittany_wcody@	swn.com Facsimile:		WV Department of Environmental Protection

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. Sandra Parr BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

entry		estimativa de la compania de la comp		lys out no more than	FORTY-FIVE (45) days prior to
Date of Notice:	11/2/2017	Date of Plan	ed Entry: 11/9/2017		
Delivery metho	od pursuant	to West Virginia Co	le § 22-6A-10a		
☐ PERSONA	AL =	REGISTERED	☐ METHOD OF DE	LIVERY THAT RE	OUIRES A
SERVICE		MAIL		NATURE CONFIR	
on to the surface but no more that beneath such tra owner of minera and Sediment C Secretary, which enable the surfa	e tract to cond in forty-five d act that has fil als underlying control Manua h statement sl ace owner to co	duct any plat surveys ays prior to such ent ed a declaration purs g such tract in the coul all and the statutes and hall include contact in obtain copies from the	equired pursuant to this a to: (1) The surface owns ant to section thirty-six, a ty tax records. The notic rules related to oil and ga formation, including the	article. Such notice ser of such tract; (2) that tract; (2) that tract is said article six, chapter to be shall include a state exploration and properties.	shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any attement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to
Notice is hereb	•	0:	Пос		
SURFACE				L OWNER OR LE	
Name: Michael Ma Address: 120 Jan	nisan Lane		Name:		
Wellsburg, WV 26070)		Address.		
Name:					
Address:			■ MIN	ERAL OWNER(s)	
				chael Mahan	
Name:			Address:	120 Jamison Lane	
Address:			Wellsburg, W	N 26070	
			*please atta	ch additional forms if ne	cessary
Matica in hous	har advisors				
Notice is here		de 8 22 64 10(a) n	tica is haraby given that t	ha undargionad wall	operator is planning entry to conduct
a plat survey on			nee is neleby given mar i	ne undersigned wen	operator is planning entry to conduct
	West Virginia	and as 10110 110.	Approx. Lati	tude & Longitude:	40.179524, -80.521620
County: E	Brooke		D.I.P. D. I		Dry Ridge Road
	Wellsburg				Buffalo Creek
Quadrangle: E	Bethany		Generally us	ed farm name:	Sandra Parr
may be obtained Charleston, WV	d from the Se / 25304 (304	cretary, at the WV D -926-0450). Copies	partment of Environment	al Protection headquitional information r	il and gas exploration and production uarters, located at 601 57 th Street, SE, elated to horizontal drilling may be
Notice is how	hy olyan be				RECEIVED Office of Oil and Gas
Notice is here			Address:	B0 804 114	
	SWN PRODUCT	TION COMPANY, LLC	Address:	PO BOX 1300	MAR 2 1 2018
Well Operator:	204 994 4540				11.77
Telephone: Email:	304-884-1610 dee southall@s	wn.com or brittany_woody@s	n.com Facsimile:	JANE LEW, WV 26378	WV Department of

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. Sandra Parr BRK

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time R entry	equirement:	Notice shall be prov	rided at least	SEVEN (7) da	ys but no more than	1 FORTY-FIVE (45) days prior to
Date of Notice	11/2/2017	Date of Plan	nned Entry:	11/9/2017		
Delivery meth	od pursuant t	o West Virginia C	ode § 22-6A	-10a		
☐ PERSON.	AT.	REGISTERED	П ме	THOD OF DEL	IVERY THAT RE	OLURES A
SERVICE		MAIL			NATURE CONFIR	
on to the surface but no more that beneath such the owner of miner and Sediment C Secretary, whice enable the surface	te tract to cond an forty-five de act that has fil- rals underlying Control Manua th statement shace owner to o	luct any plat surveys ays prior to such ented a declaration pur such tract in the coll and the statutes and hall include contact btain copies from the	s required putry to: (1) The suant to sect ounty tax record d rules related information,	rsuant to this and e surface owned ion thirty-six, a ords. The noticed to oil and gas	rticle. Such notice s r of such tract; (2) t rticle six, chapter to e shall include a sta s exploration and p	shall provide notice of planned entry thall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any attement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to
Notice is hereb):				
SURFACE				☐ COA	L OWNER OR LE	SSEE
Name: Raymond Address: 513 Sh	Parr		2	Name:		
Address: 513 Sh Follansbee, WV 2603	ady Lane		<u> -</u> -(Address:		
THE PARTY OF THE P			-	_		
Address:			3	II MINI	ERAL OWNER(s)	
		4		Name: Ray	ymond Parr /	
Name:			_	The second secon	513 Shady Lane	
Address:			-	Follansbee, W		
				*please attac	h additional forms if ne	cessary
a plat survey or State:	st Virginia Co	de § 22-6A-10(a), n and as follows:	notice is here		ude & Longitude:	operator is planning entry to conduct 40.179524, -80.521620 Dry Ridge Road
				Watershed:	100055,	Buffalo Creek
Quadrangle:	Bethany			Generally use	d farm name:	Sandra Parr
may be obtaine Charleston, WV obtained from t	d from the Sec V 25304 (304- he Secretary b	cretary, at the WV E 1926-0450). Copies by visiting <u>www.dep</u>	Department of of such docu	f Environmenta uments or addit	il Protection headquional information re	I and gas exploration and production parters, located at 601 57th Street, SE, elated to horizontal drilling may be RECEIVED Office of Oil and Gas
Notice is here Well Operator:		ON COMPANY, LLC		Address:	50 504	MAR 2 1 2018
Telephone:	304-884-1610	ION COMPANY, LEC		Address:	PO BOX 1300	MAK & 1 Zold
Email:	A R I V Paris V V	vn.com or brittany_wcody@	swn.com	Facsimile:	JANE LEW, WV 26378	WV Department of
	5623.55					Favionmenta

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. Sandra Parr BRK 201H

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 Date of Noti	Requirement: Notice s ce: 12/27/2017	Date Permi	ast TEN (10) days prior to filing a tagget Application Filed:	permit application.
Delivery me	thod pursuant to West	Virginia Code § 22-0	5A-16(b)	
☐ HAND	■ CERTII	FIED MAIL		
DELIVE		N RECEIPT REQUI	STED	
DELIVI	KETOP	eviceen i kegoi	23120	
receipt reque drilling a hor of this subsec- subsection mand if availab	sted or hand delivery, girizontal well: Provided, etion as of the date the near the waived in writing	ve the surface owner That notice given purotice was provided to by the surface owner. I electronic mail addr	notice of its intent to enter upon to resuant to subsection (a), section to the surface owner: <i>Provided, hor</i> . The notice, if required, shall includes ess of the operator and the operator	a, an operator shall, by certified mail return the surface owner's land for the purpose of en of this article satisfies the requirements wever. That the notice requirements of this clude the name, address, telephone number, or's authorized representative.
	Bruce Parr, ET AL	DUMITION O WITH		
Address: 120		/	Address:	
Wellsburg, WV 2	6070			
Notice is he Pursuant to V he surface or	wner's land for the purpo		ontal well on the tract of land as f	
Notice is he Pursuant to V he surface of State:	Vest Virginia Code § 22			
Notice is he Pursuant to V the surface of State: County: District:	Vest Virginia Code § 22 wner's land for the purpo West Virginia		ontal well on the tract of land as for UTM NAD 83 Public Road Access: Easting: Northing:	ollows: 540,731.095
Notice is he Pursuant to V he surface of State: County: District: Quadrangle:	Vest Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo Bethany		ontal well on the tract of land as for UTM NAD 83 Easting: Northing:	ollows: 540,731.095 4,447,793.843
Notice is he	Vest Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo		ontal well on the tract of land as for UTM NAD 83 Public Road Access: Easting: Northing:	ollows: 540,731.095 4,447,793.843 Atchinson Rd
Notice is he Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to V Tacsimile nur related to ho	West Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 2 mber and electronic mainizontal drilling may be	22-6A-16(b), this not address of the ope obtained from the Se	ontal well on the tract of land as for UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: tice shall include the name, addrator and the operator's authorize ecretary, at the WV Department of	ollows: 540,731.095 4,447,793.843 Atchinson Rd
Notice is he Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to V facsimile nur related to hor ocated at 60 Notice is he	West Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 3 mber and electronic mai rizontal drilling may be 1 57 th Street, SE, Charles ereby given by:	22-6A-16(b), this not address of the ope obtained from the Setton, WV 25304 (304)	ontal well on the tract of land as for UTM NAD 83 Public Road Access: Generally used farm name: tice shall include the name, add rator and the operator's authorize ecretary, at the WV Department of -926-0450) or by visiting www.d	ollows: 540,731.095 4,447,793.843 Atchinson Rd Sandra Parr BRK Aress, telephone number, and if available, and representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
Notice is he Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to V facsimile nur related to hor ocated at 60 Notice is he	Vest Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 2 mber and electronic mai rizontal drilling may be 1 57th Street, SE, Charles	22-6A-16(b), this not address of the ope obtained from the Setton, WV 25304 (304)	ontal well on the tract of land as for UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: tice shall include the name, addrator and the operator's authorize ecretary, at the WV Department of	ollows: 540,731.095 4,447,793.843 Atchinson Rd Sandra Parr BRK lress, telephone number, and if available, red representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
Notice is he Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to V facsimile nur related to hor ocated at 60 Notice is he	West Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 3 mber and electronic mai rizontal drilling may be 1 57 th Street, SE, Charles ereby given by:	22-6A-16(b), this not address of the ope obtained from the Secton, WV 25304 (304), LLC	ontal well on the tract of land as for UTM NAD 83 Public Road Access: Generally used farm name: tice shall include the name, add rator and the operator's authorize ecretary, at the WV Department of -926-0450) or by visiting www.d	ollows: 540,731.095 4,447,793.843 Atchinson Rd Sandra Parr BRK lress, telephone number, and if available, red representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
Notice is he Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to V facsimile nur related to hor ocated at 60 Notice is he Well Operato Address:	West Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 2 mber and electronic mairizontal drilling may be 1 57th Street, SE, Charles ereby given by: SWN Production Company	22-6A-16(b), this not address of the ope obtained from the Secton, WV 25304 (304), LLC	ontal well on the tract of land as find the Lasting: Northing: Public Road Access: Generally used farm name: Lice shall include the name, addurator and the operator's authorized recretary, at the WV Department of 1926-0450) or by visiting www.d Authorized Representative Address:	ollows: 540,731.095 4,447,793.843 Atchinson Rd Sandra Parr BRK lress, telephone number, and if available, red representative. Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx.
Notice is he Pursuant to V the surface of State: County: District: Quadrangle: Watershed: Fhis Notice Pursuant to V facsimile nur related to hor ocated at 60 Notice is he Well Operato Address: Felephone:	West Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 2 mber and electronic mai rizontal drilling may be 1 57 th Street, SE, Charles reby given by: SWN Production Company PO Box 1300, 179 Innover	22-6A-16(b), this not address of the ope obtained from the Secton, WV 25304 (304), LLC	ontal well on the tract of land as for UTM NAD 83 Public Road Access: Generally used farm name: tice shall include the name, addurator and the operator's authorized recretary, at the WV Department of 1926-0450) or by visiting www.d Authorized Representative Address: Telephone:	ollows: 540,731.095 4,447,793.843 Atchinson Rd Sandra Parr BRK Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx. Mike Yates PO Box 1300, 179 Innovation Protection and Company and Comp
Notice is he Pursuant to V the surface of State: County: District: Quadrangle: Watershed: This Notice Pursuant to V facsimile nur related to hor ocated at 60 Notice is he Well Operato Address:	West Virginia Code § 22 wner's land for the purpo West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 3 mber and electronic mai rizontal drilling may be 1 57 th Street, SE, Charles reby given by: SWN Production Company PO Box 1300, 179 Innovat Jane Lew, WV 26378	22-6A-16(b), this not address of the ope obtained from the Section, WV 25304 (304), LLC	ontal well on the tract of land as find the Lasting: Northing: Public Road Access: Generally used farm name: Lice shall include the name, addurator and the operator's authorized recretary, at the WV Department of 1926-0450) or by visiting www.d Authorized Representative Address:	ollows: 540,731.095 4,447,793.843 Atchinson Rd Sandra Parr BRK Additional information of Environmental Protection headquarters, lep.wv.gov/oil-and-gas/pages/default.aspx. Mike Yates PO Box 1300, 179 Innovation For Figure 2015 Jane Lew, WV 26378 Office of Figure 2015 Annual Company Com

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. Sandra Parr BRK 201H

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

		equirement: notice shall be provided in the pr		han the filing on Filed:		application.	
Delive	ry metho	od pursuant to West Virginia Co	de § 22-6A-1	16(c)			
		ED MAIL I RECEIPT REQUESTED	☐ HAND				
Pursuar return r the pla require drilling damage	nt to W. receipt re inned ope and to be p g of a ho es to the	Va. Code § 22-6A-16(c), no later quested or hand delivery, give the eration. The notice required by the rovided by subsection (b), section rizontal well; and (3) A proposed surface affected by oil and gas oper required by this section shall be given by the control of the cont	r than the da surface own his subsection ten of this ar surface use erations to the	te for filing to er whose land on shall inclu- ticle to a surf- and compens extent the da	I will be used for de: (I) A copy ace owner whose sation agreement amages are comp	or the drilling of a of this code sec the land will be used to containing an opensable under a	a horizontal well notice of tion; (2) The information ed in conjunction with the offer of compensation for ticle six-b of this chapter.
(at the	address l	y provided to the SURFACE OV isted in the records of the sheriff a ice Parr, ET AL		notice): Name:			
Addres	s: 120 Jam rg. WV 26070	ison Ln.		Address	š.:		
Pursuai	on on the	y given: st Virginia Code § 22-6A-16(c), no e surface owner's land for the purp vest Virginia	oose of drillin		I well on the tra		
District	_	tuffalo		Public Road		Atchinson Rd	
Quadra	_	ethany			ed farm name:	Sandra Parr BRK	
Waters		uffalo Creek		Concluding that	a turii nume.		
Pursuan to be p horizon surface informa headqu	nt to West provided ntal well; affected ation rela	all Include: st Virginia Code § 22-6A-16(c), the by W. Va. Code § 22-6A-10(b) and (3) A proposed surface use a by oil and gas operations to the atted to horizontal drilling may be becated at 601 57th Street, SE, lt.aspx.	to a surface nd compensa extent the da obtained fro	owner whose tion agreeme images are co om the Secret	e land will be unt containing an ompensable und cary, at the WV	sed in conjuncti offer of compen er article six-b o Department of I	on with the drilling of a sation for damages to the f this chapter. Additional Environmental Protection
Wall O	la sunt ser	2005-1-0-2-0-1-05		Addusse	Carlo Carlo Como		of Oil and Ga
	perator:	SWN Production Company, LLC		Address:	PO Box 1300, 179 in		MAR 2 I on
Telepho Email:	one.	304-517-6603		Facsimile:	Jane Lew, WV 2637		MAR 2 1 2018
Eman:		Michael_Yates@SWN.com		racsimile:	304-884-1691	E	nviros Department
Oil and	d Gas Pr	ivacy Notice:					WV Department of nvironmental Protection

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



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Thomas J. Smith, P. E. Secretary of Transportation/ Commissioner of Highways

December 28, 2017

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 Sandra Parr Pad, Brooke County

Sandra Parr BRK 201H

Dear Mr. Martin,

Jim Justice

Governor

The West Virginia Division of Highways has reviewed access to the subject site operated by Southwestern Energy for access to the State Road. The site is accessed from Pennsylvania by a private road not a part of the WVDOH road system.

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,

RECEIVED
Office of Oil and Gas

Gary K. Clayton, Provincental Provincent

Regional Maintenance Engineer Central Office Oil &Gas Coordinator

Ce: Brittany Woody

Southwestern Energy CH, OM, D-6

File

47009002₁51

	TINAC A	DDITIVES	
Product Name	Product Use	Chemical Name	CAS Number
		Hydrogen Peroxide	7722-84-1
EC6734A (Champion Technologies)	Biocide	Acetic Acid	64-19-7
		Peroxyacetic Acid	79-21-0
	0 1 1 1 1 1 1	Methanol	67-56-1
YPTRON T-390 (Champion Technologies)	Scale Inhibitor	Nonylphenol Ethoxylate	Proprietary
		Glutaraldehyde	111-30-8
actron K-139 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12- 16-Alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
Bactron K-219 (Champion Technologies)	Biocide	Methanol	67-56-1
Saction K-215 (Champion reconologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12- 16-Alkyldimethyl, Chlorides	68424-85-1
TOC 100:		Amine Triphosphate	Proprietary
EC6486A (Nalco Champion)	Scale Inhibitor	Ethylene Glycol	107-21-1
		Hydrotreated light distillate (petroleum)	64742-47-8
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Propenoic acid, polymer with propenamide	9003-06 9
		Ethylene glycol	107-21 1
	,	Cinnamaldehyde	104-55 2
AL 202 av - · · · · ·	8 4 1	Butyl cellosolve	111-76 2
AI-303 (U.S. Well Services)	Mixture	Formic acid	64-18 6
		Polyether	Proprietary
		Acetophenone, thiourea, formaldehyde polymer	68527-49 1
AP ONE (U.S. Well Services)	Breaker	Ammonium persulfate	7727-54-0
OPTI-FLEX (U.S. Well Services)	Viscosifying Agent	Distillates, petroleum, hydrotreated light	64742-47-8
	7	Methanol	67-56-1
		Oxyalkylated fatty acid	68951-67-7
			<u>, 61</u> 390-12-3
Comp C1200 :	Commontaria (12.1.11.11.11.11.11.11.11.11.11.11.11.11	Modified thiourea polymerice of O'll all	68527-49-1
Econo-Cl200 (SWN Well Services)	Corrosion Inhibitor	Water 91	
		LINK D	
		Hydrochloric acid MAN Potassium acetate Wy Depart Formaldehyde Environmente	nent of protection 2
		Formaldehyde Environmente	50-00-0
		Acetic Acid	64-19-7
Ecopol-FEAC (SWN Well Services)	Iron Control	Citric Acid	77-92-9
		Water	7732-18-5
HCl review no	Usalga ala alia Alia	Hydrochloric Acid	7647-01-0
HCL (SWN Well Services)	Hydrocholic Acid	Water	7732-18-5
LOJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary	Proprietary
		Distillates (petroleum) hydrotreated light	64674-47-8
		Ethylene Glycol	107-21-1
LOJET DR900 LPP (SWN Well Services)	Friction Reducer	Alcohols, C12-16, Exoxylated propoxylated	68213-24-1
		Fatty Alcohols ethoxylated	Proprietary
		Water	7732-18-5
FR-76 (Halliburger)	Eriction Poducor	Hydrotreated light petroleum distillate	64742-47-8
FR-76 (Halliburton)	Friction Reducer	Inorganic Salt	Proprietary
HAI-150E (Halliburton)	Corrosion Inhibitor	No hazardous substance	N/A
EDD 01176 15 mm	Eriotion Deduces	Polyacylate	Proprietary
FDP-S1176-15 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
LP-65 MC (Halliburton)	Scale Inhibitor	Organic phosphonate	Proprietary

	FRAC A	DDITIVES 47 059	00251
Product Name	Product Use	Chemical Name	CAS Number
	-	Hydrogen Peroxide	7722-84-1
EC6734A (Champion Technologies)	Biocide	Acetic Acid	64-19-7
		Peroxyacetic Acid	79-21-0
		Methanol	67-56-1
GYPTRON T-390 (Champion Technologies)	Scale Inhibitor	Nonylphenol Ethoxylate	Proprietary
		Glutaraldehyde	111-30-8
Bactron K-139 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12	68424-85-1
		16-Alkyldimethyl, Chlorides	54.47.5
		Ethanol	64-17-5
Bactron K-219 (Champion Technologies)	Biocide	Methanol	67-56-1
Baction K-215 (Champion Technologies)	biocide	Quaternary Ammonium Compounds, Benzyl-C12-	C0424 0F 1
		16-Alkyldimethyl, Chlorides	68424-85-1
FCC 10C A	Scale Inhibitor	Amine Triphosphate	Proprietary
EC6486A (Nalco Champion)	Scale inhibitor	Ethylene Glycol	107-21-1
WEDA 2000 #16 #17 **	Anionic Friction Reducer	Hydrotreated light distillate (petroleum)	64742-47-8
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Propenoic acid, polymer with propenamide	9003-06 9
		Ethylene glycol	107-21 1
		Cinnamaldehyde	104-55 2
AI-303 (U.S. Well Services)	Mixture	Butyl cellosolve	111-76 2
AI-303 (U.S. Well services)	Winkture	Formic acid	64-18 6
		Polyether	Proprietary
		Acetophenone, thiourea, formaldehyde polymer	68527-49 1
AP ONE (U.S. Well Services)	Breaker	Ammonium persulfate	7727-54-0
OPTI-FLEX (U.S. Well Services)	Viscosifying Agent	Distillates, petroleum, hydrotreated light	64742-47-8
		Methanol	67-56-1
		Oxyalkylated fatty acid	68951-67-7
		Fatty acids	61790-12-3
Econo-Cl200 (SWN Well Services)	Corrosion Inhibitor	Modified thiourea polymer	68527-49-1
!		Water Hydrochloric acid	7732-18-5 7647-01-0
		Potassium acetate	127-08-2
	ļ	Formaldehyde	50-00-0
		Acetic Acid	64-19-7
Ecopol-FEAC (SWN Well Services)	Iron Control	Citric Acid	77-92-9
200por 1 27 to (5WN Well Services)		Water	7732-18-5
		Hydrochloric Acid	7647-01-0
HCL (SWN Well Services)	Hydrocholic Acid	Water	7732-18-5
FLOJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary	Proprietary
		Distillates (petroleum) hydrotreated light	64674-47-8
		Ethylene Glycol	107-21-1
FLOJET DR900 LPP (SWN Well Services)	Friction Reducer	Alcohols, C12-16, Exoxylated propoxylated	68213-24-1
		Fatty Alcohols ethoxylated	Proprietary
		Water	7732-18-5
FR-76 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
		Inorganic Salt	Proprietary
HAI-150E (Halliburton)	Corrosion Inhibitor	No hazardous substance	N/A
FDP-S1176-15 (Halliburton)	Friction Reducer	Polyacylate	Proprietary
		Hydrotreated light petroleum distillate	64742-47-8
LP-65 MC (Halliburton)	Scale Inhibitor	Organic phosphonate Ammonium Chloride	Propries 12125 629
Zero Wash Tracer	Tracer		Proprietary
Zelo wasii ilacei	l Hacei	Ceramic Proppant	riopiletary

ietary 2-47-8 Do Gas ietary 2018 ietary 2018 O 6/08/2018 Dept of the citon WY Deptend Protection

	FRAC A	DDITIVES 47 009	7 00251
Product Name	Product Use	Chemical Name	CAS Number
······································		Hydrogen Peroxide	7722-84-1
EC6734A (Champion Technologies)	Biocide	Acetic Acid	64-19-7
, , , , , , , , , , , , , , , , , , , ,		Peroxyacetic Acid	79-21-0
· · · · · · · · · · · · · · · · · · ·		Methanol	67-56-1
YPTRON T-390 (Champion Technologies)	Scale Inhibitor	Nonylphenol Ethoxylate	Proprietary
		Glutaraldehyde	111-30-8
			111-50-6
Bactron K-139 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12-	68424-85-1
		16-Alkyldimethyl, Chlorides	64.17.5
		Ethanol	64-17-5
	Di-side	Methanol	67-56-1
Bactron K-219 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12-	60404.05.4
		16-Alkyldimethyl, Chlorides	68424-85-1
ECCASCA (III. C)	Scale Inhibitor	Amine Triphosphate	Proprietary
EC6486A (Nalco Champion)	Scale milibitor	Ethylene Glycol	107-21-1
MEDA 2000 manus	Anionia Cristian Dad	Hydrotreated light distillate (petroleum)	64742-47-8
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Propenoic acid, polymer with propenamide	9003-06 9
		Ethylene glycol	107-21 1
		Cinnamaldehyde	104-55 2
		Butyl cellosolve	111-76 2
AI-303 (U.S. Well Services)	Mixture	Formic acid	64-18 6
		Polyether	Proprietary
		Acetophenone, thiourea, formaldehyde polymer	68527-49 1
AP ONE (U.S. Well Services)	Breaker	Ammonium persulfate	7727-54-0
OPTI-FLEX (U.S. Well Services)	Viscosifying Agent	Distillates, petroleum, hydrotreated light	64742-47-8
OT THE LEX (0.3. Well dervices)	VISCOSITYTING AGENT	Methanol	67-56-1
		Oxyalkylated fatty acid	68951-67-7
		Fatty acids	61790-12-3
	Corrosion Inhibitor	Modified thiourea polymer	68527-49-1
		iviounted tinouted polymer	00327-43-1
Econo-Cl200 (SWN Well Services)	Corrosion Inhibitor	Mator	7722-19-5
Econo-C1200 (SWN Well Services)	Corrosion Inhibitor	Water	7732-18-5
Econo-C1200 (SWN Well Services)	Corrosion Inhibitor	Hydrochloric acid	7647-01-0
Econo-C1200 (SWN Well Services)	Corrosion Inhibitor	Hydrochloric acid Potassium acetate	7647-01-0 127-08-2
Econo-C1200 (swn Well Services)	Corrosion Inhibitor	Hydrochloric acid Potassium acetate Formaldehyde	7647-01-0 127-08-2 50-00-0
		Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid	7647-01-0 127-08-2 50-00-0 64-19-7
Econo-C1200 (SWN Well Services) Ecopol-FEAC (SWN Well Services)	Corrosion Inhibitor	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9
		Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5
		Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services)	Iron Control Hydrocholic Acid	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5
Ecopol-FEAC (SWN Well Services)	Iron Control	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services)	Iron Control Hydrocholic Acid	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services) FLOJET DRP 1130X (SWN Well Services)	Iron Control Hydrocholic Acid Friction Reducer	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services)	Iron Control Hydrocholic Acid	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services) FLOJET DRP 1130X (SWN Well Services)	Iron Control Hydrocholic Acid Friction Reducer	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services) FLOJET DRP 1130X (SWN Well Services)	Iron Control Hydrocholic Acid Friction Reducer	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated Water	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary 7732-18-5
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services) FLOJET DRP 1130X (SWN Well Services) FLOJET DR900 LPP (SWN Well Services)	Iron Control Hydrocholic Acid Friction Reducer Friction Reducer	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated Water Hydrotreated light petroleum distillate	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary 7732-18-5 64742-47-8
Ecopol-FEAC (swn well Services) HCL (swn well Services) FLOJET DRP 1130X (swn well Services) FLOJET DR900 LPP (swn well Services) FR-76 (Halliburton)	Iron Control Hydrocholic Acid Friction Reducer Friction Reducer Friction Reducer	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated Water Hydrotreated light petroleum distillate Inorganic Salt	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary 7732-18-5 64742-47-8 Proprietary
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services) FLOJET DRP 1130X (SWN Well Services) FLOJET DR900 LPP (SWN Well Services)	Iron Control Hydrocholic Acid Friction Reducer Friction Reducer	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated Water Hydrotreated light petroleum distillate	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary 7732-18-5 64742-47-8
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services) FLOJET DRP 1130X (SWN Well Services) FLOJET DR900 LPP (SWN Well Services) FR-76 (Halliburton) HAI-150E (Halliburton)	Iron Control Hydrocholic Acid Friction Reducer Friction Reducer Friction Reducer Corrosion Inhibitor	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated Water Hydrotreated light petroleum distillate Inorganic Salt No hazardous substance Polyacylate	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary 7732-18-5 64742-47-8 Proprietary
Ecopol-FEAC (swn well Services) HCL (swn well Services) FLOJET DRP 1130X (swn well Services) FLOJET DR900 LPP (swn well Services) FR-76 (Halliburton)	Iron Control Hydrocholic Acid Friction Reducer Friction Reducer Friction Reducer	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated Water Hydrotreated light petroleum distillate Inorganic Salt No hazardous substance	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary 7732-18-5 64742-47-8 Proprietary N/A
Ecopol-FEAC (swn well Services) HCL (swn well Services) FLOJET DRP 1130X (swn well Services) FLOJET DR900 LPP (swn well Services) FR-76 (Halliburton) HAI-150E (Halliburton) FDP-S1176-15 (Halliburton)	Iron Control Hydrocholic Acid Friction Reducer Friction Reducer Friction Reducer Corrosion Inhibitor Friction Reducer	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated Water Hydrotreated light petroleum distillate Inorganic Salt No hazardous substance Polyacylate Hydrotreated light petroleum distillate Urganic phosphonate	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary 7732-18-5 64742-47-8 Proprietary N/A Proprietary
Ecopol-FEAC (SWN Well Services) HCL (SWN Well Services) FLOJET DRP 1130X (SWN Well Services) FLOJET DR900 LPP (SWN Well Services) FR-76 (Halliburton) HAI-150E (Halliburton)	Iron Control Hydrocholic Acid Friction Reducer Friction Reducer Friction Reducer Corrosion Inhibitor	Hydrochloric acid Potassium acetate Formaldehyde Acetic Acid Citric Acid Water Hydrochloric Acid Water Proprietary Distillates (petroleum) hydrotreated light Ethylene Glycol Alcohols, C12-16, Exoxylated propoxylated Fatty Alcohols ethoxylated Water Hydrotreated light petroleum distillate Inorganic Salt No hazardous substance Polyacylate Hydrotreated light petroleum distillate	7647-01-0 127-08-2 50-00-0 64-19-7 77-92-9 7732-18-5 7647-01-0 7732-18-5 Proprietary 64674-47-8 107-21-1 68213-24-1 Proprietary 7732-18-5 64742-47-8 Proprietary N/A Proprietary