

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 Not Available / New Drill

SWN PRODUCTION COMPANY, LLC POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit approval for SANDRA PARR BRK 1H 47-009-00250-00-00

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 BRK 1H

Farm Name: ANTHONY BRUCE PARR, ET .

U.S. WELL NUMBER: 47-009-00250-00-00

Not Available New Drill Date Issued: 6/6/2018

API Number: 47 009 00250

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- 1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled Water Well Regulations, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. 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: 47009 (0250)

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 1H
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 P	roduction Co., LLC	494512924	009- Brooke 3	-Buffalo 247-Bethany
A warm of anning		Operator ID	County I	District Quadrangle
2) Operator's Well Number	Sandra Parr BRK	1H Well Pac	d Name: Sandra	Parr BRK Pad
3) Farm Name/Surface Owr	ner: Anthony Bruce Parr,	ET AL Public Roa	d Access: Atchis	son Road
4) Elevation, current ground	l: <u>1276'</u> El	levation, proposed	post-construction	1276'
5) Well Type (a) Gas Other	X Oil	Unde	erground Storage	
(b)If Gas	Shallow x	Deep		
6) Existing Pad: Yes or No	Horizontal X Yes		C.	300 1.1018
7) Proposed Target Formatic Target Formation- Marcellus, Up-Dip	1		The state of the s	sure(s): ickness- 45', Associated Pressure- 4193
8) Proposed Total Vertical I	Depth: 6430'			
9) Formation at Total Vertice		S		
10) Proposed Total Measure	ed Depth: 16418'			
11) Proposed Horizontal Le	g Length: 9544.62'			
12) Approximate Fresh Wat	ter Strata Depths:	336' √		
13) Method to Determine Fr	resh Water Depths:	Robert Caldwell S	Spring	
14) Approximate Saltwater	Depths: 759' TVD -	Salinity Profile		
15) Approximate Coal Sean	n Depths: 613'			
16) Approximate Depth to F	Possible Void (coal m	ine, karst, other):	None that we ar	e aware of.
17) Does Proposed well loc directly overlying or adjace		ms Yes	No 2	×
(a) If Yes, provide Mine I	nfo: Name:			RECEIVED Office of Oil and Gas
The American Street, and the S	Depth:			
	Seam:			MAR 21 2018
	Owner:			WV Department of

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

OPERATOR WELL NO. Sandra Parr BRK 1H
Well Pad Name: Sandra Parr BRK Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	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#	16418'	16418'	Lead 835sx/Tail 2362sx/100* Inskile Intern
Tubing			4				
Liners							

C. SNO 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							
Liners							

PACKERS

Kind:	
Sizes:	RECEIVED
Depths Set:	RECEIVED Office of Oil and Ga
	MAR 2 1 2013

WV Department of Environmental Protection

4700900250

WW-6B (10/14) API NO. 47- 009 OPERATOR WELL NO. Sandra Parr BRK 1H
Well Pad Name: Sandra Parr BRK Pad

19)	Describe	proposed	well:	work.	inclu	ding the	drilling	and 1	nlugging	back	of any	pilot hole
	DODOLLOG	proposed		,, 0,,,,,				,	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			P

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 ***

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.

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*Note: Attach additional sheets as needed.



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Innovation Company, LLC Inspection 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 201H

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

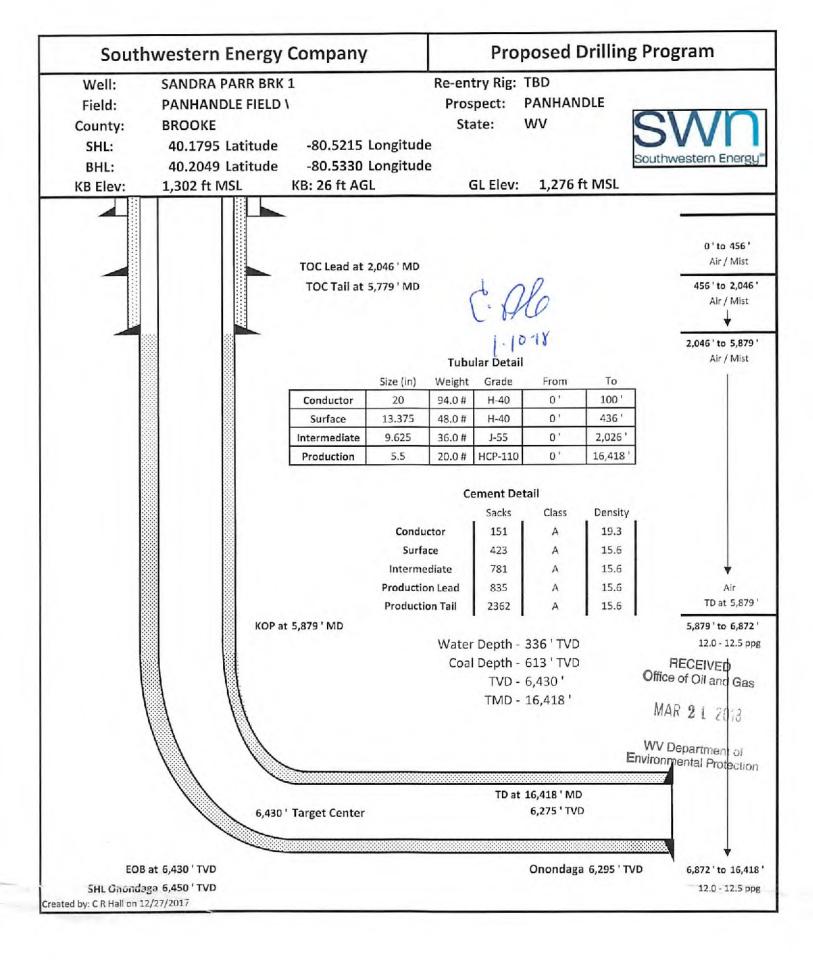
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R2 NV+°

The Right People 1070 8720 18 wisely investing 1670 8720 18 underlying Assets, will create Value+®



Schlumberger Cement Additi	ves
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Schlamberger Centent Additives				
	Product Name	Product Use	Chemical Name	CAS Number
Surface	5001	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
D	D046	antifoam	polypropylene glycol fullers earth (attapulgite)	25322-69-4 8031-18-3
don-Le	D201	retarder	chrystalline silica metal oxide	14808-60-7 propriatary
Production-Lead	D202	dispersant	sulphonated synthetic polymer formaldehyde (impurity)	propriatary
	D046	antifoam	polypropylene glycol fullers earth (attapulgite)	25322-69-4 8031-18-3
	D167	fluid loss	aliphatic amide polymer	propriatary
Tail	D065	diagonat	sodium polynaphthalene sulfonate	9008-63-3
Production-Tail		dispersant	sodium sulfate chrystalline silica	7757-82-6 14808-60-7
og.	D201	retarder	metal oxide	propriatary
~	D153	anti-settling	chrystalline silica	14808-60-7

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Operator's Well No. Sandra Parr BRK 1H

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
	Quadrangle Bethany
Do you anticipate using more than 5,000 bbls of water to complete the	ne proposed well work? Yes V No
Will a pit be used? 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 Wastes:	
Land Application	1
Underground Injection (UIC Permit Num	
Reuse (at API Number_at next anticipated well, Off Site Disposal (Supply form WW-9 fo	API# will be included with the WR-34/DDMR &/or permit addendum.
Other (Explain flow back fluids will be put in	n steel tanks and reused or taken to a permitted disposal facility
Will closed loop system be used? If so, describe: Yes	
Drilling medium anticipated for this well (vertical and horizontal)?	Air, freshwater, oil based, etc. Air criti to KOP, fluid drill with SOBM from KOP to TD
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	o Oil Base
Additives to be used in drilling medium? Attachment 3A	
Drill cuttings disposal method? Leave in pit, landfill, removed offsit	e, etc. landfill
-If left in pit and plan to solidify what medium will be used?	
-Landfill or offsite name/permit number? Meadowfill SWF- 1032. Arden Landfill 10072, Apex Sanitary Landfill 06-084	Short Creek SWF-1034, Carbon Limestone MSWL018781, Wetzel County 1021
Permittee shall provide written notice to the Office of Oil and Gas of West Virginia solid waste facility. The notice shall be provided within where it was properly disposed.	
on August 1, 2005, by the Office of Oil and Gas of the West Virginia provisions of the permit are enforceable by law. Violations of any law or regulation can lead to enforcement action.	term or condition of the general permit and/or other applicable mined and am familiar with the information submitted on this my inquiry of those individuals immediately responsible for accurate, and complete. I am aware that there are significant
S 000 1100 1	RECEIVED
Company Official (Typed Name) Dee Southall	Office of Oil and Gas
company official (Typea Frame)	MAR 2 1 2018
Company Official Title Senior Regulatory Analyst	
noth Man	WV Department of Environmental Protection
Subscribed and sworn before me this day of day of	, 20
Ditttany K Mody	Notary Public Super Super Super West You
My commission expires 11 7 7	ESTTANY R WOODY

Proposed Revegetation Treats	ment: Acres Disturbe	ed 20.37	Prevegetation	рН
Lime as determined by pH test	Tons/acre or to	correct to pH 4.78		
Fertilizer type 10-2	0-20			
Fertilizer amount 60	00	lbs/acre		
Mulch_ Hay/Straw	2.5	Tons/acre		
		Seed Mixtures		
Ter	mporary		Pern	nanent
Seed Type Attachment 3B	lbs/acre		Seed Type	lbs/acre
Orawing(s) of road, location, provided) Photocopied section of involved lan Approved by:		sheet.		including this info have be
Attach: Drawing(s) of road, location, provided) Photocopied section of involved plan Approved by: Comments:		1.10.18		
Orawing(s) of road, location, provided) Photocopied section of involved lan Approved by:		1.10.18		RECEIVED Gas
Orawing(s) of road, location, provided) Photocopied section of involved Plan Approved by:		1.10.18		



WVD Seeding Specification



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

(please allow 7 to 10 days for delivery)

NON-ORGANIC PROPERTIES

Seed Mixture: ROW Mix	SWN 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 50lbs per acre of Winter Wheat		

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 Organic	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

WETLANDS (delineated as jurisdictional wetlands)

Seed Mixture: Wetland Mix				SWN Supplied		
VA Wild Ryegrass				20%		
Annual Ryegrass	m			20%		
Fowl Bluegrass	NVI N		0	20%		
Cosmos 'Sensation'	ron >	MAR	REC Office of	10%		
Redtop	Dep		S E	5%		
Golden Tickseed	ntal	2	RECEIVED e of Oil and	5%		
Maryland Senna	Pro	2	ano /EE	5%		
Showy Tickseed	nt o	2018	Gas	5%		
Fox Sedge	WV Department of Environmental Protection		S	2.5%		
Soft Rush	_			2.5%		
Woolgrass				2.5%		
Swamp Verbena				2.5%		
Apply	@ 25lbs	per acre			Apply @ 50lbs per acre	
April	16th- Oc	t. 14th			Oct. 15th- April 15th	

April 16th- Oct. 14th Oct. 15th

NO FERTILIZER OR LIME INSIDE WETLAND LIMITS

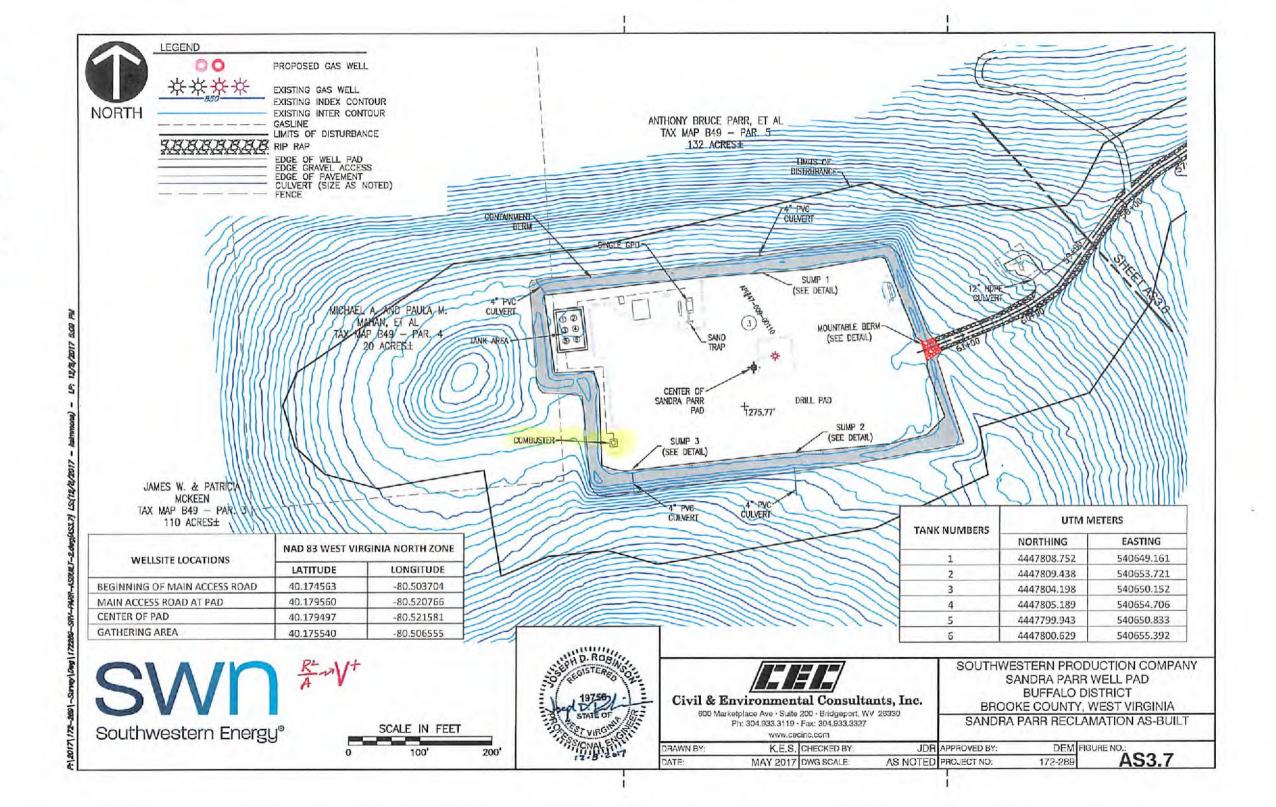
MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN



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

API NO. 47-XXX-XXXXX
WELL NAME: Sandra Parr BRK 1H
Bethany QUAD
Buffalo DISTRICT
Brooke COUNTY, WEST VIRGINIA

Submitted by:	
	Date: 12/27/2017
Senior Regulatory Title: Analyst	SWN Production Co., LLC
Approved by: Title: Dil + (es Impatr	Date: (-10-1)
Approved by:	
0	Date:
Title:	Oate: RECEIVED Office of Oil and Gas MAR 21 2018
SWN PRODUCTION COMPANY, LL	101

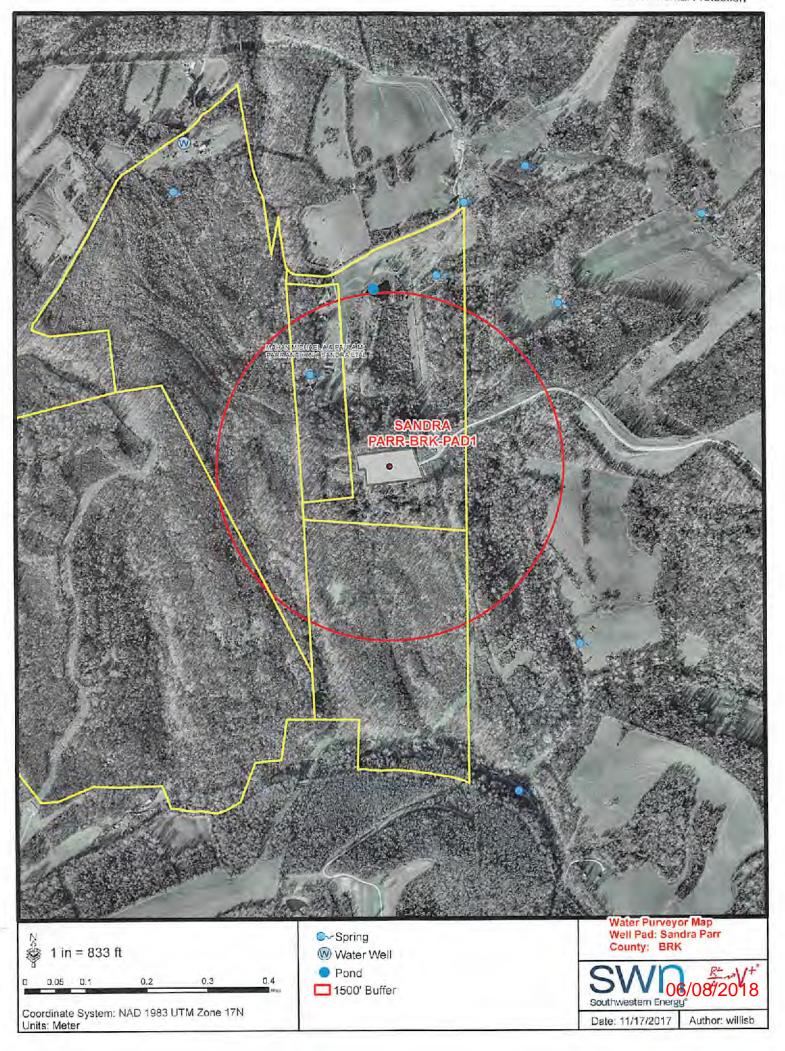


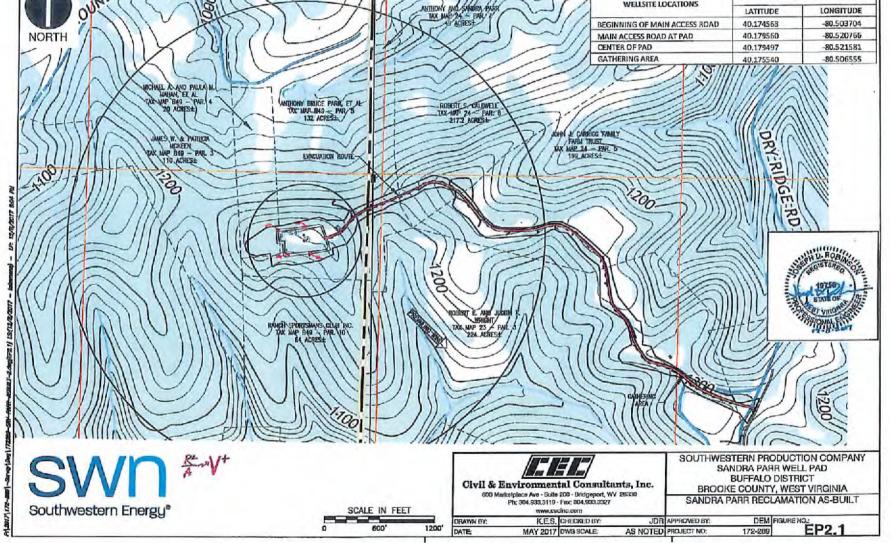
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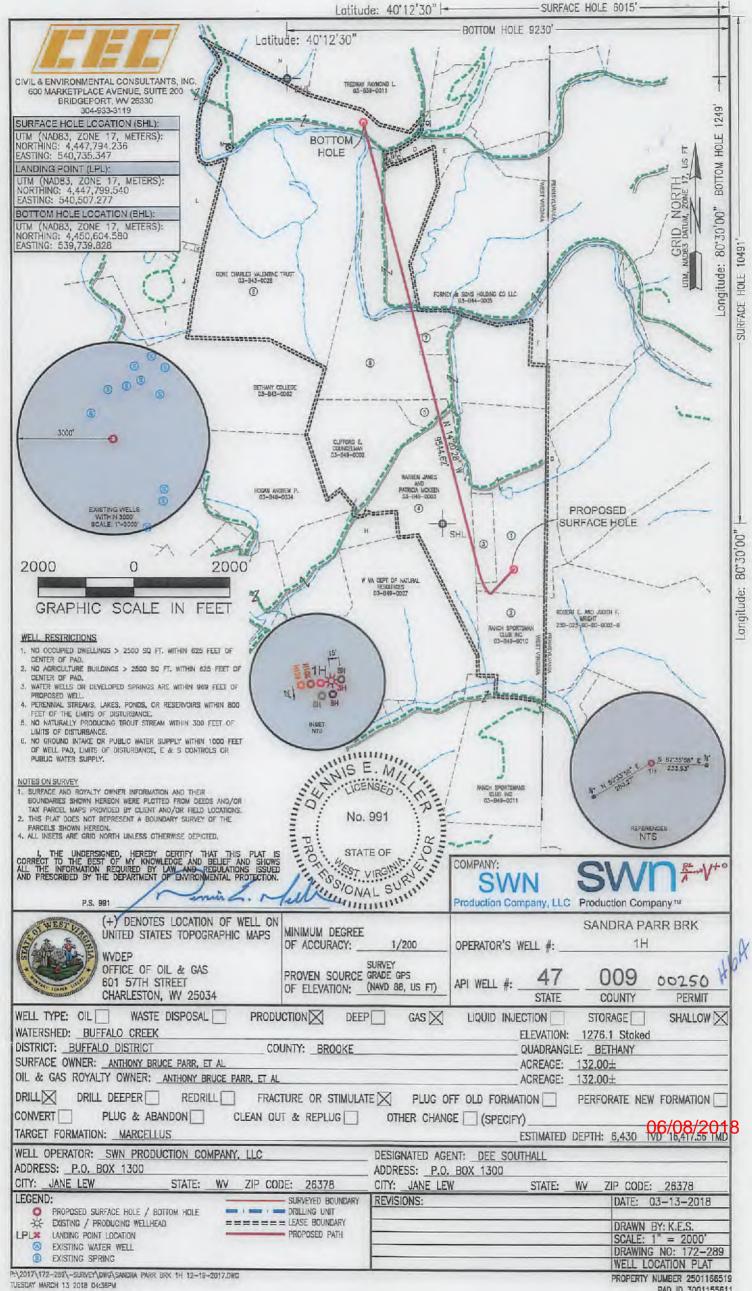




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NAD 83 WEST VIRGINIA NORTH ZONE

WELLSITE LOCATIONS







TRACT	WELL BORE TABLE FOR SURFACE OWNE 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	RANCH SPORTSMAN CLUB INC.	03-B49-0010
3	ANTHONY PARR, SANDRA PARR, RAYMOND PARR, NANCY PARR, LEONARD BOYCE AND KAREN BOYCE	03-B49-0004
4	WARREN JAMES AND PATRICIA MCKEEN	03-B49-0003
5	CLIFFORD E. COUNSELMAN	03-B44-0013
6	STATE OF WEST VIRGINIA DEPARTMENT OF COMMERCE, DIVISION OF NATURAL RESOURCES, WILDLIFE RESOURCES SECTION	03-B44-0014
7	LELAND MACKEY	03-B44-0014.1
8	GENE CHARLES VALENTINE TRUST	03-B43-0028

	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-B44-0012
G	ANTHONY BRUCE PARR, SANDRA L. PARR, RAYMOND LEE, NANCY J. PARR, MICHAEL MAHAN AND PAULA MAHAN	024-00-00-0007
Н	WEST VIRGINIA BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION	03-B49-0001
1	DONNI SAMUEL J. & MELANE	03-843-0057
J	GENE CHARLES VALENTINE TRUST	03-B43-0049.3
K	MARY E. COLLINS	03-B43-0049
L	BETHANY COLLEGE	03-B38-0031
М	UNKNOWN HEIRS OR ASSIGNS OF CLYDE B. ROBERTS	03-B43-0029
N	OWEN MARK W. (﴿) AND KRUETZ VIRGINIA BEALL (﴿)	03-838-0024
0	DONNA M. CONLEY	03-B44-0002

				06/08/201
REVISIONS:	COMPANY:	SWN oduction Company, LLC	SV Production 0	Maria N + ° ompany ™
	OPERATOR'S WELL #:	SANDRA PARR 1H	BRK	DATE: 03-13-2018 DRAWN BY: K.E.S.
	DISTRICT: BUFFALO DISTRICT	COUNTY: BROOKE	STATE: WV	SCALE: N/A DRAWING NO: 172-289 WELL LOCATION PLAT 2

WW-6A1 (5/13)

Operator's Well No. Sandra Parr BRK 1H

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. Grantce, Lessee, etc.

Royalty

Book/Page

See Attached Exhibit "A"

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MAR 21 2018

WV Department of Environmental Protection

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

> Well Operator: SWN Production Company, L.L.C. By: Its: Staff Landman

> > Page 1 of 2

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., Operator

Sandra Parr BRK 1H

Brooke County, West Virginia

Brooke County, West Virginia

See of Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., Operator

Sandra Parr BRK 1H

Brooke County, West Virginia

See of Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., Operator

Sandra Parr BRK 1H

Brooke County, West Virginia

See of Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., Operator

#	TMP	LESSOR	LESSEE O	ROYALTY	BK/PG
1)	03-849-0005-0000	John L. Latimer and Angela Latimer and Deborah S.	Phillips Production Company	18.00%	9/85
		Starr	Great Lakes Energy Partners, LLC		9/395
			Range Resources - Appalachia, L.L.C.		20/733
1			Chesapeake Appalachia, L.L.C.		10/552
			SWN Production Company, L.L.C.		30/480
2)	03-B49-0010-0000	The Ranch Sportsman's Club, Inc., by Nick Mustachio,	Great Lakes Energy Partners, LLC	12.50%	9/839
		President	Range Resources - Appalachia, LLC		20/733
Ì			Chesapeake Appalachia, L.L.C.		10/552
			SWN Production Company, LLC		30/480
3)	03-B49-0004-0000	John L. Latimer and Angela Latimer and Deborah S.	Chesapeake Appalachia, L.L.C.	18.00%	16/605
		Starr	SWN Production Company, LLC		30/480
4)	03-B49-0003-0000	Warren James McKeen and Patricia C. McKeen	SWN Production Company, LLC	18.00%	39/209
5)	03-B44-0013-0000	Clifford E. Counselman	SWN Production Company, LLC	18.000%	39/206
6)	03-B44-0014-0000	Bethany College, a Corporation, fka The Trustee of	Chesapeake Appalachia, L.L.C.	18.00%	15/239
		Bethany College	SWN Production Company, LLC		30/480
7)	03-B44-0014-0001	Leland Mackey, a widower and not married	Chesapeake Appalachia, L.L.C.	18.00%	15/504
	<u> </u>		SWN Production Company, LLC		30/480
8)	03-B43-0028-0000	Bounty Minerals, LLC	SWN Production Company, LLC	18.00%	Attached

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 Liability Campany, of 777 Main St., Suite 3400, Fort Worth, TX 76102, hereinafter collectively called "Lessor," and SWN Production Company, L.L.C., a Texas limited liability company, 10000 Energy Drive, Spring, Texas 77389, hereinafter called "Lessoe."

WITNESSETH

For and in consideration of the sum of Ten Dollars (\$10.00) cash in hand paid, and other good and valuable consideration, Lessor did make and execute in favor of Lessee an Oil and Gas lease dated 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 Lessee.

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

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

WITNESS:

WITNESS:

LESSOR(s)

Bounty Minerals, LLC

Hy:

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

RIMIA

Brett Massad Land Director

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WW Department of Environmental Protection

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CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS)	
COUNTY OF Tarrant)	
Bounty Minorals, LLC, and th	foregoing instrument for the purpose therein conte	, being
IN WITNESS WHEREOF, I	ereunto set my hand and official seal.	
My C Signa Name	ommission Expires: 5-23-2020 ture/Notary Public: Dracia R. Pa (Notary Public (print): Track, Par	lmer Iner
	TRACIE R. PALMER Notary Public, State of Texas Comm. Expires 05-29-2020 Notary ID 130673412	

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CORPORATE ACKNOWLEDGMENT

STATE OF TEXAS COUNTY OF HARRIS

On this, the day of January. 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 hercunto set my hand and official seal.

My Commission Expires:

Signature/Notary Public:

Name/Notary Public (print):

DANIEL TOWNSEND Notary Public, State of Texas My Commission Expires May-29, 2019

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Exhibit "A"

THIS EXHIBIT "A" is attached to and wholly incorporated into that certain Memorandum of Oil and Gas Lease ("Lease") dated the 21" day of, November, 2017, by and between <u>Haunty 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 Lessoe, covering <u>457.766155</u> 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>Brooke</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: <u>Tax Parcel I.D. 3-B43-35.8</u> and is bounded formerly or currently as follows:
On the North by lands of: <u>03-B38-31</u>;
On the East by lands of <u>03-B38-31</u>;
On the South by lands of <u>03-B43-49.3</u>;
On the West by lands of <u>03-B43-33</u>;

Property Tax Parcel Identification Number: <u>Tax Parcel I.D. 3-B43-49,3</u> 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-B43-25;
On the South by lands of 03-B43-57;
On the West by lands of 03-B43-33;

Property Tax Percel Identification Number: Tax Percel I.D. 3-B43-33 and is bounded formerly or currently as follows:
On the North by lends of: 03-B43-31;
On the Bast by lends of: 03-B43-35.8;
On the South by lends of: 03-B43-58.60;
On the West by lends of: 03-B38-31;

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Including all lands acquired by Lossors in <u>Book 347 at Pago 473</u>, the above properties being situated in Buffalo District, Brooke County, WV, and containing a total of 696.1673 acres, more or loss, 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 Page 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.



47009 00250

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 1H in Brooke County, West Virginia, Drilling under Counselman's Hill Road, Brush Run Road, & Bethany Pike.

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 Counselman's Hill Road, Brush Run Road, & Bethany Pike. 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

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WV Department of Environmental Protection

R2 W+

Watershed:

Buffalo Creek

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

MAP 2 1 20:8

		OTICE CERTIFICAT	<u>ION</u>	Environme	epartment of ental Protection
Date of Notic	e Certification:		API No. 4		_
			Operator's	Well No. Sandra Parr BRK 1H	
			Well Pad I	Name: Sandra Parr BRK Pad	
Notice has I	peen given:				
Pursuant to th	e provisions in West Virginia Code § 2	22-6A, the Operator has pro	vided the red	quired parties with the Notice For	ms listed
below for the	tract of land as follows:				
State:	West Virginia	UTM NAD 83	Easting:	540735.347	
County:	009- Brooke	CIMINAD 83	Northing:	4447794.236	
District:	Buffalo	Public Road Ac	cess:	Atchison Road	
Quadrangle:	Bethany	Generally used	farm name:	Sandra Parr	

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

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following: *PLEASE CHECK ALL THAT APPLY	OOG OFFICE USE ONLY
☐ 1. NOTICE OF SEISMIC ACTIVITY OF ■ NOTICE 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)	
4. NOTICE OF PLANNED OPERATION	☐ RECEIVED
5. PUBLIC NOTICE	☐ RECEIVED
6. NOTICE OF APPLICATION	☐ RECEIVED

Required Attachments:

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

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MAR 21 2013

Certification of Notice is hereby given:

WV Department of

, have read and understand the notice requirements within West Virginia Code \$ 22 THEREFORE, I 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

By:

Dee Southall

Its:

Senior Regulatory Analys

NOTARY SEAFFICIAL SEAL

State of West Virginia

BRITTANY R WOODY

3302 Old Elkins Food

Telephone:

304-884-1610

Address:

P.O. Box 1300

Jane Lew, WV 26378

Facsimile: 304-884-1690

Email: Dee Southall@swn.com

Subscribed and sworn before me this

Notary Public

My Commission Expires

Oil and Gas Privacy Notice:

WW-6A (9-13) API NO. 47- 009 - 00 2 5 0

OPERATOR WELL NO. Sandra Parr BRK 1H

Well Pad Name: Sandra Parr BRK Pad

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

Not	ice Time Requirement: notice	ce shall be provided no	o later that	n the filing date of permit application.	
	2/10/18			1015	
	e of Notice: 3 5 Date 1	Permit Application Fi	iled: 5	Hallo	
Not	ice of:				
V	PERMIT FOR ANY			ROVAL FOR THE	RECEIVED Office of Oil and Gas
	WELL WORK	CONSTRUCTI	ION OF A	N IMPOUNDMENT OR PIT	
Del	ivery method pursuant to W	Vest Virginia Code § 2	22-6A-10((b)	MAR 21 2018
		EGISTERED AIL		OD OF DELIVERY THAT REQUIRES A PT OR SIGNATURE CONFIRMATION	WV Department of Environmental Protection
sedii the : oil a descoper mor well imp have prov prop subs reco prov Cod	ment control plan required by s surface of the tract on which the and gas leasehold being develop cribed in the erosion and sedime rator or lessee, in the event the traction or lessee, in the event the traction of lesses, in the event the traction of lesses, in the event the traction of lesses, in the event the traction of lesses and the surface tract is to confident or pit as described in the earth of the extraction of lesses wide water for consumption by lesses with the lesses with the extraction of this section hold it ords of the sheriff required to be wision of this article to the control of the extraction of the control of the extraction of the e	section seven of this arti- ne well is or is proposed ped by the proposed wel- tent control plan submitte tract of land on which the of record of the surface to be used for the placement in section nine of this arti- supply source located with humans or domestic ani- take place. (c)(1) If more interests in the lands, the e-maintained pursuant to trary, notice to a lien hole part, that the operator shi	icle, and the to be local work, if ted pursual the well protract or tracent, constructiole; (5) A within one trimals; and a than three he applicant o section elder is not in all also properly and also properly and also properly and the tracent and also properly and the tracent and also properly and the tracent and also properly and tracent and also properly work.	r signature confirmation, copies of the applicate well plat to each of the following persons: (ted; (2) The owners of record of the surface trathe surface tract is to be used for roads or other to subsection (c), section seven of this article posed to be drilled is located [sic] is known to the soverlying the oil and gas leasehold being duction, enlargement, alteration, repair, removal my surface owner or water purveyor who is known that the surface of any natural gas storage fiest tenants in common or other co-owners of into the traction and the documents required upon the pright, article one, chapter eleven-a of this code, notice to a landowner, unless the lien holder is ovide the Well Site Safety Plan ("WSSP") to the provided in section 15 of this rule.	1) The owners of record of act or tracts overlying the er land disturbance as le; (3) The coal owner, to be underlain by one or leveloped by the proposed I or abandonment of any own to the applicant to well pad which is used to eld within which the erests described in person described in the . (2) Notwithstanding any is the landowner. W. Va.
Ø A	Application Notice 🛮 WSSI	P Notice	n Notice	☑ Well Plat Notice is hereby provided t	o:
S	URFACE OWNER(s)	/		COAL OWNER OR LESSEE	
	me: Anthony Bruce Parr, ET AL			Name: Windsor Coal Company	
Add	dress: 120 Jamison Ln.			Address: 1000 Cansol Energy Drive	
Wells	sburg, WV 26070			Canonsburg, PA 15317	
Nan	ne:			□ COAL OPERATOR	
Add	dress:			Name:	
				Address:	
S	URFACE OWNER(s) (Road	and/or Other Disturban	nce)		
Nan	V V T V			☑ SURFACE OWNER OF WATER WELI	L
Add	lress:			AND/OR WATER PURVEYOR(s)	
				Name: See Attachment 13A	
Nar	ne:			Address:	
Add	lress:				
	me lan ann	2.00		OPERATOR OF ANY NATURAL GAS	
	URFACE OWNER(s) (Impou			Name:	
Nan	ne:			Address:	
Add	lress:			*Please attach additional forms if necessary	
				i lease attach additional lottils if fiecessary	1

WW-6A (8-13) RECEIVED
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MAR 21 2018

API NO. 47- 009 - 003-50
OPERATOR WELL NO. Sandra Pair BRK 1H
Well Pad Name: Sandra Pair BRK Pad

Notice is hereby given:

WV Department of

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the limited 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 crosion 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.e., this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

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

Well Location Restrictions

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

WW-6A (8-13) API NO. 47-009 - OO25O
OPERATOR WELL NO. Sandra Parr BRK 1H
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:

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

MAR 21 2013

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.

API NO. 47-009 - 00250
OPERATOR WELL NO. Sandra Parr BRK 1H
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.

RECEIVED
Office of Oil and Gas

MAR 21 2018

WV Department of Environmental Protection

API NO. 47-009 OPERATOR WELL NO. Sandra Parr BRK 1H Well Pad Name: Sandra Parr BRK Pad

Notice is hereby given by:

Well Operator: SWN Production Co., LUC

Telephone: 304-884-1610

Email: Dee_Southall@swh.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 depprivacyofficer@wv.gov.

OFFICIAL SEAL Notary Public, State of West Virginia BRITTANY R WOODY 3102 Old Ellans Road

Subscribed and sworn before me this Athday of John AON

Notary Public

My Commission Expires

RECEIVED Office of Oil and Gas

MAR 21 2018

WV Department of Environmental Protection

47 009 00250 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

	e: 11/2/2017 Date of Pl	anned Entry: 11/9/2017	RECEIVED Office of Oil and Gas
Delivery meth	nod pursuant to West Virginia	Code § 22-6A-10a	
☐ PERSON	IAL REGISTERED	☐ METHOD OF DELIVERY THAT R	MAR 21 2018
SERVICE	E MAIL	RECEIPT OR SIGNATURE CONFIL	RMATION WY Depart
on to the surface but no more the beneath such the owner of mine and Sediment (Secretary, while enable the surface).	ce tract to conduct any plat surve an forty-five days prior to such e ract that has filed a declaration pot rals underlying such tract in the of Control Manual and the statutes a ch statement shall include contact face owner to obtain copies from	Prior to filing a permit application, the operatory's required pursuant to this article. Such notice entry to: (1) The surface owner of such tract; (2) cursuant to section thirty-six, article six, chapter county tax records. The notice shall include a stand rules related to oil and gas exploration and put information, including the address for a web paths secretary.	shall provide notice of planned entity shall be provided at least seven days to any owner or lessee of coal seams twenty-two of this code; and (3) any tatement that copies of the state Erosio production may be obtained from the
Notice is here	by provided to:		
■ SURFAC	E OWNER(s)	☐ COAL OWNER OR LI	ESSEE
Name: Raymond	Parr	Name:	
Address: 513 SI		Address:	
Follansbee, WV 260			
Name:			
Address:		MINERAL OWNER(s))
Name:	***		
		Address: 513 Shady Lane	,
Address.		Foliansbee, WV 26037 *please attach additional forms if n	
		prease attach additional forms if h	ecessary
Notice is her		notice is hereby given that the undersigned we	Il operator is planning entry to conduct
a plat survey o State: County:	West Virginia Brooke		40.179524, -80.521620 Dry Ridge Road
a plat survey o State: County: District:	West Virginia Brooke Wellsburg	Public Road Access: Watershed:	-
a plat survey o State: County: District:	West Virginia Brooke	Public Road Access:	Dry Ridge Road
a plat survey of State: County: District: Quadrangle: Copies of the smay be obtained Charleston, Wobtained from	West Virginia Brooke Wellsburg Bethany state Erosion and Sediment Contred from the Secretary, at the WV V 25304 (304-926-0450). Copie the Secretary by visiting www.de	Public Road Access: Watershed: Generally used farm name: of Manual and the statutes and rules related to of Department of Environmental Protection headers of such documents or additional information ap.wv.gov/oil-and-gas/pages/default.aspx.	Dry Ridge Road Buffalo Creek Sandra Parr bil and gas exploration and production quarters, located at 601 57th Street, SE,
a plat survey of State: County: District: Quadrangle: Copies of the smay be obtained Charleston, Wobtained from	West Virginia Brooke Wellsburg Bethany state Erosion and Sediment Contred from the Secretary, at the WV V 25304 (304-926-0450). Copie the Secretary by visiting www.de	Public Road Access: Watershed: Generally used farm name: of Manual and the statutes and rules related to of Department of Environmental Protection headers of such documents or additional information	Dry Ridge Road Buffalo Creek Sandra Parr Dil and gas exploration and production quarters, located at 601 57th Street, SE, related to horizontal drilling may be

Oil and Gas Privacy Notice:

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

	ime Require	ment: Notice shall be prov	rided at least SEVEN (7) days	but no more than	FORTY-FIVE	(45) days prior to
entry			1.77			RECEIVED
Date of I	Notice: 11/2/20	Date of Plan	aned Entry: 11/9/2017	-		Office of Oil and Gas
Delivery	method purs	suant to West Virginia C	ode § 22-6A-10a			MAR 21 2018
☐ PEF	RSONAL	■ REGISTERED	☐ METHOD OF DELI	VERY THAT RE	QUIRES A	
	EVICE	MAIL	RECEIPT OR SIGNA			WV Department of Environmental Protection
on to the but no me beneath s owner of and Sedin Secretary enable th	surface tract to ore than forty- such tract that minerals und- ment Control y, which stater e surface own	to conduct any plat surveys five days prior to such en- has filed a declaration pur- erlying such tract in the co- Manual and the statutes an ment shall include contact her to obtain copies from the	Prior to filing a permit applical serequired pursuant to this artitry to: (1) The surface owner of suant to section thirty-six, artitude that records. The notice and rules related to oil and gas of information, including the address secretary.	cle. Such notice s of such tract; (2) t icle six, chapter to shall include a sta exploration and pr	shall be provided to any owner or le wenty-two of this stement that copie roduction may be	at least seven days essee of coal seams code; and (3) any es of the state Erosion obtained from the
	hereby prov					
	FACE OWN	ER(s)	☐ COAL	OWNER OR LES	SSEE	
Name: M	ichael Mahan 120 Jamison Lan	/	Name:			
		9	_ Address: _			
Wellsburg, V						— RECEIVED
Name:			M MINIET	RAL OWNER(s)		Office of Oil and Gas
Address.						
Name:			Name: Micha	0 Jamison Lane)	— MAR 21 2018
Address:			Wellsburg, WV 2			_
			*please attach	additional forms if nec	cessary	WV Department of Environmental Protectio
	s hereby giv					
Pursuant	to West Virgi	inia Code § 22-6A-10(a), r	notice is hereby given that the	undersigned well	operator is plant	ning entry to conduct
a plat sur State:	The second secon	ct of land as follows:	* r		00100000 000000	
County:	West Virgin	nia .	Public Road Ac	de & Longitude:	40.179524, -80.52162	20
District:	Wellsburg		Watershed:	cess:	Dry Ridge Road Buffalo Creek	
	gle: Bethany		Generally used	form name:	Sandra Parr	
Quadrang	Sic. Demany		Generally used	farm name.	Sancia Fair	
Copies of	f the state Ero	sion and Sediment Contro	l Manual and the statutes and	rules related to oi	l and gas explora	ation and production
			Department of Environmental of such documents or addition			
			o.wv.gov/oil-and-gas/pages/de		cialed to norizon	tal drilling may be
Notine .	a banaba at	Total				
Well Ope	s hereby giv		A didenses	ac don't sta		
Telephon		RODUCTION COMPANY, LLC	Address:	PO BOX 1300		
Email:			swn.com Facsimile:	JANE LEW, WV 26378		
ETHATI:		uthall@swn.com or brittany_woody@				

Oil and Gas Privacy Notice:

47 009 00250 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

	ime Requir	rement: Notice shall be prov	vided at least SEVEN (7) da	ys but no more that	FORTY-FIVE (45) days prior to
entry Date of	Notice: 11/2/2	Date of Plan	nned Entry: 11/9/2017		
Delivery	method pu	rsuant to West Virginia C	ode § 22-6A-10a		
☐ PE	RSONAL	■ REGISTERED	☐ METHOD OF DE	LIVERY THAT RE	OUIRES A
SE	RVICE	MAIL	RECEIPT OR SIG		
on to the but no m beneath owner of and Sedi Secretary enable th	s surface trace nore than fort such tract that f minerals un iment Controlly, which status as surface over	t to conduct any plat surveys ty-five days prior to such enter at has filed a declaration pure iderlying such tract in the co- ol Manual and the statutes an ement 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 r of such tract; (2) t rticle six, chapter to e shall include a sta s exploration and po	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
	s hereby pro				
	RFACE OW			L OWNER OR LE	
Name: _			Name:		RECEIVED Office of Oil and Gas
Address					Office of Off and Gas
Name:			-		MAR 21 2018
Address			■ MIN	ERAL OWNER(s)	WAN 21 2010
			Name: Joi		WV Department of
Name: _			Address	3266 West Hampton Points	Environmental Protection
Address			Florence, Sou	th Carolina 29501	
			*please atta	th additional forms if ne	cessary
Pursuant	rvey on the to West Vir Brooke	ginia Code § 22-6A-10(a), n ract of land as follows:	Approx. Lati	ude & Longitude:	operator is planning entry to conduct 40.179524, -80.521620 Dry Ridge Road Buffalo Creek
	gle: Bethany		Generally use	ed farm name:	Sandra Parr
may be of Charlest obtained	obtained from on, WV 253 from the Se is hereby gi	n the Secretary, at the WV E 04 (304-926-0450). Copies cretary by visiting <u>www.dep</u>	Department of Environments of such documents or additional such documents or additional such as the control of	al Protection headquional information re	il and gas exploration and production parters, located at 601 57 th Street, SE, elated to horizontal drilling may be
may be of Charlest obtained Notice is Well Op	obtained from on, WV 253 from the Sec is hereby gi erator: swn	n the Secretary, at the WV E 04 (304-926-0450). Copies cretary by visiting <u>www.dep</u>	Department of Environments of such documents or additional such documents or additional such as the control of	al Protection headquional information re	uarters, located at 601 57th Street, SE,
may be of Charlest obtained	obtained from on, WV 253 from the Sec is hereby gi erator: swn	n the Secretary, at the WV E 04 (304-926-0450). Copies cretary by visiting <u>www.dep</u> iven by:	Department of Environments of such documents or addit o.wv.gov/oil-and-gas/pages/	al Protection headquional information re default.aspx.	uarters, located at 601 57th Street, SE,

Oil and Gas Privacy Notice:

97 09 00250 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	f Notice: 11/2/	2017]	Date of Planned F	Entry: 11/9/2017	_		
Deliver	ry method pu	rsuant to West	Virginia Code § 3	22-6A-10a			
	ERSONAL ERVICE	REGIS MAIL	TERED		LIVERY THAT REG		1
on to the but no a beneath owner of and Sec Secreta enable	ne surface trace more than for a such tract the of minerals undiment Control ary, which star the surface over	at to conduct any ty-five days prior at has filed a dec aderlying such tra of Manual and the tement shall inclusion wher to obtain co	plat surveys requi r to such entry to: laration pursuant t act in the county to e statutes and rules	red pursuant to this a (1) The surface owner to section thirty-six, a ax records. The notice is related to oil and gall nation, including the a	rticle. Such notice slar of such tract; (2) to tricle six, chapter twee shall include a state s exploration and pr	hall be pro o any own- venty-two tement that oduction n	ide notice of planned entry vided at least seven days er or lessee of coal seams of this code; and (3) any t copies of the state Erosion may be obtained from the Secretary's web site, to
Notice	is hereby pr	ovided to:					
☐ SU	JRFACE OW	NER(s)		☐ COA	L OWNER OR LES	SSEE	RECEIVED
Name:				Name:			Office of Oil and Gas
Addres	s:			Address:			MAR 21 2018
Name:				- 100			1000
Addres	s:			■ MIN	ERAL OWNER(s)		WV Department of
				Name: De	borah Starr		Environmental Protection
Name:					120 Walker Road		
Addres	S:			Follansbee, V			
				-prease attac	ch additional forms if nec	essary	
Pursuai	e is hereby g		-6A-10(a), notice i	is hereby given that th	ne undersigned well	operator is	s planning entry to conduct
State:	West Vi		nows.	Approx. Latit	tude & Longitude:	40.179524, -8	30.521620
County	: Brooke			Public Road		Dry Ridge Ro	
District	t: Wellsbu	rg		Watershed:		Buffalo Creek	
Quadra	ngle: Bethany			Generally use	ed farm name:	Sandra Parr	
may be Charles	obtained from ston, WV 253	n the Secretary, a 104 (304-926-04: cretary by visiting	at the WV Departr 50). Copies of suc	nent of Environmenta	al Protection headquional information re	arters, loca	exploration and production ated at 601 57 th Street, SE, prizontal drilling may be
	is hereby g			12.33			
Well O	perator: swi	iven by: PRODUCTION COMP	ANY, LLC	Address:	PO BOX 1300		
	perator: swi		ANY, LLC	Address: Facsimile:	PO BOX 1300 JANE LEW, WV 26378		

Oil and Gas Privacy Notice:

47 009 00250 Operator Well No. Sandra Pair 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 SEVEN (7)	days but no more than	n FORTY-FIV	E (45) days prior to
entry Date of Notic	e: 11/2/2017	Date of Pla	nned Entry: 11/9/2017			
Delivery met	hod pursuant	to West Virginia C				
□ penson	IAT 🗐	REGISTERED	☐ METHOD OF D	CLINEDAL TILLEDE	OTHER !	
☐ PERSON SERVICE			METHOD OF D			
SERVIC	E	MAIL	RECEIPT OR SI	GNATURE CONFIR	MATION	
on to the surfa but no more the beneath such a owner of mine and Sediment Secretary, wh	ace tract to cond man forty-five d tract that has fil erals underlying Control Manua ich statement sl	duct any plat surveys lays prior to such en- led a declaration pur g such tract in the co al and the statutes an	Prior to filing a permit app is required pursuant to this try to: (1) The surface own remain to section thirty-six punty tax records. The not and rules related to oil and g information, including the me secretary.	article. Such notice s ner of such tract; (2) the article six, chapter to fice shall include a stagas exploration and p	shall be provide to any owner or wenty-two of the atement that cop roduction may	d at least seven days lessee of coal seams is code; and (3) any pies of the state Erosion be obtained from the
Notice is here	eby provided to	o:				RECEIVED
<u> </u>						Office of Oil and Gas
	CE OWNER(s)		LI CO	AL OWNER OR LE	SSEE	
Name: Nancy P			Name:			MAR 21 20.3
Address: 535 F	Rockdale Road		_ Address			- Internal 20 St 2010
			-			WV Department of
			■ MI	NERAL OWNER(s)		Environmental Protection
Name:			Address	: 536 Rockdale Road		
Address:			Foliansbee	, WV 26037		
			*please at	tach additional forms if ne	cessary	
Notice is her Pursuant to W a plat survey of State:	est Virginia Co	ode § 22-6A-10(a), r and as follows:	notice is hereby given that	the undersigned well		
County:					Dry Ridge Road	1020
District:	Wellsburg		Watershed:		Buffalo Creek	
Quadrangle:	Bethany		Generally u	sed farm name:	Sandra Parr	
may be obtain Charleston, W	ed from the Sec V 25304 (304)	cretary, at the WV I -926-0450). Copies	I Manual and the statutes Department of Environmer of such documents or add www.gov/oil-and-gas/page	ntal Protection headqualitional information re	uarters, located	at 601 57th Street, SE.
Notice is ha	rahy givan be	,.				
Well Operator	reby given by	TION COMPANY, LLC	Address:	DO DOY 4000		
Telephone:	304-884-1610	TON COMPANY, LLC	Address:	PO BOX 1300		
Email:	-	wn.com or brittany_woody@	swn.com Facsimile	JANE LEW, WV 26378		
			- Laconini	1		
01	n . N					

Oil and Gas Privacy Notice:

47 009 00250 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 is hereby provided to: MAR 2.1 2018 SURFACE OWNER(s) Name: Sandra & Anthony Parr Address: 2810 McKims Ridge Road Colliers, WV 26035 Name: Address: Address: MINERAL OWNER(s) Name: Sandra & Anthony Parr Address: 2810 McKims Ridge Road Callers, WV 26035 Name: Sandra & Anthony Parr Address: 2810 McKims Ridge Road Colliers, WV 26035 Name: Sandra & Anthony Parr Address: 2810 McKims Ridge Road Colliers, WV 26035 *please attach additional forms if necessary	entry Date of Noti			nned Entry: 11/9/2017	ys out no more man	FORT I-FIV	E (43) days prior to
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 of lessee of coal seams beneath such tract that has filled 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 Erosion 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 office of Oil and Gas exploration and production may be obtained from the secretary. Notice is hereby provided to: Supparation Sup	Delivery me	thod pursuant	to West Virginia C	ode § 22-6A-10a			
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 Erosion 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. MAR 2 1 20% I SURFACE OWNER(s) Name: Surface Anthony Pair Address: 2610 McMons Ridge Read Collier, WV 20205 Name: Sandra & Anthony Pair Address: 2610 McMons Ridge Read Collier, WV 20205 Name: Sandra & Anthony Pair Address: 2610 McMons Ridge Road Collier, WV 20205 Name: Sandra & Anthony Pair Address: 2610 McMons Ridge Road Collier, WV 20205 Name: Sandra & Anthony Pair Address: 2610 McMons Ridge Road Collier, WV 20205 Name: Sandra & Anthony Pair Address: 2610 McMons Ridge Road Collier, WV 20205 Name: Sandra & Anthony Pair Address: 2610 McMons Ridge Road Collier, WV 20205 Plustuant 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 Virginia Code § 20-6A-10(a), n							
SURFACE OWNER(s)	on to the sur but no more beneath such owner of min and Sedimen Secretary, we enable the su	face tract to cond than forty-five do tract that has fi- nerals underlying at Control Manual hich statement si urface owner to co	duct any plat survey ays 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 pursuant to this a try to: (1) The surface ownersuant to section thirty-six, a bunty tax records. The notion of rules related to oil and gatinformation, including the	rticle. Such notice s or of such tract; (2) that it icle six, chapter the shall include a state s exploration and p	shall be provide to any owner or wenty-two of th atement that cop roduction may b	d at least seven days lessee of coal seams is code; and (3) any bies of the state Erosion be obtained from the etary's web site, to
SURFACE OWNER(s) Sandra & Anthony Parr Name: Sandra & Anthony Parr Address: 2810 MetOms Ridge Read Address: 1000 Consol Energy Drive Environmental Protect	Notice is her	reby provided t	0:				MAR 2.1 2018
Address: 2810 McMms Ridge Read Colliers, WV 26335 Name: Address:	■ SURFA	CE OWNER(s)	1	■ COA	L OWNER OR LE	SSEE	W. M. D. T. CO.10
Address: 100 Conset energy Drive Environmental Protections and Secretary at the WV Department of Environmental Protection and Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx. Address: 100 Conset energy Drive Environmental Protection and Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx. Address: 100 Conset energy Drive 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. Address: 100 Conset energy Drive 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: SWM PRODUCTION COMPANY, LLC Address: PO BOX 1300 JANE LEW, WV 26378	Name: Sandra	& Anthony Parr		Name: W	ndsor Coal Company		WV Department of
Name:	A second section of the last section of the la						Environmental Protection
Address: Name: Sendra & Anthony Perr Address: 2810 McKims Ridge Road Colliers, Wv 28035 *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: West Virginia Approx. Latitude & Longitude: 40.179524, -80.521620 County: Brooke Public Road Access: Dry Ridge Road District: Wellsburg Watershed: Buffale Creek Quadrangle: Bethany Generally used farm name: Sandra Parr Copies of the state Brosion 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 JANE LEW, WV 26378	112.70. 10. 1. 1. 1. 1. 1.			- Janonadarg,	17110017		
Name:	Address:			■ MIN	ERAL OWNER(s)		
Name: Address: 2810 McKims Ridge Road Colliers, WV 28035 *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: West Virginia Approx. Latitude & Longitude: 40.179524, -80.521620 County: Brooke Public Road Access: Dry Rége Road District: Wellsburg Watershed: Buffalo Creak 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: SWN PRODUCTION COMPANY, LLC Address: PO BOX 1300 JANE LEW, WV 26378						3	
Address: Colliers, Wv 26035 *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: West Virginia Approx. Latitude & Longitude: 40.179524, -80.521620 County: Brooke Public Road Access: Dry Ridge Road District: Wellsburg Watershed: Buffalo Creek Quadrangle: Bethany Generally used farm name: Sandra Parr						/	
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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 District: Wellsburg Public Road Access: Dry Ridge Road Quadrangle: 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 Telephone: 304-884-1610 JANE LEW, WV 26378				*please atta	ch additional forms if ne	cessary	
District: Wellsburg 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 57 th 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	Pursuant to V a plat survey State:	West Virginia Co on the tract of I West Virginia	ode § 22-6A-10(a), 1 and as follows:	Approx. Lati	tude & Longitude:	40.179524, -80.521	
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	Variable of the second	-			Access:		
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Drute test; ITV Education	may be obtained from Notice is he Well Operate	ined from the Se WV 25304 (304 in the Secretary l ereby given by or: SWN PRODUCT	cretary, at the WV I -926-0450). Copies by visiting www.dep	Department of Environment of such documents or addi o.wv.gov/oil-and-gas/pages/	al Protection headqi tional information r default.aspx.	uarters, located elated to horizo	at 601 57th Street, SE,
Email: dee_southall@swn.com or brittany_woody@swn.com Facsimile:					JANE LEW, WV 26378		
	Email:	dee_southall@s	wn.com or brittany_woody@	swn.com Facsimile:			

Oil and Gas Privacy Notice:

47009.00250
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	ice: 11/2/2017		nned Entry: 11/9/2017	ys out no more that	n FORT 1-FIV	E (45) days prior to
Delivery m	ethod pursuant	to West Virginia C	ode § 22-6A-10a			
□ PERSO		REGISTERED MAIL	☐ METHOD OF DEI RECEIPT OR SIG			
on to the sur but no more beneath such owner of mi and Sedimer Secretary, we enable the su	rface tract to con than forty-five the tract that has fancerals underlying the Control Manuschich statements urface owner to	iduct any plat survey days prior to such en filed a declaration put ig such tract in the cotal and the statutes are shall include contact obtain copies from the	Prior to filing a permit appli s required pursuant to this a try to: (1) The surface ownersuant to section thirty-six, a punty tax records. The notion and rules related to oil and gat information, including the a me secretary.	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 provide to any owner of wenty-two of the atement that co roduction may	ed at least seven days r lessee of coal seams his code; and (3) any pies of the state Erosion be obtained from the
	reby provided ACE OWNER(s)		П сол	L OWNER OR LE	CODE	RECEIVED
						Office of Oil and Gas
Address:			Name:			
Addicess						MAR 21 2018
Name:			-			TANKI. Z
Address:			■ MIN	ERAL OWNER(s)		WV Department of
			Name: Le	onard & Karen Boyce		Environmental Protection
Name:			Address:	1162 Northview Road	/	PHYNOMIA
Address: _			Wellsburg, W			
			*please attac	h additional forms if ne	cessary	
Pursuant to	y on the tract of West Virginia Brooke	land as follows:	Public Road	ude & Longitude:	40.179524, -80.52 Dry Ridge Road	
	Wellsburg		Watershed:	1.5	Buffalo Creek	
Quadrangle:	Bethany		Generally use	ed farm name:	Sandra Parr	
may be obta Charleston, obtained fro	ined from the Solution with 25304 (30- m the Secretary ereby given b	ecretary, at the WV I 4-926-0450). Copies by visiting <u>www.de</u> r	l Manual and the statutes an Department of Environments of such documents or addit o.wv.gov/oil-and-gas/pages/	al Protection headquional information r	uarters, located elated to horizo	at 601 57th Street, SE,
				SAINE PEAN AND 50010		
Email:	dog couthalles	swn.com or brittany_woody@	swn.com Facsimile:			

Oil and Gas Privacy Notice:



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 Notic	Requirement: Notice shall be e: 12/27/2017	provided at least TEN (10) days prior to filing Date Permit Application Filed:	a permit application.
Delivery met	hod pursuant to West Virgin	ia Code § 22-6A-16(b)	1 .
☐ HAND	■ CERTIFIED N	4411	
DELIVE		CEIPT REQUESTED	
eceipt reques drilling a hori of this subsection ma	sted or hand delivery, give the sizontal well: <i>Provided</i> . That notion as of the date the notice way be waived in writing by the	least ten days prior to filing a permit application surface owner notice of its intent to enter upon otice given pursuant to subsection (a), section as provided to the surface owner: <i>Provided, he</i> surface owner. The notice, if required, shall intend mail address of the operator and the operator	the surface owner's land for the purpose of ten of this article satisfies the requirements owever. That the notice requirements of this clude the name, address, telephone number, tor's authorized representative.
Vation in ha	usher nuovided to the CITDI	ZACE OWNEDGY.	RECEIVED
	reby provided to the SURI Bruce Parr, ET AL	Name:	Office of Oil and Gas
Address: 120		Address:	1110 01 0010
	Manager and Control of the Control o		MAR 2 1 2018
oursuant to W	reby given: /est Virginia Code § 22-6A-16	(b), notice is hereby given that the undersigne	WV Department of d well operato FRA gammatal ซีรูปสี่เรียกอา
Notice is her	reby given: /est Virginia Code § 22-6A-16		WV Department of d well operato FRA gammatal ซีรูปสี่เรียกอา
Notice is here Pursuant to We he surface over State: County: District:	reby given: /est Virginia Code § 22-6A-16 vner's land for the purpose of d West Virginia Brooke Buffalo	(b), notice is hereby given that the undersigne trilling a horizontal well on the tract of land as UTM NAD 83 Rorthing: Public Road Access:	WV Department of d well operato Fixe an material Protection pon follows: 540,735,347 4,447,794,236 Atchinson Rd
Notice is here Pursuant to We he surface over the State: County: District: Quadrangle:	reby given: /est Virginia Code § 22-6A-16 vner's land for the purpose of d West Virginia Brooke Buffalo Bethany	o(b), notice is hereby given that the undersigne trilling a horizontal well on the tract of land as Easting: UTM NAD 83 Northing:	WV Department of d well operato FRAS an materil Potenci Apon follows: 540,735,347 4,447,794,236
Notice is here Pursuant to We he surface over State: County: District:	reby given: /est Virginia Code § 22-6A-16 vner's land for the purpose of d West Virginia Brooke Buffalo	(b), notice is hereby given that the undersigne trilling a horizontal well on the tract of land as UTM NAD 83 Rorthing: Public Road Access:	WV Department of d well operato Fixe an material Protection pon follows: 540,735,347 4,447,794,236 Atchinson Rd
Notice is here Pursuant to Whe surface over State: County: District: Quadrangle: Watershed: Chis Notice Pursuant to Wacsimile nuncleated to hor	reby given: Vest Virginia Code § 22-6A-16 Viner's land for the purpose of complete Virginia Brooke Buffelo Bethany Buffalo Creek Shall Include: West Virginia Code § 22-6A-16 Description of the purpose of complete Virginia Code § 22-6A-16 Description of the purpose of code § 22-6A-16 Descripti	(b), notice is hereby given that the undersigne trilling a horizontal well on the tract of land as UTM NAD 83 Rorthing: Public Road Access:	WV Department of d well operator Physicon Physic
Notice is here Pursuant to Whe surface over State: County: District: Quadrangle: Watershed: This Notice Pursuant to Watershile numel at the content of the	reby given: Vest Virginia Code § 22-6A-16 Viner's land for the purpose of complete Virginia Brooke Buffelo Bethany Buffalo Creek Shall Include: West Virginia Code § 22-6A-16 Description of the purpose of complete Virginia Code § 22-6A-16 Description of the purpose of code § 22-6A-16 Descripti	(b), notice is hereby given that the undersigne brilling a horizontal well on the tract of land as Easting: UTM NAD 83 Public Road Access: Generally used farm name: 16(b), this notice shall include the name, adverse of the operator and the operator's authorized from the Secretary, at the WV Department	WV Department of d well operator Physicon Metal Production on follows: 540,735,347 4,447,794,236 Atchinson Rd Sandra Parr BRK dress, telephone number, and if available, zed representative. Additional information of Environmental Protection headquarters, dep.wv.gov/oil-and-gas/pages/default.aspx.
Notice is here Pursuant to Whe surface over State: County: District: Quadrangle: Watershed: This Notice Pursuant to Watershile numel at the content of the	reby given: Vest Virginia Code § 22-6A-16 Viner's land for the purpose of december Virginia Brooke Buffelo Bethany Buffalo Creek Shall Include: West Virginia Code § 22-6A-16 December and electronic mail address and december and december Spannisher Spannisher Virginia Code § 22-6A-16 December and electronic mail address and december Application of Spannisher Virginia Code § 22-6A-16 December and electronic Mail address and december Application of Spannisher Virginia Code § 22-6A-16 December 22-6A-16 Decembe	(b), notice is hereby given that the undersigne brilling a horizontal well on the tract of land as Easting: UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: 16(b), this notice shall include the name, address of the operator and the operator's authorized from the Secretary, at the WV Department V 25304 (304-926-0450) or by visiting www.	WV Department of d well operator Physicon Metal Production on follows: 540,735,347 4,447,794,236 Atchinson Rd Sandra Parr BRK dress, telephone number, and if available, zed representative. Additional information of Environmental Protection headquarters, dep.wv.gov/oil-and-gas/pages/default.aspx.
Notice is here Pursuant to Whe surface over State: County: District: Quadrangle: Watershed: Chis Notice Pursuant to Wacsimile nuncle elated to hore ocated at 601 Notice is here Well Operator	reby given: Vest Virginia Code § 22-6A-16 Viner's land for the purpose of of West Virginia Brooke Buffelo Bethany Buffalo Creek Shall Include: West Virginia Code § 22-6A- her and electronic mail addre izontal drilling may be obtaine 57 th Street, SE, Charleston, W reby given by: C: SWN Production Company, LLC	(b), notice is hereby given that the undersigne brilling a horizontal well on the tract of land as Easting: UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: 16(b), this notice shall include the name, address of the operator and the operator's authorized from the Secretary, at the WV Department V 25304 (304-926-0450) or by visiting www.	WV Department of d well operator Physicon mental Protein in the file of the fi
Notice is here Pursuant to Whe surface over State: County: District: Quadrangle: Watershed: Chis Notice Pursuant to Wacsimile nuncle elated to hore ocated at 601 Notice is here Well Operator	reby given: Vest Virginia Code § 22-6A-16 vner's land for the purpose of of West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 22-6A- niber and electronic mail addre izontal drilling may be obtaine 57th Street, SE, Charleston, W reby given by: The Swn Production Company, LLC PO Box 1300, 179 Innovation Drive	(b), notice is hereby given that the undersigne brilling a horizontal well on the tract of land as Easting: UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: 16(b), this notice shall include the name, address of the operator and the operator's authorized from the Secretary, at the WV Department V 25304 (304-926-0450) or by visiting www.	WV Department of d well operator Physicon mental Protein tipon follows: 540,735,347 4,447,794,235 Atchinson Rd Sandra Parr BRK dress, telephone number, and if available, zed representative. Additional information of Environmental Protection headquarters, dep.wv.gov/oil-and-gas/pages/default.aspx. E: Mike Yates PO Box 1300, 179 Innovation Drive
Notice is here Pursuant to Whe surface over State: County: District: Quadrangle: Watershed: Pursuant to Watershed to hore ocated at 601 Notice is here Well Operator Address:	reby given: Jest Virginia Code § 22-6A-16 vner's land for the purpose of of West Virginia Brooke Buffalo Bethany Buffalo Creek Shall Include: West Virginia Code § 22-6A- nber and electronic mail addre izontal drilling may be obtaine 57th Street, SE, Charleston, W reby given by: SWN Production Company, LLC PO Box 1300, 179 Innovation Drive Jane Lew, WV 26378	(b), notice is hereby given that the undersigne trilling a horizontal well on the tract of land as UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name: 16(b), this notice shall include the name, adverse of the operator and the operator's authorized from the Secretary, at the WV Department V 25304 (304-926-0450) or by visiting www.address: Authorized Representative Address:	WV Department of d well operator Physicon mental Production on follows: 540,735,347 4,447,794,236 Atchinson Rd Sandra Parr BRK dress, telephone number, and if available, zed representative. Additional information of Environmental Protection headquarters, dep.wv.gov/oil-and-gas/pages/default.aspx. C: Mike Yates PO Box 1300, 179 Innovation Drive Jane Lew, WV 26378

Oil and Gas Privacy Notice:



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

	e Requirement: notice shall be pro fice: 12/27/2017 Date Po	vided no later than the ermit Application F			application.	
Delivery m	ethod pursuant to West Virginia	Code § 22-6A-16(c)		1 ,		
■ CERT	TFIED MAIL	☐ HAND				
	JRN RECEIPT REQUESTED	DELIVER'	Y			
return receip the planned required to be drilling of a damages to (d) The noti	or requested or hand delivery, give operation. The notice required be be provided by subsection (b), section horizontal well; and (3) A propose the surface affected by oil and gas of	the surface owner when the subsection shows the subsection shows the surface use and operations to the extension of the surface use and operations to the extensions.	hose land all include to a surface compensent the da	will be used for le: (1) A copy ace owner whos ation agreemen mages are comp	cation, an operator shall, by certified nor the drilling of a horizontal well notice of this code section; (2) The informate land will be used in conjunction with a containing an offer of compensation pensable under article six-b of this chapted in the records of the sheriff at the time.	of the for ter.
of notice.					RECEIVED	0
Notice is he	reby provided to the SURFACE	OWNER(s)			Office of Oil and	Jas
	ess listed in the records of the sherif	f at the time of notic			MAR 21 20	18
	ny Bruce Parr, ET AL	_	Name:		WAN 21 20	Iu
Address: 120		_	Address	:		
Wellsburg, WV	26070				Wy Department Environmental Prot	
	n the surface owner's land for the p West Virginia Brooke	urpose of drilling a h		well on the tra Easting: Northing:	540,735,347 4,447,794.236	_
Quadrangle:	Buffalc		the second second of	Water State of Contract of Con	Atchinson Rd Sandra Parr BRK	_
Watershed:	Bethany Buffalo Creek	Gene	erany use	d farm name:	Sandra Part BRK	_
Pursuant to to be provid horizontal w surface affe information headquarter: gas/pages/do	ded by W. Va. Code § 22-6A-10(bell; and (3) A proposed surface used ted by oil and gas operations to the related to horizontal drilling may solve ted at 601 57th Street, SE, refault.aspx.	to a surface owner and compensation and compensation are extent the damage be obtained from the Charleston, WV	er whose agreement es are come Secret 25304 (land will be un the containing an empensable underly, at the WV	code section; (2) The information requised in conjunction with the drilling of offer of compensation for damages to er article six-b of this chapter. Addition Department of Environmental Protect or by visiting	



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Jim Justice Governor 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 1H

RECEIVED
Office of Oil and Gas

MAR 21 2018

WV Department of Environmental Protection

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,

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

Day K. Clayton

Cc: Brittany Woody Southwestern Energy

CH, OM, D-6

File

Dear Mr. Martin,

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	-		U &. ^

	FRAC A	DDITIVES	Office
Product Name	Product Use	Chemical Name	CAS Nymaber
		Hydrogen Peroxide	7722-84-1
EC6734A (Champion Technologies)	Biocide	Acetic Acid	Vir.64019-7
2007 3-47 (Citampion Technologics)	2.00.00	Peroxyacetic Acid	79-974-077
		Methanol	67-56-1
SYPTRON T-390 (Champion Technologies)	Scale Inhibitor	Nonylphenol Ethoxylate	
			Proprietary
		Glutaraldehyde	111-30-8
Bactron 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
Baction R-215 (Champion Technologies)	biocide	Quaternary Ammonium Compounds, Benzyl-C12-	50424.05.4
		16-Alkyldimethyl, Chlorides	68424-85-1
500400-	61 - 1-11	Amine Triphosphate	Proprietary
EC6486A (Nalco Champion)	Scale Inhibitor	Ethylene Glycol	107-21-1
	Autouto Estatos B. J.	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
	Mixture	Butyl cellosolve	111-76 2
AI-303 (U.S. Well Services)		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
E 01000		Modified thiourea polymer	68527-49-1
Econo-Cl200 (SWN Well Services)	Corrosion Inhibitor	Water	7732-18-5
		Hydrochloric acid	7647-01-0
		Potassium acetate	127-08-2
		Formaldehyde	50-00-0
	· · · · · · · · · · · · · · · · · · ·	Acetic Acid	64-19-7
Ecopol-FEAC (SWN Well Services)	Iron Control	Citric Acid	77-92-9
		Water	7732-18-5
1101		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
ED 76	Eriction Dod	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
FDD 61176 45	Palatian Barbara	Polyacylate	Proprietary
FDP-S1176-15 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
LP-65 MC (Halliburton)	Cools Inhibites	Organic phosphonate	Proprietary
I M-DD IVIC (Halliburton)	Scale Inhibitor	Ammonium Chloride	12125-069

	FRAC AI	DDITIVES 47009	9 00250
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
actron K-139 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12 16-Alkyldimethyl, Chlorides	
		Ethanol	64-17-5
Posturo V 210 (st	Biocide	Methanol	67-56-1
Bactron K-219 (Champion Technologies)	ыосіае	Quaternary Ammonium Compounds, Benzyl-C12 16-Alkyldimethyl, Chlorides	68424-85-1
		Amine Triphosphate	Proprietary
EC6486A (Nalco Champion)	Scale Inhibitor		
		Ethylene Glycol Hydrotreated light distillate (petroleum)	107-21-1 64742-47-8
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer		
		Propenoic acid, polymer with propenamide	9003-06 9
		Ethylene glycol Cinnamaldehyde	107-21 1 104-55 2
		Butyl cellosolve	111-76 2
AI-303 (U.S. Well Services)	Mixture	Formic acid	64-18 6
		Polyether	Proprietary 68527-49 1
AD ONE was as a	Danalian	Acetophenone, thiourea, formaldehyde polymer	
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	7732-18-5
		Hydrochloric acid	7647-01-0
		Potassium acetate	127-08-2 50-00-0
		Formaldehyde	
Farmal FFAC	luna Control	Acetic Acid	64-19-7
Ecopol-FEAC (SWN Well Services)	Iron Control	Citric Acid Water	77-92-9
			7732-18-5
HCL (SWN Well Services)	Hydrocholic Acid	Hydrochloric Acid	7647-01-0
COURT DDD 1120V (common tra	F	Water	7732-18-5
FLOJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary	Proprietary
1		Distillates (petroleum) hydrotreated light	64674-47-8
LOIET DROOG LDD	Fulation Declares	Ethylene Glycol	107-21-1
LOJET DR900 LPP (SWN Well Services)	Friction Reducer	Alcohols, C12-16, Exoxylated propoxylated	68213-24-1
1		Fatty Alcohols ethoxylated Water	Proprietary
			7732-18-5
FR-76 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
HAL-1505 m-ms.	Compains tabilities	Inorganic Salt	Proprietary
HAI-150E (Halliburton)	Corrosion Inhibitor	No hazardous substance	N/A
FDP-S1176-15 (Halliburton)	Friction Reducer	Polyacylate	Proprietary
O		Hydrotreated light petroleum distillate	64742-47-8
LP-65 MC (Halliburton)	Scale Inhibitor	Organic phosphonate	Proprietar
••		Ammonium Chloride	12125-02- 4 66402-68-4
CarboNRT	Tracer	Ceramic Proppant	

FRAC ADDITIVES 47009 00250					
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		
EDTDON T 200	6 . 1. 1. 1. 1. 1.	Methanol	67-56-1		
PTRON T-390 (Champion Technologies)	Scale Inhibitor	Nonylphenol Ethoxylate	Proprietary		
		Glutaraldehyde	111-30-8		
		Quaternary Ammonium Compounds, Benzyl-C12-	N		
actron K-139 (Champion Technologies)	Biocide	16-Alkyldimethyl, Chlorides	68424-85-1		
		Ethanol	64-17-5		
		Methanol	67-56-1		
actron K-219 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12- 16-Alkyldimethyl, Chlorides	68424-85-1		
ECC 40C 4	Carla II I I I I	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		
A1 202 ·		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		
	, and the second	Methanol	67-56-1		
		Oxyalkylated fatty acid	68951-67-7		
		Fatty acids	61790-12-3		
		Modified thiourea polymer	68527-49-1		
Econo-Cl200 (SWN Well Services)	Corrosion Inhibitor	Water	7732-18-5		
		Hydrochloric acid	7647-01-0		
		Potassium acetate	127-08-2		
		Formaldehyde	50-00-0		
		Acetic Acid	64-19-7		
Ecopol-FEAC (SWN Well Services)	Iron Control	Citric Acid	77-92-9		
		Water	7732-18-5		
LICE	I have been all the earth	Hydrochloric Acid	7647-01-0		
HCL (SWN Well Services)	Hydrocholic Acid	Water	7732-18-5		
OJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary	Proprietary		
		Distillates (petroleum) hydrotreated light	64674-47-8		
		Ethylene Glycol	107-21-1		
OJET DR900 LPP (SWN Well Services)	Friction Reducer	Alcohols, C12-16, Exoxylated propoxylated	68213-24-1		
·	1	Fatty Alcohols ethoxylated	Proprietary		
		Water	7732-18-5		
ED 76	Full-Attention Book	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		
FDP-S1176-15 (Halliburton)	Friction Reducer	Polyacylate	Proprietary		
. J. JII.O IJ (Hamburton)	The don neduce	Hydrotreated light petroleum distillate	64742-47-8		
LP-65 MC (Halliburton)	Scale Inhibitor	Organic phosphonate Ammonium Chloride	Proprietary 12125-0829		
Zero Wash Tracer	Tracer	Ceramic Proppant	ALIV AV		
			POSTetary Victory Victory		

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

Synthetic Oil

Brine

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers

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