

## 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

Friday, August 03, 2018 WELL WORK PERMIT Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit approval for DALLAS HALL OHI 201H

47-069-00283-00-00

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

Operator's Well Number: DALLAS HALL OHI 201H

Farm Name: AGNES L. HALL

U.S. WELL NUMBER: 47-069-00283-00-00

Horizontal 6A New Drill Date Issued: 8/3/2018

API 1	Vi	ıml	ber:				
		_	_	_	_		

# PERMIT CONDITIONS 4706900283

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**

- 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.
- 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:	
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# PERMIT CONDITIONS 4706900283

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, cessation of drilling, sending an email to DEPOOGNotify@wv.gov.

0.47-500

OPERATOR WELL NO. Dallas Hall OHI 201H

47 0 6 8 0 0 2 Veg P3d Name: Dallas Hall OHI Pad

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

1) Well Operator: SWN Pro	oduction Co., LLC	494512924	069-Ohio	3-Liberty	247-Bethany
7		Operator ID	County	District	Quadrangle
2) Operator's Well Number:	Dallas Hall OHI 20	01H Well Pad	Name: Dallas	Hall OHI	Pad
3) Farm Name/Surface Owne	er: Agnes L. Hall	Public Roa	d Access: GC	& P Road	
4) Elevation, current ground:	1275' E	levation, proposed j	post-construction	on: 1275'	
5) Well Type (a) Gas X Other	Oil _	Unde	erground Storag	ge	
(b)If Gas	Shallow X	Deep			
1	Horizontal X		d	100	- L
6) Existing Pad: Yes or No	Yes		(7)		7-18
7) Proposed Target Formatio Target Formation- Marcellus, Up-Dip V					Associated Pressure- 3985
8) Proposed Total Vertical D	epth: 6106'				
9) Formation at Total Vertica		S			
10) Proposed Total Measured	d Depth: 11922'				
11) Proposed Horizontal Leg	Length: 5047.50				
12) Approximate Fresh Water	er Strata Depths:	410'			
13) Method to Determine Fre	esh Water Depths:	water well			
14) Approximate Saltwater I	Depths: 601' SWN	salinity profile			
15) Approximate Coal Seam	Depths: 446'				
16) Approximate Depth to Po	ossible Void (coal m	ine, karst, other):	Possible Void	446'.	
17) Does Proposed well loca directly overlying or adjacen		Yes	No	x	
(a) If Yes, provide Mine In	fo: Name:			RECEIVED	
	Depth:		(	office of Oil and	d Gas
	Seam:			MAY 29 21	018
	Owner:		Env	WV Department	nt of otection

API NO. 47- 069

OPERATOR WELL NO. Dallas Hall OHI 201H

Well Pad Name: Dallas Hall OHI Pad

18)

# CASING AND TUBING PROGRAM

4706900283

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#	520'	520'	496 sx/CTS
Coal							
Intermediate	9 5/8"	New	J-55	36#	1920'	1920'	732 sx/CTS
Production	5 1/2"	New	HCP-110	20#	11922'	11922'	lead 1005sx Tall 1222xx inside informacia
Tubing							
Liners							

C. 600 5.7.18

ТҮРЕ	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:	
Depths Set:	RECEIVED Office of Oil and Gas

MAY 29 2018

WV Department of Environmental Protection

WW-6E	3
(10/14)	

API NO. 47- 069 OPERATOR WELL NO. Dallas Hall OHI 201H Well Pad Name: Dallas Hall OHI Pad

4706900283

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

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

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

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

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.60
- 22) Area to be disturbed for well pad only, less access road (acres): 8.54
- 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:

RECEIVED Gas 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.

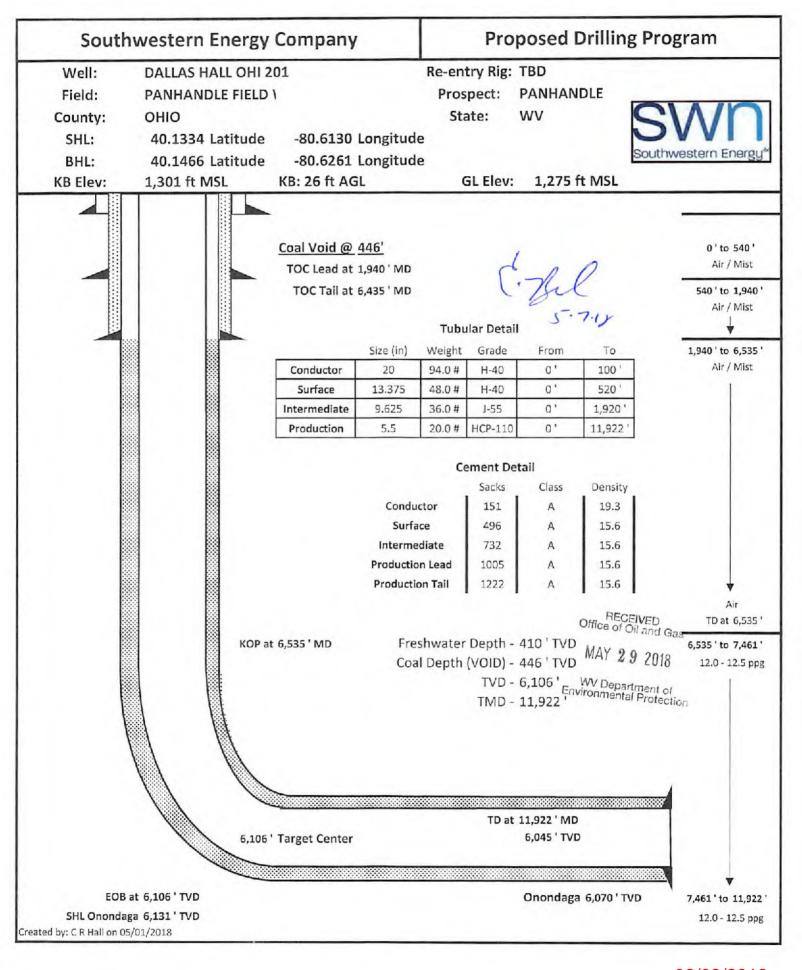
W Department of Environmental Protection

\*Note: Attach additional sheets as needed.

Schlumberger Cement Additives

	Product Name	Product Use	Chemical Name	CAS Number
Surface	S001	accelerator	calcium chloride up to 3%	10043-52-4
intermediate Surface	5001	accelerator	calcium chloride	10043-52-4
*	D080	dispersant	sodium polynaphthalene sulfonate	9008-63-3
0 %	D801	retarder	aromatic polymer derivative	propriatary
Kick Off Plug	D047	antifoam	polypropylene glycol	25322-69-4
	D167	fluid loss	aliphatic amide polymer	propriatary
	D154	extender	non-crystalline silica	7631-86-9
	D400	gas migration	boric acid	10043-35-3
			polypropylene glycol	25322-69-4
g	D045	antifoam	fullers earth (attapulgite)	8031-18-3
Production-Lead			chrystalline silica	14808-60-7
를	D201	retarder	metal oxide	propriatary
- P			sulphonated synthetic polymer	propriatary
F	D202	dispersant	formaldehyde (impurity)	propriatary
			polypropylene glycol	25322-69-4
	D046	antifoam	fullers earth (attapulgite)	8031-18-3
	D167	fluid loss	aliphatic amide polymer	propriatary
=	10.02		sodium polynaphthalene sulfonate	9008-63-3
i i	D065	dispersant	sodium sulfate	7757-82-6
Production-Tall			chrystalline silica	14808-60-7
npc	D201	retarder	metal oxide	propriatary
4	D153	anti-settling	chrystalline silica	14808-60-7

Rev. 5/18/2018





SWN Production Company, LLC

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

February 23, 2018

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

4706900283

RE: Proposed New Well Dallas Hall OHI 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 Hall's property, in Liberty District, Ohio 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

Southwestern Energy Production Company, LLC

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API Number 47 -	069	
Operator's	s Well No.	Dallas Hall OHI 201H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN 47 0 6 9 0 0 2 8 3

Operator Name SWN Production Co., LLC	OP Code 494512924	
Watershed (HUC 10) Upper Ohio South Quadrangle	Bethany	
Do you anticipate using more than 5,000 bbls of water to complete the proposed v	well work? Yes	No
Vill 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		
<ul> <li>Underground Injection (UIC Permit Number 34-155-22403,</li> <li>Reuse (at API Number at next anticipated well, API# will be included)</li> </ul>		
Off Site Disposal (Supply form WW-9 for disposal loc		permit addendum.
Other (Explain flow back fluids will be put in steel tanks an		mitted disposal facility
'ill closed loop system be used? If so, describe: Yes		
rilling medium anticipated for this well (vertical and horizontal)? Air, freshwater	er, oil based, etc. Air and	d salt saturate mud
-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base		
dditives to be used in drilling medium? Attachment 3A		
rill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. landfi	IL	
-If left in pit and plan to solidify what medium will be used? (cement, lin	me, sawdust)	
-Landfill or offsite name/permit number? Meadowfill SWF- 1032, Short Creek SW Argen Langtill TUU/Z, Apex Sanitary Langtill Ub-U8438, Brook ermittee shall provide written notice to the Office of Oil and Gas of any load of cover Virginia solid waste facility. The notice shall be provided within 24 hours of	e Co SVVF-1013, V	d waste rejected at any
here it was properly disposed.	S CO Section & Company of the Proceedings	4 44 13 14 1 3 14 1 14 1 14 1
I certify that I understand and agree to the terms and conditions of the Con August 1, 2005, by the Office of Oil and Gas of the West Virginia Department rovisions of the permit are enforceable by law. Violations of any term or condaw or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examined and an application form and all attachments thereto and that, based on my inquiry btaining the information, I believe that the information is true, accurate, and enalties for submitting false information, including the possibility of fine or improved.	of Environmental Protect lition of the general perm in familiar with the info of those individuals im complete. I am aware	etion. I understand that the mit and/or other applicable ormation submitted on this amediately responsible for
ompany Official Signature		OFFICIAL SEAL
ompany Official (Typed Name) Dee Southall	( State II )	Notary Public, State of West Virginia ( BRITTANY R WOODY
ompany Official Title Regulatory Supervisor		Sanz Old Elkins Road Buckhannen, WV 26201
	Comment of the Commen	My commission of EIVED  RECEIVED  Office of Oil and Gas
abscribed and sworn before me this 215t day of + UVUICU	, 20 \\$	MAY 2 9 2018
Buttany K Woody	Notary Public	WV Department of Environmental Protection
1y commission expires 11 1 11 11 11		08/03/20
A		UU/UJ/2

Form WW-9					Operate	or's Well	No.	Dallas	Hall	OHI 20	)1H	
SWN Production C				_	6 9				3			
Proposed Revegetation Trea	atment: Acres Di	isturbed 22	.60		Prevegetati	on pH _						
Lime as determined by pH to	ost min. 2 Tons/acre	or to correct	to pH 8.54									
Fertilizer type 10-	20-20											
Fertilizer amount	800		lbs/acre									
Mulch_ Hay/Stra	w 2.5		Tons/acre									
			Seed Mixt	ures								
Т	emporary				P	ermane	nt					
Seed Type Attachment 3B	lbs/acre				Seed Type			lbs/ac	re			
Attach:											=	
Drawing(s) of road, location provided) Photocopied section of invo			and application	on (unless e	ngineered pla	ns inclu	ding	this in	ò hav	/e beer	1	
Plan Approved by:	- 131		4.10.18								_	
Comments:						,					-	
Sound					led o	lucing		eli	/			
operations.	o F	this	Site.	C. To	20						-	

Title:Oil and Gas Inspector	Date:	4-10-18
Tide.	Dute.	1 0

(\_\_\_\_) Yes

Field Reviewed?

RECEIVED Office of Oil and Gas

MAY 29 2018

WV Department of Environmental Protection

# Attachment 3A Drilling Mediums

# Surface/Coal(if present)/Freshwater Intervals:

# Intermediate/Coal (if present):

Air

Brine (In Gas Storage areas)

Organophilic Bentonite

# **Production Hole:**

Air

Synthetic Oil (Base Fluid for mud system)

Barite

Calcium Chloride

Lime

Organophilic Bentonite

**Primary and Secondary Emulsifiers** 

Gilsonite

Calcium Carbonate

**Friction Reducers** 

Salt saturated mud systems are utilized for drilling in gas storage zone areas like Victory. Since this is a generic comment which is neutral to area, the salt saturated brine is included.

We would not use salt saturated brine to drill freshwater zones, just air, freshwater mist, or freshwater based mud to drill in freshwater zones.



NON-ORGANIC PROPERTIES

Seed Mixture: ROW Mix

Orchardgrass

**Fimothy** 

# **WVD Seeding Specification**

SWN Supplied

15% 15%

2% 2% 2% 2%

40%

Pelletized Lime @ 2 Tons per Acre Apply @ 2001bs per acre Oct. 15th- April 15th **SWN Supplied** (please allow 7 to 10 days for delivery) 20% 20% 20% Seed Mixture: SWN Production Organic Mix Organic Fertilizer @ 2001bs per Acre Apply @ 100lbs per acre April 16th- Oct. 14th ORGANIC PROPERTIES Organic Red or White Clover Organic Red or White Clover Organic Perennial Ryegrass To Order Seed contact Lyndsi Eddy Filppo office 570-996-4271 cell 501-269-5451 lyndsi\_eddy@swn.com Organic Timothy

innoculated at 5x normal

All legumes are

Medium Red Clover

White Clover

**Brown Top Millet** Annual Ryegrass

Red Top

l wetlands)	SWN Supplied
WETLANDS (delineated as jurisdictional wetlands)	S
ed a	Mix
(delineat	Seed Mixture: Wetland Mix
LANDS (	Mixture:
WE	Seed

50lbs per acre of Winter Wheat

Oct. 15th- April 15th PLUS Apply @ 2001bs per acre

> Apply @ 100lbs per acre April 16th- Oct. 14th

Rough Bluegrass Birdsfoot Trefoil

SOIL AMENDMENTS

10-20-20 Fertilizer

Pelletized Lime

2.5% 2.5% 20% 20% 10% 2% 2% 2% 2% Cosmos 'Sensation' VA Wild Ryegrass Annual Ryegrass **Golden Tickseed** Maryland Senna Showy Tickseed -owl Bluegrass Fox Sedge Soft Rush Redtop

\*unless otherwise dictated by soil test results

\*Apply @ 500lbs per Acre Apply @ 2 Tons per Acre 4706900283

Apply @ 50lbs per acre

Apply @ 25lbs per acre April 16th- Oct. 14th

Swamp Verbena

Woolgrass

2.5%

Oct. 15th- April 15th

NO FERTILIZER OR LIME INSIDE WETLAND LIMITS

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

sisdon/

of 70' ROW/LOD is One Acre

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

seding Calculation Information

Wheat/ac)

andowner Special Considerations including CREP program participants require additional Didance that is not given here. Discuss these requirements with SWN supervision at the Diginning of the project to all the time for special seed delivery.

29 2018 Department of mental Protectic

2018

# MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN



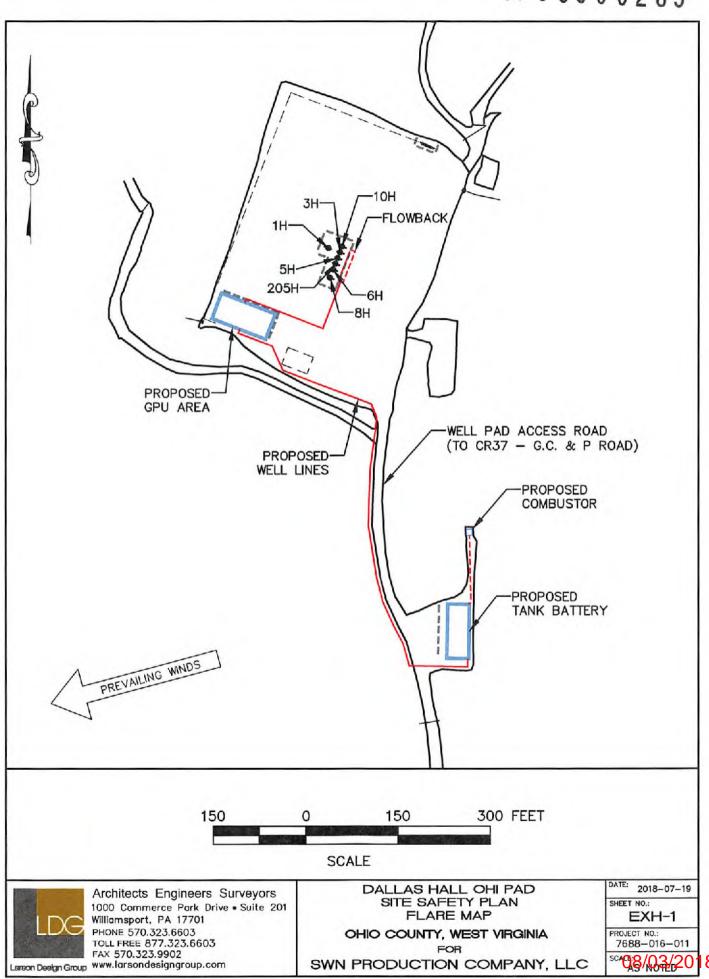
SWN Production Company, LLC 179 Innovation Drive Jane Lew, West Virginia 26378

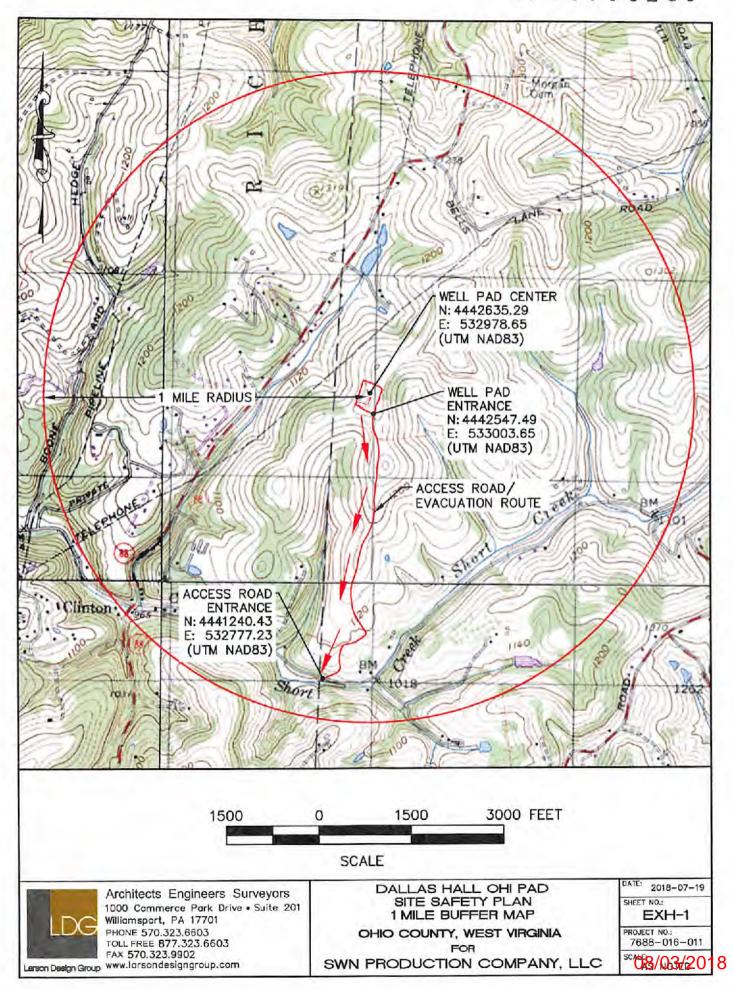
API NO. 47-XXX-XXXXX
WELL NAME: Dallas Hall OHI 201H
Bethany QUAD
Liberty DISTRICT
Ohio COUNTY, WEST VIRGINIA

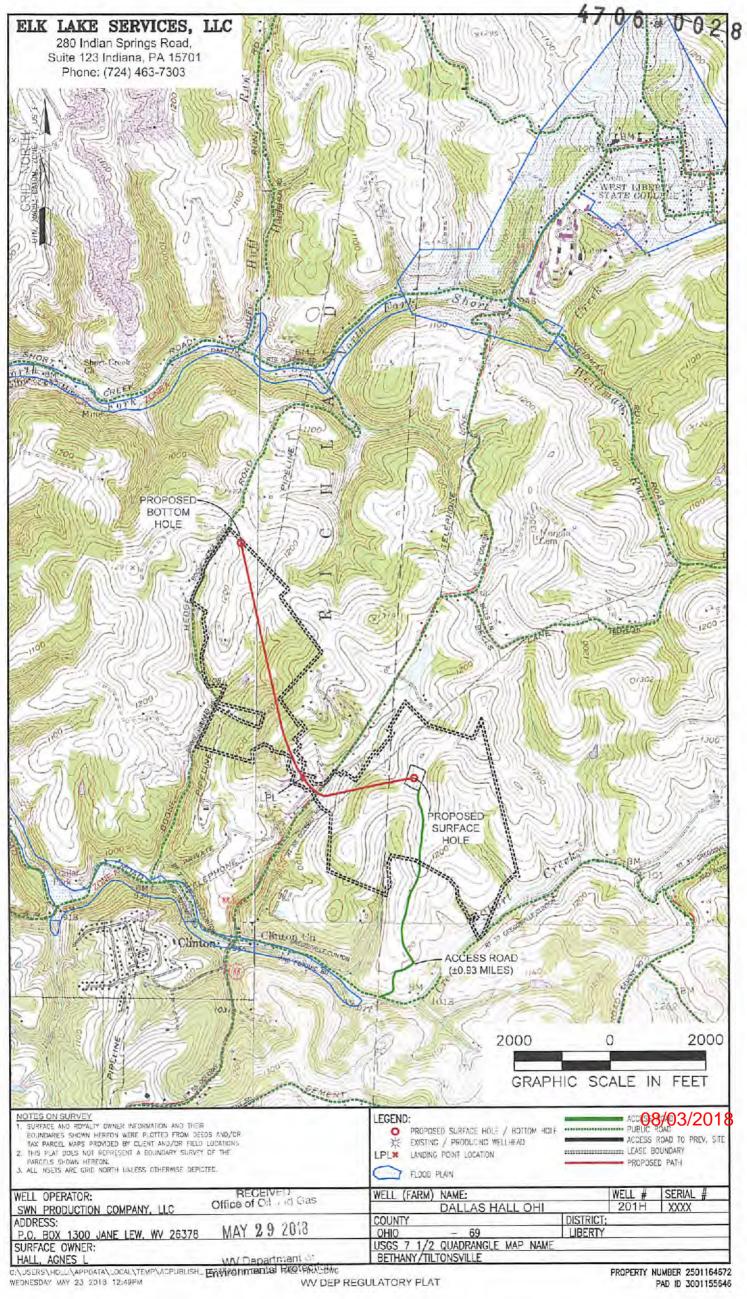
Submitted by:		
Dee Southall	Date:	2/21/2017
Senior Regulatory	~	
Title: Analyst	SWNF	roduction Co., LLC
Approved by: Title: 0.1 and Go Input	Date:	4.10.18
Approved by:		
	Date:	
Title:		

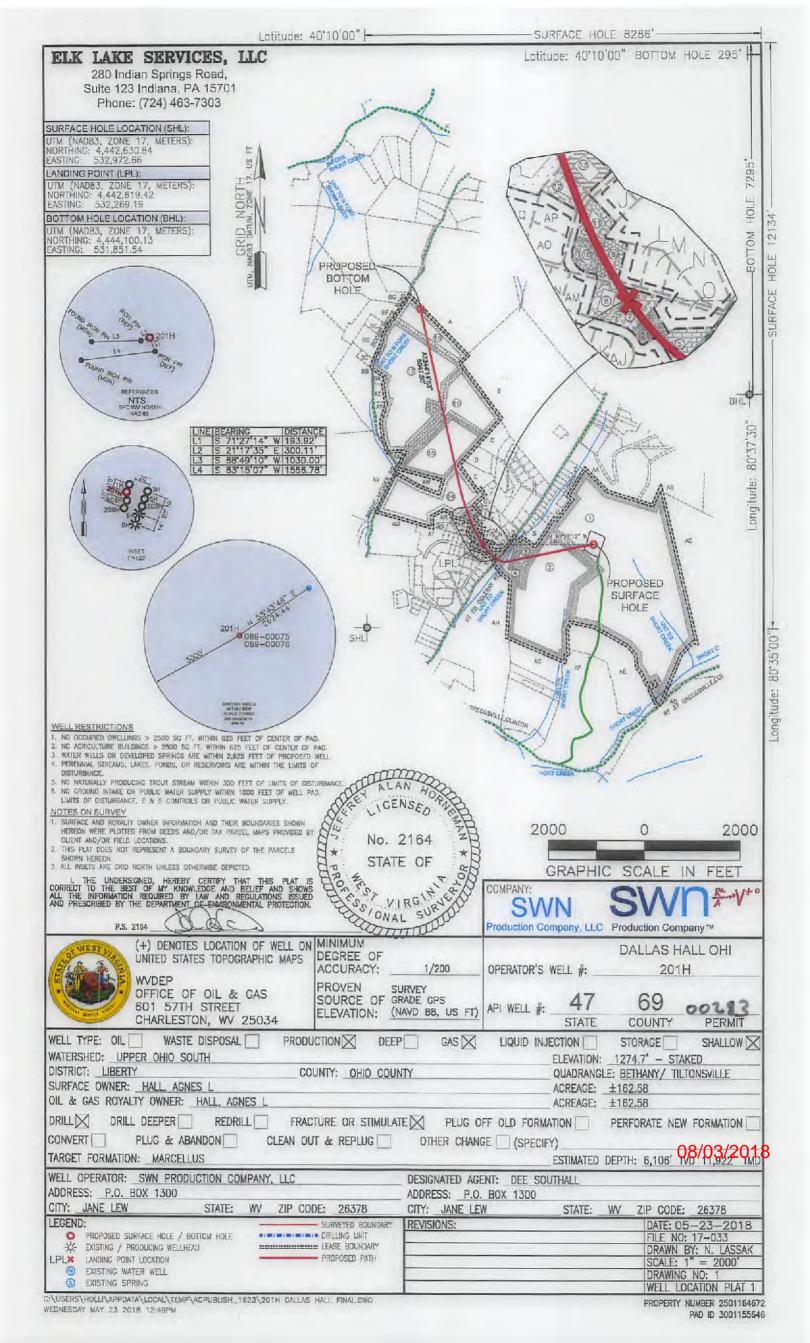
Office of Oil and Gas
MAY 29 2018

WV Department of Environmental Protection









# ELK LAKE SERVICES, LLC

280 Indian Springs Road, Suite 123 Indiana, PA 15701 Phone: (724) 463-7303

	WELL BORE TABLE FOR SURFACE / ROYALTY	OWNERS
TRACT	SURFACE OWNER / ROYALTY OWNER	TAX PARCEL
1	HALL, AGNES L	3-L7-19
TRACT	SURFACE OWNER	TAX PARCEL
2	HALL, AGNES L	3-L7-21.1
3	CASTLE, KEITH D & AMANDA M	4-R12B-1.9
4	CASTE, RITA A	4-R12B-1.3
5	WINE, MATTHEW M	4-R12-19.19
6	SHORT, LUKE A & KUCERA-SHORT, JENNIFER L	4-R12-19.20
7	BOORD, SUSAN K	4-R12-19.23
В	KNIGHT, JEFFREY M & KRISTEN M	4-R12-19.26
9	STERN, VIRGINIA S	4-R12B-10.B
10	STERN, VIRGINIA S	4-R12B-10.9
11	HOWARD, ANDREW	4-R12B-10.10
12	RICKETTS, GAVIN O	4-R128-10.3
13	FICCA, RONALD J & CHAMBERS JENNIFER L	4-R12B-10.4
14	HARTLEY, BRADFORD & NANNETTA	4-R9-1.3
15	RCK 2 GROUP, LLC	4-R9-1
16	RCK 2 GROUP, LLC	4-R9-27
17	EVANS, STACY D	4-R9-3.5
18	WESBANCO TRUST & INVESTMENT SERVICES, A DIVISION OF WESBANCO BANK, INC., TRUSTEE OF THE MARY JACQUELINE CARENBAUER TRUST UNDER AGREEMENT DATED NOVEMBER 13, 2003	4-R9-16.1

TRACT	ADJOINING OWNERS TABLE	TAVOADOEL
A	SURFAGE OWNER  CAVENEY, CLAIRE M	TAX PARCEL
B		4-R9-3 3-L4-1.1
C	BROWN, LILUAN W TRUST PAJAK, CLARK & SHARON L	
		4-89-28.0
0	JOHNSON, JUDY K	4-R9-29
E	HART, MARY ANN	4-R9-29.1
F	HUGHES, DONALD P & M E	4-R9-32.0
G	GREATHOUSE, WILLIAM J & SUSAN M CLAWSON, JOSEPH R & KAY L	4-R9-10.7
H	CLAWSON, JOSEPH R & KAY L	4-R128-10.13
	CROFT, JAMES & JOANNE	4-R128-10.12
3	CROFT, JAMES & JOANNE	4-R128-10.11
K	CROFT, JAMES & JOANNE	4-R12-36.0
L	STERN, VIRGINIA S	4-R12B-10.1
м	STONEKING, JAMES B & B J	4-R12B-10.5
N	HOTLOSZ, FRANK A & C L B	4-R12B-10.6
0	KUCERA-SHORT, JENNIFER L	4-R12-19.17
p	CAMDEN, KEELY D	
-		4-R12-36.5
0	CARTISANO, JOSEPH 5 & 5 P	4R12-35.4
R	ERNEST, DOUGLAS J & JAMIE S	4-R12B-1.2
S	PYLE, JOHN R SR & T A	4-R12B-1.1
T	KELLAS, STEVE	4-R12B-1.5
U	GOSSETT, MATHEW H	4-R12B-1.0
V	STROMATOS, GEORGE	3-L4-24.0
W	STROMATOS, GEORGE	3-L4-24.1
X	STROMATOS, GEORGE	3-L4-24.2
Y	RUTHERS, DAVID G & LINDA F	3-L4-22.0
Z	OPIC CRYSTAL	3-L4-20
AA	WEAVER, DAVID M & BETH R	3-L4-15.0
AB	EVANS, CATHERINE & DAVID	3-14-13.1
AC	CLISER, MARY HELEN; TR	3-L7-2.0
	WHITAKER, GEORGE & ANITA	
AD		3-L7-27.0
AE	HALL, DALLAS J & AGNES L	3-L7-20,0
AF	HALL, DALLAS J & AGNES L	3-L7-21.0
AG	MELISSA, MEALY	4-R12-39.D
AH	WELTY, JOHN P	4-R12-35.0
Al	FEDORKA, DELORES M TRUST OF 1993	4-R12-19.D
AJ	GEORGE, THOMAS E & K A	4-R12-19.16
AK	EDGMON, DENA M	4-R12-19.18
AL	GRUBER, ALEX J	4-R12-19.40
AM	BAKAITIS, BRIAN S	4-R12-19.24
AN	MOORE, MITCHELL J & SANDRA	4-R12-19.28
AO	JAMES, RALPH I & CLARA L	4-R12B-10.14
AP	RODRIGUEZ, EUSEBIO ELVESTROM	4-R12B-10.2
AD	HARTLEY, BRADFORD & NANNETTA	4-R9-1.4
AR	HARTLEY, BRADFORD & NANNETTA	4-R9-1.2
AS	HARTLEY, BRADFORD & NANNETTA	4-R9-1.6
AT	COTTRELL, DOMINIC J & SHERRIE D	4-R12-19.34
AU	COTTRELL, DOMINIC J & SHERRIE D	4-R12-19.30
AV	TUNNEL RIDGE LLC & C/O PROPERTY TAX	
AW	REUTHER WILLIAM H & C L	4-R9-2.0
AX	KENNEDY, BETH ANNE	4-R9-3.4
AY	KNIGHT, WILLIAM ISAAC & SERTICH, MEREDITH	
AZ	HOPKINS, LEWIS R JR & R F	4-R9-3.3
BA	HOPKINS, LEWIS R JR & R	4-R9-4.0
88	HOPKINS, L R JR & R F DELATORE	4-R9-5.0
BC	HOPKINS, LEWIS R JR & ROSEANN	4-R9-8.0
BD	MONROE, JEWELL A AND RODNEY L	4-R9-5.2
BE	KETTLER, MARK W & D L	4-R9-7.0
BF	KLAMUT, NICHOLAS P	4-R9-12.0
BG	WEBER, JORDAN & GAYLE	4-R9-10.0
200	THEORIT STORY IN WHILE	1. 00. 10.0

				08/03/201		
REVISIONS:	COMPANY:	SWN Production Company, LLC	SN Production C	npany™		
	OPERATOR'S WELL #:	DALLAS HALL 201H		DATE: 05-23-2018 FILE NO: 17-033 DRAWN BY: N. LASSAK		
	DISTRICT: LIBERTY	COUNTY: OHIO COUNTY	STATE: WV	SCALE: N/A DRAWING NO: 1 WELL LOCATION PLAT 1		

WW-6A1 (5/13)

Operator's Well No.	Dallas Hall OHI 201H
Operator's well ino.	Dones Han Oll Foll

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

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

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

Lease Name	(
Number	

Grantor, Lessor, etc.

Grantee, Lessee, etc.

Royalty

Book/Page

See Exhibit

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

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

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

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

Well Operator:	SWN Production Company, LLC.	
By:	ROLL	
Its:	Candman	

Page 1 of

Environmental Protection

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04-812-13.20	07-812-10-26	04-R12-19.23	04 812 10 23		04-R12-19.20		04-R12-19.19		04-R12B-1.3		04-R12B-1.9		03-L7-21.1		03-L7-19	TAX ID		Attached t		
Jeine) W. Niight and Nisten W. Niight, his whe	loffice M Whight and Written M Whight his wife	Susair Boold, I/K/a Susair N. Nubovicz, a married	Supposed #///o Supposed wife	hirchand and wife	Luke A. Short and Jennifer L. Kucera-Short.		Matthew M. Wine, a single man		Rita A. Castle, a widow		Rita A. Castle, a widow		Dallas J. Hall and Agnes L. Hall, husband and wife		Dallas J. Hall and Agnes L. Hall, husband and wife	LESSOR	Ohio County, V	to and made a part of the State of West Virginia Oil and Gas Dallas Hall	Exhibit	ECEIVED of Oil and Gas 2 9 2018  Partment of other of the protection
SWN Froduction company, LLC	SWAI Bandardian Communication	SWM Production Company, LLC	Swive Froduction Company, LLC	SWIN Production Company 110	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	LESSEE	Nest Virginia	Permit Form, WW-6A1, by SWN Production Company	Cffice	ECEIVED of Oil and O
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1 of 4

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	04-R9-27		Andrew St. Communication of the Communication of th	04-R9-1		04-R9-1.3		04-R12B-10.4		04-R12B-10.3		04-R12B-10.10		04-R12B-10.9		04-R12B-10.8	TAX ID	Attached t
Howard W. Friedrichs Revocable Trust Agreement dated 5th of August 1995	Sybil P. Friedrichs, acting as Trustee of the	dated 5th of August 1995	Howard W. Friedrichs Revocable Trust Agreement	Sybil P. Friedrichs, acting as Trustee of the	husband and wife	Charles J. Heinlein and Ellen L. Heinlein,	Jennifer L. Chambers, husband and wife	Ronald J. Ficca and Jennifer Ficca f/k/a		Edward L. Howard, a widower	husband and wife	Michael E. Howard and Amy J. Howard,		Virginia Shutler Stern, a single woman		Virginia Shutler Stern, a single woman	LESSOR	Exhibit "A" Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, Dallas Hall OHI 201H Ohio County, West Virginia
SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.		SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	LESSEE	"A" ermit Form, WW-6A1, by SWN Production Company, LLC, Operator JHI 201H Jest Virginia
	12.5%			12.5%		18%		18%		18%		18%		18%		18%	ROYALTY	y, LLC, Operator
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					04-R9-3.5		04-R9-3.5		04-R9-3.5	04-R9-27						04-R9-27		04-R9-27	TAX ID	Attached	
of Wheeling, W. Va., Inc.	Church; Young Women's Christian Association	Friendship, Inc.; Vance Memorial Presbyterian	of Wheeling, Inc.; Elmhurst, the House of	System Trust Fund of Wheeling; Children's Home	Ohio Vailey Medical Center, Inc.; The Parks	sole and separate property	Robert O. Rogers, a married man dealing in his	by LaDonna Martin-Evans, Trustee	The LaDonna Martin-Evans Living Trust,	Wheeling Young Men's Christian Association	of Wheeling, W. Va., Inc.	Church; Young Women's Christian Association	Friendship, Inc.; Vance Memorial Presbyterian	of Wheeling, Inc.; Elmhurst, the House of	System Trust Fund of Wheeling; Children's Home	Ohio Valley Medical Center, Inc.; The Parks	sole and separate property	Robert O. Rogers, a married man dealing in his	LESSOR	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 Dallas Hall OHI 201H Ohio County, West Virginia	
					SWN Production Company, LLC		SWN Production Company, LLC	SWN Production Company, LLC	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC						SWN Production Company, LLC		SWN Production Company, LLC	LESSEE	"A" ermit Form, WW-6A1, by SWN Production Compan DHI 201H /est Virginia	RECEIVED Office of Oil and Gas MAY 29 2018  WV Department of nvironmental Protection
					18%		18%		18%	18%						18%		18%	ROYALTY	y, LLC, Operator	
					908/708		902/502	884/469	814/265	926/700						908/708		902/502	BK/PG		

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Wheeling Young Men's Christian Association	Church; Young Women's Christian Association of Wheeling W. Va., Inc.	Friendship, Inc.; Vance Memorial Presbyterian	of Wheeling, Inc.; Elmhurst, the House of	System Trust Fund of Wheeling; Children's Home	Ohio Valley Medical Center, Inc.; The Parks	sole and separate property	Robert O. Rogers, a married man dealing in his	dealing in her sole and separate property	Mary Jacqueline Carenbauer, a married woman	C	Wheeling Young Men's Christian Association	LESSOR	Exhibit "A" Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by Dallas Hall OHI 201H Ohio County, West Virginia
SWN Production Company, LLC					SWN Production Company, LLC		SWN Production Company, LLC	SWN Production Company, LLC	Chesapeake Exploration, L.L.C.	[ ]]	SWN Production Company, LLC	LESSEE	"A" ermit Form, WW-6A1, by SWN Production Company, LLC, Operator )HI 201H 'est Virginia
18%					18%		18%		18%	2070	18%	ROYALTY	LLC, Operator
926/700					908/708		902/502	884/705	822/405	250/100	926/700	BK/PG	

RECEIVED
Office of Oil and Gas

MAY 29 2018

WV Department of Environmental Protection

Dailas Hall Northwest Unit 4 of 4



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

May 23, 2018

4706900283

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

RE: SWN's proposed New Well: Dallas Hall OHI 201H~Rt 88

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 Rt. 88. 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,

Bradley Wilson

Landman

SWN Production Company, LLC

PO Box 12359

Spring, TX 77391-2359

Rt and +°

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

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

Date of Notice	e Certification:		API No. 4	/- 009
			Operator's	s Well No. Dallas Hall OHI 201H
			Well Pad I	Name: Dallas Hall OHI Pad
Notice has I	een given:			
Pursuant to th	e provisions in West Virginia Code § 22-6/	A, the Operator has pro	ovided the re-	quired parties with the Notice Forms listed
below for the	tract of land as follows:			
State:	West Virginia	- UTM NAD 83	Easting:	532972.66
County:	069-Ohio	- UTMINAD 83	Northing:	4442630.84
District:	Liberty	Public Road Acc	cess:	G C & P Road
Quadrangle:	Bethany	Generally used t	farm name:	Dallas Hall
Watershed:	Upper Ohio South			
			arm name.	Sales Fran

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 Opthat the Operator has properly served the require *PLEASE CHECK ALL THAT APPLY	perator has attached proof to this Notice Certification and parties with the following:	OOG OFFICE USE ONLY
☐ 1. NOTICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	☐ RECEIVED/ NOT REQUIRED
2. NOTICE OF ENTRY FOR PLAT SURV	YEY or ☐ NO PLAT SURVEY WAS CONDUCTED	RECEIVED
3. NOTICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or	RECEIVED/ NOT REQUIRED
	☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	
■ 4. NOTICE OF PLANNED OPERATION	Office of Oil and Gas	RECEIVED
■ 5. PUBLIC NOTICE	MAY 29 2018	RECEIVED
■ 6. NOTICE OF APPLICATION	Environmental Protection	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.

# Certification of Notice is hereby given:

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

Well Operator: SWN Production Co., LLC

By:

Dee Southall

Its:

Telephone:

Senior Regulatory 304-884-1614

Address:

P.O. Box 1300

Jane Lew, WV 26378

Facsimile: 304-884-1690

Email:

Dee Southall@swn.com

NOTARY SEAL

OFFICIAL SEAL lotary Public, State of West Virginia BRITTANY R WOODY 3302 Old Elkins Road Buckhannon WV 26201

My commission exp. les November 27, 2022

Subscribed and sworn before me this

W Department of Environmental Protection

Notary Public

My Commission

Oil and Gas Privacy Notice:

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

WW-6A (9-13) API NO. 47- 069 OPERATOR WELL NO. Dallas Hall OHI 201H
Well Pad Name: Dallas Hall OHI Pad

# DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND 65 0 0.2 8 3 NOTICE OF APPLICATION

Not	ice Time Requiremen	t: notice shall be provid	led no later tha	n the filing date of permit application.	
	e of Notice: 5 25 cice of:	Date Permit Applicat	ion Filed: S	32/18	
<b>V</b>	PERMIT FOR ANY WELL WORK			ROVAL FOR THE AN IMPOUNDMENT OR PIT	
Deli	very method pursuar	nt to West Virginia Co	de § 22-6A-10	(b)	
	PERSONAL [	REGISTERED	П метно	OD OF DELIVERY THAT REQUIRES A	
7	SERVICE	MAIL		PT OR SIGNATURE CONFIRMATION	
the soil a descoper more well important provers prove proposubs recorded to the control of the c	surface of the tract on wind gas leasehold being or ribed in the erosion and ator or lessee, in the event of the event of the event of the event of the surface track of the surface track of the surface track of the event of th	hich the well is or is projected by the proposed sediment control plan strent the tract of land on water of record of the suret is to be used for the plantible of the sediment of the suret is to be used for the plantible of the sediment of the water supply source location by humans or domest is to take place, (c)(1) If in hold interests in the lanted to be maintained pursue contrary, notice to a like, in part, that the operation	posed to be located well work, if abmitted pursua hich the well preface tract or tractice tractions accument, construction within one of the animals; and more than three dids, the applicant and to section ean holder is not too shall also present well well as the process.	the well plat to each of the following persons: (1) ted; (2) The owners of record of the surface tract the surface tract is to be used for roads or other land to subsection (c), section seven of this article; to oposed to be drilled is located [sic] is known to be certainly surface of the oil and gas leasehold being developed to the content of the center of the well of the operator of any natural gas storage field we tenants in common or other co-owners of interest may serve the documents required upon the personal tractice to a landowner, unless the lien holder is the ovide the Well Site Safety Plan ("WSSP") to the as provided in section 15 of this rule.	or tracts overlying the and disturbance as (3) The coal owner, e underlain by one or eloped by the proposed abandonment of any n to the applicant to ell pad which is used to within which the sts described in son described in the ) Notwithstanding any e landowner. W. Va.
☑ A	application Notice	WSSP Notice □E&	S Plan Notice	☑ Well Plat Notice is hereby provided to:	
☑ St	JRFACE OWNER(s)			☑ COAL OWNER OR LESSEE	Dron
Nan	ne: Dallas J. Hall			Name: Alliance Resources, GP LLC. Attn: Evan Midler	Office of Oil 7. 17 Fac
Add	ress: 1953 G C and P Road			Address: 2596 Battle Run Road	
Triade	elphia, WV 26059			Triadelphia, WV 26059	MAY 29 20 -
Nan	ne:			☐ COAL OPERATOR	
Add	ress:			COAL OPERATOR Name: Address:	- WV Departor
	7			Address:	Environmental F
ПSU	JRFACE OWNER(s)	(Road and/or Other Dis	turbance)		
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		☑ SURFACE OWNER OF WATER WELL	
Add	ress:			AND/OR WATER PURVEYOR(s)	
1100					
Nan					
Ada				Address:	<del></del>
ridd	1033.			☐ OPERATOR OF ANY NATURAL GAS ST	TOD AGE EIELD
- C1	IDEACE OWNERS.	(Immanudaranta a., Dia)			
		(Impoundments or Pits)		Name:	
Nan	ie:			Address:	
Add	ress:			4D( 101 12 12	
				*Please attach additional forms if necessary	

WW-6A (9-13) API NO. 47- 069 OPERATOR WELL NO. Dallas Hall OHI 201H
Well Pad Name: Dallas Hall OHI Pad

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

Notice Time Requirement: notice shall be provided no later that	in the filing date of permit application.
Date of Notice: Date Permit Application Filed:	Sarle
	510310
Notice of:	
☑ PERMIT FOR ANY ☐ CERTIFICATE OF APP	PROVAL FOR THE
	AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-10	(b)
☐ PERSONAL ☐ REGISTERED ☐ METH	OD OF DELIVERY THAT REQUIRES A
SERVICE MAIL RECEI	PT OR SIGNATURE CONFIRMATION
the surface of the tract on which the well is or is proposed to be located oil and gas leasehold being developed by the proposed well work, if described in the erosion and sediment control plan submitted pursual operator or lessee, in the event the tract of land on which the well pursual operator or lessee, in the event the tract of land on which the well pursual work, if the surface tract is to be used for the placement, constraint impoundment or pit as described in section nine of this article; (5) A have a water well, spring or water supply source located within one provide water for consumption by humans or domestic animals; and proposed well work activity is to take place. (c)(1) If more than three subsection (b) of this section hold interests in the lands, the applicant records of the sheriff required to be maintained pursuant to section approvision of this article to the contrary, notice to a lien holder is not	the well plat to each of the following persons: (1) The owners of record of ated; (2) The owners of record of the surface tract or tracts overlying the other than the surface tract is to be used for roads or other land disturbance as an to subsection (c), section seven of this article; (3) The coal owner, roposed to be drilled is located [sic] is known to be underlain by one or acts overlying the oil and gas leasehold being developed by the proposed uction, enlargement, alteration, repair, removal or abandonment of any any surface owner or water purveyor who is known to the applicant to thousand five hundred feet of the center of the well pad which is used to 4 (6) The operator of any natural gas storage field within which the elements in common or other co-owners of interests described in at may serve the documents required upon the person described in the eight, article one, chapter eleven-a of this code. (2) Notwithstanding any notice to a landowner, unless the lien holder is the landowner. W. Va. rovide the Well Site Safety Plan ("WSSP") to the surface owner and any
☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice	☑ Well Plat Notice is hereby provided to:
SURFACE OWNER(s)	
Name:	Name: Windsor Coal Company
Address:	Name: Windsor Coal Company Address: 1000 Consol Energy Drive Office of Oil and Gas
Name:	COAL OPERATOR MAY 9 0 0
Address:	Name:  Address:  Environmental Protection
	Address: W Department
SURFACE OWNER(s) (Road and/or Other Disturbance)	- Protection
Name:	U SUKPACE OWNER OF WATER WELL
Address:	AND/OR WATER PURVEYOR(s)
	Name:
Name:	Address:
Address:	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
SURFACE OWNER(s) (Impoundments or Pits)	Name:
Name:	Address:
Address:	
	*Please attach additional forms if necessary

API NO. 47- 059

OPERATOR WELL NO. Dallas Hall OHI 201H

Well Pad Name: Dallas Hall OHI Pad

## Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(h), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

## This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water,

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W, Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

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

Well Location Restrictions

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

API NO. 47-069 OPERATOR WELL NO. Dallas Hall OHI 201H
Well Pad Name: Dallas Hall OHI Pad

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

## Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

## Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

## Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

## Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at: Office of Oil and Gas

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

MAY 29 2018

WV Department of Environmental Protection

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

OPERATOR WELL NO. Dallas Hall OHI 201H

Well Pad Name: Dallas Hall OHI 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 <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

## Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Office of Oil and Gas
MAY 2 9 2018

WV Department of
Environmental Protection

WW-6A (8-13)

API NO. 47-069 OPERATOR WELL NO. Dallas Hall OHI 201H
Well Pad Name: Dallas Hall OHI Pad
4706\$00283

Notice is hereby given by:

Well Operator: SWN Production Co., LLC

Telephone: 304-884-1614
Email: Dee\_Southall@swn.com

Address: P.O. Box 1300 Jane Lew, WV 26378

Facsimile: 304-884-1690

## Oil and Gas Privacy Notice:

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

OFFICIAL SEAL

Notary Fublic, State of West Virginia

BRITTANY R WOODY

3302 Did Elkins Road

Buckhannon, WV 26201

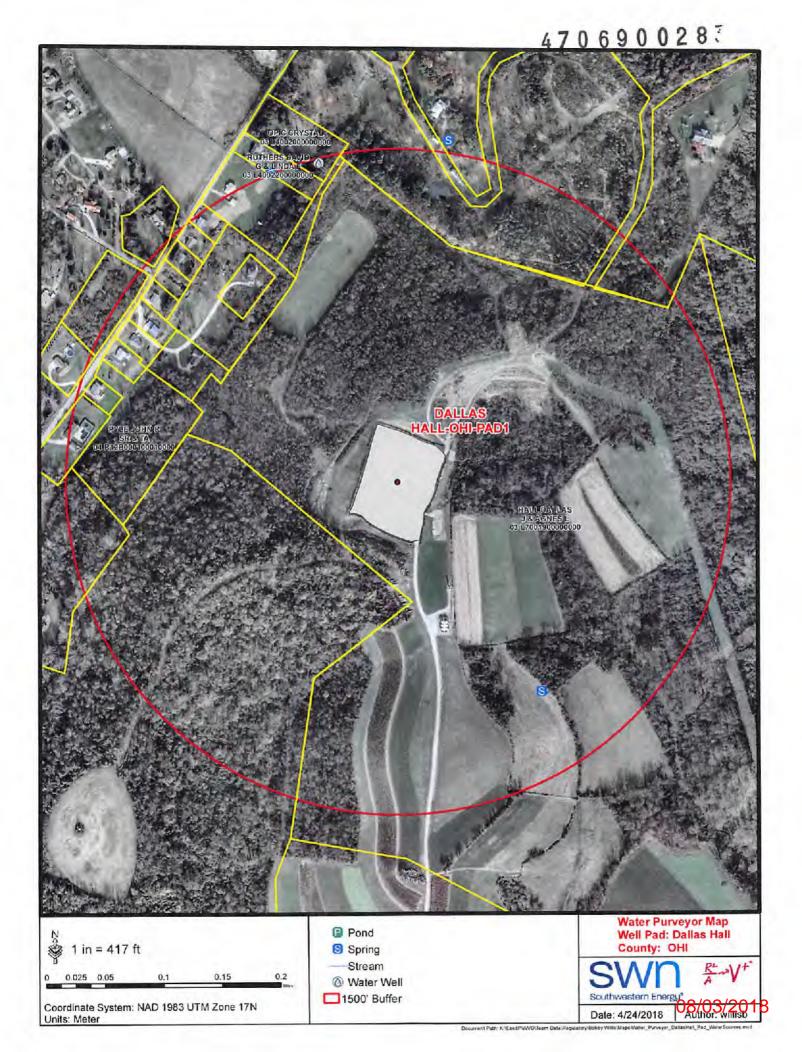
My commission expires November 27, 2022

Subscribed and sworn before me this 21st day of 10000 Notary Public

My Commission Expires

Office of Oil and Gas
MAY 29 2018

WW Department of Environmental Protection



# 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 provid	led at least SEVEN (7)	lays but no more tha	4706 9 0028	
Date of Noti	ce: 11/6/17	Date of Plans	ned Entry: 11/13/2017		0 2 0 0 2 8	
Delivery me	thod pursuant	to West Virginia Coo	le § 22-6A-10a			
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SERVIC	E	MAIL	RECEIPT OR SIG	GNATURE CONFIR	RMATION	
on to the surf but no more t beneath such owner of min and Sedimen Secretary, wh	ace tract to cond han forty-five d tract that has fi- erals underlying t Control Manualich statement si	duct any plat surveys i lays prior to such entry led a declaration pursu g such tract in the coun al and the statutes and	required pursuant to this y to: (1) The surface own lant to section thirty-six, nty tax records. The not rules related to oil and g formation, including the	article. Such notice : ner of such tract; (2) article six, chapter t ice shall include a str as exploration and p	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 atement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to	
Notice is her	eby provided t	0:				
■ SURFA	CE OWNER(s)		■ co	AL OWNER OR LE	SSEE	
	. Hall & Agnes L. Hall			Miance Resources GP, LLC		
Address: 195			10,000 00 77 A	2595 Battle Run Road		
Triadelphia, WV 2	6059-1317		The state of the s	WV 26059		
Name:						
Address:			■ MI	NERAL OWNER(s)		
			Name: [	Dallas J. Hall & Agnes L. Hall		
Name:			Address	1953 G C and P Road		
Address:				WV 26059-1317		
			*please att	ach additional forms if ne	ecessary	
Notice is he Pursuant to V a plat survey State:		ode § 22-6A-10(a), no and as follows:		the undersigned wel	l operator is planning entry to conduct 40.133412, -80.612801	
County:	Ohio		Public Road	Access:	Bethany Pike	
District:	Liberty		Watershed:	Watershed: Short Creek		
Quadrangle:	Bethany		Generally u	sed farm name:	Dallas Hall OHI Pad	
may be obtain Charleston, V obtained from Notice is he Well Operato	reby given by results: Swn product	cretary, at the WV De -926-0450). Copies of by visiting <u>www.dep.v</u>	partment of Environmen	tal Protection headq itional information r s/default.aspx.	il and gas exploration and production uarters, located at 601 57th Street, SE, related to horizontal drilling may be  Office RECEIVED  MAY 29 2018	
Telephone:	304-884-1610			JANE LEW, WV 26378	En 1477 <018	
Email:	dee_scuthall@s	wn.com or brittany_wcody@sw	n.com Facsimile	;	- Wironmenartman	
Oil and Ga	s Privacy Not	ice:			Environmental Protection	

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

WW-6A3 (1/12)

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

	ce: 11/6/2017	Date of Plan	med Entry: 1	/13/2017			
Delivery me	thod pursuant	to West Virginia C	de § 22-6A-1	0a			
☐ PERSO	NAL 🗉	REGISTERED	☐ METE	OD OF DEI	IVERY THAT RE	OUIRES A	
SERVIC		MAIL			NATURE CONFIR	7.00	
on to the surf but no more to beneath such owner of min and Sedimen Secretary, wh	ace tract to con than forty-five of tract that has fi terals underlying t Control Manu- nich statement s	duct any plat surveys lays prior to such ent led a declaration pur g such tract in the co al and the statutes an	required purs ry to: (1) The s suant to section unty tax record d rules related nformation, in	uant to this as surface owne n thirty-six, a ds. The notic to oil and gas	rticle. Such notice s r of such tract; (2) t rticle six, chapter to e shall include a sta s exploration and p	shall provide notice shall be provided at le to any owner or lesse wenty-two of this coc atement that copies of roduction may be obtage on the Secretary's	east seven days e of coal seams le; and (3) any f the state Erosion tained from the
Notice is her	eby provided t	o:					
SURFA	CE OWNER(s)			■ COA	L OWNER OR LE	SSEE	
	J. Hall & Agnes L. Hall				ndsor Coal Company		
	3 G C and P Road				1000 Consol Energy Drive		
riadelphia, WV 2	6059-1317			Canonsburg,	PA 15317-6506		
Name:					4.1		
Address:			-	■ MIN	ERAL OWNER(s)		
				Name: Da	llas J. Hall & Agnes L. Hall		
					1953 G C and P Road		
Address:			-		V 26059-1317		
			-	*please attac	h additional forms if ne	cessary	
Pursuant to V a plat survey State: County:	on the tract of I West Virginia Ohio	ode § 22-6A-10(a), r and as follows:		Approx. Latit Public Road	tude & Longitude:	do,133412, -80.612901  Bethany Pike  Short Creek	entry to conduct
Pursuant to V	Vest Virginia Con the tract of l West Virginia Ohio			Approx. Latit Public Road , Watershed:	tude & Longitude:	40.133412, -80.612901	entry to conduct
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Pursuant to Va plat survey State: County: District: Quadrangle: Copies of the may be obtai Charleston, Vobtained from	West Virginia Con the tract of I West Virginia Ohio Liberty Bethany e state Erosion and from the Set WV 25304 (304 in the Secretary ereby given by	and as follows:  and Sediment Contro ceretary, at the WV I 1-926-0450). Copies by visiting www.dep	Manual and t	Approx. Latit Public Road , Watershed: Generally use he statutes an Environmenta nents or addit id-gas/pages/	ande & Longitude: Access:  ed farm name:  d rules related to or  al Protection headquitional information related to a control of the control	40.133412, -80.612901  Bethany Pike  Short Creek  Dallas Hall OHI Pad  il and gas exploration uarters, located at 60 related to horizontal design of the control of the con	and production 1 57 <sup>th</sup> Street, SE,

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.

# STATE OF WEST VIRGINIA 4706900283 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.

Date of Noti		shall be provided at least TEN (10) days prior to filing a  Date Permit Application Filed:	permit application.
Delivery me	thod pursuant to West	Virginia Code § 22-6A-16(b)	
☐ HAND	■ CERTI	IFIED MAIL	
	- 001111		
DELIVE	ERY RETUI	RN RECEIPT REQUESTED	
receipt reque drilling a hor of this subsection m	sted or hand delivery, gi izontal well: Provided, stion as of the date the n ay be waived in writing	5(b), at least ten days prior to filing a permit application live the surface owner notice of its intent to enter upon to That notice given pursuant to subsection (a), section to notice was provided to the surface owner: <i>Provided, how</i> to by the surface owner. The notice, if required, shall include electronic mail address of the operator and the operator	he surface owner's land for the purpose of en of this article satisfies the requirements wever, That the notice requirements of this lude the name, address, telephone number,
		e SURFACE OWNER(s):	
Name: Agnes I		Name;	
Address: 1953 Triadelphia, WV		Address:	
		2-6A-16(b), notice is hereby given that the undersigned cose of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling a horizontal well on the tract of land as for the cost of drilling as for the cost of dri	
This Notice		22.64 16(b) this notion shall include the name add	
Pursuant to facsimile nur related to ho	mber and electronic ma rizontal drilling may be	ail address of the operator and the operator's authorize obtained from the Secretary, at the WV Department ceston, WV 25304 (304-926-0450) or by visiting <a href="https://www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.department.com/www.departmen&lt;/td&gt;&lt;td&gt;of Environmental Protection headquarters,&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Pursuant to&lt;br&gt;facsimile nur&lt;br&gt;related to ho&lt;br&gt;located at 60&lt;br&gt;Notice is he&lt;/td&gt;&lt;td&gt;mber and electronic ma&lt;br&gt;rizontal drilling may be&lt;br&gt;I 57&lt;sup&gt;th&lt;/sup&gt; Street, SE, Charles&lt;br&gt;reby given by:&lt;/td&gt;&lt;td&gt;ail address of the operator and the operator's authorize obtained from the Secretary, at the WV Department of eston, WV 25304 (304-926-0450) or by visiting &lt;a href=" https:="" td="" www.departm<="" www.department.com=""><td>ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.</td></a>	ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.
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Pursuant to facsimile nur related to ho located at 60 Notice is he Well Operato Address:	mber and electronic ma rizontal drilling may be I 57 <sup>th</sup> Street, SE, Charles reby given by; rr: SWN Production Compan	ail address of the operator and the operator's authorize obtained from the Secretary, at the WV Department of eston, WV 25304 (304-926-0450) or by visiting <a href="https://www.de-ny.LLC">www.de-ny.LLC</a> Authorized Representative: Address:	ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.  Randy Orsburn PO Box 1300, 179 Innovation Drive Jane Lew, WV 26378
Pursuant to facsimile nur related to ho located at 60 Notice is he Well Operato Address:	reby given by:  SWN Production Compan PO Box 1300, 179 Innova	ail address of the operator and the operator's authorize obtained from the Secretary, at the WV Department of eston, WV 25304 (304-926-0450) or by visiting <a href="https://www.demay.cuc.com/www.demay.cuc.cuc.cuc.cuc.cuc.cuc.cuc.cuc.cuc.cu&lt;/td&gt;&lt;td&gt;ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.  Randy Orsburn PO Box 1300, 179 Innovation Drive Jane Lew, WV 26378&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Pursuant to&lt;br&gt;facsimile nur&lt;br&gt;related to ho&lt;br&gt;located at 60&lt;br&gt;Notice is he&lt;br&gt;Well Operato&lt;/td&gt;&lt;td&gt;rizontal drilling may be I 57&lt;sup&gt;th&lt;/sup&gt; Street, SE, Charles reby given by; SWN Production Compan PO Box 1300, 179 Innova Jane Lew, WV 26378&lt;/td&gt;&lt;td&gt;ail address of the operator and the operator's authorize obtained from the Secretary, at the WV Department of eston, WV 25304 (304-926-0450) or by visiting &lt;a href=" https:="" td="" www.demay.cuc.com="" www.demay.cuc.cuc.cuc.cuc.cuc.cuc.cuc.cuc.cuc.cu<=""><td>ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.  Randy Orsburn PO Box 1300, 179 Innovation Drive</td></a>	ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.  Randy Orsburn PO Box 1300, 179 Innovation Drive

duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of the sines or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our of the 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.

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

Date of Noti	ce: 05/09/2018 Date Permit Ap	oplication Filed:	date of permit	application. 4706 002
Delivery me	thod pursuant to West Virginia Code § 2	22-6A-16(c)		- 0 2
	FIED MAIL  RN RECEIPT REQUESTED	HAND DELIVERY		
return receipthe planned or equired to be drilling of a damages to the damages to the footice.	requested or hand delivery, give the surface peration. The notice required by this subsection (b), section ten of horizontal well; and (3) A proposed surface surface affected by oil and gas operation es required by this section shall be given to be provided to the SURFACE OWNER.	ce owner whose land absection shall include this article to a surface use and compens as to the extent the date the surface owner and compens as to the surface owner and the su	will be used for de: (1) A copy ace owner whos ation agreemen mages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
	s listed in the records of the sheriff at the t			
at the address Name: Agnes F Address: 1953	fall	Name:	t	
Name: Agnes H Address: 1953 Triadelphia, WV:	eby given: Vest Virginia Code § 22-6A-16(e), notice i	Name: Address	e undersigned	
Name: Agnes I Address: 1953 Triadelphia, WV: Notice is her Pursuant to V operation on State: County: District:	eby given:	Name: Address s hereby given that the f drilling a horizonta UTM NAD 8 Public Road	te undersigned value on the tra  Easting: Northing: Access:	
Name: Agnes HAddress: 1953 Address: 1953 Andelphia, WV: Notice is her Pursuant to V operation on State: County: District: Quadrangle:	eby given: Vest Virginia Code § 22-6A-16(c), notice is the surface owner's land for the purpose owner.  West Virginia Ohio	Name: Address s hereby given that the f drilling a horizonta UTM NAD 8 Public Road	te undersigned value on the tra  Easting: Northing:	act of land as follows: 532,972.66 4,442,630.84
Name: Agnes F Address: 1953 Triadelphia, WV : Notice is her Pursuant to V	eby given: Vest Virginia Code § 22-6A-16(e), notice in the surface owner's land for the purpose of West Virginia Ohio Liberty	Name: Address s hereby given that the f drilling a horizonta UTM NAD 8 Public Road	te undersigned value on the tra  Easting: Northing: Access:	act of land as follows: 532,972.66 4,442,630.84 G C and P Road
Name: Agnes I Address: 1953 Triadelphia, WV: Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice: Pursuant to V to be provided to be provided to the provided	reby given: Vest Virginia Code § 22-6A-16(c), notice is the surface owner's land for the purpose of West Virginia Ohio Liberty Bethany Upper Ohio South  Shall Include: Vest Virginia Code § 22-6A-16(c), this not ed by W. Va. Code § 22-6A-10(b) to a sell; and (3) A proposed surface use and costed by oil and gas operations to the extended to horizontal drilling may be obtain located at 601 57th Street, SE, Charles	Name: Address  s hereby given that the f drilling a horizonta  UTM NAD 8  Public Road A  Generally use tice shall include: (1) aurface owner whose mpensation agreement the damages are coined from the Secret	te undersigned of well on the tra  Easting: Northing: Access: Index farm name:  A copy of this land will be to the containing arompensable undersy, at the WV	act of land as follows:  532,972.66  4,442,630.84  G C and P Road  Dallas Hall OHI  code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection
Name: Agnes I Address: 1953 Triadelphia, WV: Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice: Pursuant to V obe provide norizontal we ourface affect information in neadquarters gas/pages/de	reby given:  West Virginia Code § 22-6A-16(c), notice in the surface owner's land for the purpose of West Virginia  Ohio  Liberty  Bethany  Upper Ohio South  Shall Include:  West Virginia Code § 22-6A-16(c), this not ed by W. Va. Code § 22-6A-10(b) to a sell; and (3) A proposed surface use and conted by oil and gas operations to the extended to horizontal drilling may be obtain located at 601 57th Street, SE, Charlefault.aspx.	Name: Address  s hereby given that the f drilling a horizonta  UTM NAD 8  Public Road A  Generally use tice shall include: (1) aurface owner whose mpensation agreement the damages are coined from the Secret	te undersigned of well on the tra  Easting: Northing: Access: ad farm name:  A copy of this land will be to the containing aromany, at the WV	act of land as follows:  532,972.66  4,442,630.84  G C and P Road  Dallas Hall OHI  code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-
Name: Agnes I Address: 1953 Triadelphia, WV: Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice: Pursuant to V to be provided to be prov	reby given:  West Virginia Code § 22-6A-16(c), notice in the surface owner's land for the purpose of West Virginia  Ohio  Liberty  Bethany  Upper Ohio South  Shall Include:  West Virginia Code § 22-6A-16(c), this not ed by W. Va. Code § 22-6A-10(b) to a sell; and (3) A proposed surface use and conted by oil and gas operations to the extended to horizontal drilling may be obtain located at 601 57th Street, SE, Charlefault.aspx.	Name: Address s hereby given that the f drilling a horizonta  UTM NAD 8 Public Road A Generally use tice shall include: (1) turface owner whose in the damages are continued from the Secret teston, WV 25304 (1)	The undersigned of well on the tracesting:  Northing: Access: Index farm name:  A copy of this land will be understand arry, at the WV (304-926-0450)	tet of land as follows:  532,972.66  4,442,630.84  G C and P Read  Dallas Hall OHI  code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-innovation Drive

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.





4706 400283

# WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

# **Division of Highways**

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

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

February 22, 2018

Jill M. Newman Deputy Commissioner

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

Subject: DOH Permit for the Dallas Hall Pad OHI 201H Well Site, Ohio County

Dear Mr. Martin,

The West Virginia Division of Highways has transferred #06-2011-0067 to the application for permit to Southwestern Energy for access to the State Road for the well site located off of Ohio County Route 37 SLS.

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

Office of Oil and Gas

MAY 29 2018

WV Department of Environmental Protection Very Truly Yours.

Gary K. Clayton

Regional Maintenance Engineer Central Office Oil &Gas Coordinator

Cc: Brittany Woody

Southwestern Energy

CH, OM, D-6

File

Dun alternative	1	DDITIVES		
Product Name	Product Use	Chemical Name	CAS Number	
		Hydrogen Peroxide 47	7722-84-1	
EC6734A (Champion Technologies)	Biocide	Acetic Acid	Q4-¥9-10	2 (
		Peroxyacetic Acid	79-21-0	_
GYPTRON T-390 (Champion Technologies)	Scale Inhibitor	Methanol	67-56-1	
Champion reunidiogles)	Scale IIIIIDILOI	Nonylphenol Ethoxylate	Proprietary	
		Glutaraldehyde	111-30-8	
Bactron K-139 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12- 16-Alkyldimethyl, Chlorides		
		Ethanol	64-17-5	
Pactron V 210 (c)	Discide	Methanol	67-56-1	
Bactron K-219 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12- 16-Alkyldimethyl, Chlorides	68424-85-1	
EC6486A (Nalco Champion)	Scale Inhibitor	Amine Triphosphate	Proprietary	
LCO-BOOM (Naico Champion)	Scale Hillipitor	Ethylene Glycol	107-21-1	
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Hydrotreated light distillate (petroleum)	64742-47-8	
VVI IVA-2000 (U.S. Well Services)	Amonic riicuon keaucer	Propenoic acid, polymer with propenamide	9003-06 9	
		Ethylene glycol	107-21 1	
		Cinnamaldehyde	104-55 2	
AI-303 (U.S. Well Services)	Mixture	Butyl cellosolve	111-76 2	
AI-505 (0.5. Well Services)	iviixture	Formic acid	64-18 6	
		Polyether	Proprietary	
		Acetophenone, thiourea, formaldehyde polymer	68527-49 1	
AP ONE (U.S. Well Services)	Breaker	Ammonium persulfate	7727-54-0	
OPTI-FLEX (U.S. Well Services)	Viscosifying Agent	Distillates, petroleum, hydrotreated light	64742-47-8	
		Methanol	67-56-1	
		Oxyalkylated fatty acid	68951-67-7	
		Fatty acids	61790-12-3	
Econo-Cl200 (SWN Well Services)	Corrosion Inhibitor	Modified thiourea polymer	68527-49-1	
ECONO-01200 (SWIN WEII SEIVICES)	CONTOSION INITIDICOL	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	7732-18-5E	EIVE,
HCL (SWN Well Services)	Hydrocholic Acid	Hydrochloric Acid	7732-18-5 <sub>5</sub> 7647-01-001	Oil a
		Water	7777140.F	
FLOJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary		<b>9</b> 20
		Distillates (petroleum) hydrotreated light	646/4V47e8a	tn,
		Ethylene Glycol	107-21-1	ı F,
FLOJET DR900 LPP (SWN Well Services)	Friction Reducer	Alcohols, C12-16, Exoxylated propoxylated	68213-24-1	
	,	Fatty Alcohols ethoxylated	Proprietary	
		Water	7732-18-5	
FR-76 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8	
	•	Inorganic Salt	Proprietary	
HAI-150E (Halliburton)	Corrosion Inhibitor	No hazardous substance	N/A	
FDP-S1176-15 (Halliburton)	Friction Reducer	Polyacylate	Proprietary	
		Hydrotreated light petroleum distillate	64742-47-8	
LP-65 MC (Halliburton)	Scale Inhibitor	Organic phosphonate Ammonium Chloride	Proprietary 12125-02-9	
CarboNRT	Tracer	Ceramic Proppant	66402-68-6	03/2







# DALLAS HALL OHI WELL PAD CONSTRUCTION AS-BUILT & RECLAMATION PLAN

LIBERTY DISTRICT, OHIO COUNTY, WV OCTOBER 2017

LATITUDE: 40 120841 LUNGTIQUE: 8U 815/30/ N 14570969.65 E 1747253.31

(NAU 63) (UTM ZONE 1/ METERS)

N 14575545.96

LATITUDE, 40.133400 LONGITUDE, 40.012897 E 1748814.12

[NAD-83) DIM ZUNE W METERS)

THE ASSOULT INFORMATION SHOWN HEREON REFLECTS FIELD DATA COLLECTED RELATING TO THE FINAL GRADING OF THE DISTURBED AREA AS OF AUGUST 4, 2017, LARSON DESIGN GROUP IS NOT RESPONSIBLE FOR ANY CHANGES MADE TO THE SITE AFTER THE ABOVE MENTIONED DATE.

PROPERTY INFORMATION SHOWN MEREUN WAS PROVIDED BY SOUTHWESTERN ENERGY AND MAY NOT REFLECT CURRENT BOUNDARY LOCATION.

TOTAL DISTURBED AREA: 22.00 ACRES
HOAD DISTURBED AREA: 14.08 ACRES
PAD DISTURBED AREA: 8.54 ACRES



ENGINEERING ESTIMATE OF QUANTITIES WELL SITE PAD DATA (DRILLING)

220

342

18

NSTALL MOUNTABLE BERM

RAISE EXISTING CONTAINMENT BERM TO

AREAS 18" COMPOST SOCK

MIN, 2' HEIGHT SEED & MULCH DISTURGED

STONE FOR PAD SURFACE

REPAIR AND MOUNTABLE

REMOVE SUMP

BREACH BERM

10' WIDE RIP-RAP

WELL HAMES	WY MORTH NAC 27	WV NORTH NAD 83	UTM (METERS) 20NE 17	8 TAJ CB DAN DROJ	ELEVATION (FEET)	
	An-ORELED OF		DECORPORATES	DOROINATES.		
DRILAD HALL BH (DRILLED) AND ATTOCH COOTS	N System. Te	N 399834,70 C 1937324.7P	N 4142522.64 E 502977.01	FOAR - 90 9137596.	1278.47	
DALLAS HALL IN I	N 500714.13 E 1888754.42	N 596821 05 E 1967310,00	H 4447513 R3 E 5329/E.00	FOUND 40 812020*	1270.74	

### SHEETINDEX

1	COVER SHEE

2.3 EVACUATION ROUTE/PREVAILING WINDS

AS-BUILT OVERALL PLAN SHEET INDEX

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8 WELL PAD AS-BUILT PLAN

9-10 ACCESS ROAD AS-BUILT PROFILE

WELL PAD AS-BUILT PROFILE

12 AS-BUILT RECLAMATION PLAN OVERALL PLAN SHEET INDEX

13-15 AS-BUILT ACCESS ROAD RECLAMATION PLAN

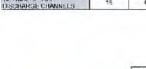
16 AS BUILT WELL PAD RECLAMATION PLAN

GENERAL NOTES AND DETAILS 17

18 19 DETAILS

# AS-BUILT CERTIFICATION THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO

HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES. DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS CSR 35-8.



Southwestern Energy\*

BERM STONE SURFACING
WELL SITE PAD DATA (RECLAMATION)

	MISS Utility of 1-800-2	West Virg 45-4848
	Interest Liberton	to de constitution

CY

SY

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West Virginia State Law (Section XIV: Chapter 24-C) Requires that you call two business days before you dig in I'm state of West Virginia.



	0549
- The	CRIGINAL SHEET SIZE:
and a	ANSI FULL BLEED ( (22,00 X 34 00 INCH
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