

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 Jim Justice , Governor Austin Caperton , Cabinet Secretary www.dep.wv.gov

Tuesday, October 17, 2017 WELL WORK PERMIT Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit approval for BRIAN DYTKO OHI 201H

47-069-00251-00-00

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

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

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

James A. Martin Chief

Operator's Well Number: BRIAN J DYTKO OHI 201H

Farm Name: BRIAN J DYTKO

U.S. WELL NUMBER: 47-069-00251-00-00

Horizontal 6A / New Drill

Date Issued: 10/16/2017

Promoting a healthy environment.

API Number: <u>69-00257</u>

PERMIT CONDITIONS

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

CONDITIONS

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

API Number: 69-0025/

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

API NO. 47-069 -	_	
OPERATOR WELL	NO.	Brian Dytko OHI 201H
Well Pad Name:	Brian (Dytko OHI PAD

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

1) Well Operate	or: SWN Pr	oduction Co.	, LLC	494512924	069-Ohio	Triadelph	648-Valley Grove		
				Operator ID	County	District	Quadrangle		
2) Operator's V	2) Operator's Well Number: Brian Dytko OHI 201H Well Pad Name: Brian Dytko OHI PAD								
3) Farm Name/Surface Owner: Brian Dytko Public Road Access: Walnut Grove Road									
4) Elevation, cu	urrent ground	1222'	El	evation, proposed p	ost-constructio	n: <u>1222'</u>			
5) Well Type	(a) Gas >	(Oil	Unde	rground Storag	e			
	Other _								
	` '	Shallow X		Deep					
6) Existing Pad		Horizontal <u>X</u> Yes	•	*************					
,	•		Antici	noted Thieleness or	ed Europeand Du				
Target Formation	on- Marcellus, Ta	rget Top TVD- 63	, Andici	pated Thickness ar et Base TVD- 6350', Ar	id Expected Pronticipated Thicknes	essure(s): s- 37', Associ	ated Pressure- 4109		
8) Proposed To	tal Vertical D	epth: 6322'							
9) Formation at	Total Vertica	al Depth: Ma	rcellus						
10) Proposed T	otal Measure	d Depth: 133	337'						
11) Proposed H	orizontal Leg	Length: 622	25.58'						
12) Approxima	te Fresh Wate	r Strata Depth	s:	555'					
13) Method to I	Determine Fre	esh Water Dep	ths: F	rom salinity profile	e and nearby v	water wells	5		
14) Approxima	te Saltwater I	Depths: 1000'							
15) Approxima	te Coal Seam	Depths: 633'							
16) Approxima	te Depth to Po	ossible Void (d	oal mi	ne, karst, other): N	lone that we a	re aware o	of.		
17) Does Propo directly overlying				ns Yes X	No				
(a) If Yes, pro	vide Mine In	fo: Name:	Shoe	maker					
		Depth:	633'						
		Seam:	Pittsb	urgh	RECE	IVED			
		Owner:	Murra	у	Office of O	il and G	as		

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WV Department of Environmental Protection 1 of 3

API NO. 47- 069 -

OPERATOR WELL NO. Brian Dytko OHI 201H
Well Pad Name: Brian Dytko OHI PAD

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	656'	656'	614 sx/CTS
Coal	9 5/8"	New	J-55	36#	1972'	1972'	740 sx/CTS
Intermediate	7"	New	J-55	20#	If Needed	If Needed	If Needed/As Needed
Production	5 1/2"	New	HCP-110	20#	13337'	13337'	lead 929xx Tail 1599xx inside intermediate
Tubing	2 3/8"	New	HCP-110	4.7#	Approx. 6322'	Approx. 6322'	
Liners	FE						

C. 1880 6.21.17

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	2 3/8"	4.778"	0.190	Approx 8193'	Approx 8193'		
Liners							

PACKERS

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

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WV Department of Environmental Protection WW-6B (10/14)

API NO. 47- 069	
OPERATOR WELL NO.	Brian Dytko OHI 201H
Well Pad Name: Brian I	Ovtko OHI PAD

19) Describe proposed well work, including the drilling and plugging back of a
--

Drill and stimulate any potential zones between and including the Benson to Marcellus. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface. Run casing not less than 20' below void nor more than 50' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50' below and cts.)

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

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. The well is produced through surface facilities consisting of high pressure production unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 80 barrels a minute.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 7.95
- 22) Area to be disturbed for well pad only, less access road (acres): 6.05
- 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:

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See Attachment ***

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25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.

Schlumberger Cement Additives

Schlamberger Cement Additives							
	Product Name	Product Use	Chemical Name	CAS Number			
Surface	5001	accelerator	calcium chloride	10043-52-4			
intermediate Surface	S001	accelerator	calcium chloride	10043-52-4			
f	D080	dispersant	sodium polynaphthalene sulfonate	9008-63-3			
ğ "	D801	retarder	aromatic polymer derivative	propriatary			
Kick Off Plug	D047	antifoam	polypropylene glycol	25322-69-4			
	D167	fluid loss	aliphatic amide polymer	propriatary			
	D154	extender	non-crystalline silica	7631-86-9			
	D400	gas migration	boric acid	10043-35-3			
			polypropylene glycol	25322-69-4			
bac	D046	antifoam	fullers earth (attapulgite)	8031-18-3			
Production-Lead			chrystalline silica	14808-60-7			
읦	D201	retarder	metal oxide	propriatary			
큥			sulphonated synthetic polymer	propriatary			
P.	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			
			sodium polynaphthalene sulfonate	9008-63-3			
<u> </u>	D065	dispersant	sodium sulfate	7757-82-6			
Production-Tall			chrystalline silica	14808-60-7			
npo	D201	retarder	metal oxide	propriatary			
&	D153	anti-settling	chrystalline silica	14808-60-7			

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SWN Production Company, LLC P O Box 12359 Spring, Texas 77391-2359 www.swn.com

June 15, 2017

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

RE: Proposed New Well Brian Dytko 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 Dytko's property, in Triadelphia 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 Regulatory Supervisor Southwestern Energy Production Company, LLC PO Box 1300 Jane Lew, WV 26378

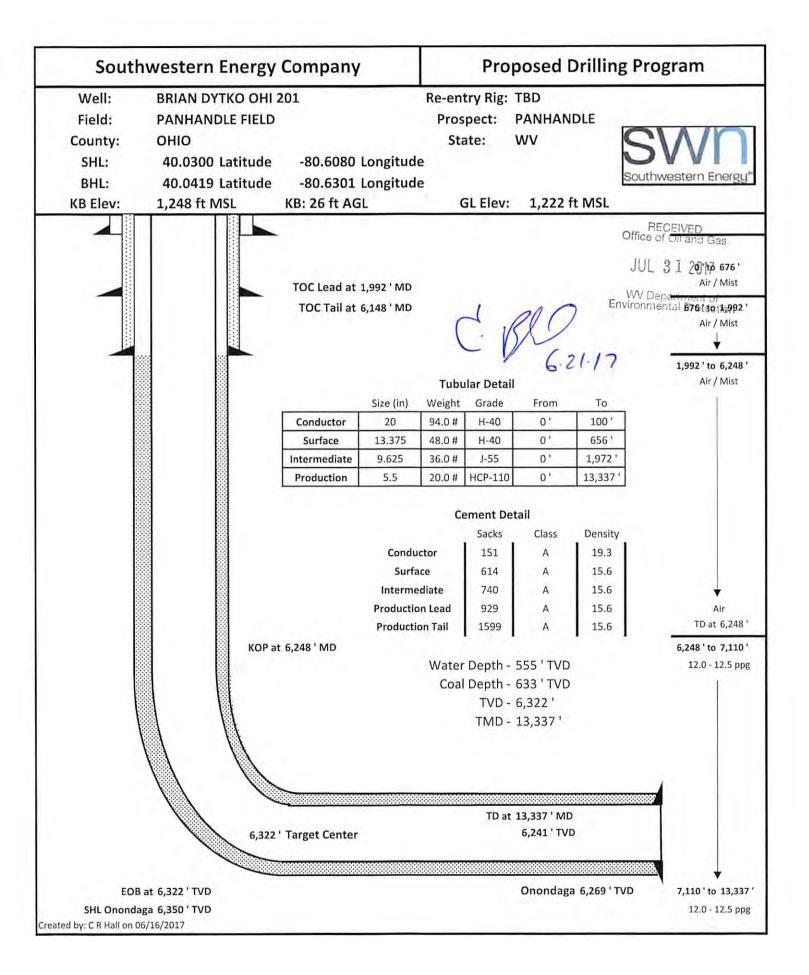
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WV Department of Environmental Protection

R2 NV+

The Right People (0) 2000 (1) he wisely investing the cash now from our underlying Assets, will create Value+®



WW-9 (4/16)

API Number	47 -	69			
0		*** 11	 - S. C.	The Williams	Contract Con

Operator's Well No. Brian Dytko OHI 201H

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

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FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Company, LLC OP Code 494512924 WV Department of Environmental Protection
Watershed (HUC 10) Wheeling Creek Quadrangle Valley Grove
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No
Will a pit be used? Yes No 🗸
If so, please describe anticipated pit waste:closed loop system in place at this time- cuttings will be taken to a permitted landfill
Will a synthetic liner be used in the pit? Yes No If so, what ml.?
Proposed Disposal Method For Treated Pit Wastes:
Land Application Underground Injection (UIC Permit Number Reuse (at API Number at next anticipated well, API # will be included with the WR-34/DDMR &/or permit addendum Off Site Disposal (Supply form WW-9 for disposal location) Other (Explain flow back fluids will be put in steel tanks and reused or taken to a permitted disposal facility
Will closed loop system be used? If so, describe: yes
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etcair drill to KOP, fluid drill with SOBM from KOP to TD
-If oil based, what type? Synthetic, petroleum, etc. synthetic oil base
Additives to be used in drilling medium? see attached sheets
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. landfill
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust)
-Landfill or offsite name/permit number? meadow SWF-1032, SS grading SWF-4902, Northwestern SWF-1025, Short Creek 1034/WV0109517/CID28725, Carbon Limeston 28726-CID28725
Arden Landtill 10072, American 02-12954, Country Wide 38390/CID38390, Pine Grove 13688 Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments there of and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.
Company Official Signature
Company Official (Typed Name) Dee Southall
Company Official Title Regulatory Supervisor
1 Mh
Subscribed and sworn before me this 15th day of 4 day of 4 day of 4 day of 5 day of
Notary Public, State of West Virgin
BRITTANY R WOODY 3302 Old Elkins Road

Operator's Well No. Brian Dytko OHI 201H

roposed Revegetation Treatment: Acres Disturbed _	7.94	Prevegetation pH	
Lime as determined by pH test min. 2 Tons/acre or to corr	rect to pH 6.05		
Fertilizer type 10-20-20			Office of
Fertilizer amount 600	lbs/acre		JUL
Mulch_ Hay/Straw 2.5	Tons/acre		WV Dep Environme
	Seed Mixtures		LIMONING
Temporary		Perma	nent
Seed Type Ibs/acre **See Attachment		Seed Type	lbs/acre
Maps(s) of road, location, pit and proposed area for la rovided). If water from the pit will be land applied, i creage, of the land application area. hotocopied section of involved 7.5' topographic sheet	include dimensions (L x V	V x D) of the pit, and	dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for la rovided). If water from the pit will be land applied, i creage, of the land application area. hotocopied section of involved 7.5' topographic sheet land approved by:	include dimensions (L x V	V x D) of the pit, and	dimensions (L x W), and
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Attach: Maps(s) of road, location, pit and proposed area for la rovided). If water from the pit will be land applied, i creage, of the land application area. Photocopied section of involved 7.5' topographic sheet land. Plan Approved by: Comments:	include dimensions (L x V	V x D) of the pit, and	dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for la rovided). If water from the pit will be land applied, i creage, of the land application area. Photocopied section of involved 7.5' topographic sheet land Approved by:	et.	V x D) of the pit, and	dimensions (L x W), and

Drilling Mediums

Synthetic Oil

Brine

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers

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WVD Seeding Specification



Pelletized Lime @ 2 Tons per Acre

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

(please allow 7 to 10 days for delivery)

NON-ORGANIC PROPERTIES

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

SOIL AMENDMENTS

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

Seeding Calculation Information:

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

Synopsis:

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

Special Considerations:

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

ORGANIC PROPERTIES

VA Wild Ryegrass

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

20%

WETLANDS (delineated as juris	dictional wetlands)
Seed Mixture: Wetland Mix	SWN Supplied

Organic Fertilizer @ 200lbs per Acre

Annual Ryegrass		20%
Fowl Bluegrass		20%
Cosmos 'Sensation'		10%
Redtop	ET OFF	5%
Golden Tickseed	WW COR	5%
Maryland Senna	RECEIVANDEP	5%
Showy Tickseed	Paris 1	5%
Fox Sedge	20°	2.5%
Soft Rush	Gas M	2.5%
Woolgrass	otion	2.5%
Swamp Verbena	2	2.5%

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

2.5%

Apply @ 50lbs per acre
Oct. 15th- April 15th

NO FERTILIZER OR LIME INSIDE WETLAND LIMITS

MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN



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

API NO. 47-XXX-XXXXX
WELL NAME: Brian Dytko OHI 201H
Valley Grove QUAD
Triadelphia DISTRICT
Ohio COUNTY, WEST VIRGINIA

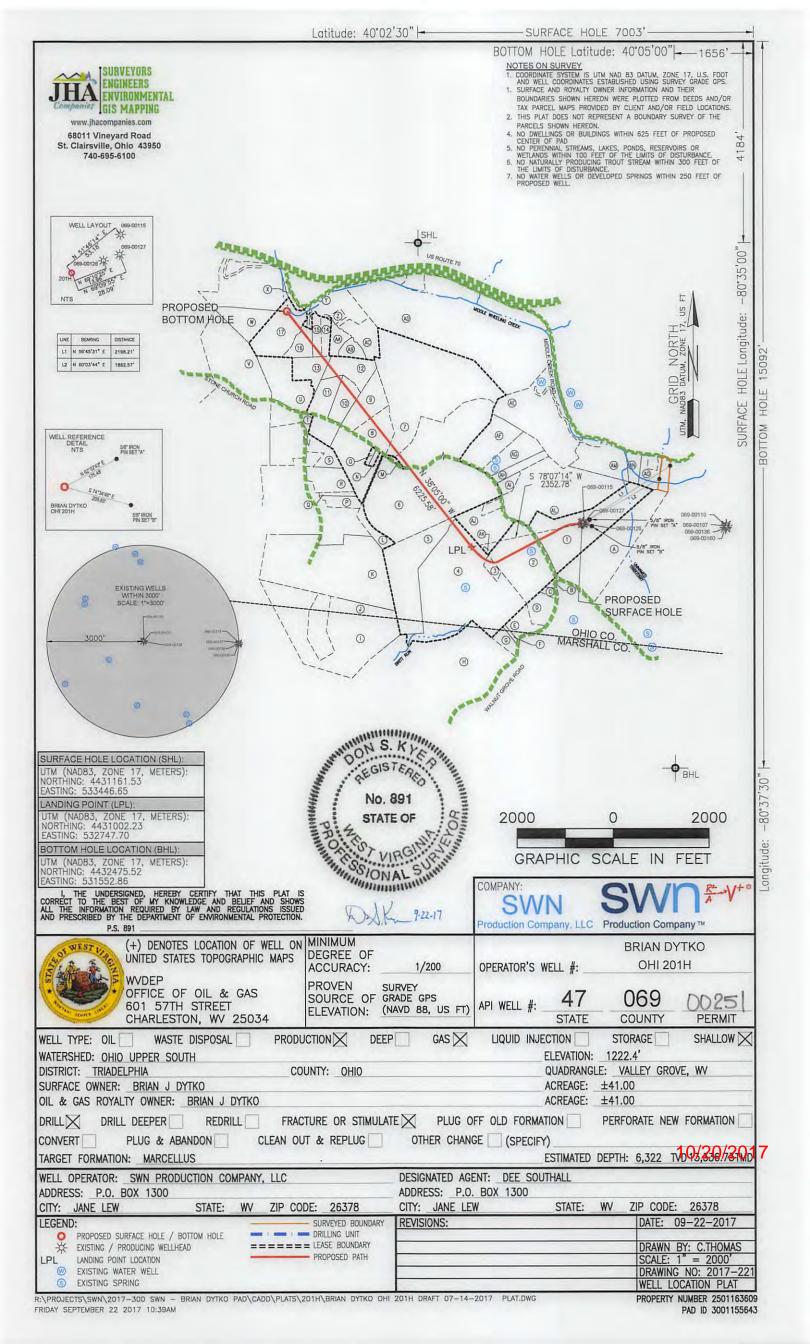
Office of Oil and Gas

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Submitted by: Dee Southall	Date:	6/15/2017
Title: Regulatory Supervisor)	Production Co., LLC
Approved by: Title: 5:1 3 Cen Input	Date:	6.21.17
Approved by:	Date:	
Title:		-

PARCELS SHOWN HEREON.
4. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED. FLOOD PLAIN WELL OPERATOR: WELL (FARM) NAME: WELL # SERIAL # SWN PRODUCTION COMPANY, LLC **BRIAN DYTKO OHI** 201H DISTRICT; TRIADELPHIA COUNTY - CODE P.O. BOX 1300 JANE LEW, WV 26378 SURFACE OWNER: - 069 1/2 QUADRANGLE MAP NAME OHIO USGS 7 BRIAN DYTKO VALLEY GROVE, WV & WHEELING, WV



TDAOT	WELL BORE TABLE FOR SURFACE / ROYALTY SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
TRACT	SURFACE OWNER (S) / ROTALTT OWNER (K)	TAX PARCEL	ACRES
1	BRIAN J DYTKO (S)/(R)	06-T18-0004.0001	41.00
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
2	CHARLES D. FISCHER, JR.	06-T18-0004.0000	32.90
3	TIMOTHY LEE KERCHER & G. E. KERCHER	06-T18-0002.0001	2.003
4	ROGER A. WHITE AND LISA J. WHITE	06-T18-0002.0000	87.809
5	HAROLD R. III GARRETT & CONNIE A. GARRETT	06-T18-0001.0001	36.10
6	PAUL PAVILACK	06-T18-0001.0000	109.84
7	MIDDLE CREEK GARAGE, INC.	06-T13-0003.0000	80.38
8	NORMA J. FARROW & J.R. FARROW	06-T12-0051.0000	26.23
9	WESBANCO TRUST & INVESTMENT	06-T12-0047.0000	12.21
10	DARLENE HUNTER	06-T12-0046.0002	7.89
11	RICHARD L. PELLARIN	06-T12-0046.0000	14.76
12	CAROL L. CONNOR	06-T12-0052.0000	11.50
13	TAMMY J. HACKENBERG	06-T12-0045.0000	9.03
14	TAMMY J. HACKENBERG	06-T12-0035.0000	2.81
15	E F KOEHL JR & D R KOEHL	06-T12-0034.0000	4.21
16	GERALD N MARSHALL	06-T12-0033.0001	4.80
17	SCOTT D KULL & CATHERINE J KULL	06-T12-0032.0000	17.63

TRACT	ADJOINING OWNERS TABLE SURFACE OWNER	TAX PARCEL	ACRES
TRACT	THERESA L BLATT	06-T18-0017.0000	0.799
A	GREGORY W & J F GARDNER	06-T18-0025.0000	0.80
В	FRANCIS R MALTESE JR	06-T18-0025.0000	100
C	D G & B A REINKE	06-T18-0005.0000	1.00
D	PEARL A TAYLOR		10.33
E		12-2-21	5.00
F	HANS SCHMIDT	12-2-20	0.553
G	PEARL A. TAYLOR	12-2-19	2.905
Н	JAMES AND CAROL LITMAN	12-2-1	91.641
1	PATRICK J. LENZ AND NIKKI J. LENZ	12-1-46	47.66
J	PATRICK J. LENZ AND NIKKI J. LENZ	06-T17-0013.0001	15.77
К	ROBERT H & M J DAVIS	06-T17-0013.0000	71.540
L	HAROLD R. GARRETT	06-T18-0001.0001	34.660
M	HILLTOP COMMUNITY ASSN	06-T13-0004.0000	0.050
N	KENNETH C HARTZELL	06-T12-0051.0002	0.75
0	KENNETH C HARTZELL	06-T12-0051.0001	0.75
P	STEVEN S.SACCO AND KELLEY B. SACCO	06-T17-0013.0011	3.62
Q	WILLIAM F. SACCO JR	06-T17-0013.0010	2.56
R	JACK E. & SUZANNE BARRY	06-T12-0050.0000	8.25
S	GARY V. & BRYANT AND L.P. BRYANT	06-T12-0048.0000	19.825
Т	RICHARD L PELLARIN	06-T12-0046.0001	1.35
U	ROBERT L WOOD & C J RAPER	06-T12-0048.0003	18.85
V	RIDGE RUNNER FARM, LLC	06-T12-0014.0001	95.85
W	WEST VIRGINIA DEPART OF HWYS	06-T12-0031.0000	41.37
X	BOARD OF EDUCATION	07-TW6-0003.0000	6.13
Y	MARK A SINGER	06-T12-0033.0000	1.60
Z	PAUL W & V R BLAKE	06-T12-0038.0000	1.440
AA	CHERI & RANDY TAGGART	06-T12-0036.0000	4.272
AB	MOUNTAIN ESTATE BLAKE, LLC	06-T12-0037.0000	3.67
AC	BRADLEY W CLARK	06-T12-0044.0000	7.47
AD	OHIO VALLEY IND & BUS DEV CORP	06-T13-0026.0000	130.69
AE	JOHN W NOLAN SR ET AL	06-T13-0002.0002	42.45
AF	EDWARD MCCORD	06-T13-0002.0006	15.66
AG	JOHN EDWARD MCCORD	06-T13-0002.0003	12.10
AH	SETH AND HEATHER MCCORD	06-T13-0002.0004	4.30
Al	ROGER A & MARY K CLUTTER	06-T13-0002.0005	2.50
AJ	R.L. WHITE PROPERTIES, LLC	06-T18-0003.0002	16.29
AK	TIMOTHY LEE & G E KERCHER	06-T18-0003.0003	0.360
AL	WILLIAM G THOMAS	06-T18-0003.0000	46.50
AM	OK TRAILER COURT INC	06-T13-0005.0002	16.86
AN	ROBERT L JR & K 5 BOGARD	06-T13-0005.0007	4.07
AO	ROBERT L JR & K S BOGARD	06-T13-0005.0005	4.72

10/20/2017

REVISIONS:	COMPANY:	SWN Production Company, LLC		
	OPERATOR'S WELL #:	BRIAN C		DATE: 07-27-2017 DRAWN BY: C.THOMAS
	DISTRICT: TRIADELPHIA	COUNTY: OHIO	STATE: WV	SCALE: N/A DRAWING NO: 2017-221 WELL LOCATION PLAT

WW-6A1 (5/13)

Operator's Well No.	Brian Dytko 201H
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INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

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

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

ase Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
-----------------------	-----------------------	-----------------------	---------	-----------

See Exhibit

RECEIVED Office of Oil and Gas

JUL 3 1 2017

WV Department of Environmental Protection

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

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

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

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

SWN Production Company	
N	
Staff Landman	
	N

Page 1 of

1740	SURFACE OWNER	DEEDED ACREAGE	LEASE #	LESSOR	TESSEE	ROYALTY	BK/PG
1 6-718-4.1	Brian J. Oydto	41.000000	724935-000	Brian L Dytto, a married man dealing in his sole and	Chesapeate Appalachia, LLC.	12.5%	790/197
				Abrada da na mara	SWN Production Company, 11C		885/482
2.6-T18-4	Charles D. Fischer, Jr.	32,90000	725119-000	Charles D. Flacher. Jr. and Karen Flacher. husband and	Cherageata Appalachia, L.L.C.	12.5%	791/446
				wife			
					SWN Production Company, LLC		885/500
3 6-718-2.1	Imothy Lee Karcher & G.E. Kercher	2,030000	730441-000	Roger A. White and Usa J. White, husband and wife	Chesapeate Appalachia, L.L.C.	18%	815/229
					SWN Production Company, LLC		822/538
4 6-118-2	Roger A. White and the J. White	000503.78	730441-000	Roger A. White and Use J. White, husband and wife	Chasapezhe Appelachta, L.L.C.	18%	815/229
					SWN Production Company, LLC		823/238
5 6-118-1.1	Harold R. Gerrett, III & C.A. Gerratt	36.100000	725125-000	Herold R. Gerrett, III and Connie A. Garrett, his wife	Chesapeate Appalachia, L.L.C.	16%	792/32
					SWN Production Company, LLC		885/512
6 6-T16-1	Paul Pavilak	109.839000	736448-001	Richard K. Reinholtz, a widower	Chesapeaka Appalachia, L.L.C.	16%	630/320
					SWN Production Company, LLC		885/332
6 6-118-1	Paul Pavilak	109.839000	736448-002	Sylvie Am Miller (fily's Sylvie Ann Beend, e merted women dnelling her sole and separate property	Chesapsako Appalachia, L.L.C.	16%	830/325
					SWN Production Company, LLC		885/332
76113-3	Middle Creek Garage Inc.	80.378750	726778-000	Middle Creek Garage, Inc. a West Virginia Corporation		148	7/008
							883/288
8 6-112-51	Norma J. Farrow & J.R. Ferrow	26.230000	725708-000	Norma featine Farrow and J. Richard Farrow, wife and histband		14%	799/602
					SWN Production Company, LLC		883/255
9 6-712-47	Wesbanco Trust and trwestment	12.210000	745189-000	WesBanco Trust and Investment Services as Trustae of		743	721/291
				the Joseph Paul Forthey Trust Agraement, dated April 13, 1990			
10 6-712-46.2	Darlene Hunter	7.890000	727720-001	Darkens Hunter, cingle	Chesapeata Appalachia, L.L.C.	14%	804/703
					SWN Production Company, LLC		883/255
10 S-T12-46.2	Darlene Hunter	7.890000	727720-002	Douglas E. Freeman, single	Chesapeata Appalachia, L.L.C.	14%	804/707
					SWN Production Company, LLC		883/255
11 S-T12-46	Richard L. Pellarin	14.760000	725131-000	Richard L. Pedario	Chesapeatre Appalachia, L.L.C.	12.5%	792/208
				2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	SWN Production Company, LLC		885/512
12 6-112-52	Cerol L Conner	11,500000	7.26363-000	Laroi L Conser and Geraig L. Consor, whe and hasband	Chesapeaxa Appalachia, L.L.C.	148	799/10e
					SWN Production Company, LLC		£85/524
13 6-712-45	Tammy J. Hackenberg	9.031250	725121-000	Tammy J. Hackenberg	Chesapeako Appalachia, L.L.C.	12.5%	791/441
					SWN Production Company, LLC		\$35/500
м 6-112-35	Tammy J. Hackenberg	2,81,000	724897-000	Tammy J. Hackenberg	Chesapeake Appalachia, L.L.C.	12.5%	795/728
					SWN Production Company, U.C.		885/482
15 6-T12-34	E. F. Koehl, fr. & D.R. Koehl	4.210000	745519-001	Thomas A. Koehl	SWN Production Company, LLC	16%	62/106
			745519-002	Earl D Mottle		*	50,00
16 5-112-33.1	Gerald N. Marshall	4.800000	730458-000	Geraid N. Marshall, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	183	615/239
					SWN Production Company, LLC		884/265
17 6-112-32	Scott D. Ruti & Catherine J. Kull	17,630000	730435-000	Scott Douglas Kull and Catherine J. Kull, husband and wife	Chesapeate Appalachia, L.L.C.	18%	815/307
					SWN Production Company, LLC		683/228

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SEP 19 2017

WV Departmental Protection



SWN Production Company, LLC P O Box 12359 Spring, Texas 77391-2359 www.swn.com

June 15, 2017

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

RE: SWN's proposed New Well: Brian Dytko OHI 201H in Ohio County, West Virginia, Drilling under Walnut Grove Road.

Dear Ms. Adkins:

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

Thank you.

Sincerely,

Robert Walter Staff Landman

SWN Production Company, LLC

PO Box 12359

Spring, TX 77391-2359

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Office of Oil and Gas

SEP 1 9 2017

WV Department of Environmental Protection

R2-20V+

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

WW-6AC (1/12)

RECEIVED Office of Oil and Gas

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION STATE OF WEST VIRGINIA UL 3 1 2017 Environmental Protection

Date of Notic	ce Certification:		API No. 4	7- 069	-
	1 - 1 - 1		Operator's	Well N	0. Brian Dytko OHI 201H
			Well Pad Name: Brian Dytko OHI PAD		
Notice has l	peen given:			-	
	e provisions in West Virginia Code § 22-6 tract of land as follows:	6A, the Operator has pro	ovided the rec	quired pa	arties with the Notice Forms listed
State:	West Virginia	LITALNIAD 02	Easting:	533446.6	35
County:	069-Ohio	UTM NAD 83	Northing:	4431161	.53
District:	Triadelphia	Public Road Acc	cess:	Walnut G	Grove Road
Quadrangle:	Valley Grove	Generally used f	Generally used farm name:		tko
Watershed:	Upper Ohio South				
					

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

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certificathat the Operator has properly served the required parties with the following:	oog office use
*PLEASE CHECK ALL THAT APPLY	ONLY
☐ 1. NOTICE OF SEISMIC ACTIVITY OF NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	RECEIVED/ NOT REQUIRED
☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ☐ NO PLAT SURVEY WAS CONDUC	CTED 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 OW (PLEASE ATTACH)	NER
4. NOTICE OF PLANNED OPERATION	RECEIVED
5. PUBLIC NOTICE	RECEIVED
6. NOTICE OF APPLICATION	RECEIVED

Required Attachments:

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

WW-6AC (1/12)

RECEIVED Office of Oil and Gas

JUL 3 1 2017

Certification of Notice is hereby given:

, have read and understand the notice requirements within West Virginia Codes 127 Protection THEREFORE, I 6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Well Operator: SWN Production Co., LLC Address: P.O. Box 1300 By: Dee Southall Jane Lew, WV 26378 Its: Facsimile: Regulatory Supervisor Telephone: 304-884-1614 Email: Dee_Southall@swn.com Subscribed and sworn before me this NOTARY SEAL OFFICIAL SEAL Notary Public Notary Public. State of West Virginia BRITTANY R WOODY 3302 Old Elkins Road Buckhannon, WV 26201

Oil and Gas Privacy Notice:

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

WW-6A (9-13) API NO. 47- 069

OPERATOR WELL NO, Brian Dytko OHI 201H
Well Pad Name: Brian Dytko OHI PAD

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

Notice Time Requi	irement: notice shall be provi	ded no later than the filing date of permit application.	
	Date Permit Applica	ion Filed: 10811	(film) 1 1 1 1 2 2
Notice of:			JUL 3 I 2017
PERMIT FOR	RANY D CERTIFI	CATE OF APPROVAL FOR THE	
WELL WORK		UCTION OF AN IMPOUNDMENT OR PIT	WV Department of Environmental Protection
Delivery method p	ursuant to West Virginia Co	de § 22-6A-10(b)	
PERSONAL SERVICE	☑ REGISTERED MAIL	☐ METHOD OF DELIVERY THAT REQUIRES RECEIPT OR SIGNATURE CONFIRMATION	
the surface of the tra- bil and gas leasehold described in the eros operator or lessee, in more coal seams; (4) well work, if the surf impoundment or pit have a water well, sp provide water for co- proposed well work subsection (b) of this records of the sheriff provision of this arti- Code R. § 35-8-5.7.2	ct on which the well is or is pro- defined developed by the propos- ion and sediment control plan so the event the tract of land on we of the owners of record of the su- face tract is to be used for the pi- as described in section nine of to- oring or water supply source loc- insumption by humans or domes- activity is to take place. (c)(1) It is section hold interests in the land frequired to be maintained purs- cle to the contrary, notice to a lift a requires, in part, that the oper-	nis article, and the well plat to each of the following person posed to be located; (2) The owners of record of the surface de well work, if the surface tract is to be used for roads or ubmitted pursuant to subsection (c), section seven of this a thich the well proposed to be drilled is located [sic] is known face tract or tracts overlying the oil and gas leasehold being accement, construction, enlargement, alteration, repair, remains article; (5) Any surface owner or water purveyor who is atted within one thousand five hundred feet of the center of tic animals; and (6) The operator of any natural gas storage from than three tenants in common or other co-owners or use the applicant may serve the documents required upon usen to section eight, article one, chapter eleven-a of this center of the center of the center of the applicant may serve the documents required upon usen to section eight, article one, chapter eleven-a of this center of the center of the center of the applicant may serve the documents required upon usen to section eight, article one, chapter eleven-a of this center of the center of the center of the center of the applicant may serve the documents required upon usen to section eight, article one, chapter eleven-a of this center of the cente	the tract or tracts overlying the other land disturbance as sarticle; (3) The coal owner, we to be underlain by one or any developed by the proposed to abandonment of any is known to the applicant to fee the well pad which is used to be field within which the finterests described in the person described in the code. (2) Notwithstanding any der is the landowner. W. Va.
		S Plan Notice	led to:
SURFACE OWN	IER(s)	☑ COAL OWNER OR LESSEE Name: Murray American Energy, Inc.	
Name: Brian Dytko	Church Dood	Address: 6126 Energy Road	
Address: 1278 Stone of Wheeling, WV 26003	Church Road	Moundsville, WV 26041	
Name:		COAL OPERATOR	
A TT		Name of Observation	
Address.		Address:	
T SLIDE A CE OWN	VER(s) (Road and/or Other Dis	turbance)	
		= CUREAGE ONAIGH OF WATER II	ELL
Address:			
		□ OPERATOR OF ANY NATURAL O	GAS STORAGE FIELD
SURFACE OWN	NER(s) (Impoundments or Pits	Name:	
		*Please attach additional forms if neces	ssarv

WW-6A (8-13)

RECEIVED Office of Oil and Gas API NO. 47- 069

OPERATOR WELL NO. Brian Dytko OHI 201H
Well Pad Name: Brian Dytko OHI PAD

JUL 31 2017

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items WW-6A (8-13)

API NO. 47-069

OPERATOR WELL NO. Brian Dytko OHI 201H

Well Pad Name: Brian Dytko 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:

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

JUL 31 2017

WV Department of Profession

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

WW-6A (8-13) 047-069-00251

API NO. 47- 069

OPERATOR WELL NO. Brian Dytko OHI 201H
Well Pad Name: Brian Dytko 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 http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

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

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

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

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

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Gas

JUL 31 2017

WV Department of Environmental Protection WW-6A (8-13) 047-069-00251 API NO. 47- ⁰⁶⁹ -

OPERATOR WELL NO. Brian Dytko OHI 201H

Well Pad Name: Brian Dytko OHI PAD

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:

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.



Subscribed and sworn before me this 15th day of 400 Notary Public

My Commission Expires

Office of Oil and Gas

JUL 31 2017

WV Department of Protection

Attachment #1

Brian Dytko OHI Pad - Water Purveyors w/in 1500'

Sources

Landowner

Address

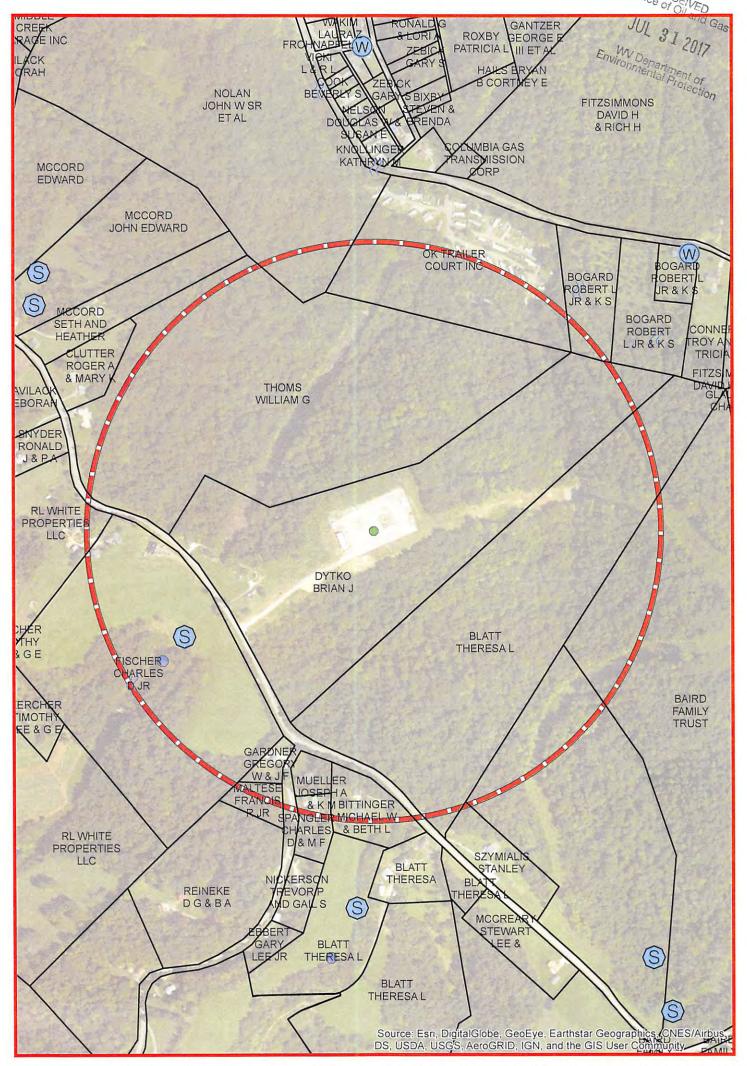
Charles D Fischer Jr

1235 Stone Church Road, Wheeling WV 26003 1 spring

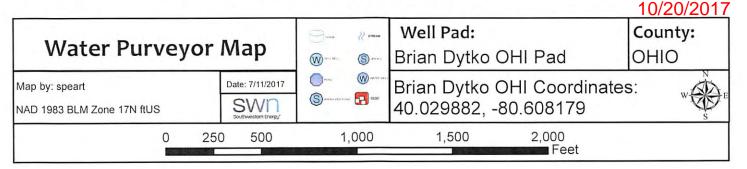
RECEIVED Office of Oil and Gas

JUL 3 1 2017

WV Department of Environmental Protection



The intent of this map is for general reference only. Information on this map was created using the best available data at the time but is not guaranteed accurate



STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Date of Notic		ided at least TEN (10) days prior to filing a te Permit Application Filed:	permit application, RECEIVED Office of Oil and Gas
Delivery met	thod pursuant to West Virginia Co	ode § 22-6A-16(b)	JUL 3 1 2017
☐ HAND	CERTIFIED MAIL		002 0 2 2011
DELIVE			WV Department of Environmental Protection
receipt request drilling a hort of this subsect subsection materials and if availab	sted or hand delivery, give the surfaction as of the date the notice was properly be waived in writing by the surfaction as of the date the notice was properly be waived in writing by the surfaction.	ten days prior to filing a permit application, the owner notice of its intent to enter upon the given pursuant to subsection (a), section to evided to the surface owner: <i>Provided</i> , how the owner. The notice, if required, shall inclimate address of the operator and the operator	ne surface owner's land for the purpose of n of this article satisfies the requirements never. That the notice requirements of this ude the name, address, telephone number,
Name: Brian Dy	이 이번 하는 아무리는 이용에 하는 것이 하네요. 그는 사람들은 그리고 있는 사이라이 아이들이다	Name:	
Address: 1278	Stone Church Rd	Address:	
Wheeling, WV 26	0003		
		notice is hereby given that the undersigned	
Pursuant to W the surface ov State: County:	wner's land for the purpose of drillin West Virginia Ohio	g a horizontal well on the tract of land as fo UTM NAD 83 Easting: Northing:	llows: 533,446.65 4,431,161.53
Pursuant to W the surface ov State: County: District:	wner's land for the purpose of drillin West Virginia Ohio Triadelphia	g a horizontal well on the tract of land as fo UTM NAD 83 Easting: Northing: Public Road Access:	llows: 533,446.65 4,431,161.53 Stone Church Road
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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.

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

Delivery m	ethod pursuant to West Virginia C	ode § 22-6A-16	(c)			
■ CERT	IFIED MAIL	☐ HAND				
	JRN RECEIPT REQUESTED	DELIVI	ERY			
return receip the planned required to l drilling of a damages to	W. Va. Code § 22-6A-16(c), no late of requested or hand delivery, give the operation. The notice required by the provided by subsection (b), section horizontal well; and (3) A propose the surface affected by oil and gas oppose required by this section shall be gotten.	e surface owner this subsection in ten of this artic d surface use a perations to the e	whose land shall included the to a surface and compensextent the da	I will be used for de: (1) A copy ace owner whos ation agreement mages are comp	or the drilling of a horizont this code section of this code section of the used at containing an off pensable under articles.	orizontal well notice of on; (2) The information in conjunction with the fer of compensation for cle six-b of this chapter.
	reby provided to the SURFACE O	WNFD(s)				RECEIVED Office of Oil and Gas
	ss listed in the records of the sheriff		otice):			UU 0 1 2017
NT Delegat	lytka		Name:			JUL 3 1 2017
Name: Brian I						
	8 Stone Church Rd	-	Address	9:		WV Department of
Address: 12 Wheeling, WV 2 Notice is he Pursuant to	'8 Stone Church Rd 6003 reby given: West Virginia Code § 22-6A-16(c), r		Address	ne undersigned v	well operator has de	Environmental Protection eveloped a planned
Address: 12: Wheeling, WV 2 Notice is he Pursuant to operation o State: County:	reby given: West Virginia Code § 22-6A-16(c), respectively the surface owner's land for the pure west Virginia	rpose of drilling	Address given that th a horizontal	ne undersigned value on the tra Easting: Northing:	well operator has do act of land as follow 533,446.65 4,431,161.53	Environmental Protection eveloped a planned
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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.



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

Reissued July 18, 2017

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

Subject: DOH Permit for the Brian Dytko Pad, Ohio County Brian Dytko OHI 201H

Dear Mr. Martin,

Jim Justice

Governor

The West Virginia Division of Highways has transferred Permit #06-2011-0009 for the subject site to Southwestern Energy for access to the State Road for the well site located off of Ohio County Route 23 SLS.

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

Very Truly Yours,

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

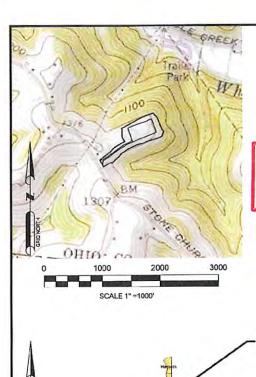
Cc: Brittany Woody Southwestern Energy CH, OM, D-6 File

WV Department of Environmental Protection

RECEIVED Gas Office of Oil and Gas

JUL 3 1 2017

Product Name	Product Use	Chemical Name	CAS Numbe	
		Hydrogen Peroxide	7722-84-1	
EC6734A (Champion Technologies)	Biocide	Acetic Acid	64-19-7	
		Peroxyacetic Acid	79-21-0	
GYPTRON T-390 (Champion	S cale Inhibitor	Methanol	67-56-1	
Technologies)	Scale IIIIIbiloi	Nonylphenol Ethoxylate	Proprietary	
-		Glutaraldehyde	111-30-8	
Bactron K-139 (Champion	Biocide	Quaternary Ammonium Compounds, Benzyl-C12		
Technologies)	Biocide	16-Alkyldimethyl, Chlorides	68424-85-1	
		E thanol	64-17-5	
	ļ	A A - Al-		
Bactron K-219 (Champion	Biocide	Methanol	67-56-1	
Technologies)	1	Quaternary Ammonium Compounds, Benzyl-C12	 	
		16-Alkyldimethyl, Chlorides	68424-85-1	
		Methanol	67-56-1	
A264 (Schlumberger)	C orrosion	Aliphatic Acids	Proprietary	
(to chiamberger)	Inhibitor	Prop-2-yn-1-ol	107-19-7	
		Aliphatic Alcohols, Ethoxylated #1		
Myacide GA 25 (Schlumberger)	0: 11	Water	Proprietary 7732-18-5	
Myacide GA 25 (Schlumberger)	Biocide	Glutaral		
cala labibita - 0.347		Tris odium Ortho Phosphate	111-30-8	
cale Inhibitor B317 (Schlumberger)	Scale Inhibitor	E thane-1,2-diol	7601-54-9	
U215 /- · · · ·	Hydrochloric	E diane-1,2-dioi	107-21-1	
H 215 (5 chlumberger)	Acid	Hydrochloric Acid	7647-01-0	
J 218 (Schlumberger)	Breaker	Diammonium Peroxidisulphate	7727-54-0	
EB-Clean*J475 (Schlumberger)	Breaker	Diammonium Peroxidisulphate	7727-54-0	
Water Gelling Agent J 580 (Schlumberger)	Gel	Carbohydrate Polymer	Proprietary	
Friction Reducer J 609W	Friction	Ammonium Sulfate	7783-20-2	
(S chlumberger)	Reducer	Urea	57-13-6	
Crosslinker J 610 (Schlumberger)	Crosslinker	P otassium Hydroxide	1310-58-3	
	CTOSSIIIKEI	Aliphatic Polyol	Proprietary	
ron Stabilizer L58 (Schlumberger)	Iron Stabilizer	S odium E rythorbate	6381-77-7	
40/70-Mesh S and S 012	Sand			
(Schlumberger)		C rystalline S ilica	14808-60-7	
S and S 100 (Schlumberger)	Sand	C rystalline S ilica	14808-60-7	
EC6486A (Nalco Champion)	S cale Inhibitor	Amine Triphosphate	Proprietary	
SSA-2 (Halliburton)		E thylene Glycol	107-21-1	
	S and Friction	C rystalline S ilica	14808-60-7	
FR-76 (Halliburton)	Reducer	Inorganic salt	64742-47-8	
LCA-1 (Halliburton)	Keducer	Hydrotreated light petroleum distillate	04742-47-8	
SP BREAKER (Halliburton)	Breaker	Hydrotreated light petroleum distillate	Proprietary	
	DICAKEI	S odium P ersulfate	7775-27-1	
1		Methanol	NA NA	
HAI-150E (Halliburton)	Corrosion	Aliphatic Acids		
ŀ	Inhibitor	P rop-2-yn-1-ol	NA	
		Aliphatic Alcohols, Ethoxylated #1	Ì	
Hydrochloric Acid 10-30% (Halliburton)		Hydrochloric Acid	7647-01-0	
G-36 Gelling Agent (Halliburton)	Gel	Polysaccharide	9000-30-0	
BC-140C (Halliburton)	Crosslinker		NA	



BRIAN DYTKO PAD **CONSTRUCTION AS-BUILT** TRIADELPHIA DISTRICT, OHIO COUNTY, WV MAY 17, 2017

WVDEP OOG ACCEPTED AS-BUILT

9 / 18 / 2017

PROJECT

LOCATION

COORDINATES: SITE ENTRANCE (NAD 83) LAT: 40.028480 LONG: -80.610666

AT DYTKO PAD (NAD 83) LAT: 40.029458 LONG: -80.608736

CENTER OF PAD (NAD 83) LAT: 40.029975 LONG: -80.608160

GATHERING AREA (NAD 83) LAT: 40.028450 LONG: -80.G10587

EXISTING WELLS:

DYTKO 1H API 4706900115 (NAD 83) LAT: 40.029984 LONG: -80.607884

DYTKO 6H API 4706900126 (NAD 83) LAT: 40.030022 LONG: -80.607949

DYTKO 8H API 4706900071 (NAD 83) LAT: 40.029956 LONG: -80.607978

DYTKO 10H API 4706900127 (NAD 83) LAT: 40.030036 IONG: -80.607903 SHEET INDEX

C-001 **COVER SHEET**

EVACUATION ROUTE / PREVAILING WINDS C-101 **EVACUATION ROUTE / PREVAILING WINDS** C-102 C-201 CONSTRUCTION/AS-BUILT OVERVIEW

CONSTRUCTION/AS-BUILT C-301 C-302 CONSTRUCTION/AS-BUILT

CONSTRUCTION/AS-BUILT ACCESS ROAD PROFILE C-401

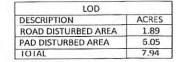
RECLAMATION OVERVIEW R-501 **RECLAMATION PLAN** R-601

RECLAMATION PLAN R-602 R-701 RECLAMATION DETAILS RECLAMATION DETAILS R-702

R-703 RECLAMATION DETAILS

REVISION

YOUDIG! BOO.245.4848





SWN

Production Company, LLC

Production Company 74 **BRIAN DYTKO**

COVER SHEET C-001

TRIADELPHIA DISTRICT, OHIO COUNTY, WV.

	05-17-17	MZZ	05-17-17	JPD	05-17-17	JHA ENGLISHERS ENVIRONMENTAL
NG:	Dytko As-Built	dwo			-	Compressió GES 14A?PRIG

