

#### 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

Monday, May 15, 2017 WELL WORK PERMIT Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC (A) POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit approval for CHARLES FRYE OHI 210H

47-069-00222-00-00

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: CHARLES FRYE OHI 210H

Farm Name: FRYE, DORTHY

U.S. WELL NUMBER: 47-069-00222-00-00

Horizontal 6A / New Drill

Date Issued: 5/15/2017

Promoting a healthy environment.

API Number: <u>4706900222</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: 4706900222

### **PERMIT CONDITIONS**

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

WW-6B (04/15) API NO. 47-069 OPERATOR WELL NO. Charles Frye OHI 210H
Well Pad Name: Charles Frye OHI Pad

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

1) Well Operator: SWN Produ	ction Co., LLC	494512924	069-Ohio	6- Triade 648-Valley Grove
		Operator ID	County	District Quadrangle
2) Operator's Well Number: Cha	arles Frye OHI	210H Well Pa	ad Name: Cha	rles Frye OHI Pad
3) Farm Name/Surface Owner:	Dorothy Frye & David	W. Frye Public Ro	ad Access: Bu	uckhannon Road
4) Elevation, current ground:	1266.8' E	levation, proposed	l post-construc	tion: 1266.8'
5) Well Type (a) Gas X Other	Oil	Une	derground Stor	age
(b)If Gas Shal	low X	Deep		
Hori	zontal X		$\prec$	2 2 2
6) Existing Pad: Yes or No	Yes (R)		_ \\	BRO 12.15.16
<ol> <li>Proposed Target Formation(s)</li> <li>Target Formation- Marcellus, Target</li> </ol>	, Depth(s), Antio	cipated Thickness get Base TVD- 6545	and Expected Anticipated Thick	Pressure(s): ness-19', Associated Pressure- 4242
8) Proposed Total Vertical Depth	: 6633'			
9) Formation at Total Vertical D		S		
10) Proposed Total Measured De	epth: 14027'			
11) Proposed Horizontal Leg Le	ngth: 6968.29			
12) Approximate Fresh Water St	rata Depths:	548'		
13) Method to Determine Fresh	Water Depths:	nearby water we	ells	
14) Approximate Saltwater Dept				
15) Approximate Coal Seam Dep	oths: 628'			
16) Approximate Depth to Possi	ble Void (coal m	nine, karst, other):	None that we	e are aware of.
17) Does Proposed well location				
directly overlying or adjacent to			N	& X SEIVED
(a) If Yes, provide Mine Info:	Name:			e of Oil and Gas
(a) if res, provide with mio.	Depth:		Ome	rep a 1 2017
	Seam:	1000000		
	Owner:		\\/\	V Department of
	- // AAAA		Enviro	onmental Protection

WW-6B (04/15)

API NO. 47-000 OPERATOR WELL NO. Charles Frye OHI 210H
Well Pad Name: Charles Frye OHI Pad

#### 18)

#### CASING AND TUBING PROGRAM

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
20"	New	H-40	94#	100'	100'	CTS
13 3/8"	New	1551	48#	668'	668'	608 sx/CTS
9 5/8"	New	J-55	36#	2097'	2097'	783 sx/CTS
7"	New	HCP-110	20#	If Needed	If Needed	If Needed/As Needed
5 1/2"	New	HCP-110	20#	14027'	14027'	trud \$70m Toll 1760us moids browning
2 3/8"	New	HCP-110	4.7#	Approx. 6526'	Approx. 6526'	
	(in) 20" 13 3/8" 9 5/8" 7" 5 1/2"	Or Used   Or Used	Or Used   Or Used	Or   Grade   Weight per II.	Size   Or   Used   Grade   Weight per II.   POOTAGE: For   Drilling (ft)	Or   Used   Or   Used   Or   Or   Or   Or   Or   Or   Or   O

C. pro

12.15.16

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Intermediate	7"	8 3/4"	0.317	4360	3250	Class A	1.20/50% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/50% Excess
Tubing	2 3/8"	4.778"	0.190	Approx 8193'	Approx 8193'		
Liners							

#### PACKERS

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

Page 2 of 3

Office of Oil and Gas

FEB 2 1 2017

WV Department of Environmental Protection WW-6B (10/14) 47 0 6 9 0 0 2 2 2 API NO. 47-069

OPERATOR WELL NO. Charles Frye OHI 210H

Well Pad Name: Charles Frye OHI Pad

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. 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): 13.6
22) Area to be disturbed for well pad only, less access road (acres):
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 ***
REGEINED
Office of QII and Gas
25) Proposed borehole conditioning procedures:  All bareholes will be conditioned with circulation and rotation for a minimum of characteristic procedure.
All boreholes will be conditioned with circulation and rotation for a minimum of ohe bottoms up and continuing until operator is satisfied with borehole conditions.  WV Department of Environmental Protection

**Schlumberger Cement Additives** 

Schlamberger Cement Additives				
	Product Name	Product Use	Chemical Name	CAS Number
Surface	S001	accelerator	calcium chloride	10043-52-4
Intermediate Surface	S001	accelerator	calcium chloride	10043-52-4
	D080	dispersant	sodium polynaphthalene sulfonate	9008-63-3
g g	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
ead	D046	antifoam	fullers earth (attapulgite)	8031-18-3
Production-Lead			chrystalline silica	14808-60-7
읦	D201	retarder	metal oxide	propriatary
Ä			sulphonated synthetic polymer	propriatary
P.r.	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
묾			sodium polynaphthalene sulfonate	9008-63-3
	D065	dispersant	sodium sulfate	7757-82-6
Production-Tall			chrystalline silica	14808-60-7
ĝ	D201	retarder	metal oxide	propriatary
<u> </u>	D153	anti-settling	chrystalline silica	14808-60-7

REGEIVED
Office of Oil and Gas

FEB 2 1 2017

WV Department of Environmental Protection



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

December 14, 2016

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

RE: Proposed New Well Charles Frye OHI 210H

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 Frye'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

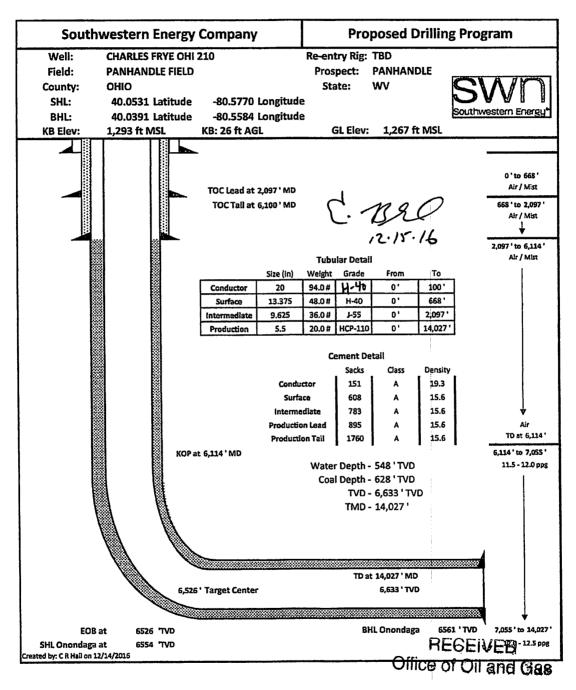
PO Box 1300

Jane Lew, WV 26378

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Office of Oil and Gas

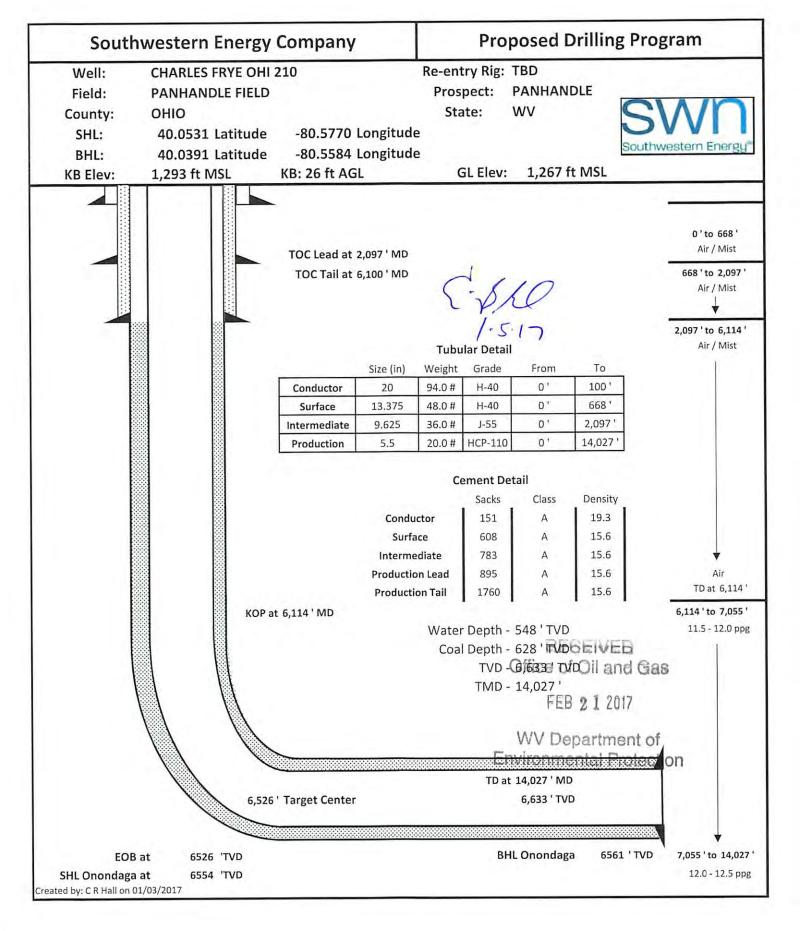
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WV Department of Environmental Protection



WW-9 (4/16)

API Number 47 -	69	4,7
Operator's	s Well N	No. Charles Frye OHI 210H

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

#### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Company, LLC	OP Code 494512924
Watershed (HUC 10) Marlow Run of Middle Wheeling Creek Quadrangle	Valley Grove
Do you anticipate using more than 5,000 bbls of water to complete the proposed we	
Will a pit be used? Yes No✓	93 245 4300 1995
If so, please describe anticipated pit waste:closed loop system in place at this	s time- cuttings will be taken to a permitted landfill
Will a synthetic liner be used in the pit? Yes No _ ✓ If so	o, what ml.?
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	0.0
Underground Injection (UIC Permit Number	
Reuse (at API Number at next anticipated well, API # will be included Off Site Disposal (Supply form WW-9 for disposal local	
Other (Explain flow back fluids will be put in steel tanks and	
Will closed loop system be used? If so, describe: _yes	ALC VE
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater	, oil based, etc. In the KOP, Thuid 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, lim	e, sawdust)
-Landfill or offsite name/permit number? Meadow SWF-1032, SS grading SWF-4902, Northwestern SWF Argen Langfill 1UU/2, American UZ-1Z954, Country VVIde 3839 Permittee shall provide written notice to the Office of Oil and Gas of any load of dr West Virginia solid waste facility. The notice shall be provided within 24 hours of where it was properly disposed.	U/CID38390, Pine Grove T3688 ill cuttings or associated waste rejected at any
I certify that I understand and agree to the terms and conditions of the GE on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of provisions of the permit are enforceable by law. Violations of any term or condit law or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examined and am application form and all attachments thereto and that, based on my inquiry of obtaining the information, I believe that the information is true, accurate, and of penalties for submitting false information, including the possibility of fine or impris	f Environmental Protection. I understand that the ion of the general permit and/or other applicable familiar with the information submitted on this f those individuals immediately responsible for complete. I am aware that there are significant comment.
Company Official Signature	Office of Oil and Gas
Company Official (Typed Name) Dee Southall	
Company Official Title Regulatory Supervisor	FEB 2 1 2017
<u> </u>	WV Departs
Subscribed and sworn before me this 12th day of 1	Environmental Policy
n :0 1.1	OFFICE ORL
Bittleny & Moody	Notary Public letary Public. State of West Virginia
My commission expires MULL	3302 Old Elkins Road Buckhannon, WV 26201
	My commission expires No Property 21. 02/20

Operator's Well No. Charles Frye OHI 210H

SWN Production Company, LLC			
roposed Revegetation Treatment: Acres Disturb	ped	Prevegetat	ion pH
Lime _as determined by pH test min. 2 Tons/acre or to	correct to pH \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
Fertilizer type 10-20-20			
Fertilizer amount 600	lbs/acre		
Mulch_ Hay/Straw 2.5	Tons/acre		
	Seed Mixtures		
Temporary		P	ermanent
Seed Type Ibs/acre *See Attachment		Seed Type	lbs/acre
ttach: aps(s) of road, location, pit and proposed area foovided). If water from the pit will be land applied reage, of the land application area. notocopied section of involved 7.5' topographic an Approved by:	ed, include dimensions (L	engineered plans x W x D) of the pi	including this info have been it, and dimensions (L x W), and ar
			Office of all the
<sub>itle:</sub> oil and gas inspector	Date:	1	Times of Oll and
ino.	Date:	1.5.17	Office of Oil and Gas



### **WVD Seeding Specification**



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

50lbs per acre of Winter Wheat

(please allow 7 to 10 days for delivery)

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

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 78 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 (2)

#### Special Considerations:

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

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

Seed Mixture: Wetland Mix	SWN Supplied	
VA Wild Ryegrass	20%	
Annual Ryegrass	20%	
Fowl Bluegrass	20%	
Cosmos 'Sensation'	10%	
Redtop	5%	
Golden Tickseed	5%	
Maryland Senna	5%	
Showy Tickseed	5%	
Fox Sedge	2.5%	
Soft Rush	2.5%	
Woolgrass	2.5%	
Swamp Verbena	2.5%	
Apply @ 25lbs per acre	Apply @ 50lbs per acre	
April 16th- Oct. 14th	Oct. 15th- April 15th	

NO FERTILIZER OR LIME INSIDE WETLAND LIMITS

### **Drilling Mediums**

Brine
Barite
Calcium Chloride
Lime
Organophilic Bentonite
Primary and Secondary Emulsifiers
Gilsonite
Calcium Carbonate
Friction Reducers

Synthetic Oil

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Office of Oil and Gas

MAY **0 4** 2017

WV Department of Environmental Protection

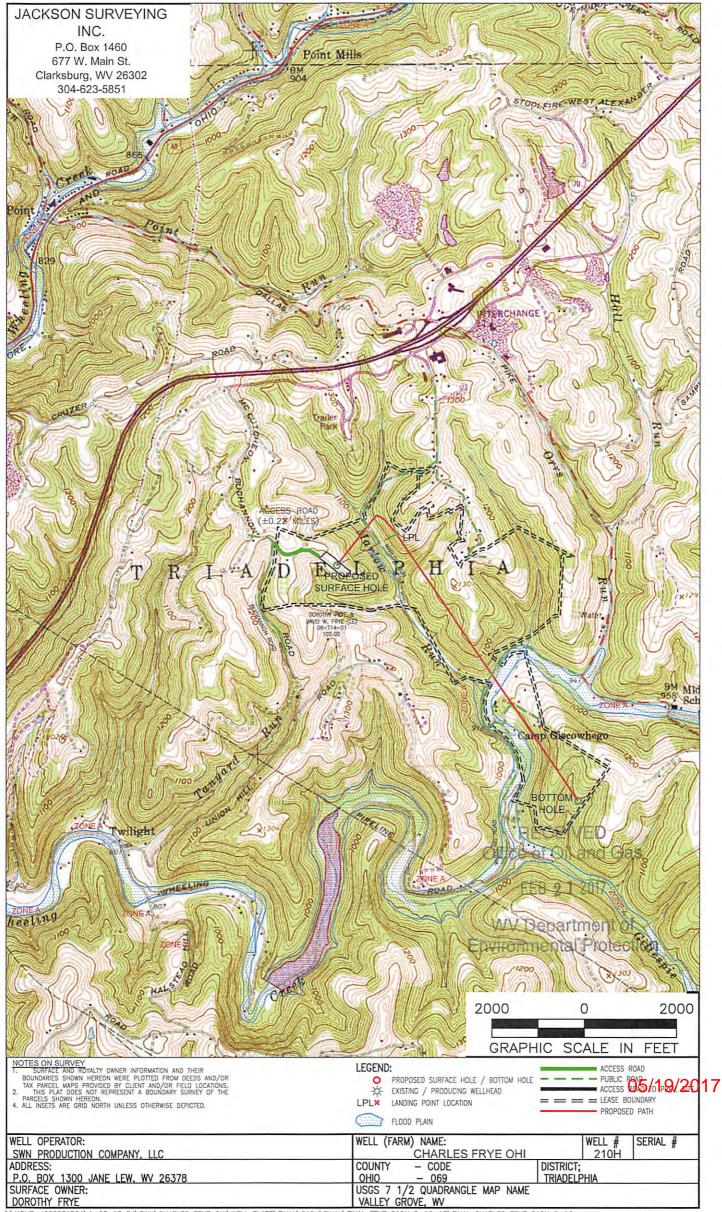
# MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN

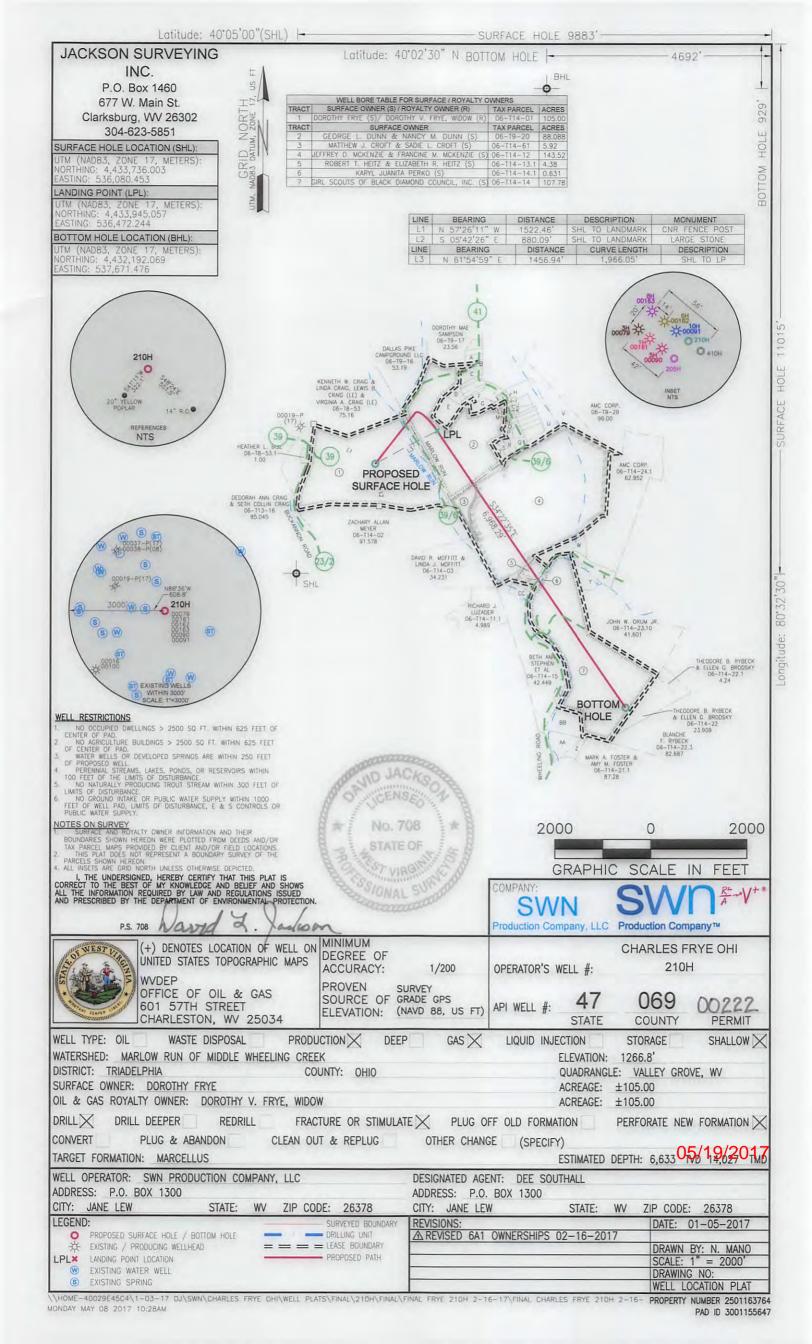


SWN Production Company, LLC 179 Innovation Drive Jane Lew, West Virginia 26378

API NO. 47-XXX-XXXXX
WELL NAME: Charles Frye OHI 210H
Valley Grove QUAD
Triadelphia DISTRICT
Ohio COUNTY, WEST VIRGINIA

Submitted by:			
Dee Southall	Date:	12/12/2016	
Title: Regulatory Supervisor	SWN Pr	oduction Co., LLC	
Approved by:	Date:	12.14.16	-
Title: 0.7 A les Zupers			
Approved by:			
	Date:	-	
Title:			RECEIVED Office of Oil and Gas
SWN PRODUCTION COMPANY,	LLC		FEB 2 1 2017
			WV Department of Environmental Protection





### JACKSON SURVEYING

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

	ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
Α	BRIAN D. DOLENCE & DONNA J. DOLENCE	06-T9-17.1	1.04
В	LEONA L. KIRCHNER	06-T9-20.22	0.35
С	PATRICIA KIRCHNER (LE) & DONNA K. DUNN	06-T9-20.18	2.46
D	PHILLIP J. MARQUART & KERSTEN L. MARQUART	06-T9-20.45	1.88
E	SARAH ANN PORTER	06-T9-20.44	4.545
F	NANCY DUNN	06-T9-20.2	1.823
G	CHRISTOPHER R. DUNN & TANAKA H. DUNN	06-T9-20.46	1.86
Н	GEORGE L. DUNN & NANCY M. DUNN	06-T9-20.50	0.52
1	JAMES L. ABERCROMBIE & DIANA L. ABERCROMBIE	06-T9-20.30	0.298
J	JAMES L. ABERCROMBIE & DIANA L. ABERCROMBIE	06-T9-20.29	0.2436
K	ROBERT J. ALOE	06-19-20.23	0.2383
L	DANIEL L. WHEELER	06-T9-20.31	0.2673
M	DANIEL L. WHEELER	06-T9-20.26	0.110
N	DANIEL L. WHEELER	06-T9-20.37	0.248
0	BRENT A. HILL & PATTY J. HILL	06-T9-20.47	0.285
P	BRENT A. HILL & PATTY J. HILL	06-T9-20.32	0.46
Q	DONALD W. PEGG & J.L. PEGG	06-T9-20.1	1.848
R	GARY FLANEGIN	06-T9-20.20	1.202
S	MICHAEL W. NASH & C.J. NASH	06-T9-20.19	0.9315
T	LISA A. OLIVER	06-T9-20.21	0.8468
U	BRADLEY W. HAND & R.L. HAND	06-T9-20.38	9.477
V	GEORGE L. DUNN & NANCY M. DUNN	06-T9-20	7.96
W	ELIZABETH R. NASH & ROBERT T. HEITZ	06-T14-13	4.38
X	CLEATUS STILL	06-T14-24.5	1.57
Y	TERRY L. CLUTTER	06-T14-23.7	3.86
Z	DAVID EUGENE CLOVIS	06-T14-20	2.202
AA	DAVID E. CLOVIS & R.J. CLOVIS	06-T14-19	5.231
BB	CHARLES S. ALDERMAN & D.J. ALDERMAN	06-T14-16	7.31
CC	DAVID L. SINGER & R.A. SINGER	06-T14-15.2	2.254

			47-069-	00:05/19/2017
REVISIONS:  ⚠ REVISED 6A1 OWNERSHIPS 02-16-2017	COMPANY:	SWN Production Company, LLC	SVI Production Company	
	OPERATOR'S WELL #:	CHARLES FRYE OHI 210H		DATE: 01-05-2017  DRAWN BY: N. MANO
	DISTRICT: TRIADELPHIA	COUNTY: OHIO	STATE: WV	SCALE: N/A DRAWING NO: WELL LOCATION PLAT 2

WW-6A1 (5/13)

Operator's Well No.	Charles Frye OHI 410H
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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:

Lease Name or				
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. I and Gas

Well Operator:	SWN Produ	tion Company LAEQ 21 2017
By:	N-c-	)
Its:	Sh Landman	WV Department of
		Environmental Protection

Page 1 of

EXHIBIT "A"

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

Deborah Craig OHI 6H

Ohlo County, West Virginia

# '	TMP	SURFACE OWNER	DEEDED ACREAGE	LEASE #	Surgit structure and twings of LESSOR that was a substitute of the	LESSEE	ROYALTY	BK/PG
.)	06-T34-1	Dorothy Frye	105	730226-000	Dorothy V Frye, Widow	Great Lakes Energy Partners Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	12.50%	775/335 808/375 883/204
2)	06-19-20	George L Dunn and Nancy M. Dunn	88.088	725414-000	George L. Dunn and Nancy M. Dunn	Chesapeake Appalachia, LLC. SWN Production Company, LLC.	14.00%	795/556 885/524
	06-T14-61	Matthew J. Croft and Sadie L. Croft	5.92	729287-000	Matthew J. Croft and Sadle L. Croft	Chesapeake Appalachia, L.L.C. SWN Production Company, L.L.C.	18.00%	810/15 883/144
4)	06-T14-12	Jeffrey D. McKenzle and Francine M. McKenzle	143.52	734070-000	Jeffrey D. McKenzie and Francine M. McKenzie	NPAR, LLC. Chesapeako Appalachia, LLC. SWN Production Company, L.LC.	18.00%	807/570 867/713 885/308
_	05-T14-13.1	Robert T. Heitz an Eilzabeth R. Heitz	4.38	734072-000	Robert T. Heltz an Elizabeth R. Heltz	NPAR, LLC. Chesapeake Appalachia, LLC. SWN Production Company, LLC.	18.00%	820/420 867/701 885/308
_	06-T14-14.1	Karyi Juanita Perko	0.631	738682-000	Karyl Juanita Perko	Chesapeake Appalachia, LL.C. SWN Production Company, LL.C.	18.00%	852/669 885/416
1	05-T14-14	Girl Scouts of Black Diamond Council, Inc	107,78	737555-000	LL&B Headwater II, LP	Chesapeako Appalachia, L.L.C. 5WN Production Company, L.L.C.	18.00%	840/133 885/380

FEB 2 1 2017
WV Department of Environmental Protection

470690022





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

December 12, 2016

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: Charles Frye OHI 210H in Ohio County, West Virginia, Drilling under Marlow Run Road & Wheeling 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 Marlow Run Road & Wheeling 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 Senior Landman SWN Production Company, LLC PO Box 12359 Spring, TX 77391-2359

> Degelved Office of Oil and Gas

> > FEB 2 1 2017

A WV Department of Environmental Protection

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

05/19/2017

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

Date of Notic	ce Certification:		API No. 4	7- 069
			Operator's	s Well No. Charles Frye OHI 210H
			Well Pad	Name: Charles Frye OHI Pad
Notice has l	oeen given:			
Pursuant to th	e provisions in West Virginia Code § 22-	-6A, the Operator has pro	ovided the red	quired parties with the Notice Forms listed
below for the	tract of land as follows:			
State:	West Virginia	UTM NAD 83	Easting:	536080.453
County:	069-Ohio	UTWINAD 83	Northing:	4433736.003
District:	Triadelphia	Public Road Acc	cess:	Buckhannon Road
Quadrangle:	Valley Grove	Generally used t	farm name:	Charles Frye
Watershed:	Marlow Run of Middle Wheeling Creek			

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

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:	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 CONDUCTED	RECEIVED
■ 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or	RECEIVED/ NOT REQUIRED
☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	
4. NOTICE OF PLANNED OPERATION	RECEIVED
☐ 5. PUBLIC NOTICE	RECEIVED
☐ 6. NOTICE OF APPLICATION	RECEIVED

#### Required Attachments:

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

WV Departmenton Environmental Protection 05/19/2017

#### Certification of Notice is hereby given:

above, to the re signature confir- in this Notice ( obtaining the in	at as required under West Virginia Code equired parties through personal service, I mation. I certify under penalty of law that Certification and all attachments, and th	§ 22-6A, I have so by registered mail I have personally at based on my is strue, accurate and	the notice requirements within West Virginia Code § 22- erved the attached copies of the Notice Forms, identified or by any method of delivery that requires a receipt or examined and am familiar with the information submitted inquiry of those individuals immediately responsible for d complete. I am aware that there are significant penalties original.
Well Operator:	SWN Production Co., LLC	Address:	P.O. Box 12359
By:	Dee Southall		Spring, TX 77391-4954
Its:	Regulatory Supervisor	Facsimile:	
Telephone:	304-884-1614	Email:	Dee_Southall@swn.com
	OFFICIAL SEAL  Notary Public, State of West Virginia  BRITTANY R WOODY	ubscribed and swo Mathway R  Ty Commission Ex	norn before me this 12th day of 1000mblen 2014 Notary Public spires 11727

#### 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>.

Office of Oil and Gas
FEB 21 2017
WV Department of
Environmental Protection

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

OPERATOR WELL NO. Charles Frye OHI 210H
Well Pad Name: Charles Frye 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: 2 17 \ 11 ate Permit Application Filed: 2	17/17
☑ PERMIT FOR ANY ☐ CERTIFICATE OF APP	PROVAL FOR THE
	AN IMPOUNDMENT OR PIT
WELL WORK CONSTRUCTION OF A	AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-10	0(b)
☐ PERSONAL ☑ REGISTERED ☐ METH	OD OF DELIVERY THAT REQUIRES A
	IPT OR SIGNATURE CONFIRMATION
	of the application, the applicant for a permit for any well work or for a
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, it 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 provision of this article to the contrary, notice to a lien holder is not	e tenants in common or other co-owners of interests described in nt 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)	☐ COAL OWNER OR LESSEE
Name: Dorothy V. Frye	Name: Alliance Resources GP, LLC % Elizabeth Acost
Address: 849 McCutcheon Road	Address: 2596 Battle Run Road
Triadelphia, WV 26059	Triadelphia, WV 26059
Name:	COAL OPERATOR
Address:	Name:
	Address:
☐ SURFACE OWNER(s) (Road and/or Other Disturbance)	
Name:	☑ SURFACE OWNER OF WATER WELL
Address:	AND/OR WATER PURVEYOR(s)
	Name: See Attachment #1
Name:	Address: REGEIVED
Address:	- and trans on the same and Gas
	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
SURFACE OWNER(s) (Impoundments or Pits)	Name:
Name:	Address: FEB 2 1 ZUIT
Address:	*Please attach additional forms if necessary WV Department of Environmental Protection

06900222 API NO. 47-069

OPERATOR WELL NO. Charles Frye OHI 210H Well Pad Name: Charles Frye OHI Pad

#### Notice is hereby given:

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

#### This Notice Shall Include:

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

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

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

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

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oiland-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 of 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 3102012, 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

Environmental Protection

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05/19/2017

WW-6A (8-13)

API NO. 47-069 OPERATOR WELL NO. Charles Frye OHI 210H
Well Pad Name: Charles Frye 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 57<sup>th</sup> St. SE Charleston, WV 25304 (304) 926-0450

MEGEIVED
Office of Oil and Gas

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.

WV Department of Environmental Protection 05/19/2017

WW-6A (8-13) API NO. 47- 069 OPERATOR WELL NO. Charles Frye OHI 210H
Well Pad Name: Charles Frye 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

FEB 2 1 2017

WV Department of Environmental Profestion/2017

WW-6A (8-13) 4706900222

API NO. 47- 069

OPERATOR WELL NO. Charles Frye OHI 210H
Well Pad Name: Charles Frye 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:

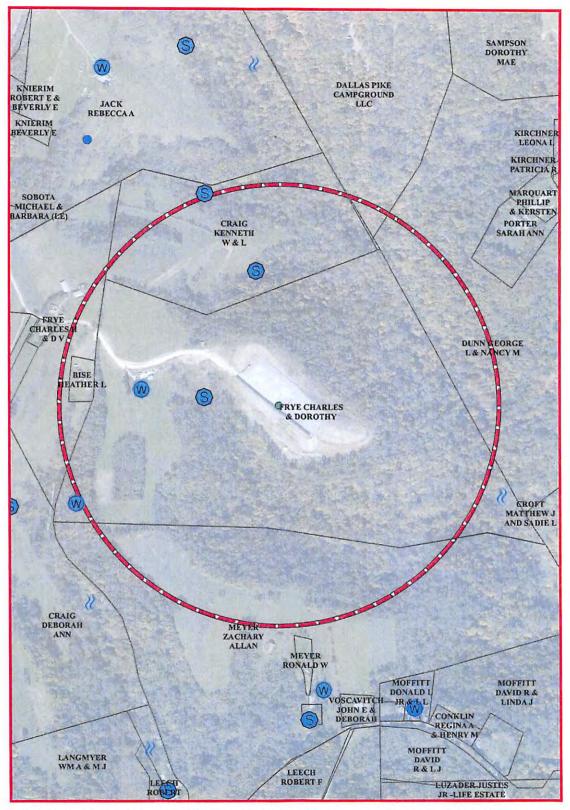
#### Oil and Gas Privacy Notice:

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 <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

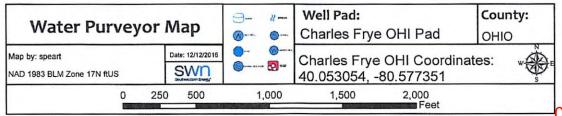
WEST	OFFICIAL SEAL
ES & CO.	Notary Public, State of West Virginia 🥻
三人多种人一种人	BRITTANY R WOODY
出版明写。1997	3302 Old Elkins Road
11/2	Buckhannon, WV 26201
	My commission expires November 27, 2022
THE REAL PROPERTY.	

Subscribed and sworn before me this Atlandary of Modern Acid

My Commission Expires\_



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.



05/19/2017

Attachment # / 4706900222

Charles Frye OHI Pad - Water Purveyors w/in 1500'

Sources

Landowner

Address

Charles & Dorothy Frye W & L Kenneth Craig

849 MCCUTCHEON RD, TRIADELPHIA WV 26059 1 well / 1 spring 844 MCCUTCHEON RD, TRIADELPHIA WV 26059 2 springs

RECEIVED
Office of Oil and Gas

FEB 2 1 2017

WV Department of Environmental Protection 05/19/2017 WW-6A4 (1/12) Operator Well No. Charles Frye OHI 210H

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

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

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a similar application.

Notice Time Date of Noti		rovided at least TEN (10) days prior to filing a  Date Permit Application Filed:	rmlt application.
Delivery me	thod pursuant to West Virginia	Code § 22-6A-16(b)	
☐ HAND	■ CERTIFIED MA		
DELIVI	ERY RETURN RECI	EIPT REQUESTED	
receipt reque drilling a hor of this subsection mand if available	sted or hand delivery, give the su izontal well: <i>Provided</i> , That not tion as of the date the notice was ay be waived in writing by the su le, facsimile number and electron	ast ten days prior to filing a permit application, inface owner notice of its intent to enter upon the ice given pursuant to subsection (a), section tends approvided to the surface owner: <i>Provided, how</i> inface owner. The notice, if required, shall including mail 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,
	reby provided to the SURFA		
Address: 849	Frye & David W. Frye (LE)	Name:Address:	
Triadelphia, WV		/ Address	
the surface of State:		IITM NAIN 02	llows: 536,080.453
County:	Ohio	Northing:	4,433,736.003
District:	Triadelphia		Marlow Run
Quadrangle:	Valley Grove, WV	Generally used farm name:	Charles Frye OHI
Watershed:	Marlow Run of Middle Wheeling Creek		
Pursuant to facsimile nur related to ho	mber and electronic mail addres	5(b), this notice shall include the name, address of the operator and the operator's authorized from the Secretary, at the WV Department of 25304 (304-926-0450) or by visiting www.de	d representative. Additional information f Environmental Protection headquarters,
Notice is he	reby given by:		
Well Operato	r: SWN Production Company, LLC	Authorized Representative:	Mike Yates
Address:	PO Box 1300, 179 Innovation Drive	Address:	PO Box 1300, 179 Innovation Drive
	Jane Lew, WV 26378		Jane Lew, WV 26378
Telephone:	304-517-6603	Telephone:	304-517-6603/
Email:	Michael_Yates@swn.com	Email: Offi	Michael Yates@swn.dom
Facsimile:	304-471-2497	Facsimile:	304-471-2497

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and delephone 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 requestionary 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.

FEB 2 1 2017

WW-6A5 (1/12)

4706900222 Operator Well No. Charles Frye OHI 210H

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

Date 01		equirement: notice shall be pro-		o later than the filing pplication Filed:		application.
Deliver	y metho	od pursuant to West Virginia (	Code § 2	22-6A-16(c)		
■ C	ERTIFI	ED MAIL	П	HAND		
		RECEIPT REQUESTED		DELIVERY		
return return required drilling damage (d) The of notice is (at the a Name: I Address	eceipt remed oped to be pof a ho es to the notices e.  is herebaddress I Dorothy Fry	equested or hand delivery, give to the creation. The notice required by provided by subsection (b), section rizontal well; and (3) A propose surface affected by oil and gas or required by this section shall be be to provided to the SURFACE (isted in the records of the sheriff to & David W. Frye (LE) utcheon Rd.	he surfar this sum ten of the ten of the ten of the ten of the ten of the ten of the ten of the ten	ace owner whose land absection shall include this article to a surface use and compens to the extent the dot the surface owner R(s)	I will be used for de: (1) A copy ace owner whose sation agreement amages are come at the address list	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
Notice	ic harah	w given:				
Pursuan operation State: County: District: Quadran	nt to Weston on the way of the wa	by given: st Virginia Code § 22-6A-16(c), e surface owner's land for the pu  West Virginia  Dhio  Triadelphia  Valley Grove, WW		of drilling a horizonta  UTM NAD 8  Public Road	I well on the tra Easting: Northing:	well operator has developed a planned act of land as follows: 536,080.453 4,433,736.003 Marlow Run Charles Frye OHI
Pursuan operation State: County: District: Quadran Watersh  This No Pursuan to be pursuan to be pursuan to surface information headquarents.	to Western on the second on the second on the second on the second of th	st Virginia Code § 22-6A-16(c), e surface owner's land for the pure Nest Virginia Ohio Triadelphia Valley Grove, WV Marlow Run of Middle Wheeling Creek  all Include: st Virginia Code § 22-6A-16(c), by W. Va. Code § 22-6A-10(b, and (3) A proposed surface used by oil and gas operations to the lated to horizontal drilling may ocated at 601 57th Street, SE,	this no ) to a seand cone extended obta	Of drilling a horizonta  UTM NAD 8  Public Road Generally us  tice shall include: (1) surface owner whose mpensation agreement the damages are coined from the Secre	Easting: Northing: Access: ed farm name:  A copy of this e land will be int containing an ompensable uncary, at the WV	10t of land as follows: 536,080.453 4,433,736.003 Marlow Run
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Pursuan operation State: County: District: Quadran Watersh  This No Pursuan to be pursuan to be pursuan surface information headquate gas/pag	to Western on the second on the second on the second on the second of th	st Virginia Code § 22-6A-16(c), e surface owner's land for the pure Nest Virginia Ohio Triadelphia Valley Grove, WV Marlow Run of Middle Wheeling Creek  all Include: st Virginia Code § 22-6A-16(c), by W. Va. Code § 22-6A-10(b, and (3) A proposed surface used by oil and gas operations to the lated to horizontal drilling may ocated at 601 57th Street, SE,	this no ) to a seand cone extended obta	Public Road Generally us  tice shall include: (1 surface owner whose mpensation agreeme t the damages are coined from the Secre eston, WV 25304	Easting: Northing: Northing: Access: ed farm name:  A copy of this e land will be ent containing an ompensable uncertary, at the WV (304-926-0450)	act of land as follows:  536,080.453  4,433,736.003  Marlow Run  Charles Frye OHI  code section; (2) The information required used in conjunction with the drilling of a noffer 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-

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>.

WV Department of Environmental Protection



#### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

### Division of Highways 1900 Kanawha Boulevard East • Building Five • Room 110

**Earl Ray Tomblin** Governor

Charleston, West Virginia 25305-0430 • (304) 558-3505

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

December 13, 2016

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 Charles Frye Pad OHI 210H Well Site, Ohio County 41-554-50222

Dear Mr. Martin,

The West Virginia Division of Highways has issued permit 06-2011-0061 to Southwestern Energy for access to the State Road for the well site located off of Ohio County Route 41/1 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

Regional Maintenance Engineer

Central Office Oil &Gas Coordinator

Office of Oil and Gas

FEB 2 1 2017

WV Department of Environmental Protection 05/19/2017

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

File

Product Name	Product Use	Chemical Name	CAS Number
	-	Hydrogen Peroxide	7722-84-1
EC6734A (Champion Technologies)	Biocide	Acetic Acid	64-19-7
		Peroxyacetic Acid	79-21-0
GYPTRON T-390 (Champion	Scale Inhibitor	Methanol	67-56-1
Technologies)		Nonylphenol Ethoxylate	Proprietary
		Glutaraldehyde	111-30-8
Bactron K-139 (Champion Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12-	68424-85-1
reciniologics/		16-Alkyldimethyl, Chlorides Ethanol	64-17-5
		Ethanor	04-17-5
Bactron K-219 (Champion	Biocide	Methanol	67-56-1
Technologies)	Biocide	Quaternary Ammonium Compounds, Benzyl-C12- 16-Alkyldimethyl, Chlorides	68424-85-1
		Methanol	67-56-1
A264 (5.1)	Corrosion	Aliphatic Acids	Proprietary
A264 (Schlumberger)	Inhibitor	Prop-2-yn-1-ol	107-19-7
		Aliphatic Alcohols, Ethoxylated #1	Proprietary
	-	Water	7732-18-5
Myacide GA 25 (Schlumberger)	Biocide	Glutaral	111-30-8
		Trisodium Ortho Phosphate	7601-54-9
Scale Inhibitor B317 (Schlumberger)	Scale Inhibitor	Ethane-1,2-diol	107-21-1
H215 (Schlumberger)	Hydrochloric Acid	Hydrochloric Acid	7647-01-0
J218 (Schlumberger)	Breaker	Diammonium Peroxidisulphate	7727-54-0
EB-Clean* J475 (Schlumberger)	Breaker	Diammonium Peroxidisulphate	7727-54-0
Water Gelling Agent J580 (Schlumberger)	Gel	Carbohydrate Polymer	Proprietary
Friction Reducer J609W	Friction	Ammonium Sulfate	7783-20-2
(Schlumberger)	Reducer	Urea	57-13-6
		Potassium Hydroxide	1310-58-3
Crosslinker J610 (Schlumberger)	Crosslinker	Aliphatic Polyol	Proprietary
Iron Stabilizer L58 (Schlumberger)	Iron Stabilizer	Sodium Erythorbate	6381-77-7
40/70-Mesh Sand S012 (Schlumberger)	Sand	Crystalline Silica	14808-60-7
Sand S100 (Schlumberger)	Sand	Crystalline Silica	14808-60-7
	Scale Inhibitor	Amine Triphosphate	Proprietary
EC6486A (Nalco Champion)		Ethylene Glycol	107-21-1
SSA-2 (Halliburton)	Sand	Crystalline Silica	14808-60-7
FR-76 (Halliburton)	Friction Reducer	Inorganic salt Office Hydrotreated light petroleum distillate	0647412817c8(
LCA-1 (Halliburton)			Proprietary
SP BREAKER (Halliburton)	Breaker	Sodium Persulfate	7775-27-1

WV Department of Environmental Protection 2017

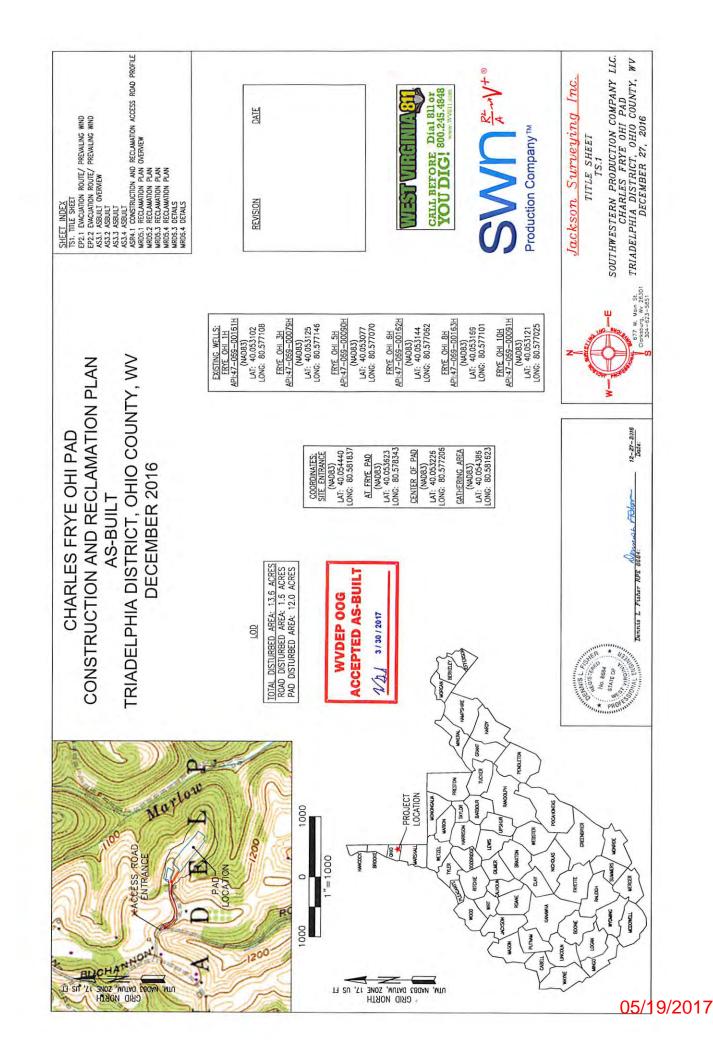
Product Name	Product Use	Chemical Name	CAS Number	
		Methanol		
HAI-150E (Halliburton)	Corrosion – Inhibitor –	Aliphatic Acids	NA NA	
	minibitoi [	Prop-2-yn-1-ol		
	[	Aliphatic Alcohols, Ethoxylated #1		
Diesel Fuel (Halliburton)		Diesel Fuel	68476-34-6	
Hydrochloric Acid 10-30% (Halliburton)		Hydrochloric Acid	7647-01-0	
WG-36 Gelling Agent (Halliburton)	Gel	Polysaccharide	9000-30-0	
BC-140C (Halliburton)	Crosslinker		NA	

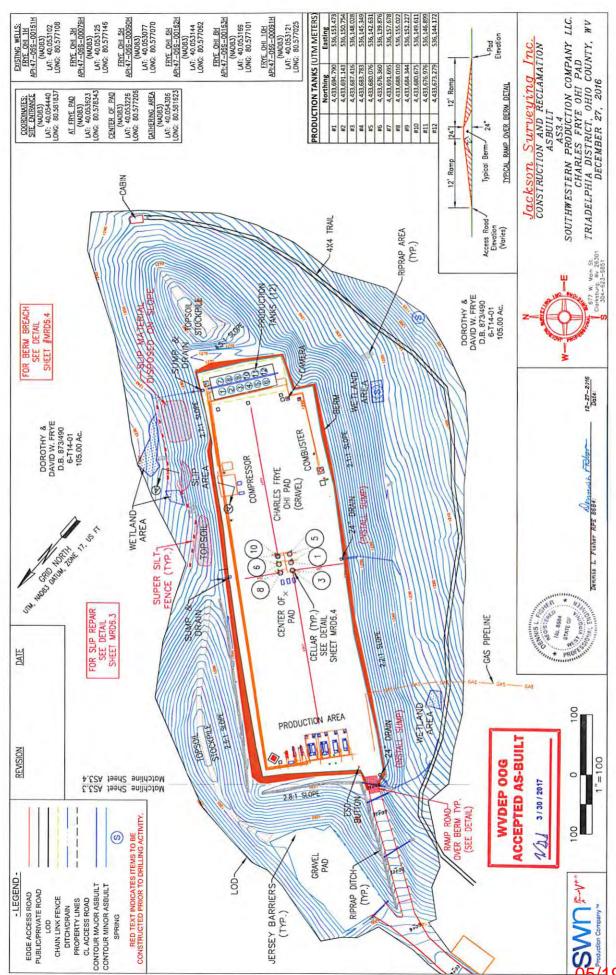
RECEIVED Office of Oil and Gas

WV Department of

Environmental

FEB 2 1 2017 05/19/2017





E OHI PAD
RECLAMATION PLAN
IILT
, OHIO COUNTY, WV
R 2016

COORDINATES: SITE ENTRANCE (NAD83) LAT: 40.054440 LONG: 80.581837

AT FRYE PAD (NAD83) LAT: 40.053623 LONG: 80.578343

CENTER OF PAD (NAD83) LAT: 40.053226 LONG: 80.577206

GATHERING AREA (NAD83) LAT: 40.054386 LONG: 80.581623 EXISTING WELLS: FRYE OHI 1H API:47-069-00161H (NAD83) LAT: 40.053102 LONG: 80.577108

FRYE OHI 3H API:47-069-00079H (NAD83) LAT: 40.053125 LONG: 80.577146

FRYE OHI 5H API:47-069-00090H (NAD83) LAT: 40.053077 LONG: 80.577070

FRYE OHI 6H API:47-069-00162H (NAD83) LAT: 40.053144 LONG: 80.577062

FRYE OHI 8H

API:47-069-00163H

(NAD83)

LAT: 40.053169

LONG: 80.577101

FRYE OHI 10H API:47-069-00091H (NAD83) LAT: 40.053121 LONG: 80.577025 SHEET INDEX

TS1. TITLE SHEET

EP2.1 EVACUATION ROUTE/ PREVAILING WIND

EP2.2 EVACUATION ROUTE/ PREVAILING WIND

AS3.1 ASBUILT OVERVIEW

AS3.2 ASBUILT

AS3.3 ASBUILT

AS3.4 ASBUILT

ASR4.1 CONSTRUCTION AND RECLAMATION ACCESS ROAD PROFILE

MRD5.1 RECLAMATION PLAN OVERVIEW

MRD5.2 RECLAMATION PLAN

MRD5.3 RECLAMATION PLAN

MRD5.4 RECLAMATION PLAN

MRD6.3 DETAILS

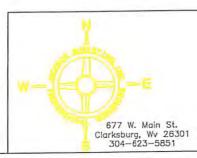
MRD6.4 DETAILS

REVISION

DATE

CALL BEFORE Dial 811 or YOU DIG! 800.245.4848





Jackson Surveying Inc.

TITLE SHEET TS.1

SOUTHWESTERN PRODUCTION COMPANY LLC. CHARLES FRYE OHI PAD TRIADELPHIA DISTRICT, OHIO COUNTY, WV DECEMBER 27, 2016

Tolor

12-27-2016 Date:

