

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-069-00229 County OHIO District TRIADELPHIA
Quad WHEELING Pad Name MELVIN KAHLE OHI PAD 1 Field/Pool Name PANHANDLE
Farm name MELVIN W KAHLE JR AND CAROL M KAHLE Well Number MELVIN KAHLE OHI 10H
Operator (as registered with the OOG) SWN PRODUCTION COMPANY, LLC
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,435,789.49 Easting 531,965.37
Landing Point of Curve Northing 4,435,772.16 Easting 532,225.46
Bottom Hole Northing 4,434,438.36 Easting 532,776.91

Elevation (ft) 1276.2 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
SOBM

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Date permit issued 07/27/2017 Date drilling commenced 12/20/2017 Date drilling ceased 02/17/2018
Date completion activities began 05/01/2018 Date completion activities ceased 06/09/2018
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 369' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 766' Void(s) encountered (Y/N) depths 607' - 618'
Coal depth(s) ft 604' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed

[Handwritten signature]
10-9-18

Reviewed by:
[Handwritten signature]

API 47- 069 - 00229

Farm name MELVIN W KAHLE JR AND CAROL M KAHLE

Well number MELVIN KAHLE OHI 10H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24	20	126'	NEW	J-55/94#		Y
Surface	17.5	13.375	685'	NEW	J-55/54.50#	587'; 620'	Y
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	2,040'	NEW	J-55/36#		Y, 43 bbls
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	11,662'	NEW	HCP-110/20#		Y
Tubing		2.375	6,804'	NEW	L-80/4.7#		N
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	627	15.60	1.20	752.4	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	796	15.60	1.19	947.24	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	2,020	15.60	1.19	2,403.8	SURFACE	24
Tubing							

Drillers TD (ft) 11,662' Loggers TD (ft) 11,662'
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5,482'

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

SURFACE: 7 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 INTERMEDIATE: 24 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 PRODUCTION: 181 CENTRALIZERS - EVERY THIRD JOINT FROM SURFACE TO TOP OF CURVE, THEN EVERY JOINT UNTIL TD

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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**MELVIN KAHLE OHI 10H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	4/24/2018	11,577	11,479	36
2	5/14/2018	11,444	11,337	42
3	5/15/2018	11,304	11,197	65
4	5/16/2018	11,164	11,057	42
5	5/17/2018	11,019	10,917	42
6	5/17/2018	10,884	10,777	42
7	5/18/2018	10,744	10,637	42
8	5/18/2018	10,604	10,497	42
9	5/18/2018	10,464	10,357	42
10	5/18/2018	10,324	10,217	42
11	5/19/2018	10,184	10,077	42
12	5/19/2018	10,044	9,937	42
13	5/19/2018	9,904	9,797	42
14	5/20/2018	9,764	9,657	42
15	5/20/2018	9,624	9,517	42
16	5/21/2018	9,484	9,377	42
17	5/21/2018	9,344	9,237	42
18	5/21/2018	9,204	9,092	42
19	5/21/2018	9,064	8,957	42
20	5/22/2018	8,924	8,817	42
21	5/22/2018	8,784	8,675	42
22	5/22/2018	8,645	8,537	42
23	5/23/2018	8,504	8,398	42
24	5/23/2018	8,364	8,257	42
25	5/23/2018	8,224	8,117	42
26	5/24/2018	8,084	7,977	42
27	5/24/2018	7,944	7,837	42
28	5/25/2018	7,804	7,697	42
29	5/25/2018	7,667	7,557	42
30	5/25/2018	7,524	7,417	42
31	5/25/2018	7,384	7,277	42
32	5/26/2018	7,244	7,137	42
33	5/26/2018	7,104	6,997	42
34	5/26/2018	6,964	6,859	42
35	5/26/2018	6,824	6,717	42

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MELVIN KAHLE OHI 10H
ATTACHMENT 2
STIM REPORT

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/othe
1	5/1/2018	68.5	8,054	8,814	7,558	472,360	7,299	0
2	5/14/2018	100.1	7,669	5,903	4,341	481,928	8,015	0
3	5/16/2018	93	7,453	5,837	4,572	500,720	8,099	0
4	5/16/2018	87.7	7,613	5,393	4,558	491,930	9,045	0
5	5/17/2018	99.9	7,655	5,380	4,553	489,820	7,891	0
6	5/17/2018	99.7	7,821	4,879	4,621	509,500	7,255	0
7	5/18/2018	100.2	7,466	3,376	4,282	497,000	7,196	0
8	5/18/2018	97.1	7,145	3,460	4,546	493,920	6,411	0
9	5/18/2018	101.5	7,427	5,392	4,473	492,540	7,222	0
10	5/19/2018	100	7,367	5,397	4,608	498,670	7,021	0
11	5/19/2018	101.3	7,276	5,610	4,615	510,440	6,373	0
12	5/19/2018	101.8	7,172	5,434	4,482	489,540	6,960	0
13	5/20/2018	100.7	6,953	5,443	4,505	479,490	7,224	0
14	5/20/2018	96.9	7,238	5,138	4,641	498,058	6,403	0
15	5/20/2018	100.5	7,127	5,542	4,410	495,770	6,914	0
16	5/21/2018	100.1	7,443	3,721	3,697	493,450	5,871	0
17	5/21/2018	98.8	7,343	5,448	4,675	498,830	5,793	0
18	5/21/2018	101.7	7,201	5,338	5,016	493,880	6,196	0
19	5/22/2018	100.5	7,035	5,731	4,467	487,210	5,663	0
20	5/22/2018	99.7	7,293	5,859	4,599	447,790	5,535	0
21	5/22/2018	99.6	6,933	5,686	4,637	505,736	6,084	0
22	5/23/2018	100.2	7,218	5,364	4,660	485,660	6,071	0
23	5/23/2018	100.5	7,148	5,491	4,374	491,610	6,559	0
24	5/23/2018	100.9	7,390	5,398	4,720	494,220	6,089	0
25	5/24/2018	89.2	6,706	5,427	4,528	491,350	7,136	0
26	5/24/2018	100	7,025	5,542	4,589	471,460	7,029	0
27	5/24/2018	98.6	7,102	5,357	7,403	484,740	6,062	0
28	5/25/2018	100.2	6,848	4,885	4,726	484,170	6,635	0
29	5/25/2018	99	6,940	5,050	4,592	485,280	6,450	0
30	5/25/2018	100	7,213	4,117	4,628	506,140	6,089	0
31	5/25/2018	100	7,278	5,123	4,674	481,370	5,957	0
32	5/26/2018	100.6	7,205	5,888	4,722	496,910	6,026	0
33	5/26/2018	99.1	6,723	5,683	4,820	489,390	7,128	0
34	5/26/2018	99	7,049	5,720	4,485	488,140	6,265	0
35	5/26/2018	100.5	6,777	5,531	4,626	508,340	6,545	0

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Well Name: Melvin Kahle OHI 10H

47069002290000

Attachment 3

LITHOLOGY/FORMATION	TOP DEPTH, MD (FT)	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, MD (FT)	BOTTOM DEPTH, TVD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	0.00	0.00	369.00	369.00	
Top of Salt Water	766.00	766.00	NA	NA	
Pittsburgh Coal	604.00	604.00	617.00	617.00	
Pottsville (ss)	750.00	750.00	803.00	803.00	
Mauch Chunk (shale)	803.00	803.00	1569.00	1569.00	
Raven Cliff (ss)	1053.00	1053.00	1271.00	1271.00	
Maxton (ss)	1481.00	1481.00	1569.00	1569.00	
Greenbriar (ls)	1569.00	1569.00	1768.00	1768.00	
Big Injun (ss)	1768.00	1757.00	1945.00	1931.00	
Berea (siltstone)	2211.00	2193.00	5789.00	5720.00	
Rhinestreet (shale)	5789.00	5720.00	6076.00	5996.00	
Cashaqua (shale)	6076.00	5996.00	6146.00	6057.00	
Middlesex (shale)	6146.00	6057.00	6245.00	6135.00	
Burket (shale)	6245.00	6135.00	6268.00	6151.00	
Tully (ls)	6268.00	6151.00	6334.00	6196.00	
Mahantango (shale)	6334.00	6196.00	6629.00	6317.00	
Marcellus (shale)	6629.00	6317.00	NA	NA	GAS

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/1/2018
Job End Date:	5/26/2018
State:	West Virginia
County:	Ohio
API Number:	47-069-00229-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	Melvin Kahle 10H
Latitude:	40.07176200
Longitude:	-80.62526900
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,358
Total Base Water Volume (gal):	9,752,467
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Fresh Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	82.32812	Density = 8.330
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.37741	

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NRB	MultiChem	Biocide					
				Listed Below			
BIOC11219A	NALCO	Biocide					
				Listed Below			
LP-65 MC	Halliburton	Scale Inhibitor					
				Listed Below			
SCAL16486A	NALCO	Scale Inhibitor					
				Listed Below			
HYDROCHLORIC ACID	Halliburton	Solvent					
				Listed Below			
FDP-S1016-11	Halliburton	Friction Reducer					
				Listed Below			
HAI-150E	Halliburton	Corrosion Inhibitor					
				Listed Below			
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant					
				Listed Below			

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SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Crystalline silica, quartz	14808-60-7	100.00000	17.24640	
			Hydrochloric acid	7647-01-0	60.00000	0.20623	
			Polyacrylate	Proprietary	30.00000	0.01676	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01676	
			Ethylene Glycol	107-21-1	30.00000	0.00565	
			Amine Triphosphate	Proprietary	30.00000	0.00565	
			Amide	Proprietary	5.00000	0.00279	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Alcohols, C12-16, ethoxylated	68551-12-2	5.00000	0.00279	
			Salts	Proprietary	5.00000	0.00279	
			Non-hazardous food substance	Proprietary	100.00000	0.00066	
			sodium nitrate	7631-99-4	60.00000	0.00064	
			Inorganic salt	Proprietary	1.00000	0.00056	
			Fatty acid ester	Proprietary	1.00000	0.00056	
			Organic phosphonate	Proprietary	60.00000	0.00018	
			Ammonium chloride	12125-02-9	30.00000	0.00009	
			Diammonium phosphate	7783-28-0	5.00000	0.00002	
			Methanol	67-56-1			
			Benzyl-(C12-C16 Alkyl)- Dimethyl-Ammonium Chloride	68424-85-1			
			Glutaraldehyde	111-30-8			

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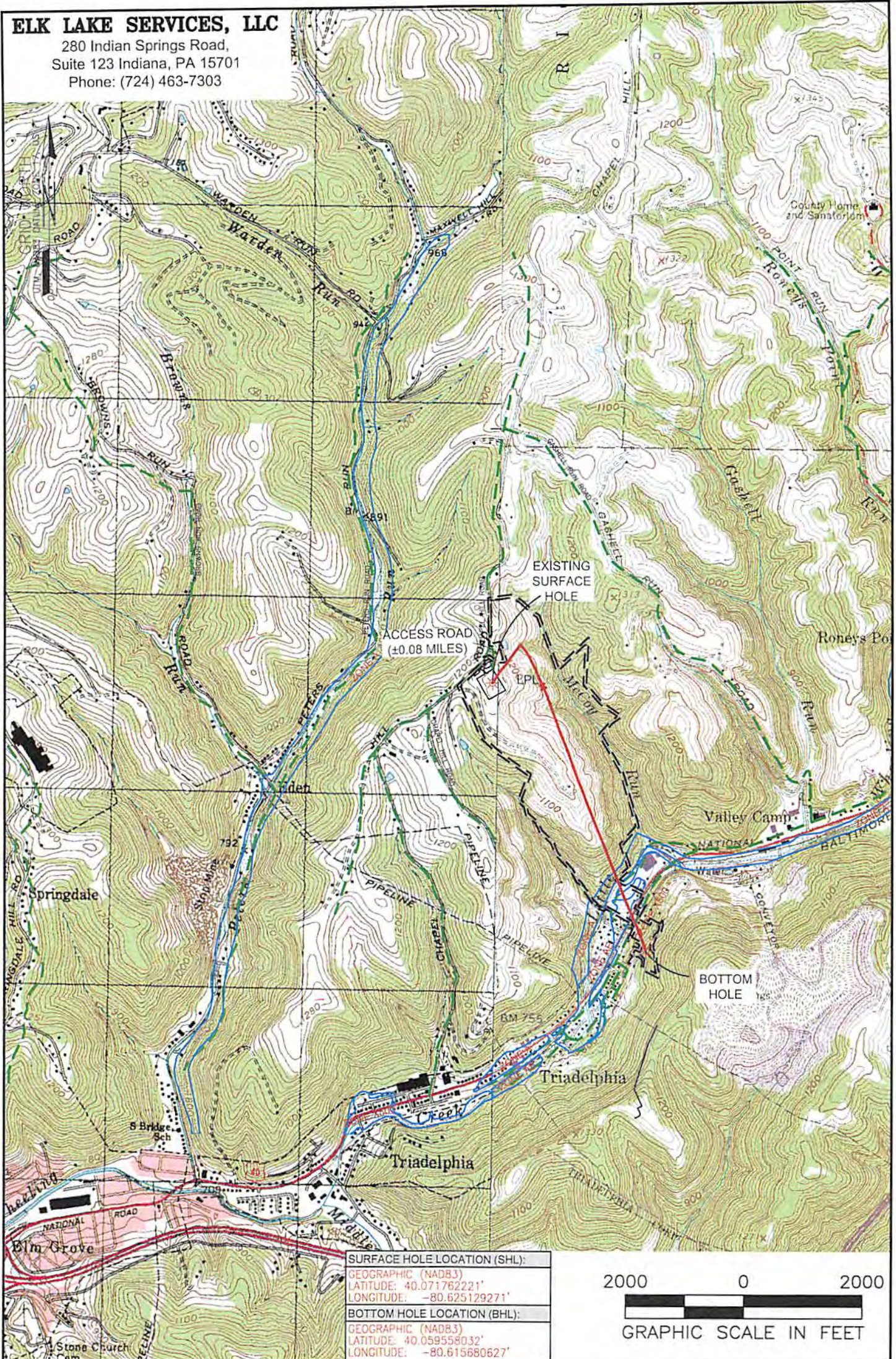
* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%
*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

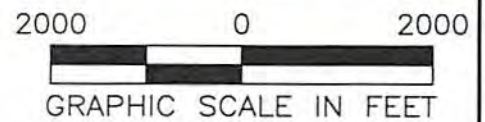
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ELK LAKE SERVICES, LLC

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



SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83)
LATITUDE: 40.071762221'
LONGITUDE: -80.625129271'
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83)
LATITUDE: 40.059558032'
LONGITUDE: -80.615680627'



NOTES ON SURVEY

1. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
3. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- ⊗ EXISTING / PRODUCING WELLHEAD
- ✱ LANDING POINT LOCATION
- FLOOD PLAIN
- ACCESS ROAD
- - - PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- = = = = LEASE BOUNDARY
- EXISTING PATH
- PROPOSED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: MELVIN KAHLE OHI	WELL # 10H	SERIAL # XXXX
ADDRESS: P.O. BOX 1300 JANE LEW, WV 26378	COUNTY OHIO COUNTY - 69	DISTRICT: TRIADELPHIA	
SURFACE OWNER: MELVIN W. KAHLE JR. AND CAROL M. KAHLE	USGS 7 1/2 QUADRANGLE MAP NAME WHEELING, WV & VALLEY GROVE, WV		

ELK LAKE SERVICES, LLC

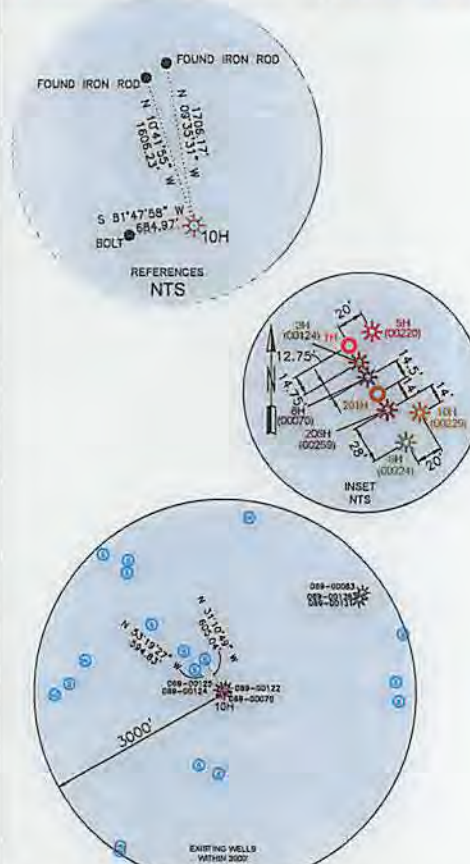
280 Indian Springs Road,
Suite 123 Indiana, PA 15701
Phone: (724) 463-7303

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,435,789.49 EASTING: 531,965.37	SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,435,789.55 EASTING: 531,965.43
LANDING POINT (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,435,772.16 EASTING: 532,225.46	LANDING POINT (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,435,837.83 EASTING: 532,195.14
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,434,438.36 EASTING: 532,776.91	BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,434,433.48 EASTING: 532,774.26

GRID NORTH
UTM, NAD83 DATUM, ZONE 17, US FT

ADJOINING OWNERS TABLE			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	MELVIN W. & CAROL M. KAHLE JR.	6-17-170.2	1.14
B	MELVIN W. KAHLE JR.	6-12-36	28.47
C	CHAS M. SLEDD COMPANY	7-TW7-1	2.96
D	CHAS M. SLEDD COMPANY	7-TW7-2	5.84
E	NAGLE FAMILY IRREVOCABLE TRUST	6-TW7-3	0.97
F	OHIO COUNTY PUBLIC SERV DIST	7-TW7-4.1	0.18
G	OHIO COUNTY PUBLIC SERV DIST	7-TW7-5	0.46
H	OHIO COUNTY PUBLIC SERV DIST	7-TW7-6	0.56
I	CARDL L. PARSONS	7-TW7-14	0.17
J	CARDL L. PARSONS	7-TW8-41.1	0.96
K	JAMES A. & CAROL L. PARSONS	7-TW8-41	0.2
L	MARCIA KIRKLAND	6-T8-41.1	12.89
M	OHIO COUNTY COMMISSION	6-T8-40	98.02
N	THOMAS J. HOWARD	6-T8-42	11.34
O	JULIUS L. & REGINA R. DEMASI	6-T8-62.1	3.9
P	CHARLES L. & S.F. SCHRAMM	7-TW8-46	0.95
Q	JAMES A. & CAROL L. PARSONS	7-TW8-45	0.54
R	ROBERT L. HOFFMAN JR.	7-TW8-44	0.31
S	ROBERT L. HOFFMAN JR.	7-TW8-38.1	0.07
T	FREDERICK J. CHIPKAR	7-TW8-40	0.13
U	TINA L. HOLMAN	7-TW8-100	0.11
V	EDWARD B. & BARBARA M. HARTLIEB	7-TW8-2	0.49
W	EDWARD B. HARTLIEB	7-TW8-2.1	0.54
X	CONNIE DAVIS	6-17-172.16	11.37
Y	ROBERT T. & TAMMY L. SELAK	6-17-172.13	1.27

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS			
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	MELVIN W. KAHLE JR. AND CAROL M. KAHLE	06-17-170	84.99
2	SURFACE OWNER	TAX PARCEL	ACRES
3	MARY ANGELA DICKEY	06-17-171	93.95
4	KEVIN S. KOSEM AND BRENDA A. KOSEM	7-TW6-1	1.0
5	KEVIN S. KOSEM AND BRENDA A. KOSEM	7-TW7-11	2.374
6	KEVIN S. KOSEM AND BRENDA A. KOSEM	7-TW7-10	0.55
7	EDWARD P. LAUFFER AND JEAN C. LAUFFER (LE)	7-TW7-9	0.5544
8	KEVIN S. KOSEM AND BRENDA A. KOSEM	7-TW7-8	1.0904
9	DENNIS L. COOK SR.	7-TW7-7	0.5073
10	JAMES A. PARSONS AND CAROL L. PARSONS	7-TW8-39	0.484
11	JAMES A. PARSONS AND CAROL L. PARSONS	7-TW8-42.2	1.39
12	JAMES A. PARSONS AND CAROL L. PARSONS	7-TW8-42	0.1391
13	RICHARD F. HAUGHT AND SHERRY A. HAUGHT	7-TW8-42.1	0.808
14	TINA L. HOLMAN	7-TW8-42.3	0.498
15	FREDERICK J. CHIPKAR	7-TW8-43	0.53
16	CHRISTOPHER PAGANO AND ALYCE F. PAGANO	6-T8-62	3.648



WELL RESTRICTIONS

- NO OCCUPIED DWELLINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
- NO AGRICULTURE BUILDINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
- WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 595 FEET OF PROPOSED WELL.
- PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS ARE WITHIN THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
- NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

NOTES ON SURVEY

- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREDON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREDON.
- ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



P.S. 2164

[Signature]

COMPANY: **SWN** Production Company, LLC

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)
 OPERATOR'S WELL #: MELVIN KAHLE OHI 10H
 API WELL #: 47 069 00229
 STATE COUNTY PERMIT

WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS LIQUID INJECTION STORAGE SHALLOW
 WATERSHED: UPPER OHIO SOUTH ELEVATION: 1276.2'
 DISTRICT: TRIADELPHIA COUNTY: OHIO COUNTY QUADRANGLE: WHEELING & VALLEY GROVE
 SURFACE OWNER: MELVIN W. KAHLE JR. AND CAROL M. KAHLE ACREAGE: ±84.99
 OIL & GAS ROYALTY OWNER: MELVIN W. KAHLE JR. AND CAROL M. KAHLE ACREAGE: ±84.99
 DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
 CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) AS-DRILLED
 TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,370' TVD 11,662' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITTANY WOODY
 ADDRESS: P.O. BOX 1300 ADDRESS: P.O. BOX 1300
 CITY: JANE LEW STATE: WV ZIP CODE: 26378 CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:	— SURVEYED BOUNDARY	— DRILLING UNIT
● PROPOSED SURFACE HOLE / BOTTOM HOLE	— LEASE BOUNDARY	— EXISTING PATH
★ EXISTING / PRODUCING WELLHEAD	— EXISTING PATH	— PROPOSED PATH
LPL: LANDING POINT LOCATION		
⊙ EXISTING WATER WELL		
⊕ EXISTING SPRING		

REVISIONS:	DATE: 8/28/2018
	FILE NO: 16-51
	DRAWN BY: JMB
	SCALE: 1" = 2000'
	DRAWING NO: 1
	WELL LOCATION PLAT 1

