

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

API 47009003360000 County BROOKE District BUFFALO  
Quad BETHANY, WV Pad Name SAMUEL JONES-BRK-PAD1 Field/Pool Name PANHANDLE FIELD WET  
Farm Name SAMUEL E. & JUDITH F. JONES Well Number SAMUEL JONES BRK 8H  
Operator (as registered with the OOG) SWN Production Company LLC  
Address PO Box 12359 City Spring State TX  
Zip 77391-2359

As Drilled Location NAD83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top Hole Northing 4,448,993.52 Easting 537,365.77  
Landing Point of Curve Northing 4,448,859.39 Easting 537,501.76  
Bottom Hole Northing 4,444,539.32 Easting 539,233.80

Elevation (ft) 1,209' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviate  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrill  Re-Work  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  
See attached Mud Summary Report

Date permit issued 2023-06-05 Date drilling commenced 2023-06-27 Date drilling ceased 2023-07-14  
Date Completion activities began 2023-08-22 Date Completion activities ceased 2023-10-01  
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

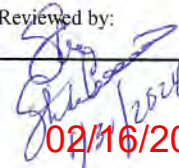
Freshwater depth(s) ft 266' Oprn mine(s) (Y/N) depths N  
Salt water depth(s) ft 541' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 398' Cavern(s) encountered (Y/N) depth N  
Is coal being mined in area (Y/N) N

RECEIVED  
Office of Oil and Gas

DEC 19 2023

WV Department of  
Environmental Protection

Reviewed by:

  
02/16/2024

**APPROVED**

API 47009003360000

Farm name SAMUEL E. & JUDITH F. JONES

Well number SAMUEL JONES BRK 8H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Wt lb/ft	Grade	Basket Depth	Did cement circulate (Y/N) *Provide details below*
Conductor	24.000	20.000	136	NEW	94.00	J-55		Y
Surface	17.500	13.375	315	NEW	54.50	J-55		Y/ 26 BBLs
Coal	SEE INTERMED							
Intermediate 1	12.250	9.625	1806	NEW	36.00	J-55	251.2'	Y/ 40 BBLs
Intermediate 2								
Intermediate 3								
Production	8.500	5.500	21787	NEW	20.00	P-110 HP		Y/ 38 BBLs
Tubing		2.875	6459	NEW	6.50	P-110		N
Packer type and depth set								

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>2</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	378	15.6	1.19	449.82	SURFACE	8
Coal	SEE INTERMED						
Intermediate 1	CLASS A	719	15.6	1.19	855.61	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4158	14.5	1.29	5478.363	SURFACE	24
Tubing							

Drillers TD (ft) 21,787'

Loggers TD (ft) 21,787'

Deepest formation penetrated MARCELLUS

Plug back to (ft) 21,787'

Plug back procedure N/A

Kick off depth (ft) 5,450' MD

Check all wireline logs run  
 caliper  density  deviated/directional  induction  sonic  
 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: 6 CENTRALIZERS - EVERY THIRD JOINT OF CASING

INTERMEDIATE: 21 CENTRALIZERS - EVERY THIRD JOINT OF CASING

PRODUCTION: 457 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 AS OPEN HOLE  Yes  No Details \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

RECEIVED  
 Office of Oil and Gas  
 D: DEC 16 2023  
 WV Department of Environmental Protection

02/16/2024







LATITUDE: 40°12'30" SURFACE HOLE (2000' SCALE)

5,473'

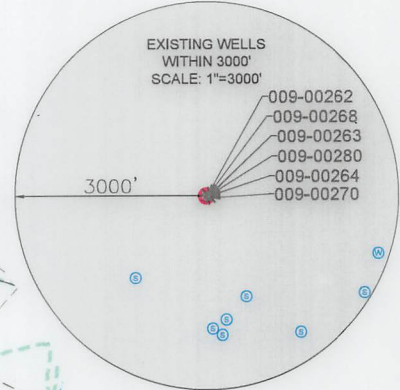
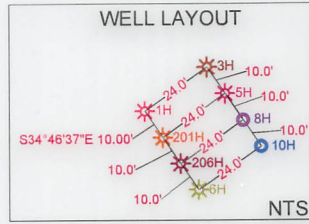
10,989'

LATITUDE: 40°10'00" BOTTOM HOLE (2000' SCALE)

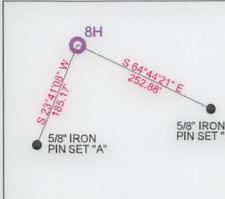


68011 Vineyard Road  
St. Clairsville, Ohio 43950  
740-695-6100

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



LINE	BEARING	DISTANCE
L1	S60°45'14"E	2573.55'
L2	S53°09'43"E	2233.27'



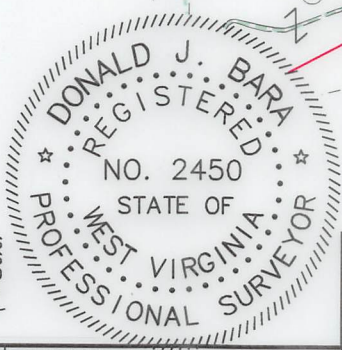
SAMUEL JONES BRK  
BH N.T.S.

<b>SURFACE HOLE LOCATION (SHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4448993.52 EASTING: 537365.77
<b>LANDING POINT LOCATION (LPL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4448859.39 EASTING: 537501.76
<b>BOTTOM HOLE LOCATION (BHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4444539.32 EASTING: 539233.80
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<b>BOTTOM HOLE LOCATION (BHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4444538.87 EASTING: 539233.19

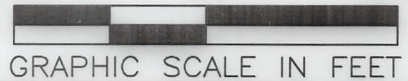
- NOTES ON SURVEY**
- COORDINATE SYSTEM IS UTM NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
  - SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
  - THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
  - NO DWELLINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
  - NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
  - NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF THE LIMITS OF DISTURBANCE.
  - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.

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. 2450



2000 0 2000



COMPANY: **SWN** Production Company, LLC **SWN** Production Company™

<p>(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS</p> <p>WVDEP OFFICE OF OIL &amp; GAS 601 57TH STREET CHARLESTON, WV 25034</p>	<p>MINIMUM DEGREE OF ACCURACY: 1/200</p> <p>PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)</p>	<p>SAMUEL JONES BRK</p> <p>OPERATOR'S WELL #: 8H</p> <p>API WELL #: <b>47</b> <b>009</b> <b>00336</b></p> <p>STATE COUNTY PERMIT</p>
	<p>WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input checked="" type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/></p> <p>WATERSHED: UPPER OHIO SOUTH ELEVATION: 1204.0'</p> <p>DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: BETHANY, WV</p> <p>SURFACE OWNER: SAMUEL E. &amp; JUDITH F. JONES ACREAGE: ±164.74</p> <p>OIL &amp; GAS ROYALTY OWNER: RESOURCE MINERAL HEADWATER I, LP ACREAGE: ±164.74</p> <p>DRILL <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/></p> <p>CONVERT <input type="checkbox"/> PLUG &amp; ABANDON <input type="checkbox"/> CLEAN OUT &amp; REPLUG <input type="checkbox"/> OTHER CHANGE <input checked="" type="checkbox"/> (SPECIFY) <b>AS-DRILLED</b> <b>02/16/2024</b></p> <p>TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,395' TVD 21,787' TMD</p>	<p>WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITTANY WOODY</p> <p>ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201</p> <p>CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508</p>

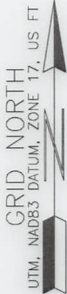
LEGEND:	REVISIONS:	DATE:
<p>○ EXISTING BOTTOM HOLE</p> <p>★ EXISTING / PRODUCING WELLHEAD</p> <p>LPL EXISTING LANDING POINT LOCATION</p> <p>○ PROPOSED SURFACE HOLE / BOTTOM HOLE</p> <p>LPL* PROPOSED LANDING POINT LOCATION</p> <p>— ACCESS ROAD</p> <p>— PUBLIC ROAD</p> <p>— FLOOD PLAIN</p> <p>— LEASE BOUNDARY</p> <p>— ASDRILLED PATH</p> <p>— PROPOSED PATH</p>	<p> </p> <p> </p> <p> </p> <p> </p>	<p>09-19-2023</p> <p>API NO: 47-009-00336</p> <p>DRAWN BY: Z. WOOD</p> <p>SCALE: 1" = 2000'</p> <p>DRAWING NO: 2019-0265</p> <p>WELL LOCATION PLAT</p>



LATITUDE: 40°12'30" SURFACE HOLE (2000' SCALE)

5,473'

**JHA** ENGINEERS SURVEYORS ENVIRONMENTAL GIS MAPPING  
 Companies  
 www.jhacompanies.com  
 68011 Vineyard Road  
 St. Clairsville, Ohio 43950  
 740-695-6100



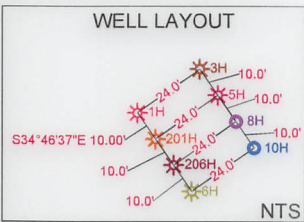
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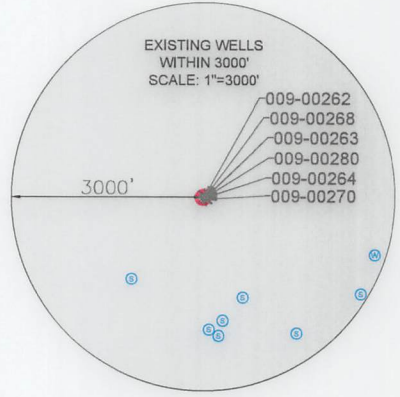
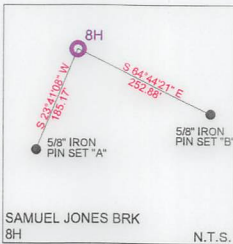


BHL

SHL

AS-DRILLED SURFACE HOLE  
 PROPOSED SURFACE HOLE

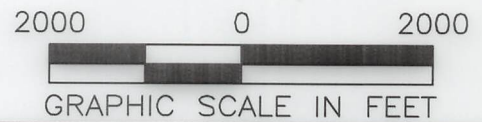
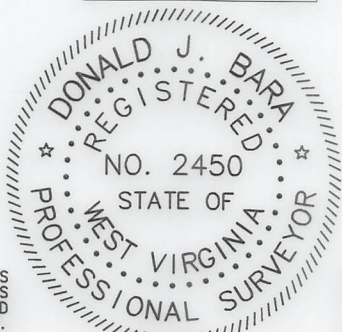
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P.S. 2450



COMPANY: **SWN** Production Company, LLC **SWN** Production Company™

(+) 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 SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)	SAMUEL JONES BRK OPERATOR'S WELL #: 8H API WELL #: 47 STATE 009 COUNTY 00336 PERMIT
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WELL TYPE: OIL  WASTE DISPOSAL  PRODUCTION  DEEP  GAS  LIQUID INJECTION  STORAGE  SHALLOW

WATERSHED: UPPER OHIO SOUTH  
 DISTRICT: BUFFALO COUNTY: BROOKE  
 SURFACE OWNER: SAMUEL E. & JUDITH F. JONES  
 OIL & GAS ROYALTY OWNER: RESOURCE MINERAL HEADWATER I, LP

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 02/16/2024

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,395' TVD 21,787' TMD



WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508	DESIGNATED AGENT: BRITTANY WOODY ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508
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<b>LEGEND:</b> ● EXISTING BOTTOM HOLE * EXISTING / PRODUCING WELLHEAD LPL ● EXISTING LANDING POINT LOCATION ● PROPOSED SURFACE HOLE / BOTTOM HOLE LPL* PROPOSED LANDING POINT LOCATION — ACCESS ROAD — PUBLIC ROAD — FLOOD PLAIN — LEASE BOUNDARY — AS-DRILLED PATH — PROPOSED PATH	<b>REVISIONS:</b> DATE: 09-19-2023 API NO: 47-009-00336 DRAWN BY: Z. WOOD SCALE: 1" = 2000' DRAWING NO: 2019-0265 WELL LOCATION PLAT
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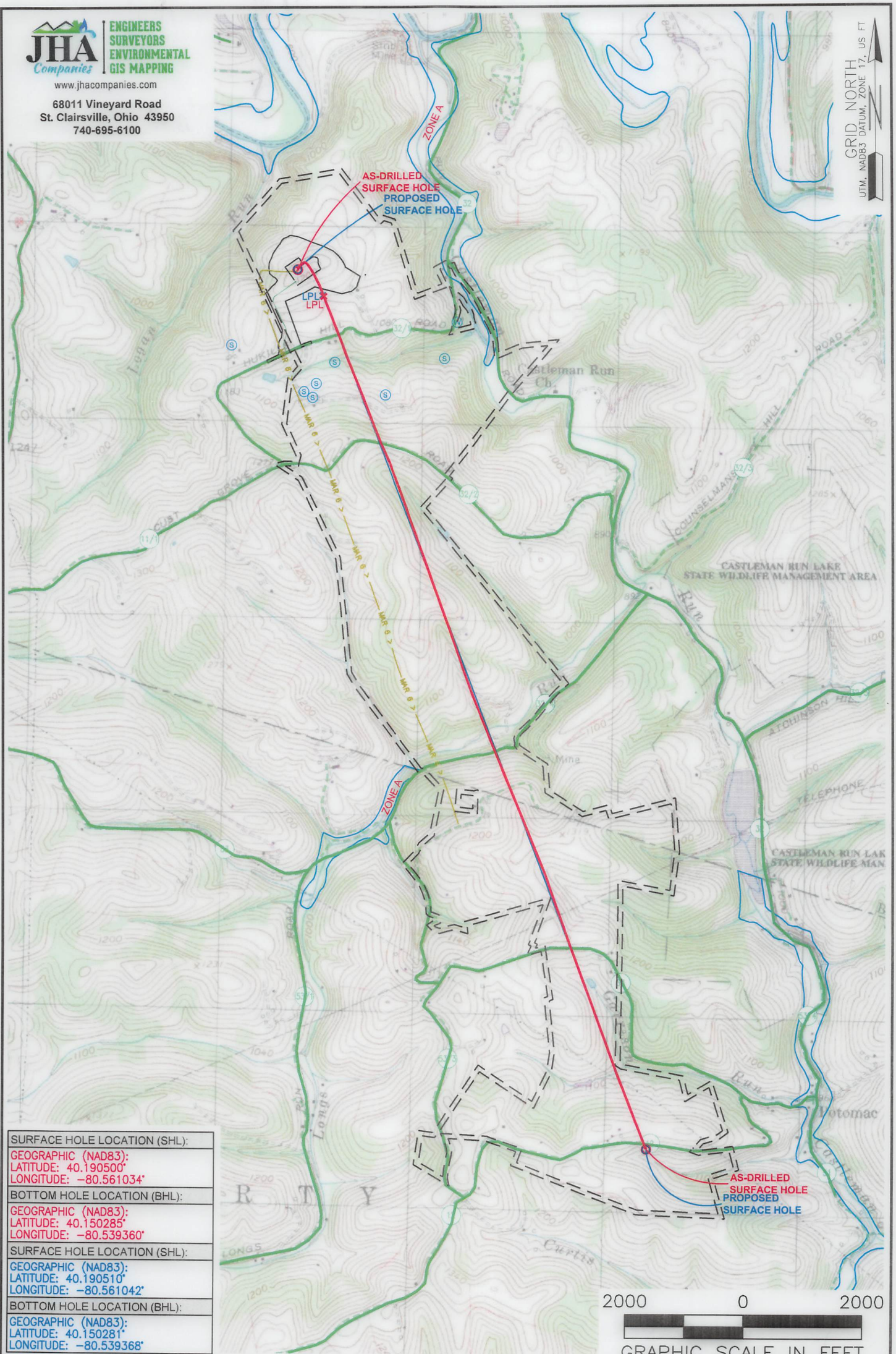


WELL BORE TABLE FOR SURFACE/ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	JONES SAMUEL E & JUDITH F IRREVOCABLE TRUST (S) RESOURCE MINERALS HEADWATER I, LP (R)	3-B43-60
TRACT	SURFACE OWNER	TAX PARCEL
2	CHAMBERS CHARLOTTE A	3-B48-23
3	CHAMBERS HARRY L & BEVERLY R (SURV)	3-B48-24.1
4	CHAMBERS CHARLOTTE A	3-B48-24
5	SONDA SCOTT & MARK	3-B48-20
6	STONE MARION PYLE	3-B48-41
7	GRIMES DONALD; ANTHONY HOUSTON (SURV)	3-B48-40
8	OHARA MATTHEW JAMES; OHARA DEIRDRA (LIFE ESTATE)	3-L2-10.2
9	GRIMES MICHAEL J	3-L2-10.1
10	FISH HARRY ALAN FISH R H & P C RES'V L/E	3-L2-13.1
11	BREITINGER MICHAEL	3-L2-11
12	DEARING JEREMY R & TANYA N	3-L2-12.3
13	LEMASTERS G L JR	3-L2-12.1
14	FISH HARRY ALAN	3-L2-13
15	ENNIS MARJORIE G	3-L5-8
16	KESTNER GARY & TERRY	3-L5-9
ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	FONNER MARY LOU	3-B43-58
B	PUSKARICH TRACY T	3-B43-59
C	WV ST OF DEPT OF COMM DIV OF NAT RE WILDLIFE RES SEC	3-B43-62
D	HOGAN ANDREW P	3-B48-34
E	SMITH DEAN S	3-B48-32
F	CAMMARATA NICHOLAS J & JENNIFER C (SURV)	3-B48-25
G	WALDEN WILLIAM K & FLORENCE ANDREA (SURV)	3-B48-27
H	WALDEN WILLIAM K & ANDREA	3-B48-38
I	GRIMES DONALD; ANTHONY	3-B48-39
J	WEST VIRGINIA STATE OF - DIVISION OF NATURAL RESOURCES	3-B49-15
K	STATE OF WV CONSERVATION COMM DIV OF NAT RES PUB LAND CORP	3-L3-1
L	ATKINSON GREGORY D; ET AL C/O JENNIFER TUCKER	3-L6-10
M	ATKINSON GREGORY D; ET AL C/O JENNIFER TUCKER	3-L6-10.1
N	ATKINSON GREGORY D; ET AL C/O JENNIFER TUCKER	3-L6-10.2
O	GEAR LURA MARIE	3-L6-9.1
P	COWAN CHERYL ANN	3-L6-21
Q	MONTGOMERY PATRICK J & MONTGOMERY BRENDA LEE	3-L6-11.1
R	MORMANIS GREGORY N AND SHARON LEE	3-L6-13
S	TOMINACK JOHN I JR	3-L5-10
T	DOLENCE DONALD F & J L	3-L5-11
U	HAYS TIMOTHY R & THELMA C	3-L5-29
V	COX CHAD & JULIE C	3-L2-12
W	SONDA SCOTT SONDA MARK	3-L2-2
X	WINDSOR COAL COMPANY	3-L2-9
Y	SONDA SCOTT SONDA MARK	3-L2-1
Z	STONE MARION P	3-B48-19
AA	STONE MARC P	3-B48-17
AB	BOHACH JENNIFER LYNNE PYLE; SEIDWITZ WENDY RAY PYLE (JTWS)	3-B48-18
AC	WINDSOR POWER HOUSE COAL CO	3-B48-21
AD	NORDEN ANNA MAE (TOD) NORDEN - SMITH KATHERINE ETAL	3-B48-22
AE	CORWIN BRIAN DAVID	3-B43-22
AF	BETHANY COLLEGE	3-B38-31
AG	PRESLIE ROWAN LLC	3-B43-33
AH	AYERS ALBERT GLENN & REBECCA	3-B43-61
AI	OHARA MATTHEW JAMES; OHARA DEIRDRA (LIFE ESTATE)	3-L2-10

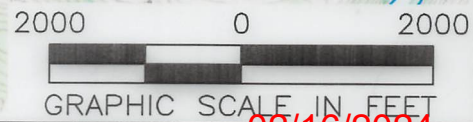
02/16/2024

REVISIONS:				
	COMPANY:			
	OPERATOR'S		SAMUEL JONES BRK	
	WELL #:		8H	
	DISTRICT:	COUNTY:	STATE:	DATE: 09-19-2023
	BUFFALO	BROOKE	WV	API NO: 47-009-00336
				DRAWN BY: Z. WOOD
				SCALE: N/A
				DRAWING NO: 2019-0265
				WELL LOCATION PLAT





<b>SURFACE HOLE LOCATION (SHL):</b>
<b>GEOGRAPHIC (NAD83):</b> LATITUDE: 40.190500° LONGITUDE: -80.561034°
<b>BOTTOM HOLE LOCATION (BHL):</b>
<b>GEOGRAPHIC (NAD83):</b> LATITUDE: 40.150285° LONGITUDE: -80.539360°
<b>SURFACE HOLE LOCATION (SHL):</b>
<b>GEOGRAPHIC (NAD83):</b> LATITUDE: 40.190510° LONGITUDE: -80.561042°
<b>BOTTOM HOLE LOCATION (BHL):</b>
<b>GEOGRAPHIC (NAD83):</b> LATITUDE: 40.150281° LONGITUDE: -80.539368°



**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:**

- EXISTING BOTTOM HOLE
- ⊙ EXISTING / PRODUCING WELLHEAD
- LPL\* EXISTING LANDING POINT LOCATION
- PROPOSED SURFACE HOLE / BOTTOM HOLE
- LPL\* PROPOSED LANDING POINT LOCATION
- ACCESS ROAD
- PUBLIC ROAD
- FLOOD PLAIN
- LEASE BOUNDARY
- AS-DRILLED PATH
- PROPOSED PATH

02/16/2024

<b>WELL OPERATOR:</b> SWN PRODUCTION COMPANY, LLC	<b>WELL (FARM) NAME:</b> SAMUEL JONES BRK	<b>WELL #</b> 8H	<b>SERIAL #</b> XXXX
<b>ADDRESS:</b> 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	<b>COUNTY:</b> BROOKE	<b>CODE:</b> XXX	<b>DISTRICT:</b> BUFFALO
<b>SURFACE OWNER:</b> SAMUEL E. & JUDITH F. JONES	<b>USGS 7 1/2 QUADRANGLE MAP NAME:</b> BETHANY, WV		
<b>API #</b> 47-09-00336			



**SAMUEL JONES BRK 8H  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
1	8/9/2023	21,787	21,596	48
2	8/23/2023	21,562	21,383	36
3	8/23/2023	21,350	21,172	36
4	8/24/2023	21,138	20,960	36
5	8/24/2023	20,926	20,748	36
6	8/24/2023	20,715	20,536	36
7	8/24/2023	20,503	20,324	36
8	8/25/2023	20,291	20,112	36
9	8/25/2023	20,079	19,901	36
10	8/25/2023	19,867	19,689	36
11	8/25/2023	19,655	19,477	36
12	8/26/2023	19,444	19,265	36
13	8/26/2023	19,232	19,053	36
14	8/26/2023	19,020	18,841	36
15	8/26/2023	18,808	18,630	36
16	8/26/2023	18,596	18,418	36
17	8/27/2023	18,384	18,206	36
18	8/27/2023	18,173	17,994	36
19	8/27/2023	17,961	17,782	36
20	8/27/2023	17,749	17,570	36
21	8/27/2023	17,537	17,359	36
22	8/28/2023	17,325	17,147	36
23	8/28/2023	17,113	16,935	36
24	8/28/2023	16,902	16,723	36
25	8/28/2023	16,690	16,511	36
26	8/28/2023	16,478	16,299	36
27	8/29/2023	16,266	16,088	36
28	8/29/2023	16,054	15,876	36
29	8/29/2023	15,842	15,664	36
30	8/29/2023	15,631	15,452	36
31	8/29/2023	15,419	15,240	36
32	8/29/2023	15,207	15,028	36
33	8/30/2023	14,995	14,817	36
34	8/30/2023	14,783	14,605	36
35	8/30/2023	14,571	14,393	36
36	8/30/2023	14,360	14,181	36
37	8/30/2023	14,148	13,969	36
38	8/30/2023	13,936	13,757	36
39	8/31/2023	13,724	13,546	36
40	8/31/2023	13,512	13,334	36
41	8/31/2023	13,300	13,122	36
42	8/31/2023	13,089	12,910	36

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**SAMUEL JONES BRK 8H  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
43	8/31/2023	12,877	12,698	36
44	8/31/2023	12,665	12,486	36
45	9/1/2023	12,453	12,275	36
46	9/1/2023	12,241	12,063	36
47	9/1/2023	12,029	11,851	36
48	9/1/2023	11,818	11,639	36
49	9/1/2023	11,606	11,427	36
50	9/2/2023	11,394	11,215	36
51	9/2/2023	11,182	11,004	36
52	9/2/2023	10,970	10,792	36
53	9/2/2023	10,758	10,580	36
54	9/2/2023	10,547	10,368	36
55	9/2/2023	10,335	10,156	36
56	9/2/2023	10,123	9,944	36
57	9/3/2023	9,911	9,733	36
58	9/3/2023	9,699	9,521	36
59	9/3/2023	9,487	9,309	36
60	9/3/2023	9,276	9,097	36
61	9/3/2023	9,064	8,885	36
62	9/3/2023	8,852	8,673	36
63	9/4/2023	8,640	8,461	36
64	9/4/2023	8,428	8,250	36
65	9/4/2023	8,216	8,038	36
66	9/4/2023	8,005	7,826	36
67	9/4/2023	7,793	7,614	36
68	9/4/2023	7,581	7,402	36
69	9/5/2023	7,369	7,190	36
70	9/5/2023	7,157	6,979	36
71	9/5/2023	6,945	6,767	36
72	9/5/2023	6,734	6,555	36
73	9/5/2023	6,522	6,343	36

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SAMUEL JONES BRK 8H

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	8/23/2023	90.7	9,097	9,486	4,477	224,380	6,716	0
2	8/23/2023	92.7	9,312	5,379	4,254	379,460	9,048	0
3	8/24/2023	95.1	9,407	4,767	4,546	374,720	9,221	0
4	8/24/2023	97.7	9,371	6,182	4,467	372,060	9,584	0
5	8/24/2023	93.7	9,279	6,461	4,547	368,570	8,700	0
6	8/24/2023	90.5	9,167	6,145	4,890	372,940	8,266	0
7	8/25/2023	91.9	9,127	6,430	4,419	377,030	8,331	0
8	8/25/2023	89.3	9,112	5,973	4,884	377,200	8,277	0
9	8/25/2023	95.8	9,296	5,957	5,250	372,140	8,208	0
10	8/25/2023	92.4	9,127	6,200	5,380	370,770	8,103	0
11	8/26/2023	97.1	9,706	6,130	4,900	379,270	8,339	0
12	8/26/2023	84.7	8,549	6,050	4,703	376,380	8,142	0
13	8/26/2023	97.8	9,624	5,908	4,755	371,760	8,409	0
14	8/26/2023	98.3	9,778	5,698	4,614	372,560	8,000	0
15	8/26/2023	90.6	8,844	6,012	5,020	371,040	8,028	0
16	8/26/2023	89.4	9,203	6,275	5,000	374,780	8,008	0
17	8/27/2023	96.9	9,648	6,185	5,025	369,820	8,036	0
18	8/27/2023	98.8	9,204	6,317	4,651	372,420	8,132	0
19	8/27/2023	97.8	9,426	5,920	5,066	375,760	8,091	0
20	8/27/2023	97.4	9,334	5,994	5,060	370,940	7,890	0
21	8/27/2023	90.5	8,715	6,085	4,915	379,980	8,058	0
22	8/28/2023	98.2	9,182	6,245	4,680	378,200	8,073	0
23	8/28/2023	97.7	9,008	6,376	4,444	371,500	7,873	0
24	8/28/2023	97.3	9,599	6,283	4,329	365,700	8,062	0
25	8/28/2023	98.3	9,088	5,794	4,648	362,440	7,814	0
26	8/28/2023	94.2	9,026	6,620	4,865	371,790	7,851	0
27	8/28/2023	94.9	9,013	6,450	4,925	378,530	8,032	0
28	8/29/2023	96.7	9,484	7,010	4,900	377,490	8,030	0
29	8/29/2023	86	8,535	6,800	4,487	374,290	8,904	0
30	8/29/2023	92.9	9,683	7,033	4,651	373,840	7,926	0
31	8/29/2023	95.4	9,412	7,439	4,331	374,180	7,832	0
32	8/29/2023	96	8,924	5,900	4,825	373,930	7,845	0
33	8/29/2023	94.2	8,714	6,780	4,700	368,540	7,797	0
34	8/30/2023	83.5	8,251	6,840	4,900	372,340	7,784	0
35	8/30/2023	94.2	8,415	6,018	4,529	372,540	8,002	0
36	8/30/2023	85.4	8,505	6,134	4,492	365,630	7,898	0
37	8/30/2023	90.2	8,278	5,846	5,476	379,120	8,016	0
38	8/30/2023	82.2	7,640	6,215	4,758	368,460	7,795	0
39	8/31/2023	72.4	7,123	6,228	4,587	374,200	7,818	0
40	8/31/2023	88.3	7,980	6,155	5,007	378,000	7,929	0
41	8/31/2023	93.4	8,398	5,878	4,494	375,000	7,902	0
42	8/31/2023	89.2	7,998	5,821	4,582	369,100	7,805	0
43	8/31/2023	84	7,515	6,986	5,114	368,920	7,781	0
44	8/31/2023	84.4	7,449	5,250	5,187	374,040	7,826	0
45	9/1/2023	84.2	7,172	5,624	5,633	371,520	7,763	0
46	9/1/2023	80.5	7,097	5,888	4,602	333,120	6,804	0
47	9/1/2023	82.8	7,182	5,551	4,251	372,240	7,701	0
48	9/1/2023	80	7,520	5,638	4,360	373,380	7,610	0
49	9/1/2023	82.4	7,169	5,889	5,134	331,500	7,704	0
50	9/2/2023	84.2	7,292	5,264	5,616	374,300	8,686	0
51	9/2/2023	80.3	7,055	5,832	4,536	352,680	7,394	0
52	9/2/2023	94.6	7,740	5,649	4,479	372,960	7,680	0
53	9/2/2023	92.8	7,612	5,794	4,543	352,060	7,333	0

02/16/2024



SAMUEL JONES BRK 8H

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
54	9/2/2023	87.3	6,812	5,571	4,707	367,080	7,609	0
55	9/2/2023	81.2	6,703	5,606	4,208	375,380	7,619	0
56	9/3/2023	89.6	7,463	5,563	5,644	377,720	7,637	0
57	9/3/2023	89.9	6,964	5,661	4,451	375,400	7,570	0
58	9/3/2023	91	7,126	5,679	4,488	374,360	7,588	0
59	9/3/2023	90.4	7,054	5,419	4,514	370,580	7,706	0
60	9/3/2023	89	6,935	6,061	4,554	370,100	7,828	0
61	9/3/2023	84	6,786	5,391	5,244	375,360	7,744	0
62	9/4/2023	80	6,506	4,908	4,323	369,140	7,545	0
63	9/4/2023	89	7,180	5,330	4,475	372,000	7,633	0
64	9/4/2023	81.7	6,521	5,816	4,496	371,280	7,572	0
65	9/4/2023	82.8	6,345	5,308	4,469	374,420	7,504	0
66	9/4/2023	80.9	6,487	6,232	5,020	373,540	7,336	0
67	9/4/2023	80.1	6,165	4,800	4,794	368,840	7,359	0
68	9/5/2023	83.5	6,517	5,233	4,909	373,920	7,423	0
69	9/5/2023	82.6	6,299	5,203	4,717	371,980	7,512	0
70	9/5/2023	83	6,286	5,534	4,359	377,560	7,577	0
71	9/5/2023	90.9	6,630	5,794	4,422	373,860	7,791	0
72	9/5/2023	94.1	6,818	6,070	4,557	375,380	7,225	0
73	9/5/2023	78.6	5,730	5,214	4,805	374,180	7,373	0

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Well Name: Samuel Jones BRK 8H 47009003360000

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	266.00	266.00	
Top of Salt Water	541.00	541.00	NA	NA	
Pittsburgh Coal	398.00	398.00	413.00	413.00	
Pottsville (ss)	535.00	535.00	644.00	644.00	
Raven Cliff (ss)	856.00	856.00	1109.00	1109.00	
Maxton (ss)	1208.00	1208.00	1392.00	1391.00	
Big Injun (ss)	1598.00	1598.00	1712.00	1711.00	
Rhinestreet (shale)	5515.00	5503.00	5784.00	5758.00	
Cashaqua (shale)	5784.00	5758.00	5846.00	5758.00	
Middlesex (shale)	5846.00	5758.00	5960.00	5901.00	
Tully (ls)	5960.00	5901.00	6034.00	5952.00	
Mahantango (shale)	6034.00	5952.00	6259.00	6066.00	
Marcellus (shale)	6259.00	6066.00	NA	NA	GAS

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## Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/23/2023
Job End Date:	9/5/2023
State:	West Virginia
County:	Brooke
API Number:	47-009-00336-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	SAMUEL JONES BRK 8
Latitude:	40.19046509
Longitude:	-80.56100008
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,394
Total Base Water Volume (gal):	24,121,486
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
Base Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	87.84328	Density = 8.345
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	85.00000	0.24969	



			Water	7732-18-5	100.00000	0.24969	
MC MX 5-3886	SWN Well Services	Biocide					
				Listed Below			
Legen LD-7750W	SWN Well Services	Scale Inhibitor					
				Listed Below			
Ferriplex 80	SWN Well Services	Iron Control					
				Listed Below			
Excelerate LX-15	SWN Well Services	Friction Reducer					
				Listed Below			
FSTI-CI-02	SWN Well Services	Corrosion Inhibitor					
				Listed Below			
HCL	SWN Well Services	Solvent					
				Listed Below			
Sand	SWN Well Services	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	11.76848	
			Hydrochloric Acid	7647-01-0	15.00000	0.04141	
			Complex Amine Compound	Proprietary	50.00000	0.03153	

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			Hydrotreated light petroleum distillate	64742-47-8	25.00000	0.01576	
			Surfactant	Proprietary	5.00000	0.00315	
			Sodium Erythorbate	6381-77-7	100.00000	0.00148	
			Ethoxylated alcohols	Proprietary	1.00000	0.00063	
			Ethylene glycol	107-21-1	40.00000	0.00017	
			Cinnamaldehyde	104-55-2	10.00000	0.00004	
			Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-	9016-45-9	10.00000	0.00004	
			N,N-Dimethylformamide	68-12-2	10.00000	0.00004	
			1-Octanol	111-87-5	5.00000	0.00002	
			Isopropyl alcohol	67-63-0	5.00000	0.00002	
			benzyl chloridequaternized	72480-70-7	5.00000	0.00002	
			2-Butoxyethanol	111-76-2	5.00000	0.00002	
			Triethyl phosphate	78-40-0	5.00000	0.00002	
			1-Decanol	112-30-1	5.00000	0.00002	

\* 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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