

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

API 47-051-02426 County MARSHALL District LIBERTY
Quad CAMERON Pad Name CHARLES JAMISON MSH-PAD-1 Field/Pool Name NORTH VICTORY FIELD WET
Farm name SWN PRODUCTION COMPANY, LLC Well Number CHARLES JAMISON MSH 610H
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 4,404,729.495 Easting 533,608.337
Landing Point of Curve Northing 4,405,592.138 Easting 534,144.661
Bottom Hole Northing 4,400,320.307 Easting 537,699.466

Elevation (ft) 1336' 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 1/21/2022 Date drilling commenced 4/12/2022 Date drilling ceased 5/5/2022
Date completion activities began 7/30/2022 Date completion activities ceased 8/31/2022
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 322' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1195' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1087' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED

Reviewed by:
[Signature]
01/04/23

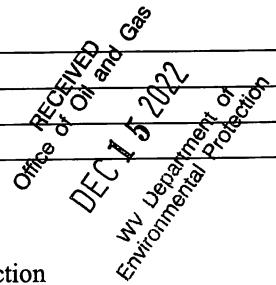
API 47-051 - 02426 Farm name SWN PRODUCTION COMPANY, LLC Well number CHARLES JAMISON MSH 610H

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	136'	NEW	J-55/94#		Y
Surface	17.5	13.375	406'	NEW	J-55/54.50#		Y; 29 BBLS
Coal	SEE INTERMEDIATE						
Intermediate 1	12.25	9.625	2,791'	NEW	J-55/36#		Y; 64 BBLS
Intermediate 2							
Intermediate 3							
Production	8.50	5.5	29,581'	NEW	HCP-110/20#		N
Tubing							
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	440	15.60	1.21	532.40	SURFACE	8
Coal	SEE INTERMEDIATE						
Intermediate 1	CLASS A	367 / 773	15.60 / 16.00	1.18 / 1.12	433.06 / 865.76	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	5,445	15.00	1.29	7,024.05	1,725'	24
Tubing							

Drillers TD (ft) 29,592' Loggers TD (ft) 29,592'
 Deepest formation penetrated MARCELLUS Plug back to (ft) 29,491'
 Plug back procedure N/A



Kick off depth (ft) 6,429' TVD

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

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

SURFACE: 5 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 INTERMEDIATE: 38 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 PRODUCTION: 604 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 _____

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/30/2022
Job End Date:	8/30/2022
State:	West Virginia
County:	Marshall
API Number:	47-051-02426-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	CHARLES JAMISON MSH 610
Latitude:	39.79185716
Longitude:	-80.60746372
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,225
Total Base Water Volume (gal):	37,531,452
Total Base Non Water Volume:	0

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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	90.66022	Density = 8.345
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	85.00000	0.26085	

			Water	7732-18-5	100.00000	0.26085	
			Water	7732-18-5	45.00000	0.26085	
FSTI-CI-02	SWN Well Services	Corrosion Inhibitor					
				Listed Below			
Ferriplex 80	SWN Well Services	Iron Control					
				Listed Below			
Plexaid 655NM	SWN Well Services	Scale Inhibitor					
				Listed Below			
HCL	SWN Well Services	Solvent					
				Listed Below			
Plexslick 930	SWN Well Services	Friction Reducer					
				Listed Below			
Sand	SWN Well Services	Proppant					
				Listed Below			
Tolicide 4Frac	SWN Well Services	Biocide					
				Listed Below			

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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	8.99982	
			Hydrochloric Acid	7647-01-0	15.00000	0.03664	

			Tetrakis(Hydroxymethyl) Phosphonium Sulfate	55566-30-8	45.00000	0.00457	
			Sodium Erythorbate	6381-77-7	100.00000	0.00130	
			Quaternary ammonium compounds	68424-85-1	7.50000	0.00076	
			Ethanol	64-17-5	2.50000	0.00025	
			Ethylene glycol	107-21-1	40.00000	0.00015	
			N,N-Dimethylformamide	68-12-2	10.00000	0.00004	
			Cinnamaldehyde	104-55-2	10.00000	0.00004	
			Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)-.omega.-hydroxy-	9016-45-9	10.00000	0.00004	
			Triethyl phosphate	78-40-0	5.00000	0.00002	
			1-Decanol	112-30-1	5.00000	0.00002	
			2-Butoxyethanol	111-76-2	5.00000	0.00002	
			benzyl chloridequaternized	72480-70-7	5.00000	0.00002	
			1-Octanol	111-87-5	5.00000	0.00002	
			Isopropyl alcohol	67-63-0	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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Well Name: Charles Jamison MSH 610H

47051024260000

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	322.00	322.00	
Top of Salt Water	1195.00	1195.00	NA	NA	
Pittsburgh Coal	1087.00	1087.00	1096.00	1096.00	
Pottsville (ss)	1190.00	1190.00	1213.00	1213.00	
Raven Cliff (ss)	1633.00	1630.00	1771.00	1765.00	
Maxton (ss)	2066.00	2047.00	2279.00	2245.00	
Big Injun (ss)	2279.00	2245.00	2555.00	2486.00	
Berea (siltstone)	2943.00	2832.00	2973.00	2859.00	
Rhinestreet (shale)	7341.00	6465.00	7951.00	6883.00	
Middlesex (shale)	7951.00	6883.00	8100.00	6969.00	
Burket (shale)	8100.00	6969.00	8151.00	6995.00	
Tully (ls)	8151.00	6995.00	8201.00	7019.00	
Mahantango (shale)	8201.00	7019.00	8506.00	7126.00	
Marcellus (shale)	8506.00	7126.00	NA	NA	GAS

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CHARLES JAMISON MSH 610H
ATTACHMENT 1
PERF REPORT

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
1	7/30/2022	29,491	29,393	36
2	7/30/2022	29,359	29,182	36
3	7/31/2022	29,149	28,971	36
4	7/31/2022	28,938	28,761	36
5	7/31/2022	28,728	28,551	36
6	8/1/2022	28,518	28,340	36
7	8/1/2022	28,307	28,130	36
8	8/1/2022	28,097	27,920	36
9	8/2/2022	27,887	27,710	36
10	8/2/2022	27,676	27,499	36
11	8/3/2022	27,466	27,289	36
12	8/3/2022	27,256	27,079	36
13	8/4/2022	27,046	26,868	36
14	8/4/2022	26,835	26,658	36
15	8/5/2022	26,625	26,448	36
16	8/5/2022	26,415	26,237	36
17	8/6/2022	26,204	26,027	36
18	8/6/2022	25,994	25,817	36
19	8/6/2022	25,784	25,606	36
20	8/6/2022	25,573	25,396	36
21	8/7/2022	25,363	25,186	36
22	8/7/2022	25,153	24,975	36
23	8/8/2022	24,942	24,765	36
24	8/8/2022	24,732	24,555	36
25	8/8/2022	24,522	24,345	36
26	8/9/2022	24,311	24,134	36
27	8/9/2022	24,101	23,924	36
28	8/9/2022	23,891	23,714	36
29	8/10/2022	23,681	23,503	36
30	8/10/2022	23,470	23,293	36
31	8/10/2022	23,260	23,083	36
32	8/11/2022	23,050	22,872	36
33	8/11/2022	22,839	22,662	36
34	8/11/2022	22,629	22,452	36
35	8/12/2022	22,419	22,241	36
36	8/13/2022	22,208	22,031	36
37	8/14/2022	21,998	21,821	36
38	8/14/2022	21,788	21,610	36
39	8/15/2022	21,577	21,400	36
40	8/15/2022	21,367	21,190	36
41	8/15/2022	21,157	20,980	36
42	8/16/2022	20,946	20,769	36
43	8/16/2022	20,736	20,559	36

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**CHARLES JAMISON MSH 610H
ATTACHMENT 1
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STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
44	8/17/2022	20,526	20,349	36
45	8/17/2022	20,316	20,138	36
46	8/17/2022	20,105	19,928	36
47	8/17/2022	19,895	19,718	36
48	8/18/2022	19,685	19,507	36
49	8/18/2022	19,474	19,297	36
50	8/18/2022	19,264	19,087	36
51	8/18/2022	19,054	18,876	36
52	8/19/2022	18,843	18,666	36
53	8/19/2022	18,633	18,456	36
54	8/19/2022	18,423	18,245	36
55	8/19/2022	18,212	18,035	36
56	8/19/2022	18,002	17,825	36
57	8/20/2022	17,792	17,615	36
58	8/20/2022	17,581	17,404	36
59	8/20/2022	17,371	17,194	36
60	8/20/2022	17,161	16,984	36
61	8/21/2022	16,951	16,773	36
62	8/21/2022	16,740	16,563	36
63	8/21/2022	16,530	16,353	36
64	8/21/2022	16,320	16,142	36
65	8/22/2022	16,109	15,932	36
66	8/22/2022	15,899	15,722	36
67	8/22/2022	15,689	15,511	36
68	8/22/2022	15,479	15,305	36
69	8/22/2022	15,268	15,092	36
70	8/23/2022	15,058	14,880	36
71	8/23/2022	14,847	14,670	36
72	8/23/2022	14,637	14,460	36
73	8/23/2022	14,427	14,250	36
74	8/23/2022	14,216	14,039	36
75	8/24/2022	14,006	13,829	36
76	8/25/2022	13,796	13,619	36
77	8/25/2022	13,586	13,408	36
78	8/25/2022	13,375	13,198	36
79	8/25/2022	13,165	12,988	36
80	8/26/2022	12,955	12,777	36
81	8/26/2022	12,744	12,567	36
82	8/26/2022	12,534	12,357	36
83	8/26/2022	12,324	12,146	36
84	8/27/2022	12,113	11,936	36
85	8/27/2022	11,903	11,726	36
86	8/27/2022	11,693	11,515	36

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**CHARLES JAMISON MSH 610H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
87	8/27/2022	11,482	11,305	36
88	8/27/2022	11,272	11,095	36
89	8/28/2022	11,062	10,884	36
90	8/28/2022	10,851	10,674	36
91	8/28/2022	10,641	10,464	36
92	8/28/2022	10,431	10,254	36
93	8/28/2022	10,221	10,043	36
94	8/29/2022	10,010	9,833	36
95	8/29/2022	9,800	9,623	36
96	8/29/2022	9,590	9,412	36
97	8/30/2022	9,379	9,202	36
98	8/30/2022	9,169	8,992	36
99	8/30/2022	8,959	8,781	36
100	8/30/2022	8,748	8,571	36

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CHARLES JAMISON MSH 610H

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/other
1	7/30/2022	76.9	9,257	9,664	3,891	181,030	7,176	0
2	7/30/2022	85.1	9,872	6,473	4,012	320,030	11,319	0
3	7/31/2022	84.1	10,041	5,567	5,235	312,810	10,946	0
4	7/31/2022	86.2	10,005	5,863	5,435	319,170	11,169	0
5	7/31/2022	86.5	9,821	6,386	5,012	311,690	10,685	0
6	8/1/2022	85	9,915	5,790	5,208	309,430	11,239	0
7	8/1/2022	83.8	9,887	7,030	5,303	309,130	10,263	0
8	8/2/2022	87.6	9,698	6,578	5,102	306,320	9,645	0
9	8/2/2022	65.6	8,026	5,458	5,360	305,750	11,555	0
10	8/2/2022	86.4	9,671	6,525	5,023	314,890	10,001	0
11	8/3/2022	73.3	9,488	6,654	5,705	312,480	10,101	0
12	8/3/2022	81.2	8,965	6,629	5,685	311,950	9,958	0
13	8/4/2022	92.6	9,976	7,273	5,244	312,090	11,261	0
14	8/5/2022	95.5	9,917	7,102	5,089	316,260	10,861	0
15	8/5/2022	95.3	10,024	6,948	6,125	312,790	10,066	0
16	8/5/2022	93.2	9,754	7,252	5,358	244,840	8,819	0
17	8/6/2022	97.1	10,199	7,285	4,953	310,810	10,166	0
18	8/6/2022	95.7	9,917	6,922	5,160	310,700	9,668	0
19	8/6/2022	70.9	9,422	7,235	6,895	312,320	9,726	0
20	8/6/2022	71.5	9,108	6,802	5,953	309,970	9,713	0
21	8/7/2022	94	10,009	7,499	5,106	326,020	9,947	0
22	8/7/2022	83.4	9,130	6,909	6,033	309,150	10,386	0
23	8/8/2022	71.6	8,992	6,820	5,895	313,560	10,334	0
24	8/8/2022	84.8	8,896	7,249	5,536	308,810	10,269	0
25	8/8/2022	93.5	9,873	6,751	4,436	308,770	10,375	0
26	8/9/2022	91.8	9,744	6,584	5,398	311,970	11,061	0
27	8/9/2022	85	9,347	6,836	4,623	311,090	10,107	0
28	8/10/2022	88.6	9,446	7,079	4,536	312,650	10,473	0
29	8/10/2022	90.5	9,709	6,757	5,444	311,930	9,418	0
30	8/10/2022	87.3	9,443	6,606	5,334	314,450	9,697	0
31	8/10/2022	89.8	9,763	6,357	5,145	313,230	9,697	0
32	8/11/2022	87.6	9,583	6,321	5,214	309,240	9,540	0
33	8/11/2022	84	8,722	6,922	4,970	308,350	9,552	0
34	8/12/2022	88.4	9,289	6,218	4,892	314,550	9,352	0
35	8/12/2022	84.8	9,165	7,211	4,947	314,300	9,697	0
36	8/13/2022	84.7	9,383	5,570	4,776	313,070	10,958	0
37	8/14/2022	91	9,508	6,889	4,501	269,260	8,741	0
38	8/14/2022	94	9,214	6,559	4,832	316,990	9,111	0
39	8/15/2022	41.4	7,680	5,914	5,266	313,020	11,364	0
40	8/15/2022	91.8	8,976	7,601	5,445	313,030	10,799	0
41	8/16/2022	92.9	9,022	6,802	4,713	309,840	9,302	0
42	8/16/2022	78.2	9,021	5,795	5,445	313,840	8,861	0
43	8/16/2022	78.4	9,027	7,610	5,678	312,148	8,826	0
44	8/17/2022	92.3	9,043	6,120	5,428	318,780	8,901	0
45	8/17/2022	91.9	9,184	6,879	5,746	315,720	9,198	0
46	8/17/2022	94.1	9,233	6,030	5,440	314,890	9,339	0
47	8/18/2022	91	9,162	6,467	5,772	315,830	9,493	0
48	8/18/2022	87.5	8,479	7,043	5,512	309,910	10,087	0
49	8/18/2022	98.5	9,185	5,832	4,471	314,920	8,859	0
50	8/18/2022	95.4	8,978	5,413	5,180	313,030	8,953	0
51	8/18/2022	96.1	9,610	7,032	5,260	315,870	8,336	0
52	8/19/2022	98.2	9,368	5,916	5,530	309,370	8,393	0
53	8/19/2022	98.6	9,326	6,972	5,165	310,800	8,493	0

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CHARLES JAMISON MSH 610H

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	8/19/2022	99.4	9,078	6,776	4,948	310,910	8,455	0
55	8/19/2022	99	9,079	7,070	4,956	313,940	8,134	0
56	8/20/2022	98.4	9,280	5,650	5,483	315,390	8,370	0
57	8/20/2022	99	9,094	7,030	5,926	318,540	8,250	0
58	8/20/2022	99	8,861	6,700	5,512	314,330	8,234	0
59	8/20/2022	99.6	8,780	5,322	5,319	316,310	8,058	0
60	8/20/2022	97.1	8,432	6,918	5,730	319,250	8,306	0
61	8/21/2022	98.2	8,333	5,627	5,773	314,380	8,460	0
62	8/21/2022	99.5	8,684	7,047	5,176	321,550	8,880	0
63	8/21/2022	99.4	8,694	6,781	5,123	311,358	7,972	0
64	8/22/2022	94.5	8,453	5,970	5,487	293,860	8,575	0
65	8/22/2022	84	7,952	5,400	5,597	316,990	8,182	0
66	8/22/2022	98.9	8,632	6,583	5,146	310,190	8,080	0
67	8/22/2022	98.4	8,703	5,755	5,103	310,630	7,921	0
68	8/22/2022	98.8	8,537	7,152	5,320	309,890	8,081	0
69	8/22/2022	96.7	8,678	6,934	5,617	315,120	7,990	0
70	8/23/2022	97.9	8,756	6,181	5,230	308,040	7,958	0
71	8/23/2022	97	8,334	6,870	5,816	314,410	8,118	0
72	8/23/2022	98	8,509	6,911	5,485	314,290	8,149	0
73	8/23/2022	99	8,630	5,689	4,896	310,750	7,800	0
74	8/24/2022	99	8,518	6,053	5,718	310,310	7,909	0
75	8/25/2022	93.8	8,600	5,970	4,920	311,270	7,868	0
76	8/25/2022	99	8,152	6,750	5,985	313,560	8,040	0
77	8/25/2022	98.5	8,461	5,402	5,231	320,430	7,963	0
78	8/25/2022	99.5	8,441	5,945	5,078	317,340	7,699	0
79	8/25/2022	99.5	8,352	7,070	5,335	314,120	7,900	0
80	8/26/2022	99	8,205	6,812	5,409	315,840	7,703	0
81	8/26/2022	98.5	8,291	5,750	4,968	316,270	7,725	0
82	8/26/2022	99.4	8,172	5,920	5,412	313,740	7,761	0
83	8/26/2022	99	8,048	6,690	5,411	315,750	7,628	0
84	8/27/2022	99.5	8,116	5,733	5,370	315,380	7,547	0
85	8/27/2022	96.4	7,978	6,210	5,351	314,320	7,654	0
86	8/27/2022	98.9	8,244	9,105	5,420	314,440	7,809	0
87	8/27/2022	99.5	8,104	6,602	5,110	313,480	7,624	0
88	8/28/2022	99.5	8,019	6,286	4,951	318,480	7,769	0
89	8/28/2022	96.9	7,839	6,264	5,320	317,740	8,271	0
90	8/28/2022	99	7,917	5,450	5,026	318,100	7,713	0
91	8/28/2022	98	7,417	6,359	5,330	311,300	7,582	0
92	8/28/2022	99.5	100	6,411	5,800	318,750	7,707	0
93	8/29/2022	99	100	6,444	5,994	317,310	7,479	0
94	8/29/2022	99.5	7,599	6,620	5,410	314,028	7,487	0
95	8/29/2022	92	7,867	6,718	4,869	314,090	7,203	0
96	8/30/2022	99.5	7,949	6,659	5,580	315,660	7,808	0
97	8/30/2022	95.8	7,366	6,330	5,371	313,818	9,487	0
98	8/30/2022	98.8	7,908	6,888	4,632	312,490	7,733	0
99	8/30/2022	99	7,618	6,712	5,632	311,600	7,515	0
100	8/30/2022	98.3	7,411	6,699	5,823	307,840	7,441	0

RECEIVED
Office of Oil and Gas
DEC 15 2022
318,480
Environmental Protection Department

Latitude: 39°50'00" (SHL)

SURFACE HOLE 6,780'

BOTTOM HOLE 5,136'

Latitude: 39°47'30" (BHL)



CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
120 GENESIS BOULEVARD
BRIDGEPORT, WV 26330
304-933-3119

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

PROPOSED SURFACE HOLE
ASDRILLED SURFACE HOLE

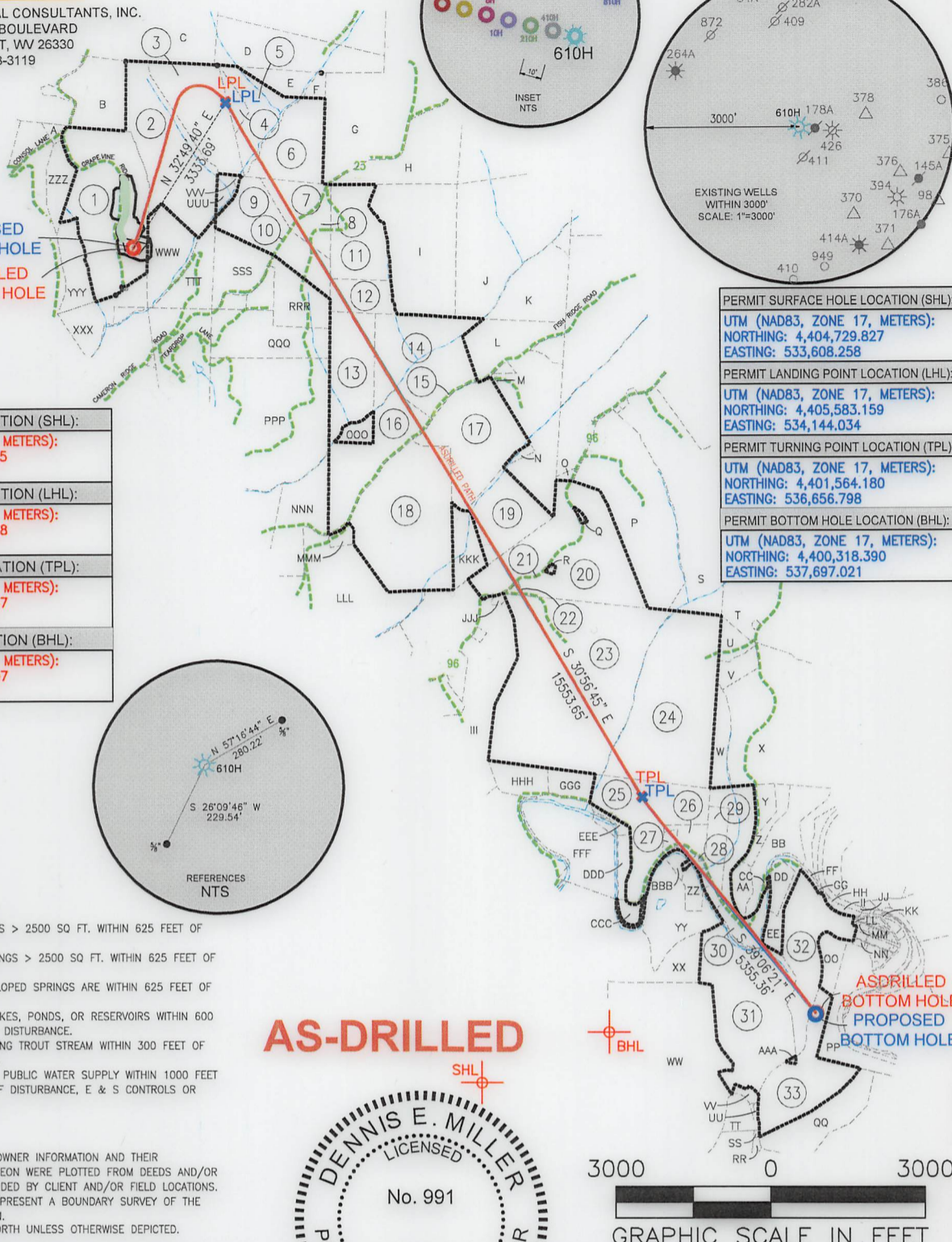
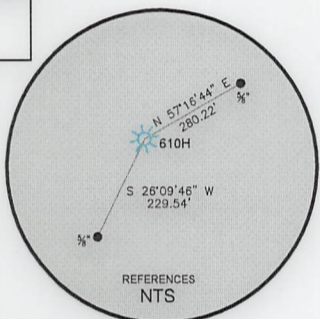


Table with 4 rows: SURFACE HOLE LOCATION (SHL), LANDING POINT LOCATION (LHL), TURNING POINT LOCATION (TPL), BOTTOM HOLE LOCATION (BHL). Each row includes UTM coordinates.

Table with 4 rows: PERMIT SURFACE HOLE LOCATION (SHL), PERMIT LANDING POINT LOCATION (LHL), PERMIT TURNING POINT LOCATION (TPL), PERMIT BOTTOM HOLE LOCATION (BHL). Each row includes UTM coordinates.



WELL RESTRICTIONS

- 1. NO OCCUPIED DWELLINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
2. NO AGRICULTURE BUILDINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
3. WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 625 FEET OF PROPOSED WELL.
4. PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 600 FEET OF THE LIMITS OF DISTURBANCE.
5. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
6. NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

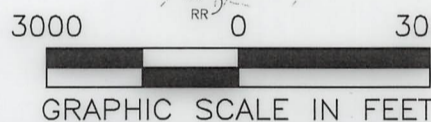
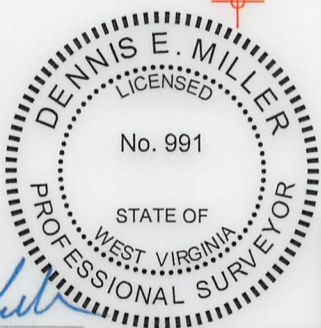
NOTES ON SURVEY

- 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.
4. 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. 991

AS-DRILLED



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 SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)

CHARLES JAMISON MSH
OPERATOR'S WELL #: 610H
API WELL #: 47 051 02426
STATE COUNTY PERMIT

WELL TYPE: OIL [] WASTE DISPOSAL [] PRODUCTION [X] DEEP [] GAS [X] LIQUID INJECTION [] STORAGE [] SHALLOW [X]
WATERSHED: MAGGOTY RUN
DISTRICT: LIBERTY DISTRICT COUNTY: MARSHALL
SURFACE OWNER: CHARLES AND JEAN JAMISON
OIL & GAS ROYALTY OWNER: CHARLES AND JEAN JAMISON
DRILL [] DRILL DEEPER [] REDRILL [] FRACTURE OR STIMULATE [] PLUG OFF OLD FORMATION [] PERFORATE NEW FORMATION []
CONVERT [] PLUG & ABANDON [] CLEAN OUT & REPLUG [] OTHER CHANGE [X] (SPECIFY) ASDRILLED
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,398.90 TVD 29,592.00 TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC
ADDRESS: 1300 FORT PIERPONT DRIVE, STE 201
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508
DESIGNATED AGENT: BRITTANY WOODY
ADDRESS: 1300 FORT PIERPONT DRIVE, STE 201
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND table with symbols for Proposed Surface Hole, Existing Wellhead, Landing Point Location, Existing Water Well, Existing Spring, Surveyed Boundary, Drilling Unit, Lease Boundary, Asdrilled Path, Proposed Path.

REVISIONS table with columns for Date, Drawn By, Scale, Drawing No, Well Location Plat.



CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
120 GENESIS BOULEVARD
BRIDGEPORT, WV 26330
304-933-3119

WELL BORE TABLE FOR SURFACE OWNERS

TRACT	SURFACE OWNER	TAX PARCEL
1	CHARLES AND JEAN JAMISON	07-007-0006
2	KENNETH WAYNE STEELE REVOCABLE LIVING TRUST AGREEMENT	07-007-0011
3	ANTHONY M. SKRYPEK	07-007-0010
4	ANTHONY M. SKRYPEK	07-006-0004
5	ANTHONY M. SKRYPEK	07-006-0005
6	CNX LAND, LLC	07-006-0006
7	CNX LAND, LLC	07-006-0009
8	MARSHALL COUNTY COAL COMPANY	07-006-0009.1
9	CNX LAND, LLC	07-006-0010
10	CO. RT. 23 ROW (CAMERON RIDGE ROAD)	
11	MARVIN AND SHIRLEY BYARD	07-006-0013
12	MARVIN AND SHIRLEY BYARD	07-006-0014
13	ROBIN E. AND DONALD QUIGLEY	07-011-0001
14	CNX LAND, LLC	07-011-0008
15	FISH RIDGE ROAD ROW	
16	CNX LAND, LLC	07-011-0003
17	DOUGLAS AND DEANA MCCOMBS	07-011-0007
18	SCOTT C. MARLING AND JESSICA L. PARRY	07-011-0004
19	AMANDA MARIE LINDSEY, ANDREW DAVID MCCURDY AND TIMOTHY S. MCCURDY	07-011-0006
20	ELLEN MARIE QUIGLEY AND DIANA MATHEWS	07-011-0017
21	CO. RT. 96 ROW	
22	ANDREW DAVID MCCURDY	07-011-0017.1
23	HINKLE FAMILY TRUST	07-015-0001
24	DAVID W. JR. AND MELANIE A. HUMMEL	07-015-0001.1
25	DAVID W. JR. AND MELANIE A. HUMMEL	07-015-0017
26	MOUNTAIN VIEW REALTY LLC	07-015-0015
27	MOUNTAIN VIEW REALTY LLC	07-015-0016
28	BEAU V. MARTIN AND AMELIA D. YOUNG	07-015-0015.1
29	TREVOR L. NEELY	07-015-0012.1
30	CODY MILLER	07-015-0012
31	AMMON A. BURLEY, ET UX	07-020-0026
32	SEAN D. HALL AND DEBBIE L. HALL	07-020-0028
33	RICARDO S. GREGG, ET UX	07-020-0032

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
A	MARSHALL COUNTY COAL RESOURCES INC.	07-007-0007
B	KENNETH WAYNE STEELE REVOCABLE LIVING TRUST AGREEMENT	07-007-0008.1
C	JEAN JAMISON	07-007-0009.1
D	ANTHONY M. SKRYPEK	07-006-0002
E	ANTHONY M. SKRYPEK	07-006-0003
F	ANTHONY M. SKRYPEK	07-006-0006.1
G	WANDA L. ALLMAN, ET AL	07-006-0015
H	MARKWEST LIBERTY MIDSTREAM AND RESOURCES LLC	07-006-0015.1
I	CNX LAND, LLC	07-006-0014.1
J	BARBARA J. REID AND SANDRA SUMPSTON	07-006-0019
K	DONALD MACK QUIGLEY	07-011-0011
L	LARRY C. WILLIAMS, ET UX	07-011-0009
M	DOUGLAS R. AND DEANA MCCOMBS	07-011-0009.1
N	LARRY C. WILLIAMS, ET UX	07-011-0007.1
O	RICKY JAY BERESFORD JR., ET UX	07-011-0015.1

AS-DRILLED

API WELL #: **47 051 02426**
STATE COUNTY PERMIT

P	DONALD MACK QUIGLEY, ET UX	07-011-0018
Q	DONALD MACK AND ROBIN QUIGLEY	07-011-0017.2
R	DIANA LYNN MATHEWS	07-011-0017.3
S	DOUGLAS R. AND REBECCA J. MCCOMBS	07-011-0019
T	APPALACHIA MIDSTREAM SERVICES LLC	07-015-0006
U	DAVID W. HUMMEL JR. AND MELANIE A. HUMMEL	07-015-0004
V	DAVID W. HUMMEL JR. AND MELANIE A. HUMMEL	07-015-0003
W	DAVID W. HUMMEL JR. AND MELANIE A. HUMMEL	07-015-0002
X	VERA S. CAIN - LIFE	07-015-0007
Y	CLYDE F. HARRINGTON	07-015-0011
Z	AARON LEE AND BONNIE BARR	07-015-0010.1
AA	CHAD R. AND BETSY J. WILLIAMS	07-015-0010.2
BB	DONALD T. STUHMER AND KIMBERLY A. SCHMITT	07-015-0010
CC	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS	07-015-0013
DD	STATE ROAD COMMISSION	07-020-0027.1
EE	VICTOR J. SEIFERT, ET UX - DARRELL H. II AND VICKI A. MCNEELY	07-020-0027
FF	TRIPLE J RANCH LLC	07-020-0028.2
GG	DEMURI HOME AND GARDEN LLC	07-020-0028.1
HH	TRIPLE J RANCH LLC	07-014-0038
II	ROGER B. KUPFER, ET AL	07-014-0042
JJ	CNX LAND, LLC	07-014-0043
KK	CNX LAND, LLC	07-021A-0026
LL	ANGELA JUNE WYKERT	07-021A-0001
MM	ANGELA JUNE WYKERT	07-021A-0019
NN	DONALD W. AND MARTHA J. KENNEDY	07-021A-0008.1
OO	RICARDO S. GREGG, ET UX	07-020-0031
PP	DONALD W. AND MARTHA J. KENNEDY	07-021-0001
QQ	ANDREW C. BROWN III	07-025-0004
RR	NEWMAN M. LONGWELL, ET UX	07-025-0002.1
SS	AMMON A. BURLEY, ET UX	07-025-0003
TT	AMMON A. BURLEY, ET UX	07-020-0036
UU	ZACCHEUS PROPERTIES LLC	07-020-0033
VV	DENNIS DEAN HALL, ET UX	07-020-0035
WW	AMMON A. BURLEY	07-020-0037
XX	AMMON A. BURLEY	07-020-0024
YY	MOUNTAIN VIEW REALTY, LLC.	07-020-0025
ZZ	MOUNTAIN VIEW REALTY, LLC.	07-015-0014
AAA	MONTANA SKY LLC	07-020-0032.1
BBB	JANEEN L. CZOLBA	07-015-0014.1
CCC	WILLIAM H. AND GAIL K. PORTER	07-015-0017.3
DDD	WILLIAM H. AND GAIL K. PORTER	07-015-0017.1
EEE	WILLIAM H. AND GAIL K. PORTER	07-015-0017.2
FFF	CYNTHIA ANTILL, JOANNE M. HATZELL, CLAUDE R. STEPHENS, JR. AND EDWARD K. STEPHENS	07-020-0023
GGG	HINKLE FAMILY TRUST	07-015-0019
HHH	DANIEL W. DEVER, DAVID S. DEVER, GREGORY T. DEVER, JOHN A. DEVER, LAWRENCE A. DEVER AND DEBORAH KAY KINCAID	07-020-0022
III	ELLEN MARIE QUIGLEY	07-016-0036
JJJ	ANDREW MCCURDY ET UX	07-016-0036.2
KKK	ELLEN MARIE QUIGLEY	07-011-0005
LLL	RUSSELL ALLEN JR. AND JODI D. DOTSON	07-016-0031
MMM	RYAN HILL	07-016-0031.1
NNN	MICHAEL KNOWLTON	07-010-0025
OOO	CNX LAND, LLC	07-011-0002
PPP	JAN CAROL DOBBS, TRUSTEE OF THE G AND JAN DOBBS FAMILY TRUST	07-010-0021
QQQ	ROBIN E. AND DONALD QUIGLEY	07-010-0020
RRR	CNX LAND, LLC	07-006-0012
SSS	GAIL L. ZWICK - LIFE	07-006-0012.1
TTT	GAIL L. ZWICK - LIFE	07-007-0014
UUU	GAIL L. ZWICK - LIFE	07-006-0008
VVV	GAIL L. ZWICK - LIFE	07-006-0007
WWW	GAIL L. ZWICK - LIFE	07-007-0012
XXX	TIMOTHY R. CAIN	07-007-0006.1
YYY	TIMOTHY R. CAIN	07-007-0006.2
ZZZ	MARSHALL COUNTY COAL RESOURCES INC.	07-007-0006.3

REVISIONS:	COMPANY:			
	OPERATOR'S		CHARLES JAMISON MSH	
	WELL #:		610H	
	DISTRICT:	COUNTY:	STATE:	DATE: 8-05-2022
	LIBERTY DISTRICT	MARSHALL	WV	DRAWN BY: K.E.S.
				SCALE: N/A
				DRAWING NO: 170-426
				WELL LOCATION PLAT 2