

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

API 47-095-02664 County TYLER District CENTERVILLE
Quad WEST UNION Pad Name SHR37 Field/Pool Name _____
Farm name CNX GAS COMPANY LLC Well Number SHR37IHSM
Operator (as registered with the OOG) CNX GAS COMPANY LLC
Address 1000 CONSOL ENERGY DRIVE City CANONSBURG State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4355993.93 Easting 513310.94
Landing Point of Curve Northing 4356341.25 Easting 513848.93
Bottom Hole Northing 4360528.15 Easting 512451.21

Elevation (ft) 828' 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)
SYNTHETIC BASED FLUID

ADDITIVES: ABS MUL (EMULSIFIER), CALCIUM CHLORIDE, FLR PLUS (GILSONITE), CLAYTONE EM (SUSPENSION AGENT), AES WA II (WETTING AGENT), LIME

Date permit issued 01.08.2020 Date drilling commenced 01.26.2020 Date drilling ceased 02.07.2020
Date completion activities began 3/11/2021 Date completion activities ceased 3/27/2021 RECEIVED
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A Office of Oil and Gas
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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

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Freshwater depth(s) ft 92', 126', 144', 148', 150', 176', 220' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,748' 2,458' Void(s) encountered (Y/N) depths N
Coal depth(s) ft No mineable seams; trace @ 154', 526', 616', 955', 992, 1044, Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

DmH

08/27/2021

API 47-095 - 02664 Farm name CNX GAS COMPANY LLC Well number SHR37IHSM

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"	100'	NEW	94 lb/ft	N/A	GROUT TO SURFACE
Surface	17.5"	13.375"	429'	NEW	J-55 54.5 lb/ft	N/A	Y - CEMENT TO SURFACE
Coal							
Intermediate 1	12.25"	9.825"	2,259'	NEW	J-55 38 lb/ft	N/A	Y - CEMENT TO SURFACE
Intermediate 2							
Intermediate 3							
Production	8.75" & 8.5"	5.5"	22,142'	NEW	P-110Y 20 lb/ft	N/A	Y - TOC @ 1,325'
Tubing	5.5"	2.875	7,440.9	NEW	P-110 6.5 LB/FT	N/A	N/A
Packer type and depth set							

Comment Details ALL DEPTHS ARE REFERENCE TO GROUND LEVEL (-29' KB)

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							
Surface	HALCEM	345	15.8	1.17	404	0	8
Coal							
Intermediate 1	HALCEM	855	15.8	1.15	983	0	8
Intermediate 2							
Intermediate 3							
Production	EXP NEOCEM / NEOCEM	925 (L) / 3,620 (T)	15	1.14 (L) / 1.13 (T)	1,066 (L) / 4,091 (T)	1,325'	8
Tubing							

Drillers TD (ft) 22,166' (MD @GL) Loggers TD (ft) 22,166' (MD @GL)
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6,093 (MD @GL)

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 **RECEIVED**
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DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____
SURFACE = 8: Centralize every other joint from shoe to surface
 INTERMEDIATE = 28: Centralize every other joint from shoe to surface
 PRODUCTION = 518: Centralize every joint from shoe to TOC

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS Plug and Perforation

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

08/27/2021

API 47-095 - 02664 Farm name CNX GAS COMPANY LLC Well number SHR37IHSM

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	SEE	ATTACHMENT	1		

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
		SEE	ATTACHMENT	2				

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Please insert additional pages as applicable.

API 47- 095 - 02664 Farm name CNX GAS COMPANY LLC Well number SHR37IHSM

PRODUCING FORMATION(S)	DEPTHS			
MARCELLUS	7,504.6'	TVD	6,313.7'	MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1200 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 6155.9 mcfpd Oil 139 bpd NGL 0 bpd Water 851 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
					FORMATION LOG ATTACHED

Please insert additional pages as applicable.

Drilling Contractor PATTERSON UTI DRILLING
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company WORKOVER SOLUTIONS
Address 13996 US-6 City Mansfield State PA Zip 16933

Cementing Company HALLIBURTON
Address 121 Champion Way, Suite #210 City Canonsburg State PA Zip 15317

Stimulating Company NexTier Oilfield Solutions Inc.
Address 3990 Rogerdale Rd City Houston State TX Zip 77042

Please insert additional pages as applicable.

Completed by Michael Honce Telephone 304-406-8909
Signature [Signature] Title Completions Superintendent Date 6/29/2021

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Submission of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

08/27/2021

SHR37IHSM – PERFORATION RECORD – ATTACHMENT 1

Stage No.	Perforation Date	Perforation from MD ft.	Perforation to MD ft.	Number of Perforations	Formation(s)
1	3/11/2021	22,019.4	22,116.0	24	Marcellus Shale
2	3/11/2021	21,777.7	21,958.0	40	Marcellus Shale
3	3/11/2021	21,554.7	21,735.0	40	Marcellus Shale
4	3/12/2021	21,331.7	21,512.0	40	Marcellus Shale
5	3/12/2021	21,108.7	21,289.0	40	Marcellus Shale
6	3/12/2021	20,885.7	21,066.0	40	Marcellus Shale
7	3/12/2021	20,662.7	20,843.0	40	Marcellus Shale
8	3/12/2021	20,439.7	20,620.0	40	Marcellus Shale
9	3/13/2021	20,216.7	20,397.0	40	Marcellus Shale
10	3/13/2021	19,993.7	20,174.0	40	Marcellus Shale
11	3/13/2021	19,770.7	19,951.0	40	Marcellus Shale
12	3/13/2021	19,547.7	19,728.0	40	Marcellus Shale
13	3/13/2021	19,324.7	19,505.0	40	Marcellus Shale
14	3/14/2021	19,101.7	19,282.0	40	Marcellus Shale
15	3/14/2021	18,878.7	19,059.0	40	Marcellus Shale
16	3/14/2021	18,655.7	18,836.0	40	Marcellus Shale
17	3/14/2021	18,432.7	18,613.0	40	Marcellus Shale
18	3/14/2021	18,209.7	18,390.0	40	Marcellus Shale
19	3/14/2021	17,986.7	18,167.0	40	Marcellus Shale
20	3/15/2021	17,763.7	17,944.0	40	Marcellus Shale
21	3/15/2021	17,539.8	17,721.0	40	Marcellus Shale
22	3/15/2021	17,315.8	17,497.0	40	Marcellus Shale
23	3/15/2021	17,091.8	17,273.0	40	Marcellus Shale
24	3/15/2021	16,867.8	17,049.0	40	Marcellus Shale
25	3/16/2021	16,643.8	16,825.0	40	Marcellus Shale
26	3/16/2021	16,419.8	16,601.0	40	Marcellus Shale
27	3/16/2021	16,195.8	16,377.0	40	Marcellus Shale
28	3/16/2021	15,971.8	16,153.0	40	Marcellus Shale
29	3/17/2021	15,747.8	15,929.0	40	Marcellus Shale
30	3/17/2021	15,523.8	15,705.0	40	Marcellus Shale
31	3/17/2021	15,299.8	15,481.0	40	Marcellus Shale
32	3/17/2021	15,075.8	15,257.0	40	Marcellus Shale
33	3/17/2021	14,851.8	15,033.0	40	Marcellus Shale
34	3/18/2021	14,627.8	14,809.0	40	Marcellus Shale
35	3/18/2021	14,403.8	14,585.0	40	Marcellus Shale
36	3/18/2021	14,179.8	14,361.0	40	Marcellus Shale
37	3/18/2021	13,955.8	14,137.0	40	Marcellus Shale
38	3/18/2021	13,731.8	13,913.0	40	Marcellus Shale
39	3/19/2021	13,507.8	13,689.0	40	Marcellus Shale
40	3/19/2021	13,283.8	13,465.0	40	Marcellus Shale
41	3/19/2021	13,059.8	13,231.0	40	Marcellus Shale
42	3/19/2021	12,835.8	13,007.0	40	Marcellus Shale
43	3/19/2021	12,611.8	12,783.0	40	Marcellus Shale
44	3/20/2021	12,387.8	12,563.0	40	Marcellus Shale
45	3/20/2021	12,163.8	12,339.0	40	Marcellus Shale
46	3/20/2021	11,939.8	12,115.0	40	Marcellus Shale
47	3/21/2021	11,715.8	11,891.0	40	Marcellus Shale
48	3/21/2021	11,491.8	11,667.0	40	Marcellus Shale
49	3/21/2021	11,267.8	11,443.0	40	Marcellus Shale
50	3/22/2021	11,043.8	11,219.0	40	Marcellus Shale
51	3/22/2021	10,819.8	10,995.0	40	Marcellus Shale
52	3/22/2021	10,595.8	10,771.0	40	Marcellus Shale
53	3/23/2021	10,371.8	10,547.0	40	Marcellus Shale
54	3/23/2021	10,147.8	10,323.0	40	Marcellus Shale
55	3/24/2021	9,923.8	10,099.0	40	Marcellus Shale
56	3/24/2021	9,699.8	9,875.0	40	Marcellus Shale
57	3/24/2021	9,475.8	9,651.0	40	Marcellus Shale
58	3/25/2021	9,251.8	9,427.0	40	Marcellus Shale
59	3/25/2021	9,027.8	9,203.0	40	Marcellus Shale

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60	3/25/2021	8,836.6	9,016.2	40	Marcellus Shale
61	3/26/2021	8,614.6	8,794.2	40	Marcellus Shale
62	3/26/2021	8,392.6	8,572.2	40	Marcellus Shale
63	3/27/2021	8,170.6	8,350.2	40	Marcellus Shale
64	3/27/2021	7,948.6	8,128.2	40	Marcellus Shale
65	3/27/2021	7,726.6	7,906.2	40	Marcellus Shale
66	3/27/2021	7,504.6	7,684.2	40	Marcellus Shale

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SHR37IHSM – STIMULATION INFORMATION PER STAGE – ATTACHMENT 2

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen /Other (Units)
1	3/11/2021	84	9,411.0	9,764.0	3,702.0	339,200.00	7,100.24	N/A
2	3/11/2021	84	18,305.0	9,654.0	4,867.0	450,000.00	10,667.38	N/A
3	3/11/2021	83	9,476.0	9,714.0	4,001.0	450,000.00	7,921.60	N/A
4	3/12/2021	87	9,430.0	9,729.0	4,324.0	450,000.00	7,708.33	N/A
5	3/12/2021	88	9,539.0	9,786.0	4,051.0	450,000.00	7,347.33	N/A
6	3/12/2021	84	9,498.0	9,781.0	3,895.0	450,000.00	7,188.14	N/A
7	3/12/2021	89	9,522.0	9,739.0	4,537.0	453,000.00	7,268.00	N/A
8	3/13/2021	90	9,485.0	9,716.0	4,435.0	450,000.00	7,309.86	N/A
9	3/13/2021	91	9,562.0	9,762.0	4,449.0	450,000.00	7,276.50	N/A
10	3/13/2021	89	9,527.0	9,732.0	3,632.0	450,000.00	7,370.60	N/A
11	3/13/2021	88	9,534.0	9,904.0	3,985.0	450,000.00	7,328.74	N/A
12	3/13/2021	87	9,590.0	9,782.0	3,930.0	450,000.00	7,383.90	N/A
13	3/13/2021	89	9,520.0	9,760.0	3,725.0	449,000.00	7,259.12	N/A
14	3/14/2021	91	9,571.0	9,857.0	4,506.0	450,000.00	7,331.33	N/A
15	3/14/2021	92	9,579.0	9,795.0	4,234.0	450,000.00	7,187.93	N/A
16	3/14/2021	94	9,594.0	9,774.0	4,378.0	450,000.00	7,195.24	N/A
17	3/14/2021	93	9,551.0	9,797.0	4,442.0	450,000.00	7,130.86	N/A
18	3/14/2021	94	9,523.0	9,781.0	4,077.0	451,000.00	7,160.69	N/A
19	3/15/2021	95	9,529.0	9,787.0	3,696.0	449,000.00	7,237.24	N/A
20	3/15/2021	96	9,515.0	9,835.0	4,019.0	450,000.00	7,227.67	N/A
21	3/15/2021	98	9,592.0	9,777.0	4,517.0	450,000.00	7,169.31	N/A
22	3/15/2021	97	9,548.0	9,775.0	4,293.0	450,000.00	7,050.21	N/A
23	3/15/2021	98	9,525.0	9,775.0	4,344.0	449,000.00	7,014.45	N/A
24	3/16/2021	96	9,521.0	9,810.0	4,103.0	448,000.00	7,178.31	N/A
25	3/16/2021	95	9,554.0	9,800.0	4,372.0	450,000.00	7,212.90	N/A
26	3/16/2021	97	9,549.0	9,764.0	4,546.0	450,000.00	7,066.45	N/A
27	3/16/2021	100	9,514.0	9,762.0	4,452.0	450,000.00	7,287.43	N/A
28	3/16/2021	93	9,240.0	9,776.0	4,326.0	450,000.00	7,104.02	N/A
29	3/17/2021	94	9,465.0	9,745.0	4,210.0	450,000.00	7,142.12	N/A
30	3/17/2021	99	9,473.0	9,858.0	4,301.0	461,000.00	7,158.43	N/A
31	3/17/2021	97	9,444.0	9,771.0	4,528.0	450,000.00	7,009.36	N/A
32	3/17/2021	97	9,396.0	9,836.0	2,986.0	450,000.00	7,051.12	N/A
33	3/17/2021	98	9,518.0	9,798.0	14,879.0	450,000.00	7,123.55	N/A
34	3/18/2021	92	9,155.0	9,756.0	4,011.0	450,000.00	7,092.71	N/A
35	3/18/2021	102	9,371.0	9,692.0	4,997.0	450,000.00	6,987.79	N/A
36	3/18/2021	99	9,284.0	9,743.0	4,315.0	450,000.00	7,049.50	N/A
37	3/18/2021	100	9,476.0	9,764.0	3,775.0	450,000.00	7,039.40	N/A
38	3/19/2021	101	9,524.0	9,718.0	4,108.0	450,000.00	7,090.40	N/A
39	3/19/2021	99	9,503.0	9,722.0	3,819.0	450,000.00	7,108.60	N/A
40	3/19/2021	100	9,434.0	9,732.0	4,261.0	450,000.00	7,036.02	N/A
41	3/19/2021	98	9,392.0	9,751.0	4,275.0	450,000.00	6,921.95	N/A
42	3/19/2021	100	9,486.0	9,820.0	4,099.0	450,000.00	6,913.55	N/A
43	3/20/2021	98	9,512.0	9,880.0	4,177.0	400,000.00	6,226.29	N/A
44	3/20/2021	101	9,444.0	9,755.0	3,731.0	400,000.00	6,349.93	N/A
45	3/20/2021	101	9,392.0	9,772.0	4,017.0	400,000.00	6,439.83	N/A
46	3/20/2021	102	9,500.0	9,745.0	4,777.0	400,000.00	6,220.74	N/A
47	3/21/2021	101	9,351.0	9,755.0	3,984.0	400,000.00	6,319.48	N/A
48	3/21/2021	101	9,478.0	9,778.0	3,776.0	400,000.00	6,137.76	N/A
49	3/22/2021	103	9,464.0	9,752.0	3,907.0	400,000.00	6,178.60	N/A
50	3/22/2021	103	9,143.0	10,102.0	4,099.0	400,000.00	6,192.10	N/A
51	3/22/2021	103	9,417.0	9,742.0	4,072.0	400,000.00	6,117.31	N/A
52	3/23/2021	100	9,411.0	9,701.0	4,513.0	400,000.00	6,199.33	N/A
53	3/23/2021	98	9,309.0	9,707.0	5,123.0	400,000.00	6,152.45	N/A

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54	3/24/2021	101	9,444.0	9,729.0	4,451.0	400,000.00	6,087.29	N/A
55	3/24/2021	104	9,240.0	9,741.0	4,047.0	398,000.00	6,249.55	N/A
56	3/24/2021	103	9,495.0	9,779.0	3,715.0	400,000.00	6,131.29	N/A
57	3/25/2021	102	9,188.0	9,754.0	4,125.0	400,000.00	6,045.57	N/A
58	3/25/2021	102	9,276.0	9,743.0	3,735.0	402,700.00	6,175.45	N/A
59	3/25/2021	104	9,290.0	9,704.0	3,866.0	400,000.00	6,104.33	N/A
60	3/26/2021	99	9,014.0	9,833.0	3,791.0	402,000.00	6,225.31	N/A
61	3/26/2021	102	9,411.0	9,745.0	3,821.0	400,000.00	6,178.48	N/A
62	3/27/2021	93	9,169.0	9,635.0	3,830.0	400,000.00	6,124.14	N/A
63	3/27/2021	103	9,071.0	9,718.0	3,981.0	399,000.00	6,217.98	N/A
64	3/27/2021	103	9,274.0	9,735.0	4,868.0	401,500.00	6,199.57	N/A
65	3/27/2021	103	8,917.0	9,626.0	4,528.0	400,000.00	6,086.07	N/A
66	3/27/2021	100	8,741.0	9,624.0	3,861.0	400,000.00	6,067.90	N/A

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API: 47-095-02664-00-00

FARM NAME: CNX GAS COMPANY LLC

WELL NUMBER: SHR37IHSM

Lithologies

LITHOLOGY / FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT NAME TVD	TOP DEPTH IN FT NAME MD	BOTTOM DEPTH IN FT NAME MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H2S, ETC)
UNDIFFERENTIATED SAND	0	456	0	456	SANDSTONE / TRACES OF SILTSTONE & LIMESTONE & COAL
HARLEM COAL	456	459	456	459	COAL
UNDIFFERENTIATED SAND & SILTSTONE	459	1,621	459	1,621	SANDSTONE / TRACES OF GRAY SHALE, COAL, QUARTZ & SILTSTONE
BIG LIME	1,621	1,740	1,621	1,741	LIMESTONE / TRACES OF SILTSTONE
BIG INJUN SAND	1,740	1,980	1,741	1,981	SANDSTONE & LIMESTONE / TRACES OF SILTSTONE
PRICE FORMATION	1,980	2,130	1,981	2,131	SILTSTONE / TRACES OF RED SHALE
BEREA SAND	2,130	2,220	2,131	2,221	SANDSTONE / TRACES OF SILTSTONE & PYRITE
GORDON SAND	2,220	3,128	2,221	2,231	SANDSTONE / TRACES OF SILTSTONE & PYRITE
WARREN SAND	3,128	3,198	3,130	3,201	SANDSTONE AND SILTSTONE
UNDIFFERENTIATED SHALE	3,198	4,721	3,201	4,998	GRAY SHALE
BENSON	4,721	4,909	4,998	5,256	SANDSTONE
ALEXANDER	4,909	5,014	5,256	5,361	SANDSTONE AND SILTSTONE
UNDIFFERENTIATED SHALE	5,014	6,116	5,361	6,836	GRAY SHALE
MIDDLESEX	6,116	6,154	6,836	6,910	GRAY SHALE / TRACES OF SILTSTONE
WEST RIVER	6,154	6,226	6,910	7,098	GRAY SHALE
BURKET SHALE	6,226	6,261	7,098	7,228	BLACK SHALE, GAS SHOW
TULLY LIMESTONE	6,261	6,286	7,228	7,358	GRAY SHALE
HAMILTON SHALE	6,286	6,298	7,358	7,442	GRAY SHALE & LIMESTONE
UPPER MARCELLUS SHALE	6,298	6,305	7,442	7,484	BLACK SHALE
MIDDLE MARCELLUS SHALE	6,305	TD	7,496	TD	BLACK SHALE, GAS SHOW
TD - MARCELLUS	6,322			22,194	

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47-095-02664

DRILLING CONTRACTOR

PATTERSON-UTI DRILLING COMPANY
4000 TOWN CENTER BOULEVARD SUITE 240
CANONSBURG, PA 15317

CEMENTING COMPANY

HALLIBURTON
121 CHAMPION WAY SUITE #210
CANONSBURG, PA 15317

Vertical text and markings, possibly a barcode or scanning artifact, running down the center of the page.

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/11/2021
Job End Date:	3/27/2021
State:	West Virginia
County:	Tyler
API Number:	47-095-02664-00-00
Operator Name:	CNX Gas Company LLC
Well Name and Number:	SHR37 M1 IHSM
Latitude:	39.35320690
Longitude:	-80.84568000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,300
Total Base Water Volume (gal):	19,864,083
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
Water	Operator	Carrier/Base Fluid	Water	7732-18-5	100.00000	84.85912	None
Proppant (Sand)	Nextier	Proppant	Crystalline silica: Quartz (SiO2)	14808-60-7	100.00000	14.53981	None
7.5% HCl	NexTier	Acid	Water	7732-18-5	92.50000	0.46269	None
7.5% HCl	NexTier	Acid	Hydrochloric Acid	7647-01-0	7.50000	0.03752	None
StimStream FR 9800	Chemstream	Friction Reducer	Water	7732-18-5	47.00000	0.03427	None
StimStream FR 9800	Chemstream	Friction Reducer	alkanes, C16-20-iso-	90622-59-6	25.00000	0.01823	None
StimStream FR 9800	Chemstream	Friction Reducer	butene, homopolymer	9003-29-6	25.00000	0.01823	None
StimStream SC-398	Chemstream	Scale Inhibitor	Non-Hazardous substances	Proprietary	90.00000	0.01156	None
Clearal 268	Chemstream	Biocide	Non-Hazardous substances	Proprietary	80.00000	0.00821	None

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StimStream FR 9800	Chemstream	Friction Reducer					
			Alcohols, C12-18, ethoxylated	68213-23-0	3.00000	0.00219	None
Clearal 268	Chemstream	Biocide					
			Glutaraldehyde	111-30-8	20.00000	0.00205	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Heavy Aliphatic Naphtha	64742-96-7	60.00000	0.00188	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Guara Gum	9000-30-0	50.00000	0.00157	None
StimStream SC-398	Chemstream	Scale Inhibitor					
			Bis(HexaMethylene Triamone Penta(Methylene Phoshonic Acid) (BHMT))	34690-00-1	10.00000	0.00128	None
PVS Iron Control 1	Chemstream	Iron Control					
			Citric Acid	77-92-9	50.50000	0.00045	None
PVS Iron Control 1	Chemstream	Iron Control					
			Water	7732-18-5	49.50000	0.00044	None
Clearal 268	Chemstream	Biocide					
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00031	None
Clearal 268	Chemstream	Biocide					
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00031	None
ACI-250	Chemstream	Acid Inhibitor					
			Methyl Alcohol	67-56-1	45.00000	0.00029	None
Ammonium Persulfate	Chemstream	Breaker					
			Ammonium persulfate	7727-54-0	100.00000	0.00016	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	5.00000	0.00016	None
Clearal 268	Chemstream	Biocide					
			Ethanol	64-17-5	1.50000	0.00015	None
ACI-250	Chemstream	Acid Inhibitor					
			Ethylene Glycol	107-21-1	20.00000	0.00013	None
ACI-250	Chemstream	Acid Inhibitor					
			Trade Secret	Proprietary	15.00000	0.00010	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	3.00000	0.00009	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	3.00000	0.00009	None
ACI-250	Chemstream	Acid Inhibitor					
			N, N-Dimethylformamide	68-12-2	10.00000	0.00006	None
ACI-250	Chemstream	Acid Inhibitor					
			Water	7732-18-5	10.00000	0.00006	None
ACI-250	Chemstream	Acid Inhibitor					
			2-Butoxyethanol	111-76-2	5.00000	0.00003	None

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

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* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

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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BHL is located on topo map 8,207 feet south of Latitude: 39°25'00"
 SHL is located on topo map 7,908 feet south of Latitude: 39°22'30"

SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

SEE PAGE 3 FOR SURFACE OWNERS AND LESSORS

BHL is located on topo map 6,238 feet west of Longitude: 80°50'00"
 SHL is located on topo map 3,443 feet west of Longitude: 80°50'00"

AS DRILLED PLAT

AS-DRILLED SURFACE HOLE LOCATION (SHL) UTM 17-NAD83 N:4355993.93 E:513310.94 NAD83_WY NORTH N:313640.103 E:1588038.866 LAT/LON DATUM-NAD83 LAT:39°21'11.838" LON:80°50'43.829"	PERMITTED SURFACE HOLE LOCATION (SHL) UTM 17-NAD83 N:4355993.93 E:513310.94 NAD83_WY NORTH N:313640.103 E:1588038.866 LAT/LON DATUM-NAD83 LAT:39°21'11.838" LON:80°50'43.829"
AS-DRILLED APPROX. LANDING POINT UTM 17-NAD83 N:4356341.25 E:513849.93 NAD83_WY NORTH N:314750.33 E:1589826.60 LAT/LON DATUM-NAD83 LAT:39°21'23.07" LON:80°50'21.26"	PERMITTED APPROX. LANDING POINT UTM 17-NAD83 N:4356254.54 E:513880.05 NAD83_WY NORTH N:314464.140 E:1589920.686 LAT/LON DATUM-NAD83 LAT:39°21'20.259" LON:80°50'20.031"
AS-DRILLED APPROX. DEFLECTION POINT UTM 17-NAD83 N:4357592.18 E:513399.128 NAD83_WY NORTH N:318879.973 E:1588415.786 LAT/LON DATUM-NAD83 LAT:39°22'03.6780" LON:80°50'40.0297"	PERMITTED APPROX. DEFLECTION POINT UTM 17-NAD83 N:4357391.42 E:513467.24 NAD83_WY NORTH N:318217.443 E:1588628.316 LAT/LON DATUM-NAD83 LAT:39°21'57.162" LON:80°50'37.198"
AS-DRILLED BOTTOM HOLE LOCATION (BHL) UTM 17-NAD83 N:4360526.15 E:512451.21 NAD83_WY NORTH N:328559.754 E:1585465.848 LAT/LON DATUM-NAD83 LAT:39°23'38.903" LON:80°51'19.448"	PERMITTED BOTTOM HOLE LOCATION (BHL) UTM 17-NAD83 N:4360525.64 E:512450.85 NAD83_WY NORTH N:328558.125 E:1585464.642 LAT/LON DATUM-NAD83 LAT:39°23'38.887" LON:80°51'19.467"



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 PHONE (304) 624-4108 • FAX (304) 624-7831

FILE #: SHR 37 IHSM AS-DRILLED
 DRAWING #: SHR 37 IHSM AS-DRILLED
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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 THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. Six*

R.P.E.: _____ P.S. No. 2000



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: FEBRUARY 24, 2020
 OPERATOR'S WELL #: SHR 37 IHSM AS-DRILLED
 API WELL #: 47 95 02664
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK ELEVATION: 828.57'±
 COUNTY/DISTRICT: TYLER / CENTERVILLE QUADRANGLE: WEST UNION, WV 7.5'
 SURFACE OWNER: CNX GAS COMPANY ACREAGE: 18±
 OIL & GAS ROYALTY OWNER: ELEANOR V. & DEAN A. EARNHEART, ET AL ACREAGE: 1058.068±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): AS-DRILLED PLAT

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,302'± TMD: 22,205'±
 WELL OPERATOR: CNX GAS COMPANY LLC DESIGNATED AGENT: ANTHONY KENDZIORA
 Address: 1000 CONSOL ENERGY DRIVE Address: 1000 CONSOL ENERGY DRIVE
 City: CANONSBURG State: PA Zip Code: 15317 City: CANONSBURG State: PA Zip Code: 15317

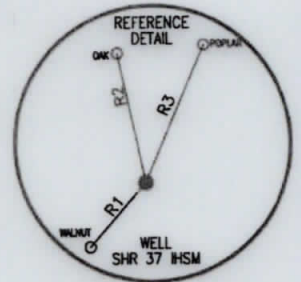
08/27/2021

SHR 37 IHSM PAGE 2 OF 3

AS DRILLED PLAT

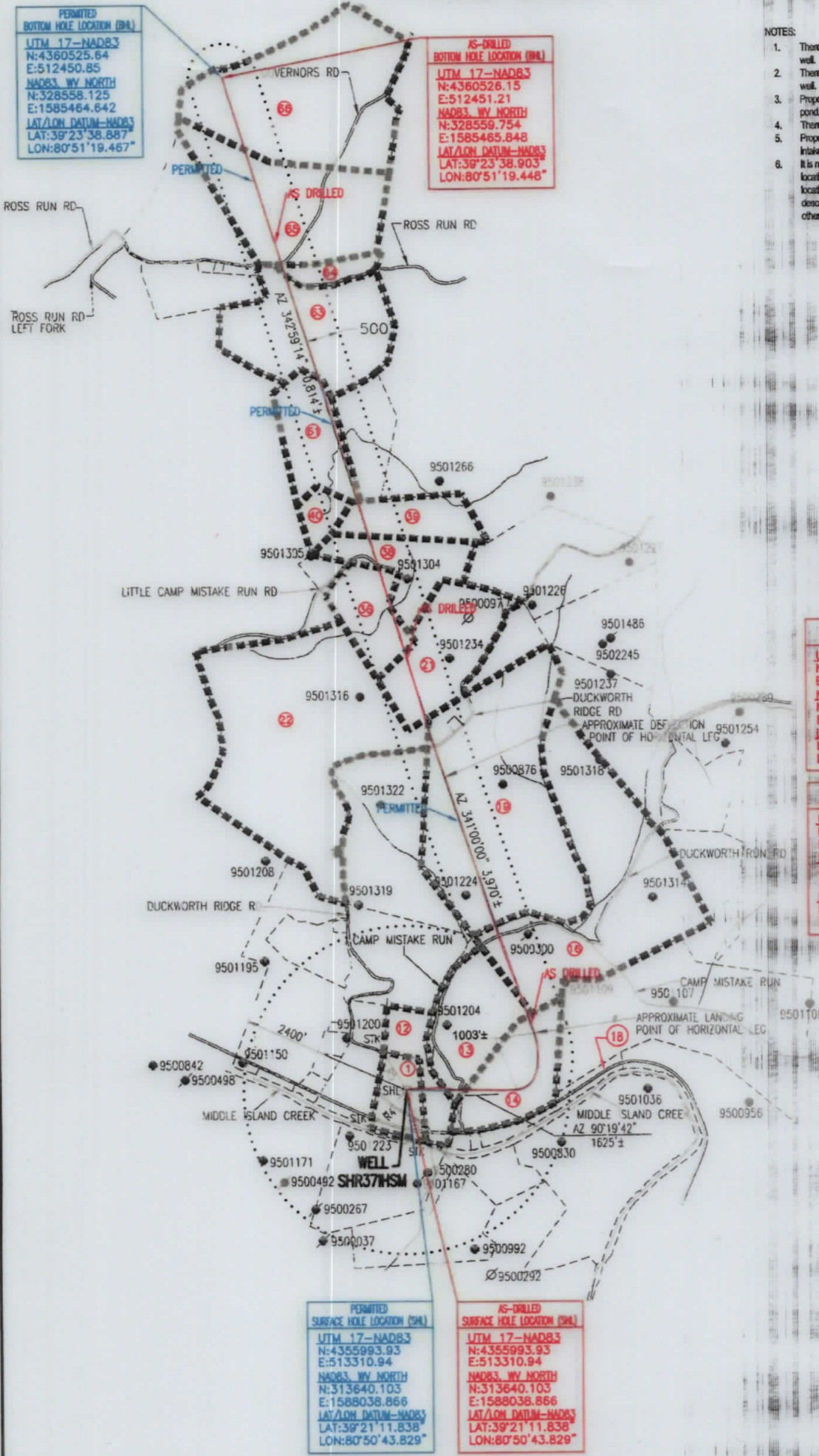
NOTES:

1. There are water wells or developed springs within 250' of proposed well.
2. There is an existing house and buildings within 625' of proposed well.
3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
4. There are no native trout streams within 300' of proposed well.
5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
6. It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.



LINE	BEARING	DISTANCE
R1	S 40°46'04" W	154.65'
R2	N 12°06'23" W	239.03'
R3	N 23°15'18" E	270.51'
R4	S 45°10'33" W	767.27'
R5	N 30°42'17" W	650.82'
R6	N 20°21'35" W	798.89'

AS-DRILLED APPROX. LANDING POINT	PERMITTED APPROX. LANDING POINT
UTM 17-NAD83 N:4356341.25 E:513849.93 NAD83, WV NORTH N:314750.33 E:1589826.60 LAT/LON DATUM-NAD83 LAT:39°21'23.07" LON:80°50'21.28"	UTM 17-NAD83 N:4356254.54 E:513880.05 NAD83, WV NORTH N:314464.140 E:1589920.686 LAT/LON DATUM-NAD83 LAT:39°21'20.259" LON:80°50'20.031"
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PERMITTED SURFACE HOLE LOCATION (SHL)
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 N:4355993.93
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NAD83, WV NORTH
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LAT/LON DATUM-NAD83
 LAT:39°21'11.838"
 LON:80°50'43.829"

API WELL #: 47 95 02664
 STATE COUNTY PERMIT

FEBRUARY 24, 2020



George D. Six

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SHR 37 IHSM

PAGE 3 OF 3

AS DRILLED PLAT

SURFACE OWNER	LESSOR	DIST-TM/PAR
1 CNX GAS COMPANY	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNESS GODWIN, WIDOW NANCY P. MCCLAIN AND RALPH E. MCCLAIN, W/H GEORGIA P. SNYDER, DIVORCED BRADIE PIPES AND GOLDIE PIPES, H/W PURSIE PIPES AND NORMA J. PIPES, H/W DOROTHY BELLE WELLS AND BYRON WELLS, W/H MYRNA MORGAN AND DAVID MORGAN, W/H	1-17/5
12 GAIL WILLIAMSON	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNES GODWIN, WIDOW NANCY P. MCCLAIN AND RALPH E. MCCLAIN, W/H GEORGIA P. SNYDER, DIVORCED BRADIE PIPES AND GOLDIE PIPES, H/W PURSIE PIPES AND NORMA J. PIPES, H/W DOROTHY BELLE WELLS AND BYRON WELLS, W/H MYRNA MORGAN AND DAVID MORGAN, W/H REVA ROWLAND AND RONALD ROYCE ROWLAND	P/O 1-17/6
13 DANNY CARL & PATRICIA J. HARRIS	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNES GODWIN, WIDOW NANCY P. MCCLAIN AND RALPH E. MCCLAIN, W/H GEORGIA P. SNYDER, DIVORCED BRADIE PIPES AND GOLDIE PIPES, H/W PURSIE PIPES AND NORMA J. PIPES, H/W DOROTHY BELLE WELLS AND BYRON WELLS, W/H MYRNA MORGAN AND DAVID MORGAN, W/H	1-18/5
14 DANNY & PATRICIA J. HARRIS	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNES GODWIN, WIDOW NANCY P. MCCLAIN AND RALPH E. MCCLAIN, W/H GEORGIA P. SNYDER, DIVORCED BRADIE PIPES AND GOLDIE PIPES, H/W PURSIE PIPES AND NORMA J. PIPES, H/W DOROTHY BELLE WELLS AND BYRON WELLS, W/H MYRNA MORGAN AND DAVID MORGAN, W/H	1-18/6.1
16 D. RALPH THACKER & CARLISE J. MAURICE JR.	CHARLES W. HENDERSON AND DOROTHY M. HENDERSON, H/W CHARLES W. HENDERSON, POWER OF ATTORNEY FOR THE A. L. DOAK HEIRS JOHN A. CONKLIN AND JEAN CONKLIN, H/W GEORGE B. CONKLIN AND BETTY M. CONKLIN, H/W BETTY L. CONKLIN ROBERT LEE REED LEWIS H. REED AND CAROL J. REED, H/W KATHY PRANGER VIRGINIA O'REAR AND RALPH O'REAR, W/H ROBERT H. MELVIN BETTY L. MELVIN MARY S. LARTZ AND WILLIAM LARTZ, W/H LILLIAN CRABILL AND WILLIAM CRABILL, W/H MELISSA COLL ROBERT BARTHOLOMEW AND BARBARA BARTHOLOMEW, H/W PHILLIP L. MELVIN JOANNE GREENMAN AND GERALD GREENMAN, H/W	P/O 1-16/26
19 RONALD R. & REVA D. ROWLAND	JACOB L. DILLON AND EDNA DILLON, H/W	1-16/20
21 JAMES E. ASH	GAIL V. DAMSSON ROSEMARY EAGLE ELEANOR L. ROTH, ATTORNEY-IN-FACT FOR THE J. D. AND RUTH FOLEY HEIRS	P/O 1-15/19.1
22 JAMES ROBERT BAGLEY	JACOB C. COTTRILL, ATTORNEY-IN-FACT FOR CHARLES D. COTTRILL HEIRS; JACOB C. COTTRILL AND SHIRLEY A. COTTRILL, H/W	1-15/15
36 SANDRA SUE CLARK & CLARENCE DUANE & JEFFREY GREGG CLARK & KEVIN SCOTT	MILDRED GREGG	P/O 1-15/11
38 DUANE CLARK, ET AL C/O DUANE & SUE CLARK	CLARENCE DUANE CLARK AND SANDRA SUE CLARK, H/W JEFFREY G. CLARK, SINGLE KEVIN S. CLARK, SINGLE JOHN BAKER, INDIVIDUALLY AND AS ATTORNEY-IN-FACT FOR THE "CORRELL DOAK HEIRS"	1-15/6
39 DUANE CLARK, ET AL C/O DUANE & SUE CLARK	ORA NELSON MOORE AND MARY EDNA MOORE, H/W OLETHA MOORE, WIDOW ROSEMARY EAGLE BRC APPALACHIAN MINERALS I, LLC	P/O 1-15/6.1
40		
61 DAVID & MARY ANN PRESTON (LIFE ESTATE)	JAMES R. ASH AND FRANCIS M. ASH, H/W	P/O 1-15/4
63 RYAN J. & SUSAN J. LIND GENEVA (DENNISON) BULLMAN LIFE	ORA NELSON MOORE AND MARY EDNA MOORE, H/W, AND OLETHA MOORE, WIDOW ROSEMARY EAGLE	1-12/23 & 1-12/23.1
64 GENEVA (DENNISON) FOUTS LIFE	ORA NELSON MOORE AND MARY EDNA MOORE, H/W, AND OLETHA MOORE, WIDOW	1-12/10.1
65 GENEVA (DENNISON) BULLMAN LIFE ESTATE	BILLY KENNETH FOUTS AND MARIANNE B. FOUTS, H/W ERWIN LAWRENCE FOUTS SHEILA KAY FORRESTER AND ROBERT FORRESTER, W/H	1-12/10
66 JEFFREY J. & KAY A. HEIKENFELD JAMES F. & PATRICIA A. WOOD	ROBERT H. TENNANT, SINGLE AND OPAL V. TENNANT, WIDOW	1-12/11 & 1-12/11.1

08/27/2021

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