

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

JUN 17 2021
WV Department of
Environmental Protection

API 47-095-02653 County TYLER District CENTERVILLE
Quad WEST UNION Pad Name SHR38 Field/Pool Name _____
Farm name ASH Well Number SHR38RHSM
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 4358035.94 Easting 514185.52
Landing Point of Curve Northing 4358368.04 Easting 514577.81
Bottom Hole Northing 4360034.42 Easting 513977.62

Elevation (ft) 1,011' 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 10.18.2019 Date drilling commenced 01.11.2020 Date drilling ceased 01.23.2020
Date completion activities began 2/27/2021 Date completion activities ceased 3/8/2021
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 225' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,920' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 430, 580, 900 TRACES: 160, 260, 1380, 1400, 1480, 1500 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
DmH

08/27/2021

WR-35
Rev. 8/23/13

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API 47-095 - 02653

Farm name ASH

Well number SHR38RHS

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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"	596'	NEW	J-55 54.5 lb/ft	N/A	Y - CEMENT TO SURFACE
Coal							
Intermediate 1	12.25"	9.625"	2,576'	NEW	J-55 36 lb/ft	N/A	Y - CEMENT TO SURFACE
Intermediate 2							
Intermediate 3							
Production	8.75" & 8.5"	5.5"	13,082'	NEW	P-110CY 20 lb/ft	N/A	Y - TOC @ 1,315'
Tubing	5.5"	2.875"	7,090'	NEW	P-110CY 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	510	15.8	1.18	602	0	8
Coal							
Intermediate 1	HALCEM	845	15.8	1.15	972	0	8
Intermediate 2							
Intermediate 3							
Production	EXP NEOCEM / NEOCEM	1,160 (L) / 1,590(T)	15	1.14 (L) / 1.13 (T)	1,322 (L) / 1,797 (T)	1,315'	8
Tubing							

Drillers TD (ft) 13,122'

Loggers TD (ft) 13,122'

Deepest formation penetrated MARCELLUS

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 5,834' (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

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

SURFACE = 7: Centralize every other joint from shoe to surface
INTERMEDIATE = 32: Centralize every other joint from shoe to surface
PRODUCTION = 263: Centralize every joint from shoe to TOC

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

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API 47- 095 - 02653 Farm name ASH Well number SHR38RHSM

PERFORATION RECORD

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

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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 Pro: ant -lbs	Amount of Water bbls	Amount of Nitro: en/other (units)
		SEE	ATTACHMENT 2					

Please insert additional pages as applicable.

API 47- 095 - 02653 Farm name ASH Well number SHR38RHSM

PRODUCING FORMATION(S) DEPTHS
MARCELLUS 6540.91 TVD 7091 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 Oil NGL Water GAS MEASURED BY RECEIVED
8140 mcfpd 158 bpd 0 bpd 1077 bpd Estimated Office of Oil & Gas

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LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, 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 UT. 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 6/11/2021

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

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SHR38RHSM – PERFORATION RECORD – ATTACHMENT 1

Stage No.	Perforation Date	Perforation from MD ft.	Perforation to MD ft.	Number of Perforations	Formation(s)
1	2/27/2021	12,948.8	13,053.0	24	Marcellus Shale
2	3/4/2021	12,707.1	12,887.0	40	Marcellus Shale
3	3/4/2021	12,484.1	12,664.0	40	Marcellus Shale
4	3/4/2021	12,261.1	12,441.0	40	Marcellus Shale
5	3/4/2021	12,038.1	12,218.0	40	Marcellus Shale
6	3/4/2021	11,815.1	11,995.0	40	Marcellus Shale
7	3/4/2021	11,592.1	11,772.0	40	Marcellus Shale
8	3/5/2021	11,369.1	11,549.0	40	Marcellus Shale
9	3/5/2021	11,146.1	11,326.0	40	Marcellus Shale
10	3/5/2021	10,923.1	11,103.0	40	Marcellus Shale
11	3/5/2021	10,700.1	10,880.0	40	Marcellus Shale
12	3/5/2021	10,477.1	10,657.0	40	Marcellus Shale
13	3/5/2021	10,254.1	10,434.0	40	Marcellus Shale
14	3/6/2021	10,031.1	10,211.0	40	Marcellus Shale
15	3/6/2021	9,808.1	9,988.5	40	Marcellus Shale
16	3/6/2021	9,585.1	9,765.5	40	Marcellus Shale
17	3/6/2021	9,362.1	9,542.5	40	Marcellus Shale
18	3/6/2021	9,139.1	9,319.5	40	Marcellus Shale
19	3/6/2021	8,917.0	9,096.6	40	Marcellus Shale
20	3/7/2021	8,695.0	8,874.6	40	Marcellus Shale
21	3/7/2021	8,473.0	8,652.6	40	Marcellus Shale
22	3/7/2021	8,251.0	8,430.6	80	Marcellus Shale
23	3/7/2021	8,029.0	8,208.6	40	Marcellus Shale
24	3/7/2021	7,807.0	7,986.6	40	Marcellus Shale
25	3/7/2021	7,585.0	7,764.6	40	Marcellus Shale
26	3/7/2021	7,363.0	7,542.6	40	Marcellus Shale
27	3/8/2021	7,141.0	7,320.6	40	Marcellus Shale

Please insert additional copies of this page if additional rows/stages are needed.

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SHR38RDHSM – 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	2/27/2021	99	8,399.0	10,135.0	9,356.0	315,800.00	6,171.0	N/A
2	3/3/2021	101	8,315.0	8,921.0	4,156.0	400,000.00	6,165.0	N/A
3	3/4/2021	103	8,475.0	9,039.0	4,195.0	500,000.00	7,632.0	N/A
4	3/4/2021	105	8,598.0	9,016.0	3,690.0	500,000.00	7,627.0	N/A
5	3/4/2021	103	8,407.0	9,426.0	3,856.0	494,000.00	7,622.0	N/A
6	3/4/2021	102	8,323.0	9,428.0	3,942.0	500,000.00	7,617.0	N/A
7	3/5/2021	103	8,478.0	9,071.0	3,633.0	500,000.00	7,613.0	N/A
8	3/5/2021	105	8,480.0	8,944.0	4,021.0	500,000.00	7,608.0	N/A
9	3/5/2021	101	8,197.0	9,147.0	5,204.0	500,000.00	7,603.0	N/A
10	3/5/2021	104	8,417.0	9,047.0	4,357.0	500,000.00	7,598.0	N/A
11	3/5/2021	104	8,424.0	9,160.0	4,222.0	488,888.00	7,593.0	N/A
12	3/5/2021	100	8,337.0	9,352.0	3,990.0	500,000.00	7,588.0	N/A
13	3/5/2021	88	8,073.0	9,683.0	3,685.0	500,000.00	7,583.0	N/A
14	3/6/2021	104	8,263.0	8,836.0	4,096.0	500,000.00	7,578.0	N/A
15	3/6/2021	105	8,455.0	9,137.0	4,189.0	475,000.00	7,573.0	N/A
16	3/6/2021	105	8,138.0	9,572.0	4,723.0	500,000.00	7,568.0	N/A
17	3/6/2021	106	8,010.0	9,230.0	4,841.0	500,000.00	7,563.0	N/A
18	3/6/2021	103	7,953.0	9,167.0	3,841.0	500,000.00	7,558.0	N/A
19	3/6/2021	98	8,430.0	9,861.0	4,399.0	500,000.00	7,553.0	N/A
20	3/7/2021	104	7,986.0	8,529.0	3,944.0	500,000.00	7,548.0	N/A
21	3/7/2021	105	7,996.0	8,836.0	4,427.0	500,000.00	7,543.0	N/A
22	3/7/2021	104	8,001.0	9,494.0	3,927.0	500,000.00	7,538.0	N/A
23	3/7/2021	105	7,999.0	9,068.0	4,720.0	500,000.00	7,533.0	N/A
24	3/7/2021	102	8,178.0	9,853.0	3,929.0	506,000.00	7,529.0	N/A
25	3/7/2021	102	7,618.0	8,332.0	4,261.0	405,020.00	6,052.0	N/A
26	3/7/2021	104	7,593.0	8,619.0	4,520.0	395,580.00	6,047.0	N/A
27	3/8/2021	102	7,632.0	8,470.0	4,067.0	393,881.00	6,042.0	N/A

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API: 47-095-02653		FARM NAME: ASH			WELL NUMBER: SHR38RHSM
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	250	0	250	Sandstone / Traces of Siltstone & Limestone & Coal
Undifferentiated Silt	250	300	250	300	Siltstone / Traces of Sandstone & Coal
Undifferentiated Sand	300	400	300	400	Sandstone / Traces of Siltstone & Limestone
Undifferentiated Shale	400	430	400	430	Red Shale / Traces of Siltstone
Washington Coal	430	431	430	431	Sandstone / Red Shale / Coal
Undifferentiated Sand	431	480	431	480	Sandstone / Red Shale
Undifferentiated Shale	480	510	480	510	Red Shale / Traces of Sandstone & Gray Shale
Undifferentiated Quartz	510	580	510	580	Quartz / Traces of Red Shale, Siltstone & Sandstone
Waynesburg Coal	580	582	580	582	Quartz / Traces of Gray Shale, Coal, Siltstone & Sandstone
Undifferentiated Sand	582	610	582	610	Sandstone / Traces of Gray Shale, Quartz & Siltstone
Undifferentiated Silt	610	740	610	740	Siltstone / Traces of Gray Shale, Quartz & Siltstone
Undifferentiated Sand	740	760	740	760	Sandstone / Traces of Red Shale
Undifferentiated Shale	760	900	760	900	Red Shale / Traces of Siltstone, Sandstone, Limestone
Pittsburgh Coal	900	901	900	901	Sandstone / Coal
Undifferentiated Sand	901	940	901	940	Sandstone / Traces of Gray Shale, Limestone & Siltstone
Undifferentiated Shale	940	980	940	980	Red Shale / Traces of Limestone & Sandstone
Undifferentiated Sand	980	1,000	980	1,000	Sandstone / Traces of Red Shale
Undifferentiated Shale	1,000	1,040	1,000	1,040	Gray Shale / Traces of Limestone, Siltstone & Sandstone
Undifferentiated Sand	1,040	1,060	1,040	1,060	Sandstone / Siltstone
Undifferentiated Quartz	1,060	1,100	1,060	1,100	Quartz / Traces of Sandstone & Siltstone
Undifferentiated Lime	1,100	1,120	1,100	1,120	Limestone / Traces of Sandstone & Siltstone
Undifferentiated Sand	1,120	1,160	1,120	1,160	Sandstone / Siltstone
Undifferentiated Silt	1,160	1,280	1,160	1,280	Siltstone / Traces of Sandstone & Limestone
Undifferentiated Quartz	1,280	1,320	1,280	1,320	Quartz
Undifferentiated Silt	1,320	1,340	1,320	1,340	Siltstone / Traces of Sandstone
Undifferentiated Quartz	1,340	1,380	1,340	1,380	Quartz / Traces of Siltstone & Sandstone
Upper Kitanning	1,380	1,480	1,380	1,480	Quartz & Siltstone / Traces of Sandstone & Coal
Lower Kitanning	1,480	1,840	1,480	1,840	Sandstone & Siltstone / Traces of Quartz & Coal
Big Lime	1,840	1,920	1,840	1,920	Limestone / Traces of Siltstone
Big Injun	1,920	2,060	1,920	2,060	Sandstone & Limestone / Traces of Siltstone
Price	2,060	2,210	2,060	2,210	Siltstone / Traces of Red Shale
Weir	2,210	2,360	2,210	2,360	Sandstone & Siltstone / Traces of Limestone
Berea	2,360	2,540	2,360	2,540	Siltstone

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API: 47-095-02653		FARM NAME: ASH			WELL NUMBER: SHR38RHSM
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)
Gordon	2,540	3,350	2,540	3,350	Siltstone / Traces of Sandstone & Pyrite
Warren Sand	3,350	4,940	3,350	4,940	Siltstone & Sandstone
Benson	4,940	5,150	4,940	5,150	Siltstone & Sandstone
Alexander	5,150	6,326	5,150	6,554	Siltstone / Traces of Gray Shale
Middlesex	6,326	6,369	6,554	6,615	Gray Shale / Traces of Siltstone
West River	6,369	6,439	6,615	6,739	Gray Shale
Burket	6,439	6,476	6,739	6,844	Gray Shale
Tully	6,476	6,499	6,844	6,971	Gray Shale
Hamilton	6,499	6,512	6,971	7,062	Gray Shale & Limestone
Upper Marcellus	6,512	6,527	7,062	7,177	Gray Shale
Middle Marcellus	6,527		7,177		Gray Shale
TD - Marcellus					

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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

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/27/2021
Job End Date:	3/8/2021
State:	West Virginia
County:	Tyler
API Number:	47-095-02653-00-00
Operator Name:	CNX Gas Company LLC
Well Name and Number:	SHR38 M2 RHSM
Latitude:	39.37167400
Longitude:	-80.83531400
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,562
Total Base Water Volume (gal):	8,728,470
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	84.52981	None
Proppant (Sand)	Nextier	Proppant	Crystalline silica: Quartz (SiO2)	14808-60-7	100.00000	14.94048	None
7.5% HCl	Chemstream	Acid	Water	7732-18-5	92.50000	0.42427	None
7.5% HCl	Chemstream	Acid	Hydrochloric Acid	7647-01-0	7.50000	0.03440	None
StimStream FR 9800	Chemstream	Friction Reducer	Water	7732-18-5	47.00000	0.01974	None
StimStream SC-398	Chemstream	Scale Inhibitor	Non-Hazardous substances	Proprietary	90.00000	0.01182	None
StimStream FR 9800	Chemstream	Friction Reducer	alkanes, C16-20-iso-	90622-59-6	25.00000	0.01050	None
StimStream FR 9800	Chemstream	Friction Reducer	butene, homopolymer	9003-29-6	25.00000	0.01050	None
Clearal 268	Chemstream	Biocide	Non-Hazardous substances	Proprietary	80.00000	0.00831	None

CoilStream VB 625	Chemstream	Gelling Agent					
			Heavy Aliphatic Naphtha	64742-96-7	60.00000	0.00235	None
Clearal 268	Chemstream	Biocide					
			Glutaraldehyde	111-30-8	20.00000	0.00208	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Guara Gum	9000-30-0	50.00000	0.00196	None
StimStream SC-398	Chemstream	Scale Inhibitor					
			Bis(HexaMethylene Triamone Penta(Methylene Phoshonic Acid) (BHMT))	34690-00-1	10.00000	0.00131	None
StimStream FR 9800	Chemstream	Friction Reducer					
			Alcohols, C12-18, ethoxylated	68213-23-0	3.00000	0.00126	None
PVS Iron Control 1	Chemstream	Iron Control					
			Citric Acid	77-92-9	50.50000	0.00041	None
PVS Iron Control 1	Chemstream	Iron Control					
			Water	7732-18-5	49.50000	0.00040	None
Clearal 268	Chemstream	Biocide					
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00031	None
Clearal 268	Chemstream	Biocide					
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00031	None
ACI-250	Chemstream	Acid Inhibitor					
			Methyl Alcohol	67-56-1	45.00000	0.00027	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	5.00000	0.00020	None
Ammonium Persulfate	Chemstream	Breaker					
			Ammonium persulfate	7727-54-0	100.00000	0.00019	None
Clearal 268	Chemstream	Biocide					
			Ethanol	64-17-5	1.50000	0.00016	None
ACI-250	Chemstream	Acid Inhibitor					
			Ethylene Glycol	107-21-1	20.00000	0.00012	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	3.00000	0.00012	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	3.00000	0.00012	None
ACI-250	Chemstream	Acid Inhibitor					
			Trade Secret	Proprietary	15.00000	0.00009	None
ACI-250	Chemstream	Acid Inhibitor					
			Water	7732-18-5	10.00000	0.00006	None
ACI-250	Chemstream	Acid Inhibitor					
			N, N-Dimethylformamide	68-12-2	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.

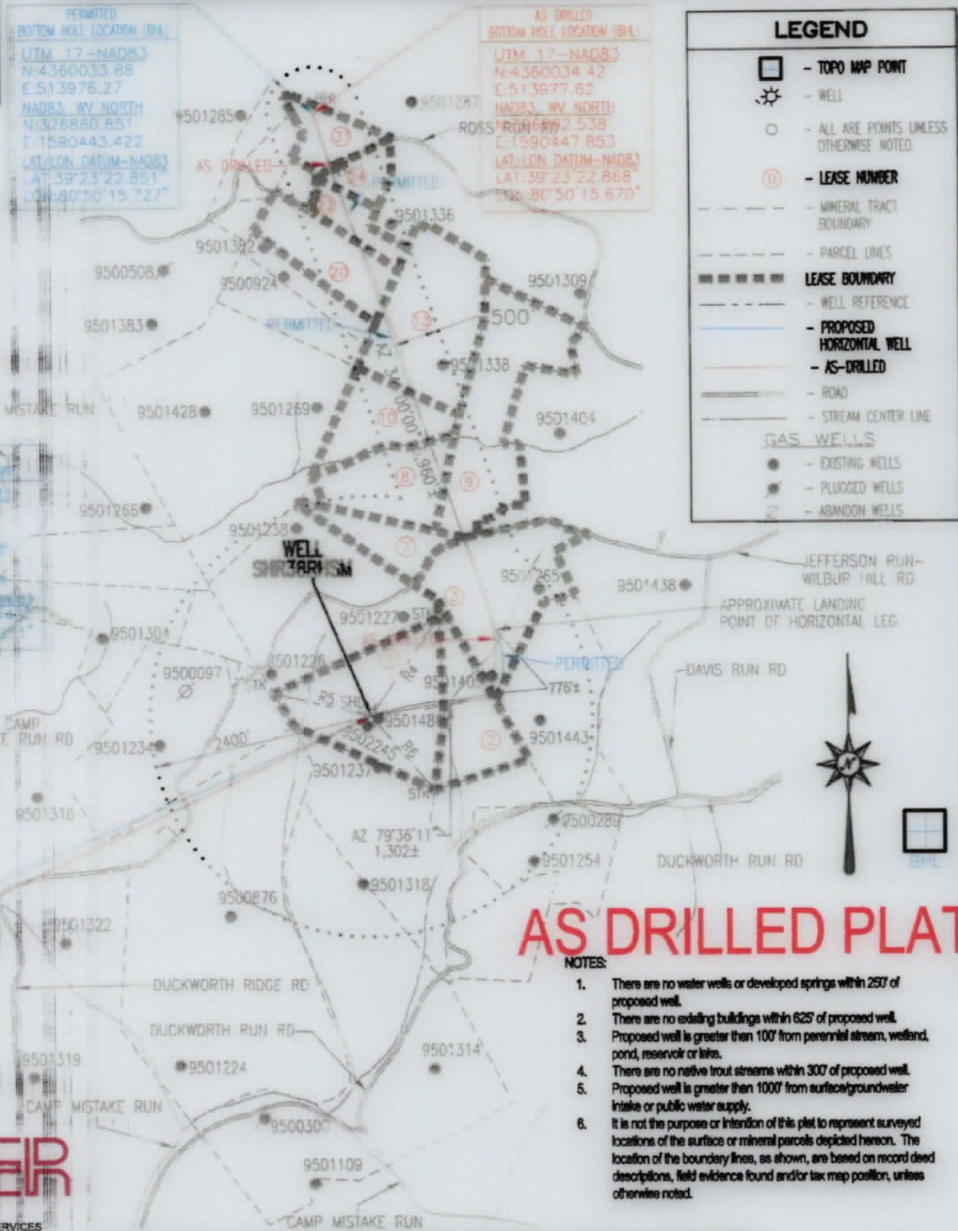
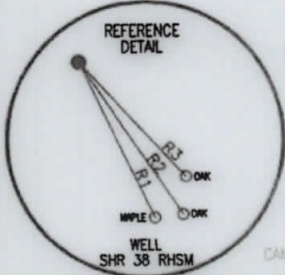
* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

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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LINE	BEARING	DISTANCE
R1	S 25°46'02" E	257.14
R2	S 34°04'59" E	273.72
R3	S 42°39'45" E	232.47
R4	N 34°49'13" E	1296.70
R5	N 76°40'42" W	1078.96
R6	S 40°15'34" E	1058.77

BHL is located on topo map 9,829 feet south of Latitude: 39°25'00"
 SHL is located on topo map 1,211 feet south of Latitude: 39°22'30"



BHL is located on topo map 1,235 feet west of Longitude: 80°50'00"
 SHL is located on topo map 560 feet west of Longitude: 80°50'00"

AS-DRILLED APPROX. LANDING POINT
 UTM 17-NAD83
 N: 4358368.04
 E: 514577.81
 NAD83 WY NORTH
 N: 321361.42
 E: 1592326.14
 LAT/LON DATUM-NAD83
 LAT: 39°22'28.77"
 LON: 80°49'50.710"

PERMITTED APPROX. LANDING POINT
 UTM 17-NAD83
 N: 4358325.96
 E: 514596.06
 NAD83 WY NORTH
 N: 321225.622
 E: 1592383.78
 LAT/LON DATUM-NAD83
 LAT: 39°22'27.73"
 LON: 80°49'49.251"

PERMITTED SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83
 N: 4358035.94
 E: 514185.52
 NAD83 WY NORTH
 N: 320293.130
 E: 1591020.636
 LAT/LON DATUM-NAD83
 LAT: 39°22'18.028"
 LON: 80°50'07.132"

AS-DRILLED SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83
 N: 4358035.94
 E: 514185.52
 NAD83 WY NORTH
 N: 320293.130
 E: 1591020.636
 LAT/LON DATUM-NAD83
 LAT: 39°22'18.028"
 LON: 80°50'07.132"

THRASHER

CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-1108 • FAX (304) 624-7831

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

AS DRILLED PLAT

NOTES:

1. There are no water wells or developed springs within 200' of proposed well.
2. There are no existing 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.

FILE #: SHR 38 RHSM
 DRAWING #: SHR 38 RHSM
 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 A. Six*
 R.P.E.: _____ L.L.S.: P.S. No. 2000



PLACE SEAL HERE

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



DATE: FEBRUARY 14, 2020
 OPERATOR'S WELL #: SHR 38 RHSM
 API WELL #: 47 95 02653
 STATE COUNTY PERMIT

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

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK ELEVATION: 1012'±
 COUNTY/DISTRICT: TYLER / CENTERVILLE QUADRANGLE: WEST UNION, WV 7.5'

SURFACE OWNER: JAMES E. ASH ET AL ACREAGE: 111±
 OIL & GAS ROYALTY OWNER: JAMES E. ASH ET AL ACREAGE: 299.246±

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: 6,480'± TMD: 13,143'±
 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 38 RHSM

PAGE 2 OF 2

AS DRILLED PLAT

	SURFACE OWNER	LESSOR	DIST-TM/PAR
1	JAMES E. ASH ET AL	VERNA O. ASH, JAMES E. ASH AND THELMA B. ASH, BESSIE HAUGHT AND HAROLD WARNER, ERNEST G. SECKMAN AND O. JOANNE SECKMAN	P/O 1-16/19
2	JAMES E. ASH ET AL	RALPH E. PHILLIPS AND VELINDA PHILLIPS, H/W VERNA O. ASH, JAMES E. ASH AND THELMA B. ASH, BESSIE HAUGHT AND HAROLD WARNER, ERNEST G. SECKMAN AND O. JOANNE SECKMAN RALPH E. PHILLIPS AND VELINDA PHILLIPS, H/W MARTHA SUE MUZZO, F/K/A MARTHA SUE LOCCO MARY LYNN SLATTERY, F/K/A MARY LYNN LOCCO RITA G. JARVIS JO ELLEN HARPER DAY WILLIAM PAUL HARPER MARION R. BACHELOR AND GLORIA JEAN BACHELOR, H/W BERDNA ROSE AND NORMAN W. ROSE, W/H DAVID PAUL LOCCO ELIZABETH FLORENCE LOCCO MARY LEE LILLY MICHELLE LOCCO BUSHMIRE, F/K/A MICHELLE LUCRETTA BUSHMIRE DONALD VINCENT LOCCO MARGO KIEHL JOHN MICHAEL LEONIAN JOHN FULTON LEONIAN JEFFREY TODD HEFLIN JASON S. HEFLIN AND JESSICA L. HEFLIN, H/W NILA ASH SAYLOR REVOCABLE TRUST, BY JOSEPH F. SILEX, JR., TRUSTEE PHILLIP LEONIAN, A/K/A PHILLIP MARSHALL LEONIAN ROBERT LEONIAN, A/K/A JOSEPH ROBERT LEONIAN BAILEY ANN MILLS ARMEN LEONIAN, A/K/A ARMEN LANHAM LEONIAN THERESA LEE ROBERTSON ROSE MARIE VANHEUMLIN COMMONWEALTH ENERGY, INC. A/K/A COMMONWEALTH ENERGY	P/O 1-16/19
3	CONRAD COSTILOW	GARY W. AND DEBRA J. DAVIS RUBY N. SPENCER AND FRED A. NICHOLS AND LAURA L. NICHOLS, H/W IRO NICHOLS MONA WRIGHT RALPH SHERWOOD WANDA SCHAUER CONRAD COSTILOW	P/O 1-16/13
7	WILLIAM D. & MARY C. DANIELS	GARY W. AND DEBRA J. DAVIS RUBY N. SPENCER AND FRED A. NICHOLS AND LAURA L. NICHOLS, H/W IRO NICHOLS MONA WRIGHT RALPH SHERWOOD WANDA SCHAUER CONRAD COSTILOW	1-16/2.1
8	WILLIAM D. & MARY C. DANIELS	WILLIAM N. DANIELS AND MARY C. DANIELS, H/W	P/O 1-16/2
9	WILLIAM N. & MARY C. DANIELS	DONALD L. SECKMAN AND DORA SECKMAN, H/W	1-13/7
10	ERIC A. SNYDER	BOUNTY MINERALS, LLC	1-16/3
13	ERIC A. SNYDER	TIMOTHY N. INGOLIA AND NANCY J. INGOLIA, H/W ANN JONES CASEY AND E. LEE CASEY, W/H	P/O 1-13/7.1
20	MATTHEW ASH	FRANKLIN L. MERCER AND RUTH L. MERCER, H/W AND FRANKLIN L. MERCER, ATTORNEY-IN-FACT FOR ROGER N. MERCER AND GLORIA MERCER, H/W DELORES ROSSI LUTHER ROGERS AND ANITA ROGERS, H/W MARIE MERCER HARLEY EDWIN SPENCER AND ALICE RUTH SPENCER, H/W FORREST JENKINS AND EVA JENKINS, H/W, FORREST JENKINS, ATTORNEY-IN-FACT FOR THE FOLLOWING: CARL JENKINS, BETTY JENKINS, STELLA DEAN JENKINS, ZETTA ASH, ALICE HAUGHT AND THOMAS HAUGHT ZETTA F. ASH CARL JENKINS AND BETTY JENKINS, H/W STELLA DEAN JENKINS ALICE HAUGHT ALFRED COTTRILL, INDIVIDUALLY AND AS ATTORNEY-IN-FACT FOR RENNA FOX BARBARA BALLOU BAKER KAYVONNE PASULKA CHARLES H. BALLOU AND LOIS M. BALLOU, H/W STEVEN E. BALLOU AND LINDA M. BALLOU, H/W	1-13/13
22	MATTHEW ASH	PEGGY JO MOORE LINDA LOU MOORE GEORGE WILLARD MOORE AND CAROLYN A. MOORE, H/W VADA SUZANNA KISSNER CONSOLIDATED MINERALS, LLC	1-13/13.2
24	MARCELLA HAIR & EDWARD HAROLD SNYDER & JEAN SNYDER, C/O MARCELLA HAIR	ELMER D. CECIL AND WILLENE CECIL, H/W MABEL B. MOORE	P/O 1-13/4
31	DNA M. QUELLHORST	ROBERT L. UNDERWOOD AND VICTORIA M. UNDERWOOD, H/W	P/O 1-13/12 P/O 1-13/12.1

PERMITTED
SURFACE HOLE LOCATION (SRL)

UTM 17--NAD83
N:4358035.94
E:514185.52
NAD83, WV NORTH
N:320293.130
E:1591020.636
LAT/LON DATUM--NAD83
LAT:39°22'18.028"
LON:80°50'07.132"

AS-DRILLED
SURFACE HOLE LOCATION (SRL)

UTM 17--NAD83
N:4358035.94
E:514185.52
NAD83, WV NORTH
N:320293.130
E:1591020.636
LAT/LON DATUM--NAD83
LAT:39°22'18.028"
LON:80°50'07.132"

PERMITTED
APPROX. LANDING POINT

UTM 17--NAD83
N:4358326.96
E:514596.06
NAD83, WV NORTH
N:321225.622
E:1592383.784
LAT/LON DATUM--NAD83
LAT:39°22'27.443"
LON:80°49'49.951"

AS-DRILLED
APPROX. LANDING POINT

UTM 17--NAD83
N:4358368.04
E:514577.81
NAD83, WV NORTH
N:321361.42
E:1592326.14
LAT/LON DATUM--NAD83
LAT:39°22'28.777"
LON:80°49'50.710"

PERMITTED
BOTTOM HOLE LOCATION (BRL)

UTM 17--NAD83
N:4360033.88
E:513976.27
NAD83, WV NORTH
N:326860.851
E:1590443.422
LAT/LON DATUM--NAD83
LAT:39°23'22.851"
LON:80°50'15.727"

AS-DRILLED
BOTTOM HOLE LOCATION (BRL)

UTM 17--NAD83
N:4360034.42
E:513977.62
NAD83, WV NORTH
N:326862.538
E:1590447.853
LAT/LON DATUM--NAD83
LAT:39°23'22.868"
LON:80°50'15.670"

08/27/2021



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

FEBRUARY 14, 2020

API WELL #: 47 95 02653
STATE COUNTY PERMIT