

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

API 47 - 051 - 02065 County MARSHALL District WEBSTER
Quad MAJORSVILLE Pad Name MAJ10HSU Field/Pool Name _____
Farm name MAJORSVILLE Well Number MAJ10CHSU
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 4418811.50 Easting 539568.00
Landing Point of Curve Northing N/A Easting N/A
Bottom Hole Northing 4418811.50 Easting 539568.00

Elevation (ft) 1317 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)
Air drilled top hole ONLY

Deep intermediate hole (12-1/4" hole section) and production hole (8-1/2" hole section) NOT drilled

Date permit issued 12/19/2018 Date drilling commenced 2/2/2019 Date drilling ceased 3/3/2019
Date completion activities began N/A Date completion activities ceased N/A
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 175, 378, 482 (deepest) Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1470 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 352, 489, 490, 690, 779 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) Y

Received 9/8/22

APPROVED
Reviewed by: *SA*
STRADLER LOWEN
10/21/2022

API 47-051 - 02065 Farm name MAJORSVILLE Well number MAJ10CHSU

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	36"	30"	100	NEW	A-252 99#	N/A	Y - GROUT TO SURFACE
Surface							
Coal	24"	18.625"	835	NEW	J-55 87.5#	N/A	Y - CEMENT TO SURFACE
Intermediate 1	17.5"	13.375"	3181	NEW	L-80HC 68.0#	N/A	Y - CEMENT TO SURFACE
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set		N/A					

Comment Details 30" conductor set with auger rig and grouted to surface. 18-5/8" casing set through fresh water zones and coal zones; cemented to surface (25 bbls cement returned).
13-3/8" casing set through gas storage interval (shoe set below Fifth Sand); cemented to surface (98 bbls of cement returned to surface).

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	TYPE 1					Surface	
Surface							
Coal	CLASS A	1428	15.6	1.19	256 bbls	Surface	8
Intermediate 1	CLASS H	2710	16.8	1.07	514 bbls	Surface	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 3231 Loggers TD (ft) 3231
Deepest formation penetrated SHALE BELOW FIFTH SAND Plug back to (ft) N/A
Plug back procedure N/A

Kick off depth (ft) N/A

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 _____

30" CONDUCTOR: None

18.625" COAL: Centralize first joint and then every 3rd joint to surface

13.375" INTERMEDIATE 1: Centralize first joint and then on every joint to 200' above the Storage Zone (from 13-3/8" shoe to Gas Sand); then centralize every 3rd joint to surface

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

SEP 8 2022

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

WV Department of
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API 47- 051 - 02065 Farm name MAJORSVILLE Well number MAJ10CHSU

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	N/A				

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)
	N/A							

Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>N/A</u>	<u>TVD</u>	<u>MD</u>

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

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

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION TOP DEPTH IN FT BOTTOM DEPTH IN FT TOP DEPTH IN FT BOTTOM DEPTH IN FT DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)

LITHOLOGY/ FORMATION	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	NAME TVD	TVD	MD	MD	
UNDIFFERENTIATED SOIL	0	100	0	100	SOIL / CLAY / SANDSTONE / SILTSTONE
UNDIFFER. SAND / SILT	100	352	100	352	SANDSTONE / SILTSTONE
WASHINGTON COAL	352	353	352	353	COAL
UNDIFFER. SAND / SILT	353	489	353	489	SANDSTONE / SILTSTONE
WAYNESBURG 2 COAL	489	490	489	490	COAL
WAYNESBURG 1 COAL	490	491	490	491	COAL
UNDIFFER. SAND / SILT	491	690	491	690	SANDSTONE / SILTSTONE
SEWICKLEY COAL	690	691	690	691	COAL
UNDIFFER. SAND / SILT	691	779	691	779	SANDSTONE / SILTSTONE
PITTSBURGH COAL	779	785	779	785	COAL
UNDIFFER. SAND / SILT	785	1403	785	1403	SANDSTONE / SILTSTONE / LIMESTONE / RED SHALE
GAS SAND	1403	1470	1403	1470	SANDSTONE / SILTSTONE
SALT SANDS	1470	1860	1470	1860	SANDSTONE/ SILTSTONE
BIG LIME	1860	1966	1860	1966	LIMESTONE / SANDSTONE / SILTSTONE

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling, Inc.
Address 11565 OH-676 City Vincent State OH Zip 45784

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company BJ Services
Address 11211 Farm-To-Market 2920 City Tomball State TX Zip 77375

Stimulating Company N/A
Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Greg Zofchak Telephone 724-485-3032
Signature [Signature] Title Drilling Engineer Date 3/31/2022

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

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10/21/2022



API: 47-051-02065

FARM NAME: CNX GAS COMPANY LLC

WELL NUMBER: MAJ10CHSU

CONTINUED FROM WR-35

LITHOLOGY / FORMATION	TOP DEPTH IN FT TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H2S, ETC)
BIG INJUN	1966	2172	1966	2172	SANDSTONE / SILTSTONE / LIMESTONE
GANTZ	2172	2776	2172	2776	SANDSTONE / SILTSTONE
GORDON	2776	2827	2776	2827	SANDSTONE / SILTSTONE
FIFTH	2827	3038	2827	3038	SANDSTONE / SILTSTONE
UNDIFFERENTIATED SHALE	3038	3231	3038	3231	GRAY SHALE / SILTSTONE

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Company: Baker Hughes, a GE Company
 Customer/Operator: CNX
 Date Range: 2/19/2019 - 2/22/2019
 Rig Name: Patterson 582
 Rig Elv/Dat: 29.00 (ft) / GL
 Well: MAJ-10C-HSU
 Wellbore: MAJ-10C-HSU

TAC: -7.93 (deg)
 Ver.Sec.Az: 145.00 (deg)

Tie/ Proj	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Temperature (degF)	True Vertical Depth (ft)	Vertical Section (ft)
	0.00	0.00	327.53			
	29.00	0.00	327.53		29.00	0.00
	67.00	0.20	327.53		67.00	-0.07
	117.00	0.08	124.68		117.00	-0.12
	167.00	0.11	269.20		167.00	-0.11
	217.00	0.10	292.31		217.00	-0.18
	267.00	0.11	171.97		267.00	-0.17
	317.00	0.18	119.66		317.00	-0.06
	367.00	0.16	300.29		367.00	-0.05
	417.00	0.16	125.91		417.00	-0.05
	467.00	0.19	188.95		467.00	0.08
	517.00	0.20	159.72		517.00	0.22
	567.00	0.21	194.92		567.00	0.36
	617.00	0.17	90.76		617.00	0.47
	667.00	0.45	201.45		667.00	0.62
	717.00	0.50	159.15		717.00	0.94
	760.00	0.18	61.64		760.00	1.13
	912.00	0.10	22.51	45.50	912.00	1.08
	1007.00	0.21	354.23	45.50	1007.00	0.89
	1102.00	0.07	348.39	41.00	1101.99	0.68
	1196.00	0.26	279.96	45.50	1195.99	0.48
	1291.00	0.13	309.40	47.75	1290.99	0.22
	1386.00	0.10	258.77	47.75	1385.99	0.09
	1575.00	0.10	229.41	50.00	1574.99	0.04
	1670.00	0.03	286.52	52.25	1669.99	0.02
	1765.00	0.19	291.74	52.25	1764.99	-0.13
	1859.00	0.13	321.71	52.25	1858.99	-0.36
	1954.00	0.26	335.83	52.25	1953.99	-0.68
	2049.00	0.26	337.97	52.25	2048.99	-1.10
	2144.00	0.40	330.38	54.50	2143.99	-1.64
	2238.00	0.33	306.39	54.50	2237.99	-2.23
	2333.00	0.54	315.11	54.50	2332.98	-2.93
	2429.00	0.44	305.19	56.75	2428.98	-3.72
	2523.00	0.60	306.88	54.50	2522.98	-4.53
	2713.00	0.52	305.39	54.50	2712.97	-6.29
	2808.00	0.50	309.72	54.50	2807.96	-7.09
	2901.00	0.45	312.31	54.50	2900.96	-7.84
	2996.00	0.40	305.25	56.75	2995.96	-8.52
	3091.00	0.42	302.12	56.75	3090.96	-9.15
	3185.00	0.53	316.45	56.75	3184.95	-9.90
	3217.00	0.47	296.50	56.75	3216.95	-10.16

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CURRENT WELLBORE DIAGRAM

MAJ-10C-HSU

47-051-02065

Marshall County, WV

N 518298.07, E 1709078.59 (NAD27)

Ground Elevation		1317 GL Elevation			MAJ-10C-HSU SHL			
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	MD-GL	TVD-GL	MUD	CEMENT	COMMENTS
	36"	30" L/S	Conductor	100	100	AIR	Grout to Surface	Drill with auger Stabilize surface fill/soil
	24"	18-5/8" 87.5# J-55 BTC	Washington Coal	352	AIR / FW Mist	BJ 15.6 ppg Class A + 2% CaCl2 + 1/4 pps Flake 50% OH Excess Yield = 1.19 TOC @ surface	Set through fresh water zones Set through coal zones Cemented to surface with 1428 sxs (256 bbls), 25 bbls cement returned to surface	
			Deepest Fresh Water	482				
			Waynesburg 2 Coal	489				
			Waynesburg 1 Coal	490				
			Sewickley Coal	690				
			Pittsburgh Coal	779				
			FW / Coal Casing	835				
	Gas Sand	1403	Halliburton 16.8 ppg Class H GasStop blend with additives 35% OH Excess Yield = 1.07 TOC @ surface	Set through gas storage interval Casing to be set below the Fifth Sand Cemented to surface with 2710 sxs (514 bbls), 98 bbls cement returned to surface				
	Salt Sands	1470						
Big Lime	1860							
17-1/2"	13-3/8" 68.0# L-80HC BTC	Big Injun Sand	1966	AIR / Soap	Cemented to surface with 2710 sxs (514 bbls), 98 bbls cement returned to surface			
		Gantz Sand	2172					
		Gordon Sand	2776					
		Fifth Sand	2827					
		Intermediate Casing	3181		3181			

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