

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

RECEIVED
Office of Oil and Gas
FEB 03 2020
WV Department of
Environmental Protection

API 47 - 051 - 02010 County MARSHALL District WEBSTER
Quad MAJORSVILLE Pad Name MAJ6HSU Field/Pool Name _____
Farm name MAJORSVILLE Well Number MAJ6HHSU
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 4420609.55 Easting 538577.49
Landing Point of Curve Northing 4420892.33 Easting 539123.15
Bottom Hole Northing 4419437.32 Easting 540422.57

Elevation (ft) 1344 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 7/31/2018 Date drilling commenced 8/20/2018 Date drilling ceased 4/18/2019
Date completion activities began 5/20/2019 Date completion activities ceased 6/29/2019
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 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1960 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 716, 824 TRACE: 350, 450, 500 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed

Jackie Shanton
for Jim Nicholson 2/15/2020

Reviewed by: _____

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

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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 524252.81 (NAD 27) Easting 1705926.96 (NAD 27)
Landing Point of Curve Northing 525155.03 (NAD 27) Easting 1707754.09 (NAD 27)
Bottom Hole Northing 520297.58 (NAD 27) Easting 1711906.53 (NAD 27)

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Is coal being mined in area (Y/N) N

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API 47-051-02010 County MARSHALL District WEBSTER
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Farm name MAJORSVILLE Well Number MAJ6HHSU
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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 524290.027 Easting 1674492.151
Landing Point of Curve Northing 525188.062 Easting 1676298.226
Bottom Hole Northing 520342.060 Easting 1680482.379

Elevation (ft) 1344 GL Type of Well New Existing Type of Report Interim Final
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Is coal being mined in area (Y/N) N

Reviewed by: _____
Jim Anderson
Jackie Shantz 1/23/2020

API 47-051 - 02010

Farm name MAJORSVILLE

Well number MAJ6HHSU

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		30"	112	NEW	lb/ft	N/A	GROUT TO SURFACE
Surface	24"	18.625"	878	NEW	J-55 87.5lb/ft	N/A	Y - CEMENT TO SURFACE
Coal							
Intermediate 1	17.5"	13.375"	See attachment	NEW	See attachment	N/A	Y - CEMENT TO SURFACE
Intermediate 2	12.25"	9.625"	10966	NEW	P-110 47lb/ft	N/A	Y - TOC @ 1213
Intermediate 3							
Production	8.75" & 8.5"	5.5"	See attachment	NEW	See attachment	N/A	Y - TOC @ 4326
Tubing	5.5"	2.875	12,440.0	NEW	P-110 6.5 lb/ft	N/A	N/A
Packer type and depth set		N/A					

Comment Details ALL DEPTHS ARE REFERENCED TO RKB = 29' GLE

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	CLASS A	1349	15.6	1.197	1615	0	8
Coal							
Intermediate 1	CLASS A	2247	16	1.15	2584	0	8
Intermediate 2	NEOCEM (LEAD) / HALCEM (TAIL)	1940 (LEAD) / 350 (TAIL)	13.5 (LEAD) / 15 (TAIL)	1.399 (LEAD) / 1.137 (TAIL)	2714 (LEAD) / 398 (TAIL)	1213	8
Intermediate 3							
Production	GASSTOP (LEAD) / NEOCEM (TAIL)	1360 (LEAD) / 1885 (TAIL)	16.5	1.096 (LEAD) / 1.093 (TAIL)	1491 (LEAD) / 2000 (TAIL)	4326	8
Tubing							

Drillers TD (ft) 18233

Loggers TD (ft) 18233

Deepest formation penetrated POINT PLEASANT

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 11148

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: Centralize first joint and then every 3rd joint to surface

INTERMEDIATE 1: Centralize first joint and then on every joint to 200' above the Storage Zone (from 13-3/8" shoe to 1,108). Then centralize every 3rd joint from 1,108' to surface.

INTERMEDIATE 2: Centralize every 3rd joint from shoe to 1,292'

PRODUCTION: Centralize every joint from shoe to 4,961'

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

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

API 47- 051 - 02010 Farm name MAJORSVILLE Well number MAJ6HHSU

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	SEE	ATTACHMENT 5	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 5	2				

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Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
Utica	12041	TVD	6769 MD
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 5408 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 8023 mcfpd Oil 0 bpd NGL 0 bpd Water 961 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME 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, H ₂ S, ETC)
UNDIFFERENTIATED SAND	0	300	0	300	SANDSTONE
UNDIFFER. SAND / SILT	300	580	300	580	SANDSTONE / SILTSTONE
UNDIFFERENTIATED SILT	580	600	580	580	SILTSTONE
UNDIFFER. SAND / SILT	600	650	600	650	SANDSTONE / SILTSTONE
UNDIFFERENTIATED LIME	650	716	650	716	LIMESTONE
SEWICKLEY COAL	716	824	716	824	LIMESTONE / SANDSTONE / SILTSTONE
PITTSBURGH COAL	824	831	824	831	SANDSTONE / SILTSTONE
UNDIFFERENTIATED SILT	831	950	831	950	SILTSTONE/ TRACES OF LIMESTONE
UNDIFFERENTIATED SAND	950	1580	950	1580	SANDSTONE / LIMESTONE / TRACES OF RED SHALE
UNDIFFERENTIATED SILT	1580	1780	1580	1780	SILTSTONE
UNDIFFERENTIATED SAND	1780	1910	1780	1910	SANDSTONE
BIG LIME	1910	1960	1910	1960	SANDSTONE / LIMESTONE
BIG INJUN	1960	2480	1960	2480	SANDSTONE/ SILTSTONE
GANTZ	2480	2790	2480	2790	SILTSTONE

Please insert additional pages as applicable.

Drilling Contractor SEE ATTACHMENT
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company SEE ATTACHMENT
Address _____ City _____ State _____ Zip _____

Stimulating Company KEANE
Address 5825 North Sam Houston Parkway West Suite 600 City Houston State TX Zip 77086

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Please insert additional pages as applicable.

Completed by Michael Honce Telephone 304-884-2138
Signature _____ Title Superintendent Completions Date 8/21/2019

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

MAJ6HHSU – PERFORATION RECORD – ATTACHMENT 1

Stage No.	Perforation Date	Perforation from MD ft.	Perforation to MD ft.	Number of Perforations	Formation(s)
1	6/3/2019	19,129.0	19,274.0	40	Utica Shale
2	6/3/2019	18,905.0	19,093.0	30	Utica Shale
3	6/3/2019	18,705.0	18,893.0	30	Utica Shale
4	6/3/2019	18,505.0	18,693.0	30	Utica Shale
5	6/4/2019	18,305.0	18,493.0	30	Utica Shale
6	6/4/2019	18,105.0	18,293.0	30	Utica Shale
7	6/4/2019	17,905.0	18,093.0	30	Utica Shale
8	6/5/2019	17,705.0	17,893.0	30	Utica Shale
9	6/5/2019	17,505.0	17,693.0	30	Utica Shale
10	6/5/2019	17,305.0	17,493.0	30	Utica Shale
11	6/6/2019	17,105.0	17,293.0	30	Utica Shale
12	6/6/2019	16,905.0	17,093.0	30	Utica Shale
13	6/6/2019	16,718.0	16,880.0	40	Utica Shale
14	6/7/2019	16,518.0	16,680.0	40	Utica Shale
15	6/7/2019	16,318.0	16,480.0	40	Utica Shale
16	6/7/2019	16,118.0	16,280.0	40	Utica Shale
17	6/8/2019	15,918.0	16,080.0	40	Utica Shale
18	6/8/2019	15,718.0	15,880.0	40	Utica Shale
19	6/9/2019	15,518.0	15,680.0	40	Utica Shale
20	6/9/2019	15,318.0	15,480.0	40	Utica Shale
21	6/9/2019	15,118.0	15,280.0	40	Utica Shale
22	6/10/2019	14,918.0	15,080.0	40	Utica Shale
23	6/10/2019	14,718.0	14,880.0	40	Utica Shale
24	6/10/2019	14,518.0	14,680.0	40	Utica Shale
25	6/10/2019	14,318.0	14,480.0	40	Utica Shale
26	6/11/2019	14,118.0	14,280.0	40	Utica Shale
27	6/11/2019	13,918.0	14,080.0	40	Utica Shale
28	6/11/2019	13,718.0	13,880.0	40	Utica Shale
29	6/11/2019	13,518.0	13,680.0	30	Utica Shale
30	6/12/2019	13,318.0	13,480.0	40	Utica Shale
31	6/12/2019	13,118.0	13,280.0	40	Utica Shale
32	6/12/2019	12,918.0	13,080.0	40	Utica Shale
33	6/12/2019	12,718.0	12,880.0	40	Utica Shale
34	6/13/2019	12,518.0	12,680.0	40	Utica Shale

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MAJ6HHSU – 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	6/2/2019	90	11,716.0	11,396.0	7,243.0	688,549.0	12,685.00	N/A
2	6/3/2019	89	11,688.0	8,588.0	7,711.0	607,757.0	12,181.98	N/A
3	6/3/2019	89	11,863.0	8,626.0	7,808.0	617,201.0	11,643.00	N/A
4	6/3/2019	89	11,971.0	9,021.0	7,656.0	617,201.0	11,362.98	N/A
5	6/4/2019	88	11,905.0	8,534.0	8,205.0	695,782.0	12,052.00	N/A
6	6/4/2019	90	12,025.0	7,954.0	8,634.0	600,147.0	11,954.00	N/A
7	6/4/2019	90	11,810.0	8,525.0	8,712.0	579,818.0	11,171.00	N/A
8	6/5/2019	89	12,201.0	8,622.0	8,828.0	609,851.0	12,080.00	N/A
9	6/5/2019	89	12,165.0	9,906.0	7,948.0	603,314.0	11,901.00	N/A
10	6/5/2019	90	12,178.0	9,583.0	8,660.0	601,909.0	11,790.00	N/A
11	6/6/2019	90	12,158.0	10,044.0	8,563.0	634,682.0	11,862.00	N/A
12	6/6/2019	91	11,947.0	8,221.0	8,466.0	596,809.0	11,435.00	N/A
13	6/6/2019	90	11,728.0	8,495.0	8,155.0	596,254.0	11,900.00	N/A
14	6/7/2019	87	11,668.0	8,540.0	7,584.0	594,931.0	11,833.98	N/A
15	6/7/2019	88	11,869.0	8,000.0	8,007.0	601,625.0	15,078.00	N/A
16	6/8/2019	90	11,806.0	7,672.0	8,383.0	589,821.0	11,587.00	N/A
17	6/8/2019	89	11,928.0	9,300.0	8,675.0	590,291.0	11,742.00	N/A
18	6/8/2019	90	11,794.0	10,869.0	8,255.0	598,086.0	11,928.05	N/A
19	6/9/2019	90	11,722.0	8,037.0	8,172.0	594,463.0	11,728.00	N/A
20	6/9/2019	90	11,520.0	8,061.0	8,037.0	591,032.0	10,634.00	N/A
21	6/9/2019	89	11,385.0	7,501.0	7,975.0	595,816.0	11,622.98	N/A
22	6/10/2019	91	11,500.0	8,102.0	8,370.0	618,170.0	11,084.00	N/A
23	6/10/2019	89	11,616.0	10,403.0	8,148.0	584,733.0	10,520.00	N/A
24	6/10/2019	90	11,491.0	8,110.0	8,403.0	599,984.0	11,700.05	N/A
25	6/10/2019	90	11,619.0	10,674.0	8,040.0	601,321.0	11,593.00	N/A
26	6/11/2019	89	11,412.0	7,904.0	8,295.0	600,205.0	11,813.00	N/A
27	6/11/2019	91	11,545.0	8,403.0	8,280.0	595,713.0	11,856.00	N/A
28	6/11/2019	90	11,655.0	9,093.0	8,174.0	596,272.0	11,482.00	N/A
29	6/11/2019	90	11,779.0	9,943.0	8,189.0	590,214.0	11,560.02	N/A
30	6/12/2019	90	11,651.0	9,294.0	7,710.0	571,540.0	11,125.00	N/A
31	6/12/2019	90	11,617.0	9,638.0	8,142.0	577,351.0	11,291.00	N/A
32	6/12/2019	90	11,625.0	10,046.0	7,780.0	580,621.0	11,402.00	N/A
33	6/12/2019	90	11,308.0	10,024.0	7,802.0	591,867.0	11,550.00	N/A
34	6/13/2019	89	11,053.0	9,830.0	8,083.0	610,349.0	11,371.00	N/A

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INTERMEDIATE 1 CASING

N-80 68LB/FT: 0' - 2,143'
 J-55 68LB/FT: 2,143' - 3,189'

PRODUCTION CASING

P-110CY 23LB/FT: 0' - 12,709'
 Q-125 23LB/FT: 12,709' - 19,330'

LITHOLOGIES CONTINUED

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)
50 FOOT	2790	2900	2790	2900	SANDSTONE
FOURTH	2900	4264	2900	4265	SANDSTONE/ SILTSTONE
ELK	4264	6366	4265	6368	SILTSTONE
RHINESTREET	6366	6625	6368	6627	SILTSTONE/ SHALE
BURKET	6625	6649	6627	6651	SHALE
TULLY	6649	6675	6651	6677	LIMESTONE
HAMILTON	6675	6789	6677	6791	SHALE
MARCELLUS	6789	6809	6791	6811	SHALE
MIDDLE MARCELLUS	6809	6828	6811	6830	SHALE
CHERRY VALLEY	6828	6833	6830	6835	SHALE
LOWER MARCELLUS	6833	6842	6835	6844	SHALE
ONONDAGA	6842	7072	6844	7074	LIME STONE
ORISKANY	7072	7180	7074	7182	SANDSTONE/ SILTSTONE
HELDERBERG	7180	7370	7182	7372	LIMESTONE
SALINA	7370	8983	7372	8985	DOLOMITE TRACES OF SALT
LOCKPORT	8983	9098	8985	9100	DOLOMITE
ROCHESTER	9098	9370	9100	9372	SHALE
PACKER SHELL	9370	9530	9372	9532	SHALE
TUSCARORA	9530	9763	9532	9765	SANDSTONE/ SILTSTONE
QUEENSTON	9763	10598	9765	10600	RED SHALE
BALD EAGLE	10598	10718	10600	10720	GREY/ RED SHALE
REEDSVILLE	10718	11744	10720	12159	SHALE
UTICA	11744	11882	12159	12487	DARK GREY SHALE
POINT PLEASANT	11882		12487		BLACK SHALE
TD				19400	

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MAJ6HSM

47-051-02010



DRILLING CONTRACTOR

TOPHOLE

COMPLETE DRILLING SOLUTIONS
160 TECHNOLOGY DRIVE SUITE 201
CANONSBURG, PA 15317

BIG RIG

PATTERSON-UTI DRILLING COMPANY
207 CARLTON DRIVE
EIGHTY FOUR, PA 15330

CEMENTING COMPANY

(18" CASING & 13" CASING)

BJ SERVICES
11211 FARM TO MARKET 2920
TOMBALL, TX 77375

(9" CASING, PLUGBACK, & 5.5" CASING)

HALLIBURTON
121 CHAMPION WAY SUITE #210
CANONSBURG, PA 15317

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/2/2019
Job End Date:	6/13/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-02010-00-00
Operator Name:	CNX Gas Company LLC
Well Name and Number:	MAJ6HHSU
Latitude:	39.93472100
Longitude:	-80.54849000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	12,041
Total Base Water Volume (gal):	16,737,798
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	CNX	Carrier/Base Fluid	Water	7732-18-5	100.00000	86.64524	None
Sand (Proppant)	Keane	Proppant	Crystalline silica: Quartz (SiO2)	14808-60-7	100.00000	12.67719	None
Hydrochloric Acid (7.5%)	Keane	Acid Inhibitor	Water	7732-18-5	92.50000	0.52458	None
			Hydrochloric Acid	7647-01-0	7.50000	0.04253	None
KFR-48	Keane	Friction Reducer	Water	7732-18-5	47.00000	0.02825	None
			butene, homopolymer	9003-29-6	25.00000	0.01503	None
			alkanes, C16-20-iso-	90822-59-6	25.00000	0.01503	None
			Alcohols, C12-18, ethoxylated	68213-23-0	3.00000	0.00180	None
KSI-22	Keane	Scale Inhibitor	Methanol	67-56-1	50.00000	0.01182	None
			2-propenoic acid, polymer with 2-(1-methyl-2-[(1-oxo-2-propenyl)amino]-1-propensulfonic acid monosodium salt and sodium phosphinite	1102224-99-2	10.00000	0.00236	None



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MBC-516	Keane	Biocide	glutaral	111-30-8		26.70000	0.00483	None
			didecyltrimethylammonium chloride	7173-51-5		8.00000	0.00143	None
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1		5.30000	0.00009	None
			Ethanol	64-17-5		2.80000	0.00051	None
KFEAC-30	Keane	Iron Control	acetic acid	64-19-7		60.00000	0.00221	None
			Citric acid	77-92-9		40.00000	0.00147	None
KWG-111LS	Keane	Gel	Guar gum	9000-30-0		55.00000	0.00164	None
			Distillates (petroleum), hydrorefined light	64742-47-8		55.00000	0.00164	None
KAL-12	Keane	Acid Inhibitor	Methanol	67-56-1		90.00000	0.00163	None
			xylene	1330-20-7		5.00000	0.00009	None
			Alcohols, C7-9-iso-, C8-rich	68526-83-0		5.00000	0.00009	None
			Fatty imidazole	61790-69-0		5.00000	0.00009	None
			prop-2-yn-1-ol	107-19-7		5.00000	0.00009	None
			soproyl alcohol	67-63-0		5.00000	0.00009	None
			ethylbenzene	100-41-4		1.00000	0.00002	None
KWBO-2	Keane	Breaker	Sodium persulfate	7775-27-1		99.00000	0.00005	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.								
Other Chemical(s)	Listed Above	See Trade Name(s) list	Water	7732-18-5		92.50000	0.52458	
			alkanes, C16-20-iso-	90622-59-6		25.00000	0.01503	
			butene, homopolymer	9003-29-6		25.00000	0.01503	
			2-propenoic acid, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and sodium phosphite	110224-99-2		10.00000	0.00236	
			Alcohols, C12-18, ethoxylated	68213-23-0		3.00000	0.00180	
			Distillates (petroleum), hydrorefined light	64742-47-8		55.00000	0.00164	
			Citric acid	77-92-9		40.00000	0.00147	
			didecyltrimethylammonium chloride	7173-51-5		8.00000	0.00145	
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1		5.30000	0.00097	
			Ethanol	64-17-5		2.80000	0.00051	
			xylene	1330-20-7		5.00000	0.00009	
			Alcohols, C7-9-iso-, C8-rich	68526-83-0		5.00000	0.00009	
			Fatty imidazole	61790-69-0		5.00000	0.00009	

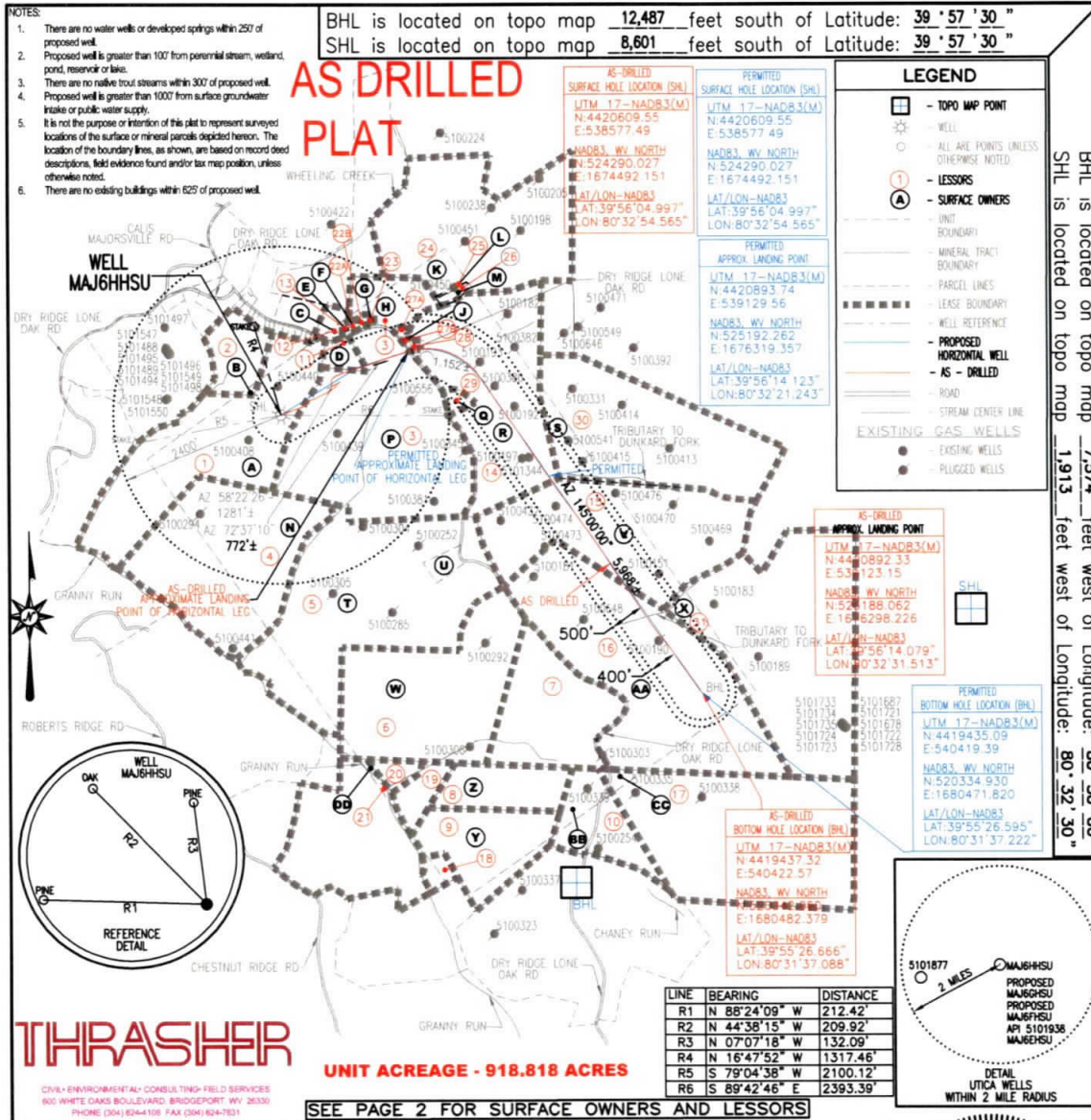
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			prop-2-yn-1-ol	107-19-7	5.00000	0.00009	
			isopropyl alcohol	67-63-0	5.00000	0.00009	
			ethylbenzene	100-41-4	1.00000	0.00002	
			Water	7732-18-5	85.00000		

* 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)

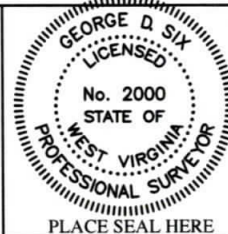
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FILE #: MAJ6HHSU-AS DRILLED
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 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
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Well Type: Oil Waste Disposal Production Deep Gas Liquid Injection Storage Shallow

WATERSHED: WHEELING CREEK ELEVATION: 1367.87'

COUNTY/DISTRICT: MARSHALL / WEBSTER QUADRANGLE: MAJORSVILLE, WV 7.5'

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 PERFORATE NEW FORMATION PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE

(SPECIFY): _____

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,850± TMD: 18,223±

WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT CHRIS TURNER
 Address 1000 CONSOL ENERGY DRIVE Address 1 DOMINION DRIVE
 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

DATE: JULY 22, 2019
 OPERATOR'S WELL #: MAJ6HHSU-AS DRILLED
 API WELL #: 47 51 02010
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UTM 17-NAD83(M)
N:4420609.55
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N:524290.027
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LAT/LON-NAD83
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API WELL #: 47 51 02010
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THRASHER

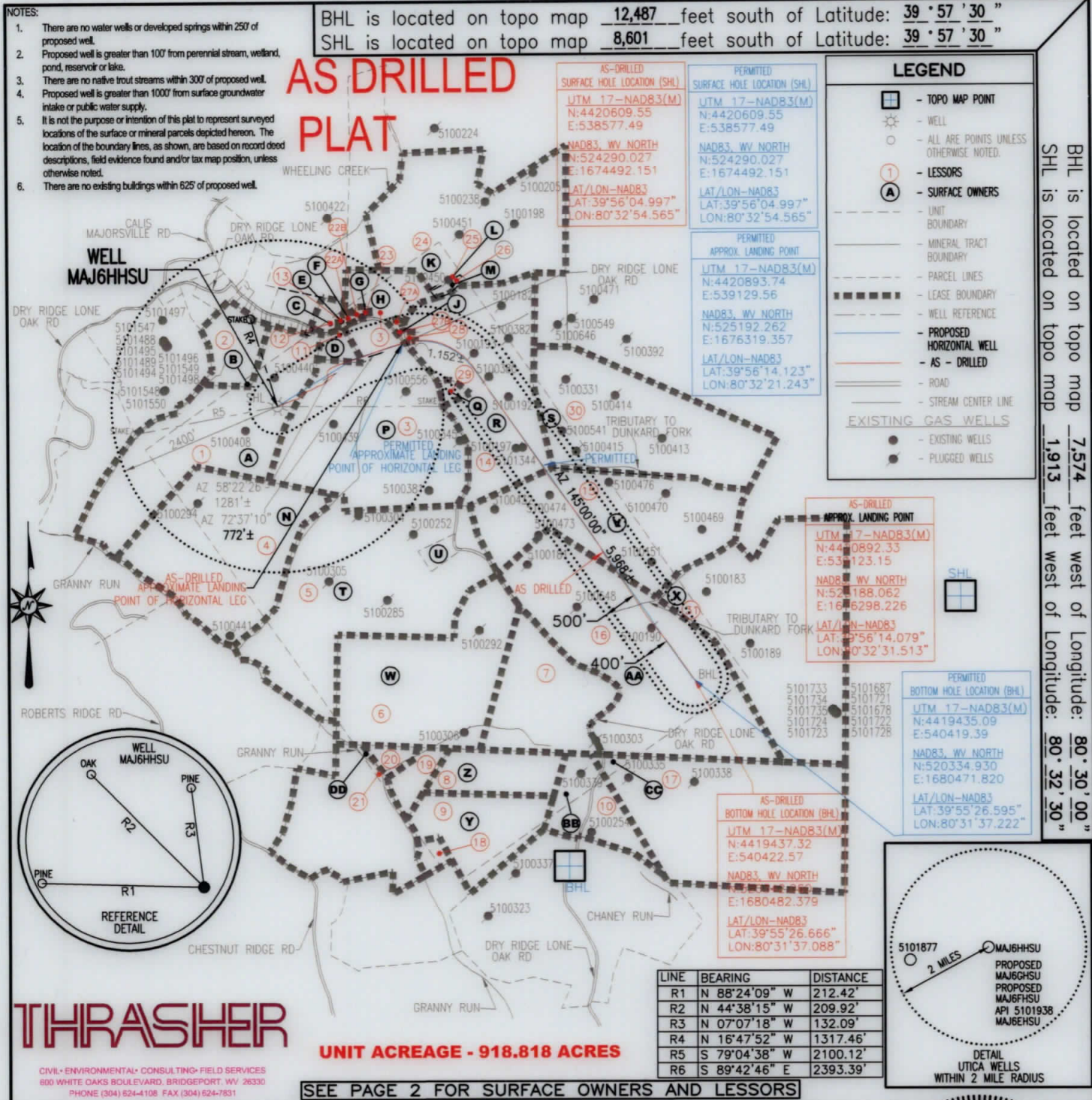
ENVIRONMENTAL CONSULTING & FIELD SERVICES
800 WHITE OAKS BOULEVARD, BRIDGEPORT WV 26330
PHONE (304) 624-4108-FAX (304) 624-7831

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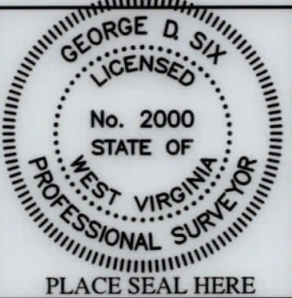
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WELL OPERATOR: CNX GAS COMPANY LLC DESIGNATED AGENT: CHRIS TURNER
 Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DRIVE
 City: CANONSBURG State: PA Zip Code: 15317 City: JANE LEW State: WV Zip Code: 26378

MAJ6HHSU

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