

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

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Office of Oil and Gas
DEC 29 2020
WV Department of
Environmental Protection

API 47-051-02076 County Marshall District Franklin
Quad Powhatan Point 7.5' Pad Name Bryan Field/Pool Name _____
Farm name CNX Land Resources, Inc. Well Number Bryan N-4HM
Operator (as registered with the OOG) Tug Hill Operating, LLC
Address 380 Southpointe Boulevard, Plaza II, Suite 200 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 4,402,882.77 Easting 519,130.20
Landing Point of Curve Northing 4,403,021.61 Easting 519,279.67
Bottom Hole Northing 4,405,693.93 Easting 517,747.64

Elevation (ft) 1191.5' 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; Base oil, osmotic inhibitor, weighting agent, viscosifier, emulsifier, hardness buffer, fluid loss additive, LCM, Shale inhibitor, de-foamer, soaping agent, coagulant, flocculant; specific additives per WSSP and Permit.

Date permit issued 9/11/2018 Date drilling commenced 9/24/2018 Date drilling ceased 5/17/2019
Date completion activities began 5/13/2020 Date completion activities ceased 5/22/2020
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 831' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1595' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 729-735', 824-830' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

API 47-051 - 02076 Farm name CNX Land Resources, Inc. Well number Bryan N-4HM

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"	120'	NEW	94.5#	N/A	Y
Surface	17 1/2"	13 3/8"	935'	NEW	54.5#	N/A	Y
Coal	17 1/2"	13 3/8"	935'	NEW	54.5#	N/A	Y
Intermediate 1	12 1/4"	9 5/8"	2,671'	NEW	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	16,908'	NEW	20#	N/A	Y
Tubing		2 3/8"	8,454'	NEW	4.7#	N/A	Y
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	A		15.6	1.19		0	8
Surface	A	960	15.6	1.19	1149	0	8
Coal	A	960	15.6	1.19	1149	0	8
Intermediate 1	A	1077	15.6	1.19	1277	0	8
Intermediate 2							
Intermediate 3							
Production	A	4093	14.5	1.17	4807	0	8
Tubing							

Drillers TD (ft) 16,956' Loggers TD (ft) n/a
 Deepest formation penetrated Marcellus Plug back to (ft) n/a
 Plug back procedure n/a

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Kick off depth (ft) 5,788'

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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 3 centralizers on surface casing at equal distance.

Intermediate - 1 centralizer every other joint.

Production - one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

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 _____

**Bryan N-4HM
PEFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	5/13/2020	16721	16769	16	Marcellus
2	5/13/2020	16520	16667	48	Marcellus
3	5/14/2020	16344	16492	48	Marcellus
4	5/14/2020	16169	16316	48	Marcellus
5	5/14/2020	15993	16140	48	Marcellus
6	5/14/2020	15817	15965	48	Marcellus
7	5/14/2020	15641	15789	48	Marcellus
8	5/15/2020	15466	15613	48	Marcellus
9	5/15/2020	15290	15437	48	Marcellus
10	5/15/2020	15114	15262	48	Marcellus
11	5/15/2020	14939	15086	48	Marcellus
12	5/15/2020	14763	14910	48	Marcellus
13	5/15/2020	14587	14735	48	Marcellus
14	5/16/2020	14412	14559	48	Marcellus
15	5/16/2020	14236	14383	48	Marcellus
16	5/16/2020	14060	14208	48	Marcellus
17	5/16/2020	13884	14032	48	Marcellus
18	5/16/2020	13709	13856	48	Marcellus
19	5/16/2020	13533	13680	48	Marcellus
20	5/17/2020	13357	13505	48	Marcellus
21	5/17/2020	13182	13329	48	Marcellus
22	5/17/2020	13006	13153	48	Marcellus
23	5/17/2020	12830	12978	48	Marcellus
24	5/17/2020	12655	12802	48	Marcellus
25	5/17/2020	12479	12626	48	Marcellus
26	5/17/2020	12303	12451	48	Marcellus
27	5/18/2020	12127	12275	48	Marcellus
28	5/18/2020	11952	12099	48	Marcellus
29	5/18/2020	11776	11923	48	Marcellus
30	5/18/2020	11600	11748	48	Marcellus
31	5/18/2020	11425	11572	48	Marcellus
32	5/18/2020	11249	11396	48	Marcellus
33	5/19/2020	11073	11221	48	Marcellus
34	5/19/2020	10898	11045	48	Marcellus
35	5/19/2020	10722	10869	48	Marcellus
36	5/19/2020	10546	10694	48	Marcellus
37	5/19/2020	10370	10518	48	Marcellus
38	5/19/2020	10195	10342	48	Marcellus
39	5/19/2020	10019	10166	48	Marcellus
40	5/20/2020	9843	9991	48	Marcellus
41	5/20/2020	9668	9815	48	Marcellus

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42	5/20/2020	9492	9639	48	Marcellus
43	5/20/2020	9316	9464	48	Marcellus
44	5/20/2020	9141	9288	48	Marcellus
45	5/20/2020	8965	9112	48	Marcellus
46	5/21/2020	8789	8937	48	Marcellus
47	5/21/2020	8613	8761	48	Marcellus
48	5/21/2020	8438	8585	48	Marcellus
49	5/21/2020	8262	8409	48	Marcellus
50	5/21/2020	8086	8234	48	Marcellus
51	5/21/2020	7911	8058	48	Marcellus
52	5/21/2020	7735	7882	48	Marcellus
53	5/21/2020	7559	7707	48	Marcellus
54	5/22/2020	7384	7531	48	Marcellus
55	5/22/2020	7208	7355	48	Marcellus
56	5/22/2020	7032	7180	48	Marcellus
57	5/22/2020	6856	7004	48	Marcellus

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BRYAN N-4HM
STIMULATION INFORMATION PER STAGE

Stage No.	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	84	7329	6941	3616	250296	6821	0
2	84	7010	4930	4571	440340	8739	0
3	85	7167	5079	4801	441091	8769	0
4	88	7192	5353	4810	440173	8416	0
5	88	7590	5256	4863	441820	8593	0
6	85	7264	5418	4288	440253	8545	0
7	85	7089	5980	4317	441177	8598	0
8	85	7039	5706	4811	441749	8624	0
9	88	7359	5235	4739	445175	8446	0
10	88	7317	5295	4613	439703	7623	0
11	85	7094	5092	4591	443674	7550	0
12	85	6962	5704	5058	439937	7689	0
13	85	6952	5185	4518	441712	7700	0
14	85	6927	5274	4610	440332	7759	0
15	85	6933	5299	4769	445130	7717	0
16	85	6801	5371	4895	442144	7634	0
17	85	6865	5588	4069	444506	7669	0
18	85	6665	5507	4831	440914	7649	0
19	85	6607	5107	4759	440403	7661	0
20	85	6739	6189	4680	440377	7668	0
21	85	14485	4718	9129	441576	7470	0
22	85	6627	5500	4682	442436	7490	0
23	85	6789	5446	4636	440370	7571	0
24	85	6937	5488	4729	440778	7430	0
25	85	6698	5662	4978	443209	7628	0
26	85	6522	6146	4734	443902	7630	0
27	85	6448	5514	5212	444385	7630	0
28	86	6587	5962	4946	443002	7454	0
29	85	6755	5572	4671	441140	7474	0
30	85	6801	5921	4430	439557	7430	0
31	86	6751	6416	4898	440195	7368	0
32	86	6771	5618	5125	440243	7391	0

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Stage No.	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)
33	86	6713	5871	4762	440362	7524	0
34	85	6665	6299	4589	440415	7348	0
35	85	6481	6329	5073	443624	7390	0
36	85	6539	6331	5076	442294	7334	0
37	85	6582	5802	4831	441543	7290	0
38	85	6691	6491	4742	440515	7320	0
39	85	6722	6628	4171	524053	8609	0
40	85	6666	6686	5166	523532	8665	0
41	86	6529	6090	4584	524598	8459	0
42	85	6491	6050	4261	524213	8411	0
43	85	6538	6275	3919	527526	8489	0
44	91	6859	5625	4922	525273	8503	0
45	90	6657	5146	4761	523246	8462	0
46	90	6557	5470	4616	523180	8460	0
47	91	6486	5403	4668	525812	8479	0
48	90	6530	5400	4694	525049	8491	0
49	90	11047	4893	8634	524873	8421	0
50	90	6592	5624	4454	523949	8479	0
51	90	6326	5330	5203	525188	8390	0
52	90	6411	5562	4241	525052	8471	0
53	90	6373	4989	4305	519311	8283	0
54	90	6432	5580	4132	523313	8331	0
55	90	6433	5446	4693	524574	8346	0
56	91	6269	5669	4720	526745	9154	0
57	90	6020	5669	6031	533437	8946	0

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BRYAN N-4HM

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
Maxton	1915	2005	1916	2007	Sandstone
Big Lime	2005	2075	2007	2077	Limestone
Big Injun	2075	2359	2077	2362	Sandstone
Weir	2359	2554	2362	2558	Sandstone
Berea	2554	2899	2558	2904	Sandstone
Gordon	2899	2953	2904	2958	Sandstone
Fifty Foot	2953	3501	2958	3509	Sandstone
Speechley	3501	4923	3509	4954	Sandstone
Benson	4923	5278	4954	5323	Sandstone
Alexander	5278	5872	5323	5936	Siltstone
Rhinestreet	5872	6296	5936	6390	Black shale
Middlesex	6296	6368	6390	6485	Black shale
Geneseo/Burkett	6368	6394	6485	6522	Black shale
Tully	6394	6428	6522	6579	Limestone
Hamilton	6428	6476	6579	6682	Grey shale
Marcellus	6476	-	6682	-	Black shale

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Well: Bryan N-04HM (slot K)
 Site: Bryan Pad
 Project: Marshall County, West Virginia.
 Design: rev4
 Rig: Precision 110

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	
2	1428.00	0.00	0.00	1428.00	0.00	0.00	0.00	0.000	0.00	
3	1678.00	5.00	90.00	1677.68	0.00	10.90	2.00	90.000	-4.79	
4	4037.30	5.00	90.00	4028.00	0.00	216.53	0.00	0.000	-95.18	Begin 2°/100' build/turn
5	4560.56	15.34	100.71	4542.38	-12.90	307.58	2.00	15.708	-146.80	Begin 15.34° tangent
6	5788.09	15.34	100.71	5726.19	-73.27	626.61	0.00	0.000	-341.27	Begin 8°/100' build/turn
7	6523.61	50.00	340.33	6375.33	198.22	627.44	8.00	-129.445	-97.78	Begin 10°/100' build/turn
8	6944.01	91.00	330.17	6513.00	548.00	461.17	10.00	-15.271	289.48	Begin 91.00° lateral
9	16955.73	91.00	330.17	6338.00	9231.84	-4518.25	0.00	0.000	0278.21	PBHL/TD 16955.72 MD/6338.00 TVD

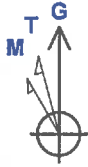
ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/-S	+E/-W	V Sect	Annotation
224.00	0.70	101.02	223.99	-0.26	1.34	-0.83	MWD surveys
16904.00	89.71	328.40	6390.92	9178.68	-4508.70	10226.25	Survey @ 16904.00 MD 6390.92 TVD
16956.00	89.71	328.40	6391.18	9222.96	-4535.95	10278.01	Survey projected to 16956.00 MD 6391.18 TVD

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD83 West Virginia - HARN
 Ellipsoid: GRS 1980
 Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level
 Depth Reference: RKB=1191+28 @ 1219.00usft (Precision 110)
 Surface location
 Northing: 14445124.25 Easting: 1703179.83 Latitude: 39.77566597 Longitude: -80.77661603

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.84°

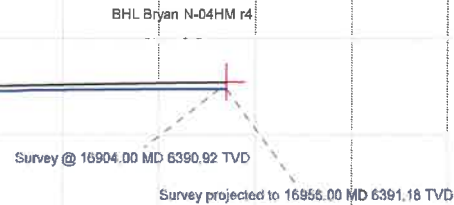
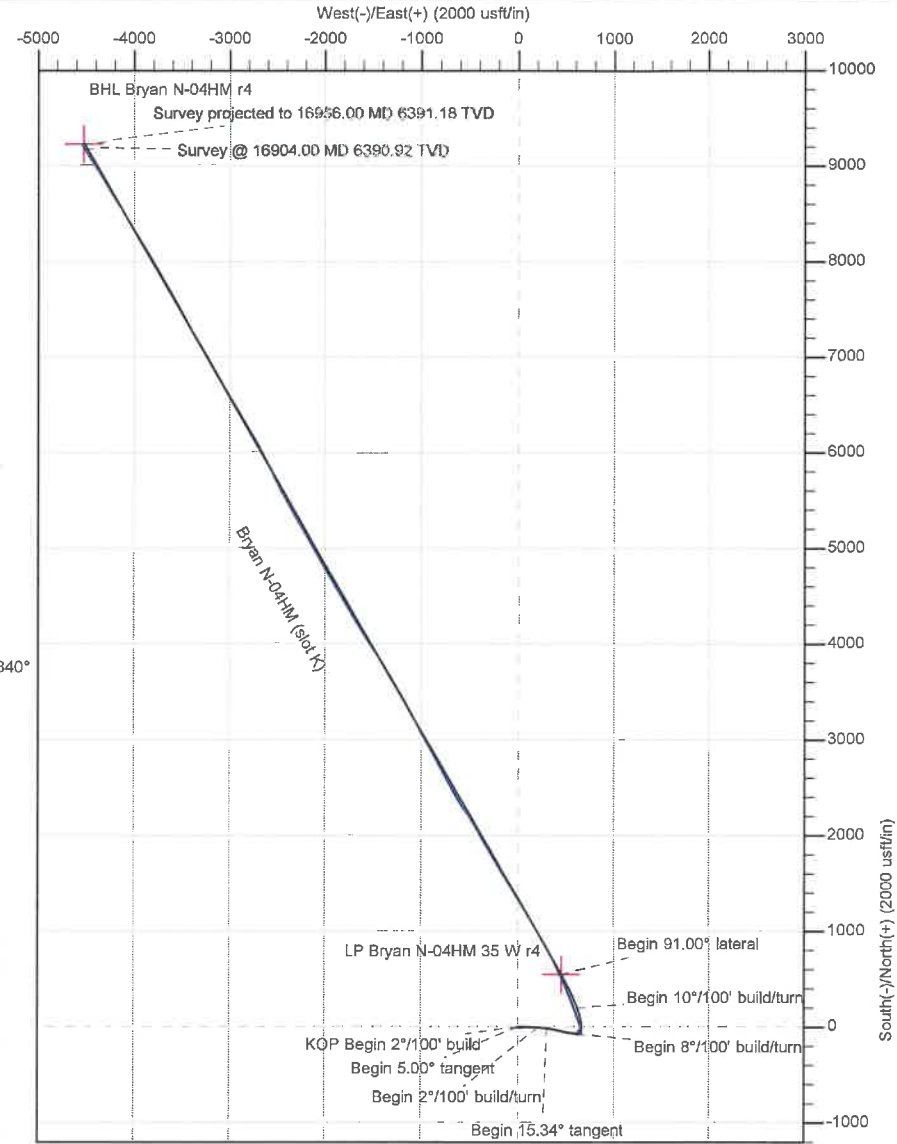
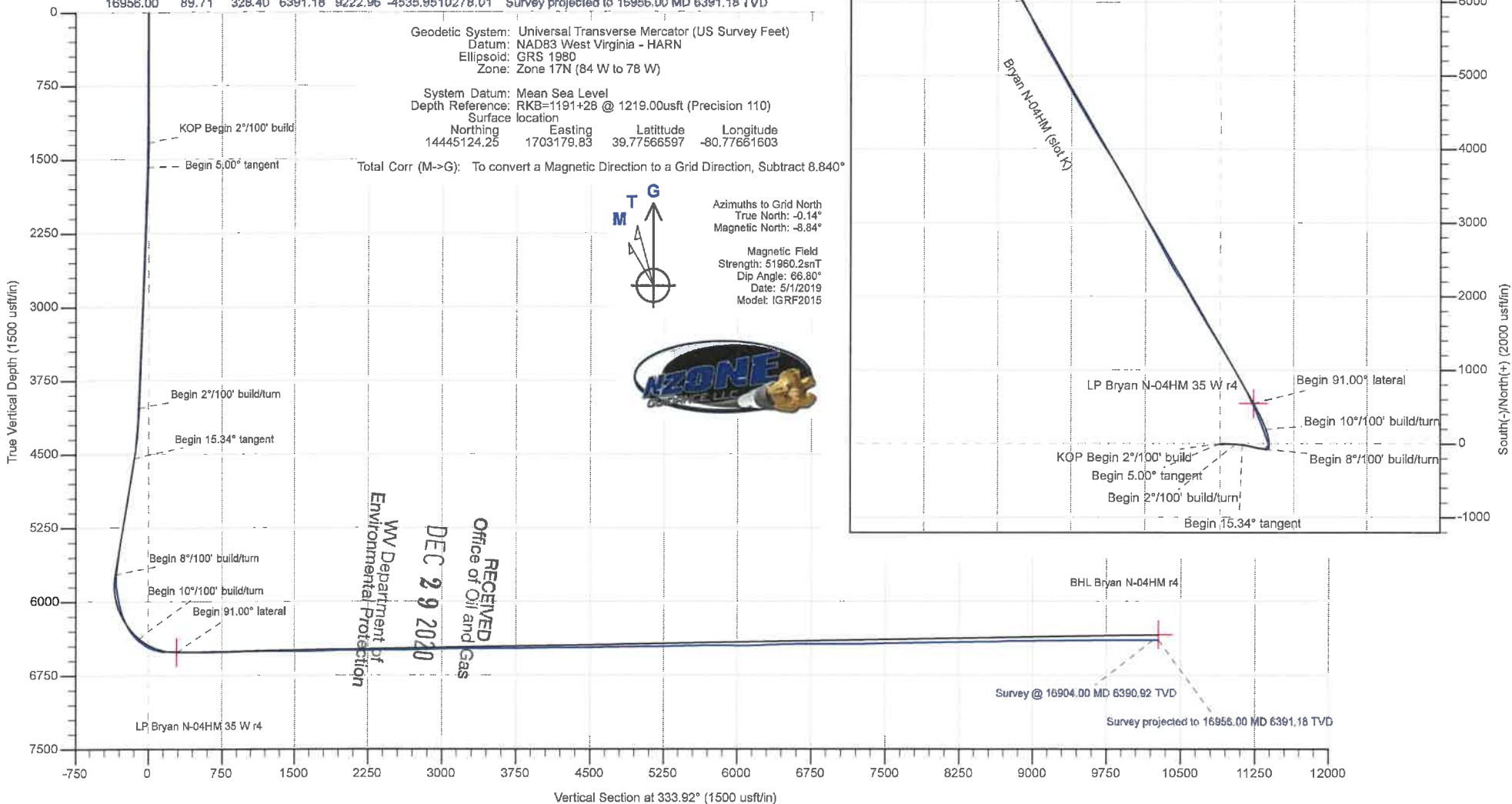


Azimuths to Grid North
 True North: -0.14°
 Magnetic North: -8.84°

Magnetic Field
 Strength: 51960.2snT
 Dip Angle: 66.80°
 Date: 5/1/2019
 Model: IGRF2015



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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/13/2020
Job End Date:	5/22/2020
State:	West Virginia
County:	Marshall
API Number:	47-051-02076-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Bryan N 4HM
Latitude:	39.77566597
Longitude:	-80.77661603
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,391
Total Base Water Volume (gal):	19,147,319
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	Tug Hill Operating	Carrier/Base Fluid	Water	7732-18-5	100.00000	66.79968	None
Sand (30/50 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	22.71377	None
Sand (40/70 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	7.50009	None
Sand (100 Mesh Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	2.57792	None
Hydrochloric Acid (7.5%)	PVS	Acidizing	Water	7732-18-5	85.00000	0.26492	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.11532	None
StimStream FR 9800	Chemstream	Friction Reducer	Butene, homopolymer	9003-29-6	25.00000	0.01480	None
			Alkanes, C16-20-iso-	90622-59-6	25.00000	0.01480	None
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00178	None

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MC MX 9-4743	Multi-Chem	Biocide					
			Sodium Nitrate	7631-99-4	60.00000	0.01738	None
LD-7750W	Multi-Chem	Scale Inhibitor					
			Methanol	67-56-1	60.00000	0.00394	None
			Phosphonic Acid Salt	Proprietary	5.00000	0.00033	None
ProFE 105	ProFrac	Iron Control					
			Citric Acid	77-92-9	100.00000	0.00116	None
ProHib 100	ProFrac	Acid Inhibitor					
			2-Propyn-1-ol compound w/ methyloxirane	38172-91-7	15.00000	0.00014	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	85.00000	0.26492	
			Butene, homopolymer	9003-29-6	25.00000	0.01480	
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00178	
			Phosphonic Acid Salt	Proprietary	5.00000	0.00033	

* 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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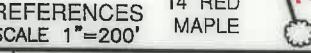
BRYAN LEASE WELL N-4HM 779.1368± ACRES

TOP HOLE LATITUDE: 39°47'30"
BOTTOM HOLE LATITUDE: 39°50'00"

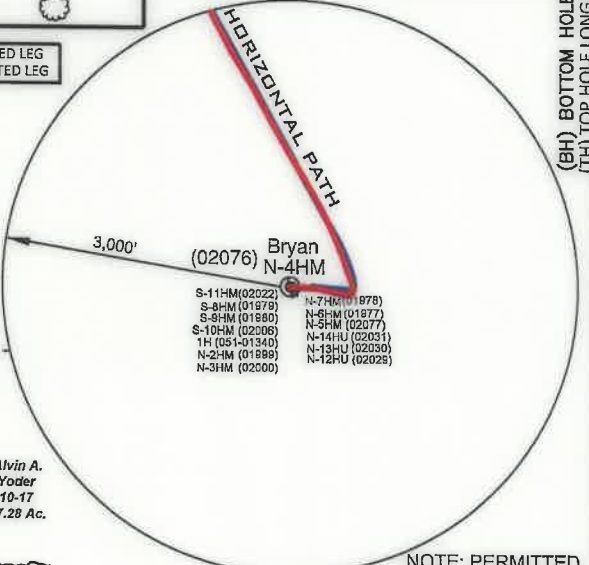
- S-11HM(051-02022) ○
- (051-01979) S-8HM ○
- (051-01980) S-9HM ○
- S-10HM(02006) ○
- N-4HM(051-02076) ○
- 1H (051-01340) ○
- (051-01989) N-2HM ○
- (051-02000) N-3HM ○
- N-7HM(051-01978) ○
- N-8HM(051-01977) ○
- N-9HM(051-02077) ○
- N-14HU (051-02031) ○
- N-13HU (051-02030) ○
- N-12HU(051-02029) ○

DETAIL
SKETCH "A"
SCALE 1"=600'

REFERENCES
SCALE 1"=200'



ASDRILLED LEG
PERMITTED LEG



NOTE: PERMITTED
COORDINATES ARE
ON PAGE 2.
(+) DENOTES LOCATION
ON UNITED STATES
TOPOGRAPHIC MAPS

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,402,882.77
E) 519,130.20

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,403,021.61
E) 519,279.67

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,405,693.93
E) 517,747.64

- NOTES
- BORE PATH BASED ON GRID NORTH.
 - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
 - ALL DEEP WELLS WITHIN 3,000' OF LATERAL ARE SHOWN ON THIS PLAT.

LINE	BEARING	DISTANCE
L1	N 42°43' E	2937.15'
L2	N 82°21' E	2000.02'
L3	S 89°50' E	137.29'
L4	S 78°19' E	270.68'

LEGEND

- LEASED TRACTS
- SURFACE TRACTS
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	S 76°46' E	33.29'	82.56'	33.70'
C2	N 83°13' E	30.45'	78.21'	30.65'
C3	S 61°43' E	43.05'	145.88'	43.20'
C4	S 83°48' E	74.31'	308.24'	74.49'
C5	N 57°24' E	97.76'	61.34'	113.12'
C6	N 11°00' W	82.97'	101.85'	53.58'
C7	N 20°30' W	444.37'	6581.94'	444.45'

FILE NUMBER _____

DRAWING NUMBER BRYAN_WP_N-4HM

SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY 1/200

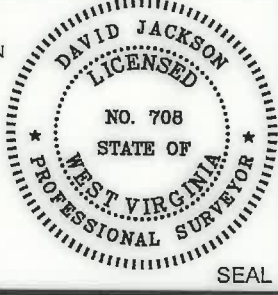
PROVEN SOURCE OF ELEVATION SUBMETER MAPPING
GRADE GPS

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

David L Jackson

P.S. 708

JACKSON SURVEYING INC.
P.O. Box 1460
Clarksburg, WV 26302
304-623-5851



WVDEP
OFFICE OF OIL & GAS
601 57TH STREET, SE
CHARLESTON, WV 25304

DATE: SEPTEMBER 10, 2020

OPERATORS WELL NO. BRYAN N-4HM

API WELL NO. 47-051-02076
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION ELEVATION 1191.5' WATERSHED (HUC 10) Fish Creek
DISTRICT Franklin COUNTY Marshall
QUADRANGLE Powhatan Point 7.5' LEASE NUMBER SEE WW-6A1 Form

SURFACE OWNER CNX LAND RESOURCES, INC. ACREAGE 81.98
OIL & GAS ROYALTY OWNER MICHAEL R. BRYAN - SEE WW 6A1 LEASE ACREAGE 81.98

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) AS-DRILLED

TARGET FORMATION Marcellus ESTIMATED DEPTH TVD: 6,391' TMD: 16,956'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD
FORT WORTH, TX 76107 CHARLESTON, WV 25313

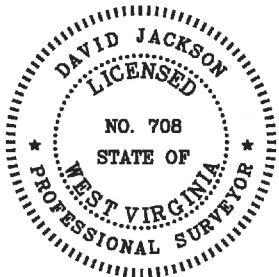
COUNTY NAME
PERMIT

PG 2 OF 2 **BRYAN LEASE**
WELL N-4HM
779.1368± ACRES

SURFACE HOLE
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,402,882.68
 E) 519,130.25

LANDING POINT 1
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,403,049.71
 E) 519,270.81

BOTTOM HOLE
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,405,696.55
 E) 517,753.08



P.S.
708

David L Jackson

Number	TAX MAP - PARCEL	ADJOINER OWNER	ACRES
S1	15-13	CNX Land Resources	11.0
S2	15-14	John David Petrock et ux	25.0
S3	15-2	John David Petrock et ux	5.0
S4	15-1	Marcus Sharp & David Schlabach	121.0
S5	15-3	Joseph J. Kramer et ux	36.10
S6	11-14.1	Dennis F. Moore et ux	1.056
S7	11-16.2	Joseph Haught	2.181
S8	12-11	Wesley Bryan & Wesley Bryan II	52.478
S9	12-12	Lionel L. Persinger et ux	45.0
S10	12-10	Murray Energy	13.76
S11	12-10.1	Murray Energy	38.48
S12	12-9	Lionel & Mary Lee Persinger	10.15
S13	7-39	Lionel L. Persinger et ux	57.0
S14	7-33	William N. Roupe	24.60
S15	7-31	William N. Roupe	43.147
S16	11-1	William N. & Virginia A. Roupe	4.527
S17	11-1.6	Debra Morris	2.093
S18	11-1.7	William S. & Mary K. Adams	8.0
S19	11-1.5	Paul & Sandy Whitt	3.507
S20	11-1.3	Jay A. Conner, et ux	4.256
S21	11-1.2	Jay A. Conner, et ux	5.824
S22	8-9.1	Scott E. Jackson, Tammy S. South & Marion Jackson	1.957
S23	11-2.1	Walter C. & Cheryl A. Rine	1.19
S24	11-2.2	Joshua A. Myers	2.193
S25	11-20	David E. Gray	0.569
S26	11-19	David E. Gray	0.532
S27	11-18	David E. Gray	0.569
S28	11-22	David E. Gray	0.353
S29	11-17.1	David Gray	0.297
S30	11-5	Kevin R. Corley et ux	10.36
S31	11-3	Kevin R. Corley et ux	13.18
S32	11-5.2	Ricky Lynn & Victoria Rose Cross	1.0
S33	11-24	Charles Edward Furbee et ux	0.603
S34	11-23	Owen Michael Barr	0.845
S35	11-25	Owen Michael Barr	0.598
S36	11-16.1	Susan Marie Smith - Life	0.876
S37	11-5.1	James R. Anderson et ux	0.205
S38	11-5	(Part of S30) Kevin R. Corley et ux	10.36
S39	11-5.3	Robert Harris Arrick et ux	3.0
S40	11-6	Robert & Rebecca Arrick	1.29
S41	11-16.3	Kegan Michael Haught - Life	3.265
S42	11-7	Baptist Cemetery	1.0
S43	11-8	Baptist Church	0.8
S44	11-4	David H. Arrick et ux	31.5
S45	11-9.3	Joseph M. Haught & Steven Haught	16.3
S46	11-9.5	Southern Country Farms, Inc	2.559
S47	11-9.6	Southern Country Farms, Inc	2.488
S48	11-9.9	Leonard L. Parsons, et ux	5.89
S49	11-9	Edwin C. & Kimberly A. Miller	41.773
S50	11-11.4	Brad M. & Amanda J. Blake	15.193
S51	11-11	Brad M. & Amanda J. Blake	5.0
S52	11-11.3	Herman D. Lantz & Herman J. Lantz	43.96
S53	11-11.1	Nellie Marie & Robert W. Spencer	5.813
S54	11-9	(Part of S49) Edwin C. & Kimberly A. Miller	41.773
S55	11-9.10	John A. & Janet L. Beucke	2.348
S56	11-9.2	Michael R. Bryan	3.143
S57	11-9.8	Sean F. Moore	2.070
S58	11-9.7	Sean F. Moore	2.026
S59	11-9.1	Jack Shephard Huggins Jr., et al	10.92
S60	11-9.4	Jack S. Huggins et al	4.129
S61	11-11.2	Wesley R. Bryan & Wesley R. Bryan II	25.031
S62	10-16.4	Elizabeth & Melvin E. Ferguson Jr.	30.87
S63	10-15.1	Donald T. Miller	2.095
S64	16-3.2	Jimmy Lee Ostrander Jr., Sheena Lynn Ostrander, & Brody Ray Ostrander	1.435
S65	16-3.1	Dennis E. Jackson, et ux	0.27
S66	16-2	Christian Church	0.19
S67	16-1	Christian Church	0.50
S68	16-23.1	Ray E. Minor, et ux	2.0
S69	16-23.4	Michael R. & Brenda K. Bryan	3.0
S70	16-23	CNX Land Resources, Inc.	60.138
S71	16-23.3	Greg & Christina Riddle	1.0
S72	16-24	Alan M. Beyser, et ux	1.083
S73	15-9	CNX Land Resources Inc.	81.98
S74	15-8	Terry D. Rose et ux	77.11
S75	15-7	Terry D. Rose et ux	4.5
S76	15-6.1	Joseph J. Kramer et ux	39.40
S77	15-6	Joseph J. Kramer et ux	42.50
S78	15-5	Joseph J. Kramer et ux	35.0
S79	15-4	Joseph J. Kramer et ux	41.106
S80	11-12	Joseph J. Kramer et ux	43.2188
S81	11-13	Joy D. Gartman & Arlin Gatts	12.29
S82	11-14	Hiram's Est. Family LTD LLP	158.054
S83	11-16	Keith E. Haught et al	83.674
S84	11-17.2	Brenda & Michael Bryan	11.504
S85	11-17	Kevin R. Corley et ux	36.13
S86	11-21	Omar Rine Est.	112.67
S87	11-1.1	Larry W. Dunlap et al	34.405
S88	11-1.4	Larry W. Dunlap et al	32.493

OPERATOR'S
 WELL #: Bryan N-4HM
 DISTRICT: Franklin
 COUNTY: Marshall
 STATE: WV
 API #: 47-051-02076

WELL PLAT
PAGE 2 OF 2
DATE: 9/10/2020



TUG HILL
OPERATING