

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

API 47 - 051 - 01967 County Marshall District Meade
Quad Glen Easton 7.5' Pad Name Heaven Hill 3 Field/Pool Name _____
Farm name Ricky L. Whitlatch Well Number Heaven Hill 3-8HU
Operator (as registered with the OOG) Tug Hill Operating, LLC
Address 1320 S. University Drive, Suite 215 City Ft. Worth State TX Zip 76107

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,406,563.54 Easting 526,259.83
Landing Point of Curve Northing 4,406,026.7 Easting 526,707.5
Bottom Hole Northing 4,403,437.5 Easting 528,190.9

Elevation (ft) 1326' 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 **RECEIVED**
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other JUL 10 2020
Drilled with Cable Rotary **Office of Oil and Gas**
Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine **WV Department of**
Mud Type(s) and Additive(s) _____ Environmental Protection

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 2/27/2018 Date drilling commenced 4/4/2018 Date drilling ceased 12/3/2018
Date completion activities began 4/12/2019 Date completion activities ceased 10/28/2019
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 1064' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1595' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 972-978', 1057-1063' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: *Juan M. ...*
7/27/2020

API 47-051 - 01967 Farm name Ricky L. Whitlatch Well number Heaven Hill 3-8HU

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	26"	20"	1,142'	NEW	106.5#	N/A	Y
Coal							
Intermediate 1	17 1/2"	13 3/8"	2,905'	NEW	54.5#	N/A	Y
Intermediate 2	12 1/4"	9 5/8"	10,669'	NEW	47#	N/A	Y
Intermediate 3							
Production	8 1/2"	5 1/2"	22,381'	NEW	23#	N/A	Y
Tubing		2 7/8"	11,191'	NEW	4.7#	N/A	
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	1.2		0	8
Surface	A	1973	15.6	1.2	2367	0	8
Coal							
Intermediate 1	A	2447	15.6	1.19	2912	0	8
Intermediate 2	A	3629	14.5	1.19	4318	0	8
Intermediate 3							
Production	A	5030	16.5	1.17	5533	0	8
Tubing							

Drillers TD (ft) 22,395'

Deepest formation penetrated TRENTON

Plug back procedure N/A

Loggers TD (ft) N/A

Plug back to (ft) N/A

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Kick off depth (ft) 10,708'

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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 _____

**Heaven Hill 3-8HU
PERFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	7/20/2019	21988	22133	48	Utica
2	7/20/2019	21813	21958	48	Utica
3	7/21/2019	21639	21784	48	Utica
4	7/21/2019	21464	21609	48	Utica
5	7/22/2019	21289	21434	48	Utica
6	7/22/2019	21115	21260	48	Utica
7	7/23/2019	20940	21085	48	Utica
8	7/24/2019	20766	20911	48	Utica
9	7/25/2019	20591	20736	48	Utica
10	7/25/2019	20417	20562	48	Utica
11	7/26/2019	20242	20387	48	Utica
12	7/27/2019	20068	20213	48	Utica
13	7/28/2019	19893	20038	48	Utica
14	7/28/2019	19719	19864	48	Utica
15	7/29/2019	19544	19689	48	Utica
16	7/29/2019	19370	19515	48	Utica
17	7/31/2019	19195	19340	48	Utica
18	8/1/2019	19021	19166	48	Utica
19	8/2/2019	18846	18991	48	Utica
20	8/2/2019	18672	18817	48	Utica
21	8/3/2019	18497	18642	48	Utica
22	8/3/2019	18323	18468	48	Utica
23	8/4/2019	18148	18293	48	Utica
24	8/4/2019	17974	18119	48	Utica
25	8/4/2019	17799	17944	48	Utica
26	8/5/2019	17625	17770	48	Utica
27	8/5/2019	17450	17595	48	Utica
28	8/5/2019	17276	17421	48	Utica
29	8/7/2019	17101	17246	48	Utica
30	8/7/2019	16927	17072	48	Utica
31	8/8/2019	16752	16897	48	Utica
32	8/8/2019	16578	16723	48	Utica
33	8/8/2019	16403	16548	48	Utica
34	8/9/2019	16229	16374	48	Utica
35	8/9/2019	16054	16199	48	Utica
36	8/10/2019	15880	16025	48	Utica
37	8/10/2019	15705	15850	48	Utica
38	8/10/2019	15531	15676	48	Utica
39	8/11/2019	15356	15501	48	Utica
40	8/11/2019	15182	15327	48	Utica
41	8/11/2019	15007	15152	48	Utica
42	8/12/2019	14833	14978	48	Utica
43	8/12/2019	14658	14803	48	Utica
44	8/12/2019	14484	14629	48	Utica
45	8/12/2019	14309	14454	48	Utica
46	8/13/2019	14135	14280	48	Utica

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47	8/13/2019	13960	14105	48	Utica
48	8/13/2019	13786	13931	48	Utica
49	8/14/2019	13611	13756	48	Utica
50	8/14/2019	13437	13582	48	Utica
51	8/14/2019	13262	13407	48	Utica
52	8/15/2019	13088	13233	48	Utica
53	8/15/2019	12913	13058	48	Utica
54	8/15/2019	12739	12884	48	Utica
55	8/16/2019	12564	12709	48	Utica
56	8/16/2019	12390	12535	48	Utica

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Heaven Hill 3-8HU
STIMULATION INFORMATION PER STAGE

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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)
1	82.9	11989	10034	6909	434855	9687	0
2	79.5	12083	11271	8064	440415	12592	0
3	74.9	11953	12064	7427	439825	9496	0
4	79.8	12187	10459	7656	439365	9401	0
5	78.6	11971	10196	7896	439510	9385	0
6	81.5	12025	10363	7967	439030	10703	0
7	80.6	12077	9709	7756	439550	9436	0
8	78.5	12128	9964	8114	345405	8198	0
9	82	11127	11127	7682	444980	9518	0
10	82.3	11975	9835	8129	443670	9343	0
11	76.1	11917	9834	8126	442465	9332	0
12	81.7	11651	10660	8064	441670	9449	0
13	84.3	11919	9401	7824	446020	9437	0
14	84.1	11918	9353	8287	449130	9527	0
15	81.4	11742	10628	8112	441015	10596	0
16	86.8	11978	9908	7839	444129	9498	0
17	85.6	11897	9634	7877	445730	9612	0
18	85.7	11727	10042	7879	443280	9202	0
19	86.4	11555	8974	8223	443510	9299	0
20	86.3	11741	9061	8029	440615	10671	0
21	89	11742	9073	7876	441035	9114	0
22	87	11524	9384	8111	452045	9547	0
23	88.9	11768	8814	7935	441495	9214	0
24	88.9	11745	9515	7732	444285	5	0
25	89	11434	9920	7864	441050	217	0
26	88.9	11086	8384	7721	442275	9106	0
27	89.4	10689	7729	7823	443050	9381	0
28	87.7	10719	9181	8092	440965	9121	0
29	89.4	10909	10253	7744	443415	9404	0
30	89.5	11037	9245	7423	442465	9790	0
31	89.2	10587	8920	7868	438690	9075	0
32	89.1	10838	8781	7952	442080	9399	0
33	89.4	10859	8589	7624	442285	9297	0

34	89.2	10972	8504	7277	442150	9094	
35	89.2	10719	7679	7394	440035	9436	
36	89.3	10867	7680	7553	441955	9282	
37	89.4	10727	8248	7293	441445	9333	
38	88.5	10588	8389	7550	438375	9320	
39	89.5	10559	8678	7613	439380	9045	
40	89.7	10531	8543	7539	442660	9327	
41	89.2	10574	9450	7342	449180	9202	
42	88.5	10719	8920	7380	442235	9861	0
43	89.7	10525	9244	7362	436795	8972	0
44	89.7	10705	9356	7329	437940	9183	0
45	89.4	10421	7818	7194	441180	9000	0
46	89.7	10534	8205	7466	443915	9168	0
47	88.6	10713	10417	7647	442770	9144	0
48	89.5	10580	9553	7542	434805	8956	0
49	89.7	10557	9638	7573	443390	8896	0
50	89.3	10476	8979	7504	441975	9211	0
51	88	10604	9120	7500	448635	10076	0
52	89.8	10479	9664	7663	441230	10617	0
53	89.6	10392	9377	7657	442790	9230	0
54	89.8	10113	9134	7641	442310	8942	0
55	89.7	10252	8875	7535	447275	8880	0
56	89.9	10139	9777	7526	440135	9095	0

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HEAVEN HILL 3-8HU

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	2027	2199	2028	2201	Sandstone
Big Lime	2199	2330	2201	2332	Limestone
Big Injun	2330	2625	2332	2629	Sandstone
Weir	2625	2823	2629	2828	Sandstone
Berea	2823	3085	2828	3091	Sandstone
Gordon	3085	3170	3091	3176	Sandstone
Fifty Foot	3170	3752	3176	3759	Sandstone
Spechley	3752	5213	3759	5221	Sandstone
Benson	5213	5585	5221	5593	Sandstone
Alexander	5585	6207	5593	6215	Siltstone
Rhinestreet	6207	6657	6215	6666	Black shale
Middlesex	6657	6725	6666	6734	Black shale
Geneseo/Burkett	6725	6756	6734	6766	Black shale
Tully	6756	6789	6766	6799	Limestone
Hamilton	6789	6863	6799	6874	Grey shale
Marcellus	6863	6915	6874	6928	Black shale
Onondaga	6915	7151	6928	7173	Limestone
Oriskany	7151	7259	7173	7286	Sandstone
Heiderberg	7259	7632	7286	7676	Limestone
Salina	7632	8692	7676	8781	Salt/Anhydrite/LS
Lockport	8692	9063	8781	9166	Dolomite
Rose Hill	9063	9339	9166	9456	Shale
Packer Shell	9339	9550	9456	9676	Limestone
Clinton/Tuscarora	9550	9659	9676	9790	Sandstone
Juniata/Queenston	9659	10524	9790	10692	Red Shale
Reedsville	10524	11437	10692	11664	Grey Shale
Utica	11437	11691	11664	12107	Black Shale
Point Pleasant	11691	-	12107	-	Shale/Limestone

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TUG HILL OPERATING

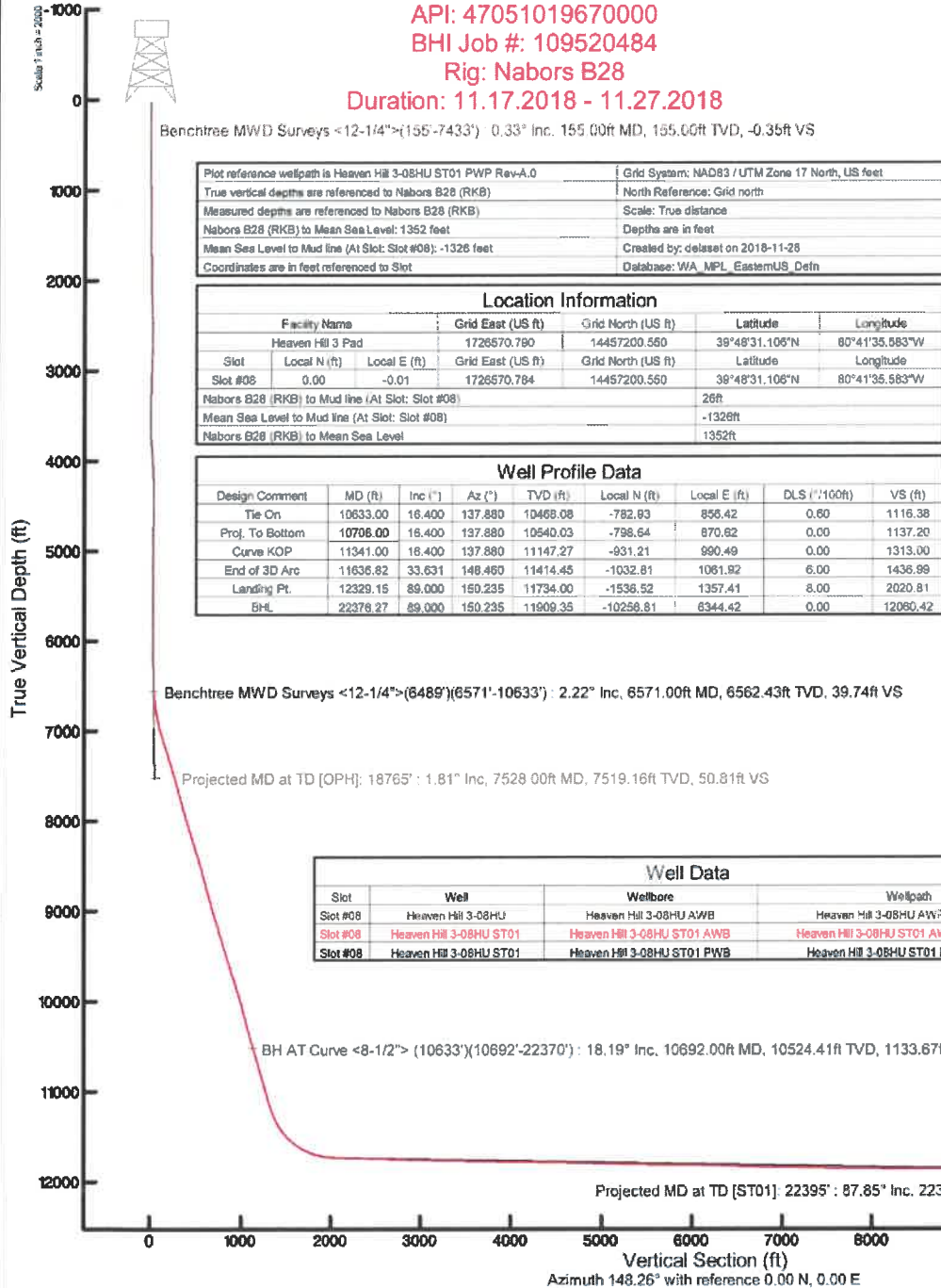
Location: Marshall County, WV Slot: Slot #08
 Field: Marshall Well: Heaven Hill 3-08HU ST01
 Facility: Heaven Hill 3 Pad Wellbore: Heaven Hill 3-08HU ST01 PWB

API: 47051019670000

BHI Job #: 109520484

Rig: Nabors B28

Duration: 11.17.2018 - 11.27.2018

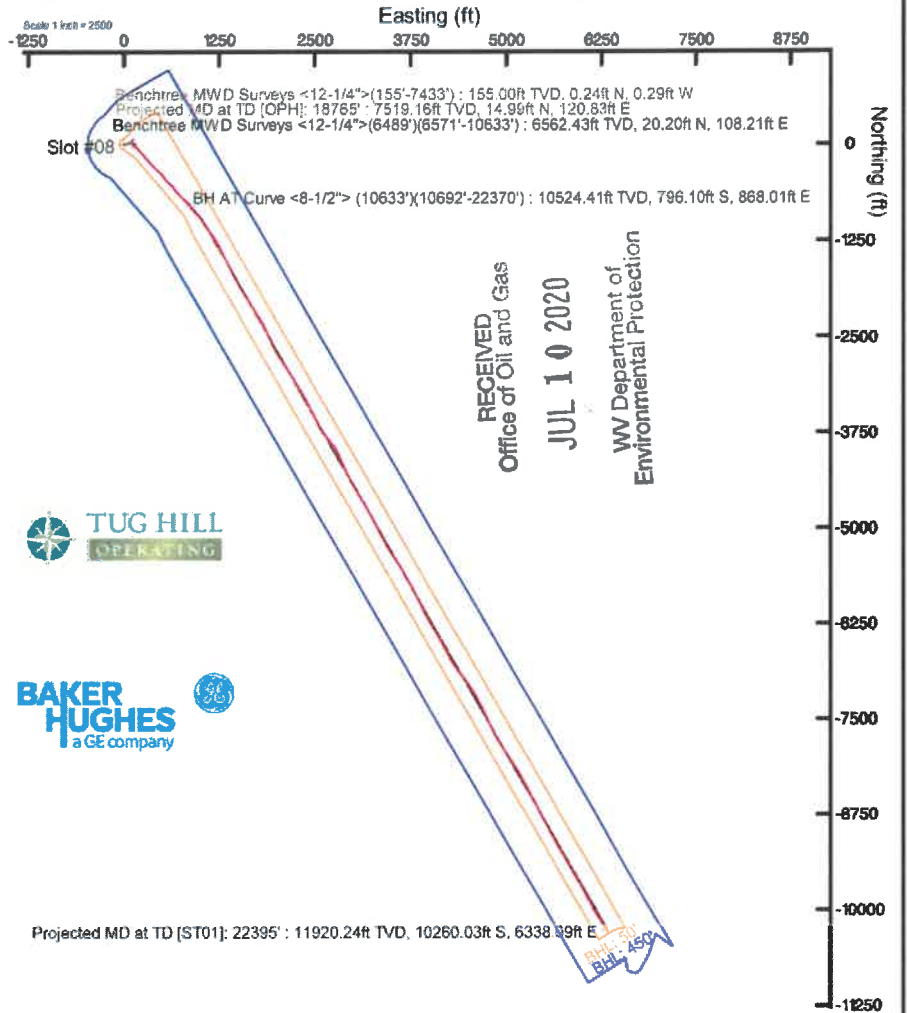


Plot reference wellpath is Heaven Hill 3-08HU ST01 PWP Rev-A.0	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to Nabors B28 (RKB)	North Reference: Grid north
Measured depths are referenced to Nabors B28 (RKB)	Scale: True distance
Nabors B28 (RKB) to Mean Sea Level: 1352 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: Slot #08): -1326 feet	Created by: delaset on 2018-11-28
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn

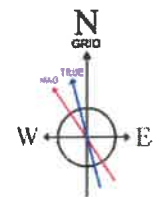
Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Heaven Hill 3 Pad	1726570.790	14457200.560	38°48'31.106"N	80°41'35.583"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Longitude
Slot #08	0.00	-0.01	1726570.784	14457200.560	80°41'35.583"W
Nabors B28 (RKB) to Mud line (At Slot: Slot #08)			26ft		
Mean Sea Level to Mud line (At Slot: Slot #08)			-1326ft		
Nabors B28 (RKB) to Mean Sea Level			1352ft		

Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	10633.00	16.400	137.880	10468.08	-782.93	856.42	1116.38
Prof. To Bottom	10706.00	16.400	137.880	10540.03	-798.64	870.62	1137.20
Curve KOP	11341.00	16.400	137.880	11147.27	-931.21	890.49	1313.00
End of 3D Arc	11636.82	33.631	148.460	11414.45	-1032.81	1061.92	1436.99
Landing Pt.	12329.15	89.000	150.235	11734.00	-1536.52	1357.41	2020.81
BHL	22378.27	89.000	150.235	11909.35	-10258.81	8344.42	12080.42

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #08	Heaven Hill 3-08HU	Heaven Hill 3-08HU AWB	Heaven Hill 3-08HU AWB Proj: 7528'
Slot #08	Heaven Hill 3-08HU ST01	Heaven Hill 3-08HU ST01 AWB	Heaven Hill 3-08HU ST01 AWP Proj: 22395'
Slot #08	Heaven Hill 3-08HU ST01	Heaven Hill 3-08HU ST01 PWB	Heaven Hill 3-08HU ST01 PWP Rev-A.0



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BGGM (1900.0 to 2020.0) Dip: 66.81° Field: 52085.9 nT
 Magnetic North is 8.89 degrees West of True North (at 18/Nov/2018)
 Grid North is 0.20 degrees East of True North
 To correct azimuth from True to Grid subtract 0.20 degrees
 To correct azimuth from Magnetic to Grid subtract 8.89 degrees

Vertical Section (ft)
 Azimuth 148.26° with reference 0.00 N, 0.00 E

Scale: 1 inch = 2000

Hydraulic Fracturing Fluid Product Component Information Disclosure

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Job Start Date:	7/20/2019
Job End Date:	8/16/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-01967-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Heaven Hill 3 8HU
Latitude:	39.80864044
Longitude:	-80.69321758
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,905
Total Base Water Volume (gal):	22,735,328
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
Fresh Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	87.90011	Density = 8.34
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.53113	

OilPerm A	Halliburton	Non-ionic Surfactant					
				Listed Below			
MC MX 8-4743	MultiChem	Additive					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
Sand-Premium White-40/70	Halliburton	Proppant					
				Listed Below			
LEGEND(TM) LD-7750W	MultiChem	Scale Control					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
FDP-S1296-17	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
LD-2950	MultiChem	Friction Reducer					
				Listed Below			

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Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.

			Crystalline silica, quartz	14808-60-7	100.00000	11.43268	
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			Hydrochloric acid	7647-01-0	7.50000	0.03923
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02937
			Sodium nitrate	7631-99-4	60.00000	0.02267
			Methanol	67-56-1	100.00000	0.00550
			Ethoxylated alcohols	Proprietary	1.00000	0.00098
			Poly(oxy-1,2-ethanediyl), alpha-tridecyl-omega-hydroxy-, branched	69011-36-5	1.00000	0.00098
			Sodium chloride	7647-14-5	5.00000	0.00044
			Phosphoric Acid Salt	Proprietary	5.00000	0.00044
			Ethanol	64-17-5	60.00000	0.00012
			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00006
			Oxyalkylated nonyl phenolic resin	Proprietary	30.00000	0.00006
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00006
			Modified thiourea polymer	Proprietary	30.00000	0.00006
			Oxyalkylated phenolic resin	Proprietary	10.00000	0.00002
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00001
			Naphthalene	91-20-3	5.00000	0.00001
			Propargyl alcohol	107-19-7	5.00000	0.00001
			Ethoxylated alcohols	Proprietary	5.00000	0.00001
			Hexadecene	629-73-2	5.00000	0.00001
			Formaldehyde	50-00-0	0.10000	0.00001
			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00000

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- * Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
- ** Information is based on the maximum potential for concentration and thus the total may be over 100%
- *** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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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HEAVEN HILL 3 LEASE
UTICA UNIT - 360.78 AC±
UTICA WELL 8HU / 8 AC±
TUG HILL OPERATING

Table with columns: No., Name, Date of No., Title, Parcel, and Area. Lists various landowners and their respective acreages.

1.159" T.H.A.D. 7.459" T.H.A.D.

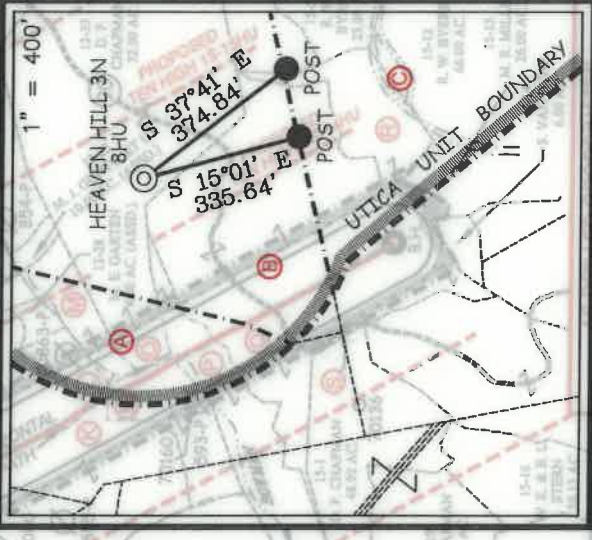
T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°47'30"

NOTES ON SURVEY

- 1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL...
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'
3. PROPOSED LATERAL OR TOP HOLE OF HEAVEN HILL 3-8HU IS WITHIN 3000' OF THE TOP HOLES...
4. AS-DRILLED DATA PROVIDED BY TUG HILL OPERATING, LLC.
5. PLAT UPDATED TO SHOW AS-DRILLED PATH.

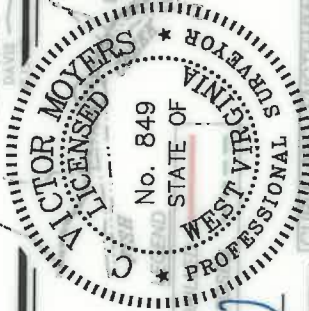
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD83 S.P.C.(FT) N. 478,874.16 E. 1,633,301.30
NAD83 GEO. LAT(-N) 39.808640 LONG(-W) 80.689218
NAD83 UTM (M) N. 4,406,563.54 E. 526,259.83
LANDING POINT
NAD83 S.P.C.(FT) N. 477,315.2 E. 1,634,832.8
NAD83 GEO. LAT(-N) 39.804410 LONG(-W) 80.688405
NAD83 UTM (M) N. 4,406,095.4 E. 526,673.4
BOTTOM HOLE
NAD83 S.P.C.(FT) N. 468,513.4 E. 1,639,473.1
NAD83 GEO. LAT(-N) 39.780422 LONG(-W) 80.670770
NAD83 UTM (M) N. 4,403,438.5 E. 528,102.9

REFERENCES



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 C. Victor Moyers



STATES TOPOGRAPHIC MAPS. DATE MAY 26, 2020. REVISED JUNE 12, 2020. OPERATORS WELL NO. HEAVEN HILL 3-8HU. WELL NO. 47-051-1967. STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500. FILE NO. 8654P8HUADR.dwg. SCALE 1" = 2000'. HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

WELL TYPE: OIL, GAS, INJECTION, WASTE LIQUID, DISPOSAL. LOCATION: GROUND = 1,339.40', PROPOSED = 1,326.35'. DISTRICT: MEADE. COUNTY: MARSHALL. SURFACE OWNER: RICKY L. WHITLATCH. ROYALTY OWNER: RICKY L. WHITLATCH, ET AL.

STATE OF WEST VIRGINIA. DIVISION OF ENVIRONMENTAL PROTECTION. OFFICE OF OIL AND GAS. QUADRANGLE: GLEN EASTON 7.5. ACREAGE: 72.82±.

LEASE NO. SEE SHEETS 1, 3, 4, & 5. FRACTURE OR STIMULATE. CLEAN OUT AND REPLUG. TARGET FORMATION: POINT PLEASANT. ESTIMATED DEPTH: TVD: 11,789' / TMD: 22,395'.

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

COUNTY NAME: MARSHALL. PERMIT: 47-051-1967.



12 Harbora Drive | P.O. Box 150 | Glenville, WV 26031 | 304-662-3634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
www.sls.com

HEAVEN HILL 3 LEASE
UTICA UNIT - 360.78 AC ±
WELL 8HU
TUG HILL OPERATING



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26031 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296

Table with columns: Well No., Date, Operator, Well Name, and other details. Includes well numbers 81-244 and various well names like MARY LOU MITCHELL and PAULA R. SEAWER.

Table with columns: Well No., Lease Name or No., Title, Period, and Operator. Includes well numbers 215-244 and various lease names like WILLIAM W CRAIG and GLENDA L CRAIG.

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FILE NO. 8654P8HUADR.dwg
DATE MAY 26, 2020
REVISED JUNE 12, 2020

OPERATORS WELL NO. HEAVEN HILL 3-8HU
API WELL NO. 47-051-1967

NO. STATE COUNTY PERMIT

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

RECEIVED
Office of Oil and Gas
JUL 10 2020
WV Department of Environmental Protection

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

PERMIT

HEAVEN HILL 3 LEASE
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1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295

Table with columns: No., Lease Name or No., Trg, Parcel, Oil and Gas Lease/Owner Continued, Parcel Area. Contains lease details for various owners and tracts.

Table with columns: No., Lease Name or No., Trg, Parcel, Oil and Gas Lease/Owner Continued, Parcel Area. Contains lease details for various owners and tracts.

COUNTY NAME PERMIT



STATE OF WEST VIRGINIA
DIVISION OF
ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



FILE NO. 8654P8HUADR.dwg
DATE MAY 26, 2020
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OPERATORS WELL NO. HEAVEN HILL 3-8HU
API WELL 47-051-1967
NO. STATE COUNTY PERMIT

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ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

HEAVEN HILL 3 LEASE
 UTICA UNIT - 360.78 AC ±
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12 Venthorn Drive | P.O. Box 150 | Glenville, WV 26031 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.545.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295

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No.	Lease Name or No.	T-#	Parcel	Oil and Gas Royalty Owner Continued	Deed Book	Page
619	10*17384	P	9-14-18	CHARLES CUNNINGHAM AND CORA CUNNINGHAM	925	316
619	10*18077	P	9-14-18	JAMES D OMBREL AND PORTIA CONWAY KIMBLE	927	261
620	10*18070	P	9-14-18	THE VIRGINIA LARAZA DIXING TRUST	926	338
621	10*18076	P	9-14-18	FRANK L. LUDERS	928	300
621	10*18095	P	9-14-18	DOBBIE L. HEST	928	330
623	10*18100	P	9-14-18	KEITH AND WAKY GOUDRY	927	251
624	10*18101	P	9-14-18	ROMIE FRAZIER JR AND CARROLL FRAZER	927	248
625	10*18102	P	9-14-18	ELIZABETH HALE LEK	927	245
625	10*18104	P	9-14-18	BERIAMIN MATHER AND REBECCA MATHER	927	246
627	10*18105	P	9-14-18	DAVID GIBSON AND REBECCA FRAZIER GIBSON	927	254
628	10*18107	P	9-14-18	WILLIAM C WEST AND DEBRA WEST	928	617
628	10*18107	P	9-14-18	JAMES MATHER	928	617
630	10*18248	P	9-14-18	DONALD A FRAZIER AND NANCY FRAZIER	930	6
631	10*18244	P	9-14-18	ANNAWELL B CROW	930	6
632	10*18245	P	9-14-18	CHARLES GREGORY WRIGHT	930	11
633	10*18248	P	9-14-18	BRYON E DOBBS AND DORIS M DOBBS	923	516
634	10*18249	P	9-14-18	PATRICIA RUTER	928	581
635	10*18256	P	9-14-18	CHARLES B. MASTERS AND WAKY MASTERS	928	578
637	10*18359	P	9-14-18	BARBARA H SAMMONS	931	306
638	10*18362	P	9-14-18	MICHELLE ANNETTE WRIGHT AND CHRISTOPHER A KELLY	931	404
639	10*18364	P	9-14-18	GARY WISHARD AND BETH A WISHARD	944	171
640	10*18346	P	9-14-18	CHRISTOPHER WRIGHT AND CRISTAL OXON	936	158
641	10*18300	P	9-14-18	JUSTIN VAN MEETER	937	638
642	10*18302	P	9-14-18	CHRISTOPHER VAN MEETER	937	640
643	10*18305	P	9-14-18	MARK C CUNNINGHAM AND JOAN CUNNINGHAM	941	335
644	10*18306	P	9-14-18	EDWIN H WHEELER AND PATRICIA B MICHEL	941	335
645	10*18394	P	9-14-18	MELVYN J FRANCES	940	381
646	10*18410	P	9-14-18	BARBARA L ANDERSON	940	152
647	10*18463	P	9-14-18	GARY DOBBS AND REGGY LEE DOBBS	941	328
648	10*18523	P	9-14-18	CHRISTIAN CHURCH DISCIPLES OF CHRIST IN FLORIDA INC	943	6
649	10*18528	P	9-14-18	PATRICK HOWELL	944	173
650	10*18565	P	9-14-18	EDMOND & DAUM PAL ATTORNEYS AT LAW	944	189
651	10*18567	P	9-14-18	GREGG S GOLDMAN	944	189
652	10*18568	P	9-14-18	JOHN WILKINSON	944	189
653	10*18568	P	9-14-18	PAUL WILKINSON AND LISA ROSS	944	177
654	10*18726	P	9-14-18	BRIAN MUSSELL AND MARY LOU MUSSELL	944	440
655	10*18963	P	9-14-18	DAVID ROSARIO JR AND JULIE A ROSARIO	945	485
656	10*19341	P	9-14-18	DAVID LEE SCOTT AND MARGARET TANSIE SCOTT	948	371
657	10*19345	P	9-14-18	THE ESTATE OF CHARLIE F GIDDEE	948	381
658	10*19352	P	9-14-18	JOHN C BURNS SUPPLEMENTAL NEEDS TRUST	948	213
659	10*19353	P	9-14-18	LAWRENCE M. CUNNINGHAM AND LINDA CUNNINGHAM	948	203
660	10*19359	P	9-14-18	DONALD SCOTT CHAMBERS	948	203
661	10*19410	P	9-14-18	WILLIAM JUDSON HENRY III AND THERESA HENRY	953	98
662	10*19411	P	9-14-18	JAMES ROBERT HENRY AND KAREN HENRY	953	100
663	10*19416	P	9-14-18	CHARLES H PETER AND SHARON DOBBS PETERS	953	468
664	10*19418	P	9-14-18	SHERILL R DOBBS AND ELLA V DOBBS	953	466
665	10*19418	P	9-14-18	STEPHEN LEEK	953	470
666	10*19419	P	9-14-18	DANIELA WEBER AND JUDITH V WEBER	953	495
667	10*19511	P	9-14-18	DONALD M BURNS SUPPLEMENTAL NEEDS TRUST JOHN CURTIS BURNS TRUSTEE	953	481
668	10*19532	P	9-14-18	VAUGHN D BURNS SUPPLEMENTAL NEEDS TRUST JOHN CURTIS BURNS TRUSTEE	953	487
669	10*19532	P	9-14-18	WILLIAM SHEPHERD AND JERRY LEA SHEPHERD	954	347
670	10*19531	P	9-14-18	PETER MCCARTY AND BEVLYN WHITE MCCARTY	955	183
671	10*19531	P	9-14-18	JUDITH A LEWANDOSKY AND ALAN E LEWANDOSKY	956	225
672	10*19531	P	9-14-18	THE ESTATE OF CHARLIE F GIDDEE STUD	956	222
673	10*19531	P	9-14-18	NICHOLAS D PAVLIK AND GLORIA K PAVLIK	956	222
674	10*19531	P	9-14-18	JAMES H WHITE AND RITA FRANKS WHITE	956	230
675	10*19531	P	9-14-18	SAMUEL ALAN MCCORD AND WINIFRED A MCKEE	956	232
676	10*19531	P	9-14-18	THOMAS D MCCORD	956	235
677	10*19531	P	9-14-18	THOMAS D MCCORD	956	237
678	10*19531	P	9-14-18	SHERON JONES	956	237
679	10*19532	P	9-14-18	ICK PAVLIK	956	239
680	10*19532	P	9-14-18	RON O CHAMBERS AND DEBRA CHAMBERS	956	258
681	10*19532	P	9-14-18	BARBARA MACDONALD BARNHART	956	260
682	10*19543	Q	9-14-18	MARY LOU CHAMBERS	956	276
683	10*19544	Q	9-14-18	PATRICIA S MADRID	956	278
684	10*19580	Q	9-14-18	LARRY L CHAMBERS	956	280
685	10*19611	Q	9-14-18	FRANK CHRISTIAN CHURCH OF MOUNDVILLE BY ROGER FRANCIS	956	781
686	10*19612	Q	9-14-18	ANGELA AND JERRY ALBERT TRUSTEES	956	289
687	10*19628	Q	9-14-18	JOHN A SHRETTZ AND CYNTHIA SHRETTZ	956	281
688	10*19628	Q	9-14-18	JOHN A SHRETTZ AND CYNTHIA SHRETTZ	956	281
689	10*19641	Q	9-14-18	GEORGE FRANKLIN AND WAKY ANN LEED	924	619
690	10*19642	Q	9-14-18	FRED T CHAMBERS AND JERRY L CHAMBERS	924	174
691	10*19644	Q	9-14-18	BARBARA BROWN CHAMBERS	924	621
692	10*19644	Q	9-14-18	CATHERINE ELLEN CHAMBERS	924	623
693	10*19645	Q	9-14-18	DOUGLAS C AND OWEN D LEWTON	925	128
694	10*19645	Q	9-14-18	DAVID ALAN WILKINSON AND PATRICIA LYN WILKINSON	924	178
695	10*19648	Q	9-14-18	WILLIAM H AND MERVY C COTTON	924	176
696	10*19649	Q	9-14-18	DOUGLAS R BOVEN	906	475
697	10*19511	Q	9-14-18	JEAN ANN MCFADDEN	906	459
698	10*19552	Q	9-14-18	TERRY LEE LASAVAGE	906	443
699	10*19554	Q	9-14-18	CHARLES CARSON AND MARY KAY CARSON	906	400
700	10*19555	Q	9-14-18	RON D BOWEN AND JOYSONNE B BOWEN	907	415
701	10*19560	Q	9-14-18	JAMES A HALE	907	415
702	10*19560	Q	9-14-18	JANICE C MALE	907	415
703	10*19568	Q	9-14-18	ROBERT E BOWEN AND MARCIA B BOWEN	907	420
704	10*19570	Q	9-14-18	LINDA A BARBER AND MICHAEL W MINER	907	484
705	10*19576	Q	9-14-18	HAROLD C MCFADDEN	907	480
707	10*19581	Q	9-14-18	HELEN J SCHILLING	907	489
708	10*19582	Q	9-14-18	DOMA BROCK BRAMMER	907	429
709	10*19582	Q	9-14-18	RONALD J PRCA AND JERRY L CHAMBERS PRCA	924	186
710	10*19576	Q	9-14-18	SARAH L BRIGGS	924	177
711	10*19573	Q	9-14-18	ERNEST CARL AUGUSTINE JR	924	188
712	10*19485	Q	9-14-18	FREDERICK M LEWTON	924	186
713	10*19948	Q	9-14-18	STEVEN R LUTT AND BRANNE LUTT	924	138
714	10*19949	Q	9-14-18	JAY E LEWTON AND CELIA E LEWTON	924	134
715	10*19990	Q	9-14-18	RUSSELL HENRY	924	132
716	10*19992	Q	9-14-18	DONALD T. HOGAN AND JUDITH HOGAN	924	130
717	10*19992	Q	9-14-18	ROSSEMARY J ABRAHAM	924	130
718	10*19992	Q	9-14-18	LINDA C ABRAHAM	924	148
719	10*19992	Q	9-14-18	JULIA HODDER	924	150
720	10*19999	Q	9-14-18	DIANE ELSE RAMSEY	924	146
721	10*19995	Q	9-14-18	ROBERTA JANE PARRISON	924	142
722	10*19759	Q	9-14-18	LAURA E TOTTEREN AND LORNE R TOTTEREN	924	134
723	10*19751	Q	9-14-18	UNITED CHRISTIAN MISSIONARY SOCIETY	924	144
724	10*19751	Q	9-14-18	UNITED CHRISTIAN MISSIONARY SOCIETY	924	144
725	10*19720	Q	9-14-18	CHRISTINE L KIDD	924	138
726	10*19720	Q	9-14-18	MARLEO R HUNT JR AND ELIZABETH A HUNT	924	138
727	10*19796	Q	9-14-18	ROBERT M CHAMBERS AND CHARLOTTE A CHAMBERS	924	160
728	10*19743	Q	9-14-18	ANDREW M HODDER AND DINAH A HODDER	924	155
729	10*19745	Q	9-14-18	FREDERICK J HENRY AND CATHY J HENRY	924	162
730	10*19748	Q	9-14-18	ALAN H DEGARMO AND MARY K DEGARMO	924	154
731	10*19752	Q	9-14-18	DEBORAH H MCGONN	924	184
732	10*19747	Q	9-14-18	DONALD L WOOD	923	523
733	10*19747	Q	9-14-18	UNITED DISCIPLES OF CHRIST CHURCH	924	129
734	10*19764	Q	9-14-18	HOWARD L WOOD AND BETH E WOOD	923	505
737	10*19795	Q	9-14-18	GREGORY DEANE WIBLE AND CAROLYN JEAN WIBLE	923	507
738	10*19703	Q	9-14-18	SUE ANN WOOD	923	470
739	10*19702	Q	9-14-18	TAMMY BETH RAMSEY	923	500
740	10*19702	Q	9-14-18	GREG WISHARD AND BETH A WISHARD	923	500
741	10*19816	Q	9-14-18	JAMES H MCGONN AND DEBRA MCGONN	944	133
742	10*19523	Q	9-14-18	CHRISTIAN CHURCH DISCIPLES OF CHRIST IN FLORIDA INC	943	6
743	10*19593	Q	9-14-18	SUSAN ASTON	936	505
744	10*19946	Q	9-14-18	THE ESTATE OF CHARLIE F GIDDEE	948	201
745	10*19952	Q	9-14-18	JOHN C BURNS SUPPLEMENTAL NEEDS TRUST	948	212
746	10*19952	Q	9-14-18	WILLIAM JUDSON HENRY III AND THERESA HENRY	948	212
747	10*19952	Q	9-14-18	JAMES ROBERT HENRY AND KAREN HENRY	948	212
748	10*19952	Q	9-14-18	DANITA WEBER AND JUDITH V WEBER	948	212

FILE NO. 8654P8HUADR.dwg

DATE MAY 26, 20 20
 REVISED JUNE 12, 20 20

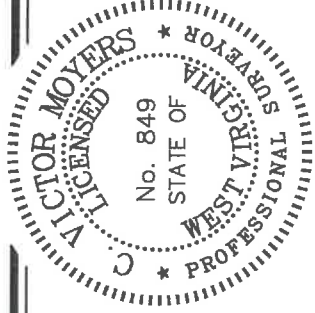
OPERATORS WELL NO. HEAVEN HILL 3-8HU

API WELL 47 - 051 - 1967

NO. STATE COUNTY PERMIT

WELL OPERATOR TUG HILL OPERATING, LLC
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
 FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
 CT CORPORATION SYSTEM
 ADDRESS 5400 D BIG TYLER ROAD
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COUNTY NAME
 STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS

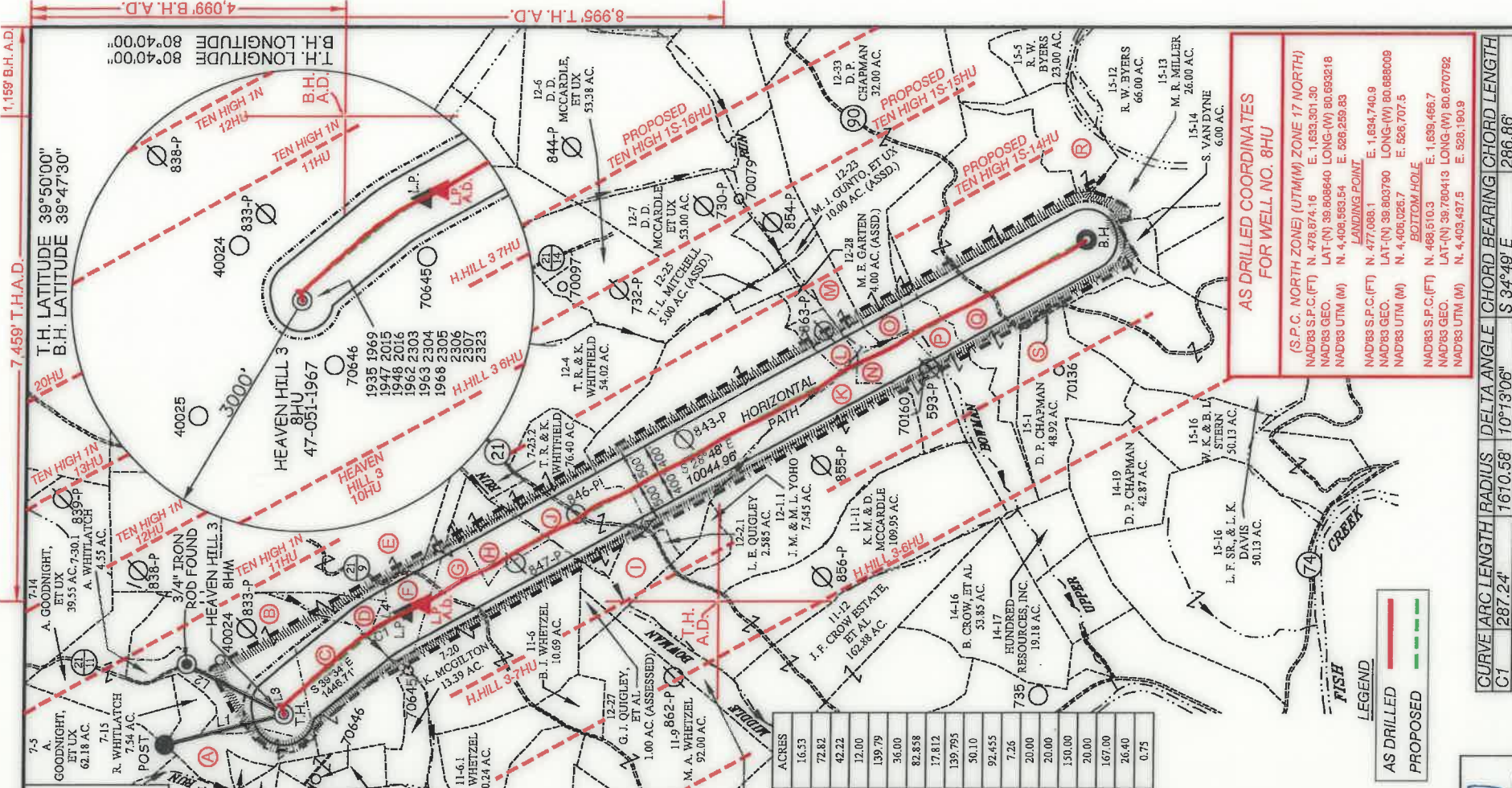
PERMIT
 P.S. C. Victor Moyers
 849

RECEIVED
 Office of Oil and Gas

JUL 1 0 2020

WV Department of
 Environmental Protection

**HEAVEN HILL 3 LEASE
UTICA UNIT - 360.78 AC ±
WELL 8HU
TUG HILL OPERATING**



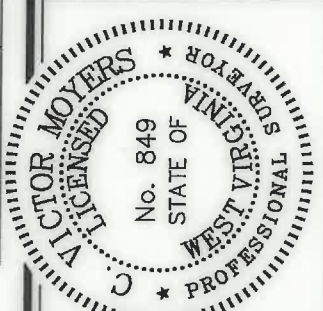
AS DRILLED (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD83 S.P.C.(FT) N. 478,874.16 E. 1,633,301.30
 NAD83 GEO. LAT.(N) 39.8008640 LONG.(W) 80.693218
 NAD83 UTM (M) N. 4,408,593.54 E. 526,259.83
 LANDING POINT
 NAD83 S.P.C.(FT) N. 477,068.1 E. 1,634,740.9
 NAD83 GEO. LAT.(N) 39.8007980 LONG.(W) 80.698009
 NAD83 UTM (M) N. 4,406,026.7 E. 526,707.5
 BOTTOM HOLE
 NAD83 S.P.C.(FT) N. 468,510.3 E. 1,639,466.7
 NAD83 GEO. LAT.(N) 39.789413 LONG.(W) 80.670792
 NAD83 UTM (M) N. 4,403,437.5 E. 528,190.9

AS DRILLED CHORD BEARING CHORD LENGTH
 C1 287.24' 1670.58' 10°13'06" S 34°49' E 236.86'

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

LEGEND

- UNIT BOUNDARY
- LEASED TRACTS INSIDE
- UNIT BOUNDARY
- SURFACE LINE
- PROPOSED UTICA
- WELL LATERAL
- 400' OFFSET LINE
- 500' OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE SHEETS 1,3,4,& 5)



STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS

TAG	SURFACE OWNER	PARCEL ACRES
A	RICKY L. WHITLATCH	9-7-31 16.53
B	RICKY L. WHITLATCH	9-7-30 72.82
C	RICKY L. WHITLATCH	9-7-21 42.22
D	LAWRENCE & SHIRLEY CONKLE ESTS.	9-7-22 12.00
E	LAWRENCE & SHIRLEY CONKLE ESTS.	9-7-24 139.79
F	LARRY J. WHEITZEL, ET UX	9-7-23 36.00
G	BRENDA J. WHEITZEL	9-11-7 82.838
H	BRENDA J. WHEITZEL	9-11-7 17.812
I	GERALD W. QUIGLEY, ET AL	9-12-2 139.795
J	WNEK FAMILY IRREVOCABLE TRUST	9-11-8 50.10
K	KENNETH M. & DELORES MCCARDLE LIVING TRUST	9-12-1 92.455
L	MYRTLE ELIZABETH GARTEN	9-12-30 7.26
M	GARY L. DOBBS	9-12-37 20.00
N	HARMON & MARY CROW	9-12-31 150.00
O	DAVID P. CHAPMAN	9-12-32 150.00
P	MYRTLE ELIZABETH GARTEN	9-14-18 20.00
Q	SUSAN VAN DYNE	9-15-3 167.00
R	ROBERT FRANK KOTSMAN, ET AL	9-15-4 26.40
S	DAVID P. CHAPMAN	9-15-2 0.75

LINE	BEARING	DISTANCE
L1	N 14°24' W	1598.16'
L2	N 27°23' E	1423.2'
L3	N 75°57' E	113.35'
L4	S 30°01' E	272.23'

SLS
 FROM THE GROUND UP
 12 Verbon Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5654
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295
 slsw.com

P.S. *C. Victor Moyers*
 849

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
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 NAD83 GEO. LAT.(N) 39.780422 LONG.(W) 80.670770
 NAD83 UTM (M) N. 4,403,438.5 E. 528,192.9

SCALE 1" = 2000' FILE NO. 8654P8HUADR.dwg
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 OPERATORS WELL NO. HEAVEN HILL 3-8HU
 API WELL NO. 47-051-1967
 NO. STATE COUNTY PERMIT

WELL OPERATOR TUG HILL OPERATING, LLC
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
 FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
 ADDRESS 5400 D BIG TYLER ROAD
 CHARLESTON, WV 25313

HEAVEN HILL 3 LEASE
UTICA UNIT - 360.78 AC ±
WELL 8HU
TUG HILL OPERATING

7,459' T.H.A.D.
1,159' B.H.A.D.

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°47'30"

NOTES ON SURVEY

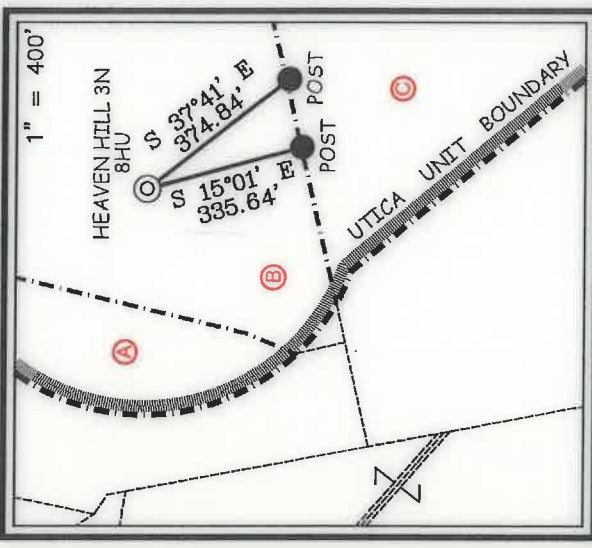
1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS > 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'
3. PROPOSED LATERAL OR TOP HOLE OF HEAVEN HILL 3-8HU IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF PROPOSED WELLS HEAVEN HILL 3-6HU, HEAVEN HILL 3-7HU, HEAVEN HILL 3-10HU, TEN HIGH 1S-14HU, TEN HIGH 1S-15HU, TEN HIGH 1S-16HU, TEN HIGH 1N-11HU, AND TEN HIGH 1N-12HU, TEN HIGH 1N-13HU, AND TEN HIGH 1N-20HU.
4. AS-DRILLED DATA PROVIDED BY TUG HILL OPERATING, LLC.
5. PLAT UPDATED TO SHOW AS-DRILLED PATH.

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"

NO.	Owner Name or No.	Tr.	Parcel	Oil and Gas Rights, Overlap	Heads of Well	Dist
1	10*15557	A	9-7-21	RICKY L. WHITLATCH ET AL	780	216
2	10*15557	B	9-7-21	RICKY L. WHITLATCH ET AL	780	216
3	10*15557	C	9-7-21	RICKY L. WHITLATCH ET AL	780	216
4	10*15585	D	9-7-21	ANNA EMMERSON A/VA ANNIE ASTON	864	603
5	10*15586	D	9-7-21	BRANDY J. WHITEL	865	603
6	10*15589	D	9-7-21	CHARLES A. NINE	895	635
7	10*15589	D	9-7-21	DAVID E. NINE	895	635
8	10*15584	D	9-7-21	DAVID HEINZEROTH	856	613
9	10*15584	D	9-7-21	DAVID HEINZEROTH	856	613
10	10*15589	D	9-7-21	DELA M. BURNEY A/VA MAXINE ASTON	844	595
11	10*15579	D	9-7-21	DIANE ASTON	849	574
12	10*15587	D	9-7-21	DONALD ASTON	849	574
13	10*15587	D	9-7-21	DOUGLAS PAUL HEINZEROTH BY HIS AIF	871	195
14	10*15584	D	9-7-21	EMILY M. HEINZEROTH	897	496
15	10*15583	D	9-7-21	EMILY M. HEINZEROTH	848	271
16	10*15540	D	9-7-21	EMMA ANNE CAUS A/VA EMA ASTON	848	271
17	10*15564	D	9-7-21	GEORGE E. HENNINGER	865	612
18	10*15564	D	9-7-21	GLADYS M. NINE	865	612
19	10*15520	D	9-7-21	GLADYS NICHOLSON	840	519
20	10*15568	D	9-7-21	GLEN MATTHEW LAURITSON	873	324
21	10*15584	D	9-7-21	HEMY W. ASTON	847	334
22	10*15584	D	9-7-21	ISABEL ASTON / IZABELLE ASTON	885	196
23	10*15584	D	9-7-21	JANE L. NINE	847	337
24	10*15520	D	9-7-21	JANE L. NINE	847	337
25	10*15520	D	9-7-21	JAY LEROY NINE	855	481
26	10*15579	D	9-7-21	JAY LEROY NINE	855	481
27	10*15522	D	9-7-21	JAY LEROY NINE	840	351
28	10*15589	D	9-7-21	CHARLES BERRY	855	509
29	10*15587	D	9-7-21	CHANNUM M. ENGLE AND KEVIN E. ENGLE	859	594
30	10*15587	D	9-7-21	DALE G. GOODMAN	859	596
31	10*15583	D	9-7-21	DANA BERRY COPLAND	855	532
32	10*15579	D	9-7-21	DANA BERRY COPLAND	855	532
33	10*15726	D	9-7-21	JENNIFER SEAVER	853	272
34	10*15726	D	9-7-21	DANIEL W. HEINZEROTH AND KATHLEEN E. HEINZEROTH	814	224
35	10*15694	D	9-7-21	DANIELLE BONNA OSTER AND LOUIS MICHAEL OSTER	850	501
36	10*15694	D	9-7-21	DANNY SHAWN KENNIS AND ARIY LYNN KENNIS	850	501
37	10*15694	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
38	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
39	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
40	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
41	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
42	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
43	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
44	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
45	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
46	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
47	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
48	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
49	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
50	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
51	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
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60	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
61	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
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63	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
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65	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
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67	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
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69	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
70	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
71	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
72	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
73	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
74	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
75	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
76	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
77	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
78	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
79	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289
80	10*15613	D	9-7-21	JOSEPH ASTON JR BY ATTORNEY IN FACT CORNIE LYONS	848	289

T.H. A.D.

REFERENCES



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. *C. Victor Moyers*
849

STATES TOPOGRAPHIC MAPS.
DATE MAY 26, 2020
REVISED JUNE 12, 2020
OPERATORS WELL NO. HEAVEN HILL 3-8HU
API WELL NO. 47-051-1967
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

MINIMUM DEGREE OF ACCURACY 1/2500
FILE NO. 8654P8HUADR.dwg
SCALE 1" = 2000'
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

WELL TYPE: OIL GAS LIQUID WASTE IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: GROUND = 1,339.40' PROPOSED = 1,326.35'
 ELEVATION WATERSHED LOWER BOWMAN RUN OF FISH CREEK (HUC 10)
 DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'
 SURFACE OWNER RICKY L. WHITLATCH ACREAGE 72.82±
 ROYALTY OWNER RICKY L. WHITLATCH, ET AL - SEE SHEETS 1, 3, 4, & 5 ACREAGE 72.82±
 PROPOSED WORK: LEASE NO. SEE SHEETS 1, 3, 4, & 5
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD
 FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER
 PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION POINT PLEASANT
 ESTIMATED DEPTH TVD: 11,789' / TMD: 22,395'

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