

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

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OCT 04 2022

WV Department of  
Environmental Protection

API 47-051-02201 County Marshall District Franklin  
Quad New Martinsville 7.5' Pad Name Goudy Field/Pool Name \_\_\_\_\_  
Farm name TH Exploration III, LLC Well Number Goudy 1S-10HM  
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 4,398,583.56 Easting 514,678.60  
Landing Point of Curve Northing 4,397,864.53 Easting 515,005.68  
Bottom Hole Northing 4,394,675.85 Easting 516,729.78

Elevation (ft) 1242.0' 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 6/27/2019 Date drilling commenced 9/9/2021 spud: 10/28/2020 big rig: 5/11/2021 Date drilling ceased 6/23/2021  
Date completion activities began 9/9/2021 Date completion activities ceased 10/14/2021  
Verbal plugging (Y/N) N Date permission granted n/a Granted by n/a

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 889' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1506' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 788-794', 883-889' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) \_\_\_\_\_

APPROVED  
Reviewed by:  
[Signature]  
10-11-2022  
10/14/2022

API 47-051-02201 Farm name TH Exploration III, LLC Well number Goudy 1S-10HM

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"	1,004'	NEW	48#	N/A	Y
Coal	17 1/2"	13 3/8"	1,004'	NEW	48#	N/A	Y
Intermediate 1	12 1/4"	9 5/8"	2,647'	NEW	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 1/2"	5 1/2"	19,415'	NEW	20#	N/A	Y
Tubing		2 3/8"	9,708'	NEW	4.7#	N/A	Y
Packer type and depth set							

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Comment Details \_\_\_\_\_

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CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	A	547	15.6	1.18	646	0	8
Surface	A	1040	15.6	1.199	1246.96	0	8
Coal	A	1040	15.6	1.199	1246.96	0	8
Intermediate 1	A	800	15	1.378	1102.4	0	8
Intermediate 2							
Intermediate 3							
Production	A	3885	14.5	1.3	5050.5	0	8
Tubing							

Drillers TD (ft) 19,453' \_\_\_\_\_ Loggers TD (ft) n/a \_\_\_\_\_

Deepest formation penetrated Marcellus \_\_\_\_\_ Plug back to (ft) n/a \_\_\_\_\_

Plug back procedure n/a \_\_\_\_\_

Kick off depth (ft) 6,787' \_\_\_\_\_

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 \_\_\_\_\_

10/14/2022

API 47- 051 - 02201 Farm name TH Exploration III, LLC Well number Goudy 1S-10HM

**PERFORATION RECORD**

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	*see attached				

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Please insert additional pages as applicable.

**STIMULATION INFORMATION PER STAGE**

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
	attached							

Please insert additional pages as applicable.

**10/14/2022**

API 47- 051 - 02201 Farm name TH Exploration III, LLC Well number Goudy 1S-10HM

PRODUCING FORMATION(S)	DEPTHS	
MARCELLUS	6435'-6513'	TVD 7372'-19453' MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 2890 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST 4 hrs

OPEN FLOW Gas 239.00 mcfpd Oil 264 bpd NGL \_\_\_\_\_ bpd Water 840 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
*see attached	0		0		

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Please insert additional pages as applicable.

Drilling Contractor Nabors Drilling USA  
Address 505 West Greens Road, Suite 1000 City Houston State TX Zip 77067

Logging Company n/a  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company Halliburton Energy Services, Inc.  
Address 121 Champion Way, Suite 200 City Canonsburg State PA Zip 15317

Stimulating Company PRO-FRAC  
Address 333 Shops Boulevard City Willow Park State TX Zip 76087

Please insert additional pages as applicable.

Completed by Amy L. Morris Telephone 304-376-0111  
Signature *Amy L. Morris* Title Permitting Specialist - Appalachia Date 10-3-2022

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

10/14/2022

**GOUDY 1S-10HM**  
**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	74.00	7902	6861	3420	209660	6,220	0
2	81.00	7401	5169	4017	466000	9,023	0
3	90.00	7801	5115	4574	464920	9,014	0
4	89.00	7664	5419	4749	455520	8,909	0
5	88.00	7508	4878	4765	390000	8,032	0
6	89.00	7389	4998	4828	464000	8,945	0
7	88.00	7416	5012	4873	459560	8,796	0
8	89.00	7389	5035	4762	465280	8,819	0
9	90.00	7404	5016	4899	466180	8,968	0
10	88.00	7436	4940	5184	467220	8,844	0
11	88.00	7460	4984	4962	466900	8,940	0
12	89.00	7497	5013	4831	462460	8,691	0
13	89.00	7469	5193	3985	459880	8,731	0
14	90.00	7305	5045	5009	465780	8,868	0
15	90.00	7659	4836	4496	466200	8,981	0
16	88.00	7163	5285	4713	460760	8,859	0
17	90.00	7299	5026	4940	466360	8,925	0
18	89.00	7151	4935	5022	472500	9,103	0
19	89.00	7175	4947	4393	469530	8,796	0
20	90.00	7210	4790	4956	463920	8,824	0
21	89.00	7189	5368	4506	466900	8,891	0
22	90.00	7137	4951	4430	466200	8,848	0
23	88.00	7126	4804	4781	466500	8,771	0
24	90.00	7421	5017	4898	463980	8,716	0
25	89.00	7514	5113	4772	474570	8,820	0
26	90.00	7536	5215	4696	469120	8,767	0
27	89.00	7284	5141	4776	467000	8,842	0
28	90.00	7536	5009	4211	471920	8,783	0
29	89.00	7339	4770	4211	464060	8,698	0
30	90.00	7398	5095	4477	398860	7,928	0
31	90.00	7286	4762	3971	466240	8,825	0
32	89.00	7140	5160	4583	467060	8,721	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	89.00	7122	4709	4159	472460	8,789	0
34	89.00	7138	4953	4178	456880	8,629	0
35	88.00	7033	5111	4497	466440	8,814	0
36	88.00	7036	5003	4942	462440	8,643	0
37	88.00	6857	5253	4182	467500	8,757	0
38	90.00	6913	5760	4402	465920	8,551	0
39	89.00	6896	5285	4229	470760	8,741	0
40	89.00	6974	5412	4572	465680	8,671	0
41	89.00	6876	5222	4921	467560	8,683	0
42	90.00	6908	4971	4985	466100	8,626	0
43	89.00	6812	5263	4960	469280	8,667	0
44	90.00	6984	4927	4608	459360	8,578	0
45	86.00	7085	4722	4139	463880	8,953	0
46	89.00	7031	5257	4177	464640	8,682	0
47	89.00	6788	4969	3932	468790	8,704	0
48	88.00	6902	5198	4280	467940	8,536	0
49	89.00	6725	5152	4305	470400	8,635	0
50	90.00	6813	5482	3479	455380	8,308	0
51	90.00	6841	5401	4036	464660	8,625	0
52	89.00	6884	5389	3669	461560	8,567	0
53	89.00	6891	4616	4347	468360	8,725	0
54	90.00	6828	4910	3502	463740	8,474	0
55	89.00	6844	6164	4025	472500	8,526	0
56	89.00	6758	5766	3847	467800	8,470	0
57	87.00	7094	5731	3659	471880	9,145	0
58	89.00	6414	5777	3450	474740	8,558	0
59	89.00	6606	5841	3747	463300	8,400	0

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## Goudy 1S-10HM

### Lithology Information

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	1896	1996	1896	1996	Sandstone
Big Lime	1996	2077	1996	2077	Limestone
Big Injun	2077	2385	2077	2385	Sandstone
Weir	2385	2575	2385	2575	Sandstone
Berea	2575	2935	2575	2935	Sandstone
Gordon	2935	2997	2935	2997	Sandstone
Fifty Foot	2997	3529	2997	3529	Sandstone
Speechley	3529	4884	3529	4884	Sandstone
Benson	4884	5258	4884	5258	Sandstone
Alexander	5258	5832	5258	6359	Siltstone
Rhinestreet	5832	6245	6359	6913	Black Shale
Middlesex	6245	6328	6913	7049	Black Shale
Geneseo/Burkett	6328	6358	7049	7110	Black Shale
Tully	6358	6381	7110	7162	Limestone
Hamilton	6381	6399	7162	7213	Gray Shale
Marcellus	6399	-	7213	-	Black Shale

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**GOUDY 1S-10HM  
PEFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	9/9/2021	19,221	19,270	48	Marcellus
2	9/10/2021	19,021	19,166	48	Marcellus
3	9/11/2021	18,846	18,992	48	Marcellus
4	9/12/2021	18,672	18,817	48	Marcellus
5	9/12/2021	18,497	18,643	48	Marcellus
6	9/13/2021	18,323	18,468	48	Marcellus
7	9/14/2021	18,148	18,293	48	Marcellus
8	9/14/2021	17,973	18,119	48	Marcellus
9	9/15/2021	17,799	17,944	48	Marcellus
10	9/15/2021	17,624	17,770	48	Marcellus
11	9/16/2021	17,450	17,595	48	Marcellus
12	9/17/2021	17,275	17,420	48	Marcellus
13	9/17/2021	17,100	17,246	48	Marcellus
14	9/18/2021	16,926	17,071	48	Marcellus
15	9/18/2021	16,751	16,897	48	Marcellus
16	9/19/2021	16,577	16,722	48	Marcellus
17	9/20/2021	16,402	16,547	48	Marcellus
18	9/20/2021	16,227	16,373	48	Marcellus
19	9/21/2021	16,053	16,198	48	Marcellus
20	9/21/2021	15,878	16,024	48	Marcellus
21	9/22/2021	15,704	15,849	48	Marcellus
22	9/23/2021	15,529	15,674	48	Marcellus
23	9/23/2021	15,354	15,500	48	Marcellus
24	9/24/2021	15,180	15,325	48	Marcellus
25	9/24/2021	15,005	15,151	48	Marcellus
26	9/25/2021	14,831	14,976	48	Marcellus
27	9/25/2021	14,656	14,801	48	Marcellus
28	9/26/2021	14,481	14,627	48	Marcellus
29	9/26/2021	14,307	14,452	48	Marcellus
30	9/27/2021	14,132	14,278	48	Marcellus
31	9/27/2021	13,958	14,103	48	Marcellus
32	9/28/2021	13,783	13,928	48	Marcellus
33	9/28/2021	13,608	13,754	48	Marcellus
34	9/29/2021	13,434	13,579	48	Marcellus
35	9/29/2021	13,259	13,405	48	Marcellus
36	9/30/2021	13,085	13,230	48	Marcellus
37	9/30/2021	12,910	13,055	48	Marcellus
38	10/1/2021	12,735	12,881	48	Marcellus
39	10/1/2021	12,561	12,706	48	Marcellus
40	10/2/2021	12,386	12,532	48	Marcellus
41	10/2/2021	12,212	12,357	48	Marcellus

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Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
42	10/3/2021	12,037	12,182	48	Marcellus
43	10/3/2021	11,862	12,008	48	Marcellus
44	10/4/2021	11,688	11,833	48	Marcellus
45	10/4/2021	11,513	11,659	48	Marcellus
46	10/5/2021	11,339	11,484	48	Marcellus
47	10/5/2021	11,164	11,309	48	Marcellus
48	10/6/2021	10,989	11,135	48	Marcellus
49	10/6/2021	10,815	10,960	48	Marcellus
50	10/6/2021	10,640	10,786	48	Marcellus
51	10/7/2021	10,466	10,611	48	Marcellus
52	10/10/2021	10,291	10,436	48	Marcellus
53	10/11/2021	10,116	10,262	48	Marcellus
54	10/12/2021	9,942	10,087	48	Marcellus
55	10/13/2021	9,767	9,913	48	Marcellus
56	10/13/2021	9,593	9,738	48	Marcellus
57	10/13/2021	9,418	9,563	48	Marcellus
58	10/14/2021	9,243	9,389	48	Marcellus
59	10/14/2021	9,069	9,214	48	Marcellus

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10/14/2022

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/9/2021
Job End Date:	10/14/2021
State:	West Virginia
County:	Marshall
API Number:	47-051-02201-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Goudy 1S-10M
Latitude:	39.73701800
Longitude:	-80.82869400
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,480
Total Base Water Volume (gal):	21,518,910
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	86.56463	None
Sand (40/70 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	8.85770	None
Sand (100 Mesh Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	3.05511	None
Sand (30/50 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	1.14839	None
Hydrochloric Acid (7.5%)	CNR	Acidizing	Water	7732-18-5	85.00000	0.22041	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.09594	None
StimStream FR 9800	Chemstream	Friction Reducer	Alkanes, C16-20-iso-	90622-59-6	25.00000	0.01702	None
			Butene, homopolymer	9003-29-6	25.00000	0.01702	None
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00204	None

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MC MX 9-4743	Multi-Chem	Biocide					
			Sodium Nitrate	7631-99-4	60.00000	0.02203	None
LD-7750W	Multi-Chem	Scale Inhibitor					
			Methanol	67-56-1	60.00000	0.00500	None
			Phosphonic Acid Salt	Proprietary	5.00000	0.00042	None
ProHib 100	CNR	Acid Inhibitor					
			2-Butoxyethanol	111-76-2	60.00000	0.00048	None
			Proprietary material	68391-11-7	30.00000	0.00024	None
			Proprietary non-ionic surfactant	9043-30-5	20.00000	0.00016	None
			Proprietary corrosion inhibitor	104-55-2	10.00000	0.00008	None
			Proprietary ethoxylated alcohol	84133-50-6	10.00000	0.00008	None
ProFE 105	CNR	Iron Control					
			Citric Acid	77-92-9	20.00000	0.00019	None
			Acetic Acid	64-19-7	5.00000	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	85.00000	0.22041	
			Butene, homopolymer	9003-29-6	25.00000	0.01702	
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00204	
			Phosphonic Acid Salt	Proprietary	5.00000	0.00042	
			Proprietary material	68391-11-7	30.00000	0.00024	
			Proprietary non-ionic surfactant	9043-30-5	20.00000	0.00016	
			Proprietary ethoxylated alcohol	84133-50-6	10.00000	0.00008	
			Proprietary corrosion inhibitor	104-55-2	10.00000	0.00008	
			Acetic Acid	64-19-7	5.00000	0.00005	

\* 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%

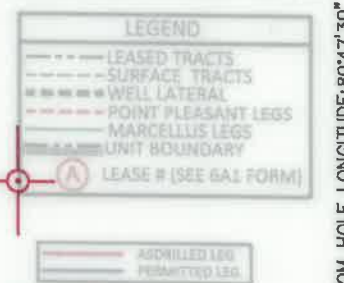
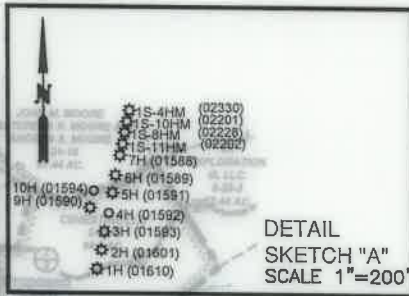
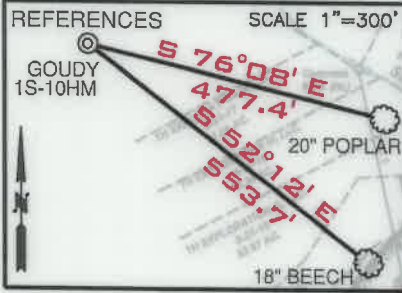
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

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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GOUDY LEASE  
WELL 1S-10HM  
781.6183± ACRES

TOP HOLE LATITUDE: 39°45'00"  
BOTTOM HOLE LATITUDE: 39°42'30"



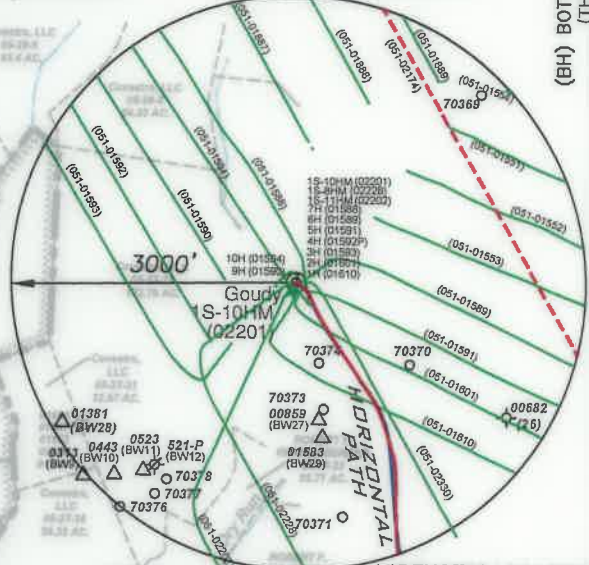
**SURFACE HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,398,583.56  
E) 514,678.60

**LANDING POINT 1**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,397,864.53  
E) 515,005.68

**AZIMUTH POINT 1**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,397,821.58  
E) 515,007.05

**AZIMUTH POINT 2**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,397,463.89  
E) 515,099.79

**BOTTOM HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,394,675.85  
E) 516,729.78



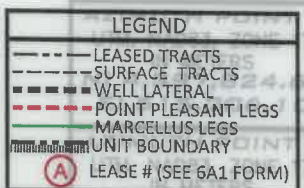
**NOTES**

- 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, 2019. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
- WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
- BOUNDARIES ALONG ROADWAYS ARE BASED UPON MEMORANDUM BY DICKIE, MCCAMEY & CHILCOTE, P.C. FILE 0058304.0401147

LINE	BEARING	DISTANCE
L1	N 11°55' W	2277.29'
L2	S 52°31' E	1756.41'
L3	S 00°52' E	141.04'

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	S 55°42' E	18.05'	27.26'	19.46'
C2	S 61°59' E	21.77'	49.61'	21.96'
C3	S 42°34' E	186.27'	278.33'	168.85'
C4	S 31°03' E	1128.03'	5485.32'	1128.63'
C5	S 24°11' E	854.39'	1419.85'	557.97'
C6	S 05°52' E	767.00'	1925.23'	772.16'
C7	S 13°35' E	1212.73'	2591.76'	1224.44'

ASDRILLED LEG  
PERMITTED LEG



FILE NUMBER 515,119.86

DRAWING NUMBER GOUDY\_1S-10HM\_REV5

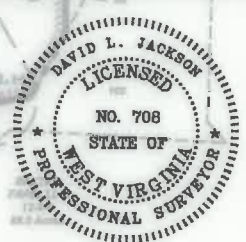
SCALE 1" = 2000'

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



JACKSON SURVEYING INC.  
P.O. Box 1460  
Clarksburg, WV 26302  
304-823-5851

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

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

LOCATION ELEVATION 1242.0' WATERSHED (HUC 10) FRENCH CREEK - OHIO RIVER

DISTRICT FRANKLIN COUNTY MARSHALL

QUADRANGLE NEW MARTINSVILLE 7.5' LEASE NUMBER scale SEE WW-6A1 FORM

SURFACE OWNER TH EXPLORATION III, LLC. ACREAGE 10/14/2022

OIL & GAS ROYALTY OWNER PPG INDUSTRIES, INC., ET AL, THEIR SUCCESSORS OR ASSIGNS LEASE ACREAGE 70.0

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_

PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE (SPECIFY) **ASDRILLED**

TARGET FORMATION Marcellus

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DARREN BROWN, CT CORP

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107 ADDRESS 5098 WASHINGTON STREET WEST, SUITE 407 CHARLESTON, WV 25313-1561

DATE: OCTOBER 03, 2022

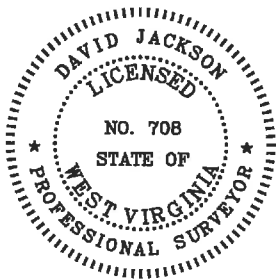
OPERATORS WELL NO. GOUDY 1S-10HM  
API WELL NO. 47-051-02201  
STATE COUNTY PERMIT

ESTIMATED DEPTH TVD 6,513' TMD: 19,453'

PAGE 2 OF 4

**GOUDY LEASE  
WELL 1S-10HM  
781.6183± ACRES**

Number	TAX MAP -PARCEL	SURFACE OWNER	ACRES
S1	C 05-28-12	TH Exploration III, LLC	20.226
S2	D 05-28-11	Carol A. Martin	24.681
S3	E 05-27-19	Covestro, LLC	33.786
S4	F 05-27-20	Covestro LLC	93.027
S5	G 05-27-20.1	Appalachian Power Co.	43.973
S6	I 05-27-27	James Andrew & Karen Lynne Richmond	8.9353
S7	J 05-27-25	James Andrew & Karen Lynne Richmond	41.35
S8	12-01-31	Steven Jack & Susan Louise Hafer	20.0
S9	12-01-29	Baxter Farm, LLC	2.0
S10	P 12-01-28	Steven J. & Susan L. Hafer	88.39
S11	12-01-7.1	Harry Wayman Estate	2.0
S12	12-01-04	Robert F. Rothlisberger	6.0
S13	K 12-01-03	Charles D. & Edith Feenerly Harrison	7.8
S14	12-01-02	James Andrew & Karen L. Richmond	2.7
S15	L 12-01-05	Irvin L. Hoyt, Jr. & David L. Hoyt	36.8
S16	M 12-01-06	Mona Parsons, et al	52.75
S17	12-01-16	Vivian A. Parsons, et al	5.125
S18	12-01-01	Covestro, LLC	135.0
S19	12-01-1.7	Colombia Gas Transmission, Corp.	0.15
S20	12-23-15	Donna Jo Cain	0.70
S21	12-23-15.1	Robert F. Rothlisberger	0.47
S22	12-23-13	Donna Jo Cain	0.38
S23	05-27-27.2	Donna Jo Cain	0.1767
S24	05-27-27.1	Donald P. Cain	1.645
S25	05-27-27.3	Donna Jo. Cain	1.018
S26	H 05-27-28	Covestro, LLC	8.0
S27	12-23-12	Donna Jo Cain	0.37
S28	12-23-11	Covestro, LLC	1.25
S29	12-23-10	Covestro, LLC	1.28
S30	12-23-05	Covestro, LLC	3.69
S31	05-27-40	Covestro, LLC	3.36
S32	12-23-06	Covestro, LLC	0.34
S33	12-27-44	Covestro, LLC	0.21
S34	05-27-43	Covestro, LLC	0.63
S35	05-27-42	Covestro, LLC	0.52
S36	05-27-42.1	Covestro, LLC	0.52
S37	05-27-41	Martha Jean Arick	0.99
S38	05-27-31.2	Appalachian Power Co.	3.33
S39	05-27-31	Covestro, LLC	16.1
S40	05-27-30	Covestro, LLC	0.371
S41	05-27-31.1	Covestro, LLC	3.0
S42	05-27-32.2	Covestro, LLC	3.95
S43	05-27-29	Covestro, LLC	9.0
S44	05-27-45	Covestro, LLC	0.3627
S45	05-27-32	Covestro, LLC	33.53
S46	05-27-03	Covestro, LLC	1.27
S47	05-27-04	Covestro, LLC	2.52
S48	05-27-05	Covestro, LLC	2.52
S49	05-27-06	Covestro, LLC	2.52
S50	05-27-07	Covestro, LLC	2.52
S51	05-27-08	Covestro, LLC	2.52
S52	05-27-09	Covestro, LLC	1.87
S53	05-27-10	Covestro, LLC	0.52
S54	05-27-12	Covestro, LLC	1.0
S55	05-27-13	Covestro, LLC	0.34
S56	05-27-14	Covestro, LLC	0.25
S57	05-27-15	Covestro, LLC	0.47
S58	05-27-16	Covestro, LLC	0.23
S59	05-27-18	Covestro, LLC	0.97
S60	05-27-17	Covestro, LLC	0.88
S61	05-27-19.3	Cemetery	2.0
S62	05-27-02	Covestro, LLC	28.099
S63	05-27-19.2	Wheeling Electric Co.	0.75
S64	05-28-12.2	Covestro, LLC	3.1
S65	05-28-12.3	Covestro, LLC	18.784
S66	05-28-13.1	Air Products & Chemicals, Inc	5.522
S67	05-27-19.1	Covestro, LLC	21.267
S68	05-27-11	Covestro, LLC	0.03
S69	A 05-28-13	TH Exploration III, LLC	70.0
S70	05-28-13.2	Covestro, LLC	11.02
S71	05-28-1.1	Covestro, LLC	5.2217
S72	12-23-14	Robert E. Rothlisberger	0.27
S73	05-21-3.1	Eagle Natrium, LLC	98.613
S74	12-01-19	Steven J. & Susan L. Hafer	36.5
S75	12-01-27	Steven J. & Susan L. Hafer	83.69
S76	O 12-01-18	Travis Darrell Blake & Angela Dawn Mitchell	48.4



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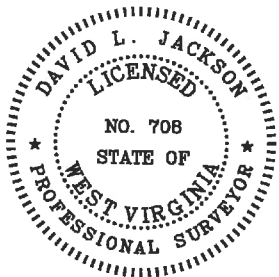
**TUG HILL**  
**OPERATING**

OPERATOR'S  
WELL #: Goudy 1S-10HM  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV  
API # 47-051-02201

WELL PLAT  
PAGE 3 OF 4  
DATE: 10/03/2022

**GOUDY LEASE  
WELL 1S-10HM  
781.6183± ACRES**

Number	TAX MAP -PARCEL	SURFACE OWNER	ACRES
S98	12-06-16	Brock T. & Emma J. Conners	27.0
S99	12-6A-01	Ronald E. McCoy	6.51
S100	12-06-05	Steven & Susan Louis Hafer	9.0
S101	12-06-04	Steven & Susan Hafer	6.5
S102	12-01-27	Steven J. & Susan Hafer	83.69
S103	12-01-26	William Joseph Blake	13.83
S104	12-01-25	Jack R. & Linda S. Blake	17.42
S105	12-01-15.3	Daniel L. & Vickie L Williams	7.0
S106	12-01-1.1	W.V. D.O.H	10.59
S107	12-01-15.2	Michael Goddard	1.09
S108	12-01-15.1	Marshall & Tara Cecil (L/C), Roy Yoho	1.46
S109	12-01-22	William D. Glover	18.84
S110	12-01-23.2	Raymond L. Pribble	0.782
S111	12-01-23	Raymond L. Pribble	1.55
S112	12-01-23.1	RHL Properties, LLC	34.17
S113	12-01-25.1	Timothy Q. & Ronda K. Bohrer	1.2
S114	12-01-24	Mitzilou Cecil, Trustee of the Tiger Cecil Irrevocable	0.85
S115	12-06-02	Brock T. Conner	23.83
S116	12-06-49	Kirkland Enterprises, LLC.	10.32
S117	12-06-51	Steven & Susan Hafer	0.599
S118	12-06-48	Ronald E. & Susan L. McCoy	0.36
S119	05-27-39	Covestro, LLC	3.74
S120	12-23-04	Pittsburgh Plate Glass Corp.	2.41
S121	12-23-09	Covestro, LLC	3.95
S122	12-23-08	Dora N. Moore Hrs., Et al	6.95
S123	12-01-1.5	United States of America	7.14
S124	12-23-02	Covestro, LLC	1.27
S125	12-23-03	Covestro, LLC	4.67
S126	12-27-38	Covestro, LLC	2.72
S127	12-27-37	Covestro, LLC	3.20
S128	12-27-35	Covestro, LLC	1.79
S129	12-27-34	Covestro, LLC	1.91
S130	12-27-36	Covestro, LLC	1.58
S131	12-27-33	Covestro, LLC	1.95
S137	12-01-1.2	West Virginia Dept. of Transportation	0.27
S138	12-22-59	Kenneth R. Morris	2.00
S139	12-22-60	Franklin W. & Barabara J. Cogar	0.5
S140	12-22-09	M.B. Investment	0.20
S141	12-22-10	M.B. Investment	0.24
S142	12-22-12	Jack Ray & Linda S. Blake	0.16
S143	12-22-13	Dewayne E. & Patricia A. Yost	0.07
S144	12-22-28	Kenneth R. Morris	0.12
S145	12-22-29	Jack R. & Linda S. Blake	0.50
S146	12-22-30	Jack R. & Linda S. Blake	0.24
S147	12-22-32	Ren Realty, LLC.	0.27
S148	12-22-33	Ren Realty, LLC.	0.08
S149	12-22-34	Ren Realty, LLC.	0.08
S150	12-22-51	Eric R. & Debra S. Sims	0.10
S151	12-22-52	Eric R. & Debra S. Sims	0.10
S152	12-22-53	Eric R. & Debra S. Sims	0.10
S153	12-22-54	Eric R. & Debra S. Sims	0.10
S154	12-22-55	Eric R. & Debra S. Sims	0.19
S155	12-22-56	Michael L. & Joyce D. Durig	0.22
S156	12-22-57	Michael L. & Joyce D. Durig	0.11
S157	12-22-58	Michael L. & Joyce D. Durig	0.15
S158	12-22-50	Michael L. & Joyce D. Durig	0.17
S159	12-22-49	Daniel J. Stillwagoner	0.13
S160	12-22-62	Virginia Bohrer, et al	0.05
S161	12-22-62.1	John R. & Toni Wright	0.314
S162	12-22-44	John R. & Toni Wright	0.52
S163	12-01-1.9	Grandview Doolin Public Service District	0.13
S164	12-22-27	Grandview Doolin Public Service District	0.27
S165	12-01-1.12	United States of America	22.55
S166	12-01-1.8	Grandview Doolin Public Service District	0.0895



P.S. 708

*David L Jackson*

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**10/14/2022**



**TUG HILL**  
**OPERATING**

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**WELL PLAT**  
**PAGE 4 OF 4**  
**DATE: 10/03/2022**