

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

SEP 30 2022

WV Department of  
Environmental Protection

API 47-051-02241 County Marshall District Mead  
Quad Glen Easton 7.5' Pad Name Keith Stern Field/Pool Name \_\_\_\_\_  
Farm name TH Exploration, LLC Well Number Keith Stern N-15HU  
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 4,402,808.09 Easting 526,368.46  
Landing Point of Curve Northing 4,402,852.5 Easting 526,752.5  
Bottom Hole Northing 4,404,400.8 Easting 525,882.5

Elevation (ft) 744.65' 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 10/22/2019 Date drilling commenced conductor: 11/17/19, big rig: 6/27/20 Date drilling ceased 7/25/2020  
Date completion activities began 8/18/2021 Date completion activities ceased 9/5/2021  
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 426' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 922' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 340-346', 433-439' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

APPROVED  
Reviewed by:  
SG 10-11-22  
STRADER GOWSR

10/21/2022

API 47-051 - 02241 Farm name TH Exploration, LLC Well number Keith Stern N-15HU

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"	514'	NEW	106.5#	N/A	Y
Coal							
Intermediate 1	17 1/2"	13 3/8"	2,240'	NEW	54.5#	N/A	Y
Intermediate 2	12 1/4"	9 5/8"	10,233'	NEW	47#	N/A	Y
Intermediate 3							
Production	8 1/2"	5 1/2"	17,858'	NEW	23#	N/A	Y
Tubing		2 7/8"	8,929'	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 <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	A	365	15.6	1.2	421	0	8
Surface	A	950	15.6	1.2	1,121	0	8
Coal							
Intermediate 1	A	1,799	15.6	1.19	2,122	0	8
Intermediate 2	A	4,515	14.5	1.19	5,219	0	8
Intermediate 3							
Production	A	4,524	16.5	1.17	4,659	0	8
Tubing							

Drillers TD (ft) 17,899'      Loggers TD (ft) n/a  
 Deepest formation penetrated Trenton      Plug back to (ft) n/a  
 Plug back procedure n/a

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Kick off depth (ft) 10,440'      WV Department of Environmental Protection

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 \_\_\_\_\_

10/21/2022





**Keith Stern N-15HU  
PEFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	8/18/2021	17,497	17,647	48	Utica
2	8/18/2021	17,299	17,472	48	Utica
3	8/19/2021	17,101	17,274	48	Utica
4	8/19/2021	16,903	17,076	48	Utica
5	8/20/2021	16,705	16,878	48	Utica
6	8/20/2021	16,507	16,680	48	Utica
7	8/21/2021	16,309	16,482	48	Utica
8	8/21/2021	16,111	16,284	48	Utica
9	8/22/2021	15,913	16,086	48	Utica
10	8/23/2021	15,715	15,888	48	Utica
11	8/24/2021	15,517	15,690	48	Utica
12	8/25/2021	15,319	15,492	48	Utica
13	8/25/2021	15,121	15,294	48	Utica
14	8/26/2021	14,923	15,096	48	Utica
15	8/26/2021	14,725	14,898	48	Utica
16	8/27/2021	14,527	14,700	48	Utica
17	8/27/2021	14,329	14,502	48	Utica
18	8/28/2021	14,131	14,304	48	Utica
19	8/28/2021	13,933	14,106	48	Utica
20	8/29/2021	13,735	13,908	48	Utica
21	8/30/2021	13,537	13,710	48	Utica
22	8/30/2021	13,339	13,512	48	Utica
23	8/31/2021	13,141	13,314	48	Utica
24	9/1/2021	12,943	13,116	48	Utica
25	9/1/2021	12,745	12,918	48	Utica
26	9/2/2021	12,547	12,720	48	Utica
27	9/3/2021	12,349	12,522	48	Utica
28	9/4/2021	12,151	12,324	48	Utica
29	9/5/2021	11,953	12,126	48	Utica

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**Keith Stern N-15HU  
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	86.64	11,632	8484	7738	502380	8,090	0
2	88.59	11,249	8957	7955	506760	8,089	0
3	85.10	11,071	5000	7464	502680	7,821	0
4	90.37	11,128	8831	7619	499660	7,835	0
5	89.03	11,105	8602	7763	496840	7,939	0
6	88.32	10,871	9453	8185	497600	7,912	0
7	87.30	10,818	8569	7989	500300	7,832	0
8	88.75	11,068	10941	8135	508880	7,922	0
9	84.50	10,823	8765	8221	499940	8,589	0
10	87.99	11,038	9765	8348	504540	7,811	0
11	88.21	11,102	9277	8189	507340	7,848	0
12	88.14	11,190	9150	8264	506800	7,777	0
13	87.66	11,119	10339	8510	507020	7,758	0
14	89.41	11,172	8882	8599	503520	7,695	0
15	87.20	10,905	10388	8561	508370	8,183	0
16	88.31	11,178	10400	8035	458160	7,268	0
17	88.67	10,835	9973	8279	505340	7,656	0
18	88.40	10,465	9352	8080	505800	7,764	0
19	87.97	10,247	8634	8263	499340	7,712	0
20	89.42	10,837	8360	8462	508200	7,748	0
21	88.09	10,364	9008	8216	493940	7,714	0
22	89.23	10,444	8718	8309	508760	7,704	0
23	88.13	10,279	9143	8614	503040	7,659	0
24	89.86	10,413	9351	8203	509180	8,676	0
25	89.67	10,420	8832	7781	506140	7,750	0
26	90.32	10,480	8861	7985	507380	7,673	0
27	88.91	10,328	8860	7714	500400	7,577	0
28	87.72	10,261	9874	8404	505280	7,583	0
29	88.92	10,408	9408	7449	504800	7,543	0

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Keith Stern N-15HU

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	1503	1647	1504	1648	Sandstone
Big Lime	1647	1701	1648	1702	Limestone
Big Injun	1701	1960	1702	1961	Sandstone
Weir	1960	2152	1961	2154	Sandstone
Berea	2152	2417	2154	2419	Sandstone
Gordon	2417	2512	2419	2514	Sandstone
Fifty Foot	2512	3148	2514	3151	Sandstone
Speechley	3148	4597	3151	4607	Sandstone
Benson	4597	4990	4607	5003	Sandstone
Alexander	4990	5628	5003	5645	Siltstone
Rhinestreet	5628	6068	5645	6087	Black Shale
Middlesex	6068	6142	6087	6161	Black Shale
Geneseo/Burkett	6142	6173	6161	6192	Black Shale
Tully	6173	6208	6192	6227	Limestone
Hamilton	6208	6310	6227	6329	Gray Shale
Marcellus	6310	6371	6329	6391	Black Shale
Onondaga	6371	6568	6391	6589	Limestone
Oriskany	6568	6678	6589	6701	Sandstone
Helderberg	6678	7042	6701	7079	Limestone
Salina	7042	8096	7079	8190	Salt/Anhydrite/LS
Lockport	8096	8482	8190	8596	Dolomite
Rose Hill	8482	8748	8596	8883	Shale
Packer Shell	8748	8951	8883	9101	Limestone
Clinton/Tuscarora	8951	9056	9101	9214	Sandstone
Juniata/Queenston	9056	10029	9214	10243	Red Shale
Reedsville	10029	10981	10243	11290	Gray Shale
Utica	10981	11233	11290	11777	Black Shale
Point Pleasant	11233	-	11777	-	Shale/Limestone

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## Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/18/2021
Job End Date:	9/5/2021
State:	West Virginia
County:	Marshall
API Number:	47-051-02241-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Keith Sterns N 15HU
Latitude:	39.77480051
Longitude:	-80.69209941
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,233
Total Base Water Volume (gal):	9,539,376
Total Base Non Water Volume:	0



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### 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	84.20357	None
Sand (40/70 White Proppant)	ProFrac	Proppant					
			Silica Substrate	14808-60-7	100.00000	12.25143	None
Sand (100 Mesh Proppant)	ProFrac	Proppant					
			Silica Substrate	14808-60-7	100.00000	3.15832	None
Hydrochloric Acid (7.5%)	CNR	Acidizing					
			Water	7732-18-5	85.00000	0.22567	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.09823	None
StimStream FR 9800	Chemstream	Friction Reducer					
			Alkanes, C16-20-iso-	90622-59-6	25.00000	0.01886	None
			Butene, homopolymer	9003-29-6	25.00000	0.01886	None
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00226	None
MC MX 9-4743	Multi-Chem	Biocide					
			Sodium Nitrate	7631-99-4	60.00000	0.02145	None
LD-7750W	Multi-Chem	Scale Inhibitor					



			Methanol	67-56-1	60.00000	0.00488	None
			Phosphonic Acid Salt	Proprietary	5.00000	0.00041	None
ProHib 100	CNR	Acid Inhibitor					
			2-Butoxyethanol	111-76-2	60.00000	0.00051	None
			Proprietary material	Proprietary	30.00000	0.00025	None
			Proprietary non-ionic surfactant	Proprietary	20.00000	0.00017	None
			Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00008	None
			Proprietary corrosion inhibitor	Proprietary	10.00000	0.00008	None
ProFE 105	CNR	Iron Control					
			Citric Acid	77-92-9	20.00000	0.00020	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	0.22567	
			Butene, homopolymer	9003-29-6	25.00000	0.01886	
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00226	
			Phosphonic Acid Salt	Proprietary	5.00000	0.00041	
			Proprietary material	Proprietary	30.00000	0.00025	
			Proprietary non-ionic surfactant	Proprietary	20.00000	0.00017	
			Proprietary corrosion inhibitor	Proprietary	10.00000	0.00008	
			Proprietary ethoxylated alcohol	Proprietary	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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## Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/17/2021
Job End Date:	9/5/2021
State:	West Virginia
County:	Marshall
API Number:	47-051-02242-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Keith Sterns N 16HU
Latitude:	39.77485561
Longitude:	-80.69214745
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	11,237
Total Base Water Volume (gal):	11,070,948
Total Base Non Water Volume:	0



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### 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	84.27508	None
Sand (40/70 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	11.96268	None
Sand (100 Mesh Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	3.35372	None
Hydrochloric Acid (7.5%)	CNR	Acidizing	Water	7732-18-5	85.00000	0.24263	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.10562	None
StimStream FR 9800	Chemstream	Friction Reducer	Alkanes, C16-20-iso-	90622-59-6	25.00000	0.01963	None
			Butene, homopolymer	9003-29-6	25.00000	0.01963	None
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00236	None
MC MX 9-4743	Multi-Chem	Biocide	Sodium Nitrate	7631-99-4	60.00000	0.02082	None
LD-7750W	Multi-Chem	Scale Inhibitor					

			Methanol	67-56-1	60.00000	0.00476	None
			Phosphonic Acid Salt	Proprietary	5.00000	0.00040	None
ProHib 100	CNR	Acid Inhibitor					
			2-Butoxyethanol	111-76-2	60.00000	0.00053	None
			Proprietary material	Proprietary	30.00000	0.00026	None
			Proprietary non-ionic surfactant	Proprietary	20.00000	0.00018	None
			Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00009	None
			Proprietary corrosion inhibitor	Proprietary	10.00000	0.00009	None
ProFE 105	CNR	Iron Control					
			Citric Acid	77-92-9	20.00000	0.00021	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	0.24263	
			Butene, homopolymer	9003-29-6	25.00000	0.01963	
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00236	
			Phosphonic Acid Salt	Proprietary	5.00000	0.00040	
			Proprietary material	Proprietary	30.00000	0.00026	
			Proprietary non-ionic surfactant	Proprietary	20.00000	0.00018	
			Proprietary corrosion inhibitor	Proprietary	10.00000	0.00009	
			Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00009	
			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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**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC±  
WELL 15HU  
TUG HILL OPERATING**

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-13-11.1	SAMUEL & HEATHER SUHODOLSKI	0.49
9-13-14	MARGARET K. FOX - LIFE	3.00
9-14-1.1	MICHAEL L. ALVAREZ	1.6
9-14-1.2	KENNETH N. & TERESA A. SMERTNECK	1.02
9-14-2	MICHAEL L. ALVAREZ	0.75
9-14-3	MICHAEL L. ALVAREZ	NORTH P/O 3 PCLS
9-14-4	MICHAEL L. ALVAREZ	3 PCLS & 1/8 AC.
9-14-5	MICHAEL L. ALVAREZ	200 X 60 PCL
9-14-6	MICHAEL L. ALVAREZ	120 X 200 PCL
9-14-7	JOHN T. ERAZMUS, III	0.25
9-14-8	JOHNNY C. HOLCOMB & JOHNNY C. HOLCOMB, II	2/5 AC.
9-14-9	JOHN E. DUFFY, ET UX	2/5 AC.
9-14-10	ROBERT I. DUFFY - LIFE	25/100 AC.
9-14-11.1	PATRICK J. SCHELLHASE EST - TRUST	7.617
9-14-11.2	LOVE A. BLAKE	4.00
9-14-26	PATRICK J. SCHELLHASE EST - TRUST	12.588
9-14-27	PATRICK J. SCHELLHASE EST - TRUST	3.004
9-14-28	CHARLES R. SCHELLHASE, ET UX	3.029
9-14-43	GEORGE R. TAYLOR, ET UX	10.98
9-14-46.1	MARHA JANE FAZZARO	1.512
9-15-40	ROBERT WILLIAM BERISFORD	13.50
9-15-41	CHARLES RICHARD MCCOY, ET UX	4.50
9-15-42	ROBERT MATHEW MASON	2.63

8,724' B.H. A.D. 7,148' T.H. A.D.  
T.H. LATITUDE 39°47'30"  
B.H. LATITUDE 39°47'30"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'83 S.P.C.(FT)	N. 466,544.78	E. 1,633,451.84
NAD'83 GEO.	LAT-(N) 39.774801	LONG-(W) 80.682099
NAD'83 UTM (M)	N. 4,402,808.09	E. 526,368.46

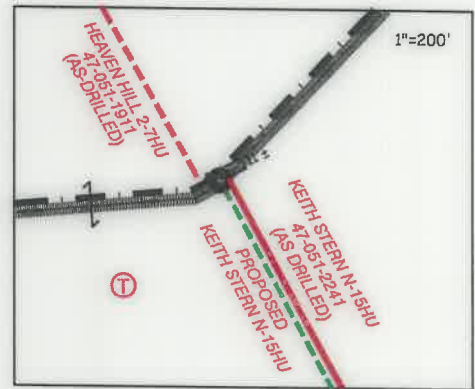
**LANDING POINT**

NAD'83 S.P.C.(FT)	N. 466,331.4	E. 1,634,911.5
NAD'83 GEO.	LAT-(N) 39.774268	LONG-(W) 80.686897
NAD'83 UTM (M)	N. 4,402,750.5	E. 526,814.2

**BOTTOM HOLE**

NAD'83 S.P.C.(FT)	N. 471,794.4	E. 1,631,936.0
NAD'83 GEO.	LAT-(N) 39.789156	LONG-(W) 80.697741
NAD'83 UTM (M)	N. 4,404,399.7	E. 525,879.9

T.H. LONGITUDE 80°40'00"  
B.H. LONGITUDE 80°40'00"  
912' B.H. A.D.  
6,144' T.H. A.D.



**AS DRILLED COORDINATES FOR WELL NO. 15HU**

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'83 S.P.C.(FT)	N. 466,544.78	E. 1,633,451.84
NAD'83 GEO.	LAT-(N) 39.774801	LONG-(W) 80.682099
NAD'83 UTM (M)	N. 4,402,808.09	E. 526,368.46

**LANDING POINT**

NAD'83 S.P.C.(FT)	N. 466,669.5	E. 1,634,714.3
NAD'83 GEO.	LAT-(N) 39.775189	LONG-(W) 80.687614
NAD'83 UTM (M)	N. 4,402,852.5	E. 526,752.5

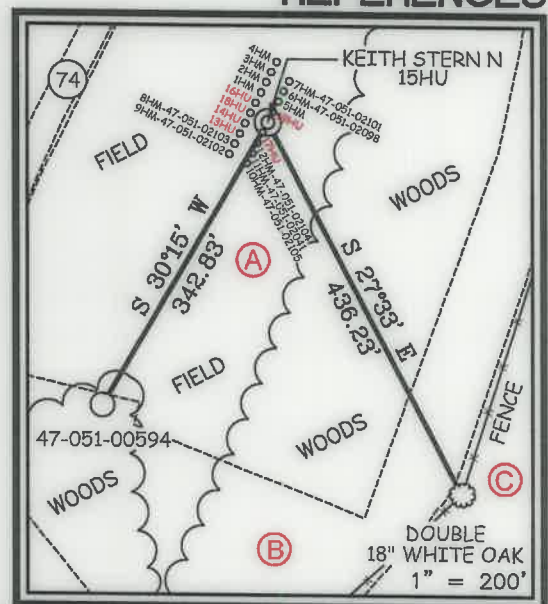
**BOTTOM HOLE**

NAD'83 S.P.C.(FT)	N. 471,797.8	E. 1,631,944.6
NAD'83 GEO.	LAT-(N) 39.789165	LONG-(W) 80.697711
NAD'83 UTM (M)	N. 4,404,400.8	E. 525,882.5

**NOTES ON SURVEY**

- 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.
- WELL SPOT CIRCLE & TOPO MARK SCALE ARE 1"=2000'
- PROPOSED LATERAL OR TOP HOLE OF KEITH STERN N-15HU IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF THE FOLLOWING:  
PROPOSED KEITH STERN N-13HU, 14HU & 16HU,  
PROPOSED KEITH STERN S-17HU, 18HU & 19HU,  
PROPOSED KNOB CREEK N-13HU,  
PROPOSED KNOB CREEK S-16HU,  
PROPOSED HEAVEN HILL 3-8HU,  
HEAVEN HILL 2W-12HU (47-051-01952),  
HEAVEN HILL 2-6HU (47-051-01910),  
HEAVEN HILL 2-7HU (47-051-01911)  
& HEAVEN HILL 2-8HU (47-051-01912)
- AS-DRILLED DATA PROVIDED BY TUG HILL OPERATING, LLC.
- PLAT UPDATED TO SHOW AS-DRILLED PATH.

**REFERENCES**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295  
slsvw.com



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

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE MARCH 18, 20 21  
REVISED \_\_\_\_\_, 20 \_\_\_\_\_  
OPERATORS WELL NO. KEITH STERN N-15HU  
API WELL NO. 47 - 051 - 02241  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P15HUAD.dwg  
KEITH STERN N-15HU-REV2  
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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

WELL TYPE: OIL  GAS  INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 744.65' WATERSHED FISH CREEK (HUC 10)  
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER TH EXPLORATION, LLC ACREAGE 10.05±  
ROYALTY OWNER TH EXPLORATION, LLC, ET AL - SEE WW-6A1 ACREAGE 10.05±

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

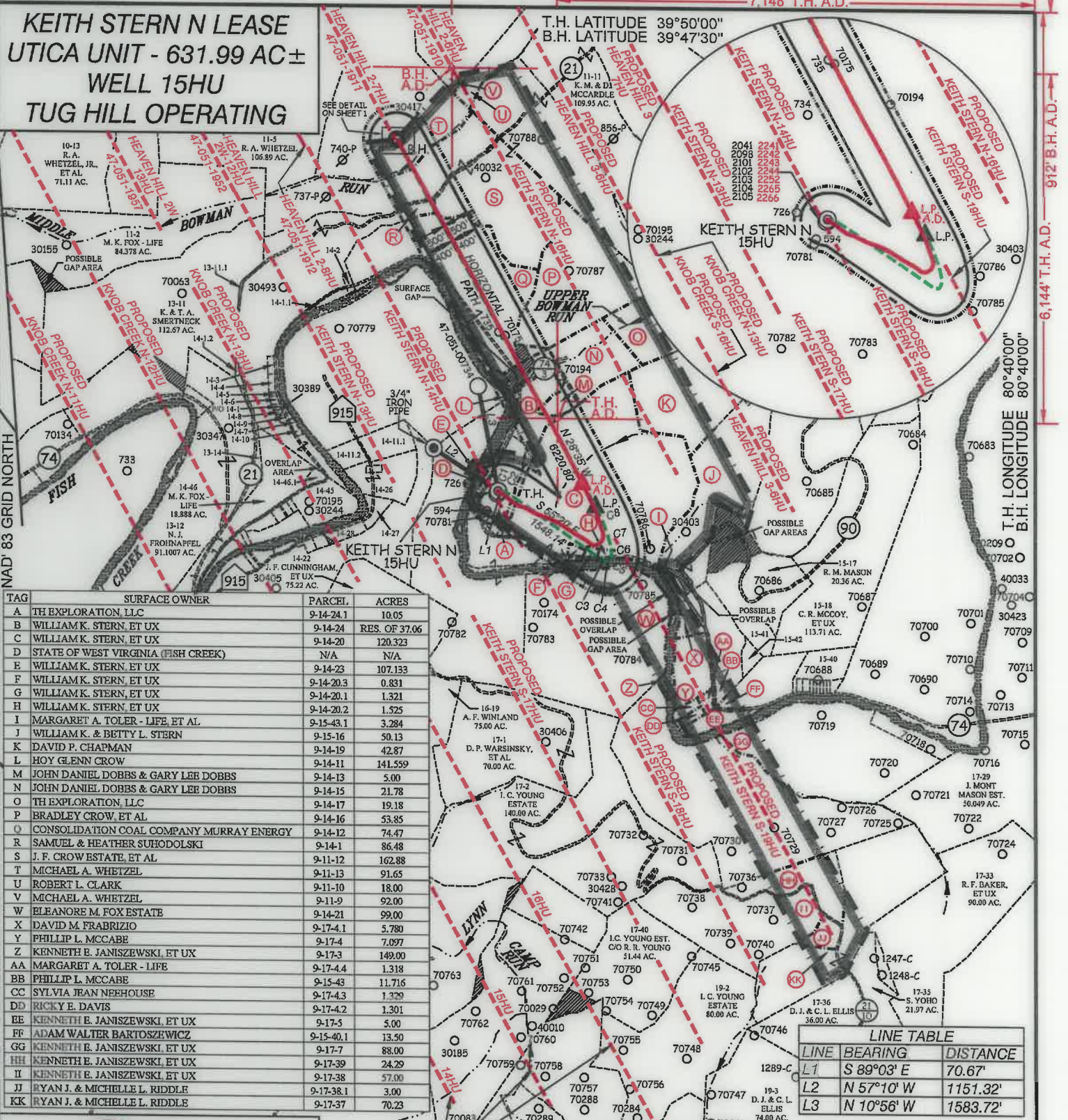
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION POINT PLEASANT  
ESTIMATED DEPTH TVD: 11,396' / TMD: 18,311'

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

10/21/2022

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC ±  
WELL 15HU  
TUG HILL OPERATING**



TAG	SURFACE OWNER	PARCEL	ACRES
A	TH EXPLORATION, LLC	9-14-24.1	10.05
B	WILLIAM K. STERN, ET UX	9-14-24	RES. OF 37.06
C	WILLIAM K. STERN, ET UX	9-14-20	120.323
D	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
E	WILLIAM K. STERN, ET UX	9-14-23	107.133
F	WILLIAM K. STERN, ET UX	9-14-20.3	0.831
G	WILLIAM K. STERN, ET UX	9-14-20.1	1.321
H	WILLIAM K. STERN, ET UX	9-14-20.2	1.525
I	MARGARET A. TOLER - LIFE ET AL	9-15-43.1	3.284
J	WILLIAM K. & BETTY L. STERN	9-15-16	50.13
K	DAVID P. CHAPMAN	9-14-19	42.87
L	HOY GLENN CROW	9-14-11	141.559
M	JOHN DANIEL DOBBS & GARY LEE DOBBS	9-14-13	5.00
N	JOHN DANIEL DOBBS & GARY LEE DOBBS	9-14-15	21.78
O	TH EXPLORATION, LLC	9-14-17	19.18
P	BRADLEY CROW, ET AL	9-14-16	53.85
Q	CONSOLIDATION COAL COMPANY MURRAY ENERGY	9-14-12	74.47
R	SAMUEL & HEATHER SUHODOLSKI	9-14-1	86.48
S	J. F. CROW ESTATE, ET AL	9-11-12	162.88
T	MICHAEL A. WHETZEL	9-11-13	91.65
U	ROBERT L. CLARK	9-11-10	18.00
V	MICHAEL A. WHETZEL	9-11-9	92.00
W	ELEANORE M. FOX ESTATE	9-14-21	99.00
X	DAVID M. FRABRIZIO	9-17-4.1	5.780
Y	PHILLIP L. MCCABE	9-17-4	7.097
Z	KENNETH E. JANISZEWSKI, ET UX	9-17-3	149.00
AA	MARGARET A. TOLER - LIFE	9-17-4.4	1.318
BB	PHILLIP L. MCCABE	9-15-43	11.716
CC	SYLVIA JEAN NEEHOUSE	9-17-4.3	1.329
DD	RICKY E. DAVIS	9-17-4.2	1.301
EE	KENNETH E. JANISZEWSKI, ET UX	9-17-5	5.00
FF	ADAM WALTER BARTOSZEWICZ	9-15-40.1	13.50
GG	KENNETH E. JANISZEWSKI, ET UX	9-17-7	88.00
HH	KENNETH E. JANISZEWSKI, ET UX	9-17-39	24.29
II	KENNETH E. JANISZEWSKI, ET UX	9-17-38	57.00
JJ	RYAN J. & MICHELLE L. RIDDLE	9-17-38.1	3.00
KK	RYAN J. & MICHELLE L. RIDDLE	9-17-37	70.23

LINE	BEARING	DISTANCE
L1	S 89°03' E	70.67'
L2	N 57°10' W	1151.32'
L3	N 10°56' W	1583.72'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C2	181.02'	1389.24'	S 57°58' E	180.89'
C3	75.99'	238.39'	S 63°36' E	75.66'
C4	62.84'	65.07'	N 80°38' E	60.43'
C5	73.74'	108.24'	N 22°49' E	72.32'
C6	119.38'	471.22'	N 02°38' W	119.06'
C7	51.06'	154.06'	S 71°22' E	50.82'
C7	334.64'	1553.50'	N 16°23' W	333.99'
C8	330.33'	2945.17'	N 25°24' W	330.16'

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254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
sfsww.com

**PROPOSED-KNOB CREEK 3 WELLS**

**LEGEND**

AS DRILLED

PROPOSED

P.S. 849 *C. Victor Moyers*

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)			
NAD'83 S.P.C.(FT)	N. 466,644.78	E. 1,633,451.84	
NAD'83 GEO.	LAT.-(N) 39.774801	LONG.-(W) 80.692099	
NAD'83 UTM (M)	N. 4,402,808.09	E. 526,368.46	
LANDING POINT			
NAD'83 S.P.C.(FT)	N. 466,331.4	E. 1,634,911.5	
NAD'83 GEO.	LAT.-(N) 39.774268	LONG.-(W) 80.686897	
NAD'83 UTM (M)	N. 4,402,750.5	E. 526,814.2	
BOTTOM HOLE			
NAD'83 S.P.C.(FT)	N. 471,794.4	E. 1,631,936.0	
NAD'83 GEO.	LAT.-(N) 39.789156	LONG.-(W) 80.697741	
NAD'83 UTM (M)	N. 4,404,399.7	E. 525,879.9	

SCALE 1" = 2000' FILE NO. 8811P15HUAD.dwg  
KEITH STERN N-15HU-REV2

DATE MARCH 18, 20 21  
REVISED, 20

OPERATORS WELL NO. KEITH STERN N-15HU  
API WELL 47 — 051 — 02241  
NO. STATE COUNTY PERMIT



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

(+) 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 ADDITIONAL SHEETS)

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 CHARLESTON, WV 25313

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC ±  
WELL 15HU  
TUG HILL OPERATING**



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1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295  
slsvv.com

NO.	Lease ID	Tag	Parcel	Grantor, Lessor, Etc.	Deed Book/Page
1	10*15605	A	9-14-24.1	ISAAC CROW ET UX	74 394
2	10*15605	B	9-14-24	ISAAC CROW ET UX	74 394
3	10*15509	C	9-14-20	WILLIAM K STERN AND BETTY L STERN	718 320
4	10*23458	D	WV - FISH CREEK	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	1019 373
5	10*15812	E	9-14-23	WILLIAM K STERN AND BETTY L STERN	887 220
6	10*16436	E	9-14-23	REAGAN D YEATTS AND CHRISTOPHER M YEATTS	961 339
7	10*18269	E	9-14-23	GENELDA MASON	942 460
8	10*18299	E	9-14-23	CAROL L BOBBY AND DONALD J BOBBY	929 281
9	10*18354	E	9-14-23	DEBORAH L TURLEY	931 352
10	10*18355	E	9-14-23	JUDITH F TEMPLE AND LOUIS I TEMPLE	931 350
11	10*18356	E	9-14-23	LARRY W ALLEY	931 348
12	10*18357	E	9-14-23	DEBORAH SUE KYLE	931 346
13	10*18358	E	9-14-23	SHARLA ROLLINS AND GARY ROLLINS	931 358
14	10*18419	E	9-14-23	CARLA MAE ALLEY	932 539
15	10*18420	E	9-14-23	VICTOR E ALLEY JR AND DEBRA A ALLEY	932 582
16	10*18421	E	9-14-23	DONNA JUNE STRAIT AND GARY E STRAIT	932 588
17	10*18429	E	9-14-23	GEORGE L DUNN AND NANCY MARIE DUNN	932 601
18	10*18430	E	9-14-23	JAMES DUNN AND DONNA K DUNN	932 604
19	10*18432	E	9-14-23	ROSEMARIE BERISFORD	932 572
20	10*18484	E	9-14-23	BRENDA REED	933 107
21	10*18485	E	9-14-23	BARBARA JO BEVERIDGE	933 109
22	10*18490	E	9-14-23	STACY L BARNHART	933 123
23	10*18491	E	9-14-23	LORI A FARMER AND DANIEL K FARMER	933 131
24	10*18512	E	9-14-23	CHRISTINA NESTELL AND CHARLES E NESTELL III	933 565
25	10*18515	E	9-14-23	WILLIAM P DAUBE	933 573
26	10*18518	E	9-14-23	SUSAN I BAKER	933 580
27	10*18520	E	9-14-23	CHRISTOPHER SAUDERS	933 584
28	10*18612	E	9-14-23	NANNETTE BERLECH	932 542
29	10*18617	E	9-14-23	SHEILA SIMMONS AND JEFFREY R SIMMONS	934 613
30	10*18644	E	9-14-23	FRANK A STORCH JR AND SUSAN STORCH	936 149
31	10*18645	E	9-14-23	SANDRA SUE HALL AND DAVID HALL	936 155
32	10*18647	E	9-14-23	PETER G STORCH AND LAURIE L STORCH	936 152
33	10*18648	E	9-14-23	LAWRENCE E CHIAPPETTA AND PATRICIA A CHIAPPETTA	936 161
34	10*18649	E	9-14-23	RODNEY K BANE AND CATHIE J BANE	936 164
35	10*18652	E	9-14-23	BECKY LANDRIS	936 172
36	10*18653	E	9-14-23	DALE R ALLEY	936 174
37	10*18673	E	9-14-23	RACHEL THORNE AND FRED THORNE JR	938 574
38	10*18674	E	9-14-23	JOHN T CRISWELL AND CATHERINE A CRISWELL	938 579
39	10*18675	E	9-14-23	JEFFREY BRYAN CRISWELL	938 582
40	10*18676	E	9-14-23	JENNIFER SHAWN GLOVER	938 576
41	10*18677	E	9-14-23	PATRICIA DOFKA	938 585
42	10*18678	E	9-14-23	WILLIAM LINSLEY CRISWELL	938 588
43	10*18763	E	9-14-23	VAUGHN HONE SR & LINDA MARIE HONE	938 225
44	10*18766	E	9-14-23	TOM ALLEY	938 223
45	10*18797	E	9-14-23	DORETTA RUSH	937 622
46	10*18808	E	9-14-23	PATRICIA KIRCHNER	937 644
47	10*18809	E	9-14-23	JUDITH C LORADITCH	937 647
48	10*19992	E	9-14-23	RODNEY W RUSH AND CRYSTAL D RUSH	940 336
49	10*19400	E	9-14-23	BULA F YOST	940 342
50	10*19405	E	9-14-23	ANN MARIE STEVENS AND CURTIS STEVENS	939 287
51	10*19417	E	9-14-23	SYLVIA R SPALENY AND ROBERT A SPALENY	939 595
52	10*19423	E	9-14-23	KEITH W STORCH AND DEBORAH A STORCH	934 600
53	10*19477	E	9-14-23	DEBORAH A MILLER	941 320
54	10*19479	E	9-14-23	DENISE WILLIAMSON	941 329
55	10*19510	E	9-14-23	REED O MILLER	933 571
56	10*19525	E	9-14-23	AUGUSTUS R MCMAHON III AND MICHELE M MCMAHON TRUSTEES OF THE AUGUSTUS R MCMAHON III LIVING TRUST	943 509
57	10*19527	E	9-14-23	AUGUSTUS RUSH MCMAHON III TRUSTEE OF THE PAMELA J MCMAHON REVOCBLE TRUST	953 339
58	10*19590	E	9-14-23	SHAROL K CASADA	943 1
59	10*19531	E	9-14-23	DELBERT D RUSH AND BETTY RUTH RUSH	942 615
60	10*19625	E	9-14-23	DURR SUCKEL & ELIZABETH SUCKEL	944 150
61	10*19626	E	9-14-23	LAURIE R BROWN	944 153
62	10*19676	E	9-14-23	RONALD W RENBEAU	944 456
63	10*19677	E	9-14-23	NEL SCHAFFER AND CHRISTAL L SHAFER	944 147
64	10*19681	E	9-14-23	TIMOTHY LEE COLLEY	944 140
65	10*19683	E	9-14-23	TERESA ALLEY	944 145
66	10*19686	E	9-14-23	KAREN J AND MICHAEL E BRUGGEMAN	944 142
67	10*19712	E	9-14-23	CHAZ AARON COLLEY AND DANA COLLINS	957 139
68	10*19723	E	9-14-23	REID ELATTRACHE AND TONYA ELATTRACHE	957 131
69	10*19859	E	9-14-23	ELIZABETH A STARC	945 608
70	10*19860	E	9-14-23	AUCIA N STARC	945 601
71	10*19861	E	9-14-23	JOSEPH F STARC JR AND DONNA STARC	945 605
72	10*19862	E	9-14-23	STACY R BENNETT	945 608
73	10*19864	E	9-14-23	JOE Y KELLER JR AND SHARON MARIE KELLER	945 610
74	10*19935	E	9-14-23	SARA E STARC	948 553
75	10*19936	E	9-14-23	SHERWOOD MASON NILA JUNE MASON	948 255
76	10*19940	E	9-14-23	EMMA JO CRISWELL	948 551
77	10*21028	E	9-14-23	BRENDA GILBERT	951 159
78	10*21094	E	9-14-23	KATHERINE DEGROOT AND DANIEL DEGROOT	951 151
79	10*21111	E	9-14-23	DONNA G AND PAULL CHMELYSKI	951 154
80	10*21209	E	9-14-23	CHARLES R WILLIAMSON JR	951 157
81	10*21228	E	9-14-23	CHARLES F HORNER & LORAIN G HORNER	952 434
82	10*21229	E	9-14-23	TARA E CAUSEY	952 432
83	10*21395	E	9-14-23	DANIEL L LANDRIS AND JOAN L LANDRIS	956 625
84	10*21396	E	9-14-23	MICHAEL D ZUCKER	956 647
85	10*21441	E	9-14-23	JOSEPH A MURPHY AND VIRGINIA ANNE MURPHY	956 631
86	10*21443	E	9-14-23	ROBERT L LANDRIS AND LIBERTY JANE LANDRIS	956 628
87	10*21490	E	9-14-23	DANIEL E WILLIAMSON AND HEATHER R WILLIAMSON	957 153
88	10*21493	E	9-14-23	DENZIL ALLEY JR	958 64
89	10*21497	E	9-14-23	KATHLEEN G WILLIAMSON	957 324
90	10*21837	E	9-14-23	WILLIAM BRYAN COLLEY	959 627
91	10*21873	E	9-14-23	MICHAEL WAYNE ALLEY AND LINDA ALLEY	953 501
92	10*21961	E	9-14-23	JOHN WILLIAMSON JR	960 24
93	10*21972	E	9-14-23	CATHERINE I AND ERNEST M SILVERIO	960 586
94	10*21979	E	9-14-23	CHARLES C SEAMON	954 340
95	10*21991	E	9-14-23	THE JOANN REILLY TRUST KIMBERLY MAEZ TRUSTEE	953 341
96	10*21997	E	9-14-23	MICHAEL SAUDERS AND AMI SAUDERS	953 505
97	10*22004	E	9-14-23	RALPH EDWARD WILLIAMSON	953 507
98	10*22037	E	9-14-23	JOSHUA W SEAMON	953 503

RECEIVED  
Office of Oil and Gas  
SEP 30 2022  
WV Department of  
Environmental Protection

FILE NO. 8811P15HUAD.dwg  
KEITH STERN N-15HU-REV2

DATE MARCH 18, 2021

REVISED \_\_\_\_\_, 20\_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

STATE COUNTY PERMIT



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

10/21/2022

P.S. 849 *C. Victor Moyers*

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

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

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slsww.com

99	10*22053	E	9-14-23	LARRY R CRANE	953	344
100	10*22089	E	9-14-23	MARCIA A LUKE	961	333
101	10*22110	E	9-14-23	JENNIFER ALLEY FISHER & ROBERT D FISHER	961	347
102	10*22127	E	9-14-23	JUDITH L BENEDICT AND LOUIS G BENEDICT	961	343
103	10*22150	E	9-14-23	CHAD ERIC BENNETT AND MARY A BENNETT	954	338
104	10*22257	E	9-14-23	CHARLES F ALLEY TRUST EMMANUEL PREVOLES TRUSTEE	970	26
105	10*22328	E	9-14-23	JUDITH S KNIGHT	962	276
106	10*22329	E	9-14-23	EARL FRAZIER AND LYDIA ARMENTA	963	128
107	10*22380	E	9-14-23	BRIAN R MORGAN	964	453
108	10*22411	E	9-14-23	DIANNA LEA SHEPARD	970	30
109	10*22461	E	9-14-23	DANNY E COCHRAN AND LORI ANN COCHRAN	972	40
110	10*22501	E	9-14-23	RANDY W MORRIS SR AND CHERYL MORRIS	966	465
111	10*22502	E	9-14-23	JULIA RAE BROOKS	977	30
112	10*22775	E	9-14-23	SUSAN EXLINE	977	32
113	10*22778	E	9-14-23	AUBREY E REILLY	977	26
114	10*22833	E	9-14-23	BRENDAN Q REILLY	977	28
115	10*22848	E	9-14-23	SUSAN L GOLDSBERRY	962	549
116	10*22854	E	9-14-23	SALLY M COTEREL-CHANEY	962	547
117	10*22878	E	9-14-23	LINDA K AND MICHAEL HUMES	948	372
118	10*22879	E	9-14-23	JAMES P MILLER	946	215
119	10*23148	E	9-14-23	IDA A ALLEY AND J F ALLEY	117	45
120	10*15957	F	9-14-20.3	BRADLEY CROW AND BETTY L CROW	768	350
121	10*15958	F	9-14-20.3	GLADYS CROW	769	609
122	10*15959	F	9-14-20.3	LEWIS M QUIGLEY AND MAXINE V QUIGLEY	769	603
123	10*15960	F	9-14-20.3	CONNIE HECKLE	770	547
124	10*15961	F	9-14-20.3	H GLENN CROW	770	565
125	10*15962	G	9-14-20.1	BRADLEY CROW AND BETTY L CROW	768	362
126	10*15963	G	9-14-20.1	LEWIS M QUIGLEY AND MAXINE V QUIGLEY	769	416
127	10*15964	G	9-14-20.1	GLADYS CROW	769	410
128	10*15965	G	9-14-20.1	H GLENN CROW	770	535
129	10*15966	G	9-14-20.1	CONNIE HECKLE	770	541
130	10*15509	H	9-14-20.2	WILLIAM K STERN AND BETTY L STERN	718	320
131	10*15836	I	9-15-43.1	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	79
132	10*15837	I	9-15-43.1	ANITA DIANE ANTILL AND TERRY ANTILL	742	85
133	10*15842	I	9-15-43.1	HOMER L SIMMONS AND GLADYS R SIMMONS	742	329
134	10*17887	I	9-15-43.1	LEO C HILKE AND BETTY M HILKE	924	531
135	10*22976	I	9-15-43.1	MARGARET KUCHARZ AND JAMES C KUCHARZ	962	270
136	10*47051.219.33	I	9-15-43.1	JOHN H HILKE AND ALDA HILKE	898	602
137	10*47051.219.37	I	9-15-43.1	SUSAN H KEY	898	621
138	10*47051.219.39	I	9-15-43.1	ALICE THIPPHAVONG AND VISITH THIPPHAVONG	902	437
139	10*15813	J	9-15-16	ROBERT B THOMAS	692	235
140	10*15814	J	9-15-16	MARY E BASSETT	694	499
141	10*15815	J	9-15-16	FORREST M THOMAS	694	516
142	10*15816	J	9-15-16	SALLY CYNTHIA HOPKINS	697	116
143	10*15817	J	9-15-16	RUTH MEADOWS	703	583
144	10*15818	J	9-15-16	ELIZABETH ANN STRAUSBAUGH	703	578
145	10*15819	J	9-15-16	JANET LEA BLANKENSHIP	708	114
146	10*17445	J	9-15-16	GENEVA BASSETT SANCHEZ	929	292
147	10*21814	J	9-15-16	STONE HILL MINERALS HOLDINGS LLC	953	335
148	10*21818	J	9-15-16	STONE HILL MINERALS HOLDINGS LLC	953	337
149	10*21862	J	9-15-16	NOBLE MARCELLUS LP	961	641
150	10*15813	K	9-14-19	ROBERT B THOMAS	692	235
151	10*15814	K	9-14-19	MARY E BASSETT	694	499
152	10*15815	K	9-14-19	FORREST M THOMAS	694	516
153	10*15816	K	9-14-19	SALLY CYNTHIA HOPKINS	697	116
154	10*15817	K	9-14-19	RUTH MEADOWS	703	583
155	10*15818	K	9-14-19	ELIZABETH ANN STRAUSBAUGH	703	578
156	10*15819	K	9-14-19	JANET LEA BLANKENSHIP	708	114
157	10*17445	K	9-14-19	GENEVA BASSETT SANCHEZ	929	292
158	10*21814	K	9-14-19	STONE HILL MINERALS HOLDINGS LLC	953	335
159	10*21818	K	9-14-19	STONE HILL MINERALS HOLDINGS LLC	953	337
160	10*21862	K	9-14-19	NOBLE MARCELLUS LP	961	641
161	10*23053	L	9-14-11	CE YOUNG	68	146
162	10*15605	M	9-14-13	ISAAC CROW ET UX	74	394
163	10*15592	N	9-14-15	JOHN DANIEL DOBBS	694	125
164	10*15593	N	9-14-15	GARY L DOBBS	693	289
165	10*18189	N	9-14-15	WILLIAM C WEST AND DEBRA WEST	928	622
166	10*18297	N	9-14-15	ROBERT E WEST	929	279
167	10*19614	N	9-14-15	KAREN SUE BLAKE	937	318
168	10*17929	O	9-14-17	STONE HILL MINERALS HOLDINGS LLC	931	372
169	10*15469	P	9-14-16	HARRIET J ANDERSON	920	11
170	10*15470	P	9-14-16	BETTY L LOGES	921	286
171	10*15473	P	9-14-16	WILLIAM F McDONALD AND SHIRLEY McDONALD	921	198
172	10*15476	P	9-14-16	CURTIS W WEST JR AND DIANE WEST	921	263
173	10*15488	P	9-14-16	NANCY F FYE & STEPHEN M FYE	921	226
174	10*15495	P	9-14-16	BARBARA BARNHART AND WALTER BARNHART	921	222
175	10*15694	P	9-14-16	DEBORAH L MERCER	921	271
176	10*15695	P	9-14-16	JOHN R AND LOIS L GORBY	929	259
177	10*15696	P	9-14-16	JOSEPH JEREMY PALMER	921	275
178	10*15741	P	9-14-16	LOHRN S GORBY	929	641
179	10*16152	P	9-14-16	CONNIE HECKLE	920	29
180	10*16153	P	9-14-16	LARRY JACK EMERY	920	13
181	10*16186	P	9-14-16	DEBORAH KAY COOLEY AND ROBERT T BECK	920	65
182	10*16187	P	9-14-16	PATRICIA D BABL AND JOHN J BABL	920	31
183	10*16191	P	9-14-16	MADELYN E MOSSOR DO NOT USE	920	76
184	10*16403	P	9-14-16	WILLIAM C EDGAR AND CHRISTY E EDGAR	920	61
185	10*16404	P	9-14-16	KATHRYN M WHIPKEY	921	194
186	10*16406	P	9-14-16	ARELENA B HORNER AND QUAY ALLEN HORNER	921	240
187	10*16407	P	9-14-16	JANICE F BROOKOVER	920	74
188	10*16408	P	9-14-16	KATHLEEN I FRANCIS	921	196
189	10*16409	P	9-14-16	JEANETTE M HEATH	920	72
190	10*16425	P	9-14-16	WILLIAM A MASON JR AND ROBIN MASON	920	25
191	10*16428	P	9-14-16	BRUCELYNN JOHNSON AND KIMBERLY A JOHNSON	920	50
192	10*16438	P	9-14-16	ALICE MARLENE PERSINGER	921	236
193	10*16458	P	9-14-16	LARRY W JOHNSON	920	57
194	10*16469	P	9-14-16	JAMES EARL AND MARGARET L SIBURT	921	245
195	10*16470	P	9-14-16	CAROLYN SUE FRANKLIN AND RAYMOND EUGENE FRANKLIN	921	219
196	10*16472	P	9-14-16	JUDY DELORIS SIBURT	929	643
197	10*16473	P	9-14-16	LINDA ELAINE AND RICHARD LEROY LITTELL	929	256
198	10*16474	P	9-14-16	BARBARA KAY SIBURT	921	266
199	10*16475	P	9-14-16	MARY LOUISE GORBY	921	234

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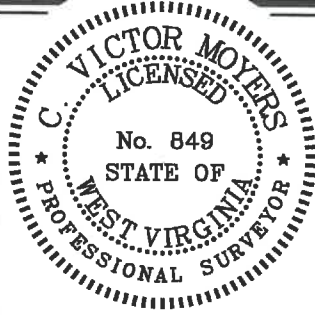
DATE MARCH 18, 2021

REVISED \_\_\_\_\_, 20\_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

STATE COUNTY PERMIT



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

10/21/2022

P.S. 849 C. Victor Moyers

COUNTY NAME \_\_\_\_\_

PERMIT \_\_\_\_\_

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

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

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC±  
WELL 15HU  
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
slevv.com

200	10*16476	P	9-14-16	ROGER ALLAN AND CYNTHIA L JOHNSON	921	257
201	10*16477	P	9-14-16	BRENDA K YOHO	921	228
202	10*16550	P	9-14-16	CHARLES LEROY LEACH AND MARTHA G LEACH	920	19
203	10*16551	P	9-14-16	JACK L CROW JR AND VIRGINIA L CROW	921	260
204	10*16867	P	9-14-16	APRIL M WEED	921	279
205	10*16883	P	9-14-16	VICKIE LYNN PAPE AND JOHN EDWARD PAPE	921	248
206	10*16884	P	9-14-16	DELORES A BOWERS & LEONARD B BOWERS	921	281
207	10*16916	P	9-14-16	ROGER LEE WEST	921	277
208	10*16971	P	9-14-16	LEONA M SIBURT	921	238
209	10*16972	P	9-14-16	SCOTT BRADLEY GRIMM & SHERRY ANN GRIMM	921	242
210	10*16973	P	9-14-16	NANCY C KESSELRING & CARL E KESSELRING	920	22
211	10*17358	P	9-14-16	KAREN LOUISE AND ROGER L DUNHAM	921	254
212	10*17359	P	9-14-16	JULIA ALLISON CROW	921	224
213	10*17361	P	9-14-16	SHEILA RAMONA CROW	920	78
214	10*17362	P	9-14-16	NILA VIRGINIA AND FREDERICK EUGENE STREIGHT	921	251
215	10*17366	P	9-14-16	SYLVIA DEE WOOD	921	230
216	10*17367	P	9-14-16	JERRY HOWELL	920	37
217	10*17368	P	9-14-16	DONALD PAUL CROW AND CRYSTAL LYNN CROW	921	201
218	10*17369	P	9-14-16	DELORES A WALLACE	920	63
219	10*17371	P	9-14-16	MACK A AND CAROL A CROW	921	204
220	10*17372	P	9-14-16	DONNIE JASON HEDGEPEETH AND KAREN L HEDGEPEETH	920	42
221	10*17373	P	9-14-16	NILA F HEDGEPEETH	920	45
222	10*17374	P	9-14-16	EZRA HOWARD COCHRAN	920	27
223	10*17380	P	9-14-16	DEBORAH IRENE PIERCE AND BARRETT LEE PIERCE	920	34
224	10*17381	P	9-14-16	CINDY J AND DARNELL L FULKS	921	268
225	10*17382	P	9-14-16	HELEN MARIE AND DAVID E MCCRAY	920	47
226	10*17389	P	9-14-16	MELBA EILEEN HUDDLESTUN	920	53
227	10*17390	P	9-14-16	HAROLD B CROW AND CONNIE SUE CROW	921	207
228	10*17391	P	9-14-16	BETTY LOU AND OLLIE CHARLES HUGGINS	921	210
229	10*17392	P	9-14-16	BEVERLY KATHRYN GODDARD	920	55
230	10*17393	P	9-14-16	CHARLIE M TURNER AND BESSIE M TURNER	920	39
231	10*17394	P	9-14-16	JUDY LOUISE GLOVER	921	232
232	10*17397	P	9-14-16	PAT DARRELL TURNER AND TINA DENISE TURNER	925	117
233	10*17399	P	9-14-16	RONALD EDWARD WATSON AND DIANA L WATSON	925	120
234	10*17401	P	9-14-16	JOHN M HAUGHT JR AND CHERYL A HAUGHT	925	182
235	10*17402	P	9-14-16	DIANA LYNN BUMGARDNER	920	68
236	10*17403	P	9-14-16	JAMES B CROW AND PENNY G CROW	925	187
237	10*17404	P	9-14-16	BRIAN K CROW	925	185
238	10*17408	P	9-14-16	WILLIAM JAMES HEDGEPEETH AND ERIN ELIZABETH HEDGEPEETH	924	572
239	10*17409	P	9-14-16	JUDY A AND CLYDE E ELLZEY	924	569
240	10*17410	P	9-14-16	LILLIE L GAREY	924	567
241	10*17420	P	9-14-16	DAVID LEE AND ANN F BAKER	924	564
242	10*17490	P	9-14-16	CONNIE SUE DOUGLAS AND RONNIE J DOUGLAS	924	578
243	10*17491	P	9-14-16	THOMAS LEE AND CLARA J HAUGHT	924	575
244	10*17598	P	9-14-16	TERRY LEE PETTIT AND STEPHANIE LYNN PETTIT	921	288
245	10*17710	P	9-14-16	DEBRA JEAN LANCASTER AND DARRELL R LANCASTER	929	634
246	10*17811	P	9-14-16	PANSY M ASTON AND ELMER L ASTON	921	216
247	10*17821	P	9-14-16	GREGORY S CROW	929	639
248	10*17902	P	9-14-16	SUSAN LYNN SEDGEMER	920	59
249	10*17904	P	9-14-16	RICKY LEE AND TAMMY J WATSON	921	213
250	10*17958	P	9-14-16	SANDRA KAY RICHMOND	929	632
251	10*18250	P	9-14-16	BRENDA KAY COFFIELD AND WILLIAM E COFFIELD	928	546
252	10*18251	P	9-14-16	BARBARA JEAN TOMASZCZYK AND LAWRENCE M TOMASZCZYK	928	575
253	10*18252	P	9-14-16	SHARON L AND DONALD N KAISER	928	572
254	10*18253	P	9-14-16	JOAN M SCHRANTZ	928	569
255	10*18285	P	9-14-16	KATHERINE LYNN SMITH	929	637
256	10*18303	P	9-14-16	WILLIAM E MOORE AND CYNTHIA M MOORE	944	438
257	10*18304	P	9-14-16	EVA L FAWCETT	929	321
258	10*18305	P	9-14-16	MARY L WOLFKILL AND HARRY H WOLFKILL	929	324
259	10*18306	P	9-14-16	MILAN B MARINCOV AND ELIZABETH E MARINCOV	929	327
260	10*18307	P	9-14-16	DEBORAH S KACKLEY AND ROBERT A KACKLEY	929	330
261	10*18308	P	9-14-16	LINDA A DAVIS AND JAMES M DAVIS	929	333
262	10*18309	P	9-14-16	LARRY W HOBOKEN AND KATHRYN J HOBOKEN	929	336
263	10*18310	P	9-14-16	VIRGINIA A PASQUALUCCI	945	478
264	10*18311	P	9-14-16	JOYCE D JONES	929	339
265	10*18347	P	9-14-16	ELMA LOU LADNER	931	397
266	10*18348	P	9-14-16	FORREST N SIBURT AND ARLENE G SIBURT	931	362
267	10*18349	P	9-14-16	DAWN C GOSKY AND GLENN P GOSKY	931	365
268	10*18400	P	9-14-16	CHERYL ANN VYHNAL AND FRANK T VYHNAL	932	609
269	10*18457	P	9-14-16	SHEILA M KRULL AND JAMES W KRULL	933	177
270	10*18459	P	9-14-16	SANDRA K NELSON AND RICKEY A NELSON	933	174
271	10*18460	P	9-14-16	ROBERT W CERMAK AND PATRICIA LYNN CERMAK	933	171
272	10*18461	P	9-14-16	STEVEN E RUNION AND JAN M RUNION	933	168
273	10*18462	P	9-14-16	NANCY L PAULETTE AND JOSEPH L PAULETTE	933	165
274	10*18463	P	9-14-16	MILANA L REDJINGER AND ROBERT W REDJINGER	933	162
275	10*18464	P	9-14-16	ROBERTA J EDDY AND RONALD D EDDY	933	159
276	10*18465	P	9-14-16	GAYLE C HATHAWAY	933	156
277	10*18465	P	9-14-16	REBECCA M PENNINGTON	933	154
278	10*18467	P	9-14-16	SAMANTHA L BOYLES AND DARRELL L BOYLES	933	145
279	10*18468	P	9-14-16	PATTY J UCITIS AND GEORGE LICITIS	933	142
280	10*18523	P	9-14-16	KENT R HARRIS	933	600
281	10*18525	P	9-14-16	WAYNE M CERMAK	933	594
282	10*18574	P	9-14-16	DAE MARIE WARDEN	935	24
283	10*18575	P	9-14-16	DEAN P PENNINGTON	935	14
284	10*18576	P	9-14-16	SCOTT D VANNEHOUSE	935	12
285	10*18577	P	9-14-16	KELLY ANN DENOON	935	10
286	10*18578	P	9-14-16	KIMBERLY ELLEN DENOON	935	8
287	10*18579	P	9-14-16	ROGER EDWARD DENOON JR	935	6
288	10*18580	P	9-14-16	BRADLEY R CROW	935	4
289	10*18611	P	9-14-16	DARYL MCGUFFIN AND NALENA H MCGUFFIN	934	598
290	10*18627	P	9-14-16	GERALDINE MAY SPONAUGLE AND JUNIOR RICHARD SPONAUGLE	936	234
291	10*18629	P	9-14-16	THOMAS D ULLOM AND CATHERINE A ULLOM	936	230
292	10*18630	P	9-14-16	TIMOTHY D ULLOM AND NANCY M ULLOM	936	232
293	10*18634	P	9-14-16	KATHRYN E SIBURT	936	236
294	10*18635	P	9-14-16	GLADYS CROW	936	238
295	10*18705	P	9-14-16	DELORES JEAN POLAND	938	535
296	10*18708	P	9-14-16	DELORES KOLAKOWSKI	938	540
297	10*18709	P	9-14-16	CONSTANCE M SIMPSON AND DANIEL L SIMPSON	938	537
298	10*18710	P	9-14-16	LEWIS M QUIGLEY AND MAXINE V QUIGLEY	938	267
299	10*18711	P	9-14-16	H GLENN CROW	938	269
300	10*18712	P	9-14-16	KENNETH R BURCH	938	272

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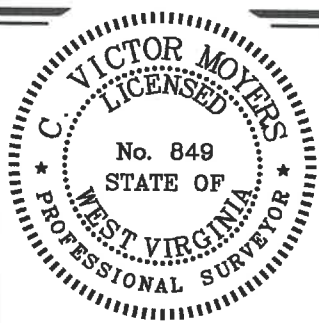
DATE MARCH 18, 2021

REVISED \_\_\_\_\_, 20\_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

NO. STATE COUNTY PERMIT



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

10/27/2022

P.S. C. Victor Moyers

849

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

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

COUNTY NAME PERMIT



**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC±  
WELL 15HU  
TUG HILL OPERATING**



12 Venhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
slnw.com

301	10*18713	P	9-14-16	GEORGE A JOHNS JR AND KAREN L JOHNS	938	275
302	10*18850	P	9-14-16	GERALD Q MOORE AND SYLVIA JUDITH MOORE	937	393
303	10*18831	P	9-14-16	JACQUELYN A ROBERTS	937	395
304	10*18832	P	9-14-16	DAN HELTON AND PEGGY ANNA HELTON	937	397
305	10*18833	P	9-14-16	WILLIAM J ULLOM	937	399
306	10*18834	P	9-14-16	JAMES R ROCKEY	938	1
307	10*18939	P	9-14-16	PEGGY J CROW	939	384
308	10*18940	P	9-14-16	STEVEN T JOHNS AND KAREN A JOHNS	939	277
309	10*18941	P	9-14-16	MARGARET E JONES AND CHARLES T JONES	939	393
310	10*18942	P	9-14-16	MARY JO ROCKEY	939	391
311	10*18953	P	9-14-16	CYNTHIA M GROSS AND MICHAEL D GROSS	941	299
312	10*18954	P	9-14-16	ROBERT E TOEPFER JR AND ELIZABETH A TOEPFER	941	295
313	10*18955	P	9-14-16	CHARLES W LADNER	941	293
314	10*18956	P	9-14-16	MICHELE T VALYKEO	941	297
315	10*19506	P	9-14-16	MARK R MOORE AND ASHTYN C MOORE	942	610
316	10*19603	P	9-14-16	JAMES KEITH NATIONS BY HIS COURT APPTD GUARDIAN AD LITEM DAVID C WHITE ESQ	944	134
317	10*19609	P	9-14-16	LLOYD T HALL AND LORNA K HALL	937	320
318	10*19664	P	9-14-16	PAUL EUGENE SUTTON JR & NICKIE L SUTTON	944	436
319	10*19665	P	9-14-16	GAIL L SUTTON	944	138
320	10*19836	P	9-14-16	SUSAN E MARTIN	945	582
321	10*19837	P	9-14-16	SHARON K LEONARD	944	440
322	10*19839	P	9-14-16	PAMELA DOYLE BROWN	945	584
323	10*19840	P	9-14-16	PHYLLIS JEAN CROW HEWITT	945	586
324	10*19890	P	9-14-16	JO ANN FORRESTER	948	569
325	10*19891	P	9-14-16	TWILA J GORDON AND ALEXANDER J GORDON	945	475
326	10*19974	P	9-14-16	RONDA L SKILTON AND THOMAS A SKILTON	948	200
327	10*21010	P	9-14-16	LISA A HALL AND KYLE W HALL	951	185
328	10*21038	P	9-14-16	LAURA A WALSH AND MICHAEL P WALSH SR	951	188
329	10*21040	P	9-14-16	VICKIE L POND AND SIDNEY P POND	949	360
330	10*21049	P	9-14-16	JOHN J HENRY III	951	175
331	10*21059	P	9-14-16	JOHN B HIZER AND SONYA L HIZER	951	172
332	10*21060	P	9-14-16	PETER DOMINICK DENOON & DENISE J DENOON	951	170
333	10*21134	P	9-14-16	NANCY J LULLOM	951	179
334	10*21135	P	9-14-16	CHARLES K NATIONS	953	53
335	10*21136	P	9-14-16	STEVEN J KIM AND LUCIA B KIM	953	51
336	10*21137	P	9-14-16	GLORIA JEAN SELMON	951	177
337	10*21187	P	9-14-16	JEFFREY S HIZER AND BONNIE LYNN HIZER	951	183
338	10*21188	P	9-14-16	TERRY S WEEKLEY AND KRISTAL D WEEKLEY	951	181
339	10*21247	P	9-14-16	GLORIA LUCAS	953	57
340	10*21248	P	9-14-16	ESSIE BUCHANAN	953	219
341	10*21249	P	9-14-16	PEGGY HARTLEY	953	55
342	10*21338	P	9-14-16	DOROTHY I WHITE	953	217
343	10*21339	P	9-14-16	MICHAEL W SMITH	953	212
344	10*21340	P	9-14-16	MARY ANN BURNS AND SIDNEY P BURNS	953	214
345	10*21413	P	9-14-16	CHIKAKO YAMASHIRO HIZER	956	598
346	10*21446	P	9-14-16	LAURA L GORBY	956	594
347	10*21447	P	9-14-16	GINA L UPDEGRAFF	956	596
348	10*21477	P	9-14-16	PAUL EUGENE SUTTON SR	944	136
349	10*21555	P	9-14-16	HOWARD A BLAKE & SHARON ANN BLAKE HOWARD A BLAKE POA FOR SHARON ANN BLAKE	957	390
350	10*21610	P	9-14-16	THERESA E CREEGER AND GREGORY J CREEGER	958	467
351	10*21611	P	9-14-16	KEITH GOUDY AND NANCY GOUDY	959	459
352	10*21612	P	9-14-16	YANCY R ARRINGTON AND TERESA C ARRINGTON	959	457
353	10*21881	P	9-14-16	HELEN LOUISE HUGHES	953	221
354	10*21933	P	9-14-16	BRENDA WEEKLEY BEAVER & DANIEL T BEAVER	960	4
355	10*22151	P	9-14-16	GERALD W LUNA AND CHERI E LUNA	954	342
356	10*22289	P	9-14-16	KAREN ELAINE WOLFE AND JAMES BRENT WOLFE	962	285
357	10*22290	P	9-14-16	DAVID W HUMMEL SR	962	281
358	10*22297	P	9-14-16	MARK L ADAMS	962	283
359	10*22399	P	9-14-16	WILLIAM T SCHMITT AND PENNY E SCHMITT	963	118
360	10*22400	P	9-14-16	NANCY A CHURCH & RALPH E CHURCH	963	115
361	10*22401	P	9-14-16	DEBORAH L ONEAL	963	113
362	10*22402	P	9-14-16	RUSSELL B GODDARD	963	111
363	10*22403	P	9-14-16	DONNA M TAYLOR	963	109
364	10*22409	P	9-14-16	LORI ANN OAKS AND LARRY D OAKS	963	121
365	10*22416	P	9-14-16	ADA M MOORE	963	350
366	10*22456	P	9-14-16	MICHAEL V GODDARD	964	460
367	10*22457	P	9-14-16	CATHERINE M MESSNER	964	462
368	10*22522	P	9-14-16	JAMES D COCHRAN AND LINDA M COCHRAN	966	493
369	10*22523	P	9-14-16	DEBRA E MOORE AND SCOTT MOORE	966	490
370	10*22543	P	9-14-16	MITCHELL FORRESTER AND CECILIA FORRESTER	966	188
371	10*22544	P	9-14-16	MELODIE J HOFF AND DOUGLAS T HOFF	966	191
372	10*22602	P	9-14-16	CYNTHIA JO MOORE	966	484
373	10*22603	P	9-14-16	APRIL BERISFORD AND MICHAEL BERISFORD	966	487
374	10*22628	P	9-14-16	JAMES C BALL	966	586
375	10*22629	P	9-14-16	LISA R GODDARD	966	588
376	10*22782	P	9-14-16	JULIE LYNN SCOTT	972	43
377	10*23005	P	9-14-16	VIRGINIA E SAKALO AND MICHAEL A SAKALO	984	40
378	10*23331	P	9-14-16	JACQUELINE A PATTERSON AND CHARLES ALLEN PATTERSON	983	82
379	10*23453	P	9-14-16	ROGER W RHODES	1008	303
380	10*23457	P	9-14-16	GEORGIA MITCHELL ETAL HERMAN LANTZ, SPECIAL COMMISSIONER	108	305
381	10*23952	P	9-14-16	MATTHEW S BRITTON, A MINOR ERIC GORDON, SPECIAL COMMISSIONER	1020	247
382	10*24083	P	9-14-16	JOSEPH B CROW JR	1021	134
383	10*24240	P	9-14-16	ALF THOMAS MOORE AND CHERYL A MOORE	1022	362
384	10*24275	P	9-14-16	GEORGE B CROW JR AND SHIRLEY CROW	1023	485
385	10*24276	P	9-14-16	MARTHA L PULVER	1023	483
386	10*24277	P	9-14-16	HOWARD L KUHN AND MARY L KUHN	1023	488
387	10*24292	P	9-14-16	MARK CURTIS	1023	520
388	10*24401	P	9-14-16	JOSEPH KOLAKOWSKI JR	1024	322
389	10*24410	P	9-14-16	MICHAEL KOLAKOWSKI AND LEA KOLAKOWSKI	1024	319
390	10*24411	P	9-14-16	MARGIE M MILTON	1025	156
391	10*24412	P	9-14-16	JAMES P DERROW AND CHRISTINE M DERROW	1024	315
392	10*24414	P	9-14-16	ROBERT ALLEN SUTTON AND MICKIE L SUTTON	1024	313
393	10*24435	P	9-14-16	JAMES C ADAMS AND NICOLE D ADAMS	1025	158
394	10*24675	P	9-14-16	MICHELLE M KOLAKOWSKI	1027	126
395	10*24676	P	9-14-16	THERESA THOMAS	1025	338
396	10*24735	P	9-14-16	EARL SELMON	1027	304
397	10*24736	P	9-14-16	SUSAN L SCHULTE	1027	300
398	10*24764	P	9-14-16	MARLENA PENNINGTON ET AL	1027	594
399	10*24765	P	9-14-16	CRYSTAL CURTIS	1027	592

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FILE NO. 8811P15HUAD.dwg  
KEITH STERN N-15HU-REV2

DATE MARCH 18, 2021

REVISED \_\_\_\_\_, 20\_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

NO. STATE COUNTY PERMIT



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

10/27/2022

P.S. 849 *C. Victor Moyers*

COUNTY NAME \_\_\_\_\_ PERMIT \_\_\_\_\_

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

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

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC±  
WELL 15HU  
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
slsvw.com

400	10*24766	P	9-14-16	LLOYD E YOHO	1027	590
401	10*24857	P	9-14-16	JANET KIMBLE AND JOHN KIMBLE	1028	109
402	10*24873	P	9-14-16	WAYNE PRICE	1028	117
403	10*24874	P	9-14-16	DONALD SMOTHERMAN AND MARGARET SMOTHERMAN	1028	115
404	10*24876	P	9-14-16	JAMES D WHITE AND BRITTNEY C WHITE	1028	113
405	10*24877	P	9-14-16	DEBORAH LEDGER AND JOHN H LEDGER	1028	111
406	10*25011	P	9-14-16	JOHN DAVID CROW	1029	537
407	10*25012	P	9-14-16	LARRY B PATTERSON	1029	535
408	10*25219	P	9-14-16	THE ESTATE OF PAUL W BLAKE	1030	125
409	10*25220	P	9-14-16	MISTY MOORE	1030	127
410	10*25221	P	9-14-16	CHARLES ROY SUTTON	1030	129
411	10*25321	P	9-14-16	CINDY L AND KERRY L WINTERS	1031	571
412	10*25498	P	9-14-16	DAN AND SHARON CVETANOVICH	1034	232
413	10*26626	P	9-14-16	MARLENA PENNINGTON	1027	594
414	10*23087	Q	9-14-12	REASON AND CATHERINE V YOUNG	68	69
415	10*19621	R	9-14-1	MARY RUTH FROHNAPPEL	938	595
416	10*19622	R	9-14-1	KENNETH D SIBURT JR AND LORI SIBURT	938	597
417	10*19623	R	9-14-1	SAN DRA SIBURT FROWEN & GEORGE FROWEN	938	600
418	10*19627	R	9-14-1	RONALD S YOUNG	944	192
419	10*19655	R	9-14-1	CHESTNUT HOLDINGS INC	949	309
420	10*19678	R	9-14-1	WILLIAM C. JOBES	944	188
421	10*19679	R	9-14-1	DAVID A DARRAH SR AND ANITA SLOUGH-DARRAH	946	54
422	10*19725	R	9-14-1	MAMIE V ARNOLD	944	454
423	10*21213	R	9-14-1	JAMES B SIBURT AND DELILA D SIBURT	957	1077
424	10*21214	R	9-14-1	VICKI J CHERRY AND RICKEY E CHERRY	949	139
425	10*21215	R	9-14-1	ALAN K SIBURT ET UX	949	136
426	10*21216	R	9-14-1	RODNEY L SIBURT	949	142
427	10*21559	R	9-14-1	GUY L BUZZARD TRUSTEE THE GUY L BUZZARD 2017 IRREVOCABLE TRUST	957	388
428	10*22464	R	9-14-1	DONNA KYLE	964	470
429	10*22465	R	9-14-1	LOIS KURPIL FKA LOIS HERCULES	964	472
430	10*22466	R	9-14-1	JUDITH MAY CONNER	964	468
431	10*22516	R	9-14-1	SHARON RUSSELL	964	464
432	10*22518	R	9-14-1	GEORGE EDWARDS	964	466
433	10*22856	R	9-14-1	CHARLES W MILLER AND ESTHER JEAN MILLER	977	51
434	10*23435	R	9-14-1	LLOYD C. ARNOLD & JUDITH C. ARNOLD	1008	301
435	10*15510	S	9-11-12	ELAINE PHELPS ET VIR	718	326
436	10*15511	S	9-11-12	DAVID E CROW	718	376
437	10*15512	S	9-11-12	FRANCES COFFEY	718	378
438	10*15513	S	9-11-12	KAY KEYES	718	330
439	10*15514	S	9-11-12	L PAUL CROW	718	336
440	10*15515	S	9-11-12	DESIRE L CROW	718	334
441	10*15516	S	9-11-12	ROSE MARIE KIELGCZEWSKI	718	354
442	10*15517	S	9-11-12	DIANNE GELLNER & GARY GELLNER	718	345
443	10*15518	S	9-11-12	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	718	347
444	10*15519	S	9-11-12	JOHN CROW	726	580
445	10*15520	S	9-11-12	TIMOTHY CROW	726	582
446	10*19685	S	9-11-12	MORGAN H MOSSER AND NANCY MOSSER	944	445
447	10*21093	S	9-11-12	DUNCAN S LINN AND POLLY LU BROWN	952	157
448	10*21492	S	9-11-12	JUDITH FISK	957	282
449	10*21494	S	9-11-12	EILEEN M SLATE AND DALE A SLATE	957	284
450	10*21495	S	9-11-12	E JEN BAIRD AND GEORGE S BAIRD AMENDED REVOCABLE TRUST AGREEMENT	966	618
451	10*21843	S	9-11-12	JOHN B HOAGLAND AND PATRICIA A HOAGLAND	959	620
452	10*21923	S	9-11-12	DOROTHY JEAN BURKLE BOYD	953	468
453	10*22090	S	9-11-12	KATHERINE ANN BOYD BLAKE	953	473
454	10*22153	S	9-11-12	JODY A SCHOTTLER AND THOMAS A SCHOTTLER	953	470
455	10*22462	S	9-11-12	ROBERT CALDWELL MEAD	964	490
456	10*22608	S	9-11-12	SARAH BAIRD LINN	966	620
457	10*22666	S	9-11-12	JOSEPH W LINN JR AND TAMMY S LINN	968	230
458	10*22771	S	9-11-12	KATHARINE B SILBAUGH AND DANIEL JURAY	970	24
459	10*22855	S	9-11-12	KIM O MAGHAN AND JAMES G MAGHAN	977	49
460	10*23024	S	9-11-12	KATHRYN A TAGGART AND EVERETT TAGGART JR	977	289
461	10*23059	S	9-11-12	GAIL W STEWART	977	287
462	10*23165	S	9-11-12	EDITH BOYD ORR AND WENDELL FRANKLIN ORR	984	68
463	10*23389	S	9-11-12	LEESA O THOMPSON	972	45
464	10*23427	S	9-11-12	SANDY VINCENT AND STEVEN VINCENT	1008	307
465	10*23652	S	9-11-12	KATHARINE ATWOOD AND MICHAEL GRITTON	1009	291
466	10*23686	S	9-11-12	RANDALL T ULLOM AND ROSAUE FERMO-ULLOM	1010	400
467	10*23687	S	9-11-12	ELIZABETH F BAIRD	1010	402
468	10*23688	S	9-11-12	MELISSA DUBOIS BAIRD	1010	404
469	10*23692	S	9-11-12	WILLIAM ATWOOD AND ELIZABETH ATWOOD	1010	408
470	10*23693	S	9-11-12	JOHN ATWOOD AND ANNETTE ATWOOD	1010	406
471	10*24222	S	9-11-12	SALVATION ARMY	1022	371
472	10*24282	S	9-11-12	CLARA OSBORNE DOUGLAS	1023	481
473	10*24296	S	9-11-12	KATHARINE D LINN	1023	522
474	10*24400	S	9-11-12	JANE W VARDY ET AL	1024	317
475	10*47051.123.1	S	9-11-12	LLOYD G BAKER	865	389
476	10*47051.123.2	S	9-11-12	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	873	143
477	10*16258	T	9-11-13	CHESTNUT HOLDINGS INC	848	234
478	10*15582	U	9-11-10	ROBERT L CLARK	585	238
479	10*47051.108.1	V	9-11-9	MICHAEL A WHETZEL	885	51
480	10*47051.243.1	W	9-14-21	MARY A FOX	879	332
481	10*47051.243.2	W	9-14-21	PAUL G FOX	879	335
482	10*47051.243.3	W	9-14-21	MARK H FOX	879	338
483	10*47051.243.4	W	9-14-21	DAVID E FOX	876	55
484	10*47051.243.5	W	9-14-21	LOUIS T FOX AND KAREN A FOX	876	58
485	10*47051.243.6	W	9-14-21	THOMAS J FOX	876	61
486	10*15837	X	9-17-4.1	ANITA DIANE ANTILL AND TERRY ANTILL	742	85
487	10*15836	X	9-17-4.1	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	79
488	10*15842	X	9-17-4.1	HOMER L SIMMONS AND GLADYS R SIMMONS	742	329
489	10*16007	X	9-17-4.1	MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER	799	436
490	10*16008	X	9-17-4.1	DONNA KAY ALLEN AND ROGER ALLEN	801	222
491	10*17500	X	9-17-4.1	TRACY L AND KEITH W BARNBY	916	116
492	10*17666	X	9-17-4.1	LILA FAYE BONAR SNODGRASS AND DONALD T SNODGRASS	949	172
493	10*17673	X	9-17-4.1	JAMES PERRY COCHRAN	932	567
494	10*17707	X	9-17-4.1	JACQUELYN S FERRARI AND JOHN C FERRARI	949	177
495	10*17709	X	9-17-4.1	CAROL GONGOLA	949	167
496	10*17765	X	9-17-4.1	ROBERTA YOUNG	949	163
497	10*17840	X	9-17-4.1	RONALD D KOONTZ & BETH ANN KOONTZ	942	432
498	10*17836	X	9-17-4.1	ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS	924	536
499	10*17887	X	9-17-4.1	LEO C HILKE AND BETTY M HILKE	924	531
500	10*17977	X	9-17-4.1	BRANNEN DAUGHTERY	925	359

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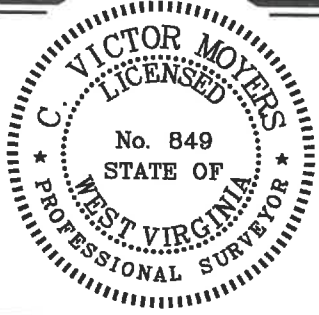
DATE MARCH 18, 2021

REVISED \_\_\_\_\_, 20\_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

NO. STATE COUNTY PERMIT



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

10/27/2022

P.S. 849 *C. Victor Moyers*

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

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

COUNTY NAME PERMIT

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC±  
WELL 15HU  
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
sfsww.com

501	10*17980	X	9-17-4.1	ANITA RAE MILLER	925	370
502	10*17981	X	9-17-4.1	MICHAEL E SWIFT AND MELODY A SWIFT	925	372
503	10*18031	X	9-17-4.1	LEE ANNE MILLER	927	222
504	10*18092	X	9-17-4.1	DAVID MCDOWELL AND CRYSTAL MCDOWELL	927	283
505	10*18093	X	9-17-4.1	JENNIFER WHEATON	927	289
506	10*18094	X	9-17-4.1	BONNIE GRISELL	927	231
507	10*18095	X	9-17-4.1	TEXYN L MILLER AND GEORGIA A MILLER	927	287
508	10*18098	X	9-17-4.1	LISA ANN MCDOWELL AND ROBERT JOSEPH HILL	939	268
509	10*18099	X	9-17-4.1	RAE ELLEN FLOYD AND KENNETH FLOYD	927	233
510	10*18107	X	9-17-4.1	ANITA MAE MASON	927	238
511	10*18167	X	9-17-4.1	NEL CALL AND MELINDA CALL	927	492
512	10*18168	X	9-17-4.1	SANDRA YANAGAWA	927	498
513	10*18169	X	9-17-4.1	KAREN K WILLIAMS	927	628
514	10*18170	X	9-17-4.1	KAREN MCDOWELL CECIL AND JAMES E CECIL	927	633
515	10*18192	X	9-17-4.1	STEPHEN S MASON AND CAROLE K MASON	928	625
516	10*18193	X	9-17-4.1	CAROLYN LEE FUREY AND MARTIN J FUREY	949	158
517	10*18194	X	9-17-4.1	PAMELA BEYLER AND CHAD R BEYLER	928	630
518	10*18197	X	9-17-4.1	BARBARA K BURLEY AND DAVID K BURLEY	928	641
519	10*18198	X	9-17-4.1	MARY THERESA SOLEAU AND THOMAS SOLEAU	928	643
520	10*18199	X	9-17-4.1	LAWRENCE J VAUGHN AND GAIL L VAUGHN	928	532
521	10*18260	X	9-17-4.1	GEMMA RUDY AND TIMOTHY RUDY	928	584
522	10*18295	X	9-17-4.1	THOMAS R BAKER AND VICKIE L BAKER	929	262
523	10*18298	X	9-17-4.1	MAUREEN GREGG	929	273
524	10*18300	X	9-17-4.1	ROBERT W ODOM AND CASSANDRA L ODOM	929	283
525	10*18361	X	9-17-4.1	MARY JO CAIN	931	407
526	10*18417	X	9-17-4.1	CHERYL L HILL	932	577
527	10*18487	X	9-17-4.1	NANCY L STANGEL AND JOHN J STANGEL	933	113
528	10*18488	X	9-17-4.1	CHARLINE M ENGLE AND KEVIN E ENGLE	933	118
529	10*18508	X	9-17-4.1	PATRICIA LUANNE BONAR	925	351
530	10*18517	X	9-17-4.1	LORI SHANAHAN AND PATRICK SHANAHAN	933	575
531	10*18613	X	9-17-4.1	JANE LOUISE CAIN AND DANIEL CARL HOLTZ	934	603
532	10*18655	X	9-17-4.1	PATRICIA L LEHN	936	95
533	10*18656	X	9-17-4.1	PAMELA CALL	936	100
534	10*18658	X	9-17-4.1	ELIZABETH JANE KELLER	986	107
535	10*18659	X	9-17-4.1	CATHERINE P MASON	936	112
536	10*18799	X	9-17-4.1	CHARLES J DARMAFALL DECEASED	937	694
537	10*18805	X	9-17-4.1	CINDY STEVENS TOZIER	937	628
538	10*19373	X	9-17-4.1	JESSICA WHEATON	931	411
539	10*19403	X	9-17-4.1	LAWRENCE R LOTZ	951	114
540	10*19404	X	9-17-4.1	HOWARD M CAIN AND EMMA JEAN CAIN	939	283
541	10*19476	X	9-17-4.1	WINONA RIDDLER	941	331
542	10*19689	X	9-17-4.1	EDMOND TURGEON JR AND CATHY STEVENS TURGEON	944	156
543	10*19718	X	9-17-4.1	CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY	944	412
544	10*19879	X	9-17-4.1	MARY V GILSON AND WALTER M GILSON	945	588
545	10*19933	X	9-17-4.1	MARY ANN GRIFFITH	948	555
546	10*19937	X	9-17-4.1	JAMES D STEVENS AND DOROTHY M STEVENS	949	151
547	10*19938	X	9-17-4.1	JOHN H STEVENS AND LYNDA L STEVENS	949	144
548	10*21026	X	9-17-4.1	NANCY M MORGAN	951	110
549	10*21211	X	9-17-4.1	NILA JEAN BAYLES	951	118
550	10*21841	X	9-17-4.1	ENERGY DEEP RESOURCES INC	959	631
551	10*21842	X	9-17-4.1	JOSEPH NOKOVICH	959	635
552	10*21927	X	9-17-4.1	BLACK GOLD GROUP LTD	964	474
553	10*21940	X	9-17-4.1	ALYSA J JORDAN & TERRY M JORDAN	963	346
554	10*22376	X	9-17-4.1	MARGARET KUCHARZ AND JAMES C KUCHARZ	962	270
555	10*22412	X	9-17-4.1	CHAD E LONGFELLOW	963	124
556	10*22599	X	9-17-4.1	BRYANT R SWIFT AND KATHY SWIFT	966	456
557	10*22776	X	9-17-4.1	JAMES ROBERT WELLS	970	19
558	10*22849	X	9-17-4.1	NBL MCELROY AND SUE MASON MCELROY	977	39
559	10*22851	X	9-17-4.1	JOHN J HELSTERN AND LYNN D HELSTERN	977	34
560	10*22853	X	9-17-4.1	RONALD LEE HENSLEY AND MARY ANN HENSLEY	977	34
561	10*23076	X	9-17-4.1	JACK R BERISFORD AKA RANDY BERISFORD	984	43
562	10*23260	X	9-17-4.1	IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER	988	73
563	10*23668	X	9-17-4.1	THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNIAK EXECUTRIX	1009	286
564	10*47051.219.27	X	9-17-4.1	MARSHA BERISFORD	902	425
565	10*47051.219.33	X	9-17-4.1	JOHN H HILKE AND ALIDA HILKE	898	602
566	10*47051.219.36	X	9-17-4.1	GAREN MCDOWELL AND ELIZABETH MCDOWELL	898	615
567	10*47051.219.37	X	9-17-4.1	SUSAN H KEY	898	621
568	10*47051.219.38	X	9-17-4.1	TIMOTHY MCDOWELL AND CYNTHIA MCDOWELL	902	431
569	10*47051.219.39	X	9-17-4.1	ALICE THIPPHAVONG AND VISITH THIPPHAVONG	902	437
570	10*17169	X	9-17-4.1	ALMA L VAN SCYOC	692	404
571	10*17171	X	9-17-4.1	OPAL MICKY	690	631
572	10*17173	X	9-17-4.1	LOYD R. EVANS	694	526
573	10*47051.219.1	X	9-17-4.1	DAVID LEE FRANKLIN	874	312
574	10*19702	X	9-17-4.1	WV MINERALS INC	951	108
575	10*15836	Y	9-17-4	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	79
576	10*15837	Y	9-17-4	ANITA DIANE ANTILL AND TERRY ANTILL	742	85
577	10*15842	Y	9-17-4	HOMER L SIMMONS AND GLADYS R SIMMONS	742	329
578	10*16007	Y	9-17-4	MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER	799	436
579	10*16008	Y	9-17-4	DONNA KAY ALLEN AND ROGER ALLEN	801	222
580	10*17500	Y	9-17-4	TRACY L AND KEITH W BARNBY	916	116
581	10*17666	Y	9-17-4	LILA FAYE BONAR SNODGRASS AND DONALD T SNODGRASS	949	172
582	10*17673	Y	9-17-4	JAMES PERRY COCHRAN	932	567
583	10*17707	Y	9-17-4	JACQUELYN S FERRARI AND JOHN C FERRARI	949	177
584	10*17709	Y	9-17-4	CAROL GONGOLA	949	167
585	10*17765	Y	9-17-4	ROBERTA YOUNG	949	163
586	10*17840	Y	9-17-4	RONALD D KOONTZ & BETH ANN KOONTZ	942	432
587	10*17886	Y	9-17-4	ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS	924	536
588	10*17887	Y	9-17-4	LEO C HILKE AND BETTY M HILKE	924	531
589	10*17977	Y	9-17-4	BRANNEN DAUGHERTY	925	359
590	10*17980	Y	9-17-4	ANITA RAE MILLER	925	370
591	10*17981	Y	9-17-4	MICHAEL E SWIFT AND MELODY A SWIFT	925	372
592	10*18031	Y	9-17-4	LEE ANNE MILLER	927	222
593	10*18092	Y	9-17-4	DAVID MCDOWELL AND CRYSTAL MCDOWELL	927	283
594	10*18093	Y	9-17-4	JENNIFER WHEATON	927	289
595	10*18094	Y	9-17-4	BONNIE GRISELL	927	231
596	10*18095	Y	9-17-4	TEXYN L MILLER AND GEORGIA A MILLER	927	287
597	10*18098	Y	9-17-4	LISA ANN MCDOWELL AND ROBERT JOSEPH HILL	939	268
598	10*18099	Y	9-17-4	RAE ELLEN FLOYD AND KENNETH FLOYD	927	233
599	10*18107	Y	9-17-4	ANITA MAE MASON	927	238
600	10*18167	Y	9-17-4	NEL CALL AND MELINDA CALL	927	492
601	10*18168	Y	9-17-4	SANDRA YANAGAWA	927	498

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WV Department of  
Environmental Protection

FILE NO. 8811P15HUAD.dwg  
KEITH STERN N-15HU-REV2

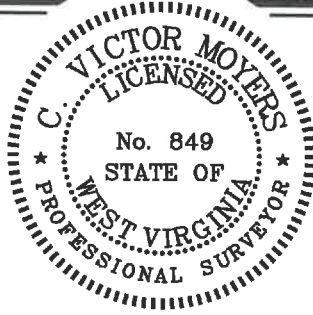
DATE MARCH 18, 20 21

REVISED \_\_\_\_\_, 20 \_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

STATE COUNTY PERMIT



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

10/27/2022

P.S. 849 *C. Victor Moyers*

COUNTY NAME \_\_\_\_\_ PERMIT \_\_\_\_\_

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

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

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC±  
WELL 15HU  
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
sls.com

602	10*18169	Y	9-17-4	KAREN K WILLIAMS	927	628
603	10*18170	Y	9-17-4	KAREN MCDOWELL CECIL AND JAMES E CECIL	927	633
604	10*18192	Y	9-17-4	STEPHEN S MASON AND CAROLE K MASON	928	625
605	10*18193	Y	9-17-4	CAROLYN LEE FUREY AND MARTIN J FUREY	949	158
606	10*18194	Y	9-17-4	PAMELA BEYLER AND CHAD R BEYLER	928	630
607	10*18197	Y	9-17-4	BARBARA K BURLEY AND DAVID K BURLEY	928	641
608	10*18198	Y	9-17-4	MARY THERESA SOLEAU AND THOMAS SOLEAU	928	643
609	10*18199	Y	9-17-4	LAWRENCE J VAUGHN AND GAIL L VAUGHN	928	532
610	10*18260	Y	9-17-4	GEMMA RUDY AND TIMOTHY RUDY	928	584
611	10*18295	Y	9-17-4	THOMAS R BAKER AND VICKIE L BAKER	929	262
612	10*18298	Y	9-17-4	MAUREEN GREGG	929	273
613	10*18300	Y	9-17-4	ROBERT W ODOM AND CASSANDRA L ODOM	929	283
614	10*18361	Y	9-17-4	MARY JO CAIN	931	407
615	10*18417	Y	9-17-4	CHERYL L HILL	932	577
616	10*18487	Y	9-17-4	NANCY L STANGEL AND JOHN J STANGEL	933	113
617	10*18488	Y	9-17-4	CHARLINE M ENGLE AND KEVIN E ENGLE	933	118
618	10*18508	Y	9-17-4	PATRICIA LUANNE BONAR	925	351
619	10*18517	Y	9-17-4	LORI SHANAHAN AND PATRICK SHANAHAN	933	575
620	10*18513	Y	9-17-4	JANE LOUISE CAIN AND DANIEL CARL HOLTZ	934	603
621	10*18655	Y	9-17-4	PATRICIA L LEHN	936	95
622	10*18656	Y	9-17-4	PAMELA CALL	936	100
623	10*18658	Y	9-17-4	ELIZABETH JANE KELLER	936	107
624	10*18659	Y	9-17-4	CATHERINE P MASON	936	112
625	10*18799	Y	9-17-4	CHARLES J DARMAFALL DECEASED	937	634
626	10*18305	Y	9-17-4	CINDY STEVENS TOZIER	937	628
627	10*19373	Y	9-17-4	JESSICA WHEATON	931	411
628	10*19403	Y	9-17-4	LAWRENCE R LOTZ	951	114
629	10*19404	Y	9-17-4	HOWARD M CAIN AND EMMA JEAN CAIN	939	283
630	10*19475	Y	9-17-4	WINONA RIDGLE	941	331
631	10*19689	Y	9-17-4	FOMOND TURGEON JR AND CATHY STEVENS TURGEON	944	356
632	10*19718	Y	9-17-4	CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY	944	412
633	10*19879	Y	9-17-4	MARY V GILSON AND WALTER M GILSON	945	588
634	10*19933	Y	9-17-4	MARY ANN GRIFFITH	948	555
635	10*19937	Y	9-17-4	JAMES D STEVENS AND DOROTHY M STEVENS	949	151
636	10*19938	Y	9-17-4	JOHN H STEVENS AND LYNDA L STEVENS	949	144
637	10*21026	Y	9-17-4	NANCY M MORGAN	951	110
638	10*21211	Y	9-17-4	NILA JEAN BAYLES	951	118
639	10*21841	Y	9-17-4	ENERGY DEEP RESOURCES INC	959	631
640	10*21842	Y	9-17-4	JOSEPH NOKOVICH	959	635
641	10*21927	Y	9-17-4	BLACK GOLD GROUP LTD	964	474
642	10*21940	Y	9-17-4	ALYSSA JORDAN & TERRY M JORDAN	953	346
643	10*22376	Y	9-17-4	MARGARET KUCHARZ AND JAMES C KUCHARZ	962	270
644	10*22412	Y	9-17-4	CHAD E LONGFELLOW	963	124
645	10*22599	Y	9-17-4	BRYANT R SWIFT AND KATHY SWIFT	966	456
646	10*22776	Y	9-17-4	JAMES ROBERT WELLS	970	19
647	10*22849	Y	9-17-4	NEIL MCELROY AND SUE MASON MCELROY	977	44
648	10*22851	Y	9-17-4	JOHN J HELLSTERN AND LYNN D HELLSTERN	977	39
649	10*22853	Y	9-17-4	RONALD LEE HENSLEY AND MARY ANN HENSLEY	977	34
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654	10*47051.219.33	Y	9-17-4	JOHN H HILKE AND ALIDA HILKE	898	602
655	10*47051.219.36	Y	9-17-4	GAREN MCDOWELL AND ELIZABETH MCDOWELL	898	615
656	10*47051.219.37	Y	9-17-4	SUSAN H KEY	898	621
657	10*47051.219.38	Y	9-17-4	TIMOTHY MCDOWELL AND CYNTHIA MCDOWELL	902	431
658	10*47051.219.39	Y	9-17-4	ALICE THIPPHAVONG AND VISITH THIPPHAVONG	902	437
659	10*17169	Y	9-17-4	ALMA L VAN SCYOC	692	404
660	10*17171	Y	9-17-4	OPAL MICKY	690	631
661	10*17173	Y	9-17-4	LLOYD R. EVANS	694	526
662	10*47051.219.1	Y	9-17-4	DAVID LEE FRANKUN	874	312
663	10*19702	Y	9-17-4	WV MINERALS INC	951	108
664	10*15832	Z	9-17-3	ANITA DIANE ANTILL AND TERRY ANTILL	742	121
665	10*15835	Z	9-17-3	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	104
666	10*15847	Z	9-17-3	ROGER BRIGHT AND SUSAN LEIMER - DECEASED	743	285
667	10*15848	Z	9-17-3	HOMER L SIMMONS AND GLADYS R SIMMONS	745	194
668	10*15855	Z	9-17-3	ALICE THIPPHAVONG AND VISITH THIPPHAVONG	747	635
669	10*15856	Z	9-17-3	LEO C HILKE AND BETTY M HILKE	747	629
670	10*15870	Z	9-17-3	JOHN H HILKE AND ALIDA HILKE	750	206
671	10*15872	Z	9-17-3	SUSAN H KEY	751	191
672	10*15836	AA	9-17-4.4	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	79
673	10*15837	AA	9-17-4.4	ANITA DIANE ANTILL AND TERRY ANTILL	742	85
674	10*15842	AA	9-17-4.4	HOMER L SIMMONS AND GLADYS R SIMMONS	742	329
675	10*16007	AA	9-17-4.4	MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER	799	436
676	10*16008	AA	9-17-4.4	DONNA KAY ALLEN AND ROGER ALLEN	801	222
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688	10*17981	AA	9-17-4.4	MICHAEL E SWIFT AND MELODY A SWIFT	925	372
689	10*18613	AA	9-17-4.4	JANE LOUISE CAIN AND DANIEL CARL HOLTZ	934	603
690	10*18031	AA	9-17-4.4	LEE ANNE MILLER	927	222
691	10*18092	AA	9-17-4.4	DAVID MCDOWELL AND CRYSTAL MCDOWELL	927	283
692	10*18093	AA	9-17-4.4	JENNIFER WHEATON	927	289
693	10*18094	AA	9-17-4.4	BONNIE GRISELL	927	231
694	10*18095	AA	9-17-4.4	TEXYN L MILLER AND GEORGIA A MILLER	927	287
695	10*18098	AA	9-17-4.4	USA ANN MCDOWELL AND ROBERT JOSEPH HILL	939	263
696	10*18099	AA	9-17-4.4	RAE ELLEN FLOYD AND KENNETH FLOYD	927	233
697	10*18107	AA	9-17-4.4	ANITA MAE MASON	927	238
698	10*18157	AA	9-17-4.4	NEIL CALLAND MELINDA CALL	927	492
699	10*18168	AA	9-17-4.4	SANDRA YANAGAWA	927	498
700	10*18169	AA	9-17-4.4	KAREN K WILLIAMS	927	628
701	10*18170	AA	9-17-4.4	KAREN MCDOWELL CECIL AND JAMES E CECIL	927	633
702	10*18192	AA	9-17-4.4	STEPHEN S MASON AND CAROLE K MASON	928	625

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WV Department of  
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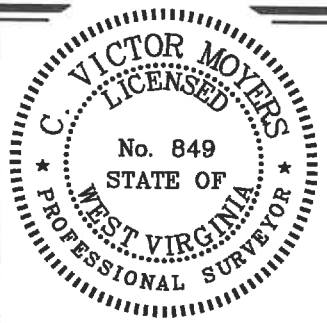
DATE MARCH 18, 20 21

REVISED \_\_\_\_\_, 20 \_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

NO. STATE COUNTY PERMIT



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

10/27/2022

P.S. 849 *C. Victor Moyers*

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

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WELL 15HU  
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
slovv.com

703	10*18193	AA	9-17-4.4	CAROLYN LEE FUREY AND MARTIN J FUREY	949	158
704	10*18194	AA	9-17-4.4	PAMELA BEYLER AND CHAD R BEYLER	928	630
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713	10*18417	AA	9-17-4.4	CHERYL L HILL	932	577
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719	10*18656	AA	9-17-4.4	PAMELA CALL	936	100
720	10*18658	AA	9-17-4.4	ELIZABETH JANE KELLER	936	107
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764	10*18618	BB	9-15-43	ANITA DIANE ANTILL AND TERRY ANTILL	934	615
765	10*18767	BB	9-15-43	HOMER L SIMMONS AND GLADYS R SIMMONS	938	486
766	10*18767	BB	9-15-43	HOMER L SIMMONS AND GLADYS R SIMMONS	938	486
767	10*47051.219.33	BB	9-15-43	JOHN H HILKE AND ALIDA HILKE	898	602
768	10*47051.219.37	BB	9-15-43	SUSAN H KEY	898	621
769	10*47051.219.39	BB	9-15-43	ALICE THIPPHAVONG AND VISITH THIPPHAVONG	902	437
770	10*15837	CC	9-17-4.3	ANITA DIANE ANTILL AND TERRY ANTILL	742	85
771	10*15836	CC	9-17-4.3	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	79
772	10*15842	CC	9-17-4.3	HOMER L SIMMONS AND GLADYS R SIMMONS	742	329
773	10*16007	CC	9-17-4.3	MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER	799	436
774	10*16008	CC	9-17-4.3	DONNA KAY ALLEN AND ROGER ALLEN	801	222
775	10*17500	CC	9-17-4.3	TRACY L AND KEITH W BARNBY	916	116
776	10*17666	CC	9-17-4.3	LILA FAYE BONAR SNOODGRASS AND DONALD T SNOODGRASS	949	172
777	10*17673	CC	9-17-4.3	JAMES PERRY COCHRAN	932	567
778	10*17707	CC	9-17-4.3	JACQUELYN S FERRARI AND JOHN C FERRARI	949	177
779	10*17709	CC	9-17-4.3	CAROL GONGOLA	949	167
780	10*17765	CC	9-17-4.3	ROBERTA YOUNG	949	163
781	10*17840	CC	9-17-4.3	RONALD D KOONTZ & BETH ANN KOONTZ	942	432
782	10*17886	CC	9-17-4.3	ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS	924	536
783	10*17887	CC	9-17-4.3	LEO C HILKE AND BETTY M HILKE	924	531
784	10*17977	CC	9-17-4.3	BRANNEN DAUGHERTY	925	359
785	10*17980	CC	9-17-4.3	ANITA RAE MILLER	925	370
786	10*17981	CC	9-17-4.3	MICHAEL E SWIFT AND MELODY A SWIFT	925	372
787	10*18031	CC	9-17-4.3	LEE ANNE MILLER	927	222
788	10*18092	CC	9-17-4.3	DAVID MCDOWELL AND CRYSTAL MCDOWELL	927	283
789	10*18093	CC	9-17-4.3	JENNIFER WHEATON	927	289
790	10*18094	CC	9-17-4.3	BONNIE GISELL	927	231
791	10*18095	CC	9-17-4.3	TEXYN L MILLER AND GEORGIA A MILLER	927	287
792	10*18098	CC	9-17-4.3	LISA ANN MCDOWELL AND ROBERT JOSEPH HILL	939	263
793	10*18099	CC	9-17-4.3	RAE ELLEN FLOYD AND KENNETH FLOYD	927	233
794	10*18107	CC	9-17-4.3	ANITA MAE MASON	927	238
795	10*18167	CC	9-17-4.3	NEIL CALL AND MELINDA CALL	927	492
796	10*18168	CC	9-17-4.3	SANDRA YANAGAWA	927	498
797	10*18169	CC	9-17-4.3	KAREN K WILLIAMS	927	628
798	10*18170	CC	9-17-4.3	KAREN MCDOWELL CECIL AND JAMES E CECIL	927	633
799	10*18192	CC	9-17-4.3	STEPHEN S MASON AND CAROLE K MASON	928	625
800	10*18193	CC	9-17-4.3	CAROLYN LEE FUREY AND MARTIN J FUREY	949	158
801	10*18194	CC	9-17-4.3	PAMELA BEYLER AND CHAD R BEYLER	928	630
802	10*18197	CC	9-17-4.3	BARBARA K BURLEY AND DAVID K BURLEY	928	641
803	10*18198	CC	9-17-4.3	MARY THERESA SOLEAU AND THOMAS SOLEAU	928	643

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SEP 30 2022  
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STATE OF WEST VIRGINIA  
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P.S.  
849

*C. Victor Moyers*

COUNTY NAME  
PERMIT

FILE NO. 8811P15HUAD.dwg  
KEITH STERN N-15HU-REV2

DATE MARCH 18, 20 21

REVISED \_\_\_\_\_, 20 \_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241  
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 CT CORPORATION SYSTEM  
5400 D BIG TYLER ROAD  
CHARLESTON, WV 25313

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC ±  
WELL 15HU  
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
slsvw.com

804	10*18199	CC	9-17-4.3	LAWRENCE J VAUGHN AND GAIL L VAUGHN	928	532
805	10*18260	CC	9-17-4.3	GEMMA RUDY AND TIMOTHY RUDY	928	584
806	10*18295	CC	9-17-4.3	THOMAS R BAKER AND VICKIE L BAKER	929	262
807	10*18298	CC	9-17-4.3	MAUREEN GREGG	929	273
808	10*18300	CC	9-17-4.3	ROBERT W ODOM AND CASSANDRA L ODOM	929	283
809	10*18361	CC	9-17-4.3	MARY JO CAIN	931	407
810	10*18417	CC	9-17-4.3	CHERYL L HILL	932	577
811	10*18487	CC	9-17-4.3	NANCY L STANGEL AND JOHN J STANGEL	933	113
812	10*18488	CC	9-17-4.3	CHARLINE M ENGLE AND KEVIN E ENGLE	933	118
813	10*18508	CC	9-17-4.3	PATRICIA LUANNE BONAR	925	351
814	10*18517	CC	9-17-4.3	LORI SHANAHAN AND PATRICK SHANAHAN	933	575
815	10*18613	CC	9-17-4.3	JANE LOUISE CAIN AND DANIEL CARL HOLTZ	934	603
816	10*18655	CC	9-17-4.3	PATRICIA L LEHN	936	95
817	10*18656	CC	9-17-4.3	PAMELA CALL	936	100
818	10*18658	CC	9-17-4.3	ELIZABETH JANE KELLER	936	107
819	10*18659	CC	9-17-4.3	CATHERINE P MASON	936	112
820	10*18799	CC	9-17-4.3	CHARLES J DARMAFALL DECEASED	937	634
821	10*18805	CC	9-17-4.3	CINDY STEVENS TOZIER	937	628
822	10*19373	CC	9-17-4.3	JESSICA WHEATON	931	411
823	10*19403	CC	9-17-4.3	LAWRENCE R LOTZ	951	114
824	10*19404	CC	9-17-4.3	HOWARD M CAIN AND EMMA JEAN CAIN	939	283
825	10*19476	CC	9-17-4.3	WINONA RIDDLE	941	331
826	10*19689	CC	9-17-4.3	EDMOND TURGEON JR AND CATHY STEVENS TURGEON	944	156
827	10*19718	CC	9-17-4.3	CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY	944	412
828	10*19879	CC	9-17-4.3	MARY V GILSON AND WALTER M GILSON	945	588
829	10*19933	CC	9-17-4.3	MARY ANN GRIFFITH	948	555
830	10*19937	CC	9-17-4.3	JAMES D STEVENS AND DOROTHY M STEVENS	949	151
831	10*19938	CC	9-17-4.3	JOHN H STEVENS AND LYNDA L STEVENS	949	144
832	10*21026	CC	9-17-4.3	NANCY M MORGAN	951	110
833	10*21211	CC	9-17-4.3	NILA JEAN BAYLES	951	118
834	10*21841	CC	9-17-4.3	ENERGY DEEP RESOURCES INC	959	631
835	10*21842	CC	9-17-4.3	JOSEPH NOKOVICH	959	635
836	10*21927	CC	9-17-4.3	BLACK GOLD GROUP LTD	964	474
837	10*21940	CC	9-17-4.3	ALYSIA JORDAN & TERRY M JORDAN	953	346
838	10*22376	CC	9-17-4.3	MARGARET KUCHARZ AND JAMES C KUCHARZ	962	270
839	10*22412	CC	9-17-4.3	CHAD E LONGFELLOW	963	124
840	10*22599	CC	9-17-4.3	BRYANT R SWIFT AND KATHY SWIFT	966	456
841	10*22776	CC	9-17-4.3	JAMES ROBERT WELLS	970	19
842	10*22849	CC	9-17-4.3	NEL MCELROY AND SUE MASON MCELROY	977	44
843	10*22851	CC	9-17-4.3	JOHN J HELSTERN AND LYNN D HELSTERN	977	39
844	10*22853	CC	9-17-4.3	RONALD LEE HENSLEY AND MARY ANN HENSLEY	977	34
845	10*23076	CC	9-17-4.3	JACK R BERISFORD AKA RANDY BERISFORD	984	43
846	10*23260	CC	9-17-4.3	IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER	988	73
847	10*23668	CC	9-17-4.3	THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNIAK EXECUTRIX	1009	286
848	10*47051.219.27	CC	9-17-4.3	MARSHA BERISFORD	902	425
849	10*47051.219.33	CC	9-17-4.3	JOHN H HILKE AND ALIDA HILKE	898	602
850	10*47051.219.36	CC	9-17-4.3	GAREN MCDOWELL AND ELIZABETH MCDOWELL	898	615
851	10*47051.219.37	CC	9-17-4.3	SUSAN H KEY	898	621
852	10*47051.219.38	CC	9-17-4.3	TIMOTHY MCDOWELL AND CYNTHIA MCDOWELL	902	431
853	10*47051.219.39	CC	9-17-4.3	AUCE THIPPHAVONG AND VISITH THIPPHAVONG	902	437
854	10*17169	CC	9-17-4.3	ALMA L VAN SCYOC	692	404
855	10*17171	CC	9-17-4.3	OPAL MICKY	690	631
856	10*17173	CC	9-17-4.3	LLOYD R EVANS	694	526
857	10*47061.219.1	CC	9-17-4.3	DAVID LEE FRANKLIN	874	312
858	10*19702	CC	9-17-4.3	WV MINERALS INC	951	108
859	10*15836	DD	9-17-4.2	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	79
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893	10*18198	DD	9-17-4.2	MARY THERESA SOLEAU AND THOMAS SOLEAU	928	643
894	10*18199	DD	9-17-4.2	LAWRENCE J VAUGHN AND GAIL L VAUGHN	928	532
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903	10*18508	DD	9-17-4.2	PATRICIA LUANNE BONAR	925	351
904	10*18517	DD	9-17-4.2	LORI SHANAHAN AND PATRICK SHANAHAN	933	575

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FILE NO. 8811P15HUAD.dwg  
KEITH STERN N-15HU-REV2

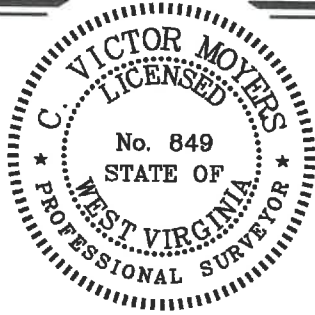
DATE MARCH 18, 2021

REVISED \_\_\_\_\_, 20\_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

NO. STATE COUNTY PERMIT



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



P.S.  
849

*C. Victor Moyers*

COUNTY NAME  
PERMIT

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

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

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC ±  
WELL 15HU  
TUG HILL OPERATING**



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1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
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slews.com

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934	10*23076	DD	9-17-4.2	JACK R BERISFORD AKA RANDY BERISFORD	984	43
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946	10*47051.219.1	DD	9-17-4.2	DAVID LEE FRANKLIN	874	312
947	10*19702	DD	9-17-4.2	WV MINERALS INC	951	108
948	10*15836	EE	9-17-5	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	79
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964	10*18019	EE	9-17-5	SUSAN H KEY	927	272
965	10*18020	EE	9-17-5	ALICE THIPPHAVONG AND VISITH THIPPHAVONG	927	270
966	10*18031	EE	9-17-5	LEE ANNE MILLER	927	222
967	10*18092	EE	9-17-5	DAVID MCDOWELL AND CRYSTAL MCDOWELL	927	283
968	10*18093	EE	9-17-5	JENNIFER WHEATON	927	289
969	10*18094	EE	9-17-5	BONNIE GRISSELL	927	731
970	10*18095	EE	9-17-5	TEXYN L MILLER AND GEORGIA A MILLER	927	287
971	10*18098	EE	9-17-5	LISA ANN MCDOWELL AND ROBERT JOSEPH HILL	939	268
972	10*18099	EE	9-17-5	RAE ELLEN FLOYD AND KENNETH FLOYD	927	233
973	10*18107	EE	9-17-5	ANITA MAE MASON	927	238
974	10*18113	EE	9-17-5	JOHN H HILKE	927	159
975	10*18167	EE	9-17-5	NEL CALL AND MELINDA CALL	927	492
976	10*18168	EE	9-17-5	SANDRA YANAGAWA	927	498
977	10*18169	EE	9-17-5	KAREN K WILLIAMS	927	628
978	10*18170	EE	9-17-5	KAREN MCDOWELL CECIL AND JAMES E CECIL	927	633
979	10*18192	EE	9-17-5	STEPHEN S MASON AND CAROLE K MASON	928	625
980	10*18193	EE	9-17-5	CAROLYN LEE FUREY AND MARTIN J FUREY	949	158
981	10*18194	EE	9-17-5	PAMELA BEYLER AND CHAD R BEYLER	928	630
982	10*18197	EE	9-17-5	BARBARA K BURLEY AND DAVID K BURLEY	928	641
983	10*18198	EE	9-17-5	MARY THERESA SOLEAU AND THOMAS SOLEAU	928	643
984	10*18199	EE	9-17-5	LAWRENCE J VAUGHN AND GAIL L VAUGHN	928	532
985	10*18260	EE	9-17-5	GEMMA RUDY AND TIMOTHY RUDY	928	584
986	10*18295	EE	9-17-5	THOMAS R BAKER AND VICKIE L BAKER	929	262
987	10*18298	EE	9-17-5	MAUREEN GREGG	929	273
988	10*18300	EE	9-17-5	ROBERT W ODOM AND CASSANDRA L ODOM	929	283
989	10*18361	EE	9-17-5	MARY JO CAIN	931	407
990	10*18417	EE	9-17-5	CHERYL L HILL	932	577
991	10*18487	EE	9-17-5	NANCY L STANGEL AND JOHN J STANGEL	933	113
992	10*18488	EE	9-17-5	CHARLINE M ENGLE AND KEVIN E ENGLE	933	118
993	10*18506	EE	9-17-5	PATRICIA LUANNE BONAR	925	351
994	10*18517	EE	9-17-5	LORI SHANAHAN AND PATRICK SHANAHAN	933	575
995	10*18613	EE	9-17-5	JANE LOUISE CAIN AND DANIEL CARL HOLTZ	934	603
996	10*18655	EE	9-17-5	PATRICIA L LEHN	936	95
997	10*18656	EE	9-17-5	PAMELA CALL	936	100
998	10*18658	EE	9-17-5	ELIZABETH JANE KELLER	936	107
999	10*18659	EE	9-17-5	CATHERINE P MASON	936	112
1000	10*18799	EE	9-17-5	CHARLES J DARMAFALL DECEASED	937	634
1001	10*18805	EE	9-17-5	CINDY STEVENS TOZIER	937	628
1002	10*19373	EE	9-17-5	JESSICA WHEATON	931	411
1003	10*19403	EE	9-17-5	LAWRENCE R LOTZ	951	114
1004	10*19404	EE	9-17-5	HOWARD M CAIN AND EMMA JEAN CAIN	939	283
1005	10*19476	EE	9-17-5	WINONA RIDDLE	941	331

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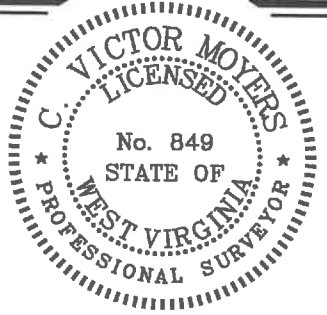
DATE MARCH 18, 20 21

REVISED \_\_\_\_\_, 20 \_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-15HU

API WELL NO. 47 — 051 — 02241

NO. STATE COUNTY PERMIT



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

P.S. 849 *C. Victor Moyers*

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 CHARLESTON, WV 25313

**KEITH STERN N LEASE  
UTICA UNIT - 631.99 AC ±  
WELL 15HU  
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.285.5206  
slsvw.com

1006	10*19689	EE	9-17-5	EDMOND TURGEON JR AND CATHY STEVENS TURGEON	944	156
1007	10*19718	EE	9-17-5	CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY	944	412
1008	10*19879	EE	9-17-5	MARY V GILSON AND WALTER M GILSON	945	588
1009	10*19933	EE	9-17-5	MARY ANN GRIFFITH	948	555
1010	10*19937	EE	9-17-5	JAMES D STEVENS AND DOROTHY M STEVENS	949	151
1011	10*19938	EE	9-17-5	JOHN H STEVENS AND LYNDAL STEVENS	949	144
1012	10*21026	EE	9-17-5	NANCY M MORGAN	951	110
1013	10*21211	EE	9-17-5	NILA JEAN BAYLES	951	118
1014	10*21841	EE	9-17-5	ENERGY DEEP RESOURCES INC	959	631
1015	10*21842	EE	9-17-5	JOSEPH NOKOVICH	959	635
1016	10*21927	EE	9-17-5	BLACK GOLD GROUP LTD	964	474
1017	10*21940	EE	9-17-5	ALYSSA JORDAN & TERRY M JORDAN	953	346
1018	10*22376	EE	9-17-5	MARGARET KUCHARZ AND JAMES C KUCHARZ	962	270
1019	10*22412	EE	9-17-5	CHAD E LONGFELLOW	963	124
1020	10*22599	EE	9-17-5	BRYANT R SWIFT AND KATHY SWIFT	966	456
1021	10*22776	EE	9-17-5	JAMES ROBERT WELLS	970	19
1022	10*22849	EE	9-17-5	NEL MCELROY AND SUE MASON MCELROY	977	44
1023	10*22851	EE	9-17-5	JOHN J HELLSTERN AND LYNN D HELLSTERN	977	39
1024	10*22853	EE	9-17-5	RONALD LEE HENSLEY AND MARY ANN HENSLEY	977	34
1025	10*23076	EE	9-17-5	JACK R BERISFORD AKA RANDY BERISFORD	984	43
1026	10*23260	EE	9-17-5	IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER	988	73
1027	10*23668	EE	9-17-5	THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNIAK EXECUTRIX	1009	286
1028	10*47051.219.27	EE	9-17-5	MARSHA BERISFORD	902	425
1029	10*47051.219.36	EE	9-17-5	GAREN MCDOWELL AND ELIZABETH MCDOWELL	896	615
1030	10*19702	EE	9-17-5	WV MINERALS INC	951	108
1031	10*17169	EE	9-17-5	ALMA L VAN SCYOC	692	404
1032	10*17171	EE	9-17-5	OPAL MICKY	690	631
1033	10*17173	EE	9-17-5	LLOYD R. EVANS	694	526
1034	10*47051.219.1	EE	9-17-5	DAVID LEE FRANKLIN	874	312
1035	10*21095	FF	9-15-40.1	TIMOTHY LEE COLLEY	951	200
1036	10*21096	FF	9-15-40.1	GEORGE L DUNN AND NANCY MARIE DUNN	951	194
1037	10*21097	FF	9-15-40.1	JAMES DUNN AND DONNA K DUNN	951	197
1038	10*21205	FF	9-15-40.1	RONALD W REINBEAU	953	86
1039	10*21207	FF	9-15-40.1	KEITH W STORCH AND DEBORAH A STORCH	951	209
1040	10*21208	FF	9-15-40.1	JOHN T CRISWELL AND CATHERINE A CRISWELL	951	206
1041	10*21210	FF	9-15-40.1	PETER G STORCH AND LAURIE L STORCH	951	203
1042	10*21231	FF	9-15-40.1	JENNIFER SHAWN GLOVER	953	89
1043	10*21232	FF	9-15-40.1	JEFFREY BRYAN CRISWELL	953	92
1044	10*21233	FF	9-15-40.1	WILLIAM LINSLEY CRISWELL	953	95
1045	10*21398	FF	9-15-40.1	LYNN ELLIOTT AND JUDITH ELLIOTT	957	301
1046	10*21872	FF	9-15-40.1	ROSEMARIE BERISFORD	953	484
1047	10*21399	FF	9-15-40.1	MARY M MORRIS	956	642
1048	10*21528	FF	9-15-40.1	PATRICIA KIRCHNER	959	305
1049	10*21839	FF	9-15-40.1	WILLIAM BRYAN COLLEY	959	445
1050	10*21845	FF	9-15-40.1	PATRICIA DOFKA	959	448
1051	10*21865	FF	9-15-40.1	FRANK A STORCH JR AND SUSAN STORCH	959	442
1052	10*21874	FF	9-15-40.1	CHAZ AARON COLLEY AND DANA COLLINS	953	475
1053	10*21957	FF	9-15-40.1	CATHERINE I AND ERNEST M SILVERIO	960	15
1054	10*21966	FF	9-15-40.1	DAVID HALL AND SANDRA SUE HALL	959	644
1055	10*21973	FF	9-15-40.1	REID ELATTACHE AND TONYA ELATTACHE	960	502
1056	10*21980	FF	9-15-40.1	CHARLES C SEAMON	954	344
1057	10*21989	FF	9-15-40.1	NEL SCHAFFER AND CHRISTAL L SCHAFFER	953	481
1058	10*22112	FF	9-15-40.1	EMMA JO CRISWELL	961	349
1059	10*22127	FF	9-15-40.1	JUDITH L BENEDICT AND LOUIS G BENEDICT	961	343
1060	10*22159	FF	9-15-40.1	JOSHUA W SEAMON	953	478
1061	10*22833	FF	9-15-40.1	RANDY W MORRIS SR AND CHERYL MORRIS	966	465
1062	10*25524	FF	9-15-40.1	JAMES P MILLER	1009	375
1063	10*25534	FF	9-15-40.1	LINDA K AND MICHAEL HUMES	1010	565
1064	10*24721	FF	9-15-40.1	JAMES R SNIDER AND CYNTHIA L SNIDER	1025	617
1065	10*15833	GG	9-17-7	LUCINDA RAE ALLEN AND DAVID A ALLEN	742	73
1066	10*15834	GG	9-17-7	ANITA DIANE ANTILL AND TERRY ANTILL	742	110
1067	10*15841	GG	9-17-7	HOMER L SIMMONS AND GLADYS R SIMMONS	742	366
1068	10*24120	GG	9-17-7	CHARLES E THOSS	1022	360
1069	10*24490	GG	9-17-7	GREGORY M TARR AND KAREN B TARR	1025	953
1070	10*25620	GG	9-17-7	THE GRACIA BAKER REVOCABLE LIVING TRUST DATED JULY 12 2001	1033	909
1071	10*26423	GG	9-17-7	PATRICIA & MICHAEL QUARANTO	1034	593
1072	10*26695	GG	9-17-7	DEBORAH JEAN TARR-UNKNOWN HEIRS	1041	437
1073	10*26905	GG	9-17-7	JONATHAN RANKIN	1036	117
1074	10*26906	GG	9-17-7	ELIZABETH A GREEN TRUST	1036	111
1075	PENDING	GG	9-17-7	CHRISTINE RANKIN SMALLWOOD	PENDING	PENDING
1076	10*26907	GG	9-17-7	CHARLES S TARR	1036	123
1077	10*47051.185.1	HH	9-17-39	HOMER L SIMMONS AND GLADYS R SIMMONS	885	68
1078	10*47051.185.2	HH	9-17-39	LUCINDA RAE ALLEN AND DAVID A ALLEN	894	482
1079	10*47051.185.3	HH	9-17-39	ANITA DIANE ANTILL AND TERRY ANTILL	885	71
1080	10*47051.185.1	II	9-17-38	HOMER L SIMMONS AND GLADYS R SIMMONS	885	68
1081	10*47051.185.2	II	9-17-38	LUCINDA RAE ALLEN AND DAVID A ALLEN	894	482
1082	10*47051.185.3	II	9-17-38	ANITA DIANE ANTILL AND TERRY ANTILL	885	71
1083	10*47051.185.1	JJ	9-17-38.1	HOMER L SIMMONS AND GLADYS R SIMMONS	885	68
1084	10*47051.185.2	JJ	9-17-38.1	LUCINDA RAE ALLEN AND DAVID A ALLEN	894	482
1085	10*47051.185.3	JJ	9-17-38.1	ANITA DIANE ANTILL AND TERRY ANTILL	885	71
1086	10*15802	KK	9-17-37	TOM GOULDSBERRY	683	640
1087	10*15803	KK	9-17-37	CHARLOTTE CROW	683	631
1088	10*15804	KK	9-17-37	JOE GOULDSBERRY	683	637
1089	10*15805	KK	9-17-37	MARY ELLEN CHAMBERS	694	82
1090	10*15806	KK	9-17-37	JOANNE FOX	683	634
1091	10*15807	KK	9-17-37	GLORIS VAN SCYOC	685	190
1092	10*15808	KK	9-17-37	ANGELA YOHO	685	199
1093	10*15809	KK	9-17-37	RYAN J AND MICHELE L RIDDLE	687	225
1094	10*15810	KK	9-17-37	FLOSSIE P RUTAN	690	266
1095	10*15811	KK	9-17-37	SANDRA M WINSLOW	719	51
1096	10*21969	KK	9-17-37	MARK WESLEY RICHARDSON	960	507

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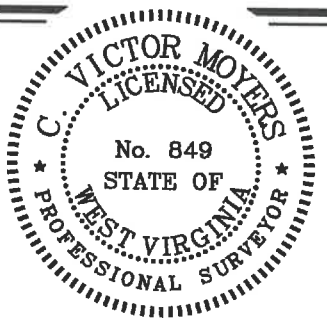
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