

**TEN HIGH 1N LEASE  
UTICA UNIT - 621.36 AC±  
WELL 13HU  
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"  
B.H. LATITUDE 39°52'30"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)  
NAD'83 S.P.C.(FT) N. 478,146.86 E. 1,636,782.36  
NAD'83 GEO. LAT-(N) 39.806770 LONG-(W) 80.880793  
NAD'83 UTM (M) N. 4,406,359.69 E. 527,324.06  
**LANDING POINT**  
NAD'83 S.P.C.(FT) N. 479,197.9 E. 1,637,664.5  
NAD'83 GEO. LAT-(N) 39.809687 LONG-(W) 80.877703  
NAD'83 UTM (M) N. 4,406,684.4 E. 527,587.5  
**BOTTOM HOLE**  
NAD'83 S.P.C.(FT) N. 488,245.7 E. 1,632,805.6  
NAD'83 GEO. LAT-(N) 39.834348 LONG-(W) 80.695426  
NAD'83 UTM (M) N. 4,409,416.1 E. 526,061.1

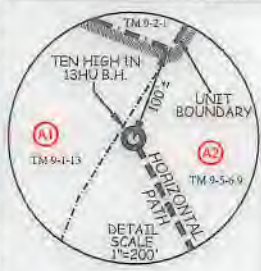
T.H. LONGITUDE 80°40'00"  
B.H. LONGITUDE 80°40'00"

TAG	SURFACE OWNER	PARCEL	ACRES
A	LAWRENCE & SHIRLEY CONKLE ESTS	9-7-24	139.79
B	THOMAS R. & KIMBERLY WHITFIELD	9-7-25.2	76.40
C	ROBERT G. HUBBS & SCARLETTE E. OTTE	9-7-12.1	86.363
D	MARK H. FOX	9-7-11	75.37
E	NATHAN WILLIAMS	9-7-28.1	2.768
F	W.V. DEPT. OF HIGHWAYS	9-7-11.1	3.63
G	VICTOR & CLAIRE CAMERON	9-7-28	1.983
H	DARLA JO COX, ET AL	9-7-29	85.540
I	CAROL J. ANDERSON - LIFE	9-7-29.1	5.004
J	CAROL J. ANDERSON - LIFE	9-7-27	1.006
K	RONALD MOORE, ET UX	9-7-12	16.587
L	ROBERT HENDERSON, ET AL	9-7-8	48.00
M	RONALD MOORE, ET UX	9-7-13	51.49
N	ROBERT G. HUBBS & SCARLETTE E. OTTE	9-7-7	108.61
O	TERESA L. HORNOR WITH JERRY G. & CAROLYN K. FLETCHER (LIFE ESTATE)	9-7-6	103.30
P	DAVID L. HOLMES, ET UX	9-5-14	37.345
Q	DAVID L. HOLMES, ET UX	9-5-14.2	4.995
R	DAVID L. HOLMES, ET UX	9-5-14.5	1.66
S	SHELLY ANN JORDAN, GEORGIA JORDAN LIFE ESTATE	9-5-13	5.51
T	SAVANNA WEST, ET AL	9-5-14.1	2.819
U	MARK H. FOX, ET UX	9-5-14.3	10.714
V	BEITY R. OTT	9-5-14.4	10.501
W	BEITY R. OTT	9-5-19	0.933
X	CARLA SUE CROW	9-5-17	6.341
Y	KELLY WILSON WITH DONLD E. LEACH (LIFE ESTATE)	9-5-18	5.807
Z	KELLY WILSON WITH DONLD E. LEACH (LIFE ESTATE)	9-5-20	6.924
AA	LARRY L. CONKLE, JR	9-5-16	2.365
BB	MARK H. FOX, ET UX	9-5-15	36.533
CC	SCOTT A. HOSTUTLER	9-5-16.1	0.142
DD	MICHAEL JOSEPH SNYDER	9-5-5.4	64.00
EE	RALPH E. WELLMAN, ET UX	9-5-21	1.00
FF	RALPH E. WELLMAN, ET UX	9-5-22	0.5
GG	RALPH E. WELLMAN, ET UX	9-5-23	1.00
HH	ALVIE & MARCELLA DARRAH	9-5-24	1.986
II	MISTY CROW WITH ROBERT & ELSIE WHETZEL (LIFE ESTATE)	9-5-8.2	1.973
JJ	YEATER ADDITION TO BOWMAN RIDGE CEMETERY FROM PLAT OF SURVEY DB 309-374	NOT ASSD	NOT ASSD
KK	SCOTT A. HOSTUTLER	9-5-8	26.752
LL	ISAAC MCKINNEY, ET UX	9-5-8.1	2.875
MM	ME CHURCH	9-5-7	81.5 POLES (6 AC ASSD)
NN	ME CHURCH	NOT ASSD	NOT ASSD
OO	TRUSTEES OF ME CHURCH	NOT ASSD	1.00
PP	MICHAEL JOSEPH SNYDER	9-5-5	35.02
QQ	DAVID M. TOLER, ET UX	9-5-5.1	0.985
RR	NANCY L. SNYDER	9-5-6.6	0.420
SS	NANCY L. SNYDER	9-5-6.7	0.678
TT	NANCY L. SNYDER	9-5-6.8	0.691
UU	JON B. CRAWFORD	9-5-6.1	4.679
VV	HARRY J. CRAWFORD, ET UX (LIFE ESTATE)	9-2-12	80.718
WW	MICHAEL JOSEPH SNYDER	9-5-6.2	2.82
XX	NANCY L. SNYDER	9-5-6.4	0.694
YY	NANCY L. SNYDER (LIFE ESTATE)	9-5-6	82.858
ZZ	CNX LAND LLC	9-2-12.2	31.392
A0	CNX LAND RESOURCES INC.	9-2-12.1	56.00
A1	ROBERT A. & CHERYL L. WILLIAMS	9-1-13	80.897
A2	CNX LAND LLC	9-5-6.9	22.392

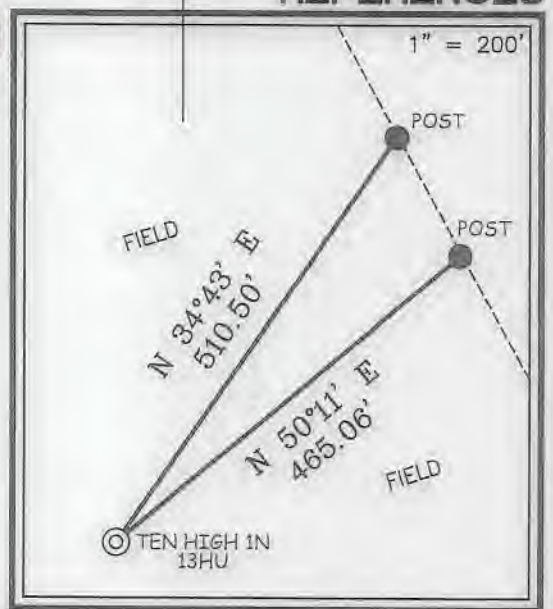
MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-1-13.1	BURDETTE L. BEUCKE	14.236
9-1-13.4	MACK L. CROW	4.273
9-1-13.5	MACK L. CROW	2.491
9-1-13.6	GERALD E. LOGSDON, ET UX	7.621
9-1-13.7	SHARON D. TUCKER	7.817
9-1-14	ALICIA JANE MARTIN	2.4602
9-1-14.1	ALICE J. & DOUGLAS J. MARTIN	0.905
9-5-5.2	PETER PARKER	0.873
9-5-5.3	MICHAEL I. & NANCY L. SNYDER	1.870
9-5-6.3	DELTCHE BANK NATIONAL TRUST CO.	1.391
9-5-6.5	LINDA GORBY DELBERT	1.087
9-5-14.1	SAVANNA WEST, ET AL	2.819
9-5-14.3	MARK FOX, ET UX	10.714
9-5-24	ALVIE & MARCELLA DARRAH	1.986
9-7-11.1	WV DEPT OF HIGHWAYS	3.63
9-7-25	THOMAS R. & KIMBERLY WHITFIELD	0.83
9-7-25.1	THOMAS R. & KIMBERLY WHITFIELD	4.23
9-7-27	CAROL J. ANDERSON - LIFE	1.005
9-7-28	VICTOR & CLAIRE CAMERON	1.983
9-7-28.1	NATHAN WILLIAMS	2.768
9-7-29.1	CAROL J. ANDERSON - LIFE	5.004
9-11-7.1	BRENDA J. WHETZEL	17.812
9-11-8	WNEK FAMILY IRREVOCABLE TRUST	50.10
9-12-4	THOMAS R. & KIMBERLY WHITFIELD	54.02

**NOTES ON SURVEY**

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- PROPOSED LATERAL OR TOP HOLE OF TEN HIGH 1N-13HU (47-051-01965) IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF THE FOLLOWING:  
HEAVEN HILL 3-8HU (47-051-01987), PROPOSED HEAVEN HILL 3N-16HU, TEN HIGH 1N-11HU (47-051-01960), TEN HIGH 1N-12HU (47-051-01961), TEN HIGH 1S-14HU (47-051-01966), TEN HIGH 1S-15HU (47-051-02027), TEN HIGH 1S-16HU (47-051-02028), TEN HIGH 1S-17HU (47-051-02033), TEN HIGH 1N-20HU (47-051-02021), PROPOSED HUDSON S-11HU.

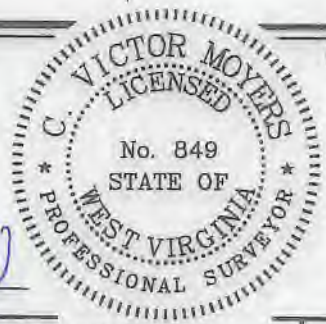


**REFERENCES**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26031 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
sllwv.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. 849 *C. Victor Moyers*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE AUGUST 14, 20 17  
REVISED 01/10/18, 02/08/18, 02/21/18, 03/29/18, 05/31/18, 09/26/18, 10/10/19, 11/12/19, 07/08/20  
OPERATORS WELL NO. TEN HIGH 1N-13HU  
API WELL NO. 47 - 051 - 01965  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8655P13HUR11.dwg  
TEN HIGH 1N 13HU Rev10  
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: GROUND = 1,321.50' ELEVATION PROPOSED = 1,310.06' WATERSHED MIDDLE BOWMAN RUN OF FISH CREEK (HUC-10)  
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'  
SURFACE OWNER LAWRENCE & SHIRLEY CONKLE ESTS ACREAGE 139.79±  
ROYALTY OWNER ANDY PAUL & JACKIE KUHN, ET AL - SEE ADDITIONAL SHEETS ACREAGE 139.79±  
PROPOSED WORK: LEASE NO. SEE ADDITIONAL SHEETS  
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: 11,898' / TMD: 22,647'

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

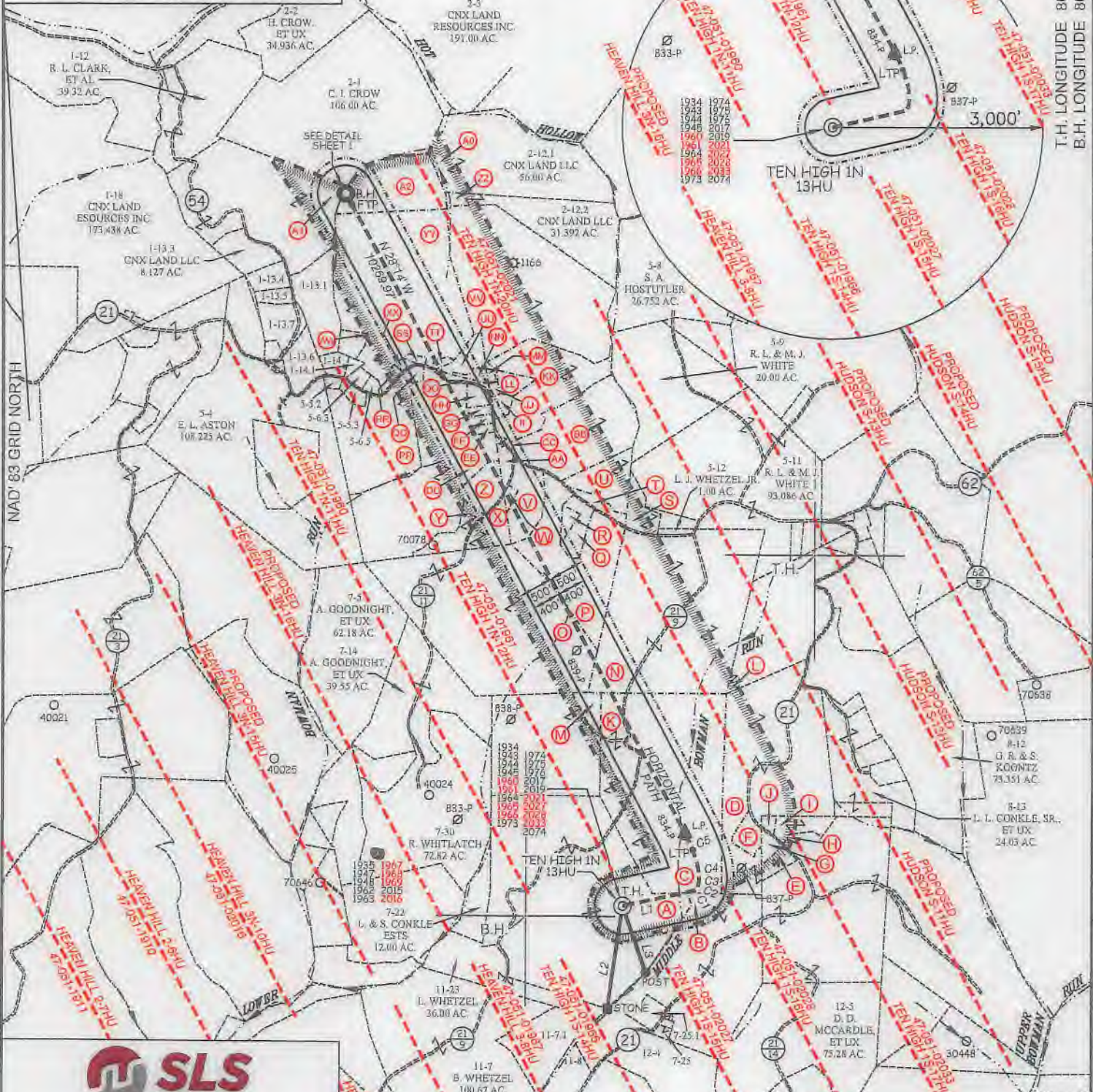


**TEN HIGH 1N LEASE  
UTICA UNIT - 621.36 AC±  
WELL 13HU  
TUG HILL OPERATING**

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 77°27' E	1032.18'
L2	S 08°21' W	1476.26'
L3	S 19°25' E	996.79'

T.H. LATITUDE 39°50'00"  
B.H. LATITUDE 39°52'30"

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



14,808' B.H.

12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26031 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.9296  
slsvv.com

CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	59.71'	85.38'	N 54°48' E	58.50'
C2	75.25'	176.92'	N 21°20' E	74.69'
C3	74.25'	448.08'	N 04°42' E	74.16'
C4	279.81'	984.32'	N 09°43' W	278.87'
C5	407.90'	2155.88'	N 23°02' W	407.29'

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LANDING POINT			
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BOTTOM HOLE			
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(+) 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	
PROPOSED FIRST TAKE POINT	
PROPOSED LAST TAKE POINT	
COUNTY ROUTE	
PROPOSED WELL	
EXISTING WELL	
PERMITTED WELL	
SURFACE OWNER (SEE TABLE)	
LEASE # (SEE ADDITIONAL SHEETS)	

SCALE 1" = 2000' FILE NO. 9855P13HUR11.dwg  
DATE AUGUST 14, 2017  
REVISED 01/10/18, 02/08/18, 02/21/18, 03/29/18, 05/31/18, 09/26/18, 10/10/19, 11/12/19, 07/08/20  
OPERATORS WELL NO. TEN HIGH 1N-13HU  
API WELL NO. 47-051-01965  
NO. STATE COUNTY PERMIT

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

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



TEN HIGH 1N LEASE  
 UTICA UNIT - 621.36 AC ±  
 WELL 13HU  
 TUG HILL OPERATING



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 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
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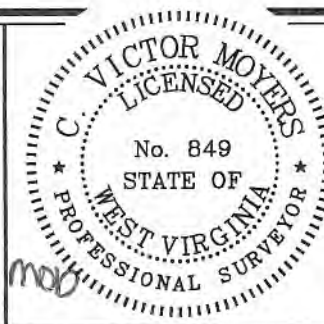
No.	Lease Name or No.	Tag	Parcel	Grantors, Lessors, etc.	Deed Book/Page
1	10*16049	A	9-7-24	DANNY SHAWN KERNS AND AMY LYNN KERNS, ET AL	905 518
2	10*47051.303.1	B	9-7-25.2	THOMAS R WHITFIELD, ET AL	890 401
3	10*15501	C	9-7-12.1	RONALD AND EDNA MOORE	661 449
4	10*47051.094.0	D	9-7-11	MARK H FOX	854 163
5	10*19183	E	9-7-28.1	EVELYN M WILLIAMS	720 180
6	10*19565	F	9-7-11.1	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS	947 566
7	10*19143	G	9-7-28	VICTOR CAMERON CLAIRE CAMERON	872 171
8	10*15524	H	9-7-29	CAROL ANDERSON ET AL	901 563
9	10*15524	I	9-7-29.1	CAROL J ANDERSON ETAL	901 563
10	10*15524	J	9-7-27	CAROL J ANDERSON ETAL	901 563
11	10*15501	K	9-7-12	RONALD AND EDNA MOORE	661 449
12	10*26003	L	9-7-8	ROBERT HENDERSON AND DEBRA HENDERSON, HUSBAND & WIFE, AND BRADLEY HEN	697 215
13	10*15501	M	9-7-13	RONALD AND EDNA MOORE	661 449
14	10*15503	N	9-7-7	ROBERT HUBBS	677 521
15	10*15500	O	9-7-6	JERRY FLETCHER AND CAROLYN FLETCHER, HUSBAND AND WIFE, ET AL	661 154
16	10*47051.075.0	P	9-5-14	DAVID L HOLMES AND TERRI L HOLMES	869 204
17	10*47051.075.0	Q	9-5-14.2	DAVID L HOLMES AND TERRI L HOLMES	869 204
18	10*47051.075.0	R	9-5-14.5	DAVID L HOLMES AND TERRI L HOLMES	869 204
19	10*26002	S	9-5-13	GEORGIA JORDAN LIFE ESTATE AND SHELLY ANN JORDAN REMAIN DERMAN	687 616
20	10*47051.156.0	T	9-5-14.1	MATTHEW RYAN WEST & SAVANNAH NICOLE WEST	876 98
21	10*19005	U	9-5-14.3	MARK H. FOX AND RETTA J. FOX, HIS WIFE	687 598
22	10*15506	V	9-5-14.4	BETTY R. OTT	687 604
23	10*15506	W	9-5-19	BETTY R. OTT	687 604
24	10*15482	X	9-5-17	SUSAN NELSON, ET AL	908 203
25	10*15482	Y	9-5-18	SUSAN NELSON, ET AL	908 203
26	10*15482	Z	9-5-20	SUSAN NELSON, ET AL	908 203
27	10*19133	AA	9-5-16	JERRY L RUSH, JR. AND JILL RUSH, HIS WIFE	700 239
28	10*19005	BB	9-5-15	MARK H. FOX AND RETTA J. FOX, HIS WIFE	687 598
29	10*19220	CC	9-5-16.1	SCOTT A HOSTUTLER	731 353
30	10*15668	DD	9-5-5.4	MICHAEL J SNYDER, ET AL	865 186
31	10*15750	EE	9-5-21	SANDRA K TRULL, ET AL	908 229
32	10*15482	FF	9-5-22	SUSAN NELSON, ET AL	908 203
33	10*15482	GG	9-5-23	SUSAN NELSON, ET AL	908 203
34	10*16058	HH	9-5-24	MATTIE RUTH JACKSON PRESCOTT, ET AL	908 231
35	10*21734	II	9-5-8.2	ROBERT L WHETZEL AND ELSIE E WHETZEL	772 523
36	10*21731	JJ	NOT ASSD	BOWMAN UNITED METHODIST CHURCH, ET AL	867 110
37	10*19206	KK	9-5-8	SCOTT A HOSTUTLER	724 208
38	10*26006	LL	9-5-8.1	ISAAC L MCKINNEY AND YVINNE A MCKINNEY	701 472
39	10*21731	MM	9-5-7	BOWMAN UNITED METHODIST CHURCH, ET AL	867 110
40	10*21731	NN	NOT ASSD	BOWMAN UNITED METHODIST CHURCH, ET AL	867 110
41	10*16058	OO	NOT ASSD	MATTIE RUTH JACKSON PRESCOTT, ET AL	908 231
42	10*15668	PP	9-5-5	MICHAEL J SNYDER, ET AL	865 186
43	10*21728	QQ	9-5-5.1	DAVID M AND SHERRY L TOLER, ET AL	858 1
44	10*47051.223.2	RR	9-5-6.6	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER, ET AL	885 321
45	10*47051.223.2	SS	9-5-6.7	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER, ET AL	885 321
46	10*47051.223.2	TT	9-5-6.8	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER, ET AL	885 321
47	10*21696	UU	9-5-6.1	JOSEPH D DAKAN, ET AL	694 71
48	10*26000	VV	9-2-12	HARRY J CRAWFORD AND DONNA JEAN CRAWFORD, LIFE ESTATE, ET AL	661 156
49	10*47051.223.2	WW	9-5-6.2	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER, ET AL	885 321
50	10*47051.223.2	XX	9-5-6.4	STEPHANIE SCHIEFER AND GEOFFREY SCHIEFER, ET AL	885 321
51	10*21696	YY	9-5-6	JOSEPH D DAKAN, ET AL	694 71
52	10*26000	ZZ	9-2-12.2	HARRY J CRAWFORD AND DONNA JEAN CRAWFORD, LIFE ESTATE, ET AL	661 156
53	10*26000	A0	9-2-12.1	HARRY J CRAWFORD AND DONNA JEAN CRAWFORD, LIFE ESTATE, ET AL	661 156
54	10*21695	A1	9-1-13	ROBERT A WILLIAMS AND CHERYL L WILLIAMS, ET AL	847 521
55	10*21702	A2	9-5-6.9	NANCY L SNYDER, ET AL	865 191

FILE NO. 8655P13HUR11.dwg  
 TEN HIGH 1N 13HU Rev10

DATE AUGUST 14, 20 17  
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OPERATORS WELL NO. TEN HIGH 1N-13HU

API WELL NO. 47 — 051 — 01965  
 STATE COUNTY PERMIT



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



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 CT CORPORATION SYSTEM  
 ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

COUNTY NAME

PERMIT