

HEAVEN HILL 2W LEASE WELL 11HM TUG HILL OPERATING

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

No.	Lease Name or No.	Tag	Parcel	Grantor, Lessor, etc.	Deed Book/Page
1	10*15521	A	9-7-12	VENANGO 21ST CENTURY ENERGY INC	722 283
2	10*15498	A	4-7-12	C HAWKES R HAGEDORN JR	816 433
3	10*47051 073 1	A	7-7-12	VENANGO 21ST CENTURY ENERGY INC	888 618
4	10*47051 073 2	A	7-7-12	PATRIOT RESTORATIONS LLC	908 541
5	10*47051 073 3	A	7-7-12	ENERGY HOLDINGS, LLC	818 320
6	10*17229	B	4-4-10	STEPHEN MENENDEZ	911 46
7	10*15661	C	4-6-5	CHIENYU HOLDINGS LLC	839 170
8		D	7-6-4	ROBERT LUC CARNEY AND BONNE ANNE CARNEY	692 255
9	10*15507	E	9-8-11	RAY C. HARTZELL AND CAROL J. HARTZELL HUSBAND AND WIFE	689 182
10	10*15525	F	9-8-12	RONALD RUTH MASON ET UX	772 445
11	10*15513	F	9-8-12	ASARI RUTH FROHNAPFEL	781 312
12	10*15542	F	9-8-12	KENNETH D. SMURT	781 218
13	10*15542	F	9-8-12	SANDRA FLOWEN	781 307
14	10*15544	F	9-8-12	VICKI J. CHERRY A/K/A VICKIE L. CHERRY	793 318
15	10*15545	F	9-8-12	JAMES B. SMURT ET UX	793 332
16	10*15546	F	9-8-12	ALAN K. SMURT ET UX	793 325
17	10*15547	F	9-8-12	RODNEY L. SMURT	793 346
18	10*15504	G	9-8-14	JAMES MASON ET UX	692 461
19	10*15510	H	9-8-10	ELAINE PHELPS ET VR	718 326
20	10*15511	H	9-8-10	DAVID E. CROW	718 376
21	10*15512	H	9-8-10	FRANCIS COFFEY	718 378
22	10*15513	H	9-8-10	KAY KEYES	718 320
23	10*15514	H	9-8-10	DEBBIE L. CROW	718 336
24	10*15515	H	9-8-10	DEBBIE L. CROW	718 334
25	10*15516	H	9-8-10	ROSE MARIE RUSKIEWSKI	718 354
26	10*15517	H	9-8-10	DIANNE GELLNER & GARY GELLNER	718 345
27	10*15518	H	9-8-10	JAMES J. HOLLIDAY AND JACQUELINE HOLLIDAY	718 347
28	10*15519	H	9-8-10	JOHN CROW	726 580
29	10*15520	H	9-8-10	TIMOTHY CROW	726 582
30	10*47051 123 1	H	7-5-10	LLOYD G. BAKER	865 280
31	10*47051 123 2	H	7-5-10	JAMES J. HOLLIDAY AND JACQUELINE HOLLIDAY	873 142
32	10*15510	I	9-10-11	ELAINE PHELPS ET VR	718 326
33	10*15511	I	9-10-11	DAVID E. CROW	718 376
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35	10*15513	I	9-10-11	KAY KEYES	718 320
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37	10*15515	I	9-10-11	DEBBIE L. CROW	718 334
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39	10*15517	I	9-10-11	DIANNE GELLNER & GARY GELLNER	718 345
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44	10*47051 123 2	I	9-10-11	JAMES J. HOLLIDAY AND JACQUELINE HOLLIDAY	873 142
45	10*15567	J	9-10-13	VICKIE MASON	680 407
46	10*15568	J	9-10-13	MARY A. SOUTH	681 410
47	10*15569	J	9-10-13	MARY A. SOUTH	682 560
48	10*15570	J	9-10-13	MARY A. SOUTH	682 558
49	10*15571	J	9-10-13	RAY A. WHEATZEL JR	682 558
50	10*15572	J	9-10-13	ROBERT L. WHEATZEL	682 560
51	10*15724	J	9-10-13	JAMES RODNEY BRIGGS	901 327
52	10*15725	J	9-10-13	ROGER JACOB BRIGGS	901 318
53	10*15726	J	9-10-13	JOHN DEAN BRIGGS AND PATTY KAY BRIGGS	901 323
54	10*16079	J	9-10-13	LORI ASTON DOON	908 668
55	10*16216	J	9-10-13	FRANCIS RIGGIE	907 156
56	10*16237	J	9-10-13	GREGORY J. ASTON AND TAMMY E. ASTON	907 147
57	10*16276	J	9-10-13	JEFFREY A. WHEATZEL	907 157
58	10*47051 108 1	J	9-10-13	MARY A. SOUTH	885 51
59	10*47051 108 29	J	9-10-13	PATRICIA ANN MCDOUGAL	901 306
60	10*47051 108 30	J	9-10-13	STEVEN L. ASTON	901 308
61	10*47051 108 31	J	9-10-13	FRED T. KERNS	901 298
62	10*47051 108 36	J	9-10-13	YVONNE R. BOBERT	901 304
63	10*47051 108 37	J	9-10-13	CARLE ASTON	901 300
64	10*47051 108 38	J	9-10-13	CAROLAN SUE WELLS	901 310
65	10*47051 108 41	J	9-10-13	ELMER ASTON	901 286
66	10*47051 108 48	J	9-10-13	WILLIAM ASTON	901 312
67	10*47051 108 51	J	9-10-13	BRENDA J. WHEATZEL	885 55
68	10*47051 108 52	J	9-10-13	DAVID U. ASTON ESTATE BY EXECUTOR DAWN R. MARKS	901 314
69	10*47051 108 53	J	9-10-13	COMBUT N. ASTON	901 316
70	10*47051 108 54	J	9-10-13	MARY JANE EYLE	901 318

71	10*47051 108 55	J	9-10-13	PAULA HUND	901 347
72	10*47051 108 56	J	9-10-13	ROBERT B. KERNS	901 349
73	10*47051 108 58	J	9-10-13	RONALD W. KERNS	901 341
74	10*47051 108 59	J	9-10-13	PAUL ULYSSES KERNS ESTATE SALVATORE P. PUGLISI, EXECUTOR	901 343
75	10*47051 108 6	J	9-10-13	BERNIE MCCARDLE	895 23
76	10*47051 108 61	J	9-10-13	AMANDA REHM	901 345
77	10*47051 108 7	J	9-10-13	GARY FRANCIS WHEATZEL	895 26
78	10*47051 108 75	J	9-10-13	JOHN ASTON JR	901 355
79	10*47051 108 77	J	9-10-13	SHONDA WOOD	901 356
80	10*47051 108 78	J	9-10-13	DONNA WOODS MOODY	901 358
81	10*47051 108 79	J	9-10-13	MARY A. SOUTH	899 20
82	10*47051 108 74	J	9-10-13	KENNETH CHIFFS	897 25
83	10*15574	K	9-10-12	MARY A. SOUTH	680 407
84	10*15575	K	9-10-12	MARY A. SOUTH	681 414
85	10*15576	K	9-10-12	MARY A. SOUTH	682 573
86	10*15577	K	9-10-12	RAY A. WHEATZEL JR	685 69
87	10*15577	K	9-10-12	ROBERT L. WHEATZEL	682 558
88	10*15578	K	9-10-12	SHARON L. WHEATZEL	681 440
89	10*15724	K	9-10-12	JAMES RODNEY BRIGGS	901 327
90	10*15725	K	9-10-12	ROGER JACOB BRIGGS	901 318
91	10*15726	K	9-10-12	JOHN DEAN BRIGGS AND PATTY KAY BRIGGS	901 323
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96	10*47051 108 8	K	9-10-12	MICHAEL A. WHEATZEL	885 53
97	10*47051 108 29	K	9-10-12	PATRICIA ANN MCDOUGAL	901 306
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120	10*47051 108 74	K	9-10-12	KENNETH CHIFFS	897 25
121	10*47051 108 7	L	9-11-2	MARY A. SOUTH	879 252
122	10*47051 108 29	L	9-11-2	PAUL H. FOR	879 185
123	10*47051 108 30	L	9-11-2	ASSHIE FOX	879 188
124	10*47051 108 31	L	9-11-2	DAY G. FOX	876 85
125	10*47051 108 36	L	9-11-2	LOUIS J. FOX	876 58
126	10*47051 108 37	L	9-11-2	THOMAS J. FOX	876 41
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80°42'30"
 80°42'30"
 T.H. LONGITUDE
 B.H. LONGITUDE
 A.D. B.H.
 2,669' B.H.
 AS-DRILLED
 8,463' T.H.
 AS-DRILLED

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 IS 1"=2000'
- ROYALTY OWNERSHIP PROVIDED BY TUG HILL OPERATING, LLC.
- SURFACE OWNERSHIP PROVIDED WAS NOT ADDRESSED.
- AS-DRILLED DATA PROVIDED BY TUG HILL OPERATING, LLC.
- PLAT UPDATED TO SHOW AS-DRILLED PATH.

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

NAD'83 S.P.C. (FT)	N. 479,480.83	E. 1,627,764.28
NAD'83 GEO.	LAT-(N) 39.810102	LONG-(W) 80.712955
NAD'83 UTM (M)	N. 4,406,720.12	E. 524,569.86
LANDING POINT		
NAD'83 S.P.C. (FT)	N. 477,558.7	E. 1,624,487.8
NAD'83 GEO.	LAT-(N) 39.804704	LONG-(W) 80.724524
NAD'83 UTM (M)	N. 4,406,117.9	E. 523,581.4
BOTTOM HOLE		
NAD'83 S.P.C. (FT)	N. 470,170.5	E. 1,628,592.0
NAD'83 GEO.	LAT-(N) 39.784575	LONG-(W) 80.709562
NAD'83 UTM (M)	N. 4,403,888.0	E. 524,869.4

SLJ
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vannom Drive • Glenview, WV 26031 • (304) 462-9634
www.sljco.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*



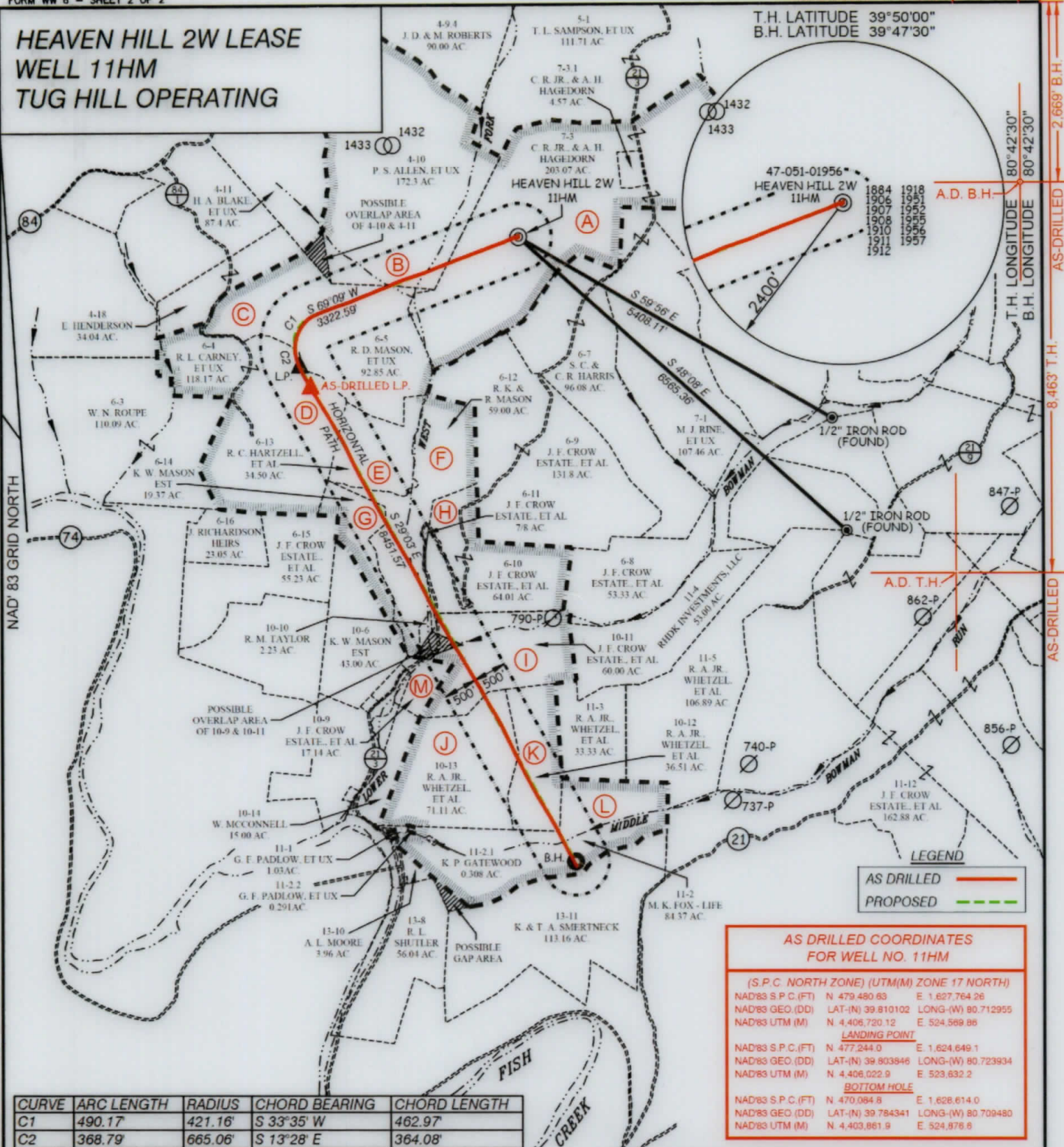
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE OCTOBER 29, 20 18
 REVISED OCTOBER 17, 20 19
 OPERATORS WELL NO. HEAVEN HILL 2W-11HM
 API WELL NO. 47 - 051 - 01956
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8703AD11HMR.dwg
 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	<input checked="" type="checkbox"/>	INJECTION	WASTE DISPOSAL	IF "GAS" PRODUCTION	<input checked="" type="checkbox"/>	STORAGE	DEEP	SHALLOW	<input checked="" type="checkbox"/>
LOCATION:	GROUND = 1,350.0'										
ELEVATION:	PROPOSED = 1,331.26'										
DISTRICT:	MEADE			COUNTY:	MARSHALL			QUADRANGLE:	GLEN EASTON 7.5'		
SURFACE OWNER:	C.R. JR. & A.H. HAGEDORN						ACREAGE:	203.07±			
ROYALTY OWNER:	C.R. JR. & A.H. HAGEDORN ET AL (SEE ABOVE)						ACREAGE:	203.07±			
PROPOSED WORK:	LEASE NO. SEE ABOVE										
DRILL:	<input checked="" type="checkbox"/>	CONVERT	DRILL DEEPER								

**HEAVEN HILL 2W LEASE
WELL 11HM
TUG HILL OPERATING**



LEGEND
AS DRILLED ———
PROPOSED - - - - -

AS DRILLED COORDINATES FOR WELL NO. 11HM

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

NAD'83 S.P.C.(FT)	N 479,480.63	E 1,627,764.26
NAD'83 GEO.(DD)	LAT-(N) 39.810102	LONG-(W) 80.712955
NAD'83 UTM (M)	N 4,406,720.12	E 524,569.86

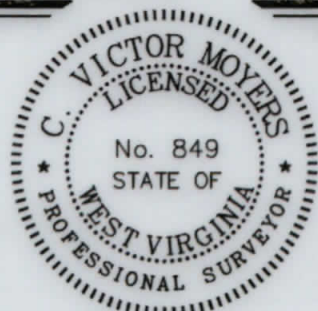
LANDING POINT

NAD'83 S.P.C.(FT)	N 477,244.0	E 1,624,649.1
NAD'83 GEO.(DD)	LAT-(N) 39.803846	LONG-(W) 80.723934
NAD'83 UTM (M)	N 4,406,022.9	E 523,632.2

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N 470,084.8	E 1,628,614.0
NAD'83 GEO.(DD)	LAT-(N) 39.784341	LONG-(W) 80.709480
NAD'83 UTM (M)	N 4,403,861.9	E 524,876.6

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	490.17	421.16'	S 33°35' W	462.97'
C2	368.79	665.06'	S 13°28' E	364.08'



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.
FILE NO. 8703AD11HMR.dwg SCALE 1" = 2000'
DATE OCTOBER 29, 20 18
REVISED OCTOBER 17, 20 19
OPERATORS WELL NO. HEAVEN HILL 2W-11HM
API WELL NO. 47 - 051 - 01956
STATE COUNTY PERMIT

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



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

NAD'83 S.P.C.(FT)	N 479,480.63	E 1,627,764.26
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BOTTOM HOLE

NAD'83 S.P.C.(FT)	N 470,170.5	E 1,628,592.0
NAD'83 GEO.	LAT-(N) 39.784575	LONG-(W) 80.709562
NAD'83 UTM (M)	N 4,403,888.0	E 524,869.4

LEGEND

LEASE LINE	—————	COUNTY ROUTE	⊙
SURFACE LINE	- - - - -	PROPOSED WELL	⊙
WELL LATERAL	—————	EXISTING WELL	⊙
OFFSET LINE	- - - - -	PERMITTED WELL	⊙
TIE LINE	—————	TAX MAP-PARCEL	00-00
CREEK	~~~~~	LEASE # (SEE PG. 1)	(A)
ROAD	—————	SURFACE OWNER (SEE TABLE)	(A)

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