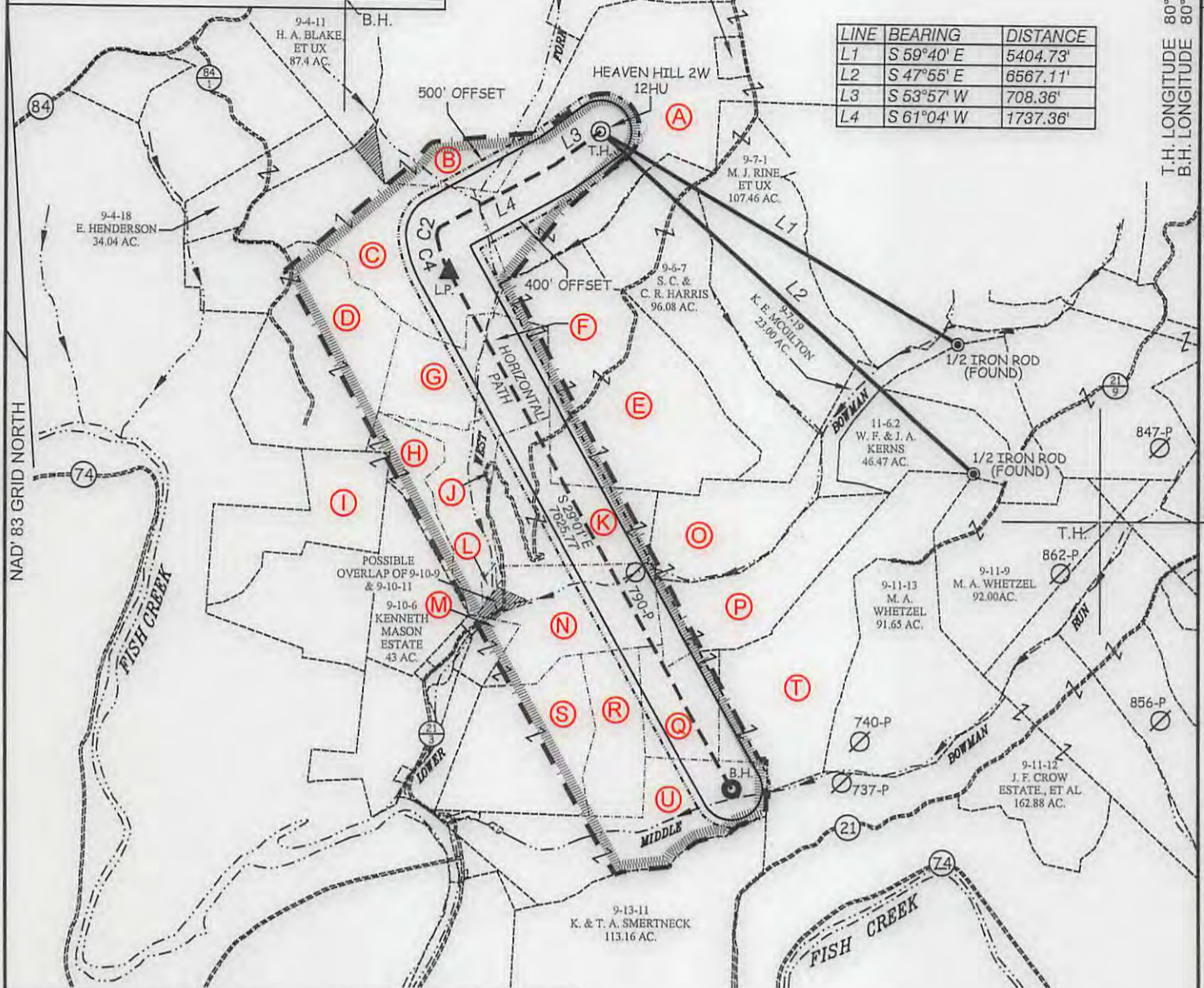


**HEAVEN HILL 2W LEASE
WELL 12HU
TUG HILL OPERATING**

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

T.H. LONGITUDE 80°42'30"
B.H. LONGITUDE 80°40'00"



TAG	SURFACE OWNER	PARCEL	ACRES
A	C & A HAGEDORN	9-7-3	203.07
B	PAUL STEVEN ALLEN ET UX	9-4-10	172.30
C	RONALD MASON ET UX	9-6-5	92.85
D	ROBERT CARNEY ET UX	9-6-4	118.17
E	J. F. CROW ESTATE ET AL	9-6-9	131.80
F	RONALD & RUBY MASON	9-6-12	59
G	RAY HARTZELL ET AL	9-6-13	34.50
H	KENNETH MASON ESTATE	9-6-14	19.37
I	J. F. CROW ESTATE ET AL	9-6-15	55.23
J	J. F. CROW ESTATE ET AL	9-6-11	7/8
K	J. F. CROW ESTATE ET AL	9-6-10	64.01

TAG	SURFACE OWNER	PARCEL	ACRES
L	RALPH MARTIN TAYLOR	9-10-10	2.23
M	J. F. CROW ESTATE ET AL	9-10-9	17.14
N	J. F. CROW ESTATE ET AL	9-10-11	60
O	J. F. CROW ESTATE ET AL	9-6-8	53.33
P	RHDK INVESTMENTS	9-11-4	53
Q	RAY A WHETZAL JR ET AL	9-11-3	33.33
R	RAY A WHETZAL JR ET AL	9-10-12	36.51
S	RAY A WHETZAL JR ET AL	9-10-13	71.119
T	RAY A WHETZAL JR ET AL	9-11-5	106.89
U	MARGARET FOX LIFE	9-11-2	84.378

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	145.94'	144.25'	57°58'06"	S 15°08' W	139.79'
C2	471.81'	1281.45'	21°05'44"	S 19°57' E	469.15'

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

LEGEND

- UNIT BOUNDARY
- LEASED TRACTS INSIDE UNIT BOUNDARY
- SURFACE LINE
- WELL LATERAL
- 400' OFFSET LINE
- 500' OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL 00-00-00
- LEASE # (SEE PGS. 2 & 3)
- SURFACE OWNER (SEE TABLE)

SCALE 1" = 2000' FILE NO. 8703P12HU.dwg
DATE JULY 20, 2017
REVISED _____, 20____
OPERATORS WELL NO. HEAVEN HILL 2W-12HU
API WELL NO. 47-051-01952 H4A
NO. STATE COUNTY PERMIT

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

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

10/27/2017

COUNTY NA PERMIT

**HEAVEN HILL 2W LEASE
WELL 12HU
TUG HILL OPERATING**

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

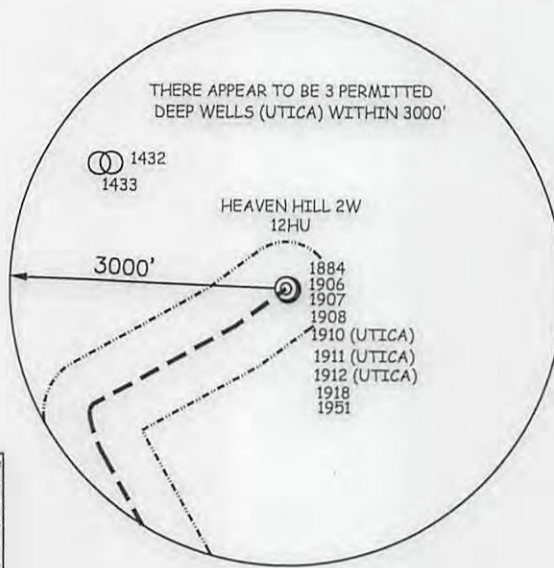
T.H. LONGITUDE 80°42'30"
B.H. LONGITUDE 80°40'00"

8,443' T.H.

B.H.

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

NAD'83 S.P.C.(FT)	N. 479,500.35	E. 1,627,779.64
NAD'83 GEO.	LAT-(N) 39.810156	LONG-(W) 80.712901
NAD'83 UTM (M)	N. 4,406,726.20	E. 524,574.44
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 477,667.3	E. 1,625,809.9
NAD'83 GEO.	LAT-(N) 39.805051	LONG-(W) 80.719823
NAD'83 UTM (M)	N. 4,406,157.7	E. 523,983.7
BOTTOM HOLE		
NAD'83 S.P.C.(FT)	N. 470,998.4	E. 1,629,508.4
NAD'83 GEO.	LAT-(N) 39.786882	LONG-(W) 80.706341
NAD'83 UTM (M)	N. 4,404,144.8	E. 525,144.4

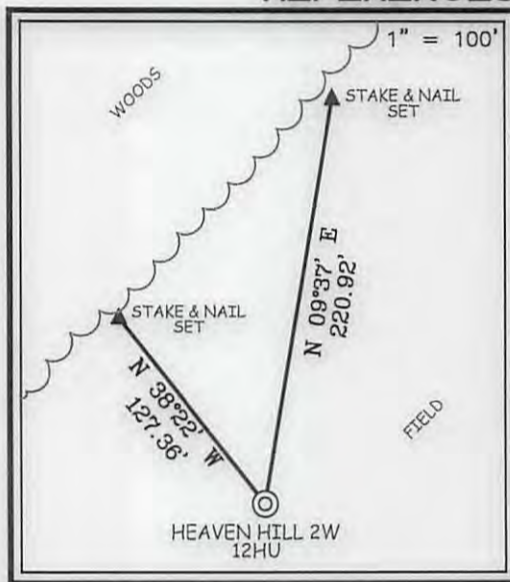


Lease Name or No.	Tag	Parcel	Oil & Gas Royalty Owner	Deed Book/Page
10*15521	A	9-7-3	VENANGO 21ST CENTURY ENERGY INC	722 281
10*15608	A	9-7-3	CHARLES R HAGEDORN JR	816 423
10*47051.073.1	A	9-7-3	VENANGO 21ST CENTURY ENERGY INC	888 618
10*47051.073.2	A	9-7-3	PATRIOT RESTORATIONS LLC	908 541
10*47051.073.3	A	9-7-3	TRIENERGY HOLDINGS, LLC	878 330
10*17229	B	9-4-10	STEPHEN MENENDEZ	913 66
10*15661	C	9-6-5	CHESTNUT HOLDINGS LLC	839 170
10*15510	D	9-6-4	ROBERT LEE CARNEY AND BONNIE ANNE CARNEY	682 255
10*15511	E	9-6-9	ELAINE PHELPS ET VIR	718 326
10*15512	E	9-6-9	DAVID E CROW	718 376
10*15513	E	9-6-9	FRANCES COFFEY	718 378
10*15514	E	9-6-9	KAY KEYES	718 330
10*15515	E	9-6-9	L PAUL CROW	718 336
10*15516	E	9-6-9	DESIRE L CROW	718 334
10*15517	E	9-6-9	ROSE MARIE KIELGCZEWSKI	718 354
10*15518	E	9-6-9	DIANNE GELLNER & GARY GELLNER	718 345
10*15519	E	9-6-9	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	718 347
10*15520	E	9-6-9	JOHN CROW	726 580
10*47051.123.1	E	9-6-9	TIMOTHY CROW	726 582
10*47051.123.2	E	9-6-9	LLOYD G BAKER	865 389
10*15525	F	9-6-12	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	873 143
10*15541	F	9-6-12	RONALD KEITH MASON ET UX	772 445
10*15542	F	9-6-12	MARY RUTH FROHNAPPEL	781 312
10*15543	F	9-6-12	KENNETH D SIBURT	781 218
10*15544	F	9-6-12	SANDRA FROWEN	781 307
10*15545	F	9-6-12	VICKI J CHERRY A/K/A VICKIE L CHERRY	793 318
10*15546	F	9-6-12	JAMES B SIBURT ET UX	793 332
10*15547	F	9-6-12	ALAN K SIBURT ET UX	793 325
10*15507	G	9-6-13	RODNEY L SIBURT	793 346
10*15504	H	9-6-14	RAY C. HARTZELL AND CAROL J. HARTZELL, HUSBAND AND WIFE	689 162
			JAMES MASON ET AL	692 461

NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'

REFERENCES



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www.slsurveys.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. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JULY 20, 20 17
REVISED _____, 20 ____
OPERATORS WELL NO. HEAVEN HILL 2W-12HU
API WELL NO. 47-051-01952H4A
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8703P12HU.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 X LIQUID INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP X SHALLOW _____

LOCATION: GROUND = 1,350.0' PROPOSED = 1,331.26' WATERSHED WEST FORK OF LOWER BOWMAN RUN OF FISH CREEK (HUC 10)
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 & SHEET 3) ACREAGE 203.07±

PROPOSED WORK: DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X 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: 11,784' / TMD: 19,856'

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

10/27/2017