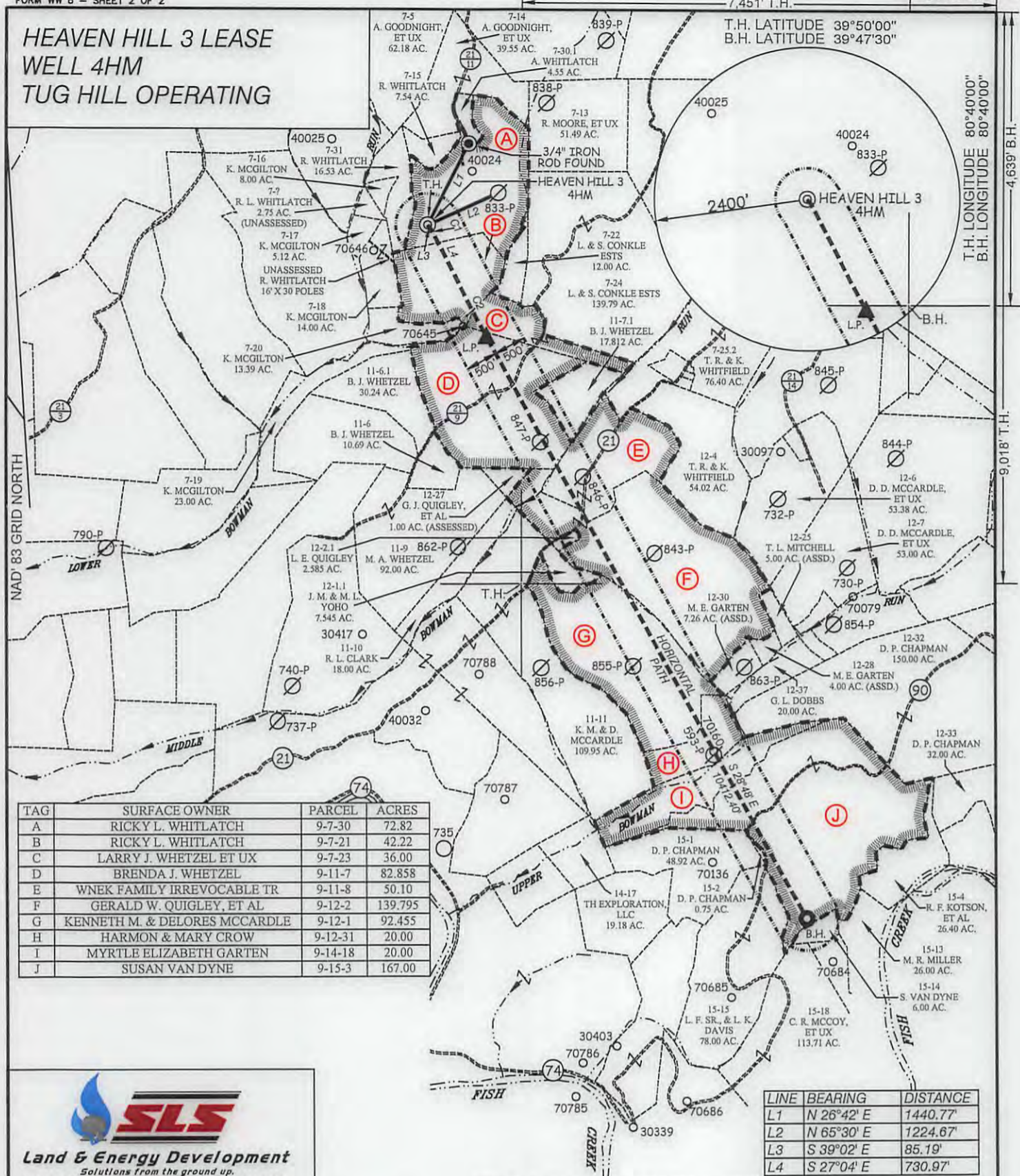


**HEAVEN HILL 3 LEASE  
WELL 4HM  
TUG HILL OPERATING**

7,451' T.H. 1,362' B.H.  
T.H. LATITUDE 39°50'00"  
B.H. LATITUDE 39°47'30"

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



TAG	SURFACE OWNER	PARCEL	ACRES
A	RICKY L. WHITLATCH	9-7-30	72.82
B	RICKY L. WHITLATCH	9-7-21	42.22
C	LARRY J. WHETZEL ET UX	9-7-23	36.00
D	BRENDA J. WHETZEL	9-11-7	82.858
E	WNEK FAMILY IRREVOCABLE TR	9-11-8	50.10
F	GERALD W. QUIGLEY, ET AL	9-12-2	139.795
G	KENNETH M. & DELORES MCCARDLE	9-12-1	92.455
H	HARMON & MARY CROW	9-12-31	20.00
I	MYRTLE ELIZABETH GARTEN	9-14-18	20.00
J	SUSAN VAN DYNE	9-15-3	167.00

LINE	BEARING	DISTANCE
L1	N 26°42' E	1440.77'
L2	N 65°30' E	1224.67'
L3	S 39°02' E	85.19'
L4	S 27°04' E	730.97'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	92.61'	960.20'	S 29°58' E	92.58'
C2	1078.78'	25348.74'	S 27°33' E	1078.70'



P.S. 677  
*Gregory A. Smith*



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

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)  
 NAD'83 S.P.C.(FT) N. 478,850.79 E. 1,833,308.44  
 NAD'83 GEO. LAT-(N) 39.808577 LONG-(W) 80.693191  
 NAD'83 UTM (M) N. 4,406,556.46 E. 526,262.12  
**LANDING POINT**  
 NAD'83 S.P.C.(FT) N. 477,097.1 E. 1,634,240.0  
 NAD'83 GEO. LAT-(N) 39.803797 LONG-(W) 80.689793  
 NAD'83 UTM (M) N. 4,406,026.9 E. 526,554.8  
**BOTTOM HOLE**  
 NAD'83 S.P.C.(FT) N. 467,973.0 E. 1,639,256.8  
 NAD'83 GEO. LAT-(N) 39.778931 LONG-(W) 80.671514  
 NAD'83 UTM (M) N. 4,403,272.8 E. 526,129.7

**LEGEND**

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL
- LEASE # (SEE WW-6A1)
- SURFACE OWNER (SEE TABLE)

SCALE 1" = 2000' FILE NO. 8654P4HMR2.dwg  
 DATE JUNE 30, 20 17  
 REVISED FEBRUARY 2, 2018 & MARCH 22, 2018  
 OPERATORS WELL NO. HEAVEN HILL 3-4HM  
 API WELL NO. 47-051-01947  
 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

COUNTY NAME PERMIT

05/04/2018



**HEAVEN HILL 3 LEASE  
WELL 4HM  
TUG HILL OPERATING**

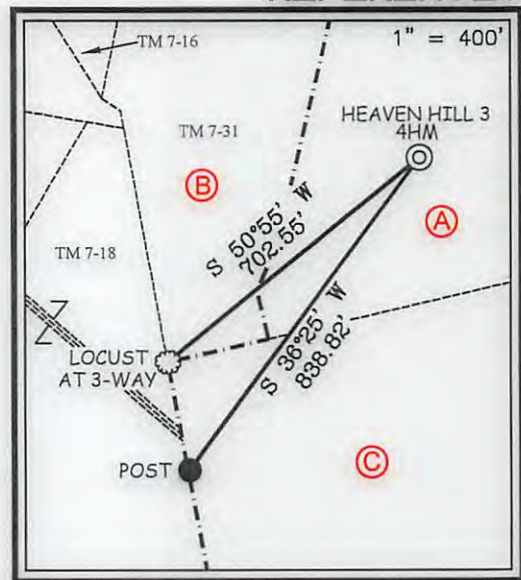
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(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)		
NAD'83 S.P.C.(FT)	N. 478,850.79	E. 1,633,308.44
NAD'83 GEO.	LAT-(N) 39.808577	LONG-(W) 80.693191
NAD'83 UTM (M)	N. 4,406,556.46	E. 526,262.12
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T.H. LONGITUDE 80°40'00"  
B.H. LONGITUDE 80°40'00"  
4,639' B.H.  
9,018' T.H.



**REFERENCES**



**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'



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.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE JUNE 30, 20 17  
REVISED FEBRUARY 2, 2018 & MARCH 22, 2018  
OPERATORS WELL NO. HEAVEN HILL 3-4HM  
API WELL NO. 47-051-01947  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8654P4HMR2.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  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: GROUND = 1,344.50' PROPOSED = 1,326.35' WATERSHED LOWER BOWMAN RUN OF FISH CREEK (HUC 10)  
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER RICKY L. WHITLATCH ACREAGE 72.82±  
ROYALTY OWNER RICKY L. WHITLATCH, ET AL - SEE WW-6A1 ACREAGE 72.82±

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 MARCELLUS  
ESTIMATED DEPTH TVD: 6,876' / TMD: 17,812'

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

COUNTY NAME PERMIT

HeA MOD

05/04/2018