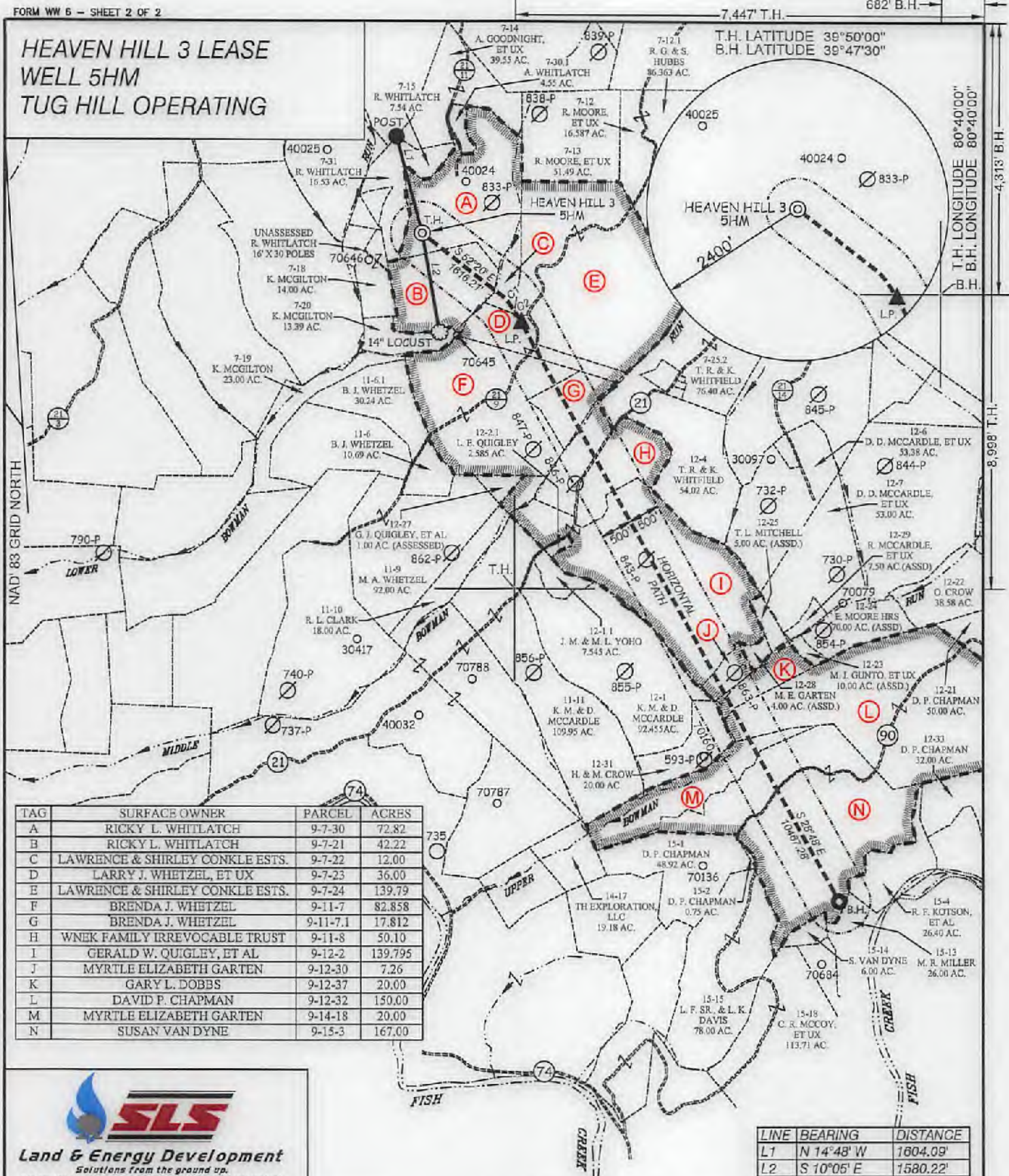


**HEAVEN HILL 3 LEASE
WELL 5HM
TUG HILL OPERATING**



TAG	SURFACE OWNER	PARCEL	ACRES
A	RICKY L. WHITLATCH	9-7-30	72.82
B	RICKY L. WHITLATCH	9-7-21	42.22
C	LAWRENCE & SHIRLEY CONKLE ESTS.	9-7-22	12.00
D	LARRY J. WHETZEL, ET UX	9-7-23	36.00
E	LAWRENCE & SHIRLEY CONKLE ESTS.	9-7-24	139.79
F	BRENDA J. WHETZEL	9-11-7	82.858
G	BRENDA J. WHETZEL	9-11-7.1	17.812
H	WNEK FAMILY IRREVOCABLE TRUST	9-11-8	50.10
I	GERALD W. QUIGLEY, ET AL	9-12-2	139.795
J	MYRTLE ELIZABETH GARTEN	9-12-30	7.26
K	GARY L. DOBBS	9-12-37	20.00
L	DAVID P. CHAPMAN	9-12-32	150.00
M	MYRTLE ELIZABETH GARTEN	9-14-18	20.00
N	SUSAN VAN DYNE	9-15-3	167.00

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vinton Drive • Glenville, WV 26031 • (304) 462-5034
www.slsurveys.com

P.S. 677
Gregory A. Smith

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)			
NAD83 S.P.C.(FT)	N. 478,871.18	E. 1,833,313.44	
NAD83 GEO.	LAT-(N) 39.808633	LONG-(W) 80.893174	
NAD83 UTM (M)	N. 4,406,582.70	E. 526,263.54	
LANDING POINT			
NAD83 S.P.C.(FT)	N. 477,462.6	E. 1,634,897.7	
NAD83 GEO.	LAT-(N) 38.804824	LONG-(W) 80.887489	
NAD83 UTM (M)	N. 4,406,141.6	E. 526,753.4	
BOTTOM HOLE			
NAD83 S.P.C.(FT)	N. 468,280.5	E. 1,639,941.2	
NAD83 GEO.	LAT-(N) 38.778827	LONG-(W) 80.889084	
NAD83 UTM (M)	N. 4,403,373.0	E. 526,336.6	

SCALE 1" = 2000' FILE NO. 8654P5HMR2.dwg
DATE JUNE 30, 20 17
REVISED FEBRUARY 2, 2018 & MARCH 22, 2018
OPERATORS WELL NO. HEAVEN HILL 3-5HM
API WELL NO. 47 - 051 - 01948
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
ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	149.18'	686.80'	S 43°26' E	148.88'
C2	373.18'	2411.64'	S 32°54' E	372.81'

LINE	BEARING	DISTANCE
L1	N 14°48' W	1604.09'
L2	S 10°05' E	1580.22'

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

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-8A1)
- SURFACE OWNER (SEE TABLE)

05/04/2018

COUNTY NAME PERMIT

HEAVEN HILL 3 LEASE
WELL 5HM
TUG HILL OPERATING

7,447' T.H. 682' B.H.

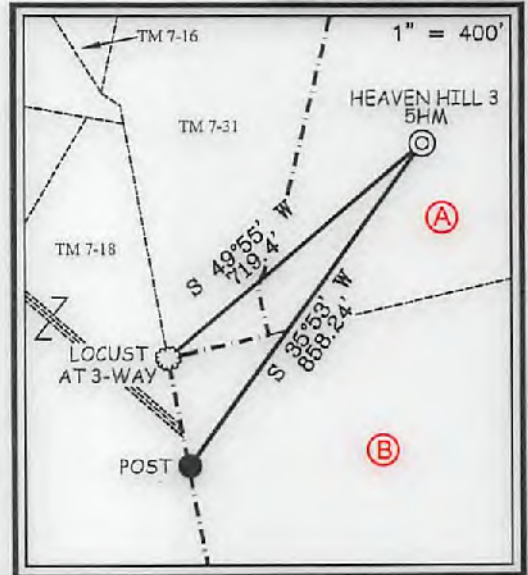
T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°47'30"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)		
NAD'83 S.P.C.(FT)	N. 478,871.18	E. 1,633,313.44
NAD'83 GEO.	LAT-(N) 39.808633	LONG-(W) 80.693174
NAD'83 UTM (M)	N. 4,406,562.70	E. 526,263.54
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 477,462.6	E. 1,634,897.7
NAD'83 GEO.	LAT-(N) 39.804824	LONG-(W) 80.697469
NAD'83 UTM (M)	N. 4,406,141.6	E. 526,759.4
BOTTOM HOLE		
NAD'83 S.P.C.(FT)	N. 468,290.5	E. 1,639,941.2
NAD'83 GEO.	LAT-(N) 39.779827	LONG-(W) 80.669094
NAD'83 UTM (M)	N. 4,403,373.0	E. 526,336.6

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"
4,313' B.H.
8,958' T.H.

T.H.

REFERENCES



NOTES ON SURVEY

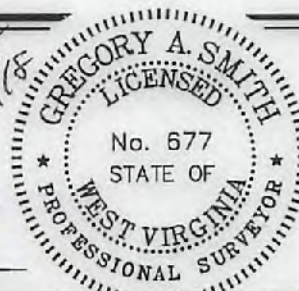
1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'



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.

P.S. 677

Gregory A. Smith



(+) 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 3-5HM

API WELL NO. 47 - 051 - 01948
STATE COUNTY PERMIT

MOD H6A

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8654P5HMR2.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: ELEVATION GROUND = 1,342.20' 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: 17,873'

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

05/04/2018