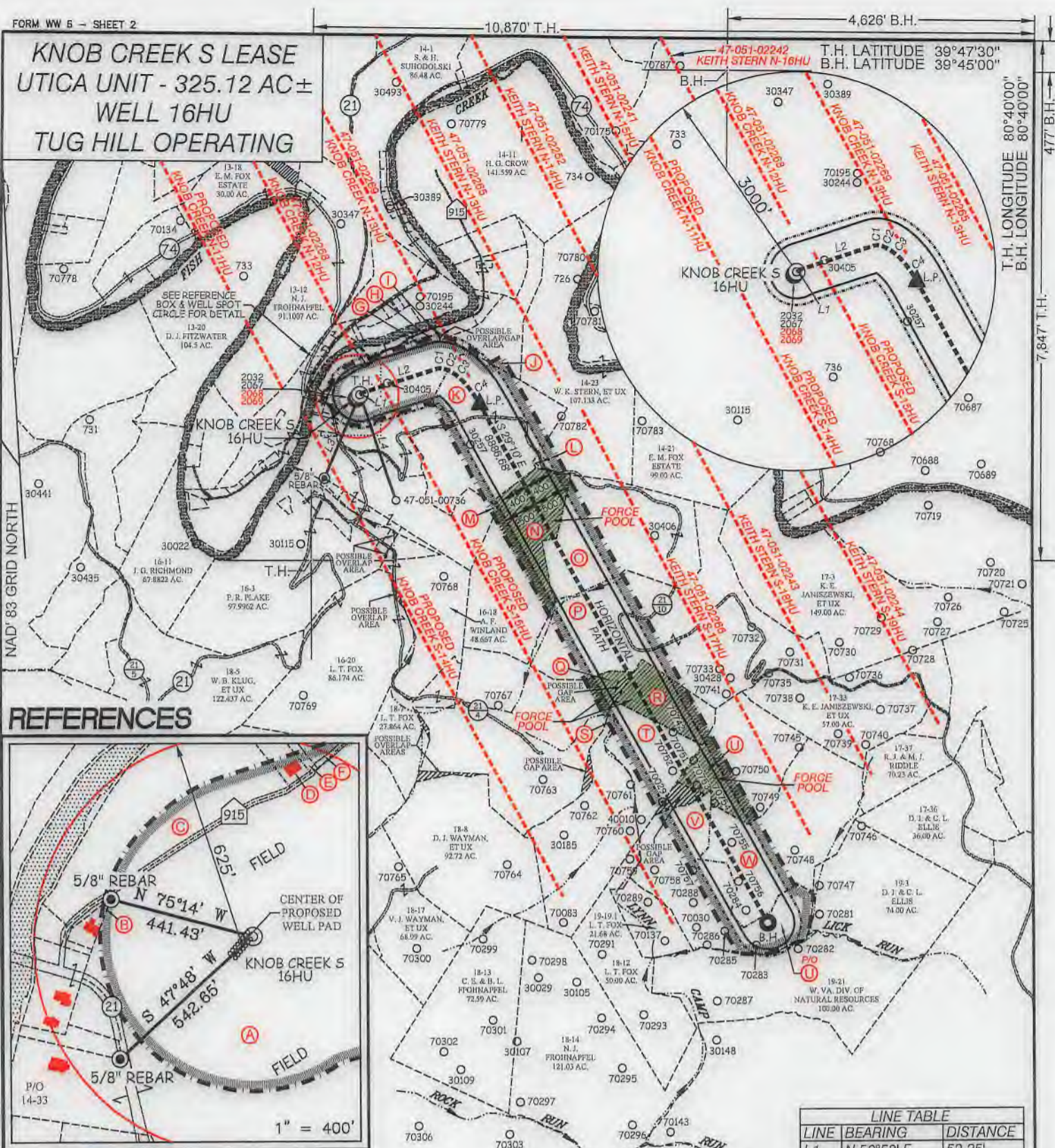


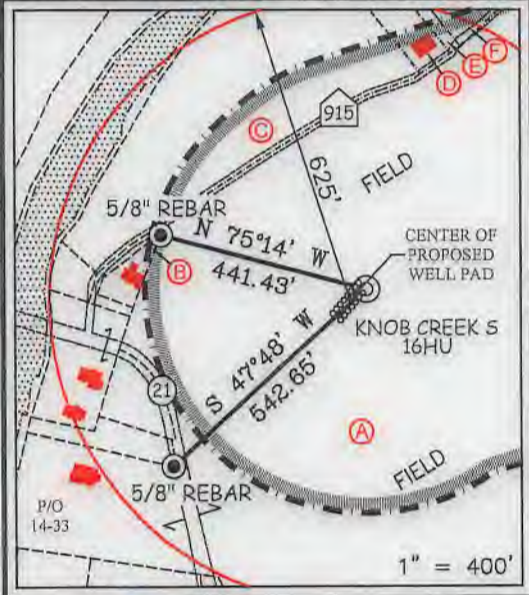
**KNOB CREEK S LEASE
UTICA UNIT - 325.12 AC±
WELL 16HU
TUG HILL OPERATING**

T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°45'00"

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



REFERENCES



LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 50°58' E	52.35'
L2	N 72°02' E	1183.45'
L3	S 22°57' W	1355.45'
L4	S 19°14' E	1673.35'

CHORD BEARING				
CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	84.77'	192.50'	N 87°26' E	84.09'
C2	105.13'	371.28'	S 71°22' E	104.78'
C3	244.70'	848.35'	S 53°59' E	243.85'
C4	443.09'	1552.92'	S 36°47' E	441.59'

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26031 • (304) 492-5834
www.slsww.com

P.S. 849 *C. Victor Moyers*



(+) 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
- FORCE POOL TRACT
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE ADDITIONAL SHEETS)

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)			
NAD'83 S.P.C.(FT)	N. 464,891.03	E. 1,629,708.20	
NAD'83 GEO.	LAT-(N) 39.770124	LONG-(W) 80.705339	
NAD'83 UTM (M)	N. 4,402,285.21	E. 525,236.36	
LANDING POINT			
NAD'83 S.P.C.(FT)	N. 464,762.1	E. 1,631,519.6	
NAD'83 GEO.	LAT-(N) 39.769836	LONG-(W) 80.698889	
NAD'83 UTM (M)	N. 4,402,255.2	E. 525,798.9	
BOTTOM HOLE			
NAD'83 S.P.C.(FT)	N. 457,002.2	E. 1,635,850.5	
NAD'83 GEO.	LAT-(N) 39.748692	LONG-(W) 80.683119	
NAD'83 UTM (M)	N. 4,399,913.1	E. 527,147.8	

SCALE 1" = 2000' FILE NO. 8789P16HU.dwg
KNOB CREEK S-16HU REV4
DATE OCTOBER 1, 2019
REVISED
OPERATORS WELL NO. KNOB CREEK S-16HU
API WELL NO. 47 051 02290
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

COUNTY NAME PERMIT

**Knob Creek S Lease
Utica Unit - 325.12 AC ±
Well 16HU
Tug Hill Operating**

B.H.

T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°45'00"

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

477' B.H.

7,847' T.H.

T.H.

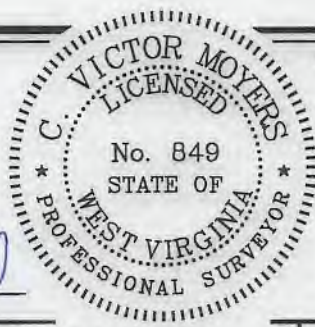
NOTES ON SURVEY

- 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.
- SEE REFERENCES FOR DWELLINGS LOCATED WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- BASED ON WV DOT COUNTY ROUTE 74 IS A 40' STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.
- PROPOSED LATERAL OR TOP HOLE OF KNOB CREEK S-16HU IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF EXISTING WELLS PROPOSED KNOB CREEK N-11HU, KNOB CREEK N-12HU (47-051-02268), KNOB CREEK N-13HU (47-051-02269), PROPOSED KNOB CREEK S-14HU, PROPOSED KNOB CREEK S-15HU, KEITH STERN N-13HU (47-051-02265), KEITH STERN N-14HU (47-051-02252), KEITH STERN S-17HU (47-051-02266), KEITH STERN S-18HU (47-051-02243).

TAG	SURFACE OWNER	PARCEL	ACRES
A	DAVID LEE FRANKLIN	9-14-33	65.824
B	MARGARET FOX - LIFE	9-14-39	8,675 SQ. FT
C	DAVID LEE FRANKLIN	9-14-44	2.913
D	TWILA C. COFFIELD	9-14-32	0.583
E	TWILA C. COFFIELD	9-14-32.1	0.184
F	RICHARD L. HARVETH, ET UX	9-14-54	1.649
G	ANDREW FASOULETOS, ET UX	9-14-29.1	1.171
H	ANDREW FASOULETOS, ET UX	9-14-29	0.209
I	CHARLES R. SCHELLHASE, ET UX	9-14-28	3.029
J	PATRICK J. SCHELLHASE TRUST	9-14-11.3	23.424
K	JOHN F. CUNNINGHAM, ET UX	9-14-22	75.22
L	WILLIAM KEITH STERN, ET UX	9-14-23	107.133
M	RONALD R. YOUNG, ET UX - LIFE	9-16-15	52.02
N	ALICE FAYE WINLAND	9-16-19	75.00
O	DAVID P. WARSINSKY & ELLEN K. NYLES	9-17-1	70.00
P	I. C. YOUNG ESTATE	9-17-2	140.00
Q	ROBERT J. COMBS, ET AL	9-18-9	110.75
R	WSD PROPERTIES, LLC	9-17-41	25.57
S	BETTY J. GOULDSBERRY ESTATE, ET AL	9-18-11	60.00
T	BETTY J. GOULDSBERRY ESTATE, ET AL	9-18-10	20.00
U	I. C. YOUNG ESTATE	9-17-40	51.44
V	I. C. YOUNG ESTATE	9-19-1	80.00
W	I. C. YOUNG ESTATE	9-19-2	80.00



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 OCTOBER 1, 2019
 REVISED _____
 OPERATORS WELL NO. KNOB CREEK S-16HU
 API Deep
 WELL NO. 47 - 051 - 02290HU
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8789P16HU.dwg
KNOB CREEK S-16HU REV4
 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 = 729.30' ELEVATION PROPOSED = 734.67' WATERSHED FISH CREEK (HUC 10)
 DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER DAVID LEE FRANKLIN ACREAGE 65.824±
 ROYALTY OWNER DAVID LEE FRANKLIN, ET AL - SEE ADDITIONAL SHEETS ACREAGE 65.824±
 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: 11,351' TMD: 20,709'

COUNTY NAME

PERMIT

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