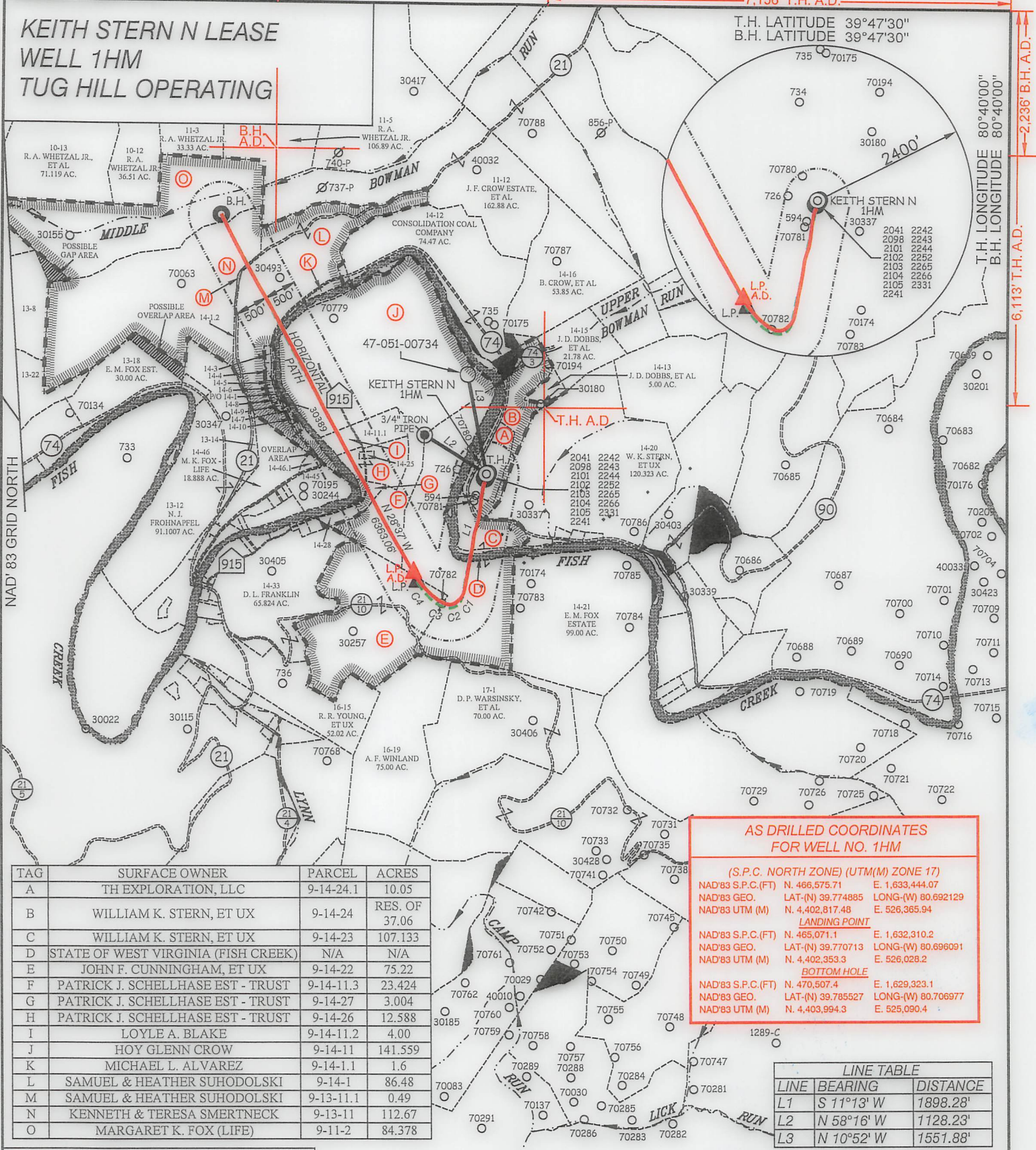


11,328' B.H. A.D.

7,156' T.H. A.D.

**KEITH STERN N LEASE
WELL 1HM
TUG HILL OPERATING**

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



**AS DRILLED COORDINATES
FOR WELL NO. 1HM**

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

NAD'83 S.P.C.(FT)	N. 466,575.71	E. 1,633,444.07
NAD'83 GEO.	LAT-(N) 39.774885	LONG-(W) 80.692129
NAD'83 UTM (M)	N. 4,402,817.48	E. 526,365.94

LANDING POINT

NAD'83 S.P.C.(FT)	N. 465,071.1	E. 1,632,310.2
NAD'83 GEO.	LAT-(N) 39.770713	LONG-(W) 80.696091
NAD'83 UTM (M)	N. 4,402,353.3	E. 526,028.2

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 470,507.4	E. 1,629,323.1
NAD'83 GEO.	LAT-(N) 39.785527	LONG-(W) 80.706977
NAD'83 UTM (M)	N. 4,403,994.3	E. 525,090.4

TAG	SURFACE OWNER	PARCEL	ACRES
A	TH EXPLORATION, LLC	9-14-24.1	10.05
B	WILLIAM K. STERN, ET UX	9-14-24	RES. OF 37.06
C	WILLIAM K. STERN, ET UX	9-14-23	107.133
D	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
E	JOHN F. CUNNINGHAM, ET UX	9-14-22	75.22
F	PATRICK J. SCHELLHASE EST - TRUST	9-14-11.3	23.424
G	PATRICK J. SCHELLHASE EST - TRUST	9-14-27	3.004
H	PATRICK J. SCHELLHASE EST - TRUST	9-14-26	12.588
I	LOYLE A. BLAKE	9-14-11.2	4.00
J	HOY GLENN CROW	9-14-11	141.559
K	MICHAEL L. ALVAREZ	9-14-1.1	1.6
L	SAMUEL & HEATHER SUHODOLSKI	9-14-1	86.48
M	SAMUEL & HEATHER SUHODOLSKI	9-13-11.1	0.49
N	KENNETH & TERESA SMERTNECK	9-13-11	112.67
O	MARGARET K. FOX (LIFE)	9-11-2	84.378

LINE TABLE

LINE	BEARING	DISTANCE
L1	S 11°13' W	1898.28'
L2	N 58°16' W	1128.23'
L3	N 10°52' W	1551.88'

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	177.86'	270.86'	S 27°56' W	174.68'
C2	155.30'	192.28'	S 74°00' W	151.11'
C3	239.43'	463.23'	N 66°53' W	236.77'
C4	406.56'	988.32'	N 39°44' W	403.70'

12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slsvv.com

LEGEND

AS DRILLED

PROPOSED

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

NAD'83 S.P.C.(FT)	N. 466,575.71	E. 1,633,444.07
NAD'83 GEO.	LAT-(N) 39.774885	LONG-(W) 80.692129
NAD'83 UTM (M)	N. 4,402,817.48	E. 526,365.94

LANDING POINT

NAD'83 S.P.C.(FT)	N. 464,921.1	E. 1,632,372.0
NAD'83 GEO.	LAT-(N) 39.770304	LONG-(W) 80.695864
NAD'83 UTM (M)	N. 4,402,307.9	E. 526,047.7

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 470,507.4	E. 1,629,324.0
NAD'83 GEO.	LAT-(N) 39.785525	LONG-(W) 80.706974
NAD'83 UTM (M)	N. 4,403,994.1	E. 525,090.7

GREGORY A. SMITH
LICENSED
No. 677
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

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

P.S. 677

LEGEND

LEASE LINE

SURFACE LINE

WELL LATERAL

OFFSET LINE

TIE LINE

CREEK

ROAD

COUNTY ROUTE

PROPOSED WELL

EXISTING WELL

PERMITTED WELL

TAX MAP-PARCEL 00-00

LEASE # (SEE WW-6A1)

SURFACE OWNER (SEE TABLE)

10/27/2023

SCALE 1" = 2000' FILE NO. 8811P1HMAD.dwg
KEITH STERN N-1HM-REV1

DATE FEBRUARY 15, 2023
REVISED _____, 20____

OPERATORS WELL NO. KEITH STERN N-1HM
API WELL NO. 47 — 051 — 02372
NO. STATE COUNTY PERMIT

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

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DARREN BROWN - CT CORPORATION
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5098 WASHINGTON ST. W, STE 407
FORT WORTH, TX 76107 CHARLESTON, WV 25313-1561

COUNTY NAME
PERMIT

11,328' B.H. A.D.

7,156' T.H. A.D.

**KEITH STERN N LEASE
WELL 1HM
TUG HILL OPERATING**

B.H. A.D.

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

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

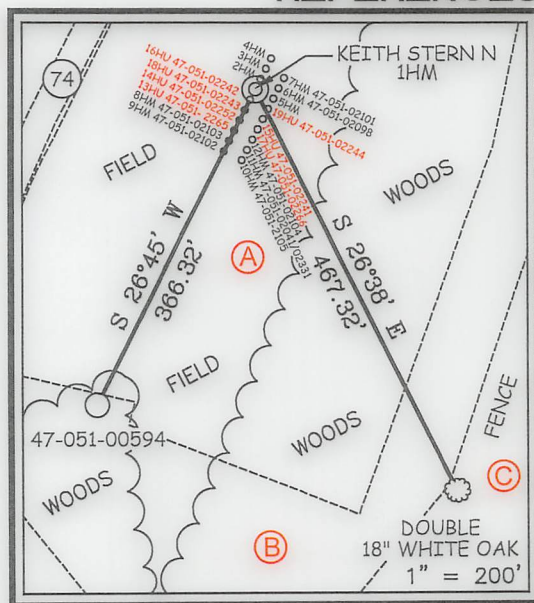
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<u>BOTTOM HOLE</u>		
NAD'83 S.P.C.(FT)	N. 470,506.7	E. 1,629,324.0
NAD'83 GEO.	LAT-(N) 39.785525	LONG-(W) 80.706974
NAD'83 UTM (M)	N. 4,403,994.1	E. 525,090.7

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"
2,236' B.H. A.D.
6,113' T.H. A.D.

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-13-8	SHUTLER FAMILY TRUST	56.04
9-13-14	MARGARET K. FOX - LIFE	3.00
9-13-22	TRICYCLE LLC	42.27
9-14-1.2	KENNETH N. & TERESA A. SMERTNECK	1.02
9-14-3	MICHAEL L. ALVAREZ	NORTH P/O 3 PCLS
9-14-4	MICHAEL L. ALVAREZ	3 PCLS & 1/8 AC.
9-14-5	MICHAEL L. ALVAREZ	200 X 60 PCL
9-14-6	MICHAEL L. ALVAREZ	120 X 200 PCL
9-14-7	JOHN T. ERAZMUS, III	0.25
9-14-8	JOHNNY C. HOLCOMB & JOHNNY C. HOLCOMB, II	2/5 AC.
9-14-9	JOHN E. DUFFY, ET UX	2/5 AC.
9-14-10	ROBERT I. DUFFY - LIFE	25/100 AC.
9-14-11.1	PATRICK J. SCHELLHASE EST - TRUST	7.617
9-14-25	PATRICIA A. DUGAS	0.559
9-14-28	CHARLES R. SCHELLHASE, ET UX	3.029
9-14-45	GEORGE R. TAYLOR, ET UX	10.98
9-14-46.1	MARHA JANE FAZZARO	1.512

T.H. A.D.

REFERENCES



NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS OR DWELLINGS > 2500 SQ. FT. WERE FOUND 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.
- PLAT UPDATED TO SHOW AS-DRILLED PATH.
- AS DRILLED DATA PROVIDED BY TUG HILL OPERATING.



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1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slsvv.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 FEBRUARY 15, 20 23
REVISED _____, 20 ____
OPERATORS WELL NO. KEITH STERN N-1HM
API WELL NO. 47 - 051 - 02372
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P1HMAD.dwg
KEITH STERN N-1HM-REV1
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 ___ SHALLOW X
LOCATION: GROUND = 742.30' ELEVATION PROPOSED = 744.65' WATERSHED FISH CREEK (HUC 10)
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'
SURFACE OWNER TH EXPLORATION, LLC ACREAGE 10.05±
ROYALTY OWNER ISAAC CROW, ET AL - SEE WW-6A1 ACREAGE 10.05±
PROPOSED WORK: LEASE NO. SEE WW-6A1
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 MARCELLUS ESTIMATED DEPTH TVD: 6,398' / TMD: 13,796'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DARREN BROWN - CT CORPORATION
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5098 WASHINGTON ST. W, STE 407
FORT WORTH, TX 76107 CHARLESTON, WV 25313-1561

COUNTY NAME PERMIT

10/27/2023