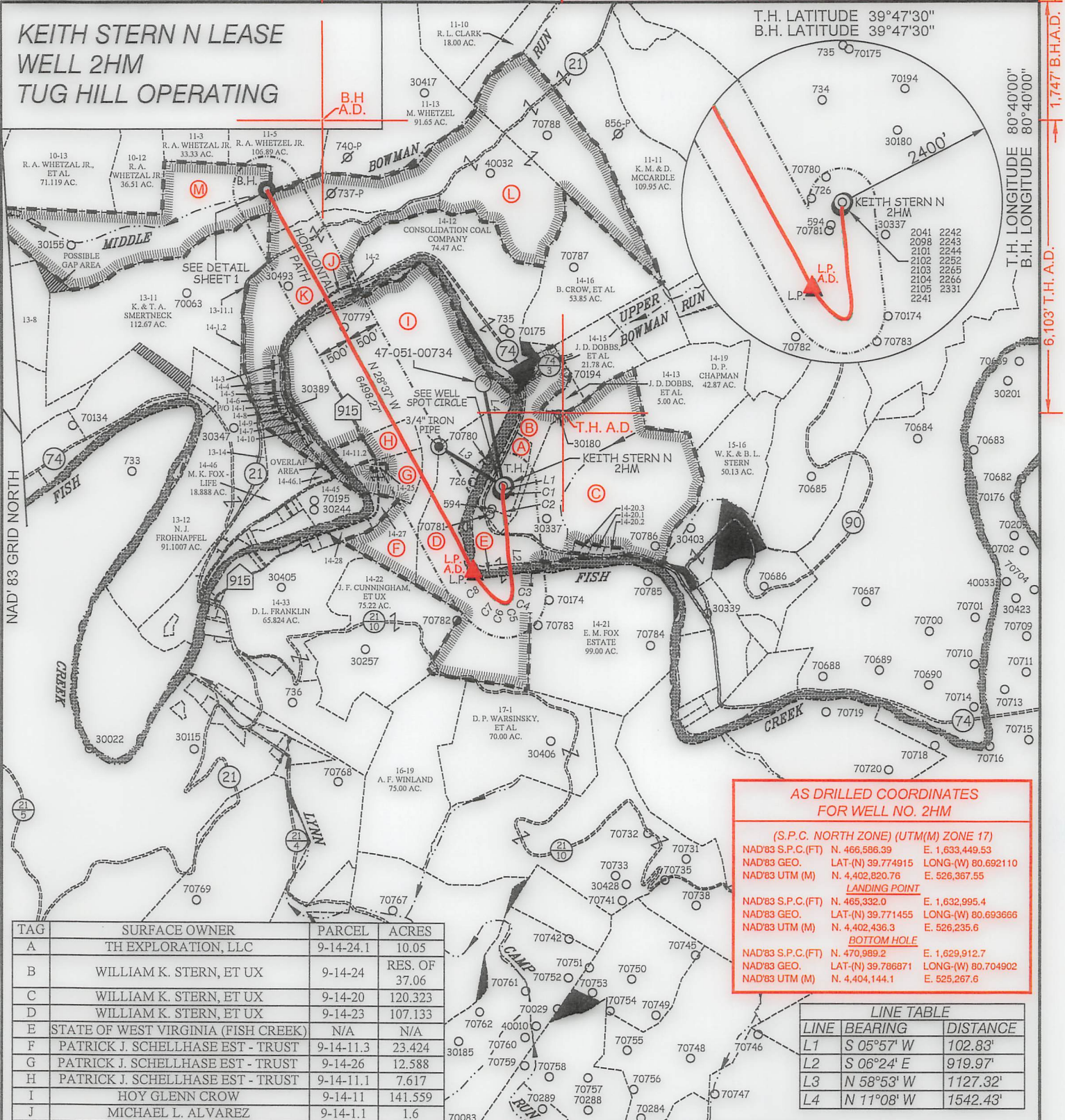


10,745' B.H. A.D.

7,151' T.H. A.D.

**KEITH STERN N LEASE
WELL 2HM
TUG HILL OPERATING**

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



AS DRILLED COORDINATES FOR WELL NO. 2HM

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

NAD'83 S.P.C.(FT)	N. 466,586.39	E. 1,633,449.53
NAD'83 GEO.	LAT-(N) 39.774915	LONG-(W) 80.692110
NAD'83 UTM (M)	N. 4,402,820.76	E. 526,367.55

LANDING POINT

NAD'83 S.P.C.(FT)	N. 465,332.0	E. 1,632,995.4
NAD'83 GEO.	LAT-(N) 39.771455	LONG-(W) 80.693666
NAD'83 UTM (M)	N. 4,402,436.3	E. 526,235.6

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 470,989.2	E. 1,629,912.7
NAD'83 GEO.	LAT-(N) 39.786871	LONG-(W) 80.704902
NAD'83 UTM (M)	N. 4,404,144.1	E. 525,267.6

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	9-14-20	120.323
D	WILLIAM K. STERN, ET UX	9-14-23	107.133
E	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
F	PATRICK J. SCHELLHASE EST - TRUST	9-14-11.3	23.424
G	PATRICK J. SCHELLHASE EST - TRUST	9-14-26	12.588
H	PATRICK J. SCHELLHASE EST - TRUST	9-14-11.1	7.617
I	HOY GLENN CROW	9-14-11	141.559
J	MICHAEL L. ALVAREZ	9-14-1.1	1.6
K	SAMUEL & HEATHER SUHODOLSKI	9-14-1	86.48
L	J. F. CROW ESTATE, ET AL	9-11-12	162.88
M	MARGARET K. FOX (LIFE)	9-11-2	84.378

LINE TABLE

LINE	BEARING	DISTANCE
L1	S 05°57' W	102.83'
L2	S 06°24' E	919.97'
L3	N 58°53' W	1127.32'
L4	N 11°08' W	1542.43'

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	48.12'	447.92'	S 00°29' E	48.10'
C2	463.66'	10425.20'	S 05°29' E	463.62'
C3	132.05'	445.69'	S 01°13' W	131.57'
C4	80.75'	144.71'	S 26°18' W	79.71'
C5	69.45'	87.98'	S 69°25' W	67.66'
C6	90.92'	208.18'	N 73°26' W	90.20'
C7	165.91'	581.99'	N 52°50' W	165.35'
C8	405.60'	1418.52'	N 36°12' W	404.22'

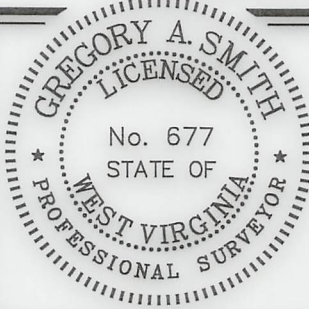


12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 25351 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
 slswv.com

LEGEND

AS DRILLED ————

PROPOSED - - - - -



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

P.S. 677 *Gregory A. Smith*

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

NAD'83 S.P.C.(FT)	N. 466,586.39	E. 1,633,449.53
NAD'83 GEO.	LAT-(N) 39.774915	LONG-(W) 80.692110
NAD'83 UTM (M)	N. 4,402,820.76	E. 526,367.55

LANDING POINT

NAD'83 S.P.C.(FT)	N. 465,285.3	E. 1,633,027.8
NAD'83 GEO.	LAT-(N) 39.771328	LONG-(W) 80.693549
NAD'83 UTM (M)	N. 4,402,422.2	E. 526,245.7

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 470,989.4	E. 1,629,914.7
NAD'83 GEO.	LAT-(N) 39.786872	LONG-(W) 80.704895
NAD'83 UTM (M)	N. 4,404,144.2	E. 525,268.2

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) (A)

SURFACE OWNER (SEE TABLE)

SCALE 1" = 2000' FILE NO. 8811P2HMR-AD.dwg
 KEITH STERN N-2HM-REV1
 DATE FEBRUARY 15, 20 23
 REVISED _____, 20 _____
 OPERATORS WELL NO. KEITH STERN N-2HM
 API WELL NO. 47 — 051 — 02373
 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 DARREN BROWN - CT CORPORATION
 ADDRESS 5098 WASHINGTON ST. W, STE 407 CHARLESTON, WV 25313-1561

COUNTY NAME _____ PERMIT _____

10,745' B.H. A.D.

7,151' T.H. A.D.

**KEITH STERN N LEASE
WELL 2HM
TUG HILL OPERATING**

B.H.
A.D.

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

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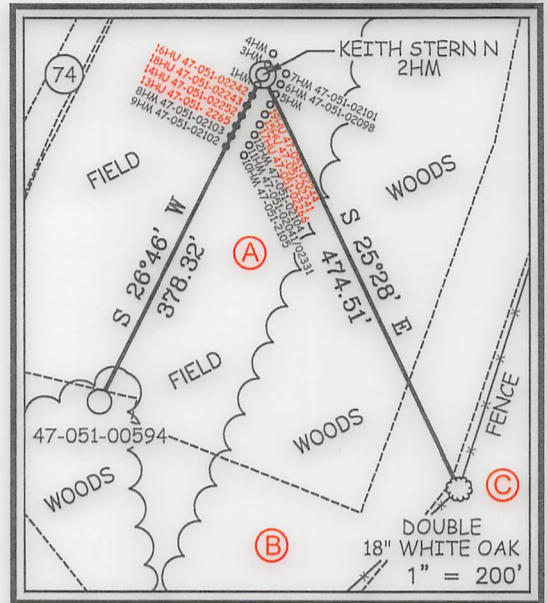
T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"

1,747' B.H.A.D.

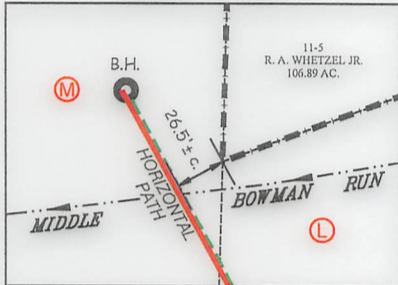
MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-13-11.1	SAMUEL & HEATHER SUHODOLSKI	0.49
9-13-14	MARGARET K. FOX - LIFE	3.00
9-14-1.2	KENNETH N. & TERESA A. SMERTNECK	1.02
9-14-2	MICHAEL L. ALVAREZ	0.75
9-14-3	MICHAEL L. ALVAREZ	NORTH P/O 3 PCLS
9-14-4	MICHAEL L. ALVAREZ	3 PCLS & 1/8 AC.
9-14-5	MICHAEL 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.
9-14-11.2	LOYE A. BLAKE	4.00
9-14-20.1	WILLIAM K. STERN, ET UX	1.321
9-14-20.2	WILLIAM K. STERN, ET UX	1.525
9-14-20.3	WILLIAM K. STERN, ET UX	0.831
9-14-25	PATRICIA A. DUGAS	0.559
9-14-27	PATRICK J. SCHELLHASE EST - TRUST	3.004
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



DETAIL
SCALE: 1" = 100'



NOTES ON SURVEY

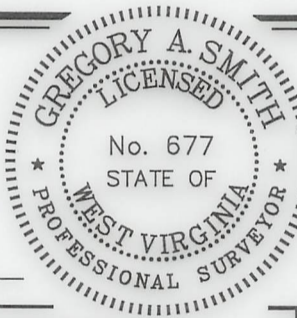
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS OR DWELLINGS > 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- BASED ON WV DOT COUNTY ROUTE 74 IS A 40' STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.
- PLAT UPDATED TO SHOW AS-DRILLED PATH.
- AS DRILLED DATA PROVIDED BY TUG HILL OPERATING.



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

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-2HM
API WELL NO. 47 - 051 - 02373
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P2HMR-AD.dwg
KEITH STERN N-2HM-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 INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X
LOCATION: GROUND = 742.10' 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: 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: 6,401' / TMD: 13,740'

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