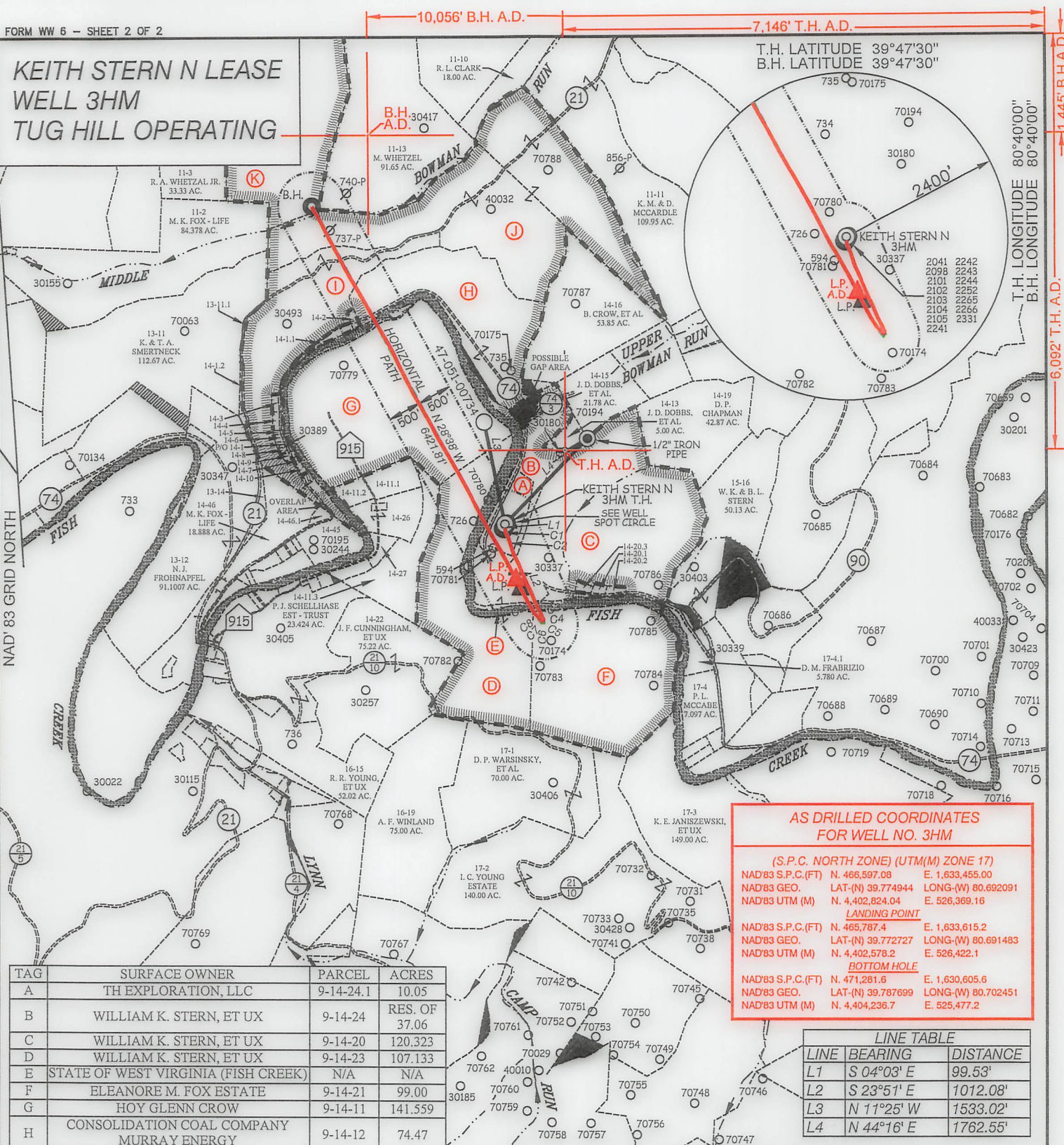


**KEITH STERN N LEASE
WELL 3HM
TUG HILL OPERATING**



AS DRILLED COORDINATES FOR WELL NO. 3HM

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

NAD'83 S.P.C.(FT)	N. 466,597.08	E. 1,633,455.00
NAD'83 GEO.	LAT-(N) 39.774944	LONG-(W) 80.692091
NAD'83 UTM (M)	N. 4,402,824.04	E. 526,369.16

LANDING POINT

NAD'83 S.P.C.(FT)	N. 465,787.4	E. 1,633,615.2
NAD'83 GEO.	LAT-(N) 39.772727	LONG-(W) 80.691483
NAD'83 UTM (M)	N. 4,402,578.2	E. 526,422.1

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 471,281.6	E. 1,630,606.6
NAD'83 GEO.	LAT-(N) 39.767699	LONG-(W) 80.702451
NAD'83 UTM (M)	N. 4,404,238.7	E. 525,477.2

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	ELEANORE M. FOX ESTATE	9-14-21	99.00
G	HOY GLENN CROW	9-14-11	141.559
H	CONSOLIDATION COAL COMPANY MURRAY ENERGY	9-14-12	74.47
I	SAMUEL & HEATHER SUHODOLSKI	9-14-1	86.48
J	J. F. CROW ESTATE, ET AL	9-11-12	162.88
K	RAY A. WHETZAL, JR.	9-11-5	106.89

LINE TABLE

LINE	BEARING	DISTANCE
L1	S 04°03' E	99.53'
L2	S 23°51' E	1012.08'
L3	N 11°25' W	1533.02'
L4	N 44°16' E	1762.55'

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	66.08'	350.35'	S 13°36' E	65.98'
C2	251.24'	2809.39'	S 21°50' E	251.16'
C3	138.30'	1088.26'	S 21°02' E	138.20'
C4	27.07'	67.04'	S 06°04' E	26.89'
C5	8.14'	4.45'	S 67°49' W	7.05'
C6	16.33'	48.81'	N 53°57' W	16.25'
C7	29.13'	249.68'	N 42°03' W	29.11'
C8	138.44'	1397.32'	N 35°15' W	138.39'
C9	451.79'	5902.57'	N 30°33' W	451.68'



LEGEND

AS DRILLED ——— (Red line)

PROPOSED - - - - - (Green dashed line)

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
 slswv.com

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

NAD'83 S.P.C.(FT)	N. 466,597.08	E. 1,633,455.00
NAD'83 GEO.	LAT-(N) 39.774944	LONG-(W) 80.692091
NAD'83 UTM (M)	N. 4,402,824.04	E. 526,369.16

LANDING POINT

NAD'83 S.P.C.(FT)	N. 465,649.6	E. 1,633,683.8
NAD'83 GEO.	LAT-(N) 39.772352	LONG-(W) 80.691232
NAD'83 UTM (M)	N. 4,402,536.5	E. 526,443.7

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 471,286.1	E. 1,630,606.7
NAD'83 GEO.	LAT-(N) 39.787712	LONG-(W) 80.702447
NAD'83 UTM (M)	N. 4,404,238.1	E. 525,477.5



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

P.S. 677 *Gregory A. Smith*

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) (A)

SCALE 1" = 2000' FILE NO. 8811P3HMR-AD.dwg
 KEITH STERN N-3HM-REV1

DATE FEBRUARY 15, 20 23

REVISED _____, 20 ____

OPERATORS WELL NO. KEITH STERN N-3HM

API WELL NO. 47 — 051 — 02374

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 _____

10,056' B.H. A.D.

7,146' T.H. A.D.

**KEITH STERN N LEASE
WELL 3HM
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)		
NAD'83 S.P.C.(FT)	N. 466,597.08	E. 1,633,455.00
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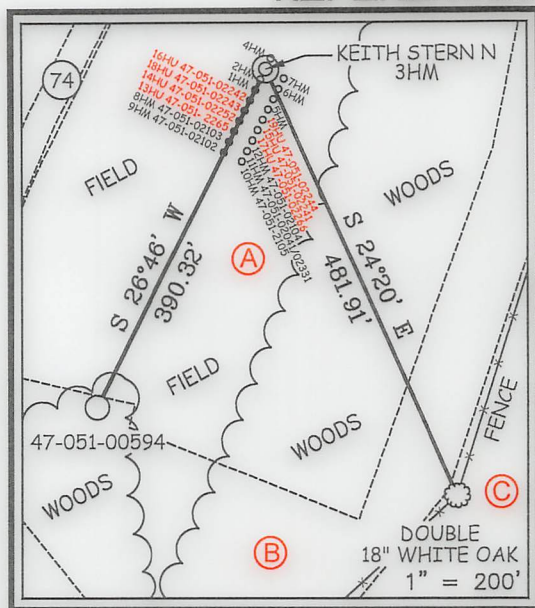
T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"

6,092' T.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
9-14-1.1	MICHAEL L. ALVAREZ	1.6
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.
9-14-21	ELANOR M. FOX EST	99
9-14-11.1	PATRICK J. SCHELLHASE EST - TRUST	7.617
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
9-14-26	PATRICK J. SCHELLHASE EST - TRUST	12.588
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



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
slswv.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-3HM
API WELL NO. 47 — 051 — 02374
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P3HMR-AD.dwg
KEITH STERN N-3HM-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 = 741.50' 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: 6,404' / TMD: 13,550'

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