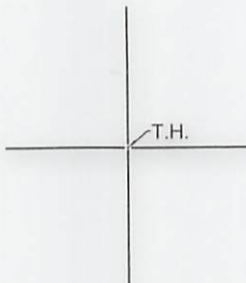


**KEITH STERN N LEASE
WELL 6HM
TUG HILL OPERATING**

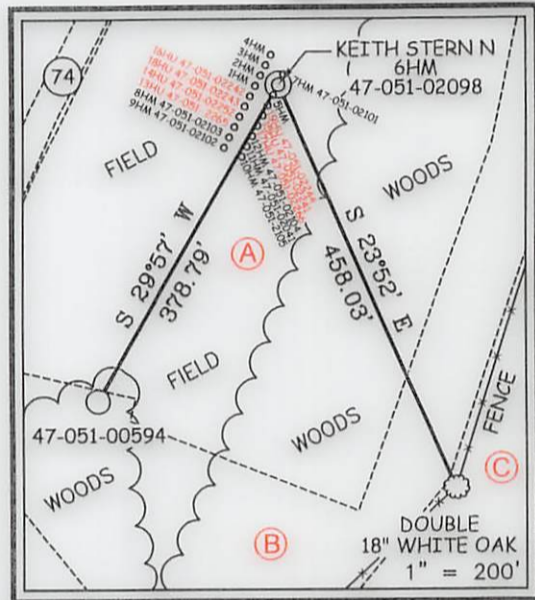
7,908' B.H.
7,132' T.H.
T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°47'30"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)		
NAD'83 S.P.C.(FT)	N. 466,576.84	E. 1,633,468.23
NAD'83 GEO.	LAT-(N) 39.774889	LONG-(W) 80.692043
NAD'83 UTM (M)	N. 4,402,817.94	E. 526,373.29
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 466,300.7	E. 1,635,922.1
NAD'83 GEO.	LAT-(N) 39.774220	LONG-(W) 80.683300
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BOTTOM HOLE		
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NAD'83 UTM (M)	N. 4,404,477.6	E. 526,130.9

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"
662' B.H.
6,112' 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'



12 Vashons Drive | P.O. Box 150 | Glenfield, WV 26031 | 304-362-5854
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304-345-3992
254 East Beckley Bypass | Beckley, WV 26801 | 304-255-8288
slsrv.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 JULY 31, 20 18
REVISED 4-9-2020, 8-21-2020, 6-3-2022
OPERATORS WELL NO. KEITH STERN N-6HM
API WELL NO. 47 - 051 - 02098
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P6HMR2.dwg
KEITH STERN N-6HM-REV3
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 <input type="checkbox"/>	GAS <input checked="" type="checkbox"/>	LIQUID INJECTION <input type="checkbox"/>	WASTE DISPOSAL <input type="checkbox"/>	IF "GAS" PRODUCTION <input checked="" type="checkbox"/>	STORAGE <input type="checkbox"/>	DEEP <input type="checkbox"/>	SHALLOW <input checked="" type="checkbox"/>
LOCATION:	GROUND = 741.50'		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 <input checked="" type="checkbox"/>		CONVERT <input type="checkbox"/>	DRILL DEEPER <input type="checkbox"/>	REDRILL <input type="checkbox"/>	FRACTURE OR STIMULATE <input checked="" type="checkbox"/>	PLUG OFF OLD FORMATION <input type="checkbox"/>	PERFORATE NEW FORMATION <input type="checkbox"/>
PHYSICAL CHANGE IN WELL (SPECIFY)			PLUG AND ABANDON <input type="checkbox"/>	CLEAN OUT AND REPLUG <input type="checkbox"/>	OTHER <input type="checkbox"/>	TARGET FORMATION	MARCELLUS	
			ESTIMATED DEPTH	TVD: 6,416' / TMD: 14,107'				

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

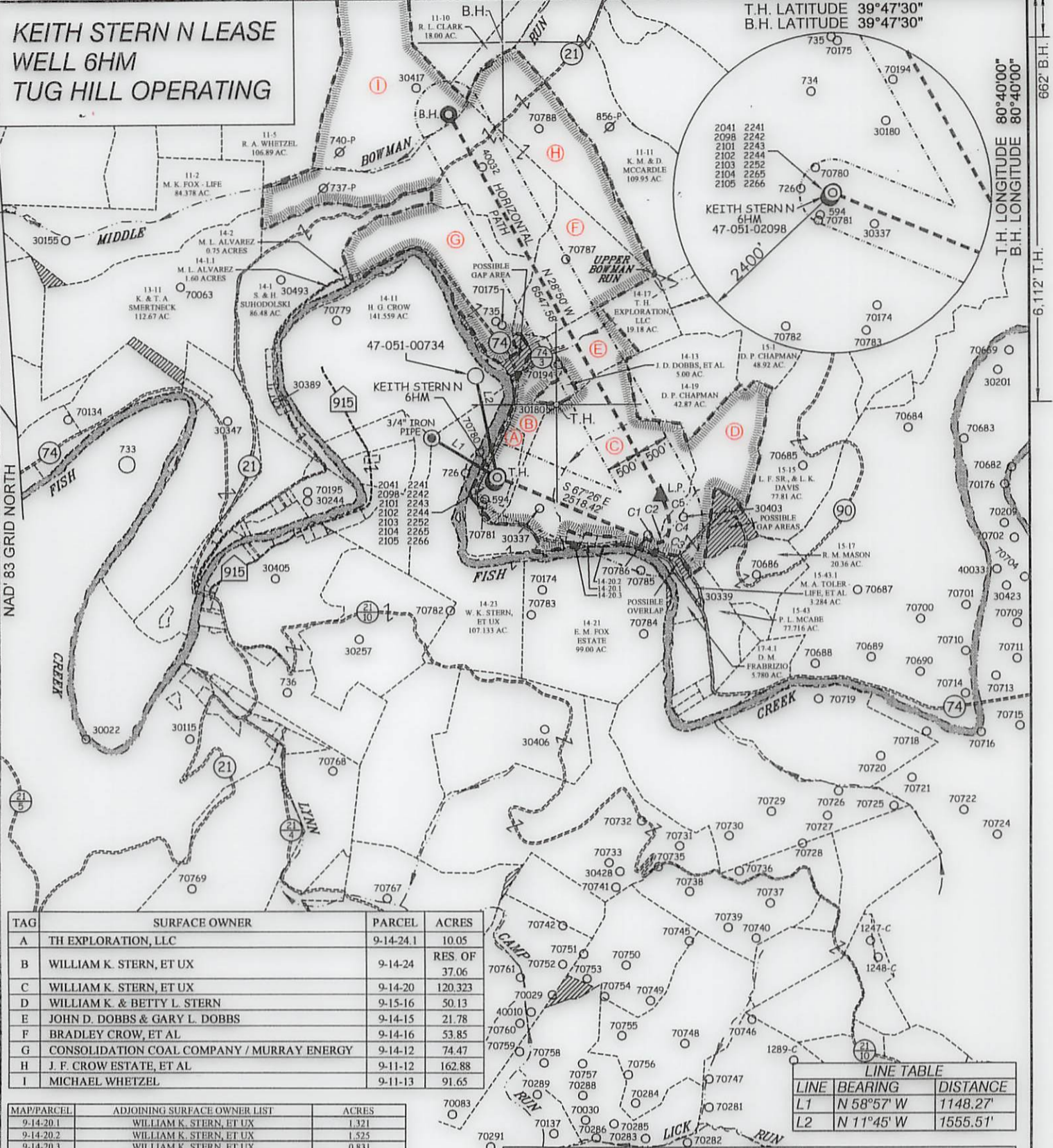
COUNTY ME PERMIT

06/17/2022

**KEITH STERN N LEASE
WELL 6HM
TUG HILL OPERATING**

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7,132' T.H.
T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°47'30"

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



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. & BETTY L. STERN	9-15-16	50.13
E	JOHN D. DOBBS & GARY L. DOBBS	9-14-15	21.78
F	BRADLEY CROW, ET AL	9-14-16	53.85
G	CONSOLIDATION COAL COMPANY / MURRAY ENERGY	9-14-12	74.47
H	J. F. CROW ESTATE, ET AL	9-11-12	162.88
I	MICHAEL WHETZEL	9-11-13	91.65

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
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

LINE	BEARING	DISTANCE
L1	N 58°57' W	1148.27'
L2	N 11°45' W	1555.51'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	106.69'	237.27'	S 80°18' E	105.79'
C2	89.96'	146.81'	N 68°37' E	88.56'
C3	125.67'	210.61'	N 30°31' E	123.82'
C4	250.76'	569.65'	N 00°03' W	248.74'
C5	343.61'	1169.81'	N 20°44' W	342.38'



12 Vanhook Drive | P.O. Box 429 | Clarksburg, WV 26304 | 304.462.5654
 1847 Kanawha Boulevard, East | Clarksburg, WV 26301 | 304.346.3052
 254 East Beckley Bypass | Beckley, WV 25801 | 304.259.5298
 slsww.com

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

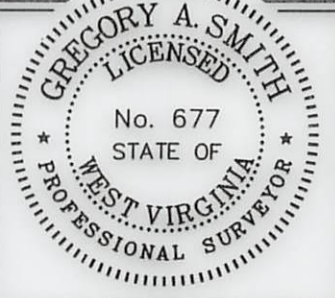
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(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

P.S. 677 *Gregory A. Smith*

SCALE 1" = 2000' FILE NO. 8811P6HMR2.dwg
 KEITH STERN N-6HM-REV3
 DATE JULY 31, 2018
 REVISED 4-9-2020, 8-21-2020, 6-3-2022
 OPERATORS WELL NO. KEITH STERN N-6HM
 API WELL NO. 47-051-02098
 NO. STATE COUNTY PERMIT NO.

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

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)

WELL OPERATOR TUG HILL OPERATING, LLC	DESIGNATED AGENT DARREN BROWN
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COUNTY NAME PERMIT

06/17/2022