

11,131' B.H.

7,178' T.H.

**KEITH STERN N LEASE
UTICA UNIT - 266.15 AC±
WELL 13HU
TUG HILL OPERATING**

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. 466,532.98	E. 1,633,422.22
NAD'83 GEO.	LAT-(N) 39.774767	LONG-(W) 80.692204
NAD'83 UTM (M)	N. 4,402,804.35	E. 526,359.50
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 465,117.3	E. 1,632,725.0
NAD'83 GEO.	LAT-(N) 39.770855	LONG-(W) 80.694618
NAD'83 UTM (M)	N. 4,402,369.5	E. 526,154.3
BOTTOM HOLE		
NAD'83 S.P.C.(FT)	N. 470,982.3	E. 1,629,526.2
NAD'83 GEO.	LAT-(N) 39.786838	LONG-(W) 80.706277
NAD'83 UTM (M)	N. 4,404,140.0	E. 525,149.9

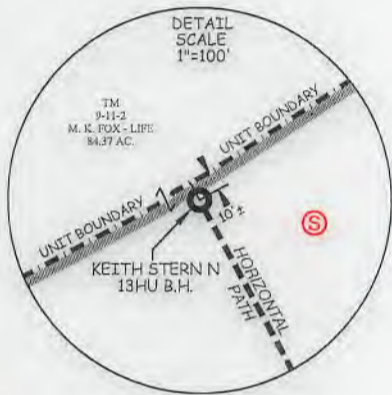
T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"
1,759' T.H.
6,156' B.H.

MAB/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-10-12	RAY A. WHETZAL, JR., ET AL	36.31
9-11-3	RAY A. WHETZAL, JR., ET AL	33.33
9-13-14	MARGARET K. FOX - LIFE	3.00
9-13-22	TRICYCLE LLC	47.25
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.
9-14-20,1	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
9-14-28	CHARLES R. SCHELL-HASE, ET UX	3.029
9-14-43	GEORGE R. TAYLOR, ET UX	10.98
9-14-46,1	MARHA JANE FAZZARO	1.512

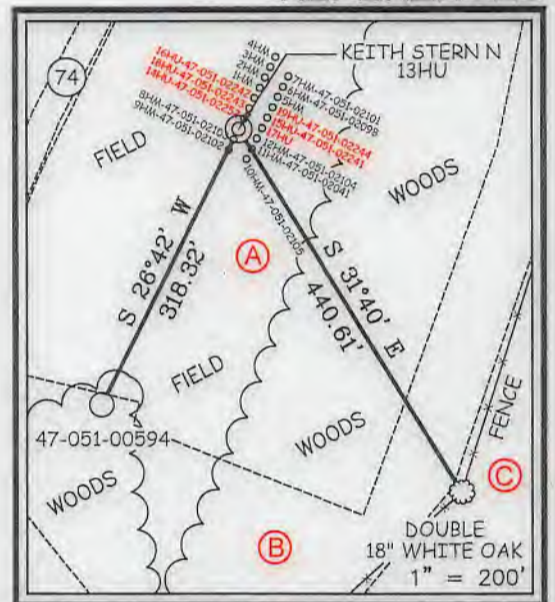


NOTES ON SURVEY

- 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.
- WELL SPOT CIRCLE & TOPO MARK SCALE ARE 1"=2000'
- PROPOSED LATERAL OR TOP HOLE OF KEITH STERN N-13HU IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF THE FOLLOWING: KEITH STERN N-14HU (47-051-02252), KEITH STERN N-15HU (47-051-02241), KEITH STERN N-16HU (47-051-02242), PROPOSED KEITH STERN S-17HU, KEITH STERN S-18HU (47-051-02243), KEITH STERN S-19HU (47-051-02244), PROPOSED KNOB CREEK N-12HU & 13HU, PROPOSED KNOB CREEK S-15HU & 16HU, HEAVEN HILL 2W-12HU (47-051-01952), HEAVEN HILL 2W-13HU (47-051-01957), HEAVEN HILL 2-7HU (47-051-01911), HEAVEN HILL 2-8HU (47-051-01912).

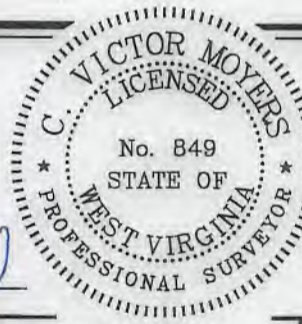


REFERENCES



SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26035 • (304) 462-5634
www.slsww.com

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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. 849 *C. Victor Moyers*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE MAY 29, 20 19
REVISED AUGUST 21, 2019 & SEPTEMBER 4, 2019
OPERATORS WELL NO. KEITH STERN N-13HU
API WELL NO. 47-051-02265 **H6A**
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P13HUR3.dwg
KEITH STERN N-13HU-REV2
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 INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: GROUND = 738.60' 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 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: 11,368' / TMD: 18,800'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS CT CORPORATION SYSTEM
FORT WORTH, TX 76107 ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME
PERMIT