

**KNOB CREEK N LEASE
WELL 1HM
TUG HILL OPERATING**

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

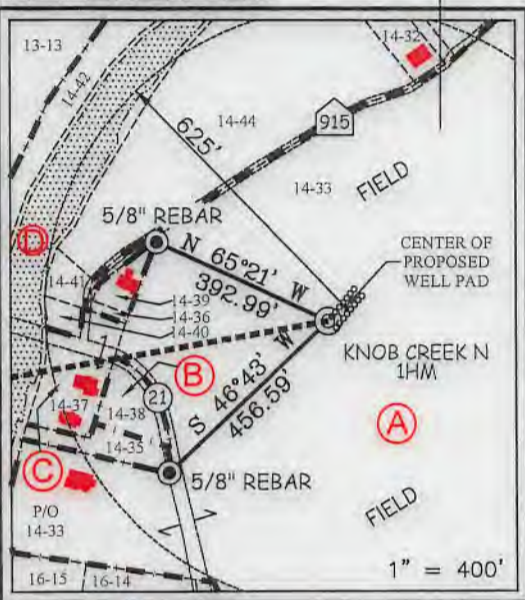
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

| | | |
|----------------------|-------------------|--------------------|
| NAD'83 S.P.C.(FT) | N. 464,839.63 | E. 1,629,638.52 |
| NAD'83 GEO. | LAT-(N) 39.769980 | LONG-(W) 80.705584 |
| NAD'83 UTM (M) | N. 4,402,269.20 | E. 525,215.39 |
| LANDING POINT | | |
| NAD'83 S.P.C.(FT) | N. 465,094.0 | E. 1,628,085.2 |
| NAD'83 GEO. | LAT-(N) 39.770621 | LONG-(W) 80.711122 |
| NAD'83 UTM (M) | N. 4,402,338.8 | E. 524,740.9 |
| BOTTOM HOLE | | |
| NAD'83 S.P.C.(FT) | N. 465,548.1 | E. 1,627,831.0 |
| NAD'83 GEO. | LAT-(N) 39.771858 | LONG-(W) 80.712048 |
| NAD'83 UTM (M) | N. 4,402,475.8 | E. 524,661.1 |

NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- SEE REFERENCES FOR DWELLINGS LOCATED WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPD MARK SCALE IS 1"=2000'.
- BASED ON WV DOT COUNTY ROUTE 74 IS A 40' STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.

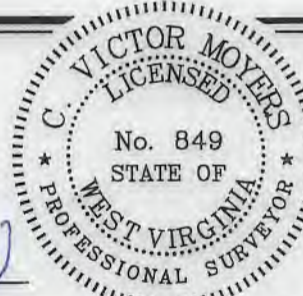
REFERENCES



| MAP/PARCEL | ADJOINING SURFACE OWNER LIST | ACRES |
|------------|---|-----------------|
| 9-6-1.2 | CONSOLIDATION COAL COMPANY, MURRAY ENERGY | 2.222 |
| 9-10-7 | DAVID & PAMELA SCHIMMEL | 1.00 |
| 9-10-8 | BRENT ALLEN CONNER | 2.00 |
| 9-10-14 | WILLIAM MCCONNELL | 15.00 |
| 9-10-16 | WILLIAM D. MCCONNELL | 0.859 |
| 9-11-1 | GERALD F. PADLOW | 1.033 |
| 9-13-9 | ARTHUR L. MOORE | 50 X 100 SQ.FT. |
| 9-13-10 | ARTHUR L. MOORE | 3.96 |
| 9-13-12.1 | ROBERT T. & BARBARA A. ANKROM | 2.632 |
| 9-13-14 | MARGARET K. FOX - LIFE | 3.00 |
| 9-13-16 | IVAN H. & MARGARET A. RICHMOND | 21.354 |
| 9-13-22.1 | HENRY, JR. & BARBARA DICK | 11.82 |
| 9-13-22.2 | EUGENE A. SCHERRER | 0.925 |
| 9-13-23 | MARGARET FOX - LIFE | 1.52 |
| 9-14-1.2 | KENNETH N. & TERESA A. SMERTNECK | 1.02 |
| 9-14-11.3 | PATRICK J. SCHELLHASE - TRUST | 23.424 |
| 9-14-28 | CHARLES R. SCHELLHASE, ET UX | 3.029 |
| 9-14-29 | ANDREW FASOULETOS, ET UX | 0.209 |
| 9-14-29.1 | ANDREW FASOULETOS, ET UX | 1.171 |
| 9-14-30 | WILLIAM C. GROFT, ET UX | 0.35 |
| 9-14-31 | WILFORD F. NELSON, JR., ET UX | 0.954 |
| 9-14-32 | TWILA C. COFFIELD | 0.583 |
| 9-14-32.1 | TWILA C. COFFIELD | 0.184 |
| 9-14-35 | PAUL G. FOX | 0.338 |
| 9-14-36 | MARGARET FOX - LIFE | 1600 SQ. FT. |
| 9-14-39 | MARGARET FOX - LIFE | 8675 SQ. FT. |
| 9-14-40 | MARGARET FOX - LIFE | 19,560 SQ. FT. |
| 9-14-41 | MARGARET FOX - LIFE | 9165 SQ. FT. |
| 9-14-42 | JOHN C. LAGOS, ET UX | 1.87 |
| 9-14-43 | JAMES G. FOX | 0.66 |
| 9-14-44 | DAVID LEE FRANKLIN | 2.913 |
| 9-14-44.1 | GEORGE R. TAYLOR, ET UX | 4.423 |
| 9-14-45 | GEORGE R. TAYLOR, ET UX | 10.98 |
| 9-14-46 | MARGARET K. FOX - LIFE | 18.888 |
| 9-14-47 | MICHAEL L. & CHERYL J. ACREE | 0.355 |
| 9-14-48 | MICHAEL L. & CHERYL J. ACREE | 0.473 |
| 9-14-49 | MICHAEL L. & CHERYL J. ACREE | 0.118 |
| 9-14-50 | RONALD MARSH | 0.707 |
| 9-14-51 | GEORGE R. TAYLOR, ET UX | 1.621 |
| 9-14-52 | JAMES E. PEELMAN | 0.439 |
| 9-14-53 | JAMES E. PEELMAN | 0.555 |
| 9-14-54 | RICHARD L. HARVETH, ET UX | 1.649 |
| 9-16-14 | LYNN CAMP METHODIST CHURCH | 0.762 |
| 9-16-15 | RONALD R. YOUNG, ET UX - LIFE | 52.02 |
| 9-16-15.1 | ERIC J. YOUNG | 1.98 |

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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. 849 *C. Victor Moyers*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JULY 27, 20 18
REVISED SEPTEMBER 30, 20 19
OPERATORS WELL NO. KNOB CREEK N-1HM
API WELL NO. 47 - 051 - 02278
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8789P1HMR.dwg
KNOB CREEK N-1HM 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 GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

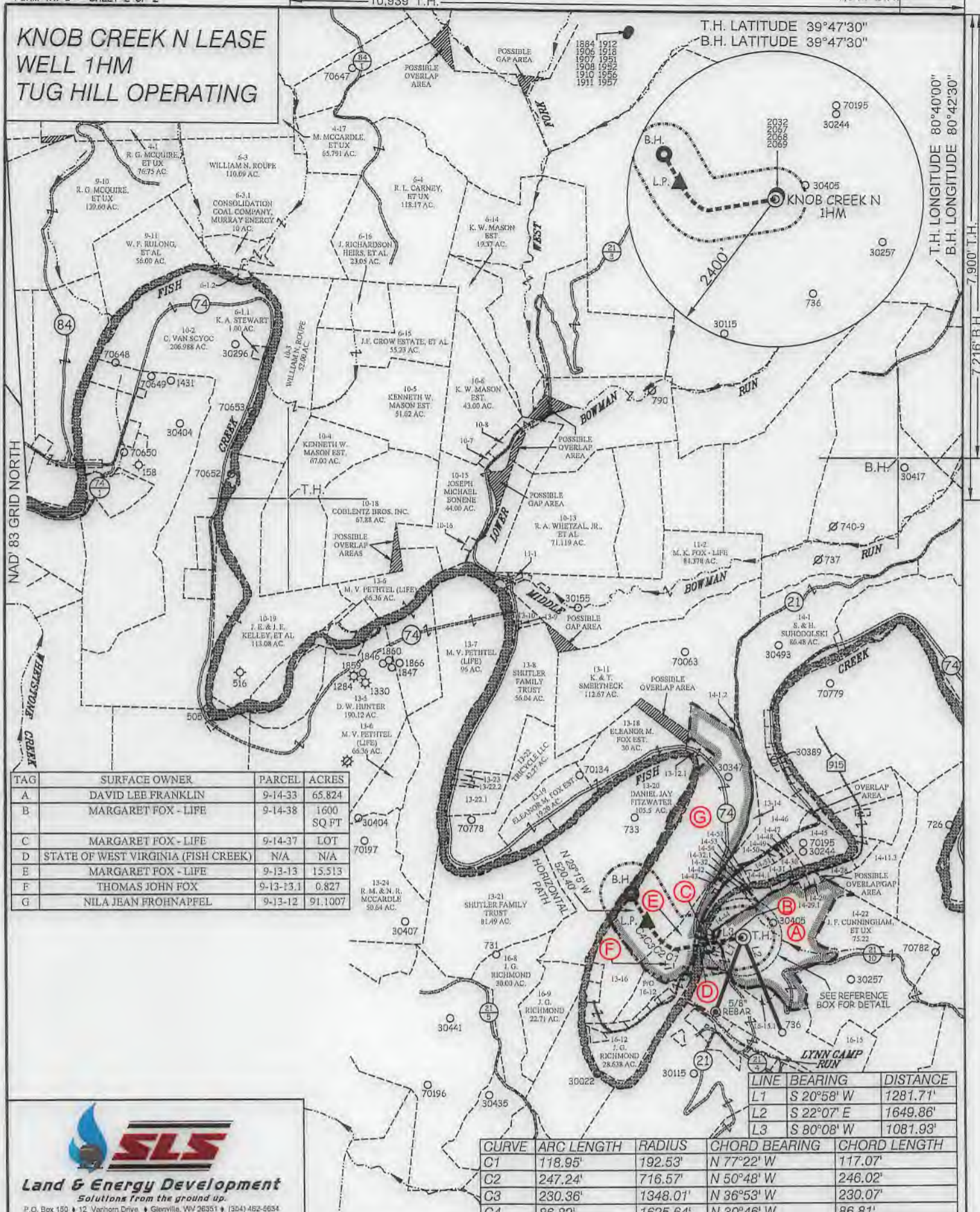
LOCATION: GROUND = 734.20' ELEVATION PROPOSED = 734.67' WATERSHED FISH CREEK (HUC 10)
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER DAVID LEE FRANKLIN ACREAGE 65.824±
ROYALTY OWNER DAVID LEE FRANKLIN, ET AL - SEE WW-6A1 ACREAGE 65.824±
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 MARCELLUS
ESTIMATED DEPTH TVD: 6,338' / TMD: 7,307'

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

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°42'30"
7,900' T.H.
7,216' B.H.

**Knob Creek N Lease
Well 1HM
Tug Hill Operating**



| TAG | SURFACE OWNER | PARCEL | ACRES |
|-----|-------------------------------------|-----------|------------|
| A | DAVID LEE FRANKLIN | 9-14-33 | 65.824 |
| B | MARGARET FOX - LIFE | 9-14-38 | 1600 SQ FT |
| C | MARGARET FOX - LIFE | 9-14-37 | LOT |
| D | STATE OF WEST VIRGINIA (FISH CREEK) | N/A | N/A |
| E | MARGARET FOX - LIFE | 9-13-13 | 15.513 |
| F | THOMAS JOHN FOX | 9-13-13.1 | 0.827 |
| G | NILA JEAN FROHNAPFEL | 9-13-12 | 91.1007 |

| CURVE | ARC LENGTH | RADIUS | CHORD BEARING | CHORD LENGTH |
|-------|------------|----------|---------------|--------------|
| C1 | 118.95' | 192.53' | N 77°22' W | 117.07' |
| C2 | 247.24' | 716.57' | N 50°48' W | 246.02' |
| C3 | 230.36' | 1348.01' | N 36°53' W | 230.07' |
| C4 | 86.82' | 1625.64' | N 30°46' W | 86.81' |

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 NAD'83 UTM (M) N. 4,402,269.20 E. 525,215.39

LANDING POINT
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 P.S. 849 *C. Victor Moyers*

SCALE 1" = 2000' FILE NO. 8789P1HMR.dwg
 DATE JULY 27, 2018
 REVISED SEPTEMBER 30, 2019
 OPERATORS WELL NO. KNOB CREEK N-1HM
 API WELL NO. 47 - 51 - 02278
 STATE COUNTY PERMIT

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

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- 500' OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE WW-6A1)

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

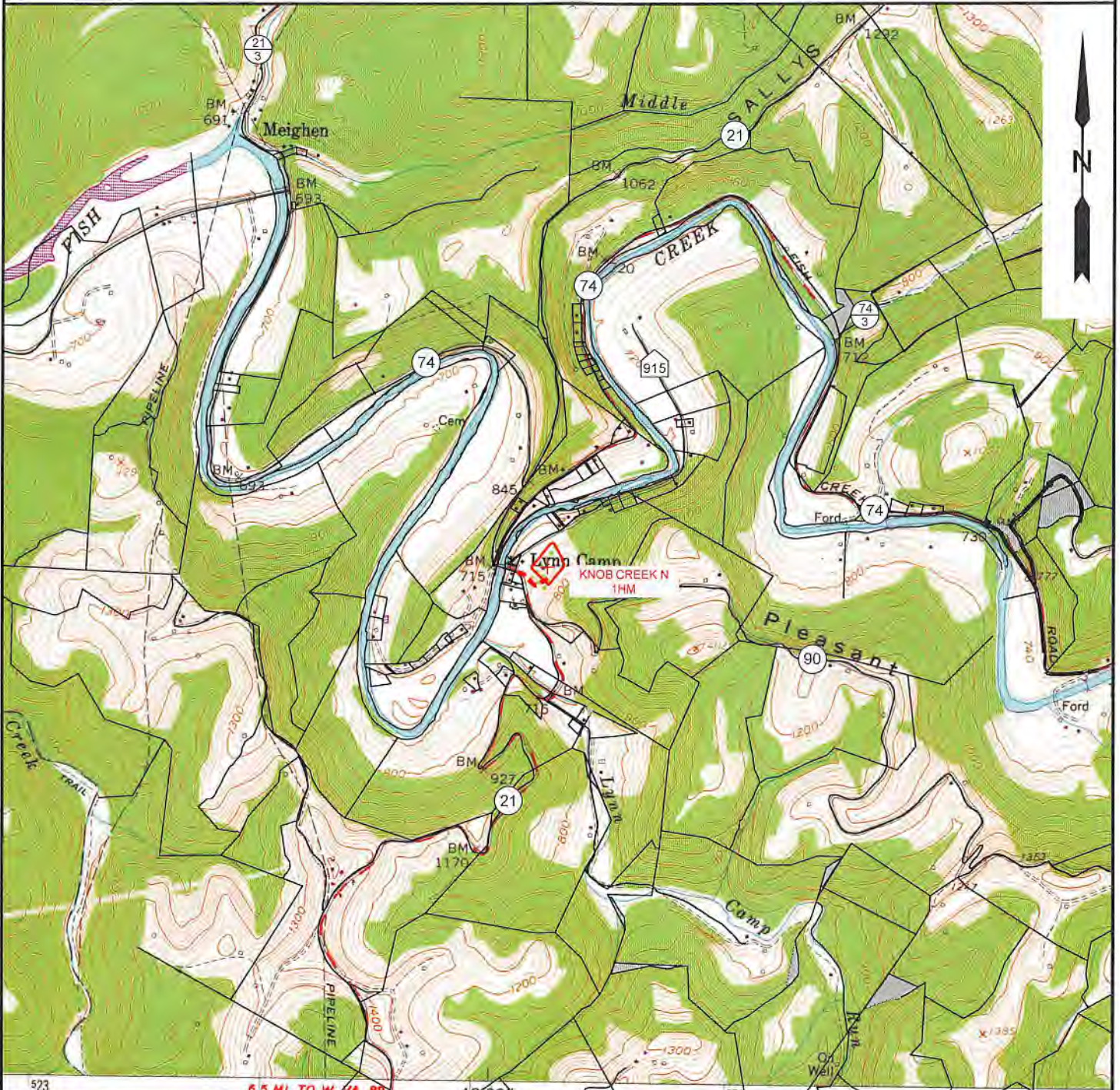
COUNTY NAME PERMIT

OCT 02 2019

WW-9

PROPOSED SUPPLEMENT PG. 2
KNOB CREEK N - 1HM 4705102278

WV Department of Environmental Protection



NOTE: CLOSEST WATER PURVEYOR
GRANDVIEW - DOOLIN PUBLIC SERVICE DISTRICT
PROCTOR, WV

LAT: 39.7137712
LON: -80.8258327
LOCATED: S 59°36'12" W AT 39,574.55' FROM THE CENTER OF KNOB CREEK N WELL PAD LOCATION.

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| | | | |
|------------------|----------|-------------------------|------------|
| TOPO SECTION: | | OPERATOR: | |
| GLEN EASTON 7.5' | | PREPARED FOR: | |
| COUNTY | DISTRICT | TUG HILL OPERATING, LLC | |
| MARSHALL | MEADE | 380 SOUTHPOINTE BLVD | |
| DRAWN BY | | DATE | SCALE |
| K.G.M. | | 07/27/2018 | 1" = 2000' |

TUG HILL
OPERATING