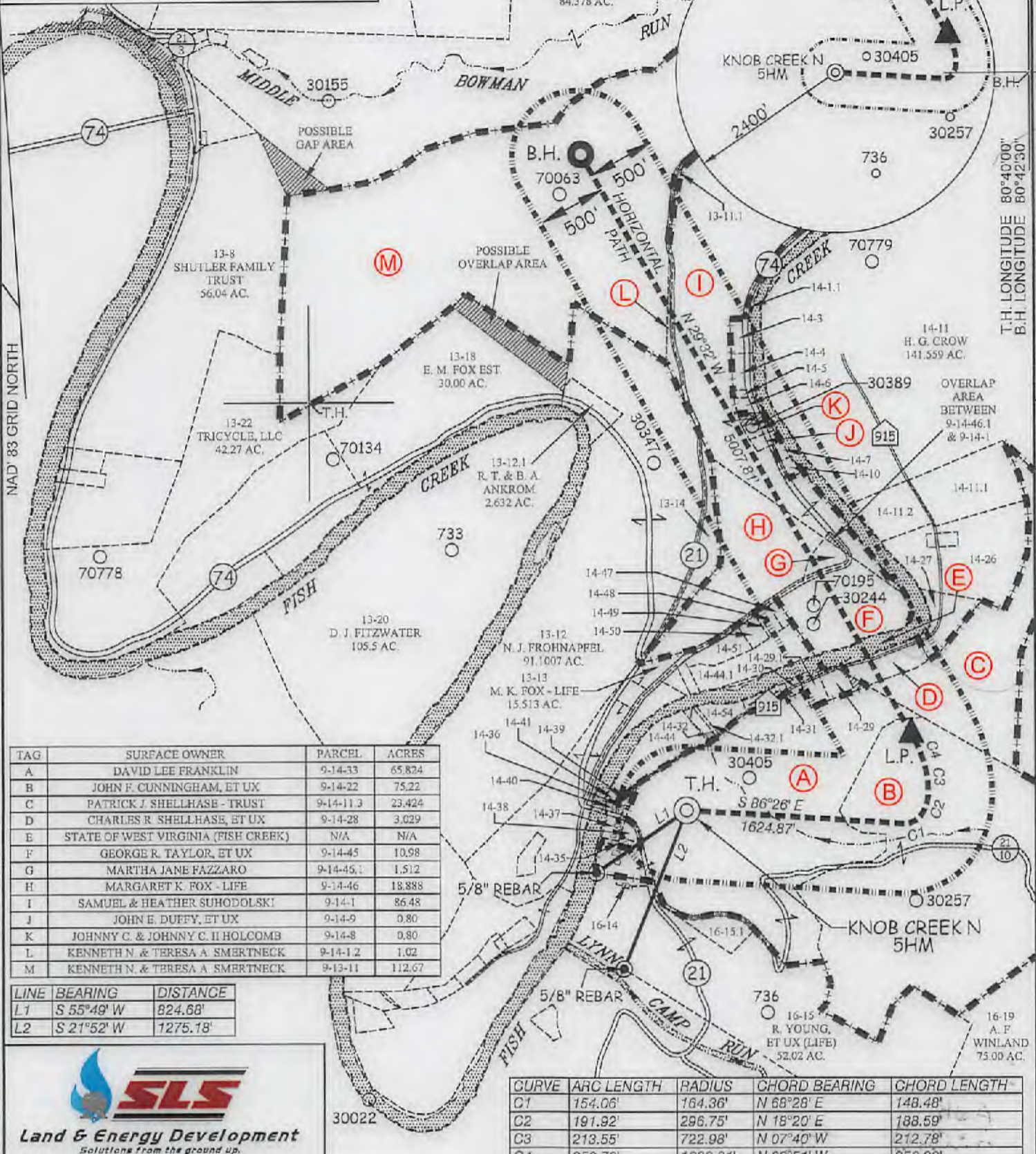


**Knob Creek N Lease
Well 5HM
Tug Hill Operating**

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



| TAG | SURFACE OWNER | PARCEL | ACRES |
|-----|-------------------------------------|-----------|--------|
| A | DAVID LEE FRANKLIN | 9-14-33 | 65.824 |
| B | JOHN F. CUNNINGHAM, ET UX | 9-14-22 | 75.22 |
| C | PATRICK J. SHELLHASE - TRUST | 9-14-11.3 | 23.424 |
| D | CHARLES R. SHELLHASE, ET UX | 9-14-28 | 3.029 |
| E | STATE OF WEST VIRGINIA (FISH CREEK) | N/A | N/A |
| F | GEORGE R. TAYLOR, ET UX | 9-14-45 | 10.98 |
| G | MARTHA JANE FAZZARO | 9-14-45.1 | 1.512 |
| H | MARGARET K. FOX - LIFE | 9-14-46 | 18.888 |
| I | SAMUEL & HEATHER SUHODOLSKI | 9-14-1 | 86.48 |
| J | JOHN E. DUFFY, ET UX | 9-14-9 | 0.80 |
| K | JOHNNY C. & JOHNNY C. II HOLCOMB | 9-14-8 | 0.80 |
| L | KENNETH N. & TERESA A. SMERTNECK | 9-14-1.2 | 1.02 |
| M | KENNETH N. & TERESA A. SMERTNECK | 9-13-11 | 112.67 |

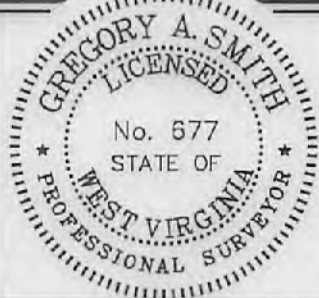
| LINE | BEARING | DISTANCE |
|------|------------|----------|
| L1 | S 55°49' W | 824.68' |
| L2 | S 21°52' W | 1275.18' |

| CURVE | ARC LENGTH | RADIUS | CHORD BEARING | CHORD LENGTH |
|-------|------------|----------|---------------|--------------|
| C1 | 154.06' | 764.36' | N 68°28' E | 148.48' |
| C2 | 191.92' | 296.75' | N 18°20' E | 188.59' |
| C3 | 213.55' | 722.98' | N 07°40' W | 212.78' |
| C4 | 250.78' | 1088.81' | N 22°51' W | 250.23' |

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 464,826.27 E. 1,629,654.71
 NAD'83 GEO. LAT-(N) 39.769944 LONG-(W) 80.705526
 NAD'83 UTM (M) N. 4,402,285.21 E. 525,220.39

LANDING POINT
 NAD'83 S.P.C.(FT) N. 465,490.0 E. 1,631,348.3
 NAD'83 GEO. LAT-(N) 39.771581 LONG-(W) 80.699529
 NAD'83 UTM (M) N. 4,402,448.6 E. 525,733.4

BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 469,756.9 E. 1,628,879.3
 NAD'83 GEO. LAT-(N) 39.783450 LONG-(W) 80.708620
 NAD'83 UTM (M) N. 4,403,783.4 E. 524,859.1



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 P.S. 677 *Gregory A. Smith*

SCALE 1" = 1000' FILE NO. 8789P5HM.dwg
 DATE APRIL 11, 20 18
 REVISED _____
 OPERATORS WELL NO. Knob Creek N-5HM
 API WELL NO. 47-051-02032
 NO. STATE COUNTY PERMIT

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

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- THE 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 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 78107
 DESIGNATED AGENT DIANNA STAMPER CT CORPORATION SYSTEM ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

T.H. LONGITUDE 80°40'00"
 B.H. LONGITUDE 80°42'30"
 2,993' B.H.
 7,913' T.H.
 COUNTY NAME
 PERMIT

09/07/2018

**KNOB CREEK N LEASE
WELL 5HM
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°47'30"

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

NAD'83 S.P.C.(FT) N. 464,826.27 E. 1,629,654.71
NAD'83 GEO. LAT-(N) 39.768944 LONG-(W) 80.706526
NAD'83 UTM (M) N. 4,402,265.21 E. 525,220.39

LANDING POINT

NAD'83 S.P.C.(FT) N. 465,400.0 E. 1,631,348.3
NAD'83 GEO. LAT-(N) 39.771581 LONG-(W) 80.699529
NAD'83 UTM (M) N. 4,402,448.6 E. 525,733.4

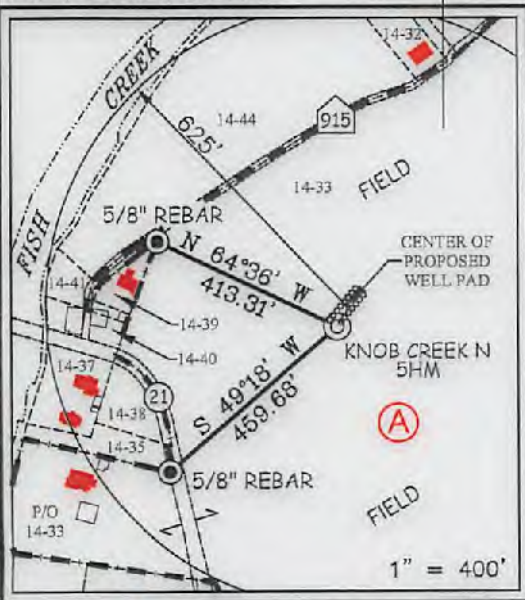
BOTTOM HOLE

NAD'83 S.P.C.(FT) N. 469,756.9 E. 1,626,879.3
NAD'83 GEO. LAT-(N) 39.783450 LONG-(W) 80.708520
NAD'83 UTM (M) N. 4,403,763.4 E. 524,959.1

NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. FIVE (5) DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD. WAIVER TO BE OBTAINED.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'

REFERENCES



| TAX MAP PCT. | ADJOINING SURFACE OWNER | ACREAGE |
|--------------|---|------------------|
| 13-11.1 | SAMUEL & HEATHER SHIMONSKI | 0.49 |
| 13-14 | MARGARET K. FOX - LIFE (C O PAUL FOX) | 3.00 |
| 14-1.1 | MICHAEL L. ALVAREZ | 1.6 |
| 14-3 | MICHAEL L. ALVAREZ | NORTH PO 3 ACRES |
| 14-4 | MICHAEL L. ALVAREZ | 3 PCTS & 18 AC. |
| 14-5 | MICHAEL L. ALVAREZ | 200' X 60' PCT. |
| 14-6 | MICHAEL L. ALVAREZ | 120' X 200' PCT. |
| 14-7 | JOHN T. ERAZMUS, III | 0.25 |
| 14-10 | ROBERT L. DUFFY - LIFE (C O CAROLYN L. DUFFY) | 0.25 |
| 14-11.1 | PATRICK J. SCHELDHASE - TRUST | 7.617 |
| 14-11.2 | LOYE A. BLAKE | 4.00 |
| 14-26 | PATRICK J. SCHELDHASE - TRUST | 12.588 |
| 14-27 | PATRICK J. SCHELDHASE - TRUST | 3.004 |
| 14-29 | ANDREW FASOULETOS, ET OX (C O TENA MARIE STRICKLIN) | 0.285 |
| 14-29.1 | ANDREW FASOULETOS, ET OX (C O TENA MARIE STRICKLIN) | 1.171 |
| 14-30 | WILLIAM C. GROFF, ET OX | 0.55 |
| 14-31 | WILFORD E. NELSON, JR., ET OX | 0.954 |
| 14-32 | TWILA C. COFFIELD | 0.583 |
| 14-32.1 | TWILA C. COFFIELD | 0.184 |
| 14-35 | PAUL G. FOX | 0.338 |
| 14-36 | MARGARET K. FOX - LIFE (C O PAUL FOX) | 1600 SQ. FT. |
| 14-37 | MARGARET K. FOX - LIFE (C O PAUL FOX) | 1.07 |
| 14-38 | MARGARET K. FOX - LIFE (C O PAUL FOX) | 0.631 |
| 14-39 | MARGARET K. FOX - LIFE (C O PAUL FOX) | 8675 SQ. FT. |
| 14-40 | MARGARET K. FOX - LIFE (C O PAUL FOX) | 19,560 SQ. FT. |
| 14-41 | MARGARET K. FOX - LIFE (C O PAUL FOX) | 9165 SQ. FT. |
| 14-44 | DAVID LEE FRANKLIN | 2.913 |
| 14-44.1 | GEORGE R. TAYLOR, ET OX | 4.423 |
| 14-47 | MICHAEL L. & CHERYL J. ACREE | 0.355 |
| 14-48 | MICHAEL L. & CHERYL J. ACREE | 0.473 |
| 14-49 | MICHAEL L. & CHERYL J. ACREE | 0.116 |
| 14-50 | BONALD MARSH | 0.707 |
| 14-51 | GEORGE R. TAYLOR, ET OX | 1.621 |
| 14-54 | RICHARD L. HARVEIL, ET OX (C O RICHARD LEE HARVEIL) | 1.649 |
| 16-14 | LYNN CAMP METHODIST CHURCH | 0.762 |
| 16-15.1 | ERIC J. YOUNG | 1.98 |



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 APRIL 11, 2018
REVISED _____, 20____
OPERATORS WELL NO. KNOB CREEK N-5HM
API WELL NO. 47-051-02032
STATE COUNTY PERMIT H6A

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 8789P5HM.dwg
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 1000'

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: ELEVATION GROUND = 734.20' 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: 6,638' / TMD: 11,001'

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°40'00"
7,913' T.H.

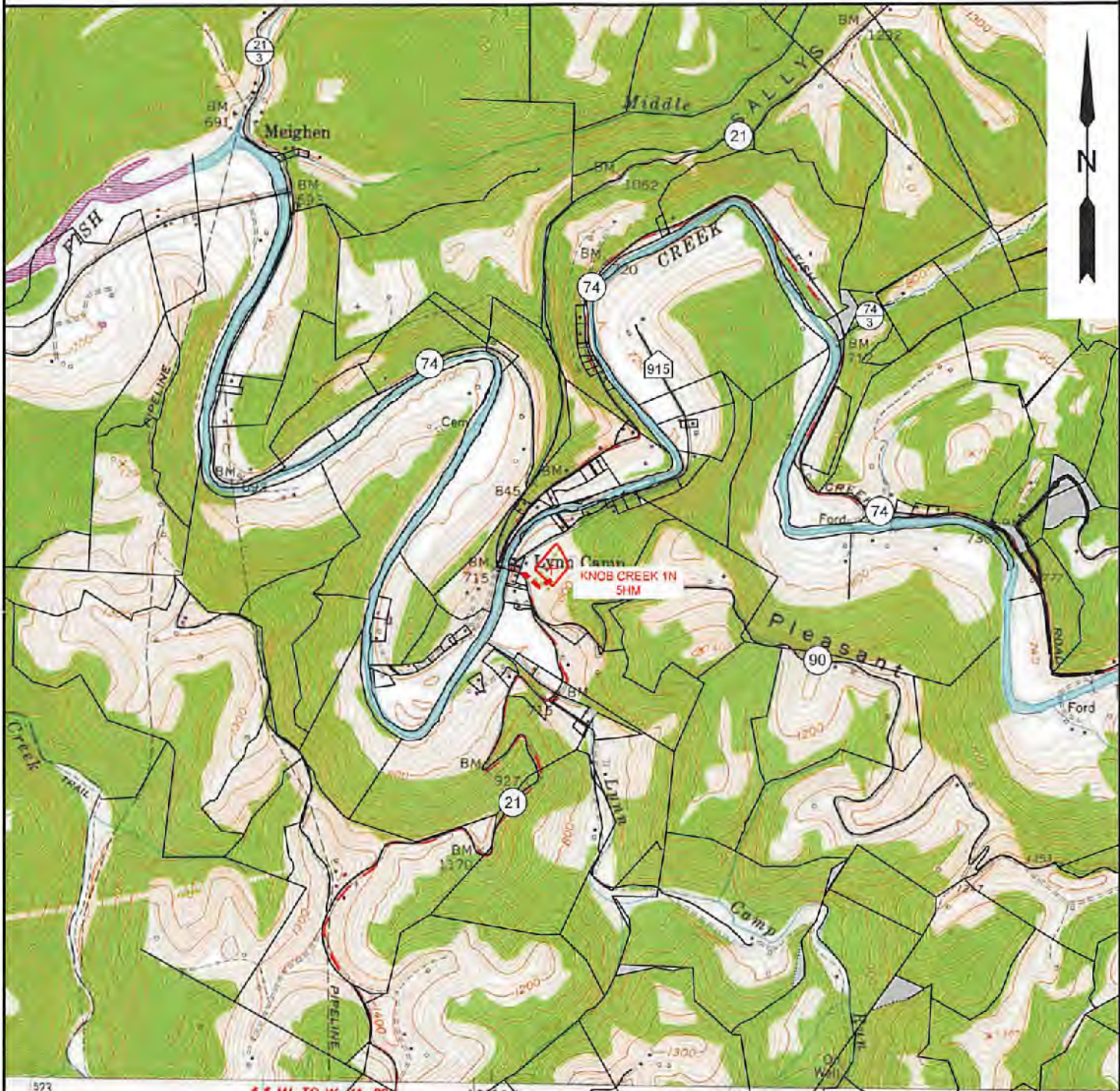
COUNTY MARSHALL
PERMIT 09/07/2018

51-02032

WW-9

PROPOSED KNOB CREEK 1N - 5HM

SUPPLEMENT PG. 2



NOTE: CLOSEST WATER PURVEYOR GRANDVIEW - DOOLIN PUBLIC SERVICE DISTRICT PROCTOR, WV
 LAT: 39.7137712
 LON: -80.8256327
 LOCATED: S 59°36'12" W AT 39,574.55' FROM THE CENTER OF KNOB CREEK 1N-5HM TO LOCATION.

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 412 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634
www.slsurveys.com

| | | | |
|------------------|----------|-------------------------|------------|
| TOPO SECTION: | | OPERATOR: | |
| GLEN EASTON 7.5' | | PREPARED FOR: | |
| COUNTY | DISTRICT | TUG HILL OPERATING, LLC | |
| MARSHALL | MEADE | 360 SOUTHPOINTE BLVD | |
| DRAWN BY | | DATE | SCALE |
| K.G.M. | | 04/11/2018 | 1" - 2000' |

RECEIVED
Office of Oil and Gas
APR 16 2018
TUG HILL OPERATING
WV Department of Environmental Protection
09/10/2018