

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
TUG HILL OPERATING

7.859' B.H. A.D.
7.162' T.H. A.D.T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°50'00"

| 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. |
| 9-14-11.1 | PATRICK J. SCHELLHASE EST - TRUST | 7.617 |
| 9-14-11.2 | LOYE A. BLAKE | 4.00 |
| 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 |
| 9-15-40 | ROBERT WILLIAM BERISFORD | 13.50 |
| 9-15-41 | CHARLES RICHARD MCCOY, ET UX | 4.50 |
| 9-15-42 | ROBERT MATHEW MASON | 2.63 |

AS DRILLED COORDINATES
FOR WELL NO. 16HU

| (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH) | | | |
|--|-------------------|--------------------|--|
| NAD'83 S.P.C.(FT) | N. 466,565.03 | E. 1,633,438.61 | |
| NAD'83 GEO. | LAT-(N) 39.774856 | LONG-(W) 80.692147 | |
| NAD'83 UTM (M) | N. 4,402,814.20 | E. 526,364.33 | |
| LANDING POINT | | | |
| NAD'83 S.P.C.(FT) | N. 466,922.2 | E. 1,636,090.7 | |
| NAD'83 GEO. | LAT-(N) 39.775932 | LONG-(W) 80.682729 | |
| NAD'83 UTM (M) | N. 4,402,936.5 | E. 527,170.5 | |
| BOTTOM HOLE | | | |
| NAD'83 S.P.C.(FT) | N. 472,747.5 | E. 1,632,621.2 | |
| NAD'83 GEO. | LAT-(N) 39.791805 | LONG-(W) 80.694636 | |
| NAD'83 UTM (M) | N. 4,404,694.6 | E. 526,144.8 | |

| (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH) | | | |
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| NAD'83 GEO. | LAT-(N) 39.774856 | LONG-(W) 80.692147 | |
| NAD'83 UTM (M) | N. 4,402,814.20 | E. 526,364.33 | |
| LANDING POINT | | | |
| NAD'83 S.P.C.(FT) | N. 466,920.3 | E. 1,636,132.1 | |
| NAD'83 GEO. | LAT-(N) 39.775654 | LONG-(W) 80.682577 | |
| NAD'83 UTM (M) | N. 4,402,905.7 | E. 527,183.6 | |
| BOTTOM HOLE | | | |
| NAD'83 S.P.C.(FT) | N. 472,750.3 | E. 1,632,841.9 | |
| NAD'83 GEO. | LAT-(N) 39.791813 | LONG-(W) 80.694563 | |
| NAD'83 UTM (M) | N. 4,404,695.5 | E. 526,151.0 | |

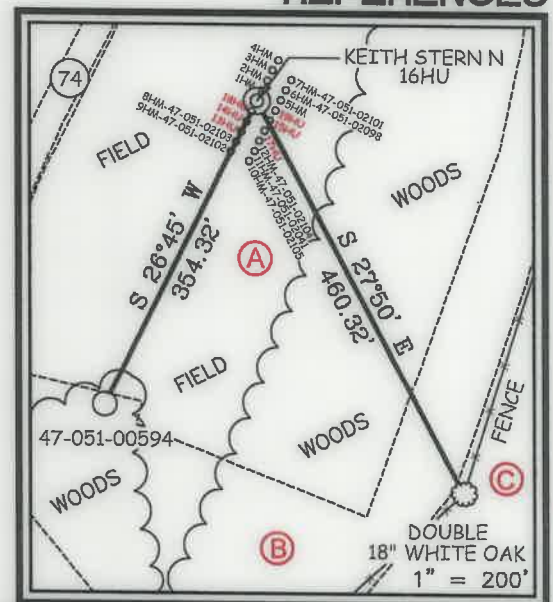
T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"

6.124' T.H. A.D.

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 ARE 1"=2000'
3. PROPOSED LATERAL OR TOP HOLE OF KEITH STERN N-16HU IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF THE FOLLOWING:
PROPOSED KEITH STERN N-13HU, 14HU & 15HU,
PROPOSED KEITH STERN S-17HU, 18HU & 19HU,
PROPOSED KNOB CREEK N-13HU,
PROPOSED KNOB CREEK S-16HU,
PROPOSED HEAVEN HILL 3-6HU & 7HU,
HEAVEN HILL 2W-12HU (47-051-01952),
HEAVEN HILL 2-6HU (47-051-01910),
HEAVEN HILL 2-7HU (47-051-01911)
& HEAVEN HILL 2-8HU (47-051-01912)
4. AS-DRILLED DATA PROVIDED BY TUG HILL OPERATING, LLC.
5. PLAT UPDATED TO SHOW AS-DRILLED PATH.

REFERENCES



15,128' B.H. A.D.



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5534
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296

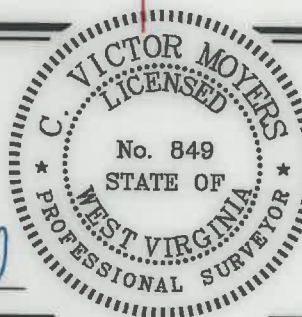
slswv.com

B.H.
A.D.

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 JUNE 11, 20 20

REVISED, 20

OPERATORS WELL NO. KEITH STERN N-16HU

API

WELL NO. 47 - 051 - 2242

STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)
FILE NO. 8811P16HUAD.dwg
KEITH STERN N-16HU-REV2
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 = 741.40' 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 TH EXPLORATION, LLC, 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: 11,413' / TMD: 19,148'

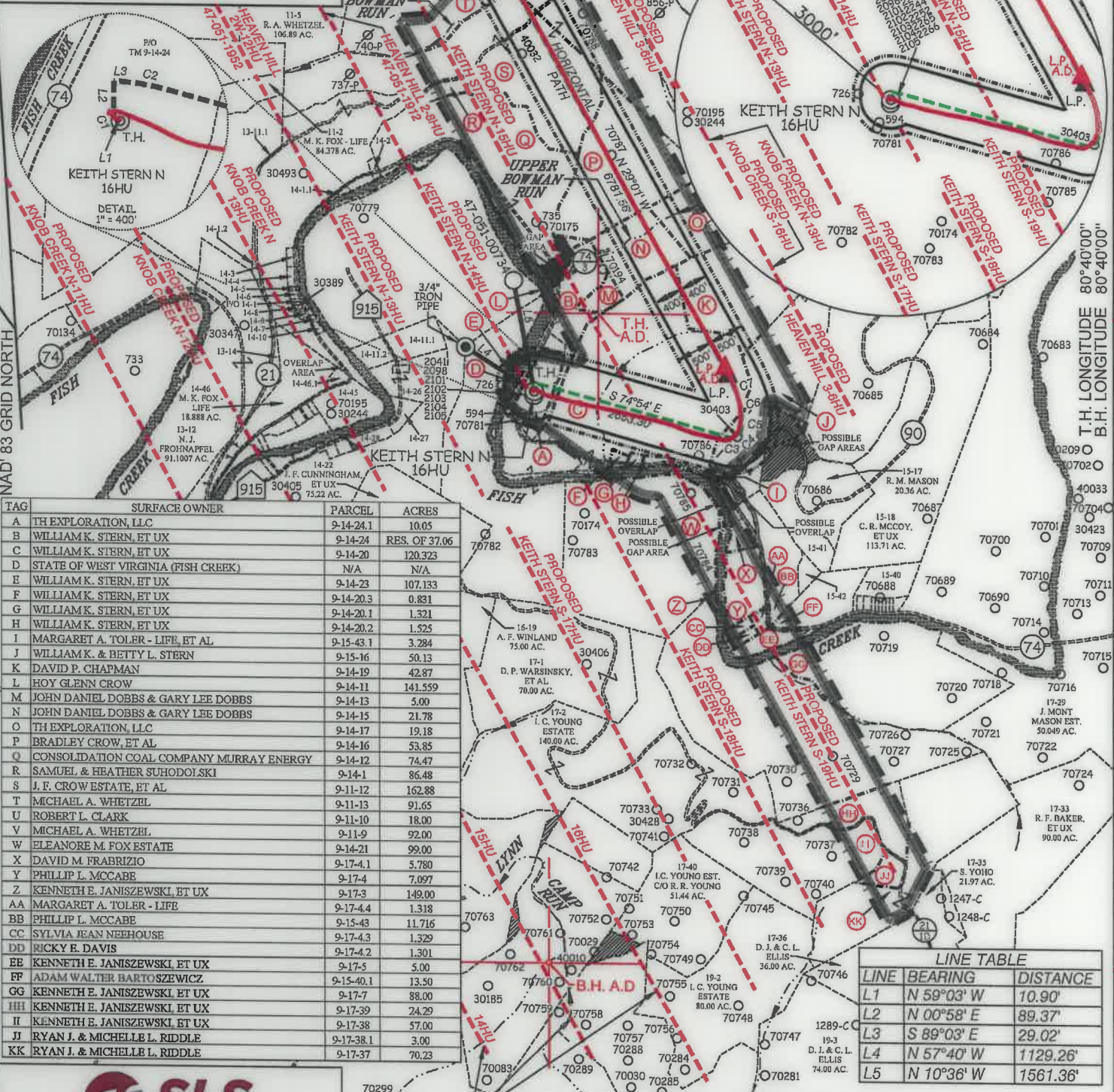
WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
CT CORPORATION SYSTEM
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME

PERMIT

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
TUG HILL OPERATING



| 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 | STATE OF WEST VIRGINIA (FISH CREEK) | N/A | N/A |
| E | WILLIAM K. STERN, ET UX | 9-14-23 | 107.133 |
| F | WILLIAM K. STERN, ET UX | 9-14-20.3 | 0.831 |
| G | WILLIAM K. STERN, ET UX | 9-14-20.1 | 1.321 |
| H | WILLIAM K. STERN, ET UX | 9-14-20.2 | 1.525 |
| I | MARGARET A. TOLER - LIFE, ET AL | 9-15-43.1 | 3.284 |
| J | WILLIAM K. & BETTY L. STERN | 9-15-16 | 50.13 |
| K | DAVID P. CHAPMAN | 9-14-19 | 42.87 |
| L | HOY GLENN CROW | 9-14-11 | 141.559 |
| M | JOHN DANIEL DOBBS & GARY LEE DOBBS | 9-14-13 | 5.00 |
| N | JOHN DANIEL DOBBS & GARY LEE DOBBS | 9-14-15 | 21.78 |
| O | TH EXPLORATION, LLC | 9-14-17 | 19.18 |
| P | BRADLEY CROW, ET AL | 9-14-16 | 53.85 |
| Q | CONSOLIDATION COAL COMPANY MURRAY ENERGY | 9-14-12 | 74.47 |
| R | SAMUEL & HEATHER SUHODOLSKI | 9-14-1 | 86.48 |
| S | J. F. CROWSTATE, ET AL | 9-11-12 | 162.88 |
| T | MICHAEL A. WHETZEL | 9-11-13 | 91.65 |
| U | ROBERT L. CLARK | 9-11-10 | 18.00 |
| V | MICHAEL A. WHETZEL | 9-11-9 | 92.00 |
| W | ELEANORE M. FOX ESTATE | 9-14-21 | 99.00 |
| X | DAVID M. FRABRIZIO | 9-17-4.1 | 5.780 |
| Y | PHILLIP L. MCCABE | 9-17-4 | 7.097 |
| Z | KENNETH E. JANISZEWSKI, ET UX | 9-17-3 | 149.00 |
| AA | MARGARET A. TOLER - LIFE | 9-17-4.4 | 1.318 |
| BB | PHILLIP L. MCCABE | 9-15-43 | 11.716 |
| CC | SYLVIA JEAN NEEHOUSE | 9-17-4.3 | 1.329 |
| DD | RICKY E. DAVIS | 9-17-4.2 | 1.301 |
| EE | KENNETH E. JANISZEWSKI, ET UX | 9-17-5 | 5.00 |
| FF | ADAM WALTER BARTOSZEWICZ | 9-15-40.1 | 13.50 |
| GG | KENNETH E. JANISZEWSKI, ET UX | 9-17-7 | 88.00 |
| HH | KENNETH E. JANISZEWSKI, ET UX | 9-17-39 | 24.29 |
| II | KENNETH E. JANISZEWSKI, ET UX | 9-17-38 | 57.00 |
| JJ | RYAN J. & MICHELLE L. RIDDLE | 9-17-38.1 | 3.00 |
| KK | RYAN J. & MICHELLE L. RIDDLE | 9-17-37 | 70.23 |

SLS
FROM THE GROUND UP

12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
234 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296

sllswv.com

P.S. 849 *C. Victor Moyers*

| (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH) | | | |
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SCALE 1" = 2000' FILE NO. 8811P16HUAD.dwg
KEITH STERN N-16HU-REV2

DATE JUNE 11, 2020
REVISED, 2020

OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242

STATE COUNTY PERMIT

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

VICTOR MOYERS
LICENSED
No. 849
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR

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

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

LEGEND

UNIT BOUNDARY
LEASED TRACTS INSIDE
UNIT BOUNDARY
SURFACE LINE
PROPOSED UTICA
WELL LATERAL
400' OFFSET LINE
500' OFFSET LINE
TIE LINE
CREEK
ROAD
COUNTY ROUTE
PROPOSED WELL
EXISTING WELL
PERMITTED WELL
SURFACE OWNER (SEE TABLE)
LEASE # (SEE ADDITIONAL SHEETS)

10/14/2022

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
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
cfwv.com

| NO. | Lease ID | Tag | Parcel | Grantor, Lessor, Etc. | Deed Book/Page |
|-----|----------|-----|-----------------|--|----------------|
| 1 | 10*15605 | A | 9-14-24.1 | ISAAC CROW ET UX | 74 394 |
| 2 | 10*15605 | B | 9-14-24 | ISAAC CROW ET UX | 74 394 |
| 3 | 10*15609 | C | 9-14-20 | WILLIAM K STERN AND BETTY L STERN | 718 320 |
| 4 | 10*23458 | D | WV - FISH CREEK | WEST VIRGINIA DIVISION OF NATURAL RESOURCES | 1019 373 |
| 5 | 10*15812 | E | 9-14-23 | WILLIAM K STERN AND BETTY L STERN | 687 220 |
| 6 | 10*16436 | E | 9-14-23 | REAGAN D YEATTS AND CHRISTOPHER M YEATTS | 961 339 |
| 7 | 10*18269 | E | 9-14-23 | GENELDA MASON | 942 460 |
| 8 | 10*18299 | E | 9-14-23 | CAROL L BOBBY AND DONALD J BOBBY | 929 281 |
| 9 | 10*18354 | E | 9-14-23 | DEBORAH L TURLEY | 931 352 |
| 10 | 10*18355 | E | 9-14-23 | JUDITH F TEMPLE AND LOUIS I TEMPLE | 931 350 |
| 11 | 10*18356 | E | 9-14-23 | LARRY W ALLEY | 931 348 |
| 12 | 10*18357 | E | 9-14-23 | DEBORAH SUE KYLE | 931 346 |
| 13 | 10*18358 | E | 9-14-23 | SHARLA ROLLINS AND GARY ROLLINS | 931 358 |
| 14 | 10*18419 | E | 9-14-23 | CARLA MAE ALLEY | 932 539 |
| 15 | 10*18420 | E | 9-14-23 | VICTOR E ALLEY JR AND DEBRA A ALLEY | 932 582 |
| 16 | 10*18421 | E | 9-14-23 | DONNA JUNE STRAIT AND GARY E STRAIT | 932 588 |
| 17 | 10*18429 | E | 9-14-23 | GEORGE L DUNN AND NANCY MARIE DUNN | 932 601 |
| 18 | 10*18430 | E | 9-14-23 | JAMES DUNN AND DONNA K DUNN | 932 604 |
| 19 | 10*18432 | E | 9-14-23 | ROSEMARIE BERISFORD | 932 572 |
| 20 | 10*18484 | E | 9-14-23 | BRENDA REED | 933 107 |
| 21 | 10*18485 | E | 9-14-23 | BARBARA JO BEVERIDGE | 933 109 |
| 22 | 10*18490 | E | 9-14-23 | STACY L BARNHART | 933 123 |
| 23 | 10*18491 | E | 9-14-23 | LORI A FARMER AND DANIEL K FARMER | 933 131 |
| 24 | 10*18512 | E | 9-14-23 | CHRISTINA NESTELL AND CHARLES E NESTELL III | 933 565 |
| 25 | 10*18515 | E | 9-14-23 | WILLIAM P DAUBE | 933 573 |
| 26 | 10*18518 | E | 9-14-23 | SUSAN I BAKER | 933 580 |
| 27 | 10*18520 | E | 9-14-23 | CHRISTOPHER SAUDERS | 933 584 |
| 28 | 10*18612 | E | 9-14-23 | NANNETTE BERLECH | 932 542 |
| 29 | 10*18617 | E | 9-14-23 | SHEILA SIMMONS AND JEFFREY R SIMMONS | 934 613 |
| 30 | 10*18644 | E | 9-14-23 | FRANK A STORCH JR AND SUSAN STORCH | 936 149 |
| 31 | 10*18645 | E | 9-14-23 | SANDRA SUE HALL AND DAVID HALL | 936 155 |
| 32 | 10*18647 | E | 9-14-23 | PETER G STORCH AND LAURIE L STORCH | 936 152 |
| 33 | 10*18648 | E | 9-14-23 | LAWRENCE E CHIAPPETTA AND PATRICIA A CHIAPPETTA | 936 161 |
| 34 | 10*18649 | E | 9-14-23 | RODNEY K BANE AND CATHIE J BANE | 936 172 |
| 35 | 10*18652 | E | 9-14-23 | BECKY LANDRIS | 936 174 |
| 36 | 10*18653 | E | 9-14-23 | DALE R ALLEY | 938 574 |
| 37 | 10*18673 | E | 9-14-23 | RACHEL THORNE AND FRED THORNE JR | 938 579 |
| 38 | 10*18674 | E | 9-14-23 | JOHN T CRISWELL AND CATHERINE A CRISWELL | 938 582 |
| 39 | 10*18675 | E | 9-14-23 | JEFFREY BRYAN CRISWELL | 938 576 |
| 40 | 10*18676 | E | 9-14-23 | JENNIFER SHAWN GLOVER | 938 585 |
| 41 | 10*18677 | E | 9-14-23 | PATRICIA DOKA | 938 588 |
| 42 | 10*18678 | E | 9-14-23 | WILLIAM LINSLEY CRISWELL | 938 225 |
| 43 | 10*18763 | E | 9-14-23 | VAUGHN HONE SR & UNDA MARIE HONE | 938 223 |
| 44 | 10*18766 | E | 9-14-23 | TOM ALLEY | 937 622 |
| 45 | 10*18797 | E | 9-14-23 | DORETTA RUSH | 937 644 |
| 46 | 10*18308 | E | 9-14-23 | PATRICIA KIRCHNER | 937 647 |
| 47 | 10*18809 | E | 9-14-23 | JUDITH C LORADITCH | 940 336 |
| 48 | 10*19392 | E | 9-14-23 | RODNEY W RUSH AND CRYSTAL D RUSH | 940 342 |
| 49 | 10*19400 | E | 9-14-23 | BULA F YOST | 939 287 |
| 50 | 10*19405 | E | 9-14-23 | ANN MARIE STEVENS AND CURTIS STEVENS | 939 595 |
| 51 | 10*19417 | E | 9-14-23 | SYLVIA R SPALENY AND ROBERT A SPALENY | 934 600 |
| 52 | 10*19423 | E | 9-14-23 | KEITH W STORCH AND DEBORAH A STORCH | 941 320 |
| 53 | 10*19477 | E | 9-14-23 | DEBORAH A MILLER | 941 329 |
| 54 | 10*19479 | E | 9-14-23 | DENISE WILLIAMSON | 933 571 |
| 55 | 10*19510 | E | 9-14-23 | REED O MILLER | |
| 56 | 10*19525 | E | 9-14-23 | AUGUSTUS R MCMAHON III AND MICHELE M MCMAHON TRUSTEES OF THE AUGUSTUS R MCMAHON III LIVING TRUST | 943 509 |
| 57 | 10*19527 | E | 9-14-23 | AUGUSTUS RUSH MCMAHON III TRUSTEE OF THE PAMELA J MCMAHON REVOCABLE TRUST | 953 339 |
| 58 | 10*19530 | E | 9-14-23 | SHAROL K CASADA | 943 1 |
| 59 | 10*19531 | E | 9-14-23 | DELBERT D RUSH AND BETTY RUTH RUSH | 942 615 |
| 60 | 10*19625 | E | 9-14-23 | DURR SUCKEL & ELIZABETH SUCKEL | 944 150 |
| 61 | 10*19626 | E | 9-14-23 | LAURIE R BROWN | 944 153 |
| 62 | 10*19676 | E | 9-14-23 | RONALD W REINBEAU | 944 456 |
| 63 | 10*19677 | E | 9-14-23 | NEIL SCHAFER AND CHRISTAL L SHAFER | 944 147 |
| 64 | 10*19681 | E | 9-14-23 | TIMOTHY LEE COLLEY | 944 140 |
| 65 | 10*19683 | E | 9-14-23 | TERESA ALLEY | 944 145 |
| 66 | 10*19686 | E | 9-14-23 | KAREN J AND MICHAEL E BRUGGEMAN | 944 142 |
| 67 | 10*19712 | E | 9-14-23 | CHAZ AARON COLLEY AND DANA COLLINS | 957 139 |
| 68 | 10*19723 | E | 9-14-23 | REID ELATTRACHE AND TONYA ELATTRACHE | 957 131 |
| 69 | 10*19859 | E | 9-14-23 | ELIZABETH A STARC | 945 603 |
| 70 | 10*19860 | E | 9-14-23 | AUCIA N STARC | 945 601 |
| 71 | 10*19861 | E | 9-14-23 | JOSEPH F STARC JR AND DONNA STARC | 945 605 |
| 72 | 10*19862 | E | 9-14-23 | STACY R BENNETT | 945 608 |
| 73 | 10*19864 | E | 9-14-23 | JOE Y KELLER JR AND SHARON MARIE KELLER | 945 610 |
| 74 | 10*19935 | E | 9-14-23 | SARA E STARC | 948 553 |
| 75 | 10*19936 | E | 9-14-23 | SHERWOOD MASON NILA JUNE MASON | 948 255 |
| 76 | 10*19940 | E | 9-14-23 | EMMA JO CRISWELL | 948 551 |
| 77 | 10*21028 | E | 9-14-23 | BRENDA GILBERT | 951 159 |
| 78 | 10*21094 | E | 9-14-23 | KATHERINE DEGROOT AND DANIEL DEGROOT | 951 151 |
| 79 | 10*21111 | E | 9-14-23 | DONNA G AND PAUL L CHMELYSKI | 951 154 |
| 80 | 10*21209 | E | 9-14-23 | CHARLES R WILLIAMSON JR | 951 157 |
| 81 | 10*21228 | E | 9-14-23 | CHARLES F HORNER & LORAIN G HORNER | 952 434 |
| 82 | 10*21229 | E | 9-14-23 | TARA E CAUSEY | 952 432 |
| 83 | 10*21395 | E | 9-14-23 | DANIEL L LANDRIS AND JOAN L LANDRIS | 956 625 |
| 84 | 10*21396 | E | 9-14-23 | MICHAEL D ZUCKER | 956 647 |
| 85 | 10*21441 | E | 9-14-23 | JOSEPH A MURPHY AND VIRGINIA ANNE MURPHY | 956 631 |
| 86 | 10*21443 | E | 9-14-23 | ROBERT L LANDRIS AND LIBERTY JANE LANDRIS | 956 628 |
| 87 | 10*21490 | E | 9-14-23 | DANIEL E WILLIAMSON AND HEATHER R WILLIAMSON | 957 153 |
| 88 | 10*21493 | E | 9-14-23 | DENZIL ALLEY JR | 958 64 |
| 89 | 10*21497 | E | 9-14-23 | KATHLEEN G WILLIAMSON | 957 324 |
| 90 | 10*21837 | E | 9-14-23 | WILLIAM BRYAN COLLEY | 959 627 |
| 91 | 10*21873 | E | 9-14-23 | MICHAEL WAYNE ALLEY AND LINDA ALLEY | 953 501 |
| 92 | 10*21961 | E | 9-14-23 | JOHN WILLIAMSON JR | 960 24 |
| 93 | 10*21972 | E | 9-14-23 | CATHERINE I AND ERNEST M SILVERIO | 950 586 |
| 94 | 10*21979 | E | 9-14-23 | CHARLES C SEAMON | 954 340 |
| 95 | 10*21991 | E | 9-14-23 | THE JOANN RILLY TRUST KIMBERLY MAEZ TRUSTEE | 953 341 |
| 96 | 10*21997 | E | 9-14-23 | MICHAEL SAUDERS AND AMI SAUDERS | 953 505 |
| 97 | 10*22004 | E | 9-14-23 | RALPH EDWARD WILLIAMSON | 953 507 |
| 98 | 10*22037 | E | 9-14-23 | JOSHUA W SEAMON | 953 503 |

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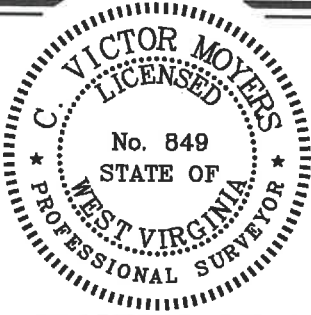
DATE JUNE 11, 2020

REVISED, 20

OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242

STATE COUNTY PERMIT



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



P.S.
849

C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC
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FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME
PERMIT

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
TUG HILL OPERATING



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
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254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
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| | | | | | | |
|-----|-----------------|---|-----------|--|-----|-----|
| 99 | 10*22053 | E | 9-14-23 | LARRY R CRANE | 953 | 344 |
| 100 | 10*22089 | E | 9-14-23 | MARCIA A LUKE | 961 | 333 |
| 101 | 10*22110 | E | 9-14-23 | JENNIFER ALLEY FISHER & ROBERT D FISHER | 961 | 347 |
| 102 | 10*22127 | E | 9-14-23 | JUDITH L BENEDICT AND LOUIS G BENEDICT | 961 | 343 |
| 108 | 10*22150 | E | 9-14-23 | CHAD ERIC BENNETT AND MARY A BENNETT | 954 | 338 |
| 104 | 10*22257 | E | 9-14-23 | CHARLES F ALLEY TRUST EMMANUEL PREVOLES TRUSTEE | 970 | 26 |
| 105 | 10*22328 | E | 9-14-23 | JUDITH S KNIGHT | 962 | 276 |
| 106 | 10*22329 | E | 9-14-23 | EARL FRAZIER AND LYDIA ARMENTA | 963 | 128 |
| 107 | 10*22380 | E | 9-14-23 | BRIAN R MORGAN | 964 | 453 |
| 108 | 10*22411 | E | 9-14-23 | DIANNA LEA SHEPARD | 970 | 30 |
| 109 | 10*22461 | E | 9-14-23 | DANNY E COCHRAN AND LORI ANN COCHRAN | 972 | 40 |
| 110 | 10*22501 | E | 9-14-23 | RANDY W MORRIS SR AND CHERYL MORRIS | 966 | 465 |
| 111 | 10*22502 | E | 9-14-23 | JULIA RAE BROOKS | 977 | 30 |
| 112 | 10*22775 | E | 9-14-23 | SUSAN EXLINE | 977 | 32 |
| 113 | 10*22778 | E | 9-14-23 | AUBREY E REILLY | 977 | 26 |
| 114 | 10*22833 | E | 9-14-23 | BRENDAN Q REILLY | 977 | 28 |
| 115 | 10*22848 | E | 9-14-23 | SUSAN L GOLDSBERRY | 962 | 549 |
| 116 | 10*22854 | E | 9-14-23 | SALLY M COTEREL-CHANNEY | 962 | 547 |
| 117 | 10*22878 | E | 9-14-23 | LUNDA K AND MICHAEL HUMES | 948 | 372 |
| 118 | 10*22879 | E | 9-14-23 | JAMES P MILLER | 946 | 215 |
| 119 | 10*23148 | E | 9-14-23 | IDA A ALLEY AND J F ALLEY | 117 | 45 |
| 120 | 10*15957 | F | 9-14-20.3 | BRADLEY CROW AND BETTY L CROW | 768 | 350 |
| 121 | 10*15958 | F | 9-14-20.3 | GLADYS CROW | 769 | 609 |
| 122 | 10*15959 | F | 9-14-20.3 | LEWIS M QUIGLEY AND MAXINE V QUIGLEY | 769 | 608 |
| 123 | 10*15960 | F | 9-14-20.3 | CONNIE HECKLE | 770 | 547 |
| 124 | 10*15961 | F | 9-14-20.3 | H GLENN CROW | 770 | 565 |
| 125 | 10*15962 | G | 9-14-20.1 | BRADLEY CROW AND BETTY L CROW | 768 | 362 |
| 126 | 10*15963 | G | 9-14-20.1 | LEWIS M QUIGLEY AND MAXINE V QUIGLEY | 769 | 416 |
| 127 | 10*15964 | G | 9-14-20.1 | GLADYS CROW | 769 | 410 |
| 128 | 10*15965 | G | 9-14-20.1 | H GLENN CROW | 770 | 535 |
| 129 | 10*15966 | G | 9-14-20.1 | CONNIE HECKLE | 770 | 541 |
| 130 | 10*15509 | H | 9-14-20.2 | WILLIAM K STERN AND BETTY L STERN | 718 | 320 |
| 131 | 10*15836 | I | 9-15-43.1 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 79 |
| 132 | 10*15837 | I | 9-15-43.1 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 85 |
| 133 | 10*15842 | I | 9-15-43.1 | HOMER L SIMMONS AND GLADYS R SIMMONS | 742 | 329 |
| 134 | 10*17887 | I | 9-15-43.1 | LEO C HILKE AND BETTY M HILKE | 924 | 531 |
| 135 | 10*22376 | I | 9-15-43.1 | MARGARET KUCHARZ AND JAMES C KUCHARZ | 962 | 270 |
| 136 | 10*47051.219.33 | I | 9-15-43.1 | JOHN H HILKE AND ALIDA HILKE | 898 | 602 |
| 137 | 10*47051.219.37 | I | 9-15-43.1 | SUSAN H KEY | 898 | 621 |
| 138 | 10*47051.219.39 | I | 9-15-43.1 | ALICE THIPPHAVONG AND VISITH THIPPHAVONG | 902 | 437 |
| 139 | 10*15813 | J | 9-15-16 | ROBERT B THOMAS | 692 | 235 |
| 140 | 10*15814 | J | 9-15-16 | MARY E BASSETT | 694 | 499 |
| 141 | 10*15815 | J | 9-15-16 | FORREST M THOMAS | 694 | 516 |
| 142 | 10*15816 | J | 9-15-16 | SALLY CYNTHIA HOPKINS | 697 | 116 |
| 143 | 10*15817 | J | 9-15-16 | RUTH MEADOWS | 703 | 583 |
| 144 | 10*15818 | J | 9-15-16 | ELIZABETH ANN STRAUSBAUGH | 703 | 578 |
| 145 | 10*15819 | J | 9-15-16 | JANET LEA BLANKENSHIP | 708 | 114 |
| 146 | 10*17445 | J | 9-15-16 | GENEVA BASSETT SANCHEZ | 929 | 292 |
| 147 | 10*21814 | J | 9-15-16 | STONE HILL MINERALS HOLDINGS LLC | 953 | 335 |
| 148 | 10*21818 | J | 9-15-16 | STONE HILL MINERALS HOLDINGS LLC | 953 | 337 |
| 149 | 10*21862 | J | 9-15-16 | NOBLE MARCELLUS LP | 961 | 641 |
| 150 | 10*15813 | K | 9-14-19 | ROBERT B THOMAS | 692 | 235 |
| 151 | 10*15814 | K | 9-14-19 | MARY E BASSETT | 694 | 499 |
| 152 | 10*15815 | K | 9-14-19 | FORREST M THOMAS | 694 | 516 |
| 153 | 10*15816 | K | 9-14-19 | SALLY CYNTHIA HOPKINS | 697 | 116 |
| 154 | 10*15817 | K | 9-14-19 | RUTH MEADOWS | 703 | 583 |
| 155 | 10*15818 | K | 9-14-19 | ELIZABETH ANN STRAUSBAUGH | 703 | 578 |
| 156 | 10*15819 | K | 9-14-19 | JANET LEA BLANKENSHIP | 708 | 114 |
| 157 | 10*17445 | K | 9-14-19 | GENEVA BASSETT SANCHEZ | 929 | 292 |
| 158 | 10*21814 | K | 9-14-19 | STONE HILL MINERALS HOLDINGS LLC | 953 | 335 |
| 159 | 10*21818 | K | 9-14-19 | STONE HILL MINERALS HOLDINGS LLC | 953 | 337 |
| 160 | 10*21862 | K | 9-14-19 | NOBLE MARCELLUS LP | 961 | 641 |
| 161 | 10*23053 | L | 9-14-11 | CE YOUNG | 63 | 146 |
| 162 | 10*15605 | M | 9-14-13 | ISAAC CROW ET UX | 74 | 394 |
| 163 | 10*15592 | N | 9-14-15 | JOHN DANIEL DOBBS | 694 | 125 |
| 164 | 10*15593 | N | 9-14-15 | GARY L DOBBS | 693 | 289 |
| 165 | 10*18189 | N | 9-14-15 | WILLIAM C WEST AND DEBRA WEST | 928 | 622 |
| 166 | 10*18297 | N | 9-14-15 | ROBERT E WEST | 928 | 279 |
| 167 | 10*19614 | N | 9-14-15 | KAREN SUE BLAKE | 937 | 318 |
| 168 | 10*17929 | O | 9-14-17 | STONE HILL MINERALS HOLDINGS LLC | 931 | 372 |
| 169 | 10*15469 | P | 9-14-16 | HARRIET J ANDERSON | 920 | 11 |
| 170 | 10*15470 | P | 9-14-16 | BETTY L LOSES | 921 | 286 |
| 171 | 10*15473 | P | 9-14-16 | WILLIAM F MCDONALD AND SHIRLEY MCDONALD | 921 | 198 |
| 172 | 10*15476 | P | 9-14-16 | CURITS W WEST JR AND DIANE WEST | 921 | 269 |
| 173 | 10*15488 | P | 9-14-16 | NANCY F FYE & STEPHEN M FYE | 921 | 226 |
| 174 | 10*15495 | P | 9-14-16 | BARBARA BARNHART AND WALTER BARNHART | 921 | 222 |
| 175 | 10*15694 | P | 9-14-16 | DEBORAH L MERCER | 921 | 271 |
| 176 | 10*15695 | P | 9-14-16 | JOHN R AND LOIS L GORBY | 929 | 259 |
| 177 | 10*15696 | P | 9-14-16 | JOSEPH JEREMY PALMER | 921 | 275 |
| 178 | 10*15741 | P | 9-14-16 | LOHRN S GORBY | 929 | 641 |
| 179 | 10*16152 | P | 9-14-16 | CONNIE HECKLE | 920 | 29 |
| 180 | 10*16153 | P | 9-14-16 | LARRY JACK EMERY | 920 | 13 |
| 181 | 10*16186 | P | 9-14-16 | DEBORAH KAY COOLEY AND ROBERT T BECK | 920 | 65 |
| 182 | 10*16187 | P | 9-14-16 | PATRICIA D BABL AND JOHN J BABL | 920 | 31 |
| 183 | 10*16191 | P | 9-14-16 | MADELYN E MOSSOR DO NOT USE | 920 | 76 |
| 184 | 10*16408 | P | 9-14-16 | WILLIAM C EDGAR AND CHRISTY E EDGAR | 920 | 61 |
| 185 | 10*16404 | P | 9-14-16 | KATHRYN M WHIPKEY | 921 | 194 |
| 186 | 10*16406 | P | 9-14-16 | ARELENA B HORNER AND QUAY ALLEN HORNER | 921 | 240 |
| 187 | 10*16407 | P | 9-14-16 | JANICE F BROOKOVER | 920 | 74 |
| 188 | 10*16408 | P | 9-14-16 | KATHLEEN I FRANCIS | 921 | 196 |
| 189 | 10*16409 | P | 9-14-16 | JEANETTE M HEATH | 920 | 72 |
| 190 | 10*16425 | P | 9-14-16 | WILLIAM A MASON JR AND ROBIN MASON | 920 | 25 |
| 191 | 10*16428 | P | 9-14-16 | BRUCE LYNN JOHNSON AND KIMBERLY A JOHNSON | 920 | 50 |
| 192 | 10*16438 | P | 9-14-16 | AUCE MARLENE PERSINGER | 921 | 236 |
| 193 | 10*16468 | P | 9-14-16 | LARRY W JOHNSON | 920 | 57 |
| 194 | 10*16469 | P | 9-14-16 | JAMES EARLAND MARGARET L SIBURT | 921 | 245 |
| 195 | 10*16470 | P | 9-14-16 | CAROLYN SUE FRANKLIN AND RAYMOND EUGENE FRANKLIN | 921 | 219 |
| 196 | 10*16472 | P | 9-14-16 | JUDY DELORES SIBURT | 929 | 643 |
| 197 | 10*16473 | P | 9-14-16 | LUNDA ELAINE AND RICHARD LEROY LITTELL | 929 | 256 |
| 198 | 10*16474 | P | 9-14-16 | BARBARA KAY SIBURT | 921 | 266 |
| 199 | 10*16475 | P | 9-14-16 | MARY LOUISE GORBY | 921 | 234 |

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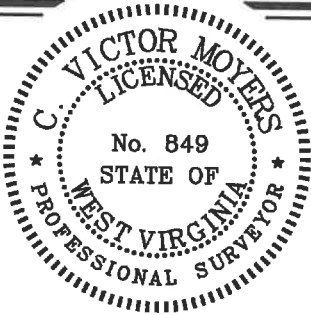
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DATE JUNE 11, 2020

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OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242
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STATE OF WEST VIRGINIA
DIVISION OF
ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



P.S. 849 C. Victor Moyers

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FORT WORTH, TX 76107

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5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME PERMIT

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
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254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
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|-----|----------|---|---------|--|-----|-----|
| 200 | 10*16476 | P | 9-14-16 | ROGER ALLAN AND CYNTHIA L JOHNSON | 921 | 257 |
| 201 | 10*16477 | P | 9-14-16 | BRENDA K YOHO | 921 | 228 |
| 202 | 10*16550 | P | 9-14-16 | CHARLES LEROY LEACH AND MARTHA G LEACH | 920 | 19 |
| 203 | 10*16551 | P | 9-14-16 | JACK L CROW JR AND VIRGINIA L CROW | 921 | 260 |
| 204 | 10*16867 | P | 9-14-16 | APRIL M WEED | 921 | 279 |
| 205 | 10*16883 | P | 9-14-16 | VICKIE LYNN PAPE AND JOHN EDWARD PAPE | 921 | 248 |
| 206 | 10*16884 | P | 9-14-16 | DELORES A BOWERS & LEONARD B BOWERS | 921 | 281 |
| 207 | 10*16916 | P | 9-14-16 | ROGER LEE WEST | 921 | 277 |
| 208 | 10*16971 | P | 9-14-16 | LEONA M SIBURT | 921 | 238 |
| 209 | 10*16972 | P | 9-14-16 | SCOTT BRADLEY GRIMM & SHERRY ANN GRIMM | 921 | 242 |
| 210 | 10*16973 | P | 9-14-16 | NANCY C KESSELRING & CARL E KESSELRING | 920 | 22 |
| 211 | 10*17358 | P | 9-14-16 | KAREN LOUISE AND ROGER L DUNHAM | 921 | 254 |
| 212 | 10*17359 | P | 9-14-16 | JULIA ALLISON CROW | 921 | 224 |
| 213 | 10*17361 | P | 9-14-16 | SHEILA RAMONA CROW | 920 | 78 |
| 214 | 10*17362 | P | 9-14-16 | NILA VIRGINIA AND FREDERICK EUGENE STREIGHT | 921 | 251 |
| 215 | 10*17366 | P | 9-14-16 | SYLVIA DEE WOOD | 921 | 230 |
| 216 | 10*17367 | P | 9-14-16 | JERRY HOWELL | 920 | 37 |
| 217 | 10*17358 | P | 9-14-16 | DONALD PAUL CROW AND CRYSTAL LYNN CROW | 921 | 201 |
| 218 | 10*17369 | P | 9-14-16 | DELORES A WALLACE | 920 | 63 |
| 219 | 10*17371 | P | 9-14-16 | MAX A AND CAROLA CROW | 921 | 204 |
| 220 | 10*17372 | P | 9-14-16 | DONNIE JASON HEDGEPEETH AND KAREN L HEDGEPEETH | 920 | 42 |
| 221 | 10*17373 | P | 9-14-16 | NILA F HEDGEPEETH | 920 | 45 |
| 222 | 10*17374 | P | 9-14-16 | EZRA HOWARD COCHRAN | 920 | 27 |
| 223 | 10*17380 | P | 9-14-16 | DEBORAH IRENE PIERCE AND BARRETT LEE PIERCE | 920 | 34 |
| 224 | 10*17381 | P | 9-14-16 | CINDY J AND DARNELL L FULKS | 921 | 268 |
| 225 | 10*17382 | P | 9-14-16 | HELEN MARIE AND DAVID E MCCRAY | 920 | 47 |
| 226 | 10*17389 | P | 9-14-16 | MELBA EILEEN HUDDLESTUN | 920 | 53 |
| 227 | 10*17390 | P | 9-14-16 | HAROLD B CROW AND CONNIE SUE CROW | 921 | 207 |
| 228 | 10*17391 | P | 9-14-16 | BETTY LOU AND OLLIE CHARLES HUGGINS | 921 | 210 |
| 229 | 10*17397 | P | 9-14-16 | BEVERLY KATHRYN GODDARD | 920 | 55 |
| 230 | 10*17393 | P | 9-14-16 | CHARLIE M TURNER AND BESSIE M TURNER | 920 | 39 |
| 231 | 10*17394 | P | 9-14-16 | JUDY LOUISE GLOVER | 921 | 232 |
| 232 | 10*17397 | P | 9-14-16 | PAT DARRELL TURNER AND TINA DENISE TURNER | 925 | 117 |
| 233 | 10*17399 | P | 9-14-16 | RONALD EDWARD WATSON AND DIANA L WATSON | 925 | 120 |
| 234 | 10*17401 | P | 9-14-16 | JOHN M HAUGHT JR AND CHERYL A HAUGHT | 925 | 182 |
| 235 | 10*17402 | P | 9-14-16 | DIANA LYNN BUMGARDNER | 920 | 68 |
| 236 | 10*17403 | P | 9-14-16 | JAMES B CROW AND PENNY G CROW | 925 | 187 |
| 237 | 10*17404 | P | 9-14-16 | BJIAN K CROW | 925 | 185 |
| 238 | 10*17408 | P | 9-14-16 | WILLIAM JAMES HEDGEPEETH AND ERIN ELIZABETH HEDGEPEETH | 924 | 572 |
| 239 | 10*17409 | P | 9-14-16 | JUDY A AND CLYDE E ELIZEY | 924 | 569 |
| 240 | 10*17410 | P | 9-14-16 | LILLIE L GAREY | 924 | 567 |
| 241 | 10*17420 | P | 9-14-16 | DAVID LEE AND ANN F BAKER | 924 | 564 |
| 242 | 10*17490 | P | 9-14-16 | CONNIE SUE DOUGLAS AND RONNIE J DOUGLAS | 924 | 578 |
| 243 | 10*17491 | P | 9-14-16 | THOMAS LEE AND CLARA J HAUGHT | 924 | 575 |
| 244 | 10*17598 | P | 9-14-16 | TERRY LEE PETTIT AND STEPHANIE LYNN PETTIT | 921 | 288 |
| 245 | 10*17710 | P | 9-14-16 | DEBRA JEAN LANCASTER AND DARRELL R LANCASTER | 929 | 634 |
| 246 | 10*17811 | P | 9-14-16 | PANSY M ASTON AND ELMER L ASTON | 921 | 216 |
| 247 | 10*17821 | P | 9-14-16 | GREGORY S CROW | 929 | 639 |
| 248 | 10*17902 | P | 9-14-16 | SUSAN LYNN SEDGMER | 920 | 59 |
| 249 | 10*17904 | P | 9-14-16 | RICKY LEE AND TAMMY J WATSON | 921 | 213 |
| 250 | 10*17958 | P | 9-14-16 | SANDRA KAY RICHMOND | 929 | 632 |
| 251 | 10*18250 | P | 9-14-16 | BRENDA KAY COFFIELD AND WILLIAM E COFFIELD | 928 | 546 |
| 252 | 10*18251 | P | 9-14-16 | BARBARA JEAN TOMASZCZYK AND LAWRENCE M TOMASZCZYK | 928 | 575 |
| 253 | 10*18252 | P | 9-14-16 | SHARON L AND DONALD N KAISER | 928 | 572 |
| 254 | 10*18253 | P | 9-14-16 | JOAN M SCHRANTZ | 928 | 569 |
| 255 | 10*18285 | P | 9-14-16 | KATHERINE LYNN SMITH | 929 | 637 |
| 256 | 10*18303 | P | 9-14-16 | WILLIAM E MOORE AND CYNTHIA M MOORE | 944 | 438 |
| 257 | 10*18304 | P | 9-14-16 | EVA L FAWCETT | 929 | 321 |
| 258 | 10*18305 | P | 9-14-16 | MARY L WOLFKILL AND HARRY H WOLFKILL | 929 | 324 |
| 259 | 10*18306 | P | 9-14-16 | MILAN B MARINCOV AND ELIZABETH E MARINCOV | 929 | 327 |
| 260 | 10*18307 | P | 9-14-16 | DEBORAH S KACKLEY AND ROBERT A KACKLEY | 929 | 330 |
| 261 | 10*18308 | P | 9-14-16 | LUNDA A DAVIS AND JAMES M DAVIS | 929 | 333 |
| 262 | 10*18309 | P | 9-14-16 | LARRY W HOBOKEN AND KATHRYN J HOBOKEN | 929 | 336 |
| 263 | 10*18310 | P | 9-14-16 | VIRGINIA A PASQUALUCCI | 945 | 478 |
| 264 | 10*18311 | P | 9-14-16 | JOYCE D JONES | 929 | 339 |
| 265 | 10*18347 | P | 9-14-16 | ELMA LOU LADNER | 931 | 397 |
| 266 | 10*18348 | P | 9-14-16 | FORREST N SIBURT AND ARLENE G SIBURT | 931 | 362 |
| 267 | 10*18349 | P | 9-14-16 | DAWN C GOSKY AND GLENN P GOSKY | 931 | 365 |
| 268 | 10*18400 | P | 9-14-16 | CHERYL ANN VYHNAL AND FRANK T VYHNAL | 932 | 609 |
| 269 | 10*18457 | P | 9-14-16 | SHEILA M KRULL AND JAMES W KRULL | 933 | 177 |
| 270 | 10*18459 | P | 9-14-16 | SANDRA K NELSON AND RICKY A NELSON | 933 | 174 |
| 271 | 10*18460 | P | 9-14-16 | ROBERT W CERMAK AND PATRICIA LYNN CERMA | 933 | 171 |
| 272 | 10*18461 | P | 9-14-16 | STEVEN E RUNION AND JAN M RUNION | 933 | 168 |
| 273 | 10*18462 | P | 9-14-16 | NANCY L PAULETTE AND JOSEPH L PAULETTE | 933 | 165 |
| 274 | 10*18463 | P | 9-14-16 | MILANA L REDLINGER AND ROBERT W REDLINGER | 933 | 162 |
| 275 | 10*18464 | P | 9-14-16 | ROBERTA J EDDY AND RONALD D EDDY | 933 | 159 |
| 276 | 10*18465 | P | 9-14-16 | GAYLE C HATHAWAY | 933 | 156 |
| 277 | 10*18466 | P | 9-14-16 | REBECCA M PENNINGTON | 933 | 154 |
| 278 | 10*18467 | P | 9-14-16 | SAMANTHA L BOYLES AND DARRELL L BOYLES | 933 | 145 |
| 279 | 10*18468 | P | 9-14-16 | PATTY J LICITIS AND GEORGE LICITIS | 933 | 142 |
| 280 | 10*18523 | P | 9-14-16 | KENT R HARRIS | 933 | 600 |
| 281 | 10*18525 | P | 9-14-16 | WAYNE M CERMAK | 933 | 584 |
| 282 | 10*18574 | P | 9-14-16 | DAE MARIE WARDEN | 935 | 24 |
| 283 | 10*18575 | P | 9-14-16 | DEAN P PENNINGTON | 935 | 14 |
| 284 | 10*18576 | P | 9-14-16 | SCOTT D VANNEWHOUSE | 935 | 12 |
| 285 | 10*18577 | P | 9-14-16 | KELLY ANN DENOON | 935 | 10 |
| 286 | 10*18578 | P | 9-14-16 | KIMBERLY ELLEN DENOON | 935 | 8 |
| 287 | 10*18579 | P | 9-14-16 | ROGER EDWARD DENOON JR | 935 | 6 |
| 288 | 10*18580 | P | 9-14-16 | BRADLEY R CROW | 935 | 4 |
| 289 | 10*18611 | P | 9-14-16 | DARYL MCGUFFIN AND NALENA H MCGUFFIN | 934 | 598 |
| 290 | 10*18627 | P | 9-14-16 | GERALDINE MAY SPONAUGLE AND JUNIOR RICHARD SPONAUGLE | 936 | 234 |
| 291 | 10*18629 | P | 9-14-16 | THOMAS D ULLOM AND CATHERINE A ULLOM | 936 | 230 |
| 292 | 10*18630 | P | 9-14-16 | TIMOTHY D ULLOM AND NANCY M ULLOM | 936 | 232 |
| 293 | 10*18634 | P | 9-14-16 | KATHRYN E SIBURT | 936 | 236 |
| 294 | 10*18635 | P | 9-14-16 | GLADYS CROW | 936 | 238 |
| 295 | 10*18705 | P | 9-14-16 | DOLORES JEAN POLAND | 938 | 535 |
| 296 | 10*18708 | P | 9-14-16 | DELORES KOLAKOWSKI | 938 | 540 |
| 297 | 10*18709 | P | 9-14-16 | CONSTANCE M SIMPSON AND DANIEL L SIMPSON | 938 | 537 |
| 298 | 10*18710 | P | 9-14-16 | LEWIS M QUIGLEY AND MAXINE V QUIGLEY | 938 | 267 |
| 299 | 10*18711 | P | 9-14-16 | H GLENN CROW | 938 | 269 |
| 300 | 10*18712 | P | 9-14-16 | KENNETH R BURCH | 938 | 272 |

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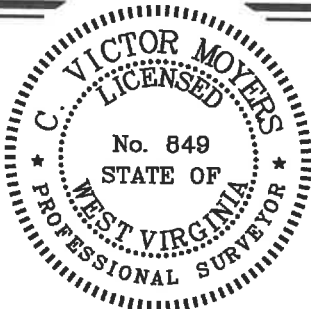
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DATE JUNE 11, 2020

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OPERATORS WELL NO. KEITH STERN N-16HU

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



P.S. 849 C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME PERMIT

KEITH STERN N LEASE
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1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
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| | | | | | | |
|-----|----------|---|---------|---|------|-----|
| 301 | 10*18713 | P | 9-14-16 | GEORGE A JOHNS JR AND KAREN L JOHNS | 938 | 275 |
| 302 | 10*18830 | P | 9-14-16 | GERALD Q MOORE AND SLYVIA JUDITH MOORE | 937 | 393 |
| 303 | 10*18831 | P | 9-14-16 | JACQUELYN A ROBERTS | 937 | 395 |
| 304 | 10*18832 | P | 9-14-16 | DAN HELTON AND PEGGY ANNA HELTON | 937 | 397 |
| 305 | 10*18833 | P | 9-14-16 | WILLIAM J ULLOM | 937 | 399 |
| 306 | 10*18834 | P | 9-14-16 | JAMES R ROCKEY | 938 | 1 |
| 307 | 10*18939 | P | 9-14-16 | PEGGY J CROW | 939 | 384 |
| 308 | 10*18940 | P | 9-14-16 | STEVEN T JOHNS AND KAREN A JOHNS | 939 | 277 |
| 309 | 10*18941 | P | 9-14-16 | MARGARET E JONES AND CHARLES T JONES | 939 | 393 |
| 310 | 10*18942 | P | 9-14-16 | MARY JO ROCKEY | 939 | 391 |
| 311 | 10*18953 | P | 9-14-16 | CYNTHIA M GROSS AND MICHAEL D GROSS | 941 | 299 |
| 312 | 10*18954 | P | 9-14-16 | ROBERT E TOEPFER JR AND ELIZABETH A TOEPFER | 941 | 295 |
| 313 | 10*18955 | P | 9-14-16 | CHARLES W LADNER | 941 | 293 |
| 314 | 10*18956 | P | 9-14-16 | MICHELE T VALYKEO | 941 | 297 |
| 315 | 10*19506 | P | 9-14-16 | MARK R MOORE AND ASHTYN C MOORE | 942 | 610 |
| 316 | 10*19603 | P | 9-14-16 | JAMES KEITH NATIONS BY HIS COURT APPNTD GUARDIAN AD LITEM DAVID C WHITE ESQ | 944 | 134 |
| 317 | 10*19609 | P | 9-14-16 | LLOYD T HALL AND LORNA K HALL | 937 | 320 |
| 318 | 10*19664 | P | 9-14-16 | PAUL EUGENE SUTTON JR & NICKIE L SUTTON | 944 | 436 |
| 319 | 10*19665 | P | 9-14-16 | GAIL L SUTTON | 944 | 138 |
| 320 | 10*19836 | P | 9-14-16 | SUSAN E MARTIN | 945 | 582 |
| 321 | 10*19837 | P | 9-14-16 | SHARON K LEONARD | 944 | 440 |
| 322 | 10*19839 | P | 9-14-16 | PAMELA DOYLE BROWN | 945 | 584 |
| 323 | 10*19840 | P | 9-14-16 | PHYLLIS JEAN CROW HEWITT | 945 | 586 |
| 324 | 10*19890 | P | 9-14-16 | JO ANN FORRESTER | 948 | 569 |
| 325 | 10*19891 | P | 9-14-16 | TWILA J GORDON AND ALEXANDER J GORDON | 945 | 475 |
| 326 | 10*19974 | P | 9-14-16 | RONDA L SKILTON AND THOMAS A SKILTON | 948 | 200 |
| 327 | 10*21010 | P | 9-14-16 | LISA A HALL AND KYLE W HALL | 951 | 185 |
| 328 | 10*21038 | P | 9-14-16 | LAURA A WALSH AND MICHAEL P WALSH SR | 951 | 188 |
| 329 | 10*21040 | P | 9-14-16 | VICKIE L POND AND SIDNEY P POND | 949 | 360 |
| 330 | 10*21049 | P | 9-14-16 | JOHN J HENRY III | 951 | 175 |
| 331 | 10*21059 | P | 9-14-16 | JOHN B HIZER AND SONYA L HIZER | 951 | 172 |
| 332 | 10*21060 | P | 9-14-16 | PETER DOMINICK DENOON & DENISE J DENOON | 951 | 170 |
| 333 | 10*21134 | P | 9-14-16 | NANCY J ULLOM | 951 | 179 |
| 334 | 10*21135 | P | 9-14-16 | CHARLES K NATIONS | 953 | 53 |
| 335 | 10*21136 | P | 9-14-16 | STEVEN J KIM AND LUCIA B KIM | 953 | 51 |
| 336 | 10*21137 | P | 9-14-16 | GLORIA JEAN SELMON | 951 | 177 |
| 337 | 10*21187 | P | 9-14-16 | JEFFREY S HIZER AND BONNIE LYNN HIZER | 951 | 183 |
| 338 | 10*21188 | P | 9-14-16 | TERRY S WEEKLEY AND KRYSTAL D WEEKLEY | 951 | 181 |
| 339 | 10*21247 | P | 9-14-16 | GLORIA LUCAS | 953 | 57 |
| 340 | 10*21248 | P | 9-14-16 | ESSIE BUCHANAN | 953 | 219 |
| 341 | 10*21249 | P | 9-14-16 | PEGGY HARTLEY | 953 | 55 |
| 342 | 10*21338 | P | 9-14-16 | DOROTHY I WHITE | 953 | 217 |
| 343 | 10*21339 | P | 9-14-16 | MICHAEL W SMITH | 953 | 212 |
| 344 | 10*21340 | P | 9-14-16 | MARY ANN BURNS AND SIDNEY P BURNS | 953 | 214 |
| 345 | 10*21413 | P | 9-14-16 | CHIKAKO YAMASHIRO HIZER | 956 | 598 |
| 346 | 10*21446 | P | 9-14-16 | LAURA L GORBY | 956 | 594 |
| 347 | 10*21447 | P | 9-14-16 | GINA L LUPDEGRAFF | 956 | 596 |
| 348 | 10*21477 | P | 9-14-16 | PAUL EUGENE SUTTON SR | 944 | 136 |
| 349 | 10*21555 | P | 9-14-16 | HOWARD A BLAKE & SHARON ANN BLAKE HOWARD A BLAKE POA FOR SHARON ANN BLAKE | 957 | 390 |
| 350 | 10*21610 | P | 9-14-16 | THERESA E CREEGER AND GREGORY J CREEGER | 958 | 467 |
| 351 | 10*21611 | P | 9-14-16 | KEITH GOUDY AND NANCY GOUDY | 959 | 459 |
| 352 | 10*21612 | P | 9-14-16 | YANCY R ARRINGTON AND TERESA C ARRINGTON | 959 | 457 |
| 353 | 10*21881 | P | 9-14-16 | HELEN LOUISE HUGHES | 963 | 221 |
| 354 | 10*21933 | P | 9-14-16 | BRENDA WEEKLEY BEAVER & DANIEL T BEAVER | 960 | 4 |
| 355 | 10*22151 | P | 9-14-16 | GERALD W LUNA AND CHERI E LUNA | 954 | 342 |
| 356 | 10*22289 | P | 9-14-16 | KAREN ELAINE WOLFE AND JAMES BRENT WOLFE | 962 | 285 |
| 357 | 10*22290 | P | 9-14-16 | DAVID W HUMMEL SR | 962 | 281 |
| 358 | 10*22297 | P | 9-14-16 | MARK L ADAMS | 962 | 283 |
| 359 | 10*22399 | P | 9-14-16 | WILLIAM T SCHMITT AND PENNY E SCHMITT | 963 | 118 |
| 360 | 10*22400 | P | 9-14-16 | NANCY A CHURCH & RALPH E CHURCH | 963 | 115 |
| 361 | 10*22401 | P | 9-14-16 | DEBORAH L ONEAL | 963 | 113 |
| 362 | 10*22402 | P | 9-14-16 | RUSSELL B GODDARD | 963 | 111 |
| 363 | 10*22403 | P | 9-14-16 | DONNA M TAYLOR | 963 | 109 |
| 364 | 10*22409 | P | 9-14-16 | LORI ANN OAKS AND LARRY D OAKS | 963 | 121 |
| 365 | 10*22416 | P | 9-14-16 | ADA M MOORE | 963 | 350 |
| 366 | 10*22456 | P | 9-14-16 | MICHAEL V GODDARD | 964 | 460 |
| 367 | 10*22457 | P | 9-14-16 | CATHERINE M MESSNER | 964 | 462 |
| 368 | 10*22522 | P | 9-14-16 | JAMES D COCHRAN AND LINDA M COCHRAN | 966 | 493 |
| 369 | 10*22523 | P | 9-14-16 | DEBRA E MOORE AND SCOTT MOORE | 966 | 490 |
| 370 | 10*22543 | P | 9-14-16 | MITCHELL FORRESTER AND CECELIA FORRESTER | 966 | 188 |
| 371 | 10*22544 | P | 9-14-16 | MILLODIE J HOFF AND DOUGLAS T HOFF | 966 | 191 |
| 372 | 10*22602 | P | 9-14-16 | CYNTHIA JO MOORE | 966 | 484 |
| 373 | 10*22603 | P | 9-14-16 | APRIL BERISFORD AND MICHAEL BERISFORD | 966 | 487 |
| 374 | 10*22628 | P | 9-14-16 | JAMES C BALL | 966 | 586 |
| 375 | 10*22629 | P | 9-14-16 | LISA R GODDARD | 966 | 588 |
| 376 | 10*22782 | P | 9-14-16 | JULIE LYNN SCOTT | 972 | 43 |
| 377 | 10*23005 | P | 9-14-16 | VIRGINIA E SAKALO AND MICHAEL A SAKALO | 984 | 40 |
| 378 | 10*23331 | P | 9-14-16 | JACQUELINE A PATTERSON AND CHARLES ALLEN PATTERSON | 983 | 82 |
| 379 | 10*23453 | P | 9-14-16 | ROGER W RHODES | 1008 | 303 |
| 380 | 10*23457 | P | 9-14-16 | GEORGIA MITCHELL ETAL HERMAN LANTZ, SPECIAL COMMISSIONER | 108 | 305 |
| 381 | 10*23952 | P | 9-14-16 | MATTHEW S BRITTON, A MINOR ERIC GORDON, SPECIAL COMMISSIONER | 1020 | 247 |
| 382 | 10*24083 | P | 9-14-16 | JOSEPH B CROW JR | 1021 | 134 |
| 383 | 10*24240 | P | 9-14-16 | ALF THOMAS MOORE AND CHERYL A MOORE | 1022 | 362 |
| 384 | 10*24275 | P | 9-14-16 | GEORGE B CROW JR AND SHIRLEY CROW | 1023 | 485 |
| 385 | 10*24276 | P | 9-14-16 | MARTHA L PULVER | 1023 | 483 |
| 386 | 10*24277 | P | 9-14-16 | HOWARD L KUHN AND MARY L KUHN | 1023 | 488 |
| 387 | 10*24292 | P | 9-14-16 | MARK CURTIS | 1023 | 520 |
| 388 | 10*24401 | P | 9-14-16 | JOSEPH KOLAKOWSKI JR | 1024 | 322 |
| 389 | 10*24410 | P | 9-14-16 | MICHAEL KOLAKOWSKI AND LEA KOLAKOWSKI | 1024 | 319 |
| 390 | 10*24411 | P | 9-14-16 | MARGIE M MILTON | 1025 | 156 |
| 391 | 10*24412 | P | 9-14-16 | JAMES P DERROW AND CHRISTINE M DERROW | 1024 | 315 |
| 392 | 10*24414 | P | 9-14-16 | ROBERT ALLEN SUTTON AND MICKIE L SUTTON | 1024 | 313 |
| 393 | 10*24435 | P | 9-14-16 | JAMES C ADAMS AND NICOLE D ADAMS | 1025 | 158 |
| 394 | 10*24675 | P | 9-14-16 | MICHELLE M KOLAKOWSKI | 1027 | 126 |
| 395 | 10*24676 | P | 9-14-16 | THERESA THOMAS | 1025 | 338 |
| 396 | 10*24735 | P | 9-14-16 | EARL SELMON | 1027 | 304 |
| 397 | 10*24736 | P | 9-14-16 | SUSAN L SCHULTE | 1027 | 300 |
| 398 | 10*24764 | P | 9-14-16 | MARLENA PENNINGTON ET AL | 1027 | 594 |
| 399 | 10*24765 | P | 9-14-16 | CRYSTAL CURTIS | 1027 | 592 |

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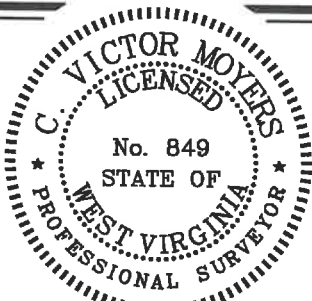
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DATE JUNE 11, 2020

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OPERATORS WELL NO. KEITH STERN N-16HU

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



P.S. 849 C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC

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FORT WORTH, TX 76107

DESIGNATED AGENT

DIANNA STAMPER
CT CORPORATION SYSTEM

ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

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254 East Beckley Bypass | Beckley, WV 25801 | 304.285.5295
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|-----|----------------|---|----------|--|------|------|
| 400 | 10*24766 | P | 9-14-16 | LLOYD E YOHO | 1027 | 590 |
| 401 | 10*24857 | P | 9-14-16 | JANET KIMBLE AND JOHN KIMBLE | 1028 | 109 |
| 402 | 10*24873 | P | 9-14-16 | WAYNE PRICE | 1028 | 117 |
| 403 | 10*24874 | P | 9-14-16 | DONALD SMOTHERMAN AND MARGARET SMOTHERMAN | 1028 | 115 |
| 404 | 10*24876 | P | 9-14-16 | JAMES D WHITE AND BRITTNEY C WHITE | 1028 | 113 |
| 405 | 10*24877 | P | 9-14-16 | DEBORAH LEDGER AND JOHN H LEDGER | 1028 | 111 |
| 406 | 10*25011 | P | 9-14-16 | JOHN DAVID CROW | 1029 | 537 |
| 407 | 10*25012 | P | 9-14-16 | LARRY B PATTERSON | 1029 | 535 |
| 408 | 10*25219 | P | 9-14-16 | THE ESTATE OF PAUL W BLAKE | 1030 | 125 |
| 409 | 10*25220 | P | 9-14-16 | MISTY MOORE | 1030 | 127 |
| 410 | 10*25221 | P | 9-14-16 | CHARLES ROY SUTTON | 1030 | 129 |
| 411 | 10*25321 | P | 9-14-16 | CINDY LAND KERRY L WINTERS | 1031 | 571 |
| 412 | 10*25498 | P | 9-14-16 | DAN AND SHARON CVETANOVICH | 1034 | 232 |
| 413 | 10*26626 | P | 9-14-16 | MARLENA PENNINGTON | 1027 | 594 |
| 414 | 10*23087 | Q | 9-14-12 | REASON AND CATHERINE V YOUNG | 68 | 69 |
| 415 | 10*19621 | R | 9-14-1 | MARY RUTH FROHNAPFEL | 938 | 595 |
| 416 | 10*19622 | R | 9-14-1 | KENNETH D SIBURT JR AND LORI SIBURT | 938 | 597 |
| 417 | 10*19623 | R | 9-14-1 | SANDRA SIBURT FROWEN & GEORGE FROWEN | 938 | 600 |
| 418 | 10*19627 | R | 9-14-1 | RONALD S YOUNG | 944 | 192 |
| 419 | 10*19655 | R | 9-14-1 | CHESTNUT HOLDINGS INC | 949 | 309 |
| 420 | 10*19678 | R | 9-14-1 | WILLIAM O. JONES | 944 | 188 |
| 421 | 10*19679 | R | 9-14-1 | DAVID A DARRAH SR AND ANITA SLOUGH-DARRAH | 946 | 54 |
| 422 | 10*19725 | R | 9-14-1 | MAMIE V ARNOLD | 944 | 454 |
| 423 | 10*21213 | R | 9-14-1 | JAMES B SIBURT AND DEULA D SIBURT | 957 | 1077 |
| 424 | 10*21214 | R | 9-14-1 | VICKI J CHERRY AND RICKEY E CHERRY | 949 | 139 |
| 425 | 10*21215 | R | 9-14-1 | ALAN K SIBURT ET UX | 949 | 136 |
| 426 | 10*21216 | R | 9-14-1 | RODNEY L SIBURT | 949 | 142 |
| 427 | 10*21559 | R | 9-14-1 | GUY L BUZZARD TRUSTEE THE GUY L BUZZARD 2017 IRREVOCABLE TRUST | 957 | 388 |
| 428 | 10*22464 | R | 9-14-1 | DONNA KYLE | 964 | 470 |
| 429 | 10*22465 | R | 9-14-1 | LOIS KURPILFKA LOIS HERCULES | 964 | 472 |
| 430 | 10*22466 | R | 9-14-1 | JUDITH MAY CONNER | 964 | 468 |
| 431 | 10*22516 | R | 9-14-1 | SHARON RUSSELL | 964 | 464 |
| 432 | 10*22518 | R | 9-14-1 | GEORGE EDWARDS | 964 | 466 |
| 433 | 10*22856 | R | 9-14-1 | CHARLES W MILLER AND ESTHER JEAN MILLER | 977 | 51 |
| 434 | 10*23435 | R | 9-14-1 | LLOYD C. ARNOLD & JUDITH C. ARNOLD | 1008 | 301 |
| 435 | 10*15510 | S | 9-11-12 | ELAINE PHELPS ET VIR | 718 | 326 |
| 436 | 10*15511 | S | 9-11-12 | DAVID E CROW | 718 | 376 |
| 437 | 10*15512 | S | 9-11-12 | FRANCES COFFEY | 718 | 378 |
| 438 | 10*15513 | S | 9-11-12 | KAY KEYES | 718 | 330 |
| 439 | 10*15514 | S | 9-11-12 | L PAUL CROW | 718 | 336 |
| 440 | 10*15515 | S | 9-11-12 | DESIRE L CROW | 718 | 334 |
| 441 | 10*15516 | S | 9-11-12 | ROSE MARIE KIELGCZEWSKI | 718 | 354 |
| 442 | 10*15517 | S | 9-11-12 | DIANNE GELLNER & GARY GELLNER | 718 | 345 |
| 443 | 10*15518 | S | 9-11-12 | JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY | 718 | 347 |
| 444 | 10*15519 | S | 9-11-12 | JOHN CROW | 726 | 580 |
| 445 | 10*15520 | S | 9-11-12 | TIMOTHY CROW | 726 | 582 |
| 446 | 10*19685 | S | 9-11-12 | MORGAN H MOSSER AND NANCY MOSSER | 944 | 445 |
| 447 | 10*21093 | S | 9-11-12 | DUNCAN S LINN AND POLLY LU BROWN | 952 | 157 |
| 448 | 10*21492 | S | 9-11-12 | JUDITH FISK | 957 | 282 |
| 449 | 10*21494 | S | 9-11-12 | EILEEN M SLATE AND DALE A SLATE | 957 | 284 |
| 450 | 10*21495 | S | 9-11-12 | E JEN BAIRD AND GEORGE S BAIRD AMENDED REVOCABLE TRUST AGREEMENT | 966 | 618 |
| 451 | 10*21843 | S | 9-11-12 | JOHN B HOAGLAND AND PATRICIA A HOAGLAND | 959 | 620 |
| 452 | 10*21923 | S | 9-11-12 | DOROTHY JEAN BURKLE BOYD | 953 | 468 |
| 453 | 10*22090 | S | 9-11-12 | KATHERINE ANN BOYO BLAKE | 953 | 473 |
| 454 | 10*22153 | S | 9-11-12 | JODY A SCHOTTLE AND THOMAS A SCHOTTLE | 953 | 470 |
| 455 | 10*22462 | S | 9-11-12 | ROBERT CALDWELL MEAD | 964 | 480 |
| 456 | 10*22608 | S | 9-11-12 | SARAH BAIRD LINN | 966 | 620 |
| 457 | 10*22666 | S | 9-11-12 | JOSEPH W LINN JR AND TAMMY S LINN | 968 | 230 |
| 458 | 10*22771 | S | 9-11-12 | KATHARINE B SILBAUGH AND DANIEL JURAYJ | 970 | 24 |
| 459 | 10*22855 | S | 9-11-12 | KIM O MAGHAN AND JAMES G MAGHAN | 977 | 49 |
| 460 | 10*23024 | S | 9-11-12 | KATHRYN A TAGGART AND EVERETT TAGGART JR | 977 | 289 |
| 461 | 10*23039 | S | 9-11-12 | GAIL W STEWART | 977 | 287 |
| 462 | 10*23165 | S | 9-11-12 | EDITH BOYD ORR AND WENDELL FRANKLIN ORR | 984 | 68 |
| 463 | 10*23389 | S | 9-11-12 | LEESA O THOMPSON | 972 | 45 |
| 464 | 10*23427 | S | 9-11-12 | SANDY VINCENT AND STEVEN VINCENT | 1008 | 307 |
| 465 | 10*23652 | S | 9-11-12 | KATHARINE ATWOOD AND MICHAEL GRITTON | 1009 | 309 |
| 466 | 10*23686 | S | 9-11-12 | RANDALL T ULLOM AND ROSALIE FERMO-ULLOM | 1010 | 400 |
| 467 | 10*23687 | S | 9-11-12 | ELIZABETH F BAIRD | 1010 | 402 |
| 468 | 10*23688 | S | 9-11-12 | MELISSA DUROIS BAIRD | 1010 | 404 |
| 469 | 10*23692 | S | 9-11-12 | WILLIAM ATWOOD AND ELIZABETH ATWOOD | 1010 | 408 |
| 470 | 10*23693 | S | 9-11-12 | JOHN ATWOOD AND ANNETTE ATWOOD | 1010 | 406 |
| 471 | 10*24222 | S | 9-11-12 | SALVATION ARMY | 1022 | 371 |
| 472 | 10*24282 | S | 9-11-12 | CLARA OSBORNE DOUGLAS | 1023 | 481 |
| 473 | 10*24296 | S | 9-11-12 | KATHARINE D LINN | 1023 | 522 |
| 474 | 10*24400 | S | 9-11-12 | JANE W VARDY ET AL | 1024 | 317 |
| 475 | 10*47051.123.1 | S | 9-11-12 | LLOYD G BAKER | 865 | 389 |
| 476 | 10*47051.123.2 | S | 9-11-12 | JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY | 873 | 143 |
| 477 | 10*16258 | T | 9-11-13 | CHESTNUT HOLDINGS INC | 848 | 234 |
| 478 | 10*15582 | U | 9-11-10 | ROBERT L CLARK | 685 | 239 |
| 479 | 10*47051.108.1 | V | 9-11-9 | MICHAEL A WHETZEL | 885 | 51 |
| 480 | 10*47051.243.1 | W | 9-14-21 | MARY A FOX | 879 | 332 |
| 481 | 10*47051.243.2 | W | 9-14-21 | PAUL G FOX | 879 | 335 |
| 482 | 10*47051.243.3 | W | 9-14-21 | MARK H FOX | 879 | 338 |
| 483 | 10*47051.243.4 | W | 9-14-21 | DAVID E FOX | 876 | 55 |
| 484 | 10*47051.243.5 | W | 9-14-21 | LOUIS T FOX AND KAREN A FOX | 876 | 58 |
| 485 | 10*47051.243.6 | W | 9-14-21 | THOMAS J FOX | 876 | 61 |
| 486 | 10*15837 | X | 9-17-4.1 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 85 |
| 487 | 10*15836 | X | 9-17-4.1 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 79 |
| 488 | 10*15842 | X | 9-17-4.1 | HOMER L SIMMONS AND GLADYS R SIMMONS | 742 | 329 |
| 489 | 10*16007 | X | 9-17-4.1 | MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER | 799 | 436 |
| 490 | 10*16008 | X | 9-17-4.1 | DONNA KAY ALLEN AND ROGER ALLEN | 801 | 222 |
| 491 | 10*17500 | X | 9-17-4.1 | TRACY L AND KEITH W BARNBY | 916 | 116 |
| 492 | 10*17666 | X | 9-17-4.1 | LILA FAYE BONAR SNODGRASS AND DONALD T SNODGRASS | 949 | 172 |
| 493 | 10*17673 | X | 9-17-4.1 | JAMES PERRY COCHRAN | 932 | 567 |
| 494 | 10*17707 | X | 9-17-4.1 | JACQUELYN S FERRARI AND JOHN C FERRARI | 949 | 177 |
| 495 | 10*17709 | X | 9-17-4.1 | CAROL GONGOLA | 949 | 167 |
| 496 | 10*17765 | X | 9-17-4.1 | ROBERTA YOUNG | 949 | 163 |
| 497 | 10*17840 | X | 9-17-4.1 | RONALD D KOONTZ & BETH ANN KOONTZ | 942 | 432 |
| 498 | 10*17886 | X | 9-17-4.1 | ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS | 924 | 536 |
| 499 | 10*17887 | X | 9-17-4.1 | LEO C HILKE AND BETTY M HILKE | 924 | 531 |
| 500 | 10*17977 | X | 9-17-4.1 | BRANNEN DAUGHERTY | 925 | 359 |

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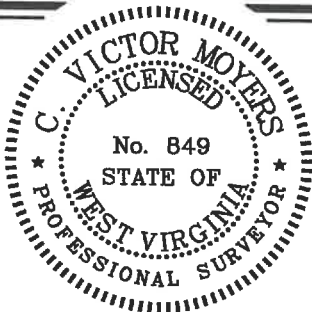
FILE NO. 8811P16HUAD.dwg
KEITH STERN N-16HU-REV2

DATE JUNE 11, 2020

REVISED, 20

OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242
STATE COUNTY PERMIT



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



P.S.
849

C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT

DIANNA STAMPER
CT CORPORATION SYSTEM

ADDRESS

5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME PERMIT

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
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

| | | | | | | |
|-----|-----------------|---|----------|--|------|-----|
| 501 | 10*17980 | X | 9-17-4.1 | ANITA RAE MILLER | 925 | 370 |
| 502 | 10*17981 | X | 9-17-4.1 | MICHAEL E SWIFT AND MELODY A SWIFT | 925 | 372 |
| 503 | 10*18031 | X | 9-17-4.1 | LEE ANNE MILLER | 927 | 222 |
| 504 | 10*18092 | X | 9-17-4.1 | DAVID MCDOWELL AND CRYSTAL MCDOWELL | 927 | 283 |
| 505 | 10*18093 | X | 9-17-4.1 | JENNIFER WHEATON | 927 | 289 |
| 506 | 10*18094 | X | 9-17-4.1 | BONNIE GRISELL | 927 | 231 |
| 507 | 10*18095 | X | 9-17-4.1 | TEXYN L MILLER AND GEORGIA A MILLER | 927 | 287 |
| 508 | 10*18098 | X | 9-17-4.1 | LISA ANN MCDOWELL AND ROBERT JOSEPH HILL | 939 | 263 |
| 509 | 10*18099 | X | 9-17-4.1 | RAE ELLEN FLOYD AND KENNETH FLOYD | 927 | 233 |
| 510 | 10*18107 | X | 9-17-4.1 | ANITA MAE MASON | 927 | 238 |
| 511 | 10*18167 | X | 9-17-4.1 | NEIL CALL AND MELINDA CALL | 927 | 492 |
| 512 | 10*18168 | X | 9-17-4.1 | SANDRA YANAGAWA | 927 | 498 |
| 513 | 10*18169 | X | 9-17-4.1 | KAREN K WILLIAMS | 927 | 628 |
| 514 | 10*18170 | X | 9-17-4.1 | KAREN MCDOWELL CECIL AND JAMES E CECIL | 927 | 633 |
| 515 | 10*18192 | X | 9-17-4.1 | STEPHEN S MASON AND CAROLE K MASON | 928 | 625 |
| 516 | 10*18193 | X | 9-17-4.1 | CAROLYN LEE FUREY AND MARTIN J FUREY | 949 | 158 |
| 517 | 10*18194 | X | 9-17-4.1 | PAMELA BEYLER AND CHAD R BEYLER | 928 | 630 |
| 518 | 10*18197 | X | 9-17-4.1 | BARBARA K BURLEY AND DAVID K BURLEY | 928 | 641 |
| 519 | 10*18198 | X | 9-17-4.1 | MARY THERESA SOLEAU AND THOMAS SOLEAU | 928 | 643 |
| 520 | 10*18199 | X | 9-17-4.1 | LAWRENCE J VAUGHN AND GAIL L VAUGHN | 928 | 532 |
| 521 | 10*18260 | X | 9-17-4.1 | GEMMA RUDY AND TIMOTHY RUDY | 928 | 584 |
| 522 | 10*18295 | X | 9-17-4.1 | THOMAS R BAKER AND VICKIE L BAKER | 929 | 262 |
| 523 | 10*18298 | X | 9-17-4.1 | MAUREEN GREGG | 929 | 273 |
| 524 | 10*18300 | X | 9-17-4.1 | ROBERT W ODOM AND CASSANDRA L ODOM | 929 | 283 |
| 525 | 10*18361 | X | 9-17-4.1 | MARY JO CAIN | 931 | 407 |
| 526 | 10*18417 | X | 9-17-4.1 | CHERYLL HILL | 932 | 577 |
| 527 | 10*18487 | X | 9-17-4.1 | NANCY L STANGEL AND JOHN J STANGEL | 933 | 113 |
| 528 | 10*18488 | X | 9-17-4.1 | CHARLINE M ENGLE AND KEVIN E ENGLE | 933 | 118 |
| 529 | 10*18508 | X | 9-17-4.1 | PATRICIA LUANNE BONAR | 925 | 351 |
| 530 | 10*18517 | X | 9-17-4.1 | LORI SHANAHAN AND PATRICK SHANAHAN | 933 | 575 |
| 531 | 10*18613 | X | 9-17-4.1 | JANE LOUISE CAIN AND DANIEL CARL HOLTZ | 934 | 603 |
| 532 | 10*18655 | X | 9-17-4.1 | PATRICIA L LEHN | 936 | 95 |
| 533 | 10*18656 | X | 9-17-4.1 | PAMELA CALL | 936 | 100 |
| 534 | 10*18658 | X | 9-17-4.1 | ELIZABETH JANE KELLER | 936 | 107 |
| 535 | 10*18659 | X | 9-17-4.1 | CATHERINE P MASON | 936 | 112 |
| 536 | 10*18799 | X | 9-17-4.1 | CHARLES J DARMAFALL DECEASED | 937 | 634 |
| 537 | 10*18805 | X | 9-17-4.1 | CINDY STEVENS TOZIER | 937 | 628 |
| 538 | 10*19373 | X | 9-17-4.1 | JESSICA WHEATON | 931 | 411 |
| 539 | 10*19403 | X | 9-17-4.1 | LAWRENCE R LOTZ | 951 | 114 |
| 540 | 10*19404 | X | 9-17-4.1 | HOWARD M CAIN AND EMMA JEAN CAIN | 939 | 283 |
| 541 | 10*19476 | X | 9-17-4.1 | WINONA RIDDLE | 941 | 331 |
| 542 | 10*19689 | X | 9-17-4.1 | EDMOND TURGEON JR AND CATHY STEVENS TURGEON | 944 | 156 |
| 543 | 10*19718 | X | 9-17-4.1 | CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY | 944 | 412 |
| 544 | 10*19879 | X | 9-17-4.1 | MARY V GILSON AND WALTER M GILSON | 945 | 588 |
| 545 | 10*19933 | X | 9-17-4.1 | MARY ANN GRIFFITH | 948 | 555 |
| 546 | 10*19937 | X | 9-17-4.1 | JAMES D STEVENS AND DOROTHY M STEVENS | 949 | 151 |
| 547 | 10*19938 | X | 9-17-4.1 | JOHN H STEVENS AND LYNDA L STEVENS | 949 | 144 |
| 548 | 10*21026 | X | 9-17-4.1 | NANCY M MORGAN | 951 | 110 |
| 549 | 10*21211 | X | 9-17-4.1 | NILA JEAN BAYLES | 951 | 118 |
| 550 | 10*21841 | X | 9-17-4.1 | ENERGY DEEP RESOURCES INC | 959 | 631 |
| 551 | 10*21842 | X | 9-17-4.1 | JOSEPH NOKOVICH | 959 | 635 |
| 552 | 10*21927 | X | 9-17-4.1 | BLACK GOLD GROUP LTD | 964 | 474 |
| 553 | 10*21940 | X | 9-17-4.1 | ALYSIA JORDAN & TERRY M JORDAN | 953 | 346 |
| 554 | 10*22376 | X | 9-17-4.1 | MARGARET KUCHARZ AND JAMES C KUCHARZ | 962 | 270 |
| 555 | 10*22412 | X | 9-17-4.1 | CHAD E LONGFELLOW | 963 | 124 |
| 556 | 10*22599 | X | 9-17-4.1 | BRYANT R SWIFT AND KATHY SWIFT | 966 | 456 |
| 557 | 10*22776 | X | 9-17-4.1 | JAMES ROBERT WELLS | 970 | 19 |
| 558 | 10*22849 | X | 9-17-4.1 | NEIL MCELROY AND SUE MASON MCELROY | 977 | 44 |
| 559 | 10*22851 | X | 9-17-4.1 | JOHN J HELLSTERN AND LYNN D HELLSTERN | 977 | 39 |
| 560 | 10*22853 | X | 9-17-4.1 | RONALD LEE HENSLEY AND MARY ANN HENSLEY | 977 | 34 |
| 561 | 10*23076 | X | 9-17-4.1 | JACK R BERISFORD AKA RANDY BERISFORD | 984 | 43 |
| 562 | 10*23260 | X | 9-17-4.1 | IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER | 988 | 73 |
| 563 | 10*23668 | X | 9-17-4.1 | THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNIAK EXECUTRIX | 1009 | 286 |
| 564 | 10*47061.219.27 | X | 9-17-4.1 | MARSHA BERISFORD | 902 | 425 |
| 565 | 10*47061.219.33 | X | 9-17-4.1 | JOHN H HILKE AND AUDA HILKE | 896 | 602 |
| 566 | 10*47061.219.36 | X | 9-17-4.1 | CAREN MCDOWELL AND ELIZABETH MCDOWELL | 898 | 615 |
| 567 | 10*47061.219.37 | X | 9-17-4.1 | SUSAN H KEY | 898 | 621 |
| 568 | 10*47061.219.38 | X | 9-17-4.1 | TIMOTHY MCDOWELL AND CYNTHIA MCDOWELL | 902 | 431 |
| 569 | 10*47061.219.39 | X | 9-17-4.1 | ALICE THIPPHAVONG AND VISITH THIPPHAVONG | 902 | 437 |
| 570 | 10*17169 | X | 9-17-4.1 | ALMA L VAN SCYOC | 692 | 464 |
| 571 | 10*17171 | X | 9-17-4.1 | OPAL MICKEY | 690 | 631 |
| 572 | 10*17173 | X | 9-17-4.1 | LLOYD R. EVANS | 694 | 526 |
| 573 | 10*47061.219.1 | X | 9-17-4.1 | DAVID LEE FRANKLIN | 874 | 312 |
| 574 | 10*19702 | X | 9-17-4.1 | WV MINERALS INC | 951 | 108 |
| 575 | 10*15836 | Y | 9-17-4 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 79 |
| 576 | 10*15837 | Y | 9-17-4 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 85 |
| 577 | 10*15842 | Y | 9-17-4 | HOMER L SIMMONS AND GLADYS R SIMMONS | 742 | 329 |
| 578 | 10*16007 | Y | 9-17-4 | MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER | 799 | 436 |
| 579 | 10*16008 | Y | 9-17-4 | DONNA KAY ALLEN AND ROGER ALLEN | 801 | 222 |
| 580 | 10*17500 | Y | 9-17-4 | TRACY L AND KEITH W BARNBY | 916 | 116 |
| 581 | 10*17666 | Y | 9-17-4 | LILA FAYE BONAR SNODGRASS AND DONALD T SNODGRASS | 949 | 172 |
| 582 | 10*17673 | Y | 9-17-4 | JAMES PERRY COCHRAN | 932 | 567 |
| 583 | 10*17707 | Y | 9-17-4 | JACQUELYN S FERRARI AND JOHN C FERRARI | 949 | 177 |
| 584 | 10*17709 | Y | 9-17-4 | CAROL GONGOLA | 949 | 167 |
| 585 | 10*17765 | Y | 9-17-4 | ROBERTA YOUNG | 949 | 163 |
| 586 | 10*17840 | Y | 9-17-4 | RONALD D KOONTZ & BETH ANN KOONTZ | 942 | 432 |
| 587 | 10*17886 | Y | 9-17-4 | ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS | 924 | 536 |
| 588 | 10*17887 | Y | 9-17-4 | LEO C HILKE AND BETTY M HILKE | 924 | 531 |
| 589 | 10*17977 | Y | 9-17-4 | BRANNEN DAUGHERTY | 925 | 359 |
| 590 | 10*17980 | Y | 9-17-4 | ANITA RAE MILLER | 925 | 370 |
| 591 | 10*17981 | Y | 9-17-4 | MICHAEL E SWIFT AND MELODY A SWIFT | 925 | 372 |
| 592 | 10*18031 | Y | 9-17-4 | LEE ANNE MILLER | 927 | 222 |
| 593 | 10*18092 | Y | 9-17-4 | DAVID MCDOWELL AND CRYSTAL MCDOWELL | 927 | 283 |
| 594 | 10*18093 | Y | 9-17-4 | JENNIFER WHEATON | 927 | 289 |
| 595 | 10*18094 | Y | 9-17-4 | BONNIE GRISELL | 927 | 231 |
| 596 | 10*18095 | Y | 9-17-4 | TEXYN L MILLER AND GEORGIA A MILLER | 927 | 287 |
| 597 | 10*18098 | Y | 9-17-4 | LISA ANN MCDOWELL AND ROBERT JOSEPH HILL | 939 | 263 |
| 598 | 10*18099 | Y | 9-17-4 | RAE ELLEN FLOYD AND KENNETH FLOYD | 927 | 233 |
| 599 | 10*18107 | Y | 9-17-4 | ANITA MAE MASON | 927 | 238 |
| 600 | 10*18167 | Y | 9-17-4 | NEIL CALL AND MELINDA CALL | 927 | 492 |
| 601 | 10*18168 | Y | 9-17-4 | SANDRA YANAGAWA | 927 | 498 |

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WV Department of
Environmental Protection

FILE NO. 8811P16HUAD.dwg
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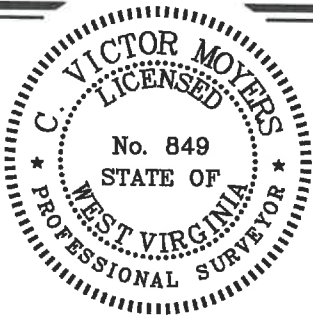
DATE JUNE 11, 2020

REVISED, 20

OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242

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DIVISION OF
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OFFICE OF OIL AND GAS



P.S. 849 C. Victor Moyers

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FORT WORTH, TX 76107

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5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

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WELL 16HU
TUG HILL OPERATING



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254 East Beckley Bypass | Beckley, WV 25801 | 304.285.5296
slswv.com

| | | | | | | |
|-----|-----------------|----|----------|--|------|-----|
| 602 | 10*18169 | Y | 9-17-4 | KAREN K WILLIAMS | 927 | 628 |
| 603 | 10*18170 | Y | 9-17-4 | KAREN MCDOWELL CECIL AND JAMES E CECIL | 927 | 633 |
| 604 | 10*18192 | Y | 9-17-4 | STEPHEN S MASON AND CAROLE K MASON | 928 | 625 |
| 605 | 10*18193 | Y | 9-17-4 | CAROLYN LEE FUREY AND MARTIN J FUREY | 949 | 158 |
| 606 | 10*18194 | Y | 9-17-4 | PAMELA BEYLER AND CHAD R BEYLER | 928 | 630 |
| 607 | 10*18197 | Y | 9-17-4 | BARBARA K BURLEY AND DAVID K BURLEY | 928 | 641 |
| 608 | 10*18198 | Y | 9-17-4 | MARY THERESA SOLEAU AND THOMAS SOLEAU | 928 | 643 |
| 609 | 10*18199 | Y | 9-17-4 | LAWRENCE J VAUGHN AND GAIL L VAUGHN | 928 | 532 |
| 610 | 10*18260 | Y | 9-17-4 | GEMMA RUDY AND TIMOTHY RUDY | 928 | 584 |
| 611 | 10*18295 | Y | 9-17-4 | THOMAS R BAKER AND VICKIE L BAKER | 929 | 262 |
| 612 | 10*18298 | Y | 9-17-4 | MAUREEN GREGG | 929 | 273 |
| 613 | 10*18300 | Y | 9-17-4 | ROBERT W ODOM AND CASSANDRA L ODOM | 929 | 283 |
| 614 | 10*18361 | Y | 9-17-4 | MARY JO CAIN | 931 | 407 |
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| 616 | 10*18487 | Y | 9-17-4 | NANCY L STANGEL AND JOHN J STANGEL | 933 | 113 |
| 617 | 10*18488 | Y | 9-17-4 | CHARLINE M ENGLE AND KEVIN E ENGLE | 933 | 118 |
| 618 | 10*18508 | Y | 9-17-4 | PATRICIA LUANNE BONAR | 925 | 351 |
| 619 | 10*18517 | Y | 9-17-4 | LORI SHANAHAN AND PATRICK SHANAHAN | 933 | 575 |
| 620 | 10*18613 | Y | 9-17-4 | JANE LOUISE CAIN AND DANIEL CARL HOLTZ | 934 | 603 |
| 621 | 10*18655 | Y | 9-17-4 | PATRICIA L LEHN | 936 | 95 |
| 622 | 10*18656 | Y | 9-17-4 | PAMELA CALL | 936 | 100 |
| 623 | 10*18658 | Y | 9-17-4 | ELIZABETH JANE KELLER | 936 | 107 |
| 624 | 10*18659 | Y | 9-17-4 | CATHERINE P MASON | 936 | 112 |
| 625 | 10*18799 | Y | 9-17-4 | CHARLES J DARMAFALL DECEASED | 937 | 634 |
| 626 | 10*18806 | Y | 9-17-4 | CINDY STEVENS TOZIER | 937 | 628 |
| 627 | 10*19373 | Y | 9-17-4 | JESSICA WHEATON | 931 | 411 |
| 628 | 10*19403 | Y | 9-17-4 | LAWRENCE R LOTZ | 951 | 114 |
| 629 | 10*19404 | Y | 9-17-4 | HOWARD M CAIN AND EMMA JEAN CAIN | 939 | 283 |
| 630 | 10*19476 | Y | 9-17-4 | WINONA RIDDLE | 941 | 331 |
| 631 | 10*19689 | Y | 9-17-4 | EDMOND TURGEON JR AND CATHY STEVENS TURGEON | 944 | 156 |
| 632 | 10*19718 | Y | 9-17-4 | CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY | 944 | 412 |
| 633 | 10*19879 | Y | 9-17-4 | MARY V GILSON AND WALTER M GILSON | 945 | 588 |
| 634 | 10*19933 | Y | 9-17-4 | MARY ANN GRIFFITH | 948 | 555 |
| 635 | 10*19937 | Y | 9-17-4 | JAMES D STEVENS AND DOROTHY M STEVENS | 949 | 151 |
| 636 | 10*19938 | Y | 9-17-4 | JOHN H STEVENS AND LYNDAL STEVENS | 949 | 144 |
| 637 | 10*21026 | Y | 9-17-4 | NANCY M MORGAN | 951 | 110 |
| 638 | 10*21211 | Y | 9-17-4 | NILA JEAN BAYLES | 951 | 118 |
| 639 | 10*21841 | Y | 9-17-4 | ENERGY DEEP RESOURCES INC | 959 | 631 |
| 640 | 10*21842 | Y | 9-17-4 | JOSEPH NGKOVICH | 959 | 635 |
| 641 | 10*21927 | Y | 9-17-4 | BLACK GOLD GROUP LTD | 964 | 474 |
| 642 | 10*21940 | Y | 9-17-4 | ALYSIA JORDAN & TERRY M JORDAN | 953 | 346 |
| 643 | 10*22376 | Y | 9-17-4 | MARGARET KUCHARZ AND JAMES C KUCHARZ | 962 | 270 |
| 644 | 10*22412 | Y | 9-17-4 | CHAD E LONGFELLOW | 963 | 124 |
| 645 | 10*22599 | Y | 9-17-4 | BRYANT R SWIFT AND KATHY SWIFT | 966 | 456 |
| 646 | 10*22776 | Y | 9-17-4 | JAMES ROBERT WELLS | 970 | 19 |
| 647 | 10*22849 | Y | 9-17-4 | NEIL MCELROY AND SUE MASON MCELROY | 977 | 44 |
| 648 | 10*22851 | Y | 9-17-4 | JOHN J HELLSTERN AND LYNN D HELLSTERN | 977 | 39 |
| 649 | 10*22853 | Y | 9-17-4 | RONALD LEE HENSLEY AND MARY ANN HENSLEY | 977 | 34 |
| 650 | 10*23076 | Y | 9-17-4 | JACK R BERISFORD AKA RANDY BERISFORD | 984 | 43 |
| 651 | 10*23260 | Y | 9-17-4 | IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER | 988 | 73 |
| 652 | 10*23668 | Y | 9-17-4 | THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNIAK EXECUTRIX | 1009 | 286 |
| 653 | 10*47051.219.27 | Y | 9-17-4 | MARSHA BERISFORD | 902 | 425 |
| 654 | 10*47051.219.33 | Y | 9-17-4 | JOHN H HILKE AND ALIDA HILKE | 898 | 602 |
| 655 | 10*47051.219.36 | Y | 9-17-4 | GAREN MCDOWELL AND ELIZABETH MCDOWELL | 898 | 615 |
| 656 | 10*47051.219.37 | Y | 9-17-4 | SUSAN H KEY | 898 | 621 |
| 657 | 10*47051.219.38 | Y | 9-17-4 | TIMOTHY MCDOWELL AND CYNTHIA MCDOWELL | 902 | 431 |
| 658 | 10*47051.219.39 | Y | 9-17-4 | ALICE THIPPHAVONG AND VISITH THIPPHAVONG | 902 | 437 |
| 659 | 10*17169 | Y | 9-17-4 | ALMA L VAN SCYOC | 692 | 404 |
| 660 | 10*17171 | Y | 9-17-4 | OPAL MICKEY | 690 | 631 |
| 661 | 10*17173 | Y | 9-17-4 | LLOYD R EVANS | 694 | 526 |
| 662 | 10*47051.219.1 | Y | 9-17-4 | DAVID LEE FRANKLIN | 874 | 312 |
| 663 | 10*19702 | Y | 9-17-4 | WV MINERALS INC | 951 | 108 |
| 664 | 10*15832 | Z | 9-17-3 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 121 |
| 665 | 10*15835 | Z | 9-17-3 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 104 |
| 666 | 10*15847 | Z | 9-17-3 | ROGER BRIGHT AND SUSAN LEIMER - DECEASED | 743 | 285 |
| 667 | 10*15848 | Z | 9-17-3 | HOMER L SIMMONS AND GLADYS R SIMMONS | 745 | 194 |
| 668 | 10*15855 | Z | 9-17-3 | ALICE THIPPHAVONG AND VISITH THIPPHAVONG | 747 | 635 |
| 669 | 10*15856 | Z | 9-17-3 | LEO C HILKE AND BETTY M HILKE | 747 | 629 |
| 670 | 10*15870 | Z | 9-17-3 | JOHN H HILKE AND ALIDA HILKE | 750 | 206 |
| 671 | 10*15872 | Z | 9-17-3 | SUSAN H KEY | 751 | 191 |
| 672 | 10*15836 | AA | 9-17-4.4 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 79 |
| 673 | 10*15837 | AA | 9-17-4.4 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 85 |
| 674 | 10*15842 | AA | 9-17-4.4 | HOMER L SIMMONS AND GLADYS R SIMMONS | 742 | 329 |
| 675 | 10*16007 | AA | 9-17-4.4 | MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER | 799 | 436 |
| 676 | 10*16008 | AA | 9-17-4.4 | DONNA KAY ALLEN AND ROGER ALLEN | 801 | 222 |
| 677 | 10*17500 | AA | 9-17-4.4 | TRACY LAND KEITH W BARNBY | 916 | 116 |
| 678 | 10*17666 | AA | 9-17-4.4 | LILA FAYE BONAR SNODGRASS AND DONALD T SNODGRASS | 949 | 172 |
| 679 | 10*17673 | AA | 9-17-4.4 | JAMES PERRY COCHRAN | 932 | 567 |
| 680 | 10*17707 | AA | 9-17-4.4 | JACQUELYN S FERRARI AND JOHN C FERRARI | 949 | 177 |
| 681 | 10*17709 | AA | 9-17-4.4 | CAROL GONGOLA | 949 | 167 |
| 682 | 10*17765 | AA | 9-17-4.4 | ROBERTA YOUNG | 949 | 163 |
| 683 | 10*17840 | AA | 9-17-4.4 | RONALD D KOONTZ & BETH ANN KOONTZ | 942 | 432 |
| 684 | 10*17886 | AA | 9-17-4.4 | ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS | 924 | 536 |
| 685 | 10*17887 | AA | 9-17-4.4 | LEO C HILKE AND BETTY M HILKE | 924 | 531 |
| 686 | 10*17977 | AA | 9-17-4.4 | BRANNEN DAUGHERTY | 925 | 359 |
| 687 | 10*17980 | AA | 9-17-4.4 | ANITA RAE MILLER | 925 | 370 |
| 688 | 10*17981 | AA | 9-17-4.4 | MICHAEL SWIFT AND MELODY A SWIFT | 925 | 372 |
| 689 | 10*18613 | AA | 9-17-4.4 | JANE LOUISE CAIN AND DANIEL CARL HOLTZ | 934 | 603 |
| 690 | 10*18031 | AA | 9-17-4.4 | LEE ANNE MILLER | 927 | 222 |
| 691 | 10*18092 | AA | 9-17-4.4 | DAVID MCDOWELL AND CRYSTAL MCDOWELL | 927 | 283 |
| 692 | 10*18093 | AA | 9-17-4.4 | JENNIFER WHEATON | 927 | 289 |
| 693 | 10*18094 | AA | 9-17-4.4 | BONNIE GRISELL | 927 | 231 |
| 694 | 10*18095 | AA | 9-17-4.4 | TEXYN L MILLER AND GEORGIA A MILLER | 927 | 287 |
| 695 | 10*18098 | AA | 9-17-4.4 | USA ANN MCDOWELL AND ROBERT JOSEPH HILL | 939 | 263 |
| 696 | 10*18099 | AA | 9-17-4.4 | RAE ELLEN FLOYD AND KENNETH FLOYD | 927 | 233 |
| 697 | 10*18107 | AA | 9-17-4.4 | ANITA MAE MASON | 927 | 238 |
| 698 | 10*18167 | AA | 9-17-4.4 | NEIL CALLAND MELINDA CALL | 927 | 492 |
| 699 | 10*18168 | AA | 9-17-4.4 | SANDRA YANAGAWA | 927 | 498 |
| 700 | 10*18169 | AA | 9-17-4.4 | KAREN K WILLIAMS | 927 | 628 |
| 701 | 10*18170 | AA | 9-17-4.4 | KAREN MCDOWELL CECIL AND JAMES E CECIL | 927 | 633 |
| 702 | 10*18192 | AA | 9-17-4.4 | STEPHEN S MASON AND CAROLE K MASON | 928 | 625 |

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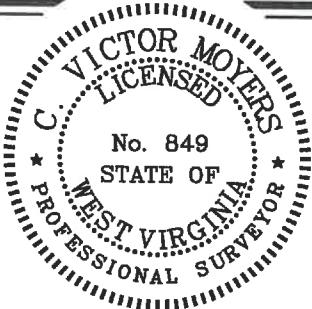
DATE JUNE 11, 20 20

REVISED _____, 20 _____

OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242

STATE COUNTY PERMIT



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



P.S. 849 C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME
PERMIT

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
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

| | | | | | | |
|-----|-----------------|----|----------|--|------|-----|
| 703 | 10*18193 | AA | 9-17-4.4 | CAROLYN LEE FUREY AND MARTIN J FUREY | 949 | 158 |
| 704 | 10*18194 | AA | 9-17-4.4 | PAMELA BEYLER AND CHAD R BEYLER | 928 | 630 |
| 705 | 10*18197 | AA | 9-17-4.4 | BARBARA K BURLEY AND DAVID K BURLEY | 928 | 641 |
| 706 | 10*18198 | AA | 9-17-4.4 | MARY THERESA SOLEAU AND THOMAS SOLEAU | 928 | 643 |
| 707 | 10*18199 | AA | 9-17-4.4 | LAWRENCE J VAUGHN AND GAIL L VAUGHN | 928 | 532 |
| 708 | 10*18260 | AA | 9-17-4.4 | GEMMA RUDY AND TIMOTHY RUDY | 928 | 584 |
| 709 | 10*18295 | AA | 9-17-4.4 | THOMAS R BAKER AND VICKIE L BAKER | 929 | 262 |
| 710 | 10*18298 | AA | 9-17-4.4 | MAUREEN GREGG | 929 | 273 |
| 711 | 10*18300 | AA | 9-17-4.4 | ROBERT W ODOM AND CASSANDRA L ODOM | 929 | 283 |
| 712 | 10*18361 | AA | 9-17-4.4 | MARY JO CAIN | 931 | 407 |
| 713 | 10*18417 | AA | 9-17-4.4 | CHERYL L HILL | 932 | 577 |
| 714 | 10*18487 | AA | 9-17-4.4 | NANCY L STANGEL AND JOHN J STANGEL | 933 | 113 |
| 715 | 10*18488 | AA | 9-17-4.4 | CHARLINE M ENGLE AND KEVIN E ENGLE | 933 | 118 |
| 716 | 10*18508 | AA | 9-17-4.4 | PATRICIA LUANNE BONAR | 925 | 351 |
| 717 | 10*18517 | AA | 9-17-4.4 | LORI SHANAHAN AND PATRICK SHANAHAN | 933 | 575 |
| 718 | 10*18655 | AA | 9-17-4.4 | PATRICIA L LEHN | 936 | 95 |
| 719 | 10*18656 | AA | 9-17-4.4 | PAMELA CALL | 936 | 100 |
| 720 | 10*18658 | AA | 9-17-4.4 | ELIZABETH JANE KELLER | 936 | 107 |
| 721 | 10*18659 | AA | 9-17-4.4 | CATHERINE P MASON | 936 | 112 |
| 722 | 10*18799 | AA | 9-17-4.4 | CHARLES J DARMAFALL DECEASED | 937 | 634 |
| 723 | 10*18806 | AA | 9-17-4.4 | CINDY STEVENS TOZIER | 937 | 628 |
| 724 | 10*19373 | AA | 9-17-4.4 | JESSICA WHEATON | 931 | 411 |
| 725 | 10*19403 | AA | 9-17-4.4 | LAWRENCE R LOTZ | 951 | 114 |
| 726 | 10*19404 | AA | 9-17-4.4 | HOWARD M CAIN AND EMMA JEAN CAIN | 939 | 283 |
| 727 | 10*19476 | AA | 9-17-4.4 | WINONA RIDDLE | 941 | 331 |
| 728 | 10*19689 | AA | 9-17-4.4 | EDMOND TURGEON JR AND CATHY STEVENS TURGEON | 944 | 156 |
| 729 | 10*19718 | AA | 9-17-4.4 | CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY | 944 | 412 |
| 730 | 10*19879 | AA | 9-17-4.4 | MARY V GILSON AND WALTER M GILSON | 945 | 588 |
| 731 | 10*19933 | AA | 9-17-4.4 | MARY ANN GRIFFITH | 948 | 555 |
| 732 | 10*19937 | AA | 9-17-4.4 | JAMES D STEVENS AND DOROTHY M STEVENS | 949 | 151 |
| 733 | 10*19938 | AA | 9-17-4.4 | JOHN H STEVENS AND LYNDA L STEVENS | 949 | 144 |
| 734 | 10*21026 | AA | 9-17-4.4 | NANCY M MORGAN | 951 | 110 |
| 735 | 10*21211 | AA | 9-17-4.4 | NILA JEAN BAYLES | 951 | 118 |
| 736 | 10*21841 | AA | 9-17-4.4 | ENERGY DEEP RESOURCES INC | 959 | 631 |
| 737 | 10*21842 | AA | 9-17-4.4 | JOSEPH NOKOVICH | 959 | 635 |
| 738 | 10*21927 | AA | 9-17-4.4 | BLACK GOLD GROUP LTD | 964 | 474 |
| 739 | 10*21940 | AA | 9-17-4.4 | ALYSIA JORDAN & TERRY M JORDAN | 953 | 346 |
| 740 | 10*22376 | AA | 9-17-4.4 | MARGARET KUCHARZ AND JAMES C KUCHARZ | 962 | 270 |
| 741 | 10*22412 | AA | 9-17-4.4 | CHAD E LONGFELLOW | 963 | 124 |
| 742 | 10*22599 | AA | 9-17-4.4 | BRYANT R SWIFT AND KATHY SWIFT | 966 | 456 |
| 743 | 10*22776 | AA | 9-17-4.4 | JAMES ROBERT WELLS | 970 | 19 |
| 744 | 10*22849 | AA | 9-17-4.4 | NEIL MCELROY AND SUE MASON MCELROY | 977 | 44 |
| 745 | 10*22851 | AA | 9-17-4.4 | JOHN J HELLSTERN AND LYNN D HELLSTERN | 977 | 39 |
| 746 | 10*22853 | AA | 9-17-4.4 | RONALD LEE HENSLEY AND MARY ANN HENSLEY | 977 | 34 |
| 747 | 10*23076 | AA | 9-17-4.4 | JACK R BERISFORD AKA RANDY BERISFORD | 984 | 43 |
| 748 | 10*23260 | AA | 9-17-4.4 | IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER | 988 | 73 |
| 749 | 10*23668 | AA | 9-17-4.4 | THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNIAK EXECUTRIX | 1009 | 286 |
| 750 | 10*47051.219.27 | AA | 9-17-4.4 | MARSHA BERISFORD | 902 | 425 |
| 751 | 10*47051.219.33 | AA | 9-17-4.4 | JOHN H HILKE AND ALIDA HILKE | 898 | 602 |
| 752 | 10*47051.219.36 | AA | 9-17-4.4 | GAREN MCDOWELL AND ELIZABETH MCDOWELL | 898 | 615 |
| 753 | 10*47051.219.37 | AA | 9-17-4.4 | SUSAN H KEY | 898 | 621 |
| 754 | 10*47051.219.38 | AA | 9-17-4.4 | TIMOTHY MCDOWELL AND CYNTHIA MCDOWELL | 902 | 431 |
| 755 | 10*47051.219.39 | AA | 9-17-4.4 | ALICE THIPPHAVONG AND VISITH THIPPHAVONG | 902 | 437 |
| 756 | 10*17169 | AA | 9-17-4.4 | ALMA L VAN SCYOC | 692 | 404 |
| 757 | 10*17171 | AA | 9-17-4.4 | OPAL MCKEY | 690 | 631 |
| 758 | 10*17173 | AA | 9-17-4.4 | LLOYD R EVANS | 694 | 526 |
| 759 | 10*47051.219.1 | AA | 9-17-4.4 | DAVID LEE FRANKLIN | 874 | 312 |
| 760 | 10*19702 | AA | 9-17-4.4 | WV MINERALS INC | 951 | 108 |
| 761 | 10*15974 | BB | 9-15-43 | ROGER BRIGHT AND SUSAN LEIMER - DECEASED | 777 | 222 |
| 762 | 10*17887 | BB | 9-15-43 | LEO C HILKE AND BETTY M HILKE | 924 | 531 |
| 763 | 10*18486 | BB | 9-15-43 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 933 | 111 |
| 764 | 10*18618 | BB | 9-15-43 | ANITA DIANE ANTILL AND TERRY ANTILL | 934 | 615 |
| 765 | 10*18767 | BB | 9-15-43 | HOMER L SIMMONS AND GLADYS R SIMMONS | 938 | 486 |
| 766 | 10*18767 | BB | 9-15-43 | HOMER L SIMMONS AND GLADYS R SIMMONS | 938 | 486 |
| 767 | 10*47051.219.33 | BB | 9-15-43 | JOHN H HILKE AND ALIDA HILKE | 898 | 602 |
| 768 | 10*47051.219.37 | BB | 9-15-43 | SUSAN H KEY | 898 | 621 |
| 769 | 10*47051.219.39 | BB | 9-15-43 | ALICE THIPPHAVONG AND VISITH THIPPHAVONG | 902 | 437 |
| 770 | 10*15837 | CC | 9-17-4.3 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 85 |
| 771 | 10*15836 | CC | 9-17-4.3 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 79 |
| 772 | 10*15842 | CC | 9-17-4.3 | HOMER L SIMMONS AND GLADYS R SIMMONS | 742 | 329 |
| 773 | 10*16007 | CC | 9-17-4.3 | MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER | 799 | 436 |
| 774 | 10*16008 | CC | 9-17-4.3 | DONNA KAY ALLEN AND ROGER ALLEN | 801 | 222 |
| 775 | 10*17500 | CC | 9-17-4.3 | TRACY L AND KEITH W BARNBY | 916 | 116 |
| 776 | 10*17666 | CC | 9-17-4.3 | LILA FAYE BONAR SNODGRASS AND DONALD T SNODGRASS | 949 | 172 |
| 777 | 10*17673 | CC | 9-17-4.3 | JAMES PERRY COCHRAN | 932 | 567 |
| 778 | 10*17707 | CC | 9-17-4.3 | JACQUELYN S FERRARI AND JOHN C FERRARI | 949 | 177 |
| 779 | 10*17709 | CC | 9-17-4.3 | CAROL GONGOLA | 949 | 167 |
| 780 | 10*17765 | CC | 9-17-4.3 | ROBERTA YOUNG | 949 | 163 |
| 781 | 10*17840 | CC | 9-17-4.3 | RONALD D KOONTZ & BETH ANN KOONTZ | 942 | 432 |
| 782 | 10*17886 | CC | 9-17-4.3 | ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS | 924 | 536 |
| 783 | 10*17887 | CC | 9-17-4.3 | LEO C HILKE AND BETTY M HILKE | 924 | 531 |
| 784 | 10*17977 | CC | 9-17-4.3 | BRANNEN DAUGHERTY | 925 | 359 |
| 785 | 10*17980 | CC | 9-17-4.3 | ANITA RAE MILLER | 925 | 370 |
| 786 | 10*17981 | CC | 9-17-4.3 | MICHAEL E SWIFT AND MELODY A SWIFT | 925 | 372 |
| 787 | 10*18031 | CC | 9-17-4.3 | LEE ANNE MILLER | 927 | 222 |
| 788 | 10*18092 | CC | 9-17-4.3 | DAVID MCDOWELL AND CRYSTAL MCDOWELL | 927 | 283 |
| 789 | 10*18093 | CC | 9-17-4.3 | JENNIFER WHEATON | 927 | 289 |
| 790 | 10*18094 | CC | 9-17-4.3 | BONNIE GRISSELL | 927 | 231 |
| 791 | 10*18095 | CC | 9-17-4.3 | TEKYN L MILLER AND GEORGIA A MILLER | 927 | 287 |
| 792 | 10*18098 | CC | 9-17-4.3 | LISA ANN MCDOWELL AND ROBERT JOSEPH HILL | 939 | 263 |
| 793 | 10*18099 | CC | 9-17-4.3 | RAE ELLEN FLOYD AND KENNETH FLOYD | 927 | 233 |
| 794 | 10*18107 | CC | 9-17-4.3 | ANITA MAE MASON | 927 | 238 |
| 795 | 10*18167 | CC | 9-17-4.3 | NEIL CALL AND MELINDA CALL | 927 | 492 |
| 796 | 10*18168 | CC | 9-17-4.3 | SAN DRA YANAGAWA | 927 | 498 |
| 797 | 10*18169 | CC | 9-17-4.3 | KAREN K WILLIAMS | 927 | 628 |
| 798 | 10*18170 | CC | 9-17-4.3 | KAREN MCDOWELL CECIL AND JAMES E CECIL | 927 | 633 |
| 799 | 10*18192 | CC | 9-17-4.3 | STEPHEN S MASON AND CAROLE K MASON | 928 | 625 |
| 800 | 10*18193 | CC | 9-17-4.3 | CAROLYN LEE FUREY AND MARTIN J FUREY | 949 | 158 |
| 801 | 10*18194 | CC | 9-17-4.3 | PAMELA BEYLER AND CHAD R BEYLER | 928 | 630 |
| 802 | 10*18197 | CC | 9-17-4.3 | BARBARA K BURLEY AND DAVID K BURLEY | 928 | 641 |
| 803 | 10*18198 | CC | 9-17-4.3 | MARY THERESA SOLEAU AND THOMAS SOLEAU | 928 | 643 |

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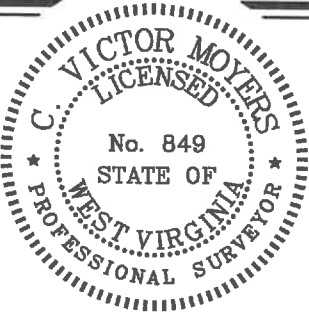
KEITH STERN N-16HU-REV2

DATE JUNE 11, 2020

REVISED, 20

OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242
STATE COUNTY PERMIT



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



P.S.
849

C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT

ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

DIANNA STAMPER

CT CORPORATION SYSTEM

COUNTY NAME

PERMIT

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
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

| | | | | | | |
|-----|-----------------|----|----------|--|------|-----|
| 804 | 10*18199 | CC | 9-17-4.3 | LAWRENCE J VAUGHN AND GAIL L VAUGHN | 928 | 532 |
| 805 | 10*18260 | CC | 9-17-4.3 | GEMMA RUDY AND TIMOTHY RUDY | 928 | 584 |
| 806 | 10*18295 | CC | 9-17-4.3 | THOMAS R BAKER AND VICKIE L BAKER | 929 | 262 |
| 807 | 10*18298 | CC | 9-17-4.3 | MAUREEN GREGG | 929 | 273 |
| 808 | 10*18300 | CC | 9-17-4.3 | ROBERT W ODOM AND CASSANDRA L ODOM | 929 | 283 |
| 809 | 10*18361 | CC | 9-17-4.3 | MARY JO CAIN | 931 | 407 |
| 810 | 10*18417 | CC | 9-17-4.3 | CHERYL L HILL | 932 | 577 |
| 811 | 10*18487 | CC | 9-17-4.3 | NANCY L STANGEL AND JOHN J STANGEL | 933 | 113 |
| 812 | 10*18488 | CC | 9-17-4.3 | CHARLINE M ENGLE AND KEVIN E ENGLE | 933 | 118 |
| 813 | 10*18508 | CC | 9-17-4.3 | PATRICIA LUANNE BONAR | 925 | 351 |
| 814 | 10*18517 | CC | 9-17-4.3 | LORI SHANAHAN AND PATRICK SHANAHAN | 933 | 575 |
| 815 | 10*18613 | CC | 9-17-4.3 | JANE LOUISE CAIN AND DANIEL CARL HOLTZ | 934 | 603 |
| 816 | 10*18655 | CC | 9-17-4.3 | PATRICIA L LEHN | 936 | 95 |
| 817 | 10*18656 | CC | 9-17-4.3 | PAMELA CALL | 936 | 100 |
| 818 | 10*18658 | CC | 9-17-4.3 | ELIZABETH JANE KELLER | 936 | 107 |
| 819 | 10*18659 | CC | 9-17-4.3 | CATHERINE P MASON | 936 | 112 |
| 820 | 10*18799 | CC | 9-17-4.3 | CHARLES J DARMAFALL DECEASED | 937 | 634 |
| 821 | 10*18805 | CC | 9-17-4.3 | CINDY STEVENS TOZIER | 937 | 628 |
| 822 | 10*19373 | CC | 9-17-4.3 | JESSICA WHEATON | 931 | 411 |
| 823 | 10*19408 | CC | 9-17-4.3 | LAWRENCE R LOTZ | 951 | 114 |
| 824 | 10*19404 | CC | 9-17-4.3 | HOWARD M CAIN AND EMMA JEAN CAIN | 939 | 283 |
| 825 | 10*19476 | CC | 9-17-4.3 | WINONA RIDDLE | 941 | 331 |
| 826 | 10*19689 | CC | 9-17-4.3 | EDMOND TURGEON JR AND CATHY STEVENS TURGEON | 944 | 156 |
| 827 | 10*19718 | CC | 9-17-4.3 | CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY | 944 | 412 |
| 828 | 10*19879 | CC | 9-17-4.3 | MARY V GILSON AND WALTER M GILSON | 945 | 588 |
| 829 | 10*19933 | CC | 9-17-4.3 | MARY ANN GRIFFITH | 948 | 555 |
| 830 | 10*19937 | CC | 9-17-4.3 | JAMES D STEVENS AND DOROTHY M STEVENS | 949 | 151 |
| 831 | 10*19938 | CC | 9-17-4.3 | JOHN H STEVENS AND LYNDA L STEVENS | 949 | 144 |
| 832 | 10*21026 | CC | 9-17-4.3 | NANCY M MORGAN | 951 | 110 |
| 833 | 10*21211 | CC | 9-17-4.3 | NILA JEAN BAYLES | 951 | 118 |
| 834 | 10*21841 | CC | 9-17-4.3 | ENERGY DEEP RESOURCES INC | 959 | 631 |
| 835 | 10*21842 | CC | 9-17-4.3 | JOSEPH NOKOVICH | 959 | 635 |
| 836 | 10*21927 | CC | 9-17-4.3 | BLACK GOLD GROUP LTD | 964 | 474 |
| 837 | 10*21940 | CC | 9-17-4.3 | ALYSSA JORDAN & TERRY M JORDAN | 953 | 346 |
| 838 | 10*22376 | CC | 9-17-4.3 | MARGARET KUCHARZ AND JAMES C KUCHARZ | 962 | 270 |
| 839 | 10*22412 | CC | 9-17-4.3 | CHAD E LONGFELLOW | 963 | 124 |
| 840 | 10*22599 | CC | 9-17-4.3 | BRYANT R SWIFT AND KATHY SWIFT | 966 | 456 |
| 841 | 10*22776 | CC | 9-17-4.3 | JAMES ROBERT WELLS | 970 | 19 |
| 842 | 10*22849 | CC | 9-17-4.3 | NBL MCELROY AND SUE MASON MCELROY | 977 | 44 |
| 843 | 10*22851 | CC | 9-17-4.3 | JOHN J HELSTERN AND LYNN D HELSTERN | 977 | 39 |
| 844 | 10*22853 | CC | 9-17-4.3 | RONALD LEE HENSLEY AND MARY ANN HENSLEY | 977 | 34 |
| 845 | 10*23076 | CC | 9-17-4.3 | JACK R BERISFORD AKA RANDY BERISFORD | 984 | 43 |
| 846 | 10*23260 | CC | 9-17-4.3 | IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER | 988 | 73 |
| 847 | 10*23668 | CC | 9-17-4.3 | THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNIAR EXECUTRIX | 1009 | 286 |
| 848 | 10*47051.219.27 | CC | 9-17-4.3 | MARSHA BERISFORD | 902 | 425 |
| 849 | 10*47051.219.33 | CC | 9-17-4.3 | JOHN H HILKE AND ALIDA HILKE | 898 | 602 |
| 850 | 10*47051.219.36 | CC | 9-17-4.3 | GAREN MCDOWELL AND ELIZABETH MCDOWELL | 898 | 615 |
| 851 | 10*47051.219.37 | CC | 9-17-4.3 | SUSAN H KEY | 898 | 621 |
| 852 | 10*47051.219.38 | CC | 9-17-4.3 | TIMOTHY MCDOWELL AND CYNTHIA MCDOWELL | 902 | 431 |
| 853 | 10*47051.219.39 | CC | 9-17-4.3 | AUCE THIPPHAVONG AND VISITH THIPPHAVONG | 902 | 437 |
| 854 | 10*17169 | CC | 9-17-4.3 | ALMA L VAN SCYOC | 692 | 404 |
| 855 | 10*17171 | CC | 9-17-4.3 | OPAL MICKY | 690 | 631 |
| 856 | 10*17173 | CC | 9-17-4.3 | LLOYD R EVANS | 694 | 526 |
| 857 | 10*47051.219.1 | CC | 9-17-4.3 | DAVID LEE FRANKLIN | 874 | 312 |
| 858 | 10*19702 | CC | 9-17-4.3 | WV MINERALS INC | 951 | 108 |
| 859 | 10*15836 | DD | 9-17-4.2 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 79 |
| 860 | 10*15837 | DD | 9-17-4.2 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 85 |
| 861 | 10*15842 | DD | 9-17-4.2 | HOMER L SIMMONS AND GLADYS R SIMMONS | 742 | 329 |
| 862 | 10*16007 | DD | 9-17-4.2 | MARY LOU KITTILBERGER AND FREDERICK W KITTILBERGER | 799 | 436 |
| 863 | 10*16008 | DD | 9-17-4.2 | DONNA KAY ALLEN AND ROGER ALLEN | 801 | 222 |
| 864 | 10*17500 | DD | 9-17-4.2 | TRACY L AND KEITH W BARNBY | 916 | 116 |
| 865 | 10*17666 | DD | 9-17-4.2 | LILA FAYE BONAR SNODGRASS AND DONALD T SNODGRASS | 949 | 172 |
| 866 | 10*17673 | DD | 9-17-4.2 | JAMES PERRY COCHRAN | 932 | 567 |
| 867 | 10*17707 | DD | 9-17-4.2 | JACQUELYN S FERRARI AND JOHN C FERRARI | 949 | 177 |
| 868 | 10*17709 | DD | 9-17-4.2 | CAROL GONGOLA | 949 | 167 |
| 869 | 10*17765 | DD | 9-17-4.2 | ROBERTA YOUNG | 949 | 163 |
| 870 | 10*17840 | DD | 9-17-4.2 | RONALD D KOONTZ & BETH ANN KOONTZ | 942 | 432 |
| 871 | 10*17886 | DD | 9-17-4.2 | ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS | 924 | 536 |
| 872 | 10*17887 | DD | 9-17-4.2 | LEO C HILKE AND BETTY M HILKE | 924 | 531 |
| 873 | 10*17977 | DD | 9-17-4.2 | BRANNEN DAUGHERTY | 925 | 359 |
| 874 | 10*17980 | DD | 9-17-4.2 | ANITA RAE MILLER | 925 | 370 |
| 875 | 10*17981 | DD | 9-17-4.2 | MICHAEL SWIFT AND MELODY A SWIFT | 925 | 372 |
| 876 | 10*18613 | DD | 9-17-4.2 | JANE LOUISE CAIN AND DANIEL CARL HOLTZ | 934 | 603 |
| 877 | 10*18031 | DD | 9-17-4.2 | LEE ANNE MILLER | 927 | 222 |
| 878 | 10*18092 | DD | 9-17-4.2 | DAVID MCDOWELL AND CRYSTAL MCDOWELL | 927 | 283 |
| 879 | 10*18093 | DD | 9-17-4.2 | JENNIFER WHEATON | 927 | 289 |
| 880 | 10*18094 | DD | 9-17-4.2 | BONNIE GRISELL | 927 | 231 |
| 881 | 10*18095 | DD | 9-17-4.2 | TEXYN L MILLER AND GEORGIA A MILLER | 927 | 287 |
| 882 | 10*18098 | DD | 9-17-4.2 | USA ANN MCDOWELL AND ROBERT JOSEPH HILL | 939 | 263 |
| 883 | 10*18099 | DD | 9-17-4.2 | RAE ELLEN FLOYD AND KENNETH FLOYD | 927 | 233 |
| 884 | 10*18107 | DD | 9-17-4.2 | ANITA MAE MASON | 927 | 238 |
| 885 | 10*18167 | DD | 9-17-4.2 | NEL CALL AND MELINDA CALL | 927 | 492 |
| 886 | 10*18168 | DD | 9-17-4.2 | SANDRA YANAGAWA | 927 | 498 |
| 887 | 10*18169 | DD | 9-17-4.2 | KAREN K WILLIAMS | 927 | 628 |
| 888 | 10*18170 | DD | 9-17-4.2 | KAREN MCDOWELL CECIL AND JAMES E CECIL | 927 | 633 |
| 889 | 10*18192 | DD | 9-17-4.2 | STEPHEN S MASON AND CAROLE K MASON | 928 | 625 |
| 890 | 10*18193 | DD | 9-17-4.2 | CAROLYN LEE FUREY AND MARTIN J FUREY | 949 | 158 |
| 891 | 10*18194 | DD | 9-17-4.2 | PAMELA BEYLER AND CHAD R BEYLER | 928 | 630 |
| 892 | 10*18197 | DD | 9-17-4.2 | BARBARA K BURLEY AND DAVID K BURLEY | 928 | 641 |
| 893 | 10*18198 | DD | 9-17-4.2 | MARY THERESA SOLEAU AND THOMAS SOLEAU | 928 | 643 |
| 894 | 10*18199 | DD | 9-17-4.2 | LAWRENCE J VAUGHN AND GAIL L VAUGHN | 928 | 532 |
| 895 | 10*18260 | DD | 9-17-4.2 | GEMMA RUDY AND TIMOTHY RUDY | 928 | 584 |
| 896 | 10*18295 | DD | 9-17-4.2 | THOMAS R BAKER AND VICKIE L BAKER | 929 | 262 |
| 897 | 10*18298 | DD | 9-17-4.2 | MAUREEN GREGG | 929 | 273 |
| 898 | 10*18300 | DD | 9-17-4.2 | ROBERT W ODOM AND CASSANDRA L ODOM | 929 | 283 |
| 899 | 10*18361 | DD | 9-17-4.2 | MARY JO CAIN | 931 | 407 |
| 900 | 10*18417 | DD | 9-17-4.2 | CHERYL L HILL | 932 | 577 |
| 901 | 10*18487 | DD | 9-17-4.2 | NANCY L STANGEL AND JOHN J STANGEL | 933 | 113 |
| 902 | 10*18488 | DD | 9-17-4.2 | CHARLINE M ENGLE AND KEVIN E ENGLE | 933 | 118 |
| 903 | 10*18508 | DD | 9-17-4.2 | PATRICIA LUANNE BONAR | 925 | 351 |
| 904 | 10*18517 | DD | 9-17-4.2 | LORI SHANAHAN AND PATRICK SHANAHAN | 933 | 575 |

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FILE NO. 8811P16HUAD.dwg
KEITH STERN N-16HU-REV2

DATE JUNE 11, 20 20

REVISED _____, 20 _____

OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242

STATE COUNTY PERMIT



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



P.S.
849

C. Victor Moyers

COUNTY NAME
PERMIT

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
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
slsww.com

| | | | | | | |
|------|-----------------|----|----------|--|------|-----|
| 905 | 10*18655 | DD | 9-17-4.2 | PATRICIA L LEHN | 936 | 95 |
| 906 | 10*18656 | DD | 9-17-4.2 | PAMELA CALL | 936 | 100 |
| 907 | 10*18658 | DD | 9-17-4.2 | ELIZABETH JANE KELLER | 936 | 107 |
| 908 | 10*18659 | DD | 9-17-4.2 | CATHERINE P MASON | 936 | 112 |
| 909 | 10*18799 | DD | 9-17-4.2 | CHARLES J DARMAFALL DECEASED | 937 | 634 |
| 910 | 10*18805 | DD | 9-17-4.2 | CINDY STEVENS TOZIER | 937 | 628 |
| 911 | 10*19373 | DD | 9-17-4.2 | JESSICA WHEATON | 931 | 411 |
| 912 | 10*19403 | DD | 9-17-4.2 | LAWRENCE R LOTZ | 951 | 114 |
| 913 | 10*19404 | DD | 9-17-4.2 | HOWARD M CAIN AND EMMA JEAN CAIN | 939 | 283 |
| 914 | 10*19476 | DD | 9-17-4.2 | WINONA RIDDLE | 941 | 331 |
| 915 | 10*19689 | DD | 9-17-4.2 | EDMOND TURGEON JR AND CATHY STEVENS TURGEON | 944 | 156 |
| 916 | 10*19718 | DD | 9-17-4.2 | CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY | 944 | 412 |
| 917 | 10*19879 | DD | 9-17-4.2 | MARY V GILSON AND WALTER M GILSON | 945 | 588 |
| 918 | 10*19933 | DD | 9-17-4.2 | MARY ANN GRIFFITH | 948 | 555 |
| 919 | 10*19937 | DD | 9-17-4.2 | JAMES D STEVENS AND DOROTHY M STEVENS | 949 | 151 |
| 920 | 10*19938 | DD | 9-17-4.2 | JOHN H STEVENS AND LYNDA L STEVENS | 949 | 144 |
| 921 | 10*21026 | DD | 9-17-4.2 | NANCY M MORGAN | 951 | 110 |
| 922 | 10*21211 | DD | 9-17-4.2 | NILA JEAN BAYLES | 951 | 118 |
| 923 | 10*21841 | DD | 9-17-4.2 | ENERGY DEEP RESOURCES INC | 959 | 631 |
| 924 | 10*21842 | DD | 9-17-4.2 | JOSEPH NOKOVICH | 959 | 635 |
| 925 | 10*21927 | DD | 9-17-4.2 | BLACK GOLD GROUP LTD | 964 | 474 |
| 926 | 10*21940 | DD | 9-17-4.2 | ALYSIA JORDAN & TERRY M JORDAN | 953 | 346 |
| 927 | 10*22376 | DD | 9-17-4.2 | MARGARET KUCHARZ AND JAMES C KUCHARZ | 962 | 270 |
| 928 | 10*22412 | DD | 9-17-4.2 | CHAD E LONGFELLOW | 963 | 124 |
| 929 | 10*22599 | DD | 9-17-4.2 | BRYANT R SWIFT AND KATHY SWIFT | 966 | 456 |
| 930 | 10*22776 | DD | 9-17-4.2 | JAMES ROBERT WELLS | 970 | 19 |
| 931 | 10*22849 | DD | 9-17-4.2 | NEIL MCELROY AND SUE MASON MCELROY | 977 | 44 |
| 932 | 10*22851 | DD | 9-17-4.2 | JOHN J HELLSTERN AND LYNN D HELLSTERN | 977 | 39 |
| 933 | 10*22853 | DD | 9-17-4.2 | RONALD LEE HENSLEY AND MARY ANN HENSLEY | 977 | 34 |
| 934 | 10*23076 | DD | 9-17-4.2 | JACK R BERISFORD AKA RANDY BERISFORD | 984 | 43 |
| 935 | 10*23260 | DD | 9-17-4.2 | IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER | 988 | 73 |
| 936 | 10*23668 | DD | 9-17-4.2 | THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNIAK EXECUTRIX | 1009 | 286 |
| 937 | 10*47051.219.27 | DD | 9-17-4.2 | MARSHA BERISFORD | 902 | 425 |
| 938 | 10*47051.219.33 | DD | 9-17-4.2 | JOHN H HILKE AND ALIDA HILKE | 898 | 502 |
| 939 | 10*47051.219.36 | DD | 9-17-4.2 | GAREN MCDOWELL AND ELIZABETH MCDOWELL | 898 | 615 |
| 940 | 10*47051.219.37 | DD | 9-17-4.2 | SUSAN H KEY | 898 | 621 |
| 941 | 10*47051.219.38 | DD | 9-17-4.2 | TIMOTHY MCDOWELL AND CYNTHIA MCDOWELL | 902 | 431 |
| 942 | 10*47051.219.39 | DD | 9-17-4.2 | ALICE THIPPHAVONG AND VISITH THIPPHAVONG | 902 | 437 |
| 943 | 10*17169 | DD | 9-17-4.2 | ALMA L VAN SCYOC | 692 | 404 |
| 944 | 10*17171 | DD | 9-17-4.2 | OPAL MICKEY | 690 | 631 |
| 945 | 10*17173 | DD | 9-17-4.2 | LLOYD R. EVANS | 694 | 526 |
| 946 | 10*47051.219.1 | DD | 9-17-4.2 | DAVID LEE FRANKLIN | 874 | 312 |
| 947 | 10*19702 | DD | 9-17-4.2 | WV MINERALS INC | 951 | 108 |
| 948 | 10*15836 | EE | 9-17-5 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 79 |
| 949 | 10*15837 | EE | 9-17-5 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 85 |
| 950 | 10*15842 | EE | 9-17-5 | HOMER L SIMMONS AND GLADYS R SIMMONS | 742 | 329 |
| 951 | 10*16007 | EE | 9-17-5 | MARY LOU KITTELBERGER AND FREDERICK W KITTELBERGER | 799 | 436 |
| 952 | 10*17500 | EE | 9-17-5 | TRACY L AND KEITH W BARNBY | 916 | 116 |
| 953 | 10*17666 | EE | 9-17-5 | LILA FAYE BONAR SNODGRASS AND DONALD T SNODGRASS | 949 | 172 |
| 954 | 10*17673 | EE | 9-17-5 | JAMES PERRY COCHRAN | 932 | 567 |
| 955 | 10*17707 | EE | 9-17-5 | JACQUELYN S FERRARI AND JOHN C FERRARI | 949 | 177 |
| 956 | 10*17709 | EE | 9-17-5 | CAROL GONGOLA | 949 | 167 |
| 957 | 10*17765 | EE | 9-17-5 | ROBERTA YOUNG | 949 | 163 |
| 958 | 10*17840 | EE | 9-17-5 | RONALD D KOONTZ & BETH ANN KOONTZ | 942 | 432 |
| 959 | 10*17886 | EE | 9-17-5 | ANNETTE CAIN HANKINS AND HOWARD RONALD HANKINS | 924 | 536 |
| 960 | 10*17887 | EE | 9-17-5 | LEO C HILKE AND BETTY M HILKE | 924 | 531 |
| 961 | 10*17977 | EE | 9-17-5 | BRANNEN DAUGHERTY | 925 | 359 |
| 962 | 10*17980 | EE | 9-17-5 | ANITA RAE MILLER | 925 | 370 |
| 963 | 10*17981 | EE | 9-17-5 | MICHAEL E SWIFT AND MELODY A SWIFT | 925 | 372 |
| 964 | 10*18019 | EE | 9-17-5 | SUSAN H KEY | 927 | 272 |
| 965 | 10*18020 | EE | 9-17-5 | ALICE THIPPHAVONG AND VISITH THIPPHAVONG | 927 | 270 |
| 966 | 10*18031 | EE | 9-17-5 | LEE ANNE MILLER | 927 | 222 |
| 967 | 10*18092 | EE | 9-17-5 | DAVID MCDOWELL AND CRYSTAL MCDOWELL | 927 | 283 |
| 968 | 10*18093 | EE | 9-17-5 | JENNIFER WHEATON | 927 | 289 |
| 969 | 10*18094 | EE | 9-17-5 | BONNIE GRISSELL | 927 | 231 |
| 970 | 10*18095 | EE | 9-17-5 | TEXYN L MILLER AND GEORGIA A MILLER | 927 | 287 |
| 971 | 10*18098 | EE | 9-17-5 | LISA ANN MCDOWELL AND ROBERT JOSEPH HILL | 939 | 263 |
| 972 | 10*18099 | EE | 9-17-5 | RAE ELLEN FLOYD AND KENNETH FLOYD | 927 | 233 |
| 973 | 10*18107 | EE | 9-17-5 | ANITA MAE MASON | 927 | 238 |
| 974 | 10*18113 | EE | 9-17-5 | JOHN H HILKE | 927 | 159 |
| 975 | 10*18167 | EE | 9-17-5 | NEIL CALLAND MEUNDA CALL | 927 | 492 |
| 976 | 10*18168 | EE | 9-17-5 | SANDRA YANAGAWA | 927 | 498 |
| 977 | 10*18169 | EE | 9-17-5 | KAREN K WILLIAMS | 927 | 628 |
| 978 | 10*18170 | EE | 9-17-5 | KAREN MCDOWELL CECIL AND JAMES E CECIL | 927 | 633 |
| 979 | 10*18192 | EE | 9-17-5 | STEPHEN S MASON AND CAROLE K MASON | 928 | 625 |
| 980 | 10*18193 | EE | 9-17-5 | CAROLYN LEE FUREY AND MARTIN J FUREY | 949 | 158 |
| 981 | 10*18194 | EE | 9-17-5 | PAMELA BEYLER AND CHAD R BEYLER | 928 | 630 |
| 982 | 10*18197 | EE | 9-17-5 | BARBARA K BURLEY AND DAVID K BURLEY | 928 | 641 |
| 983 | 10*18198 | EE | 9-17-5 | MARY THERESA SOLEAU AND THOMAS SOLEAU | 928 | 643 |
| 984 | 10*18199 | EE | 9-17-5 | LAWRENCE J VAUGHN AND GAIL L VAUGHN | 928 | 532 |
| 985 | 10*18260 | EE | 9-17-5 | GEMMA RUDY AND TIMOTHY RUDY | 928 | 584 |
| 986 | 10*18295 | EE | 9-17-5 | THOMAS R BAKER AND VICKIE L BAKER | 929 | 262 |
| 987 | 10*18298 | EE | 9-17-5 | MAUREEN GREGG | 929 | 273 |
| 988 | 10*18300 | EE | 9-17-5 | ROBERT W ODOM AND CASSANDRA L ODOM | 929 | 283 |
| 989 | 10*18361 | EE | 9-17-5 | MARY JO CAIN | 931 | 407 |
| 990 | 10*18417 | EE | 9-17-5 | CHERYL L HILL | 932 | 577 |
| 991 | 10*18487 | EE | 9-17-5 | NANCY L STANGEL AND JOHN J STANGEL | 933 | 113 |
| 992 | 10*18488 | EE | 9-17-5 | CHARLINE M ENGLE AND KEVIN E ENGLE | 933 | 118 |
| 993 | 10*18508 | EE | 9-17-5 | PATRICIA LUANNE BONAR | 925 | 351 |
| 994 | 10*18517 | EE | 9-17-5 | LORI SHANAHAN AND PATRICK SHANAHAN | 933 | 575 |
| 995 | 10*18613 | EE | 9-17-5 | JANE LOUISE CAIN AND DANIEL CARL HOLTZ | 934 | 603 |
| 996 | 10*18655 | EE | 9-17-5 | PATRICIA L LEHN | 936 | 95 |
| 997 | 10*18656 | EE | 9-17-5 | PAMELA CALL | 936 | 100 |
| 998 | 10*18658 | EE | 9-17-5 | ELIZABETH JANE KELLER | 936 | 107 |
| 999 | 10*18659 | EE | 9-17-5 | CATHERINE P MASON | 936 | 112 |
| 1000 | 10*18799 | EE | 9-17-5 | CHARLES J DARMAFALL DECEASED | 937 | 634 |
| 1001 | 10*18805 | EE | 9-17-5 | CINDY STEVENS TOZIER | 937 | 628 |
| 1002 | 10*19373 | EE | 9-17-5 | JESSICA WHEATON | 931 | 411 |
| 1003 | 10*19403 | EE | 9-17-5 | LAWRENCE R LOTZ | 951 | 114 |
| 1004 | 10*19404 | EE | 9-17-5 | HOWARD M CAIN AND EMMA JEAN CAIN | 939 | 283 |
| 1005 | 10*19476 | EE | 9-17-5 | WINONA RIDDLE | 941 | 331 |

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WV Department of Environmental Protection

FILE NO. 8811P16HUAD.dwg
KEITH STERN N-16HU-REV2
DATE JUNE 11, 2020
REVISED, 20
OPERATORS WELL NO. KEITH STERN N-16HU
API WELL NO. 47 — 051 — 2242
STATE COUNTY PERMIT



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



P.S.
849

C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME PERMIT

KEITH STERN N LEASE
UTICA UNIT - 631.99 AC±
WELL 16HU
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

| | | | | | | |
|------|-----------------|----|-----------|--|---------|---------|
| 1006 | 10*19689 | EE | 9-17-5 | EDMOND TURGEON JR AND CATHY STEVENS TURGEON | 944 | 156 |
| 1007 | 10*19718 | EE | 9-17-5 | CHRISTOPHER DAUGHERTY & JENNIFER R DAUGHERTY | 944 | 412 |
| 1008 | 10*19879 | EE | 9-17-5 | MARY V GILSON AND WALTER M GILSON | 945 | 588 |
| 1009 | 10*19933 | EE | 9-17-5 | MARY ANN GRIFFITH | 948 | 555 |
| 1010 | 10*19937 | EE | 9-17-5 | JAMES D STEVENS AND DOROTHY M STEVENS | 949 | 151 |
| 1011 | 10*19938 | EE | 9-17-5 | JOHN H STEVENS AND LYNDA L STEVENS | 949 | 144 |
| 1012 | 10*21026 | EE | 9-17-5 | NANCY M MORGAN | 951 | 110 |
| 1013 | 10*21211 | EE | 9-17-5 | NILA JEAN BAYLES | 951 | 118 |
| 1014 | 10*21841 | EE | 9-17-5 | ENERGY DEEP RESOURCES INC | 959 | 631 |
| 1015 | 10*21842 | EE | 9-17-5 | JOSEPH NOKOVICH | 959 | 635 |
| 1016 | 10*21927 | EE | 9-17-5 | BLACK GOLD GROUP LTD | 954 | 474 |
| 1017 | 10*21940 | EE | 9-17-5 | ALYSIA JORDAN & TERRY M JORDAN | 953 | 346 |
| 1018 | 10*22376 | EE | 9-17-5 | MARGARET KUCHARZ AND JAMES C KUCHARZ | 962 | 270 |
| 1019 | 10*22412 | EE | 9-17-5 | CHAD E LONGFELLOW | 963 | 124 |
| 1020 | 10*22599 | EE | 9-17-5 | BRYANT R SWIFT AND KATHY SWIFT | 966 | 456 |
| 1021 | 10*22776 | EE | 9-17-5 | JAMES ROBERT WELLS | 970 | 19 |
| 1022 | 10*22849 | EE | 9-17-5 | NEIL MCELROY AND SUE MASON MCELROY | 977 | 44 |
| 1023 | 10*22851 | EE | 9-17-5 | JOHN J HELLSTERN AND LYNN D HELLSTERN | 977 | 39 |
| 1024 | 10*22853 | EE | 9-17-5 | RONALD LEE HENSLEY AND MARY ANN HENSLEY | 977 | 34 |
| 1025 | 10*23076 | EE | 9-17-5 | JACK R BERISFORD AKA RANDY BERISFORD | 984 | 43 |
| 1026 | 10*23260 | EE | 9-17-5 | IDA M TRAVIS ET AL DAVID C WHITE AS SPECIAL COMMISSIONER | 988 | 73 |
| 1027 | 10*23668 | EE | 9-17-5 | THE ESTATE OF RUTH N LUTHER SUZANNE L WOZNAK EXECUTRIX | 1009 | 286 |
| 1028 | 10*47051.219.27 | EE | 9-17-5 | MARSHA BERISFORD | 902 | 425 |
| 1029 | 10*47051.219.36 | EE | 9-17-5 | GAREN MCDOWELL AND ELIZABETH MCDOWELL | 898 | 615 |
| 1030 | 10*19702 | EE | 9-17-5 | WV MINERALS INC | 951 | 108 |
| 1031 | 10*17169 | EE | 9-17-5 | ALMA L VAN SCYOC | 692 | 404 |
| 1032 | 10*17171 | EE | 9-17-5 | OPAL MICKEY | 690 | 631 |
| 1033 | 10*17173 | EE | 9-17-5 | LLOYD R. EVANS | 694 | 526 |
| 1034 | 10*47051.219.1 | EE | 9-17-5 | DAVID LEE FRANKUN | 874 | 312 |
| 1035 | 10*21095 | FF | 9-15-40.1 | TIMOTHY LEE COLLEY | 951 | 200 |
| 1036 | 10*21096 | FF | 9-15-40.1 | GEORGE L DUNN AND NANCY MARIE DUNN | 951 | 194 |
| 1037 | 10*21097 | FF | 9-15-40.1 | JAMES DUNN AND DONNA K DUNN | 951 | 197 |
| 1038 | 10*21205 | FF | 9-15-40.1 | RONALD W REINBEAU | 953 | 85 |
| 1039 | 10*21207 | FF | 9-15-40.1 | KEITH W STORCH AND DERORAH A STORCH | 951 | 209 |
| 1040 | 10*21208 | FF | 9-15-40.1 | JOHN T CRISWELL AND CATHERINE A CRISWELL | 951 | 206 |
| 1041 | 10*21210 | FF | 9-15-40.1 | PETER G STORCH AND LAURIE L STORCH | 951 | 203 |
| 1042 | 10*21231 | FF | 9-15-40.1 | JENNIFER SHAWN GLOVER | 953 | 89 |
| 1043 | 10*21232 | FF | 9-15-40.1 | JEFFREY BRYAN CRISWELL | 953 | 92 |
| 1044 | 10*21233 | FF | 9-15-40.1 | WILLIAM LINSLEY CRISWELL | 953 | 95 |
| 1045 | 10*21398 | FF | 9-15-40.1 | LYNN ELLIOTT AND JUDITH ELLIOTT | 957 | 301 |
| 1046 | 10*21872 | FF | 9-15-40.1 | ROSEMARIE BERISFORD | 953 | 484 |
| 1047 | 10*21399 | FF | 9-15-40.1 | MARY M MORRIS | 956 | 642 |
| 1048 | 10*21528 | FF | 9-15-40.1 | PATRICIA KIRCHNER | 959 | 305 |
| 1049 | 10*21839 | FF | 9-15-40.1 | WILLIAM BRYAN COLLEY | 959 | 445 |
| 1050 | 10*21845 | FF | 9-15-40.1 | PATRICIA DOFKA | 959 | 448 |
| 1051 | 10*21865 | FF | 9-15-40.1 | FRANK A STORCH JR AND SUSAN STORCH | 959 | 442 |
| 1052 | 10*21874 | FF | 9-15-40.1 | CHAZ AARON COLLEY AND DANA COLLINS | 953 | 475 |
| 1053 | 10*21957 | FF | 9-15-40.1 | CATHERINE I AND ERNEST M SILVERIO | 960 | 15 |
| 1054 | 10*21966 | FF | 9-15-40.1 | DAVID HALL AND SANDRA SUE HALL | 959 | 644 |
| 1055 | 10*21973 | FF | 9-15-40.1 | REID ELATTRACHE AND TONYA ELATTRACHE | 960 | 502 |
| 1056 | 10*21980 | FF | 9-15-40.1 | CHARLES C SEAMON | 954 | 344 |
| 1057 | 10*21989 | FF | 9-15-40.1 | NEIL SCHAFER AND CHRISTAL L SHAFER | 953 | 481 |
| 1058 | 10*22112 | FF | 9-15-40.1 | EMMA JO CRISWELL | 961 | 349 |
| 1059 | 10*22127 | FF | 9-15-40.1 | JUDITH L BENEDICT AND LOUIS G BENEDICT | 961 | 343 |
| 1060 | 10*22159 | FF | 9-15-40.1 | JOSHUA W SEAMON | 953 | 478 |
| 1061 | 10*22833 | FF | 9-15-40.1 | RANDY W MORRIS SR AND CHERYL MORRIS | 966 | 465 |
| 1062 | 10*25524 | FF | 9-15-40.1 | JAMES P MILLER | 1009 | 375 |
| 1063 | 10*25534 | FF | 9-15-40.1 | LINDA K AND MICHAEL HUMES | 1010 | 565 |
| 1064 | 10*24721 | FF | 9-15-40.1 | JAMES R SNIDER AND CYNTHIA L SNIDER | 1025 | 617 |
| 1065 | 10*15833 | GG | 9-17-7 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 742 | 73 |
| 1066 | 10*15834 | GG | 9-17-7 | ANITA DIANE ANTILL AND TERRY ANTILL | 742 | 110 |
| 1067 | 10*15841 | GG | 9-17-7 | HOMER L SIMMONS AND GLADYS R SIMMONS | 742 | 366 |
| 1068 | 10*24120 | GG | 9-17-7 | CHARLES E THOSS | 1022 | 360 |
| 1069 | 10*24490 | GG | 9-17-7 | GREGORY M TARR AND KEREN B TARR | 1025 | 353 |
| 1070 | 10*25620 | GG | 9-17-7 | THE GRACIA BAKER REVOCABLE LIVING TRUST DATED JULY 12 2011 | 1023 | 300 |
| 1071 | 10*26423 | GG | 9-17-7 | PATRICIA & MICHAEL QUARANTO | 1034 | 593 |
| 1072 | 10*26695 | GG | 9-17-7 | DERORAH JEAN TARR-UNKNOWN HEIRS | 1041 | 437 |
| 1073 | 10*26905 | GG | 9-17-7 | JONATHAN RANKIN | 1036 | 117 |
| 1074 | 10*26906 | GG | 9-17-7 | ELIZABETH A GREEN TRUST | 1036 | 111 |
| 1075 | PENDING | GG | 9-17-7 | CHRISTINE RANKIN SMALLWOOD | PENDING | PENDING |
| 1076 | 10*26907 | GG | 9-17-7 | CHARLES S TARR | 1036 | 123 |
| 1077 | 10*47051.185.1 | HH | 9-17-39 | HOMER L SIMMONS AND GLADYS R SIMMONS | 885 | 68 |
| 1078 | 10*47051.185.2 | HH | 9-17-39 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 894 | 482 |
| 1079 | 10*47051.185.3 | HH | 9-17-39 | ANITA DIANE ANTILL AND TERRY ANTILL | 885 | 71 |
| 1080 | 10*47051.185.1 | II | 9-17-38 | HOMER L SIMMONS AND GLADYS R SIMMONS | 885 | 68 |
| 1081 | 10*47051.185.2 | II | 9-17-38 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 894 | 482 |
| 1082 | 10*47051.185.3 | II | 9-17-38 | ANITA DIANE ANTILL AND TERRY ANTILL | 885 | 71 |
| 1083 | 10*47051.185.1 | JJ | 9-17-38.1 | HOMER L SIMMONS AND GLADYS R SIMMONS | 885 | 68 |
| 1084 | 10*47051.185.2 | JJ | 9-17-38.1 | LUCINDA RAE ALLEN AND DAVID A ALLEN | 894 | 482 |
| 1085 | 10*47051.185.3 | JJ | 9-17-38.1 | ANITA DIANE ANTILL AND TERRY ANTILL | 885 | 71 |
| 1086 | 10*15802 | KK | 9-17-37 | TOM GOULDSBERRY | 683 | 640 |
| 1087 | 10*15803 | KK | 9-17-37 | CHARLOTTE CROW | 683 | 631 |
| 1088 | 10*15804 | KK | 9-17-37 | JOE GOULDSBERRY | 683 | 637 |
| 1089 | 10*15805 | KK | 9-17-37 | MARY ELLEN CHAMBERS | 684 | 82 |
| 1090 | 10*15806 | KK | 9-17-37 | JOANNE FOX | 683 | 634 |
| 1091 | 10*15807 | KK | 9-17-37 | GLORIS VAN SCYOC | 685 | 190 |
| 1092 | 10*15808 | KK | 9-17-37 | ANGELA YOH | 685 | 193 |
| 1093 | 10*15809 | KK | 9-17-37 | RYAN J AND MICHELE L RIDDLE | 687 | 225 |
| 1094 | 10*15810 | KK | 9-17-37 | FLOSSIE P RUTAN | 690 | 266 |
| 1095 | 10*15811 | KK | 9-17-37 | SANDRA M WINSLOW | 719 | 51 |
| 1096 | 10*21969 | KK | 9-17-37 | MARK WESLEY RICHARDSON | 960 | 507 |

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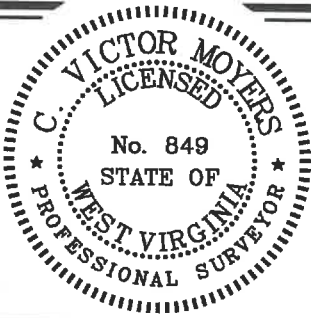
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DATE JUNE 11, 2020

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OPERATORS WELL NO. KEITH STERN N-16HU

API WELL NO. 47 — 051 — 2242
STATE COUNTY PERMIT



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



P.S.
849

C. Victor Moyers

COUNTY NAME
PERMIT

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
5400 D BIG TYLER ROAD
CHARLESTON, WV 25313