

- NOTES
1. BORE PATH BASED ON GRID NORTH.
  2. NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
  3. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN JULY, 2016.
  4. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
  5. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
  6. ROYALTY OWNERSHIP PROVIDED BY TUG HILL OPERATING, LLC.
  7. SURFACE OWNERSHIP WAS NOT ADDRESSED.
  8. PLAT UPDATED TO SHOW AS-DRILLED PATH.

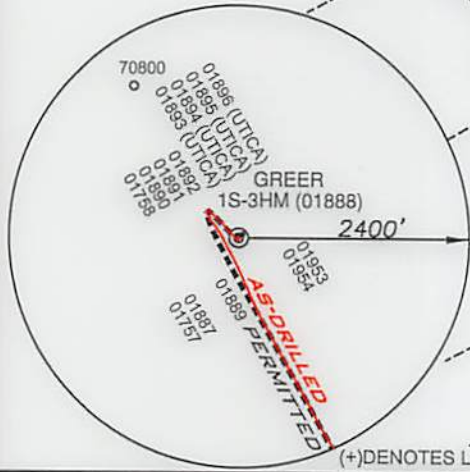
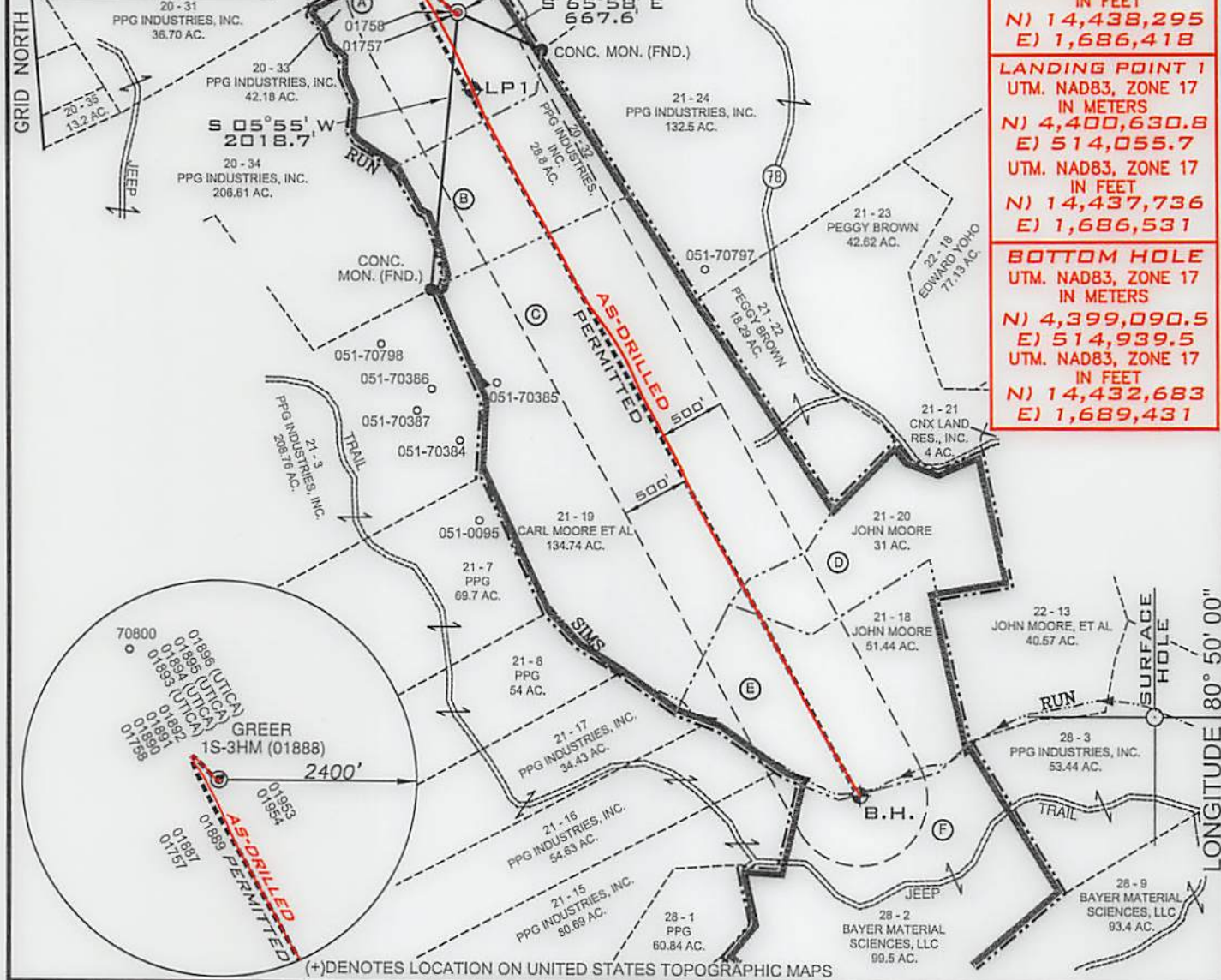
LATITUDE 39° 47' 30" GREER LEASE  
WELL NO. 1S-3HM  
387.66± ACRES



LEGEND

- LEASED TRACTS
- INTERIOR MINERAL TRACTS
- SURFACE TRACTS
- HARD LEASE LINE
- (A) LEASE # (SEE PG 2)

|                                  |
|----------------------------------|
| <b>AS-DRILLED</b>                |
| <b>SURFACE HOLE</b>              |
| UTM. NAD83, ZONE 17<br>IN METERS |
| N) 4,400,801.1                   |
| E) 514,021.3                     |
| UTM. NAD83, ZONE 17<br>IN FEET   |
| N) 14,438,295                    |
| E) 1,686,418                     |
| <b>LANDING POINT 1</b>           |
| UTM. NAD83, ZONE 17<br>IN METERS |
| N) 4,400,630.8                   |
| E) 514,055.7                     |
| UTM. NAD83, ZONE 17<br>IN FEET   |
| N) 14,437,736                    |
| E) 1,686,531                     |
| <b>BOTTOM HOLE</b>               |
| UTM. NAD83, ZONE 17<br>IN METERS |
| N) 4,399,090.5                   |
| E) 514,939.5                     |
| UTM. NAD83, ZONE 17<br>IN FEET   |
| N) 14,432,683                    |
| E) 1,689,431                     |



FILE NUMBER **8837**

DRAWING NUMBER **8837ADG1S3HM.dwg**

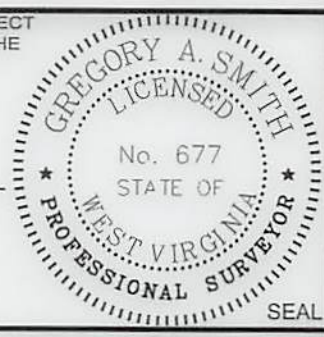
SCALE **1" = 1200'**

MINIMUM DEGREE OF ACCURACY **1/2500**

PROVEN SOURCE OF ELEVATION **SUBMETER MAPPING**  
**GRADE GPS**

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S. 677  
*Gregory A. Smith*



WVDEP  
OFFICE OF OIL & GAS  
601 57TH STREET, SE  
CHARLESTON, WV 25304



DATE: **JULY 17, 2018**

OPERATORS WELL NO. **GREER 1S-3HM (AS-DRILLED)**

API WELL NO. **47-051-01888**

STATE COUNTY PERMIT

LOCATION ELEVATION **1251'** WATERSHED (HUC 10) **FRENCH CREEK - OHIO RIVER (UNDEFINED)**

DISTRICT **FRANKLIN** COUNTY **MARSHALL**

QUADRANGLE **POWATAN POINT 7.5' (SH)**  
**NEW MARTINSVILLE POINT 7.5' (BH)** LEASE NUMBER **SEE ATTACHED PG 2 OF 2**

SURFACE OWNER **PPG INDUSTRIES, INC.** ACREAGE **42.18**

OIL & GAS ROYALTY OWNER **PPG INDUSTRIES, INC., ET AL** LEASE ACREAGE **387.66**

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION

PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE (SPECIFY) \_\_\_\_\_

PLUG & ABANDON  CLEAN OUT & REPLUG

TARGET FORMATION **MARCELLUS** ESTIMATED DEPTH **TVD 6,462' TMD:13,059'**

WELL OPERATOR **TUG HILL OPERATING, LLC** DESIGNATED AGENT **DIANNA STAMPER**

ADDRESS **1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107** ADDRESS **5400 D BIG TYLER ROAD CHARLESTON, WV 25313**

12.657' 00.09.08' EPTIUNIGNOT

**GREER WELL NO. 1S-3HM  
WELL PLAT LEASE INFORMATION**

| Lease No. | Tag | Parcel  | Oil & Gas Royalty Owner               | DEED BOOK/PAGE |     |
|-----------|-----|---------|---------------------------------------|----------------|-----|
|           |     |         |                                       |                |     |
| 10*14300  | A   | 5-20-33 | PPG INDUSTRIES, INC.                  | 725            | 123 |
| 10*14312  | A   | 5-20-33 | JAMIE LU BENSON                       | 790            | 531 |
| 10*14313  | A   | 5-20-33 | TERRI JEAN GODDARD                    | 790            | 585 |
| 10*14314  | A   | 5-20-33 | RALPH BLACHLY                         | 790            | 529 |
| 10*14315  | A   | 5-20-33 | MARGARET ROSS                         | 790            | 527 |
| 10*14316  | A   | 5-20-33 | ANDREW GERST                          | 791            | 645 |
| 10*14317  | A   | 5-20-33 | HAROLD BLACHLY                        | 791            | 643 |
| 10*14318  | A   | 5-20-33 | MARTHA BLACHLY-CROSS                  | 792            | 112 |
| 10*14319  | A   | 5-20-33 | JACK J. PFALZGRAF                     | 792            | 118 |
| 10*14320  | A   | 5-20-33 | SANDRA CHEYNEY                        | 792            | 91  |
| 10*14321  | A   | 5-20-33 | HERBERT BLACHLY                       | 792            | 102 |
| 10*14322  | A   | 5-20-33 | LOIS KAY MORFORD                      | 792            | 110 |
| 10*14327  | A   | 5-20-33 | ROBERT D. OKEY                        | 792            | 646 |
| 10*14328  | A   | 5-20-33 | RAE ELLEN STUART                      | 796            | 38  |
| 10*14329  | A   | 5-20-33 | TONDA ROTHENBUHLER                    | 796            | 40  |
| 10*14331  | A   | 5-20-33 | CHRISTINA JEAN RIOUX                  | 796            | 70  |
| 10*14332  | A   | 5-20-33 | MICHAEL EDWARD BARTH                  | 796            | 68  |
| 10*14333  | A   | 5-20-33 | DEAN ROTHENBUHLER                     | 796            | 42  |
| 10*14355  | A   | 5-20-33 | DEWAYNE STARKEY                       | 815            | 228 |
| 10*14356  | A   | 5-20-33 | FREDRIC RICHTER & BETTY RICHTER       | 822            | 270 |
| 10*14362  | A   | 5-20-33 | CAROLYN STARKEY                       | 827            | 226 |
| 10*14368  | A   | 5-20-33 | JOSEPH LONG                           | 836            | 106 |
| 10*14371  | A   | 5-20-33 | THOMAS F LONG AND JENNIFER LONG       | 842            | 398 |
| 10*14372  | A   | 5-20-33 | UNITED CHURCH HOMES INC               | 846            | 408 |
| 10*14377  | A   | 5-20-33 | JOSEPH A LONG                         | 849            | 519 |
| 10*14387  | A   | 5-20-33 | JOHN F LONG AND PAM LONG              | 849            | 542 |
| 10*14388  | A   | 5-20-33 | IMMANUEL CHURCH OF THE UNITED         | 849            | 513 |
| 10*14398  | A   | 5-20-33 | JAN KAFFENBERGER                      | 860            | 434 |
| 10*14399  | A   | 5-20-33 | RITA ANN DOEBERT AND RONALD DOEBERT   | 860            | 437 |
| 10*14400  | A   | 5-20-33 | COLEEN SLAGLE AND FRANKLIN SLAGLE     | 860            | 440 |
| 10*14401  | A   | 5-20-33 | IMELDA J SCURLOCK                     | 860            | 443 |
| 10*14402  | A   | 5-20-33 | CAROL F WILSON AND RICHARD WILSON     | 860            | 446 |
| 10*14403  | A   | 5-20-33 | SUE WHITE                             | 862            | 429 |
| 10*14404  | A   | 5-20-33 | DON FORGRAVES                         | 862            | 426 |
| 10*14405  | A   | 5-20-33 | JOHN WHITE                            | 862            | 423 |
| 10*14395  | A   | 5-20-33 | WILLIAM V BUCKNOR                     | 862            | 421 |
| 10*14394  | A   | 5-20-33 | LESLIE F BUCKNOR                      | 862            | 419 |
| 10*14408  | A   | 5-20-33 | LORNA M LONG MORGAN                   | 864            | 323 |
| 10*14409  | A   | 5-20-33 | JAMES C LONG AND PATTI LONG           | 864            | 326 |
| 10*14410  | A   | 5-20-33 | HENRY T LONG                          | 867            | 385 |
| 10*14411  | A   | 5-20-33 | THOMAS WHITE, ESQ., SPECIAL CO        | 870            | 34  |
| 10*14412  | A   | 5-20-33 | THE VILLAGE NETWORK, F/K/A BOY        | 872            | 203 |
| 10*14413  | A   | 5-20-33 | JUANITA SANDIFER                      | 872            | 206 |
| 10*14416  | A   | 5-20-33 | KATHERINE ANN WILLIAMS COTHRAN        | 879            | 1   |
| 10*14419  | A   | 5-20-33 | CROSSROAD CHILD AND FAMILY SERVICES   | 887            | 105 |
| 10*15734  | A   | 5-20-33 | GENEVIEVE L LONG                      | 904            | 13  |
| 10*16355  | A   | 5-20-33 | JAMES P. LONG AND LINDA L. LONG       | 904            | 10  |
| 10*15766  | A   | 5-20-33 | JOHN J. POZENEL                       | 904            | 7   |
| 10*15762  | A   | 5-20-33 | DAWN PETROVICH                        | 904            | 4   |
| 10*16357  | A   | 5-20-33 | DEANNA CAMPBELL                       | 904            | 1   |
| 10*15760  | A   | 5-20-33 | DIEDRE WINGER                         | 903            | 645 |
| 10*16358  | A   | 5-20-33 | ANNE MARIE KRAMER                     | 903            | 648 |
| 10*15761  | A   | 5-20-33 | CAMERON CEMETERY ASSOCIATION          | 903            | 642 |
| 10*16230  | A   | 5-20-33 | TH Exploration, LLC                   | 900            | 134 |
| 10*15763  | A   | 5-20-33 | BONNIE J. SELDERS                     | 904            | 34  |
| 10*16356  | A   | 5-20-33 | DARYLS. BUCKNOR                       | 904            | 31  |
| 10*15765  | A   | 5-20-33 | JOHN A. BUCKNOR                       | 904            | 16  |
| 10*15764  | A   | 5-20-33 | JAMES E. BUCKNOR.                     | 904            | 28  |
| 10*14381  | A   | 5-20-33 | WILLIAM LONG                          | 792            | 95  |
| 10*14300  | B   | 5-20-32 | PPG INDUSTRIES, INC.                  | 725            | 123 |
| 10*14933  | C   | 5-21-19 | CLARA LOU HERRICK AND EDWIN A HERRICK | 850            | 531 |
| 10*14934  | C   | 5-21-19 | GLENDA ROSE MOORE                     | 849            | 564 |
| 10*14935  | C   | 5-21-19 | JOHN M MOORE AND MELANIE A MOORE      | 849            | 562 |
| 10*14936  | C   | 5-21-19 | LINDA LORRAINE MOORE                  | 850            | 533 |
| 10*14937  | D   | 5-21-20 | JOHN M MOORE, MELANIE A MOORE,        | 850            | 524 |
| 10*14937  | D   | 5-21-20 | JOHN M MOORE, MELANIE A MOORE,        | 850            | 524 |
| 10*14937  | E   | 5-21-18 | JOHN M MOORE, MELANIE A MOORE,        | 850            | 524 |
| 10*14498  | F   | 5-28-2  | BAYER MATERIALSCIENCE LLC             | 757            | 340 |

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