



THE THRASHER GROUP, INC.
 600 WHITE OAKS BLVD.
 BRIDGEPORT, WV 26330
 PHONE 304-624-4109
 NOTES ON SURVEY

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

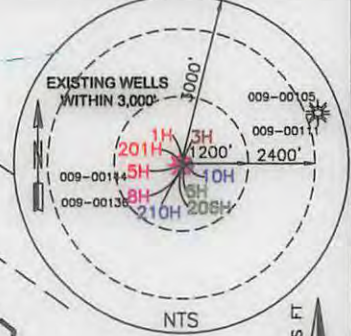
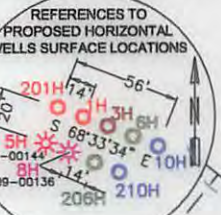
| LINE | BEARING | DISTANCE | DESCRIPTION | MONUMENT |
|------|---------------|----------|-----------------|--------------------|
| L1 | N 88°16'15" W | 58.77' | SHL TO SH | EXISTING WELL HEAD |
| L2 | S 86°16'50" W | 48.81' | SHL TO BH | EXISTING WELL HEAD |
| L3 | N 70°38'16" W | 3718.41' | SHL TO LANDMARK | IRF FOUND |
| L4 | N 33°14'15" W | 2697.41' | SHL TO LANDMARK | CONCRETE MONUMENT |
| L5 | S 72°38'44" E | 540.73' | SHL TO LP | LANDING POINT |
| L6 | S 18°18'29" E | 9365.22' | LP TO BHL | BOTTOM HOLE |

| TRACT | SURFACE OWNER (S) / ROYALTY OWNER (R) | TAX PARCEL | ACRES |
|-------|---|---------------------|--------|
| 1 | (S)RUSSELL D. HERVEY (R) RUSSELL D. HERVEY & LISA K. HERVEY | 05-03-828-0045-0000 | 37.84 |
| 2 | (S)BROOKE COUNTY PARK COMMISSION (R)RICHARD GIST (R)VIRGINIA GIST ABLITT (R)WYN GIST LEVIN | 05-03-828-0064-0000 | 135.00 |
| 3 | (S/R)STARVAGGI INDUSTRIES | 05-03-833-0025-0000 | 81.23 |
| 4 | (S)STARVAGGI INDUSTRIES (R)JAMES ROBERT HERVEY & KAREN L. HERVEY (R)WILLIAM JUDSON HERVEY III & THERESA J. HERVEY (R)FRED L. HERVEY & CATHY JO HERVEY (R)MARY KATHRYN HERVEY DEGARMO & ALAN H. DEGARMO (R)RUSSELL D. HERVEY & LISA K. HERVEY | 05-03-833-0026-0000 | 53.59 |
| 5 | (S)PHOENIX-GREENLAWN PARTNERS (R)JAMES ROBERT HERVEY & KAREN L. HERVEY (R)WILLIAM JUDSON HERVEY III & THERESA J. HERVEY (R)FRED L. HERVEY & CATHY JO HERVEY (R)MARY KATHRYN HERVEY DEGARMO & ALAN H. DEGARMO (R)RUSSELL D. HERVEY & LISA K. HERVEY | 05-03-833-0113-0000 | 101.55 |
| 6 | (S/R)JAMES H. & FAMELA JO STEWART | 05-03-833-0031-0000 | 141.68 |
| 7 | (S)JOYCE A. PETROSKY (R)LAURA G. INMAN & JAMES C. INMAN, JR (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS | 05-03-833-0107-0006 | 1.01 |
| 8 | (S)JOHN T. & SALLY J. MILLER (R)LAURA G. INMAN & JAMES C. INMAN, JR (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS | 05-03-833-0112-0000 | 2.00 |
| 9 | (S)CARL J. MAGLIETTA, JR. & TINA D. MAGLIETTA (R)LAURA G. INMAN & JAMES C. INMAN, JR (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS | 05-03-833-0111-0001 | 5.51 |
| 10 | (S)SARAH M. MAGLIETTA (R)LAURA G. INMAN & JAMES C. INMAN, JR (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS | 05-03-833-0111-0000 | 5.51 |
| 11 | (S)HENRY E. DORLEY, IV & YVONNE CANTHORNE (R)LAURA G. INMAN & JAMES C. INMAN, JR (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS | 05-03-833-0108-0000 | 19.59 |
| 12 | (S)KENDAL H. DORLEY & MARY LOU DORLEY (R)LAURA G. INMAN & JAMES C. INMAN, JR (R)KAREN G. YOUNKINS & TERRY D. YOUNKINS | 05-03-833-0108-0000 | 120.73 |

SWN PRODUCTION COMPANY, LLC
"RUSSELL HERVEY BRK 10H"
SURFACE HOLE
 ELEV: 1166'

| SURFACE HOLE LOCATION (SHL): | |
|-------------------------------|-------------------------|
| UTM (NAD83, ZONE 17, METERS): | NORTHING: 4,456,501.097 |
| | EASTING: 537,713.313 |
| LANDING POINT LOCATION (LPL): | |
| UTM (NAD83, ZONE 17, METERS): | NORTHING: 4,456,451.936 |
| | EASTING: 537,870.623 |
| BOTTOM HOLE LOCATION (BHL): | |
| UTM (NAD83, ZONE 17, METERS): | NORTHING: 4,453,741.911 |
| | EASTING: 538,767.304 |

| TRACT | ADJURER | PARCEL |
|-------|---|---------------------|
| A | WILLIAM JUDSON HERVEY, III | 05-03-828-0045-0002 |
| B | DONALD AND JANICE EATON | 05-03-828-0057-0000 |
| C | BERNARD J. KNORR, III AND NICOLE C. KNORR | 05-03-828-0057-0002 |
| D | BERNARD J. KNORR, III AND NICOLE C. KNORR | 05-03-828-0059-0000 |
| E | STARVAGGI INDUSTRIES | 05-03-828-0062-0000 |
| F | STARVAGGI INDUSTRIES | 05-03-828-0063-0000 |
| G | BROOKE COUNTY PARK COMMISSION | 05-03-828-0060-0000 |
| H | STELLA MERWICK | 05-03-833-0027-0000 |
| I | THEODORE E. AND MELISSA A. EATON | 05-03-833-0028-0000 |
| J | BARBARA A. WALES | 05-03-834-0017-0000 |
| K | BARBARA A. WALES | 05-03-833-0110-0000 |
| L | CHARLES L. AND LAURA J. MCGOWAN | 05-03-833-0107-0001 |
| M | CHARLES L. AND LAURA J. MCGOWAN | 05-03-833-0107-0002 |
| N | CHARLES L. AND LAURA J. MCGOWAN | 05-03-833-0107-0003 |
| O | CHARLES L. AND LAURA J. MCGOWAN | 05-03-833-0107-0004 |
| P | DON KOSSEVIC, ET AL | 05-03-833-0107-0000 |
| Q | JAMIE D. BURNS | 05-03-833-0107-0005 |
| R | MARLENE K. HUKILL | 05-03-833-0109-0000 |
| S | MARK W. OWEN AND VIRGINIA B. KREUTZ | 05-03-834-0048-0000 |
| T | CHARLES R. CORBIN, JR., ET AL | 05-03-833-0102-0000 |
| U | CHARLES R. CORBIN, JR. | 05-03-833-0103-0000 |
| V | CHARLES R. CORBIN, JR. AND MARGARET L. CORBIN | 05-03-833-0104-0000 |
| W | MARGARET E. CORBIN | 05-03-833-0105-0000 |
| X | MELVIN AND DORIS CULBERTSON | 05-03-833-0033-0000 |
| Y | PHOENIX-GREENLAWN PARTNERS, LP | 05-03-833-0035-0000 |
| Z | PHOENIX-GREENLAWN PARTNERS, LP | 05-03-833-0034-0000 |
| AA | SHARON CUNNINGHAM | 05-03-833-0030-0000 |
| BB | DONALD M. AND JANICE F. EATON | 05-03-833-0033-0000 |
| CC | SHARON A. CUNNINGHAM | 05-03-833-0033-0001 |
| DD | SHARON A. CUNNINGHAM | 05-03-833-0032-0000 |
| EE | DONALD M. AND JANICE F. EATON | 05-03-833-0033-0000 |
| FF | SHARON A. CUNNINGHAM | 05-03-833-0033-0001 |
| GG | PHOENIX-GREENLAWN PARTNERS, LP | 05-03-833-0029-0000 |
| HH | MICHAEL WHITCO, ET AL | 05-03-828-0043-0000 |
| II | RANDY R. AND PATRICIA J. GRAHAM | 05-03-828-0042-0000 |



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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2270 *MWS* 1/4/16

COMPANY: **SWN** Production Company, LLC

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)

OPERATOR'S WELL #: RUSSELL HERVEY BRK 10H
 API WELL #: 47 009 00170 HCA
 STATE COUNTY PERMIT

WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS LIQUID INJECTION STORAGE SHALLOW

WATERSHED: BUFFALO CREEK ELEVATION: 1166'

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: STEUBENVILLE EAST

SURFACE OWNER: RUSSELL D. HERVEY ACREAGE: ±37.84

OIL & GAS ROYALTY OWNER: RUSSELL D. HERVEY & LISA K. HERVEY ACREAGE: ±37.84

DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

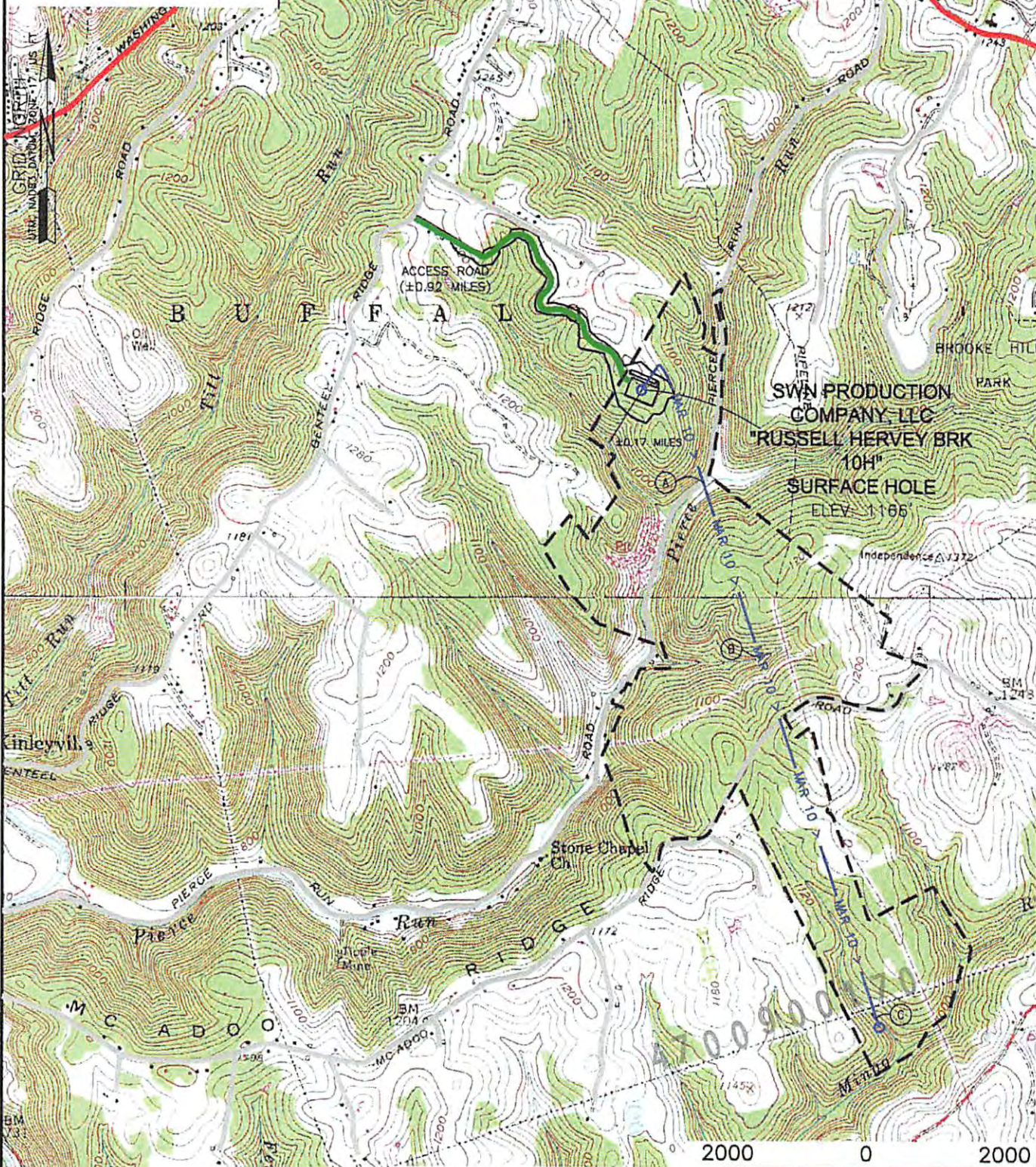
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,901' TVD 15,644' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: DEE SOUTHALL
 ADDRESS: P.O. BOX 1300 ADDRESS: P.O. BOX 1300
 CITY: JANE LEW STATE: WV ZIP CODE: 26378 CITY: JANE LEW STATE: WV ZIP CODE: 26378

| LEGEND: | REVISIONS: | DATE: |
|---------------------------------------|------------------------------|----------------------|
| ○ PROPOSED SURFACE HOLE / BOTTOM HOLE | | 01-04-2016 |
| ⊛ EXISTING / PRODUCING WELLHEAD | | |
| ⊘ ABANDONED WELL | --- LEASE BOUNDARY | |
| ⊙ PLUGGED & ABANDONED WELL | --- 500' DHP BUFFER | |
| △ CUT CONDUCTOR | --- MAR 10 --- MARCELLUS DHP | |
| | --- ABANDONED PATH | |
| | | DRAWN BY: S. BRADY |
| | | SCALE: 1" = 2000' |
| | | DRAWING NO: 050-5495 |
| | | WELL LOCATION PLAT |

THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108



WELL: RUSSELL HERVEY BRK 1H
QUAD: STUEBENVILLE EAST, WV & BETHANY, WV

GRAPHIC SCALE IN FEET

| | | | | | |
|---|--|---|--|--|--|
| NAME AND DISTANCE TO THE NEAREST STREAM: AN UN-NAMED TRIBUTARY TO PIERCE RUN IS LOCATED ±0.17 MILES SOUTHWEST OF THE CENTER OF THE DRILL PAD. | | STREAM CROSSING COORDINATES (NAD 83): A. LAT: 39.245781° / LONG: -84.839385° B. LAT: 39.239099° / LONG: -84.83608° C. LAT: 39.225247° / LONG: -84.829189° | | COMPANY: SWN Production Company, LLC | |
| WELL RESTRICTIONS: WELL PAD, LOD, & E & S CONTROL FEATURES TO PERENNIAL STREAM, LAKE, POND, RESERVOIR OR WETLAND: >100 FEET WELL PAD, LOD, & E & S CONTROL FEATURES TO NATURALLY PRODUCING TROUT STREAM: >300 FEET WELL PAD, LOD, & E & S CONTROL FEATURES TO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY: >1000 FEET WELL SHL TO EXISTING WATER WELL OR DEVELOPED SPRING: >250 FEET CENTER OF PAD TO OCCUPIED DWELLING STRUCTURE: >625 FEET CENTER OF PAD TO AGRICULTURAL BUILDINGS LARGER THAN 2500 SQ FT: >625 FEET | | OPERATOR'S RUSSELL HERVEY BRK | | | |
| FEMA FLOOD INFORMATION: NO FLOOD ZONES. | | WELL #: 10H | | LOCATION: BUFFALO DISTRICT, BROOKE COUNTY, WEST VIRGINIA | |
| LEGEND: ○ PROPOSED SURFACE HOLE / BOTTOM HOLE * EXISTING / PRODUCING WELLHEAD ✕ ABANDONED WELL ⊗ PLUGGED & ABANDONED WELL △ CUT CONDUCTOR (S) EXISTING SPRING (W) EXISTING WATER WELL — ACCESS ROAD — ACCESS ROAD TO PREV. SITE — HIGHWAY/INTERSTATE — COUNTY ROAD | | SURFACE HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 40.258121° LONGITUDE: -80.556510° | | 01/15/2016 | |
| | | BOTTOM HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 40.233215° LONGITUDE: -80.544283° | | Received Office of Oil & Gas | |
| | | REVISIONS: | | DATE: 11-02-2015 NOV 05 2015 | |
| | | | | DRAWN BY: S. BRADY SCALE: 1" = 2000' DRAWING NO: 050-5495 TOPOGRAPHIC MAP | |