

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

RECEIVED
Office of Oil and Gas

JUL 12 2017

WV Dept
Environmental

API 47-051-01788 County MARSHALL District LIBERTY
Quad CAMERON 7 1/2' Pad Name GLADYS BRIGGS -MSH-PAD1 Field/Pool Name VICTORY FIELD
Farm name JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS & JOHN DEAN BRIGGS Well Number GLADYS BRIGGS MSH 6H
Operator (as registered with the OOG) SWN PRODUCTION COMPANY, LLC
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,401,970.502 Easting 532,895.788
Landing Point of Curve Northing 4,401,836.851 Easting 532,824.971
Bottom Hole Northing 4,400,559.476 Easting 534,187.359

Elevation (ft) 1382.2' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
SOBM

Date permit issued 01/8/2016 Date drilling commenced 11/14/2016 Date drilling ceased 12/16/2016
Date completion activities began 03/19/2017 Date completion activities ceased 04/20/2017
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 733 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,221 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1,100 Cavern(s) encountered (Y/N) depths N

Is coal being mined in area (Y/N) N

APPROVED
NAME: Justin Anderson
DATE: 8/28/17

Reviewed by: [Signature]
09/15/2017

API 47-051 - 01788

Farm name JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS & JOHN DEAN BRIGGS

Well number GLADYS BRIGGS MSH 6H

| CASING STRINGS | Hole Size | Casing Size | Depth | New or Used | Grade wt/ft | Basket Depth(s) | Did cement circulate (Y/ N) * Provide details below* |
|---------------------------|------------------|-------------|--------|-------------|-------------|-----------------|---|
| Conductor | 24 | 20 | 126 | NEW | J-55/94# | | Y |
| Surface | 17.5 | 13.375 | 822 | NEW | H-40/48# | | Y; 10 BBLs RETURNED |
| Coal | SEE INTERMEDIATE | | | | | | |
| Intermediate 1 | 12.25 | 9.625 | 2,651 | NEW | J-55/36# | | Y; 80 BBLs RETURNED |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8.75/8.50 | 5.5 | 13,495 | NEW | P-110/20# | | Y |
| Tubing | | 2.375 | 7,597 | NEW | P-110/4.7# | | N |
| Packer type and depth set | | | | | | | |

Comment Details _____

| CEMENT DATA | Class/Type of Cement | Number of Sacks | Slurry wt (ppg) | Yield (ft ³ /sks) | Volume (ft ³) | Cement Top (MD) | WOC (hrs) |
|----------------|----------------------|-----------------|-----------------|------------------------------|---------------------------|-----------------|-----------|
| Conductor | CLASS A | 435 | 15.70 | 1.29 | 100 | SURFACE | 24 |
| Surface | CLASS A | 803 | 15.60 | 1.18 | 947.54 | SURFACE | 8 |
| Coal | SEE INTERMEDIATE | | | | | | |
| Intermediate 1 | CLASS A | 1,190 | 16.0 | 1.20 | 1,428 | SURFACE | 8 |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | CLASS A | 960/1,295 | 15.60 | 1.22/1.19 | 1,171.2/1,541.05 | SURFACE | 24 |
| Tubing | | | | | | | |

Drillers TD (ft) 13,495' Loggers TD (ft) 13,495'
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure _____

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Kick off depth (ft) 6,301'

WV Department of Environmental Protection

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

SURFACE: 7 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 INTERMEDIATE: 24 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 PRODUCTION: 181 CENTRALIZERS - EVERY THIRD JOINT FROM SURFACE TO TOP OF CURVE, THEN EVERY JOINT UNTIL TD

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

Well Name:

GLADYS BRIGGS MSH 6H

47051017880000

| LITHOLOGY/FORMATION | TOP DEPTH, MD (FT) | TOP DEPTH, TVD (FT) | BOTTOM DEPTH, MD (FT) | BOTTOM DEPTH, TVD (FT) | QUANTITY AND TYPE OF FLUID |
|---------------------|--------------------|---------------------|-----------------------|------------------------|----------------------------|
| Base of Fresh Water | N/A | N/A | 733.00 | 732.92 | |
| Top of Salt Water | 1221.00 | 1220.24 | N/A | N/A | |
| Pittsburgh Coal | 1100.00 | 1099.68 | 1109.00 | 1108.65 | |
| Big Injun (ss) | 2335.00 | 2332.00 | 2499.00 | 2496.00 | |
| Berea (siltstone) | 2846.50 | 2844.00 | 2892.00 | 2889.90 | |
| Rhinestreet (shale) | 6622.28 | 6488.96 | 6979.12 | 6779.57 | |
| Cashaqua (shale) | 6979.12 | 6779.57 | 7140.52 | 6897.12 | |
| Middlesex (shale) | 7140.52 | 6897.12 | 7276.17 | 6986.88 | |
| Burket (shale) | 7276.17 | 6986.88 | 7316.32 | 7010.62 | |
| Tully (ls) | 7316.32 | 7010.62 | 7357.27 | 7127.02 | |
| Mahantango (shale) | 7357.27 | 7127.02 | 7645.23 | 7134.19 | |
| Marcellus (shale) | 7645.23 | 7134.19 | N/A | N/A | GAS |

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GLADYS BRIGGS MSH 6H
PERF SUMMARY

| STAGE NUM | Perf Date | Perf Top MD | Perf Bottom MD | # SHOTS PER STG |
|--------------|-----------|-------------|----------------|--------------------|
| 1 | 3/20/2017 | 13,172 | 13,411 | 42 |
| 2 | 3/20/2017 | 12,931 | 13,121 | 42 |
| 3 | 3/20/2017 | 12,655 | 12,865 | 42 |
| 4 | 3/21/2017 | 12,377 | 12,599 | 42 |
| 5 | 3/21/2017 | 12,125 | 12,321 | 42 |
| 6 | 3/21/2017 | 11,883 | 12,067 | 42 |
| 7 | 3/21/2017 | 11,592 | 11,830 | 42 |
| 8 | 3/22/2017 | 11,345 | 11,529 | 42 |
| 9 | 3/22/2017 | 11,091 | 11,279 | 42 |
| 10 | 3/22/2017 | 10,807 | 11,014 | 42 |
| 11 | 3/22/2017 | 10,569 | 10,727 | 42 |
| 12 | 3/22/2017 | 10,297 | 10,483 | 42 |
| 13 | 3/23/2017 | 10,044 | 10,236 | 42 |
| 14 | 3/23/2017 | 9,789 | 9,991 | 42 |
| 15 | 3/23/2017 | 9,455 | 9,728 | 42 |
| 16 | 3/23/2017 | 9,137 | 9,419 | 42 |
| 17 | 3/23/2017 | 8,877 | 9,083 | 42 |
| 18 | 3/24/2017 | 8,623 | 8,819 | 42 |
| 19 | 3/24/2017 | 8,355 | 8,551 | 42 |
| 20 | 3/24/2017 | 8,097 | 8,295 | 42 |
| 21 | 3/24/2017 | 7,879 | 8,044 | 42 |
| 22 | 3/24/2017 | 7,629 | 7,819 | 42 |

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GLADYS BRIGGS MSH 6H
FRAC STAGE SUMMARY

| STAGE NUM | Stim Date | Ave Pump Rate (BPM) | Ave Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of water bbls | Amount of nitrogen/other |
|--------------|-----------|------------------------|---------------------------------|---------------------------------|------------|-----------------------------|-------------------------|-----------------------------|
| 1 | 3/20/2017 | 80 | 8,462 | 8,820 | 4,541 | 488,960 | 8,398 | |
| 2 | 3/20/2017 | 77 | 8,529 | 8,789 | 4,905 | 497,040 | 7,216 | |
| 3 | 3/20/2017 | 81 | 8,452 | 8,745 | 5,024 | 490,640 | 7,807 | |
| 4 | 3/21/2017 | 82 | 8,485 | 8,815 | 4,745 | 499,160 | 7,561 | |
| 5 | 3/21/2017 | 82 | 8,424 | 8,735 | 4,515 | 494,920 | 7,560 | |
| 6 | 3/21/2017 | 82 | 8,479 | 8,791 | 4,637 | 489,940 | 7,176 | |
| 7 | 3/21/2017 | 86 | 8,468 | 8,752 | 5,139 | 496,840 | 7,228 | |
| 8 | 3/22/2017 | 85 | 8,490 | 8,696 | 5,108 | 495,520 | 6,985 | |
| 9 | 3/22/2017 | 90 | 8,370 | 8,811 | 4,471 | 498,320 | 6,980 | |
| 10 | 3/22/2017 | 88 | 8,447 | 8,822 | 4,445 | 489,500 | 7,037 | |
| 11 | 3/22/2017 | 86 | 8,402 | 8,770 | 4,662 | 503,700 | 7,959 | |
| 12 | 3/22/2017 | 89 | 8,435 | 8,948 | 4,882 | 499,520 | 6,941 | |
| 13 | 3/23/2017 | 91 | 8,488 | 8,807 | 4,603 | 499,540 | 7,213 | |
| 14 | 3/23/2017 | 96 | 8,281 | 8,637 | 4,700 | 496,160 | 7,445 | |
| 15 | 3/23/2017 | 93 | 8,434 | 8,733 | 4,771 | 488,900 | 6,835 | |
| 16 | 3/23/2017 | 93 | 8,093 | 8,520 | 4,286 | 500,400 | 6,986 | |
| 17 | 3/23/2017 | 94 | 8,389 | 8,823 | 4,881 | 500,340 | 7,092 | |
| 18 | 3/24/2017 | 92 | 8,138 | 8,695 | 5,224 | 498,600 | 7,865 | |
| 19 | 3/24/2017 | 91 | 7,953 | 8,337 | 4,501 | 497,420 | 6,932 | |
| 20 | 3/24/2017 | 88 | 8,005 | 8,486 | 5,069 | 496,560 | 6,937 | |
| 21 | 3/24/2017 | 99 | 8,269 | 8,586 | 42,275 | 499,120 | 6,534 | |
| 22 | 3/24/2017 | 96 | 7,815 | 8,936 | 4,572 | 244,020 | 6,466 | |

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Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|--------------------------------|---------------------|
| Job Start Date: | 3/20/2017 |
| Job End Date: | 3/24/2017 |
| State: | West Virginia |
| County: | Marshall |
| API Number: | 47-051-01788-00-00 |
| Operator Name: | Southwestern Energy |
| Well Name and Number: | Gladys Briggs 6H |
| Latitude: | 39.76702700 |
| Longitude: | -80.61592400 |
| Datum: | NAD83 |
| Federal Well: | NO |
| Indian Well: | NO |
| True Vertical Depth: | 7,171 |
| Total Base Water Volume (gal): | 6,588,593 |
| Total Base Non Water Volume: | 0 |



Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|-------------------------|----------|--------------------|---|--|--|--|----------|
| Water | SWN | Carrier/Base Fluid | Water | 7732-18-5 | 100.00000 | 82.66232 | None |
| Sand (Proppant) | Keane | Proppant | Crystalline silica: Quartz (SiO2) | 14808-60-7 | 100.00000 | 16.02093 | None |
| Hydrochloric Acid (15%) | Keane | Acidizing | Water | 7732-18-5 | 85.00000 | 1.02069 | None |
| | | | Hydrochloric Acid | 7647-01-0 | 15.00000 | 0.18012 | None |
| KFR-28 | Keane | Friction Reducer | Distillates (petroleum), hydrotreated light | 64742-47-8 | 30.00000 | 0.02187 | None |
| | | | Oxyalkylated alcohol | Proprietary | 5.00000 | 0.00365 | None |
| | | | ammonium chloride | 12125-02-9 | 5.00000 | 0.00365 | None |
| KFR-17 | Keane | Friction Reducer | Distillates (petroleum), hydrotreated light | 64742-47-8 | 45.00000 | 0.01597 | None |
| | | | ethanediol | 107-21-1 | 10.00000 | 0.00365 | None |
| | | | Fatty alcohols ethoxylated | Proprietary | 2.00000 | 0.00071 | None |
| | | | Alcohols, C12-16, ethoxylated | 68213-24-1 | 2.00000 | 0.00071 | None |

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| | | | | | | | |
|----------|-------|----------------|---|------------|----------|---------|------|
| KFEAC-30 | Keane | Iron Control | | | | | |
| | | | acetic acid | 64-19-7 | 60.00000 | 0.00303 | None |
| | | | Citric acid | 77-92-9 | 40.00000 | 0.00202 | None |
| KAI-13 | Keane | Acid Inhibitor | | | | | |
| | | | ethanediol | 107-21-1 | 40.00000 | 0.00100 | None |
| | | | dipropylene glycol, monomethyl ether | 34590-94-8 | 20.00000 | 0.00050 | None |
| | | | Cinnamaldehyde | 104-55-2 | 10.00000 | 0.00025 | None |
| | | | Ethoxylated alcohol | 68131-39-5 | 10.00000 | 0.00025 | None |
| | | | Tar bases, quinoline derivs., benzyl chloride-quaternized | 72480-70-7 | 10.00000 | 0.00025 | None |
| | | | formic acid | 64-18-6 | 10.00000 | 0.00025 | None |
| | | | propan-2-ol | 67-63-0 | 5.00000 | 0.00012 | None |

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

| Other Chemical(s) | Listed Above | See Trade Name(s) List | | | | | |
|-------------------|--------------|------------------------|---|-------------|----------|---------|--|
| | | | Water | 7732-18-5 | 85.00000 | 1.02069 | |
| | | | Oxyalkylated alcohol | Proprietary | 5.00000 | 0.00365 | |
| | | | ammonium chloride | 12125-02-9 | 5.00000 | 0.00365 | |
| | | | ethanediol | 107-21-1 | 10.00000 | 0.00355 | |
| | | | Citric acid | 77-92-9 | 40.00000 | 0.00202 | |
| | | | Fatty alcohols ethoxylated | Proprietary | 2.00000 | 0.00071 | |
| | | | Alcohols, C12-16, ethoxylated | 68213-24-1 | 2.00000 | 0.00071 | |
| | | | dipropylene glycol, monomethyl ether | 34590-94-8 | 20.00000 | 0.00050 | |
| | | | formic acid | 64-18-6 | 10.00000 | 0.00025 | |
| | | | Ethoxylated alcohol | 68131-39-5 | 10.00000 | 0.00025 | |
| | | | Tar bases, quinoline derivs., benzyl chloride-quaternized | 72480-70-7 | 10.00000 | 0.00025 | |
| | | | Cinnamaldehyde | 104-55-2 | 10.00000 | 0.00025 | |
| | | | propan-2-ol | 67-63-0 | 5.00000 | 0.00012 | |
| | | | Water | 7732-18-5 | 92.50000 | | |

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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Via Federal Express

July 11, 2017

State of West Virginia
Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

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Office of Oil and Gas
JUL 12 2017
WV Department of
Environmental Protection

RE: SWN Production Company, LLC
Operator ID: 494512924
Regulatory Filings: WR-34 and WR-35

To Whom It May Concern:

Please find enclosed forms WR-34 Discharge Monitoring Report and WR-35 Well Operator's Report of Well Work for the following wells:

| API | Well Name |
|--------------|------------------------|
| 47-051-01788 | Gladys Briggs MSH 6H |
| 47-051-01883 | Gladys Briggs MSH 10H |
| 47-051-01873 | Gladys Briggs MSH 205H |
| 47-051-01885 | Gladys Briggs MSH 210H |

If you have any questions or require additional information, please contact me via email at liz_gee@swn.com or telephone at (832) 796-7632.

Sincerely,

Elizabeth Gee
Staff Regulatory Analyst
SW Appalachia Division

/lg
Encl.

$\frac{R^2}{A} \rightarrow V^+$

JACKSON SURVEYING INC. P.O. Box 1460 677 W. Main St. Clarksburg, WV 26302 304-823-5851

Table with 4 columns: LINE, BEARING, DISTANCE, DESCRIPTION. Contains 6 lines of survey data.

Table with 4 columns: TRACT, SURFACE OWNER (S) / ROYALTY OWNER (R), TAX PARCEL, ACRES. Contains 10 tracts of land.

SURFACE HOLE LOCATION (SHL):

UTM (NAD83, ZONE 17, METERS): NORTHING: 4,401,970.552 EASTING: 532,895.802

LANDING POINT LOCATION (LPL):

UTM (NAD83, ZONE 17, METERS): NORTHING: 4,401,642.773 EASTING: 532,821.156

BOTTOM HOLE LOCATION (BHL):

UTM (NAD83, ZONE 17, METERS): NORTHING: 4,400,565.056 EASTING: 534,178.933

SURFACE HOLE LOCATION (SHL):

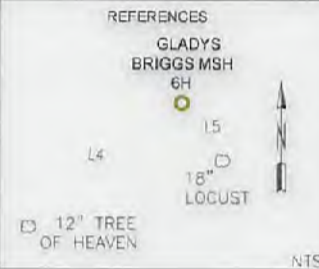
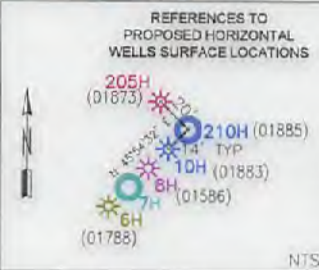
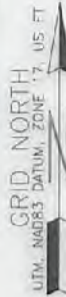
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,401,970.502 EASTING: 532,895.788

LANDING POINT LOCATION (LPL):

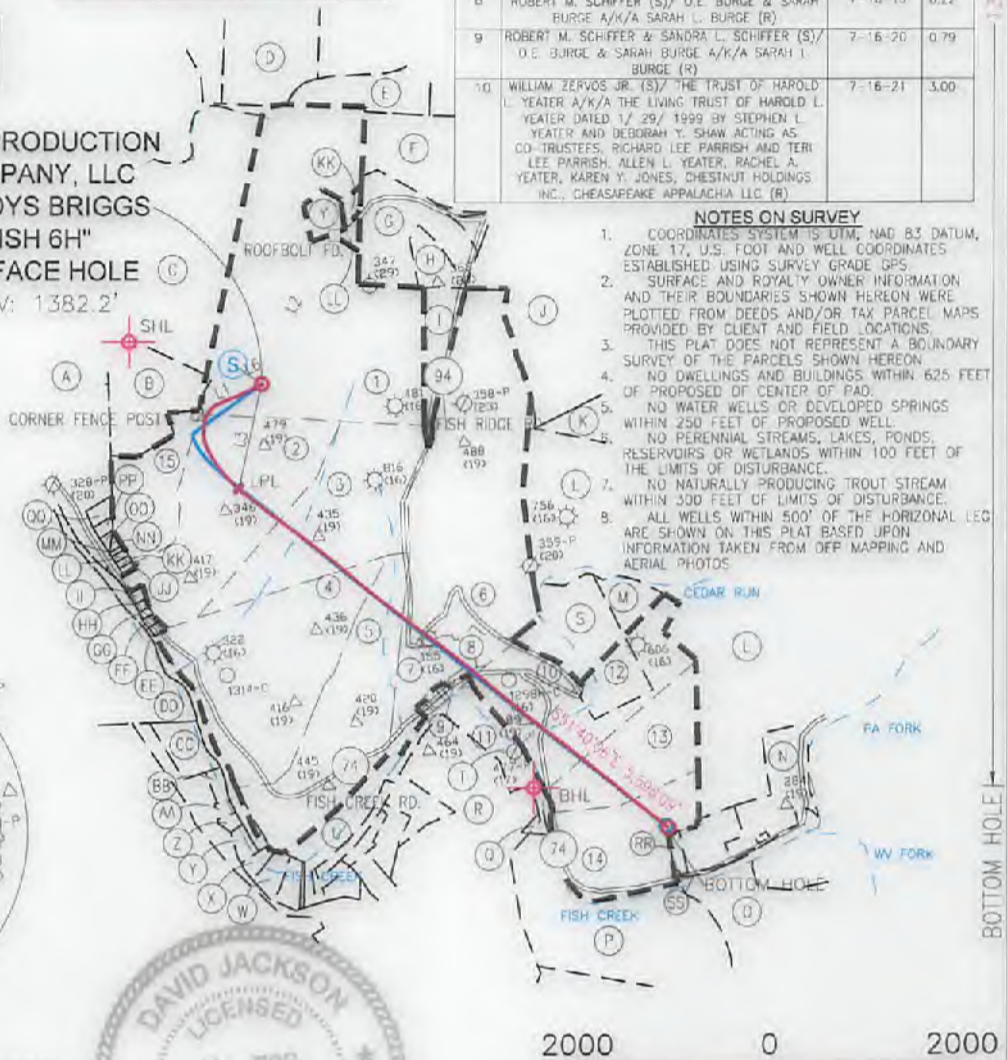
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,401,636.651 EASTING: 532,824.971

BOTTOM HOLE LOCATION (BHL):

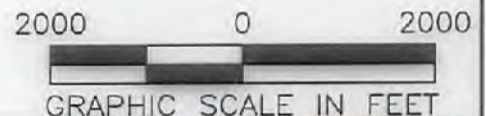
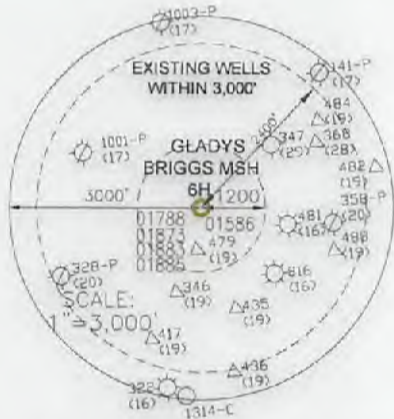
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,400,559.476 EASTING: 534,187.359



SWN PRODUCTION COMPANY, LLC "GLADYS BRIGGS MSH 6H" SURFACE HOLE ELEV: 1382.2'



- NOTES ON SURVEY: 1. COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY 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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 708

David Jackson (Signature)



COMPANY: SWN Production Company, LLC

STATE OF WEST VIRGINIA WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034

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

GLADYS BRIGGS MSH OPERATOR'S WELL #: 6H API WELL #: 47 STATE 051 COUNTY 01788 PERMIT

WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS LIQUID INJECTION STORAGE SHALLOW WATERSHED: FISH CREEK OF UPPER OHIO RIVER 2 DISTRICT: LIBERTY COUNTY: MARSHALL SURFACE OWNER: JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS & JOHN DEAN BRIGGS OIL & GAS ROYALTY OWNER: DAVID BONAR; HARRISON J. BRIGGS & GLADYS R. BRIGGS DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) ASDRILLED TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,380 TMD 13,475 TMD

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

LEGEND: PROPOSED SURFACE HOLE / BOTTOM HOLE EXISTING / PRODUCING WELLHEAD LPL LANDING POINT LOCATION EXISTING WATER WELL EXISTING SPRING SURVEYED BOUNDARY DRILLING UNIT LEASE BOUNDARY ASDRILLED PATH PROPOSED PATH REVISIONS: DATE: 03-24-2017 DRAWN BY: N. MANO SCALE: 1" = 2000' DRAWING NO: WELL LOCATION PLAT

**JACKSON SURVEYING
INC.**

P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

ADJOINING OWNERS

| TRACT | ADJOINING SURFACE OWNER (S) | TAX PARCEL | ACRES |
|-------|---|------------|--------|
| A | MASON DIXON FARMS LLC (S) | 07-17-33 | 217.08 |
| B | MASON DIXON FARMS LLC (S) | 07-17-19 | 22.80 |
| C | MCELROY COAL COMPANY (S) | 07-10-08 | 50.77 |
| D | MARILYN V. CLARK (S) | 07-10-11 | 25.00 |
| E | JAMES M. CLARK (S) | 07-10-09 | 15.00 |
| F | VINCENT E. LEMASTERS (S) | 07-10-24 | 44.08 |
| G | PRESTON & HEATHER L. YEATER (S) | 07-16-29.4 | 17.91 |
| H | PRESTON A. YEATER ET UX (S) | 07-16-29.2 | 4.92 |
| I | GLADYS R. BRIGGS (S) | 07-16-03 | 10.00 |
| J | THELMA YEATER (LIFE) (S) | 07-16-29 | 40.41 |
| K | RICHARD M. YEATER ET UX (S) | 07-16-29.1 | 18.39 |
| L | GEORGE R. CUMPSTON ET UX (S) | 07-16-24 | 122.87 |
| M | CHARLES E. HORNER ET UX (LIFE) (S) | 07-16-23 | 7.06 |
| N | GAIL CUMPSTON (S) | 07-19-20 | 14.73 |
| O | PEGGY M. GRIBBEN (S) | 07-19-28 | 112.16 |
| P | NICK ZELIC ET UX (S) | 07-19-27 | 36.00 |
| Q | SAMMY SUHODOLSKI (S) | 07-19-17 | 0.84 |
| R | JOHN M. & TERESA L. HORNER (S) | 07-19-12 | 75.03 |
| S | MICHAEL J. HORNER (S) | 07-16-23.1 | 24.99 |
| T | CHARLES E. HORNER ET UX (LIFE) (S) | 07-16-23 | 16.71 |
| U | MARY ESTHER GRIMM (LIFE) (S) | 07-19-10.1 | 5.00 |
| W | CAROLYN RUTH FRANCIS (S) | 07-19-07 | 2.40 |
| X | MASON DIXON FARMS LLC (S) | 07-19-06 | 1.19 |
| Y | CAROLYN JO & DENNY R. MORRIS (S) | 07-19-05 | 1.33 |
| Z | MICHAEL E. & DONNA D. RICHARDS (S) | 07-19-03 | 0.45 |
| AA | KATHRYN L. LEACH (S) | 07-19-02 | 0.56 |
| BB | MICHAEL & DONNA RICHARDS (S) | 07-19-08.2 | 1.00 |
| CC | MASON DIXON FARMS LLC (S) | 07-19-08.9 | 6.07 |
| DD | MASON DIXON FARMS LLC (S) | 07-17-33 | 217.08 |
| EE | JERRY WHORTON ET UX (S) | 07-16-07.1 | 0.32 |
| FF | JERRY & CYNTHIA C WHORTON (S) | 07-17-32 | 0.29 |
| GG | JERRY & CYNTHIA C. WHORTON (S) | 07-17-31 | 0.24 |
| HH | JAMES STEPHEN BARKER (S) | 07-17-30 | 0.26 |
| II | RALPH MARTIN TAYLOR (S) | 07-17-29 | 0.50 |
| JJ | KAREN K. CHAMPION (S) | 07-17-26.1 | 0.33 |
| KK | EDWARD YOHO (S) | 07-17-26 | 0.20 |
| LL | PHILLIP L. LOGSDON (S) | 07-17-25 | 0.29 |
| MM | PHILLIP L. LOGSDON (S) | 07-17-24 | 0.29 |
| NN | KEVIN B. MCELWEE (S) | 07-17-23 | LOT |
| OO | KEVIN B. MCELWEE (S) | 07-17-22 | 0.42 |
| PP | CHRISTINA Y. RICHMOND (S) | 07-17-21 | 0.63 |
| QQ | MASON DIXON FARMS LLC (S) | 07-17-21 | 1.30 |
| RR | JAMES E. REGIEC SR. & JAMES E. REGIEC (S) | 07-19-23.1 | 1.17 |
| SS | JAMES F. DRUSCHEL & JAMIE ANN DRUSCHEL, JACK S. HUGGINS AND TERRY L. HUGGINS, JOSEPH SEDINGER AND MICKY D. SEDINGER, SHEILA J. MCGILL (S) | 07-19-23 | 4.43 |

| TRACT | SURFACE OWNER (S) / ROYALTY OWNER (R) | TAX PARCEL | ACRES |
|-------|--|------------|-------|
| 11 | DELORSE A. HORNER (LIFE ESTATE) REMAINDERMEN: DOROTHY S. PRICE & MITCHELL J. PRICE (S)/ RICHARD LEE PARRISH AND TERI LEE PARRISH, RACHEL A. YEATER, KAREN Y. JONES, ALLEN L. YEATER, THE TRUST OF HAROLD L. YEATER, A/K/A THE LIVING TRUST OF HAROLD L. YEATER DATED 1/29 /1999 BY STEPHEN L. YEATER AND DEBORAH Y. SHAW, ACTING AS CO-TRUSTEES, CHESTNUT HOLDINGS INC., MOUNTAIN MINERALS LLC (R) | 7-16-23 | 16.71 |
| 12 | DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ LARRY W. YEATER, CHESTNUT HOLDINGS INC. (R) | 7-16-22 | 18.67 |
| 13 | DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ CHESTNUT HOLDINGS INC. (R) | 7-19-18 | 26.77 |
| 14 | DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ DONALD REX QUIGLEY, FRED A QUIGLEY, SANDRA SUE CUMPSTON AND KEITH D. CUMPSTON, JAMES L. REID AND SHERRY L. REID, JUNE A. REID A/K/A JUNE REID | 7-19-26 | 28.34 |
| 15 | MASON DIXON FARMS LLC (S) / W. H. LOPER AND BERTIE LOPER (R) | 7-17-19.1 | 20.00 |

09/15/2017

| | | | |
|------------|------------|---|-----------------------------------|
| REVISIONS: | COMPANY: | SWN Production Company, LLC | SWN Production Company™ |
| | OPERATOR'S | GLADYS BRIGGS MSH | |
| | WELL #: | 6H | |
| | LOCATION: | LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA | |
| | | DATE: | 03-24-2017 |
| | | DRAWN BY: | N. MANO |
| | | SCALE: | N/A |
| | | DRAWING NO: | |
| | | ADJOINING OWNERS | |

ADJOINING OWNERS

| TRACT | ADJOINING SURFACE OWNER (S) | TAX PARCEL | ACRES |
|-------|--|------------|--------|
| 22 | JAMES F. DRUSCHEL & JAMIE ANN DRUSCHEL, JACK S. HUGGINS AND TERRY L. HUGGINS, JOSEPH SEDINGER AND MICKY D. SEDINGER, SHEILA J. MCGILL (S) | 07-19-23 | 4.43 |
| RR | JAMES E. REGIEC SR. & JAMES E. REGIEC (S) | 07-19-23.1 | 1.17 |
| QQ | MASON DIXON FARMS LLC (S) | 07-17-21 | 1.30 |
| PP | CHRISTINA Y. RICHMOND (S) | 07-17-21 | 0.83 |
| OO | KEVIN B. MCELWEE (S) | 07-17-22 | 0.42 |
| NN | KEVIN B. MCELWEE (S) | 07-17-23 | 1.07 |
| MM | PHILIP L. LOGSDON (S) | 07-17-24 | 0.39 |
| LL | PHILIP L. LOGSDON (S) | 07-17-25 | 0.39 |
| KK | EDWARD YOHO (S) | 07-17-26 | 0.30 |
| JJ | KAREN K. CHAMPION (S) | 07-17-26.1 | 0.33 |
| II | RALPH MARTIN TAYLOR (S) | 07-17-29 | 0.50 |
| HH | JAMES STEPHEN BARKER (S) | 07-17-30 | 0.28 |
| GG | JERRY & CYNTHIA C. WHORTON (S) | 07-17-31 | 0.24 |
| FF | JERRY & CYNTHIA C. WHORTON (S) | 07-17-32 | 0.29 |
| EE | JERRY WHORTON ET UX (S) | 07-18-07.1 | 0.32 |
| DD | MASON DIXON FARMS LLC (S) | 07-17-33 | 217.08 |
| CC | MASON DIXON FARMS LLC (S) | 07-19-08.9 | 8.07 |
| BB | MICHAEL & DONNA RICHARDS (S) | 07-19-08.2 | 1.00 |
| AA | KATHRYN L. LEACH (S) | 07-19-02 | 0.26 |
| Z | MICHAEL E. & DONNA D. RICHARDS (S) | 07-19-03 | 0.42 |
| Y | CAROLYN JO & DENNY R. MORRIS (S) | 07-19-05 | 1.33 |
| X | MASON DIXON FARMS LLC (S) | 07-19-08 | 1.19 |
| W | CAROLYN RUTH FRANCIS (S) | 07-19-07 | 2.40 |
| U | MARY ESTHER GRIMM (LIFE) (S) | 07-19-10.1 | 2.00 |
| T | CHARLES E. HORNER ET UX (LIFE) (S) | 07-18-23 | 18.71 |
| S | MICHAEL J. HORNER (S) | 07-18-23.1 | 24.99 |
| R | JOHN M. & TERESA L. HORNER (S) | 07-19-12 | 25.03 |
| Q | SAMMY SUHODOLSKI (S) | 07-19-17 | 0.84 |
| P | NICK ZELIC ET UX (S) | 07-19-27 | 38.00 |
| O | PEGGY M. GRIBBEN (S) | 07-19-28 | 112.18 |
| N | GAIL CUMPTON (S) | 07-19-20 | 14.73 |
| M | CHARLES E. HORNER ET UX (LIFE) (S) | 07-18-23 | 7.08 |
| L | GEORGE R. CUMPTON ET UX (S) | 07-18-24 | 122.87 |
| K | RICHARD M. YEATER ET UX (S) | 07-18-28.1 | 18.39 |
| J | THELMA YEATER (LIFE) (S) | 07-18-29 | 40.41 |
| I | GLADYS R. BRIGGS (S) | 07-18-03 | 10.00 |
| H | PRESTON A. YEATER ET UX (S) | 07-18-29.2 | 4.92 |
| G | PRESTON & HEATHER L. YEATER (S) | 07-18-29.4 | 17.91 |
| F | VINCENT E. LEMASTERS (S) | 07-10-24 | 44.08 |
| E | JAMES M. CLARK (S) | 07-10-09 | 12.00 |
| D | MARLYN V. CLARK (S) | 07-10-11 | 25.00 |
| C | MCELROY COAL COMPANY (S) | 07-10-08 | 20.77 |
| B | MASON DIXON FARMS LLC (S) | 07-17-19 | 22.80 |
| A | MASON DIXON FARMS LLC (S) | 07-17-33 | 217.08 |

| TRACT | SURFACE OWNER (S) \ ROYALTY OWNER (R) | TAX PARCEL | ACRES |
|-------|--|------------|-------|
| 15 | MASON DIXON FARMS LLC (S) \ W. H. LOPER AND BERTIE LOPER (R) | 7-17-19.1 | 20.00 |
| 14 | AKKA JUNE REID L. REID AND SHERRY L. REID, JUNE A. REID SUE CUMPTON AND KEITH D. CUMPTON, JAMES DONALD REX QUIGLEY, FREDA QUIGLEY, SANDRA DOROTHY S. PRICE AND MITCHELL J. PRICE (S) \ | 7-19-26 | 28.34 |
| 13 | DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S) \ | 7-19-18 | 26.77 |
| 12 | DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: LARRY W. YEATER, CHESTNUT HOLDINGS INC. (R) DOROTHY S. PRICE AND MITCHELL J. PRICE (S) \ | 7-18-22 | 18.67 |
| 11 | DELORSE A. HORNER (LIFE ESTATE) REMAINDERMEN: DOROTHY S. PRICE & MITCHELL J. PRICE (S) \ | 7-18-23 | 18.71 |

09/15/2017

| | | |
|------------|--------------|---|
| REVISIONS: | COMPANY: | |
| WELL #: | OPERATOR'S: | GLADYS BRIGGS MSH |
| LOCATION: | | LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA |
| DATE: | DRAWN BY: | N. MANO |
| | SCALE: | N/A |
| | DRAWING NO.: | ADJOINING OWNERS |

JACKSON SURVEYING
INC.

P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

ADJOINING OWNERS

| TRACT | ADJOINING SURFACE OWNER (S) | TAX PARCEL | ACRES |
|-------|--|------------|--------|
| A | MASON DIXON FARMS LLC (S) | 07-17-33 | 217.08 |
| B | MASON DIXON FARMS LLC (S) | 07-17-19 | 22.80 |
| C | MCELROY COAL COMPANY (S) | 07-10-08 | 50.77 |
| D | MARILYN V. CLARK (S) | 07-10-11 | 25.00 |
| E | JAMES M. CLARK (S) | 07-10-09 | 15.00 |
| F | VINCENT E. LEMASTERS (S) | 07-10-24 | 44.08 |
| G | PRESTON & HEATHER L. YEATER (S) | 07-16-29.4 | 17.91 |
| H | PRESTON A. YEATER ET UX (S) | 07-16-29.2 | 4.92 |
| I | GLADYS R. BRIGGS (S) | 07-16-03 | 10.00 |
| J | THELMA YEATER (LIFE) (S) | 07-16-29 | 40.41 |
| K | RICHARD M. YEATER ET UX (S) | 07-16-29.1 | 18.39 |
| L | GEORGE R. CUMPSTON ET UX (S) | 07-16-24 | 122.87 |
| M | CHARLES E. HORNER ET UX (LIFE) (S) | 07-16-23 | 7.05 |
| N | GAIL CUMPSTON (S) | 07-19-20 | 14.73 |
| O | PEGGY M. GRIBBEN (S) | 07-19-28 | 112.16 |
| P | NICK ZELIC ET UX (S) | 07-19-27 | 36.00 |
| Q | SAMMY SUHODOLSKI (S) | 07-19-17 | 0.84 |
| R | JOHN M. & TERESA L. HORNER (S) | 07-19-12 | 75.03 |
| S | MICHAEL J. HORNER (S) | 07-16-23.1 | 24.99 |
| T | CHARLES E. HORNER ET UX (LIFE) (S) | 07-16-23 | 16.71 |
| U | MARY ESTHER GRIMM (LIFE) (S) | 07-19-10.1 | 5.00 |
| W | CAROLYN RUTH FRANCIS (S) | 07-19-07 | 2.40 |
| X | MASON DIXON FARMS LLC (S) | 07-19-06 | 1.19 |
| Y | CAROLYN JO & DENNY R. MORRIS (S) | 07-19-05 | 1.33 |
| Z | MICHAEL E. & DONNA D. RICHARDS (S) | 07-19-03 | 0.45 |
| AA | KATHRYN L. LEACH (S) | 07-19-02 | 0.56 |
| BB | MICHAEL & DONNA RICHARDS (S) | 07-19-08.2 | 1.00 |
| CC | MASON DIXON FARMS LLC (S) | 07-19-08.9 | 6.07 |
| DD | MASON DIXON FARMS LLC (S) | 07-17-33 | 217.08 |
| EE | JERRY WHORTON ET UX (S) | 07-16-07.1 | 0.32 |
| FF | JERRY & CYNTHIA C WHORTON (S) | 07-17-32 | 0.29 |
| GG | JERRY & CYNTHIA C. WHORTON (S) | 07-17-31 | 0.24 |
| HH | JAMES STEPHEN BARKER (S) | 07-17-30 | 0.26 |
| II | RALPH MARTIN TAYLOR (S) | 07-17-29 | 0.50 |
| JJ | KAREN K. CHAMPION (S) | 07-17-26.1 | 0.33 |
| KK | EDWARD YOHO (S) | 07-17-26 | 0.20 |
| LL | PHILLIP L. LOGSDON (S) | 07-17-25 | 0.29 |
| MM | PHILLIP L. LOGSDON (S) | 07-17-24 | 0.29 |
| NN | KEVIN B. MCELWEE (S) | 07-17-23 | LOT |
| OO | KEVIN B. MCELWEE (S) | 07-17-22 | 0.42 |
| PP | CHRISTINA Y. RICHMOND (S) | 07-17-21 | 0.63 |
| QQ | MASON DIXON FARMS LLC (S) | 07-17-21 | 1.30 |
| RR | JAMES E. REGIEC SR. & JAMES E. REGIEC (S) | 07-19-23.1 | 1.17 |
| SS | JAMES F. DRUSCHEL & JAMIE ANN DRUSCHEL, JACK S. HUGGINS AND TERRY L. HUGGINS, JOSEPH SEDINGER AND MICKEY D. SEDINGER, SHEILA J. MCGILL (S) | 07-19-23 | 4.43 |

RECEIVED
Office of Oil and Gas
JUL 12 2017
WV Department of
Environmental Protection

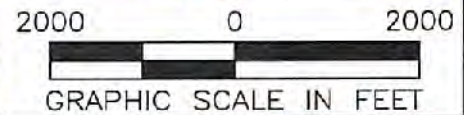
| TRACT | SURFACE OWNER (S) / ROYALTY OWNER (R) | TAX PARCEL | ACRES |
|-------|--|------------|-------|
| 11 | DELORSE A. HORNER (LIFE ESTATE) REMAINDERMEN: DOROTHY S. PRICE & MITCHELL J. PRICE (S)/ RICHARD LEE PARRISH AND TERI LEE PARRISH, RACHEL A. YEATER, KAREN Y. JONES, ALLEN L. YEATER, THE TRUST OF HAROLD L. YEATER, A/K/A THE LIVING TRUST OF HAROLD L. YEATER DATED 1/29 /1999 BY STEPHEN L. YEATER AND DEBORAH Y. SHAW, ACTING AS CO-TRUSTEES, CHESTNUT HOLDINGS INC., MOUNTAIN MINERALS LLC (R) | 7-16-23 | 16.71 |
| 12 | DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ LARRY W. YEATER, CHESTNUT HOLDINGS INC. (R) | 7-16-22 | 18.67 |
| 13 | DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ CHESTNUT HOLDINGS INC. (R) | 7-19-18 | 26.77 |
| 14 | DELORSE A. HORNER (LIFE ESTATE), REMAINDERMEN: DOROTHY S. PRICE AND MITCHELL J. PRICE (S)/ DONALD REX QUIGLEY, FRED A QUIGLEY, SANDRA SUE CUMPSTON AND KEITH D. CUMPSTON, JAMES L. REID AND SHERRY L. REID, JUNE A. REID A/K/A JUNE REID | 7-19-26 | 28.34 |
| 15 | MASON DIXON FARMS LLC (S) / W. H. LOPER AND BERTIE LOPER (R) | 7-17-19.1 | 20.00 |

| | | | | |
|------------|------------|---|-----------------------------------|-------------------|
| REVISIONS: | COMPANY: | SWN Production Company, LLC | SWN Production Company™ | 09/15/2017 |
| | OPERATOR'S | GLADYS BRIGGS MSH | | DATE: 03-24-2017 |
| | WELL #: | 6H | | DRAWN BY: N. MANO |
| | LOCATION: | LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA | | SCALE: N/A |
| | | | | DRAWING NO: |
| | | | | ADJOINING OWNERS |

JACKSON SURVEYING
 INC.
 P.O. Box 1460
 877 W. Main St.
 Clarksburg, WV 26302
 304-623-5851



WELL: GLADYS BRIGGS' MSH 6H
 QUAD: CAMERON 7 1/2 W.V.



| | | | | | |
|---|--|---|--|---|--|
| NAME AND DISTANCE TO THE NEAREST STREAM: FISH CREEK IS LOCATED ±0.40 MILES SW OF THE CENTER OF THE DRILL PAD. | | STREAM CROSSING COORDINATES (NAD 83): NO NEW CROSSINGS. | | COMPANY: | |
| WELL RESTRICTIONS: WELL PAD, LDD, & E & S CONTROL FEATURES TO PERENNIAL STREAM, LAKE, POND, RESERVOIR OR WETLAND: >100 FEET WELL PAD, LDD, & E & S CONTROL FEATURES TO NATURALLY PRODUCING TROUT STREAM: >300 FEET WELL PAD, LDD, & 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 FEMA FLOOD INFORMATION: BY GRAPHIC PLOTTING ONLY FEMA FIRM INCORPORATED AREA OF MARSHALL COUNTY, WEST VIRGINIA; MAP NUMBER 54051C0200 E; EFFECTIVE DATE: SEPTEMBER 25, 2009. | | OPERATOR'S GLADYS BRIGGS MSH | | | |
| WELL #: 6H | | LOCATION: LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA | | SURFACE HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 39.767027° LONGITUDE: -80.615924° | |
| BOTTOM HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 39.754262° LONGITUDE: -80.600918° | | REVISIONS: RECEIVED Office of Oil and Gas JUL 19 2017 | | DATE: 03-24-2017 DRAWN BY: N. MANO SCALE: 1" = 2000' DRAWING NO: TOPOGRAPHIC MAP | |
| LEGEND: ○ PROPOSED SURFACE HOLE / BOTTOM HOLE ⊙ EXISTING / PRODUCING WELLHEAD ⊘ ABANDONED WELL ⊙ PLUGGED & ABANDONED WELL △ CUT CONDUCTOR | | ○ EXISTING SPRING ⊙ EXISTING WATER WELL — ACCESS ROAD — ACCESS ROAD TO PREV. SITE — HIGHWAY/INTERSTATE — COUNTY ROAD | | | |

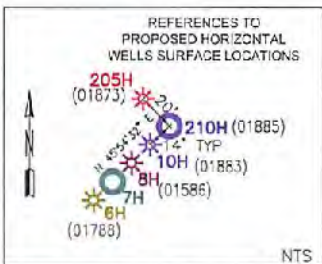
09/15/2017

**JACKSON SURVEYING
INC.**
P.O. Box 1480
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

| LINE | BEARING | DISTANCE | DESCRIPTION |
|------|---------------|-----------|---------------------------|
| L1 | S 64°26'06" W | 736.78' | SHL TO CNR FP |
| L2 | N 26°00'38" E | 1,721.06' | SHL TO ROOFBOLT |
| L3 | S 11°58'34" W | 1,119.68' | SHL TO LPL |
| L4 | S 51°42'04" W | 480.71' | SHL TO 12" TREE OF HEAVEN |
| L5 | S 49°07'37" E | 176.99' | SHL TO 18" LOCUST |
| L6 | N 55°20'56" W | 361.78' | SHL TO WATER RESERVOIR |

| TRACT | SURFACE OWNER (S) / ROYALTY OWNER (R) | TAX PARCEL | ACRES |
|-------|---|--------------------|--------|
| 1 | JAMES RODNEY BRIGGS, ROGER JACOB BRIGGS & JOHN DEAN BRIGGS (S) / DAVID BONAR, HARRISON J. BRIGGS, & GLADYS R. BRIGGS (R) | 7-16-02 | 121.43 |
| 2 | MASON DIXON FARMS LLC (S) / W. H. LOPER & BERTIE LOPER (R) | 7-16-06 | 68.72 |
| 3 | JACK J. BRIGGS (S) / T.D. EMERY & SADIE B. EMERY (R) | 7-16-05 | 37.88 |
| 4 | MASON DIXON FARMS LLC (S) / JANET L. POCHAN, PATRICIA PHILLIPS & EDWARD S. PHILLIPS, MARY IRENE CRUMLEY DODD, A/K/A IRENE CRUMLEY, ARTHUR LAVERNE GRAY, C. DWAIN GRAY AND VIRGINIA W. GRAY, CARL E. SCHONER JR., CLARK RICHARD GRAY AND LILLIAN GRAY, MARGARET A. GGETZ, I/K/A MARGARET A. GRAY, MERLE W. HINKLE (LIFE ESTATE) BY HER ATTORNEY-IN-FACT, WILLIAM F. HINKLE AND WILLIAM F. HINKLE (REMAINDER), MARLYN J. MINCKS AND EUGENE F. MINCKS, DARY LOUI ASHTON, JOSEPH ASHTON, HAYHURST COMPANY, PAUL DOUGLAS GRAY AND SALLY S. GRAY, JOHN LEWIS GRAY AND JUDY GRAY (R) | 7-16-07 | 64.73 |
| 5 | COLUMBIA GAS TRANSMISSION CORP. (S) / WILMA M. CATTEN A/K/A MILVA C. KESTNER BY HER ATTORNEY-IN-FACT MARGARET A. FALLOVA (R) | 7-16-10 7-16-08 | 55.15 |
| 6 | JOHN DEAN BRIGGS & PATTY KAY BRIGGS (S) / W.H. LOPER & BERTIE LOPER (R) | 7-16-04 | 61.25 |
| 7 | EDWARD SILCOX (S) / O.E. BURGE & SARAH BURGE A/K/A SARAH L. BURGE (R) | 7-16-09 | 11.21 |
| 8 | ROBERT M. SCHIFFER (S) / D.E. BURGE & SARAH BURGE A/K/A SARAH L. BURGE (R) | 7-16-19 | 0.22 |
| 9 | ROBERT M. SCHIFFER & SANDRA L. SCHIFFER (S) / O.E. BURGE & SARAH BURGE A/K/A SARAH L. BURGE (R) | 7-16-20 | 0.79 |
| 10 | WILLIAM ZERNOS JR. (S) / THE TRUST OF HAROLD L. YEATER A/K/A THE LIVING TRUST OF HAROLD L. YEATER DATED 1/29/1999 BY STEPHEN L. YEATER AND DEBORAH Y. SHAW ACTING AS CO-TRUSTEES, RICHARD LEE PARRISH AND TERI LEE PARRISH, ALLEN L. YEATER, RACHEL A. YEATER, KAREN Y. JONES, CHESTNUT HOLDINGS INC., CHEASPEAKE APPALACHIA LLC (R) | 7-16-21 | 3.00 |

- 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.
 - ALL WELLS WITHIN 500' OF THE HORIZONTAL LEG ARE SHOWN ON THIS PLAT BASED UPON INFORMATION TAKEN FROM DEP MAPPING AND AERIAL PHOTOS

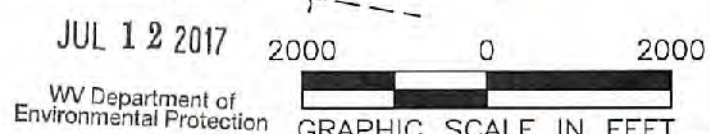


NTS

| SURFACE HOLE LOCATION (SHL): | |
|-------------------------------|--------------------------|
| GEOGRAPHIC (NAD83): | LATITUDE: 39.767027° |
| | LONGITUDE: -80.615924° |
| UTM (NAD83, ZONE 17, FEET): | NORTHING: 14,442,131.555 |
| | EASTING: 1,748,342.265 |
| UTM (NAD83, ZONE 17, METERS): | NORTHING: 4,401,970.502 |
| | EASTING: 532,895.788 |
| LANDING POINT LOCATION (LPL): | |
| GEOGRAPHIC (NAD83): | LATITUDE: 39.764021° |
| | LONGITUDE: -80.616768° |
| UTM (NAD83, ZONE 17, FEET): | NORTHING: 14,441,036.245 |
| | EASTING: 1,748,109.925 |
| UTM (NAD83, ZONE 17, METERS): | NORTHING: 4,401,636.651 |
| | EASTING: 532,824.971 |
| BOTTOM HOLE LOCATION (BHL): | |
| GEOGRAPHIC (NAD83): | LATITUDE: 39.754262° |
| | LONGITUDE: -80.600918° |
| UTM (NAD83, ZONE 17, FEET): | NORTHING: 14,437,502.215 |
| | EASTING: 1,752,579.695 |
| UTM (NAD83, ZONE 17, METERS): | NORTHING: 4,400,559.476 |
| | EASTING: 534,187.359 |



- SWN PRODUCTION COMPANY, LLC
SURFACE HOLES
- "GLADYS BRIGGS MSH 6H"
 - "GLADYS BRIGGS MSH 6H"
 - "GLADYS BRIGGS UD-B MSH 7H"
 - "GLADYS BRIGGS MSH 10H"
 - "GLADYS BRIGGS MSH 205H"
 - "GLADYS BRIGGS MSH 210H"



| | | |
|------------------------|---|-----------------------------------|
| COMPANY: | SWN Production Company, LLC | SWN Production Company™ |
| OPERATOR'S | GLADYS BRIGGS MSH | |
| WELL #: | 6H | |
| LOCATION: | LIBERTY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA | |
| SURFACE HOLE LOCATION: | GEOGRAPHIC (NAD83): LATITUDE: 39.767027° LONGITUDE: -80.615924° | |
| BOTTOM HOLE LOCATION: | GEOGRAPHIC (NAD83): LATITUDE: 39.754262° LONGITUDE: -80.600918° | |
| REVISIONS: | DATE: | 03-24-2017 |
| | DRAWN BY: | N. MANO |
| | SCALE: | 1" = 2000' |
| | DRAWING NO: | |
| | INTERNAL WELL PLAT | |

- LEGEND:**
- PROPOSED SURFACE HOLE / BOTTOM HOLE
 - ⊙ EXISTING / PRODUCING WELLHEAD
 - LPL LANDING POINT LOCATION
 - ⊙ EXISTING WATER WELL
 - ⊙ EXISTING SPRING
 - SURVEYED BOUNDARY
 - DRILLING UNIT
 - LEASE BOUNDARY
 - ASDRILLED PATH
 - PROPOSED PATH