

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

Via Federal Express

February 11, 2016

Ms. Laura Cooper
Office of Oil & Gas
601 57th Street
Charleston WV 25304

RE: Form WR-35 and WR-36 Filing


| | |
|---------------------------------|-------------------|
| Well: Glenn Didriksen OHI 6 | API: 47-069-00188 |
| Well: Glenn Didriksen OHI 10 | API: 47-069-00191 |
| ✓ Well: Glenn Didriksen OHI 205 | API: 47-069-00189 |
| Well: Glenn Didriksen OHI 6210 | API: 47-069-00190 |

Dear Ms. Cooper:

Please find enclosed form WR-35 Well Operator's Report of Well Work and WR-36 Well Operator's Report of Initial Gas-Oil Ratio, with supporting documentation for the subject wells referenced above.

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
Sr. Regulatory Analyst
West Virginia Division

/lg
Encl.



2-22-16

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

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

FEB 12 2016

WV Department of
Environmental Protection

API 47-069-00189 County OHIO District LIBERTY
Quad VALLEY GROVE Pad Name GLENN DIDRIKSEN-OHI-PAD1 Field/Pool Name PANHANDLE
Farm name GLENN DIDRIKSEN Well Number GLENN DIDRIKSEN OHI 205
Operator (as registered with the OOG) SWN PRODUCTION COMPANY LLC
Address PO BOX 12359 City SPRING State TX Zip 77397-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4440485.765 Easting 534511.826
Landing Point of Curve Northing 440737.835 Easting 534814.797
Bottom Hole Northing 4442452.033 Easting 534127.472

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 06/10/2015 Date drilling commenced 06/14/2015 Date drilling ceased 07/06/2015
Date completion activities began 10/17/2015 Date completion activities ceased 11/24/2015
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 194' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1055' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 663' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

AB

2-27-16

03/04/2016

API 47-069 - 00189 Farm name GLENN DIDRIKSEN Well number GLENN DIDRIKSEN OHI 205

| 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' | N | J-55/ 94# | | Y |
| Surface | 17.5 | 13.375 | 764' | N | J-55/54.5# | | Y |
| Coal | SEE SURFACE | | | | | | |
| Intermediate 1 | 12.25 | 9.625 | 2324' | N | J-55/ 40# | | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8.75 TO 8.50 | 5.5 | 13052' | N | P-110/20# | | Y |
| Tubing | | 2.375 | 6839' | N | P-110/4.70# | | N |
| Packer type and depth set | | N/A | | | | | |

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 | A | 120 | 15.6 | 1.18 | 141.6 | GROUT TO SURFACE | 24 |
| Surface | A | 579 | 15.6 | 1.19 | 689.01 | SURFACE | 8 |
| Coal | SEE SURFACE | | | | | | |
| Intermediate 1 | A | 793 | 15.6 | 1.19 | 943.67 | 46 BBLS TO SURFACE | 8 |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | A | 641/1927 | 15.6 | 1.24/1.19 | 795/2293 | SURFACE | 24 |
| Tubing | | | | | | | |

RECEIVED

Office of Oil and Gas

FEB 12 2016

Drillers TD (ft) 13052' Loggers TD (ft) 13052'
 Deepest formation penetrated MARCELLUS Plug back to (ft) NA
 Plug back procedure NA

Kick off depth (ft) 5320'

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 _____

ALL CASING STRINGS RAN WITH A CENTRALIZER AT A MINIMUM OF 1 PER EVERY 3RD JOINT OF CASING _____

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 _____

API 47- 069 - 00189 Farm name GLENN DIDRIKSEN Well number GLENN DIDRIKSEN OHI 205

PERFORATION RECORD

| Stage No. | Perforation date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formation(s) |
|-----------|------------------|------------------------|----------------------|------------------------|--------------|
| | SEE | ATTACHED | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

RECEIVED
Office of Oil and Gas
FEB 12 2016

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

WV Department of Environmental Protection

Complete a separate record for each stimulation stage.

| Stage No. | Stimulations 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 (units) |
|-----------|-------------------|---------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| | | SEE | ATTACHED | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Please insert additional pages as applicable.

API 47- 069 - 00189 Farm name GLENN DIDRIKSEN Well number GLENN DIDRIKSEN OHI 205

| <u>PRODUCING FORMATION(S)</u> | <u>DEPTHS</u> | |
|-------------------------------|------------------|-----------------|
| <u>MARCELLUS</u> | <u>6404'</u> TVD | <u>6786'</u> MD |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST NO TEST PERFORM _____ hrs

OPEN FLOW Gas 3488 mcfpd Oil 332 bpd NGL _____ bpd Water 84 bpd GAS MEASURED BY Estimated Orifice Pilot

| LITHOLOGY/ FORMATION | TOP DEPTH IN FT NAME TVD | BOTTOM DEPTH IN FT TVD | TOP DEPTH IN FT MD | BOTTOM DEPTH IN FT MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC) |
|-------------------------|--------------------------------|------------------------------|--------------------------|-----------------------------|--|
| | 0 | | 0 | | |
| | | SEE ATTACHED | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

Please insert additional pages as applicable.

Drilling Contractor SWN DRILLING COMPANY
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Logging Company JW WIRELINE COMPANY
Address 515 N SAM HOUSTON PKWY EAST STE 640 City HOUSTON State TX Zip 77060

Cementing Company SCHLUMBERGER
Address 110 SCHLUMBERGER DRIVE City SUGAR LAND State TX Zip 77478

Stimulating Company DOWELL SCHLUMBERGER
Address 1121 BUSCHONG ST City HOUSTON State TX Zip 77039

Please insert additional pages as applicable.

Completed by ELIZABETH GEE Telephone 832-796-7632
Signature  Title SR. REGULATORY ANALYST Date 02/11/2016

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

GLENN DIDRIKSEN OHI 205 - PERFORATION RECORD

| STAGE NUM | Perf Date | Perf Top MD | Perf Bottom MD | # SHOTS PER STG |
|--------------|------------|----------------|----------------------|--------------------|
| 1 | 10/17/2015 | 12,701 | 12,904 | 42 |
| 2 | 10/17/2015 | 12,437 | 12,640 | 42 |
| 3 | 10/17/2015 | 12,172 | 12,373 | 42 |
| 4 | 10/17/2015 | 11,907 | 12,110 | 42 |
| 5 | 10/18/2015 | 11,643 | 11,846 | 42 |
| 6 | 10/18/2015 | 11,378 | 11,581 | 42 |
| 7 | 10/18/2015 | 11,114 | 11,317 | 42 |
| 8 | 10/18/2015 | 10,849 | 11,052 | 42 |
| 9 | 10/18/2015 | 10,584 | 10,787 | 42 |
| 10 | 10/18/2015 | 10,320 | 10,523 | 42 |
| 11 | 10/19/2015 | 10,055 | 10,258 | 42 |
| 12 | 10/19/2015 | 9,791 | 9,994 | 42 |
| 13 | 10/19/2015 | 9,526 | 9,729 | 42 |
| 14 | 10/19/2015 | 9,261 | 9,464 | 42 |
| 15 | 10/19/2015 | 8,997 | 9,200 | 42 |
| 16 | 10/19/2015 | 8,732 | 8,935 | 42 |
| 17 | 10/20/2015 | 8,468 | 8,671 | 42 |
| 18 | 10/20/2015 | 8,203 | 8,406 | 42 |
| 19 | 10/20/2015 | 7,938 | 8,141 | 42 |
| 20 | 10/20/2015 | 7,674 | 7,877 | 42 |
| 21 | 10/20/2015 | 7,409 | 7,612 | 42 |
| 22 | 10/21/2015 | 7,145 | 7,348 | 42 |
| 23 | 10/21/2015 | 6,880 | 7,083 | 42 |

RECEIVED
Office of Oil and Gas

FEB 12 2016

WV Department of
Environmental Protection

03/04/2016

GLENN DIDRIKSEN OHI 205 - STIMULATION INFORMATION

| 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 | 10/17/2015 | 2 | 7,846 | 9,284 | 4,134 | 500,300 | 7,479 | |
| 2 | 10/17/2015 | 2 | 7,980 | 8,891 | 3,965 | 503,060 | 7,100 | |
| 3 | 10/17/2015 | 2 | 7,902 | 8,957 | 4,086 | 499,560 | 6,907 | |
| 4 | 10/17/2015 | 2 | 8,123 | 8,925 | 4,177 | 412,000 | 6,399 | |
| 5 | 10/18/2015 | 2 | 7,763 | 8,279 | 4,048 | 499,580 | 6,996 | |
| 6 | 10/18/2015 | 2 | 7,936 | 8,611 | 4,033 | 501,500 | 7,090 | |
| 7 | 10/18/2015 | 2 | 7,925 | 8,389 | 4,268 | 500,840 | 6,907 | |
| 8 | 10/18/2015 | 2 | 8,115 | 8,744 | 4,097 | 501,160 | 6,871 | |
| 9 | 10/18/2015 | 2 | 7,777 | 8,835 | 4,108 | 501,320 | 6,788 | |
| 10 | 10/18/2015 | 2 | 7,680 | 9,141 | 4,194 | 393,000 | 6,051 | |
| 11 | 10/19/2015 | 2 | 7,450 | 7,982 | 4,302 | 501,380 | 6,868 | |
| 12 | 10/19/2015 | 2 | 7,720 | 9,145 | 3,938 | 426,123 | 6,812 | |
| 13 | 10/19/2015 | 2 | 7,612 | 8,529 | 3,840 | 503,017 | 6,916 | |
| 14 | 10/19/2015 | 2 | 7,474 | 8,743 | 4,011 | 501,160 | 7,505 | |
| 15 | 10/19/2015 | 2 | 7,290 | 8,766 | 4,008 | 456,400 | 6,482 | |
| 16 | 10/19/2015 | 2 | 7,191 | 8,303 | 4,598 | 449,100 | 6,449 | |
| 17 | 10/20/2015 | 2 | 7,388 | 9,454 | 3,981 | 500,140 | 8,135 | |
| 18 | 10/20/2015 | 2 | 7,117 | 8,404 | 4,274 | 502,020 | 6,812 | |
| 19 | 10/20/2015 | 2 | 7,343 | 8,120 | 4,142 | 502,320 | 6,774 | |
| 20 | 10/20/2015 | 2 | 7,394 | 7,970 | 4,365 | 501,200 | 6,826 | |
| 21 | 10/20/2015 | 2 | 7,548 | 9,011 | 4,439 | 501,380 | 6,735 | |
| 22 | 10/21/2015 | 2 | 7,490 | 9,451 | 4,415 | 472,920 | 6,582 | |
| 23 | 10/21/2015 | 2 | 6,793 | 8,247 | 4,636 | 500,860 | 6,795 | |
| Grand total | | 2 | 7,602 | 9,454 | 4,176 | 11,130,340 | 158,279 | |

RECEIVED
Office of Oil and Gas

FEB 12 2016

WV Department of
Environmental Protection

03/04/2016

GLENN DIDRIKSEN OHI 205H

| LITHOLOGY/FORMATION | TOP DEPTH, TVD (FT) | BOTTOM DEPTH, TVD (FT) | TOP DEPTH, MD (FT) | BOTTOM DEPTH, MD (FT) | QUANTITY AND TYPE OF FLUID |
|---------------------|---------------------|------------------------|--------------------|-----------------------|----------------------------|
| Base of Fresh Water | N.A. | 194.00 | N.A. | 194.00 | |
| Top of Salt Water | 1055.00 | N.A. | 1055.00 | N.A. | |
| Pittsburgh Coal | 663.00 | 671.00 | 663.00 | 671.00 | |
| Big Injun (ss) | 1865.43 | 2337.53 | 1885.00 | 2370.00 | |
| Berea (siltstone) | 2337.53 | 5817.29 | 2370.00 | 5940.52 | |
| Rhinestreet (shale) | 5817.29 | 6094.09 | 5940.52 | 6235.05 | |
| Cashaqua (shale) | 6094.09 | 6152.10 | 6235.05 | 6303.35 | |
| Middlesex (shale) | 6152.10 | 6220.87 | 6303.35 | 6392.33 | |
| Burket (shale) | 6220.87 | 6243.02 | 6392.33 | 6423.84 | |
| Tully (ls) | 6243.02 | 6285.83 | 6423.84 | 6489.99 | |
| Mahantango (shale) | 6285.83 | 6403.68 | 6489.99 | 6785.61 | |
| Marcellus (shale) | 6403.68 | N.A. | 6785.61 | N.A. | |

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection

Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|--------------------------------|---------------------|
| Job Start Date: | 10/17/2015 |
| Job End Date: | 10/21/2015 |
| State: | West Virginia |
| County: | Ohio |
| API Number: | 47-069-00189-00-00 |
| Operator Name: | Southwestern Energy |
| Well Name and Number: | Glen Didriksen 205H |
| Longitude: | -80.59501609 |
| Latitude: | 40.11397200 |
| Datum: | NAD27 |
| Federal/Tribal Well: | NO |
| True Vertical Depth: | 6332 |
| Total Base Water Volume (gal): | 6,647,718 |
| Total Base Non Water Volume: | |

RECEIVED
 Office of Oil and Gas
 FEB 12 2016



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 |
|--|--------------|---|--|--|--|--|----------|
| 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. | | | | | | | |
| Proppant Transport | Schlumberger | Acid Corrosion Inhibitor, Acid, Friction Reducer, Fluid Loss Additive, Propping Agent | | | | | |
| | | | Water (Including Mix Water Supplied by Client)* | NA | | 83.02277 | |
| | | | Quartz, Crystalline silica | 14808-60-7 | 98.70136 | 16.75676 | |
| | | | Hydrochloric acid | 7647-01-0 | 1.05777 | 0.17958 | |
| | | | Ammonium sulfate | 7783-20-2 | 0.12498 | 0.02122 | |
| | | | Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer | 38193-60-1 | 0.09224 | 0.01566 | |
| | | | Polymer of 2-acrylamido-2-methylpropanesulfonic acid sodium salt and methyl acrylate | 136793-29-8 | 0.00988 | 0.00168 | |
| | | | Urea | 57-13-6 | 0.00607 | 0.00103 | |
| | | | Propan-2-ol | 67-63-0 | 0.00198 | 0.00034 | |
| | | | Sodium sulfate | 7757-82-6 | 0.00142 | 0.00024 | |
| | | | Silicon Dioxide | 7631-86-9 | 0.00126 | 0.00021 | |
| | | | Fatty acid, tall-oil reaction products with acetophenone | 68188-40-9 | 0.00077 | 0.00013 | |
| | | | Alcohols, C12-C16, ethoxylated | 68551-12-2 | 0.00064 | 0.00011 | |

| | | | | | |
|--|--|--|------------|---------|---------|
| | | Isodecanol w/6-7 Moles Ethylene Oxide | 26183-52-8 | 0.00043 | 0.00007 |
| | | 2-Propenamid (impurity) | 79-06-1 | 0.00030 | 0.00005 |
| | | Cinnamaldehyde | 104-55-2 | 0.00028 | 0.00005 |
| | | Tetrasodium ethylenediaminetetraacetate | 64-02-8 | 0.00016 | 0.00003 |
| | | Dodecyl poly(oxyethylene) ether | 9002-92-0 | 0.00003 | 0.00001 |
| | | Amines, tallow alkyl, ethoxylated | 61791-26-2 | 0.00008 | 0.00001 |
| | | Dimethyl siloxanes and silicones | 63148-62-9 | 0.00009 | 0.00001 |
| | | Glycols, polyethylene, monotetradecyl ether | 27306-79-2 | 0.00002 | |
| | | Copper(II) sulfate | 7758-98-7 | | |
| | | Decamethyl cyclopentasiloxane | 541-02-6 | 0.00001 | |
| | | Siloxanes and silicones, dimethyl, reaction products with silica | 67762-90-7 | 0.00001 | |
| | | Dodecamethylcyclohexasiloxane | 540-97-6 | | |
| | | Octamethylcyclotetrasiloxane | 556-67-2 | 0.00001 | |

* 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)

RECEIVED
Office of Oil and Gas
FEB 12 2016
WV Department of
Environmental Protection



320 O'Bryan Lane • Van Buren, AR 72956
Office: 479.474.7916 • Fax: 479.474.2450
Surveying • handa-inc.com

| LINE | BEARING | DISTANCE | DESCRIPTION | MONUMENT |
|------|---------------|-------------|------------------|---|
| L1 | S 17°13'50" E | 303.39' | SHL TO LANDMARK | FOUND POST |
| L2 | N 50°55'23" E | 1081.58' | SHL TO LANDMARK | FOUND REBAR |
| L3 | N 38°23'38" W | 43.15' | SHL TO REF. PNT. | GLENN DIDRIKSEN OHI 1H WELLHEAD (069-00123) |
| L4 | N 02°27'40" W | 34.47' | SHL TO REF. PNT. | GLENN DIDRIKSEN OHI 8H WELLHEAD (069-00064) |
| LINE | CHORD BEARING | CHORD DIST. | CURVE LENGTH | DESCRIPTION |
| L5 | N 50°14'23" E | 1293.04' | | SHL TO LP |
| L6 | N 21°50'56" W | 6059.24' | | LP TO BHL |

Latitude: 40°07'30"

Longitude: 80°35'00"

| TRACT | SURFACE OWNER (S) ROYALTY OWNER (R) | TAX PARCEL | ACRES | LEASE NUMBER |
|-------|--|------------|--------|--------------|
| 1 | GLENN DIDRIKSEN (S) D&D FAST FOOD, INC. (R) | 3-L7-42 | 47.93 | |
| 2 | ROBERT WALTER & DONNA JEAN LASCH (S/R) | 3-L7-42 | 47.93 | 1-268336-000 |
| 3 | DENISE KNOUSE-SNYDER & STEPHEN P. SNYDER (S/R) | 3-L10-40 | 141.71 | 1-313594-001 |
| 4 | ROBERT HEYMAN TOMINACK (S/R) | 3-L7-42.1 | 22.32 | 1-384423-000 |
| 5 | THOMAS SCOTT TOMINACK (S/R) | 3-L7-39.3 | 8.945 | 1-385500-000 |
| 6 | Cecil R. TOMINACK & DONNA L. TOMINACK (S/R) | 3-L7-39.2 | 8.945 | 1-385499-000 |
| 7 | MARY LOU HUDNALL (S/R) | 3-L7-39.1 | 8.99 | 1-385488-000 |
| 8 | WANDA J. LARUE & PAUL J. LARUE (S/R) | 3-L7-40 | 18.431 | 1-385502-000 |
| 9 | ROBERT WALTER & DONNA JEAN LASCH (S/R) | 3-L7-38.8 | 7.57 | 1-385496-000 |
| 10 | ROBERT WALTER & DONNA JEAN LASCH (S/R) | 3-L7-16.1 | 19.00 | 1-313594-001 |
| 11 | ROBERT WALTER & DONNA JEAN LASCH (S/R) | 3-L7-16 | 60.397 | 1-313594-001 |
| 12 | ROBERT A. GREEN & KATHY L. GREEN (S/R) | 3-L7-3.1 | 5.00 | 1-385494-000 |
| 13 | MARY ELLEN BURKHART aka MARY ELLEN MOORE (S/R) | 3-L7-3.2 | 5.00 | 1-385495-001 |
| 14 | ROBERT J. GRIMES & LORINE S. GRIMES (S/R) | 3-L7-3 | 28.21 | 1-385493-001 |

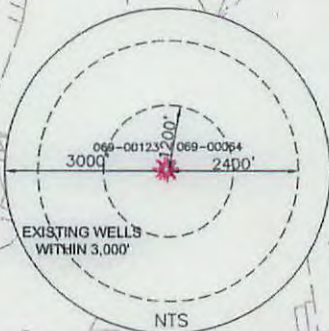
| | | |
|-------------------|---------------|----------|
| SHL TO "S" #1 | N 58°39'57" E | 1476.66' |
| SHL TO "S" #2 | N 76°13'30" E | 1336.03' |
| SHL TO WATER WELL | N 82°55'35" E | 1337.20' |

GRID NORTH
UTM, NAD83 DATUM, ZONE 17, U.S. FT



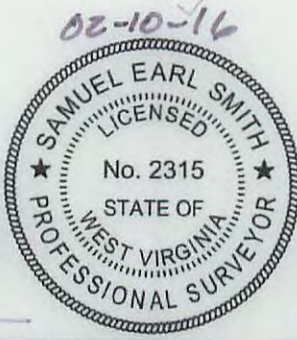
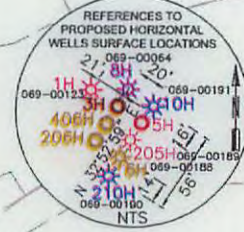
NOTES ON SURVEY

- COORDINATE 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/OR FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO OCCUPIED DWELLINGS AND AGRICULTURE BUILDINGS GREATER THAN 2500 SQ. FT. 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, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
- NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.



SWN PRODUCTION COMPANY, LLC
"GLENN DIDRIKSEN OHI 205H"
SURFACE HOLE
ELEV: 1,382.2'

| |
|--|
| SURFACE HOLE LOCATION (SHL): |
| UTM (NAD83, ZONE 17, METERS): NORTHING: 4,440,485.765 EASTING: 534,511.826 |
| LANDING POINT (LP): |
| UTM (NAD83, ZONE 17, METERS): NORTHING: 4,440,737.835 EASTING: 534,814.797 |
| BOTTOM HOLE LOCATION (BHL): |
| UTM (NAD83, ZONE 17, METERS): NORTHING: 4,442,452.033 EASTING: 534,127.472 |



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. 2315

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)

GLENN DIDRIKSEN OHI
OPERATOR'S WELL #: 205H
API WELL #: 47 STATE 69 COUNTY 00189 PERMIT

WELL TYPE: OIL | WASTE DISPOSAL | PRODUCTION | DEEP | GAS | LIQUID INJECTION | STORAGE | SHALLOW
WATERSHED: LITTLE WHEELING CREEK | ELEVATION: 1,382.2'
DISTRICT: LIBERTY | COUNTY: OHIO | QUADRANGLE: VALLEY GROVE, WV
SURFACE OWNER: GLENN DIDRIKSEN | ACREAGE: ±47.93
OIL & GAS ROYALTY OWNER: D&D FAST FOOD, INC. | ACREAGE: ±47.93
DRILL | DRILL DEEPER | REDRILL | FRACTURE OR STIMULATE | PLUG OFF OLD FORMATION | PERFORATE NEW FORMATION
CONVERT | PLUG & ABANDON | CLEAN OUT & REPLUG | OTHER CHANGE (SPECIFY) AS-DRILLED
TARGET FORMATION: MARCELLUS | DEPTH: 6,425' TVD, 13,052' 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 | △ REVISED SHL, LP, & BHL FOR ASDRILLED | 07-21-2015 |
| ⊙ EXISTING / PRODUCING WELLHEAD | — DIRECTIONAL PATH 11-16-2015 | |
| ⊗ ABANDONED WELL | △ REVISED ASDRILLED & PERMITTED DIRECTIONAL PATH COLOR, ADD LP COORDINATES 02-09-2016 | |
| ⊗ CUT & ABANDONED WELL | | |
| △ CUT CONDUCTOR | | |

03/04/2016



320 O'Bryan Lane • Van Buren, AR 72966
Office: 479.474.7916 • Fax: 479.474.2450
Surveying • handa-inc.com

| LINE | BEARING | DISTANCE | DESCRIPTION | MONUMENT |
|------|---------------|-------------|------------------|---|
| L1 | S 17°13'50" E | 303.39' | SHL TO LANDMARK | FOUND POST |
| L2 | N 50°55'23" E | 1081.58' | SHL TO LANDMARK | FOUND REBAR |
| L3 | N 38°23'38" W | 43.15' | SHL TO REF. PNT. | GLENN DIDRIKSEN OHI 1H WELLHEAD (069-00123) |
| L4 | N 02°27'40" W | 34.47' | SHL TO REF. PNT. | GLENN DIDRIKSEN OHI 8H WELLHEAD (069-00064) |
| LINE | CHORD BEARING | CHORD DIST. | CURVE LENGTH | DESCRIPTION |
| L5 | N 50°14'23" E | 1293.04' | | SHL TO LP |
| L6 | N 21°50'56" W | 6059.24' | | LP TO BHL |

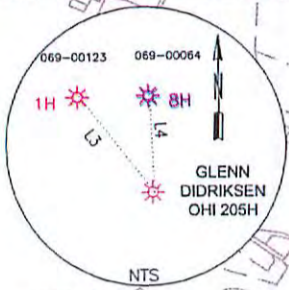
Latitude: 40°07'30"

Longitude: 80°35'00"

| TRACT | SURFACE OWNER (S) ROYALTY OWNER (R) | TAX PARCEL | ACRES | LEASE NUMBER |
|-------|--|------------|--------|--------------|
| 1 | GLENN DIDRIKSEN (S) D&D FAST FOOD, INC. (R) | 3-L7-42 | 47.93 | 1-268336-000 |
| 2 | ROBERT WALTER & DONNA JEAN LASCH (S/R) | 3-L10-40 | 141.71 | 1-313594-001 |
| 3 | DENSE KNOUSE-SNYDER & STEPHEN P. SNYDER (S/R) | 3-L7-42.1 | 22.32 | 1-384423-000 |
| 4 | ROBERT HEYMAN TOMINACK (S/R) | 3-L7-39.3 | 8.945 | 1-385500-000 |
| 5 | THOMAS SCOTT TOMINACK (S/R) | 3-L7-39.2 | 8.945 | 1-385499-000 |
| 6 | CECIL R. TOMINACK & DONNA L. TOMINACK (S/R) | 3-L7-39.1 | 8.99 | 1-385498-000 |
| 7 | MARY LOU HUDNALL (S/R) | 3-L7-40 | 18.431 | 1-385502-000 |
| 8 | WANDA J. LARUE & PAUL J. LARUE (S/R) | 3-L7-38.8 | 7.57 | 1-385496-000 |
| 9 | ROBERT WALTER & DONNA JEAN LASCH (S/R) | 3-L7-16.1 | 19.00 | 1-313594-001 |
| 10 | ROBERT WALTER & DONNA JEAN LASCH (S/R) | 3-L7-15 | 60.397 | 1-313594-001 |
| 11 | ROBERT A. GREEN & KATHY L. GREEN (S/R) | 3-L7-3.1 | 5.00 | 1-385494-000 |
| 12 | MARY ELLEN BURKHART aka MARY ELLEN MOORE (S/R) | 3-L7-3.2 | 5.00 | 1-385495-001 |
| 13 | ROBERT J. GRIMES & LORINE S. GRIMES (S/R) | 3-L7-3 | 28.21 | 1-385493-001 |

| | | |
|-------------------|---------------|----------|
| SHL TO "S" #1 | N 58°39'57" E | 1476.66' |
| SHL TO "S" #2 | N 76°13'30" E | 1336.03' |
| SHL TO WATER WELL | N 82°55'35" E | 1337.20' |

GRID NORTH
UTM, NAD83 DATUM, ZONE 17, US FT



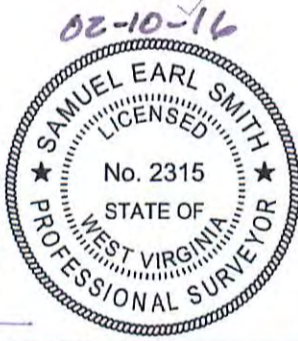
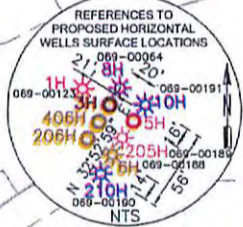
NOTES ON SURVEY

- COORDINATE 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/OR FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO OCCUPIED DWELLINGS AND AGRICULTURE BUILDINGS GREATER THAN 2500 SQ FT. WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
- NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.



SWN PRODUCTION COMPANY, LLC
"GLENN DIDRIKSEN OHI 205H"
SURFACE HOLE
ELEV: 1,382.2'

| |
|-------------------------------------|
| SURFACE HOLE LOCATION (SHL): |
| UTM (NAD83, ZONE 17, METERS): |
| NORTHING: 4,440,485.765 |
| EASTING: 534,511.826 |
| LANDING POINT (LP): |
| UTM (NAD83, ZONE 17, METERS): |
| NORTHING: 4,440,737.835 |
| EASTING: 534,814.797 |
| BOTTOM HOLE LOCATION (BHL): |
| UTM (NAD83, ZONE 17, METERS): |
| NORTHING: 4,442,452.033 |
| EASTING: 534,127.472 |



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. 2315

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: SURVEY GRADE GPS (NAVD 88, US FT)

GLENN DIDRIKSEN OHI
OPERATOR'S WELL #: 205H
API WELL #: 47 STATE 69 COUNTY 00189 PERMIT

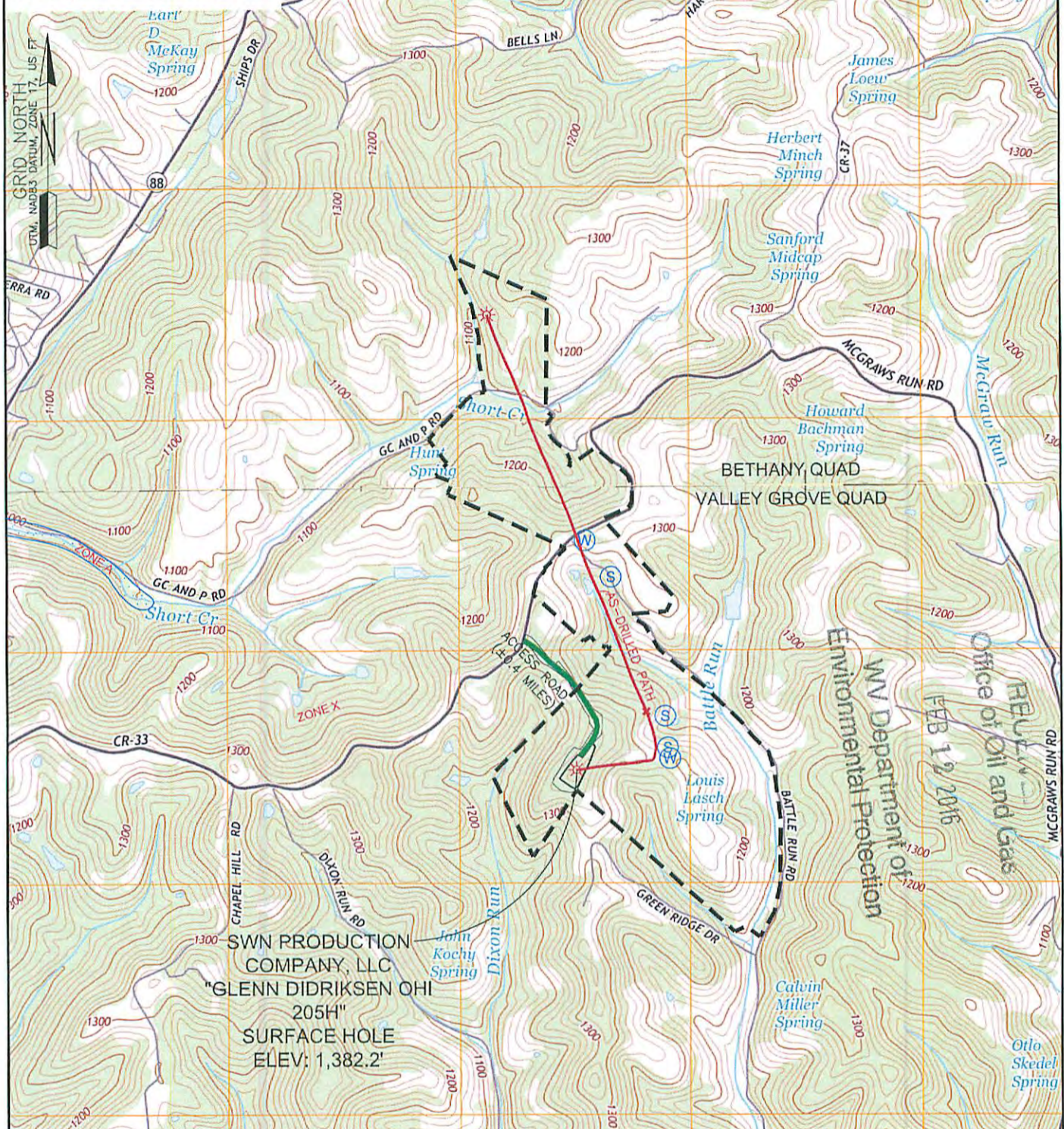
WELL TYPE: OIL | WASTE DISPOSAL | PRODUCTION | DEEP | GAS | LIQUID INJECTION | STORAGE | SHALLOW
WATERSHED: LITTLE WHEELING CREEK ELEVATION: 1,382.2'
DISTRICT: LIBERTY COUNTY: OHIO QUADRANGLE: VALLEY GROVE, WV
SURFACE OWNER: GLENN DIDRIKSEN ACREAGE: ±47.93
OIL & GAS ROYALTY OWNER: D&D FAST FOOD, INC. ACREAGE: ±47.93
DRILL | DRILL DEEPER | REDRILL | FRACTURE OR STIMULATE | PLUG OFF OLD FORMATION | PERFORATE NEW FORMATION
CONVERT | PLUG & ABANDON | CLEAN OUT & REPLUG | OTHER CHANGE (SPECIFY) AS-DRILLED
TARGET FORMATION: MARCELLUS DEPTH: 6,425' TVD - 13,052' 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 | △ REVISED SHL, LP, & BHL FOR ASDRILLED | 07-21-2015 |
| ⊙ EXISTING / PRODUCING WELLHEAD | — DIRECTIONAL PATH 11-16-2015 | |
| ⊗ ABANDONED WELL | △ REVISED ASDRILLED & PERMITTED DIRECTIONAL PATH COLOR, ADD LP COORDINATES 02-09-2016 | |
| ⊕ PLUGGED & ABANDONED WELL | | |
| △ CUT CONDUCTOR | | |
| — LEASE BOUNDARY | | |
| — AS-DRILLED PATH | | |
| — PERMITTED DIRECTIONAL PATH | | |
| — ABANDONED PATH | | |
| | | DRAWN BY: J. HARNISS |
| | | SCALE: 1" = 2000' |
| | | DRAWING NO: 59389 |
| | | WELL LOCATION PLAT |

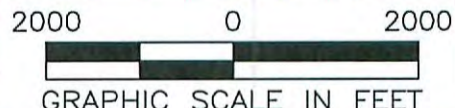


320 O'Bryan Lane • Van Buren, AR 72956
 Office: 479.474.7916 • Fax: 479.474.2450
 Surveying • handa-inc.com



SWN PRODUCTION COMPANY, LLC
 "GLENN DIDRIKSEN OHI 205H"
 SURFACE HOLE
 ELEV: 1,382.2'

WELL: GLENN DIDRIKSEN OHI 205H
 QUAD: VALLEY GROVE, WV



| | | | | | |
|---|--|---|--|---|--|
| NAME AND DISTANCE TO THE NEAREST STREAM: DIXON RUN IS LOCATED ±0.17 MILES NORTHWEST OF THE CENTER OF THE DRILL PAD. | | STREAM CROSSING COORDINATES (NAD 83): NO NEW CROSSINGS. | | COMPANY: | |
| 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 LAGER THAN 2500 SQ FT: >625 FEET | | OPERATOR'S GLENN DIDRIKSEN OHI | | | |
| FEMA FLOOD INFORMATION: BY GRAPHIC PLOTTING ONLY FEMA FIRM INCORPORATED AREA OF OHIO COUNTY, WEST VIRGINIA; MAP NUMBER 54069C0080D; EFFECTIVE DATE JULY 17, 2006. | | WELL #: 205H | | LOCATION: LIBERTY DISTRICT, OHIO 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: 40.113973° LONGITUDE: -80.595016° | | DATE: 07-21-2015 | |
| | | BOTTOM HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 40.131703° LONGITUDE: -80.599422° | | REVISIONS: △ REVISED SHL, LP, & BHL FOR ASDRILLED DIRECTIONAL PATH 11-16-2015 | |
| | | | | DRAWN BY: J. HARNESS SCALE: 1" = 2000' DRAWING NO: 59389 TOPOGRAPHIC MAP | |

03/04/2016