



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

February 18, 2015

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-9502216, issued to STATOIL USA ONSHORE PROPERTIES, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin

Chief

Operator's Well No: BLIZZARD 2H
Farm Name: BLIZZARD, ROGER D. & SPENCI
API Well Number: 47-9502216
Permit Type: Horizontal 6A Well
Date Issued: 02/18/2015

Promoting a healthy environment.

02/20/2015

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Statoil USA Onshore Properties Inc. 494505083 Tyler Ellsworth Shirley-Sec. 1
Operator ID County District Quadrangle

2) Operator's Well Number: Blizzard 2H Well Pad Name: Blizzard

3) Farm Name/Surface Owner: Blizzard Farm/Roger D. Blizzard & Ruth E. Spencer Public Road Access: Gorrells Run Road

4) Elevation, current ground: 1008' Elevation, proposed post-construction: 1003'

5) Well Type (a) Gas Oil Underground Storage
Other

(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Marcellus, Formation Top 6453 TVD, 30' thick, 4195 psi, *Intermediate Casing MASP 2300 psi

*Michael Doff
2/4/2015*

8) Proposed Total Vertical Depth: 6554' TVD

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 13,921' MD

11) Proposed Horizontal Leg Length: 6974.5'

12) Approximate Fresh Water Strata Depths: 388' TVD

13) Method to Determine Fresh Water Depths: Offset well data

14) Approximate Saltwater Depths: 1100'

15) Approximate Coal Seam Depths: 202', 232'

16) Approximate Depth to Possible Void (coal mine, karst, other): NA

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

18)

CASING AND TUBING PROGRAM

| <u>TYPE</u> | <u>Size</u> | <u>New or Used</u> | <u>Grade</u> | <u>Weight per ft. (lb/ft)</u> | <u>FOOTAGE: For Drilling</u> | <u>INTERVALS: Left in Well</u> | <u>CEMENT: Fill-up (Cu. Ft.)</u> |
|--------------|-------------|--------------------|--------------|-------------------------------|------------------------------|--------------------------------|----------------------------------|
| Conductor | 20" | New | H-40 | 94# | 80' | 80' | Cmt to surface-120 cu ft |
| Fresh Water | 13.375" | New | J-55 | 54.4# | 500' | 500' | Cmt to surface-373 cuft |
| Coal | | | | | | | |
| Intermediate | 9.625" | New | J-55 | 36# | 2400' | 2400' | Cmt to surface-840 cuft |
| Production | 5.5" | New | P-110 | 20# | 13921' | 13921' | Cmt to 1900'-3285' cuft |
| Tubing | | | | | | | |
| Liners | | | | | | | |

*MDC
2/14/2015*

| <u>TYPE</u> | <u>Size</u> | <u>Wellbore Diameter</u> | <u>Wall Thickness</u> | <u>Burst Pressure</u> | <u>Cement Type</u> | <u>Cement Yield (cu. ft./k)</u> |
|--------------|-------------|--------------------------|-----------------------|-----------------------|--------------------|---------------------------------|
| Conductor | 20" | 26" | .438" | 1530 psi | Class A | 1.3 cu ft/sk |
| Fresh Water | 13.375" | 17.5" | .380" | 2730 psi | Class A | 1.29 cu ft/sk |
| Coal | | | | | | |
| Intermediate | 9.625" | 12.25" | .352" | *3520 psi | Class A | 1.29 cu ft/sk |
| Production | 5.5 | 8.5" | .361" | 12640 psi | Class A | 2.42 cu ft/sk |
| Tubing | | | | | | |
| Liners | | | | | | |

PACKERS

| | | | | |
|-------------|--|--|--|--|
| Kind: | | | | |
| Sizes: | | | | |
| Depths Set: | | | | |

WW-6B
(9/13)

MAG
2/4/2015

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

See Attached

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well will fractured through the plug-n-perf method with +/- 25 fracturing stages per well. Each fracturing treatment will have 400,000 lbs of sand mixed in 7500 Bbls. of fresh water. The fracturing rate will be between 80 and 100 bpm at a pressure lower than a maximum pressure of 10,000 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 16.8 acres

22) Area to be disturbed for well pad only, less access road (acres): 8.4 acres

23) Describe centralizer placement for each casing string:

See attached

24) Describe all cement additives associated with each cement type:

See attached

25) Proposed borehole conditioning procedures:

Surface – Drilled with fresh water to section total depth. Prior to tripping, hole will circulated clean of cuttings and back-reamed if necessary.
Intermediate – Drilled with 9.0 ppg 5% KCL Polymer Water Based Mud (WBM) to section total depth. At section total depth, pump 40bbl viscous pill and circulate hole clean.
Production - Drilled with 12.5-13.0 ppg Synthetic Based Mud (SBM) to section total depth. At section total depth pump 2-3 20bbl heavy weighted pill sweeps to transport excess cutting from the hole until clean. Pump rates will be maintained in excess of 600 GPM, and rotation in excess of 100 RPM to assist cuttings transport. A 60 bbl tuned weighted spacer will be pumped ahead of the cement to assist in mud cake removal and water wett both casing and formation.

*Note: Attach additional sheets as needed.

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

20" conductor will be pre-set prior to start of operations and cemented in place to surface at approximately 100ft. A 17 1/2" surface hole will be drilled with fresh water to approximately 500' md/tvd. 13 3/8" surface casing will be installed and cemented to surface in order to isolate fresh water zones and provide a competent shoe for well control while drilling deeper horizons. A 12 1/4" intermediate hole section will be drilled with 5% KCL Polymer (WBM) and a conventional mud motor to approximately 2400' md/tvd through the base of the Big Injun formation. 9 5/8" Intermediate casing will be installed and cemented to surface in order to isolate the Red Beds and Big Injun formation from lower hydrocarbon bearing zones while providing a competent shoe for well control. An 8 1/2" vertical hole section will be to planned kick-off point using Synthetic Based Mud (SBM) and a conventional mud motor. The wellbore will be deviated from vertical and landed horizontally in the Marcellus Target horizon, and extended laterally to total depth of 13,921' MD/6544' VD using SBM and conventional mud motors. A 5 1/2" production casing will be installed and cemented so estimated top of cement is at least 300ft inside the previous casing shoe. The Drilling Rig will then be released to the next well.

23) Describe centralizer placement for each casing string

Surface - 1 centralizer w/ stop collar 10 ft above float shoe. One Single Bow every joint to 100ft below surface.

Intermediate – 1 centralizer w/ stop collar 10 ft above float shoe. 1 centralizer w/ stop collar 10 ft above float collar. 1 centralizer every joint for the first 15 joints. One centralizer every 3 jnts to 100ft below surface.

Production - 1 centralizer w/ stop collar 10ft above shoe. 1 centralizer 10ft above float collar. 1 centralizer every joint (floating) until KOP. 1 centralizer every 3 joints (floating) until 200ft inside intermediate shoe. 1 centralizer 50ft below mandrel hanger.

24) Describe all cement additives associated with each cement type:

Surface - Class A + 3% CaCl₂

Intermediate - Class A cmt, 0.05% Retarder, 0.25% Defoamer, 1% Accelerator, 0.25% Dispersant, 0.65% Retarder, 9.10 gal/sk Fresh Water.

Production - Class A cmt, 10% bwow Dispersent, 0.6% bwoc Fluid Loss, 0.4% bwoc Retarder, 0.1% bwoc Free water control agent, 0.25% bwoc Defoamer, 0.1% bwoc Fluid Loss, 6.32 gal/sk Fresh Water.

**Received
Office of Oil & Gas**

NOV 05 2014

4709502216

CEMENT ADDITIVES

Surface - Class A + 3% CaCl₂

Intermediate - Class A cmt, 0.05% Retarder, 0.25% Defoamer, 1% Accelerator, 0.25% Dispersant, 0.65% Retarder, 9.10 gal/sk Fresh Water.

Production - Class A cmt, 10% bwow Dispersant, 0.6% bwoc Fluid Loss, 0.4% bwoc Retarder, 0.1% bwoc Free water control agent, 0.25% bwoc Defoamer, 0.1% bwoc Fluid Loss, 6.32 gal/sk Fresh Water.

**Received
Office of Oil & Gas
NOV 05 2014**

02/20/2015



Marcellus - Drilling Well Schematic

Well Name: Blizzard 2H
 Field Name: Marcellus
 County: Tyler Co., WV
 API #: 0

GLE (ft): 1,002
 DF(ft): 22
 Y = 513867.1
 Y = 512801.0

BHL: X = 4370025.0
 SHL: X = 4372112.9

4700502216
 Profile: Horizontal
 AFE No.: 0

| Formations & Csg Points | Depth, ft | | | Form. Temp. (F) | Pore Press. (EMW) | Frac Gradient (EMW) | Planned MW | Measure Depth (ft) | Program | Details |
|--------------------------------------|--------------|--------------|---------------|-----------------|-------------------|---------------------|------------|--------------------|---------|---------------------------|
| | MD | TVD | SS | | | | | | | |
| Conductor | 100 | 100 | 924 | - | - | - | - | 100 | | 20" Conductor |
| Pittsburgh Coal | | 0 | | | | | | | | 17-1/2" Surface |
| Red Clay | | 0 | | | | | | | | |
| Approximate Fresh Water Strata ~388' | | | | | | | | | | |
| Casing Point | 500 | 500 | 524 | 65 | - | - | - | 500 | | |
| | | | | | | | | | | 5% KCl |
| 1st Salt Sand | | 451 | | | | | | | | |
| 2nd Salt Sand | | 0 | | | | | | | | |
| 3rd Salt Sand | | 0 | | | | | | | | |
| Maxton Sand | | 0 | | | | | | | | |
| Keener Sand | | 0 | | | | | | | | |
| Big Lime | | 0 | | | | | | | | |
| Big Injun | | 2,286 | | | | | | | | |
| Berea Sand | | 2,618 | | | | | | | | |
| Casing Point | 2,400 | 2,400 | -1,376 | 82 | - | >18.0 | - | 2,400 | | |
| Gordon Sand | | 3,033 | | | | | | | | 5% KCl |
| Java | | 5,072 | | | | | | | | |
| Angola | | 0 | | | | | | | | |
| Rhinestreet | | 0 | | | | | | | | |
| Cashaqua | | 0 | | | | | | | | |
| Middlesex | | 0 | | | | | | | | |
| KOP | 6,106 | 5,978 | | | | | | | | |
| West River | | 6,343 | | | | | | | | |
| Genesco | | 6,412 | | | | | | | | |
| Marcellus | | 6,453 | | | | | | | | |
| Cherry Valley | | 6,477 | | | | | | | | |
| Landing point | 6,991 | 6,523 | | | | | | | | |
| Onondaga | | 6,510 | | | | | | | | |
| | | | | | | | | | | TMD: 13,921 TVD: 6,554 |

Profile: Vertical
Bit Type: 17-1/2" PDC
BHA: 9.625 6:7 Lobe 5 Stg
Mud: 8.6 ppg Fresh Water
Surveys: n/a
Logging: n/a
Casing: 13.375 54.5 J-55 BTC at 500' MD/500' TVD
Centralizers: 1 centralizer w/ stop collar 10 ft above float shoe. One Single Bow every joint to 100ft below surface.
Cement: 15.8 ppg Tail slurry w/ TOC @ Surface
Potential Drilling Problems: Stuck Pipe, Floating, Collision,

FIT/LOT: 14.0 ppg EMW
Profile: Vertical
Bit Type: 12-1/4" Kymera
BHA: 8in 6:7 Lobe 4.0 Stg 1.5 ABH (0.17 rpg/620 Diff)
Mud: 9.1 ppg 5% KCl
Surveys: Gyro SS, MWD - EM Pulse
Logging: n/a
Casing/Liner: 9.625 36 J-55 BTC at ' MD/' TVD
Csg Hanger: Mandrel Hanger
Centralizers: 1 centek centralizer w/ stop collar 10 ft above float collar. 1 centralizer every joint for the first 15 joints. One centralizer every 3 jnts to 100ft below surface.
Cement: 15.8 ppg Tail slurry w/ TOC @ Surface
Potential Drilling Problems: Hole Cleaning, Poor ROP, Buckling,

FIT/LOT: 15.8 ppg EMW
Profile: 8-1/2" PDC
Bit Type: 0
BHA: 6.75in 6/7 lobe 5.0 stg 1.95 FBH .29 rpg 715 DIFF
Mud: 9.1 ppg 5% KCl
Surveys: MWD - EM Pulse w/ 30ft surveys in curve, 100ft surveys in lateral
Logging: GR
Casing/Liner: 5.5 20 P110EC VAM TOP HT at ft MD/ ft TVD
Csg Hanger: Mandrel Hanger
Centralizers: 1 centek centralizer w/ stop collar 10ft above shoe. 1 centek centralizer 10ft above float collar. 1 centek centralizer every joint (floating) until KOP. 1 centek centralizer every 3 joints (floating) until 200ft inside intermediate shoe. 1 centek centralizer 50ft below mandrel hanger.
Cement: 15 ppg Tail slurry w/ TOC @ 1900' MD'

Potential Drilling Problems: Bit Preservation, Hole Cleaning,
Notes / Comments:

Received
 Office of Oil & Gas

Last Revision Date: 9/24/2014 Note: Depths are referenced to RKB
 Revised by: TB Gilbert Note: Not Drawn to Scale

NOV 05 2014

Cement Outside Casing

BLIZZARD 2H - NOV 05 2014
 02/20/2015

WW-9
(9/13)

API Number 47 - 4709502216
Operator's Well No. Blizzard 2H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Statoil USA Onshore Properties Inc. OP Code 494505083

Watershed (HUC 10) Gorrell Run - Middle Island Creek Quadrangle Shirley - Sec. 1

Elevation 1008' County Tyler District Ellsworth

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

MAG
10-28-14

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air/fresh water-vert sec/oil based mud horiz sec

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? emulsifier, food grade, barite, surfactant, calcium carbonate, gilsonite, lubricant, graphite, lime

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA

-Landfill or offsite name/permit number? Wetzel County Landfill

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Bekki Winfree

Company Official (Typed Name) Bekki Winfree

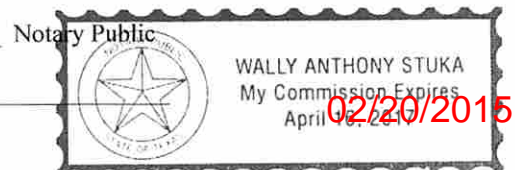
Company Official Title Sr. Regulatory Advisor

Received
Office of Oil & Gas

NOV 05 2014

Subscribed and sworn before me this 1 day of October, 20 14

Wally Anthony Stuka
My commission expires April 16, 2017



Statoil USA Onshore Properties Inc.

Proposed Revegetation Treatment: Acres Disturbed 12.4 Prevegetation pH Unknown

Lime 3 Tons/acre or to correct to pH 6

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Winter Rye - 168 lbs/acre

Tall Fescue or Orchard Grass - 40 lbs/acre

Annual Ryegrass - 40 lbs/acre

Ladino Clover - 3 lbs/acre

Redtop - 3 lbs/acre

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael Doff

Comments: Presseed & mulch any disturbed areas per WYDEP regs. Maintain & Upgrade E-R-S as necessary

Received
Office of Oil & Gas

NOV 05 2014

Title: Oil and Gas Inspector

Date: 10-08-14

Field Reviewed? Yes No

4709502216



Blizzard Pad – Site Safety Plan

Statoil USA Onshore Properties, Inc.

Received
Office of Oil & Gas
NOV 05 2014

Michael Doff
10-28-14

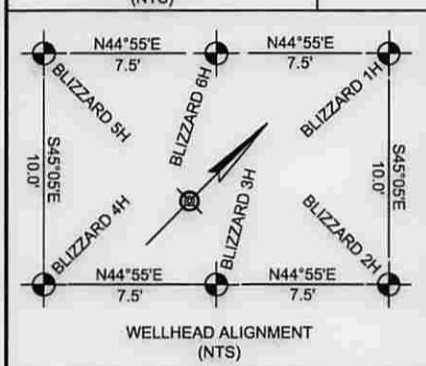
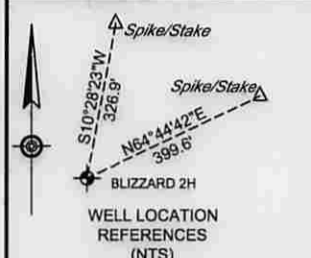
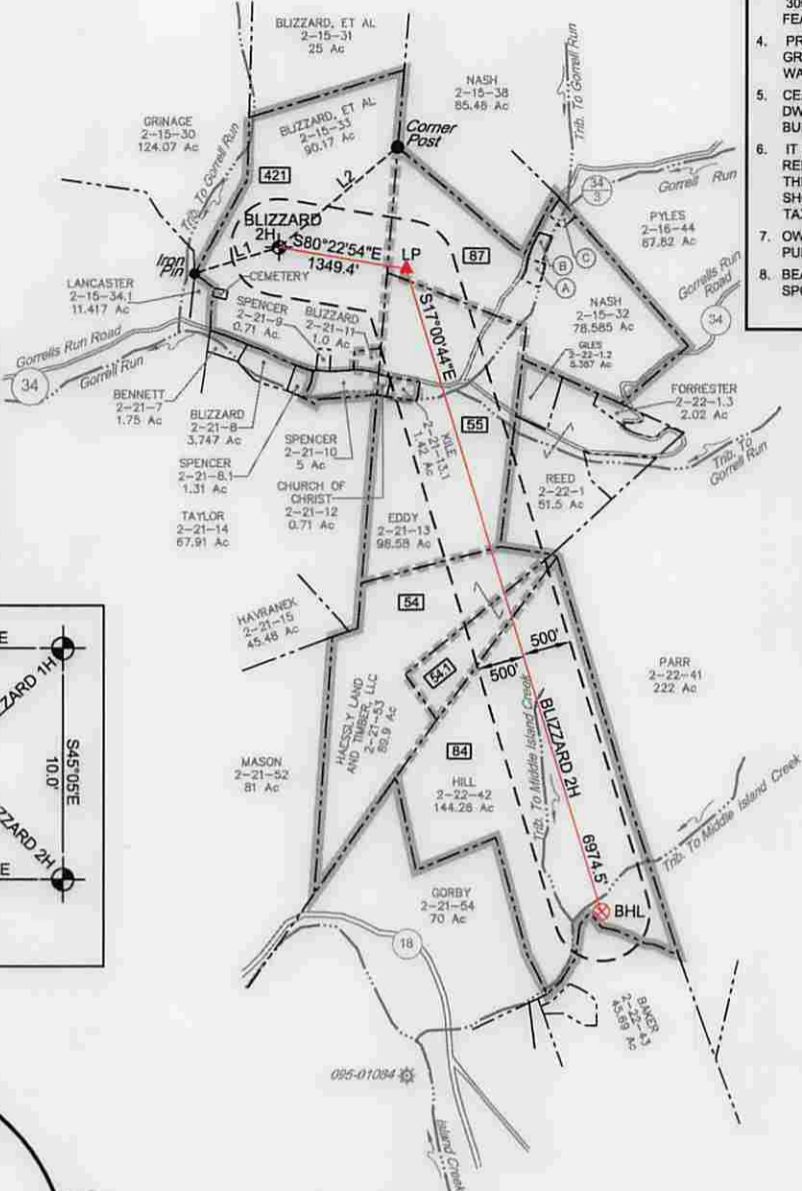
02/20/2015

| |
|---|
| SURFACE HOLE LOCATION |
| UTM 17 - NAD 83 N - 4372112.32m E - 512803.82m |
| WV SPC NORTH NAD83 N - 366560.53 E - 1587257.58 |
| LANDING POINT LOCATION |
| UTM 17 - NAD 83 N - 4372050.40m E - 513210.30m |
| WV SPC NORTH NAD83 N - 366335.06 E - 1588588.06 |
| BOTTOM HOLE LOCATION |
| UTM 17 - NAD 83 N - 4370028.94m E - 513865.89m |
| WV SPC NORTH NAD83 N - 359665.73 E - 1590628.64 |

- NOTES
1. THERE ARE NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF THE PROPOSED WELL.
 2. PROPOSED PAD, LOD, OR E&S CONTROL FEATURE IS GREATER THAN 100' FROM PERENNIAL STREAM, WETLAND, POND, RESERVOIR OR LAKE.
 3. THERE ARE NO NATIVE TROUT STREAMS WITHIN 300' OF PROPOSED PAD, LOD, OR E&S CONTROL FEATURE.
 4. PROPOSED PAD, LOD, OR E&S CONTROL FEATURE IS GREATER THAN 1000' FROM SURFACE OR GROUND-WATER INTAKE OF PUBLIC WATER SUPPLY.
 5. CENTER OF PAD IS 625 FEET FROM OCCUPIED DWELLING STRUCTURE AND AGRICULTURAL BUILDINGS LARGER THAN 2500 SQUARE FEET.
 6. IT IS NOT THE INTENTION OF THIS PLAT TO REPRESENT A COMPLETE BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON. BOUNDARIES AS SHOWN TAKEN FROM RECORD DEED DESCRIPTIONS, TAX MAPS, AND SUPPLEMENTAL FIELD SURVEY.
 7. OWNERSHIP DATA GATHERED FROM COUNTY PUBLIC TAX AND DEED RECORDS.
 8. BEARINGS SHOWN ARE BASED ON WEST VIRGINIA SPC NORTH, NAD 83 DATUM

LEGEND

- OUTER LEASE BOUNDARY.
- INTERIOR LEASE BOUNDARY
- SURFACE TRACT LINES
- WELL REFERENCE LINES
- 34 11 - COUNTY ROADS
- PUBLIC ROADS
- BLUE-LINE STREAMS
- # - MINERAL OWNER
- ☉ - PROPOSED WELL
- ☼ - EXISTING WELL
- ▲ - LANDING POINT
- ⊗ - BOTTOM HOLE



LEGEND OF PROPERTIES

| | | |
|---------------|----------|------|
| A - NASH, | 2-16-57, | 1 Ac |
| B - NASH, | 2-16-56, | 1 Ac |
| C - REYNOLDS, | 2-16-54, | 1Ac |

BLIZZARD #2H MINERAL OWNERSHIP

| |
|--|
| 421 - SOMERSET MINERALS, LP, ET AL |
| 87 - WILLIAM S. & OPAL M. NASH (LIFE ESTATE) |
| 55 - ALFRED LONZO EDDY, ET AL |
| 54 - HAESSLY LAND AND TIMBER CO., LLC |
| 54.1 - D. RALPH THACKER, ET AL |
| 84 - JUDITH M. ROGERS, ET AL |

PROPERTY TIES

| | |
|------------------|---------|
| L1 - N73°01'20"E | 921.7' |
| L2 - N50°06'24"E | 1610.9' |

FILE NO. 8790-003-18

DRAWN BY DMS

SCALE 1 INCH = 2000 FEET

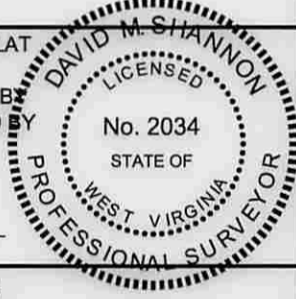
MIN DEGREE OF ACCURACY 1 IN 2500

PROVEN SOURCE OF ELEVATION 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 THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION

David M. Shannon

P.S. #2034



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

LDG Larson Design Group

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL

IF "GAS", PRODUCTION STORAGE DEEP SHALLOW

LOCATION: WATERSHED GORRELL RUN - MIDDLE ISLAND CREEK

COUNTY/DISTRICT TYLER / ELLSWORTH

SURFACE OWNER ROGER D. BLIZZARD & RUTH E. SPENCER

OIL & GAS ROYALTY OWNER SEE TABLE ABOVE

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE

PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON

CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) _____

TARGET FORMATION: MARCELLUS

WELL OPERATOR: STATOIL USA ONSHORE PROPERTIES, INC.

ADDRESS 2103 CITYWEST BOULEVARD / SUITE 800
HOUSTON TX, 77042

DATE 10-17-2014

OPERATORS WELL NO. BLIZZARD 2H

API WELL NO. 47

STATE 095 COUNTY 02216HGA PERMIT

ELEVATION 1008'

QUADRANGLE SHIRLEY - SEC. 1

ACREAGE 90.17 ±

ACREAGE 510.2±

ESTIMATED DEPTH 6516'

DESIGNATED AGENT RICHARD PYLES

ADDRESS 803 NASH ROAD
MIDDLEBOURNE, WV 26149