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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Jim Justice , Governor  
Austin Caperton , Cabinet Secretary  
www.dep.wv.gov

Tuesday, August 01, 2017  
WELL WORK PERMIT  
Horizontal 6A / Fracture

CNX GAS COMPANY LLC  
POST OFFICE BOX 1248

JANE LEW, WV 263786506

Re: Permit approval for SHR 40 FHS  
47-095-02214-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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- 0450.

James A. Martin  
Chief

Operator's Well Number: SHR 40 FHS  
Farm Name: MAPEL, DAVID L. ET AL  
U.S. WELL NUMBER: 47-095-02214-00-00  
Horizontal 6A / Fracture  
Date Issued: 8/1/2017

Promoting a healthy environment.

08/04/2017

## 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

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1. 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.
2. 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.
3. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
4. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
5. 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.
6. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov).
7. The entire well pad shall be bermed so as to prevent runoff from leaving the pad during drilling and completion operations, including a mountable berm at pad entrance.

WW-6B  
(04/15)

API NO. 47-<sup>85</sup> - 02214 **F**  
OPERATOR WELL NO. SHR40FHS  
Well Pad Name: SHR40

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

1) Well Operator: CNX GAS COMPANY LLC 494458046 095-Tyler Centerville Shirley  
Operator ID County District Quadrangle

2) Operator's Well Number: SHR40FHS Well Pad Name: SHR40

3) Farm Name/Surface Owner: Noble Energy Public Road Access: County Rt.18

4) Elevation, current ground: 771' Elevation, proposed post-construction: 771'

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

(b) If Gas Shallow  Deep   
Horizontal

6) Existing Pad: Yes or No Yes *DMAH 4/24/17*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus 6325-6389 / 64' thick / 4217 psi

8) Proposed Total Vertical Depth: 6385

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 16181'

11) Proposed Horizontal Leg Length: 8431'

12) Approximate Fresh Water Strata Depths: 357'

13) Method to Determine Fresh Water Depths: nearest offset wells

14) Approximate Saltwater Depths: None for noted offsets

15) Approximate Coal Seam Depths: None

16) Approximate Depth to Possible Void (coal mine, karst, other): None

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: \_\_\_\_\_

**RECEIVED**  
**Office of Oil and Gas**

APR 26 2017

WV Department of  
Environmental Protection  
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08/04/2017

WW-6B  
(04/15)

API NO. 47-<sup>55</sup> - 02214 **F**  
 OPERATOR WELL NO. SHR40FMS  
 Well Pad Name: SHR40

18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	NEW	LS	94	40'	40'	GTS
Fresh Water	13 3/8"	NEW	J-55 54.5#	54.5	501'	501'	Lead 30.0 Tail 90.0
Coal							
Intermediate	9 5/8"	NEW	HCK-55 36#	36.0	2238.7	2238.7	769
Production	5 1/2"	NEW	P-110 20#	20.0	16,172.6	16,172.6'	Lead 560 Tail 365
Tubing							
Liners							

Existing  
7

*DMH 4/24/17*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	36"	0.438	2730			
Fresh Water	13 3/8"	17.5"	.380	2730		Class A	Lead 1.57 Tail 1.20
Coal							
Intermediate	9 5/8"	13 3/8"	.352	3520		Class A	1.18
Production	5 1/2"	8 3/4"	.361	12,640		Class A	Lead 1.58 Tail 1.27
Tubing							
Liners							

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

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Office of Oil and Gas

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WV Department of Environmental Protection  
 Page 2 of 6  
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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Well previously drilled by Noble Energy. Submitting permit application to complete hydraulic fracturing operations and produce the well.

*DMH 4/24/17*

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

The completions phase will be multiple stages over the lateral length of the well, stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand water and chemicals. Max Pressure 9,600 PSI, Max Rate 100 BPM

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 0

22) Area to be disturbed for well pad only, less access road (acres): 0

23) Describe centralizer placement for each casing string:

PREVIOUSLY COMPLETED. From original NOBLE ENERGY submittal "Conductor- No centralizers used. Fresh Water/Surface- Bow spring centralizers every 3 joints to surface. Intermediate- Bow spring centralizers on every joint to KOP, one every third joint from KOP to 100' surface. Production - Rigid bow spring every third joint from KOP to TOC, rigid bow spring every joint to KOP"

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

PREVIOUSLY COMPLETED. From original Noble Energy submittal "Conductor - fill/soil to surface Fresh Water - 15.6 ppg Type 1 cement +2% CaCl, 0.25# lost circ., 3-%excess yield =1.18. Intermediate- 15.6 ppg Class A +0.4% Ret, 0.15% Disp, 0.2% anti Foam, 0.125# sk Lost circ. 20% Excess Yield = 1.19 to surface. Production - 14.8 ppg Class A 25:75:0 System +2.6% cement Extender, 0.7% Fluid Loss additive, 0.45% high temp retarder, 0.2% friction reducer 10% excess yield=1.27 TOC>=200' above 9.625" shoe. See attached approved variance from WV DEP.

25) Proposed borehole conditioning procedures:

PREVIOUSLY COMPLETED. From original Noble Energy submittal Conductor - The hole is drilled w/air and casing is run in air. apart from insuring the hole is clean via air circulation at TD, There are no other conditioning procedures. Fresh Water/Surface - The hole is drilled w/air and casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement. Intermediate - Once surface casing is set and cemented intermediate hole is drilled either on air or SOBM and filled w/ KCl water once filled w/ KCl water once drilled to TD. The well is conditioned with KCl circulation prior to running casing. Once casing is at setting depth, the well is circulated a minimum of one hole volume prior to cement. Production - The hole is drilled with synthetic oil base mud and once at TD the hole is circulated at a maximum allowable drilling pump rate for at least 6X bottoms up. Once on bottom with casing, circulate a minimum of one volume prior to pumping cement.

\*Note: Attach additional sheets as needed.

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WV Department of  
Environmental Protection  
08/04/2017



ALLIANCE PETROLEUM CORPORATION  
4150 BELDEN VILLAGE AVE NW, SUITE 410  
CANTON, OH 44718-2553

**CONSOL Energy Inc.**

CNX Center  
1000 CONSOL Energy Drive  
Canonsburg, PA 15317-6506

**phone:** (724) 485 – 4040

**e-mail:** PCR@consolenergy.com

**web:** www.consolenergy.com

**CNX GAS PRODUCTION TEAM**

**Re: Tyler County Hydraulic Fracturing Notice**

Dear Sir or Madam,

CNX Gas Company LLC (CNX) has developed a Marcellus pad SHR40HS located in Tyler County, West Virginia. Through CNX's evaluation pursuant to WV Code 35 CSR 8(5.11), you have been identified as the owner or operator of a well within a 500' radius of the surface location or lateral section of the wellbore. Due to the apparent presence of unique geological conditions, communication between CNX hydraulic fracturing operations and the identified well is a possibility. As an owner or operator of a conventional natural gas well in this area, we are requesting your assistance in monitoring for changes that would indicate communication between your well(s) and our planned operation.

CNX anticipates conducting hydraulic fracturing activity at the SHR40HS Pad beginning as early as 3rd Quarter 2017 (July-September) and potentially continuing through 4th Quarter 2017 (October-December). Plats for each well being hydraulically fractured on this pad are included for your reference.

We recommend that conventional operators conduct the following activities before, during, and after fracturing operations.

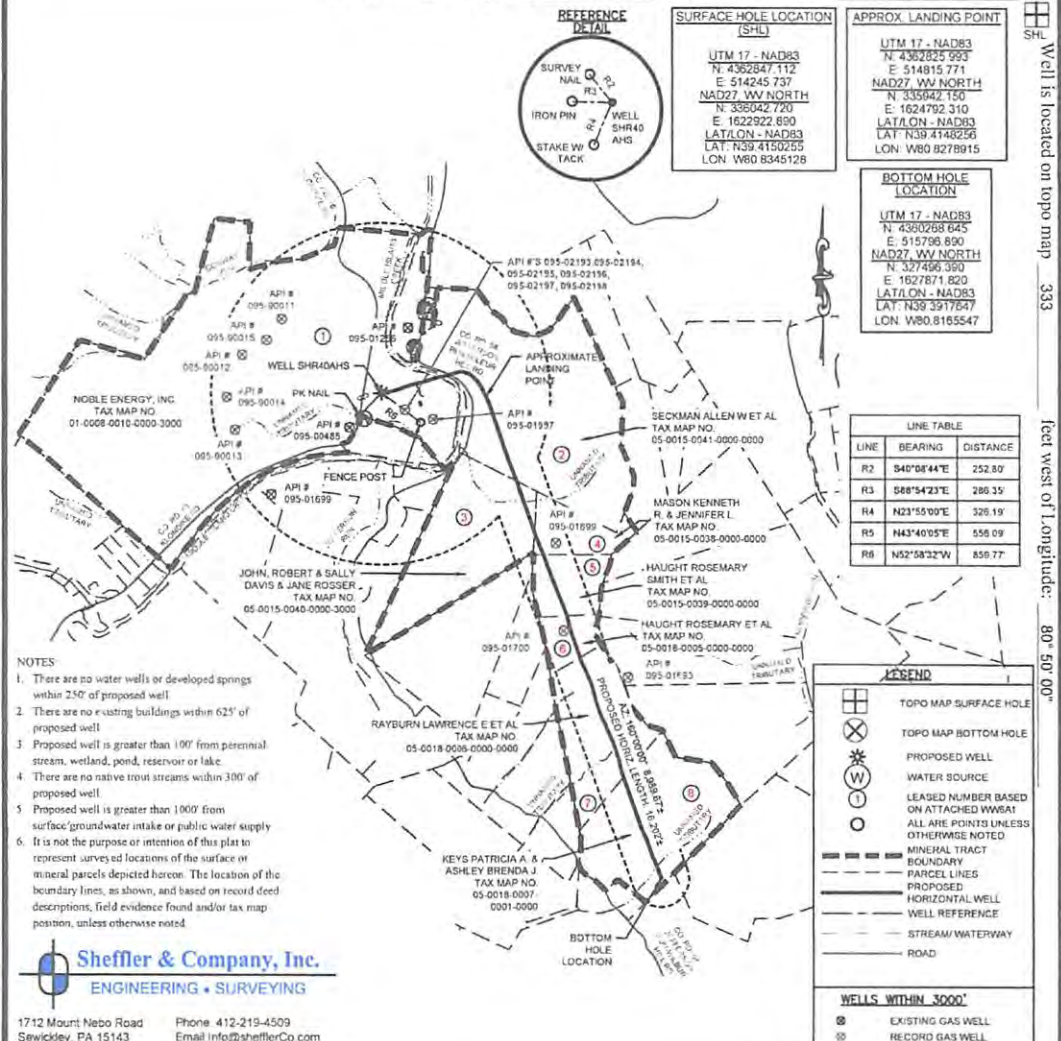
- Inspect surface equipment prior to fracturing, to establish mechanical integrity and confirm well conditions.
- Monitor wells during and after fracturing and monitor for abnormal increases in fluid, gas, or pressure.
- Inspect and upgrade master valves or other necessary equipment for wellhead integrity as you see fit.
- Notify the OOG and CNX if any changes in fluid, gas production, pressure, or other conditions that cause abnormal risk or concern.

Please feel free to contact CNX's Production Control Room at 724-485-4040 (staffed 24/7) with any questions or comments. You may also contact the West Virginia Office of Oil and Gas at 304-926-0499.

Sincerely,  
CNX Production

08/04/2017

Well is located on topo map 598 feet south of Latitude: 39° 25' 00"



FILE #: SHR 40 AHS  
 DRAWING #: SHR 40 AHS  
 SCALE: 1"=2500'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE: USGS MONUMENT OF ELEVATION: A 142.724.61'

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED: *[Signature]*  
 R.P.E.: L.L.S.: P.S. NO.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP  
 OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow

WATERSHED: MIDDLE ISLAND CREEK ELEVATION: 771'  
 COUNTY/DISTRICT: CENTERVILLE / TYLER QUADRANGLE: SHIRLEY, W. VA  
 SURFACE OWNER: NOBLE ENERGY, INC ACREAGE: 543.35  
 OIL & GAS ROYALTY OWNER: DAVID L. MAPLE, ET AL ACREAGE: 351.16

DRILL:  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY)

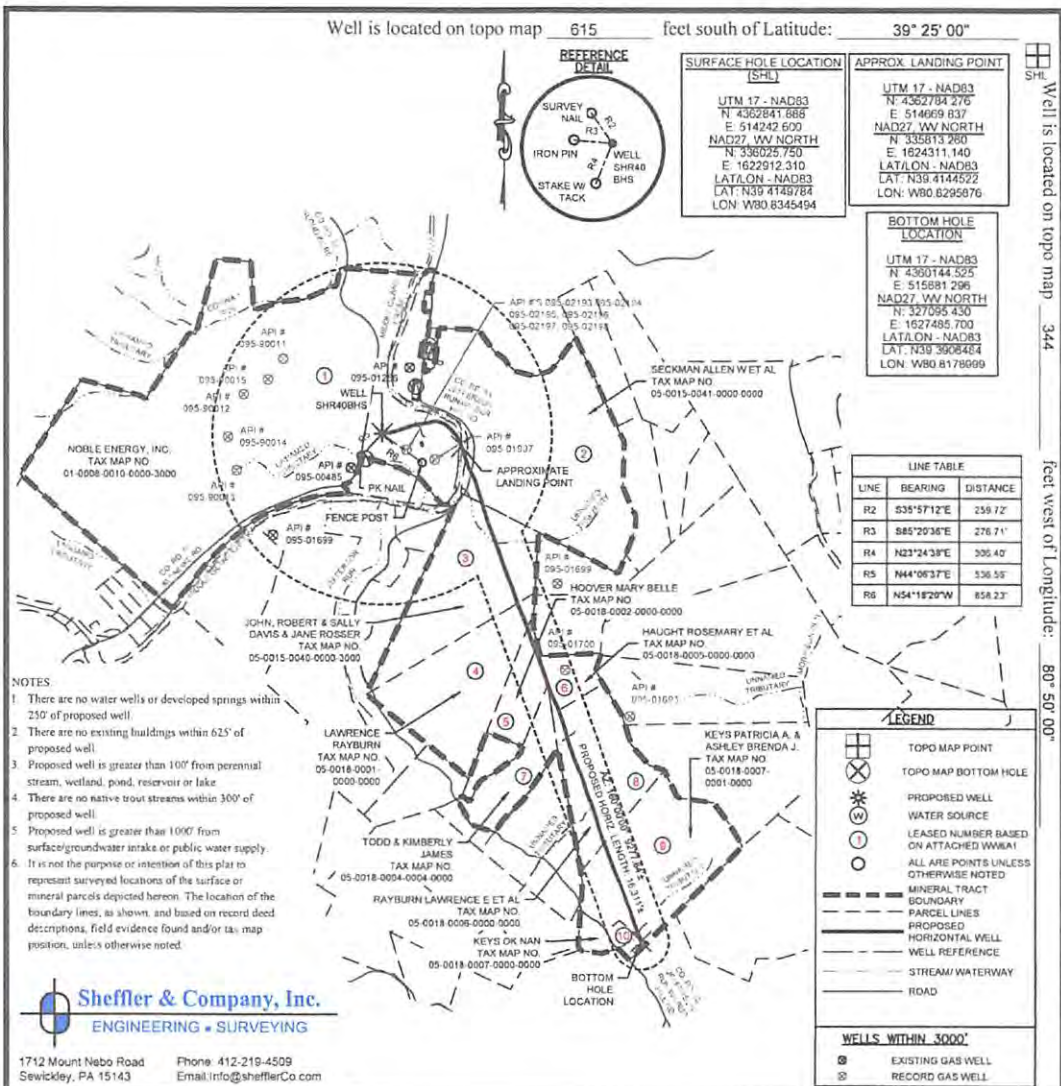
TARGET FORMATION: MARCELLUS  
 WELL OPERATOR: CNX GAS COMPANY, LLC ESTIMATED DEPTH: TVD: 6,387 ± TMD: 16,202 ±  
 Address: 1000 CONSOL ENERGY DRIVE, CANNONSBURG, PA 15317 Designated Agent: CHRIS TURNER  
 City: CANONSBURG State: PA Zip Code: 15317 Address: 1 DOMINION DRIVE  
 City: JANE LEW State: WV Zip Code: 26378

DATE: APRIL 18, 2017  
 OPERATOR'S WELL #: SHR 40 AHS  
 API WELL # 47 095 2206  
 STATE COUNTY PERMIT

08/04/2017

Well is located on topo map 615 feet south of Latitude: 39° 25' 00"

Well is located on topo map 344 feet west of Longitude: 80° 50' 00"



**NOTES**

- There are no water wells or developed springs within 250' of proposed well.
- There are no existing buildings within 625' of proposed well.
- Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
- There are no native trout streams within 300' of proposed well.
- Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
- It is not the purpose or intention of this plan to represent surveyed locations of the surface or mineral parcels depicted herein. The location of the boundary lines, as shown, and based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

**Sheffler & Company, Inc.**  
ENGINEERING • SURVEYING

1712 Mount Nebo Road Phone: 412-219-4509  
Sewickley, PA 15143 Email: info@shefflerCo.com

FILE #: SHR 40 BHS  
DRAWING #: SHR 40 BHS  
SCALE: 1"=2500'  
MINIMUM DEGREE OF ACCURACY: 1/2500  
PROVEN SOURCE OF ELEVATION: USGS MONUMENT A 142 724 61'

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED: *[Signature]*  
R.P.E.: L.L.S.: P.S. NO.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304

DATE: APRIL 18, 2017

OPERATOR'S WELL #: SHR 40 BHS

API WELL # 47 095 2204  
STATE COUNTY PERMIT

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow

WATERSHED: MIDDLE ISLAND CREEK ELEVATION: 771'  
COUNTY/DISTRICT: CENTERVILLE / TYLER QUADRANGLE: SHIRLEY, W. VA  
SURFACE OWNER: NOBLE ENERGY, INC ACREAGE: 543.35  
OIL & GAS ROYALTY OWNER: DAVID L. MAPLE, ET AL. ACREAGE: 351.16

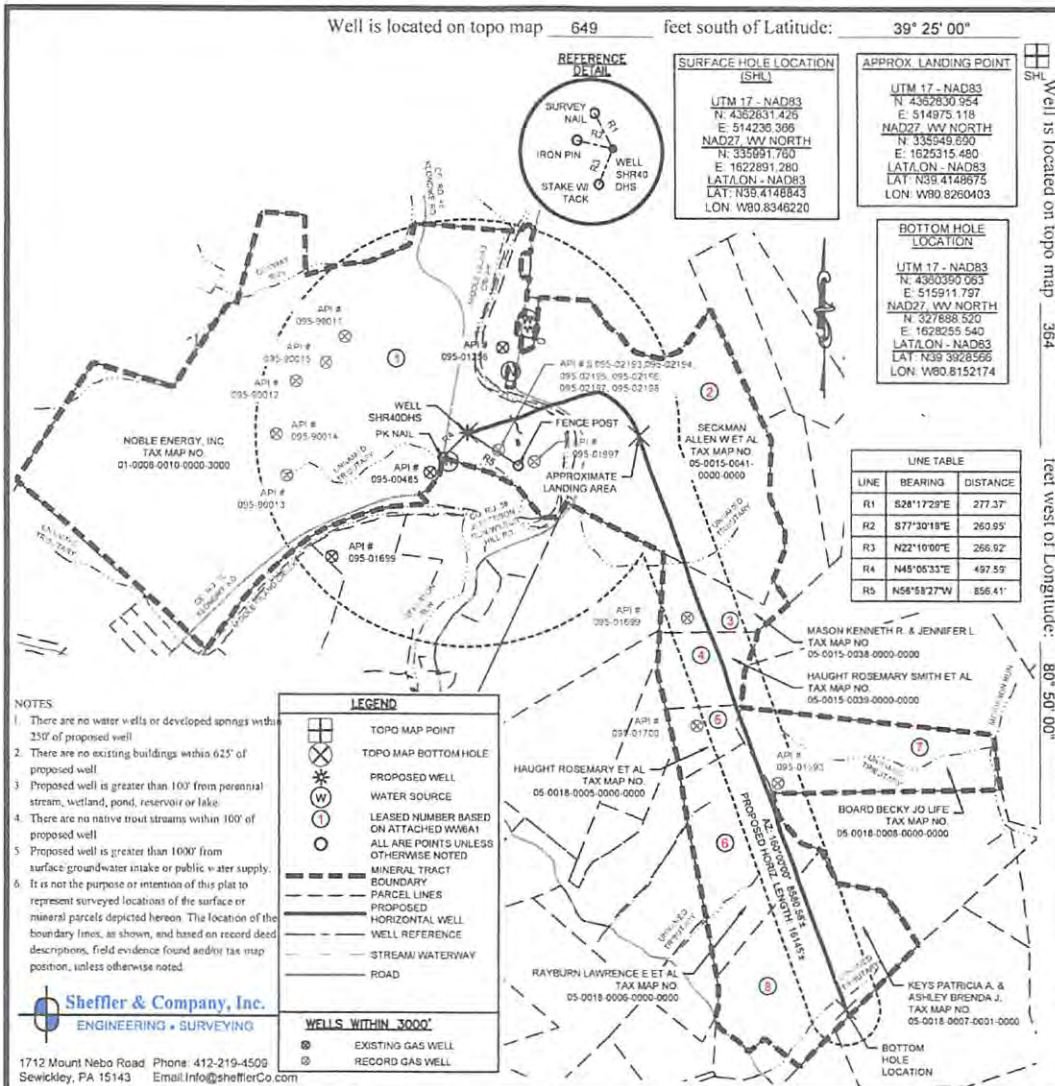
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON   
CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,372' ± TMD: 16,311' ±  
WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER  
Address: 1000 CONSOL ENERGY DRIVE, CANNONSBURG, PA 15317 Address: 1 DOMINION DRIVE  
City: CANNONSBURG State: PA Zip Code: 15317 City: JANE LEW State: WV Zip Code: 26378

08/04/2017



Well is located on topo map 649 feet south of Latitude: 39° 25' 00"



Well is located on topo map 364 feet west of Longitude: 80° 50' 00"

FILE #: SHR 40 DHS  
DRAWING #: SHR 40 DHS  
SCALE: 1"=2500'  
MINIMUM DEGREE OF ACCURACY: 1/2500  
PROVEN SOURCE: USGS MONUMENT  
OF ELEVATION: A 142: 724.61'

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

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OFFICE OF OIL & GAS  
601 57TH STREET  
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 Gas  Liquid Injection  Storage  Shallow

WATERSHED: MIDDLE ISLAND CREEK ELEVATION: 771'  
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SURFACE OWNER: NOBLE ENERGY, INC ACREAGE: 543.35  
OIL & GAS ROYALTY OWNER: DAVID L. MAPLE, ET AL. ACREAGE: 351.16

DRILL:  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
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CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY)

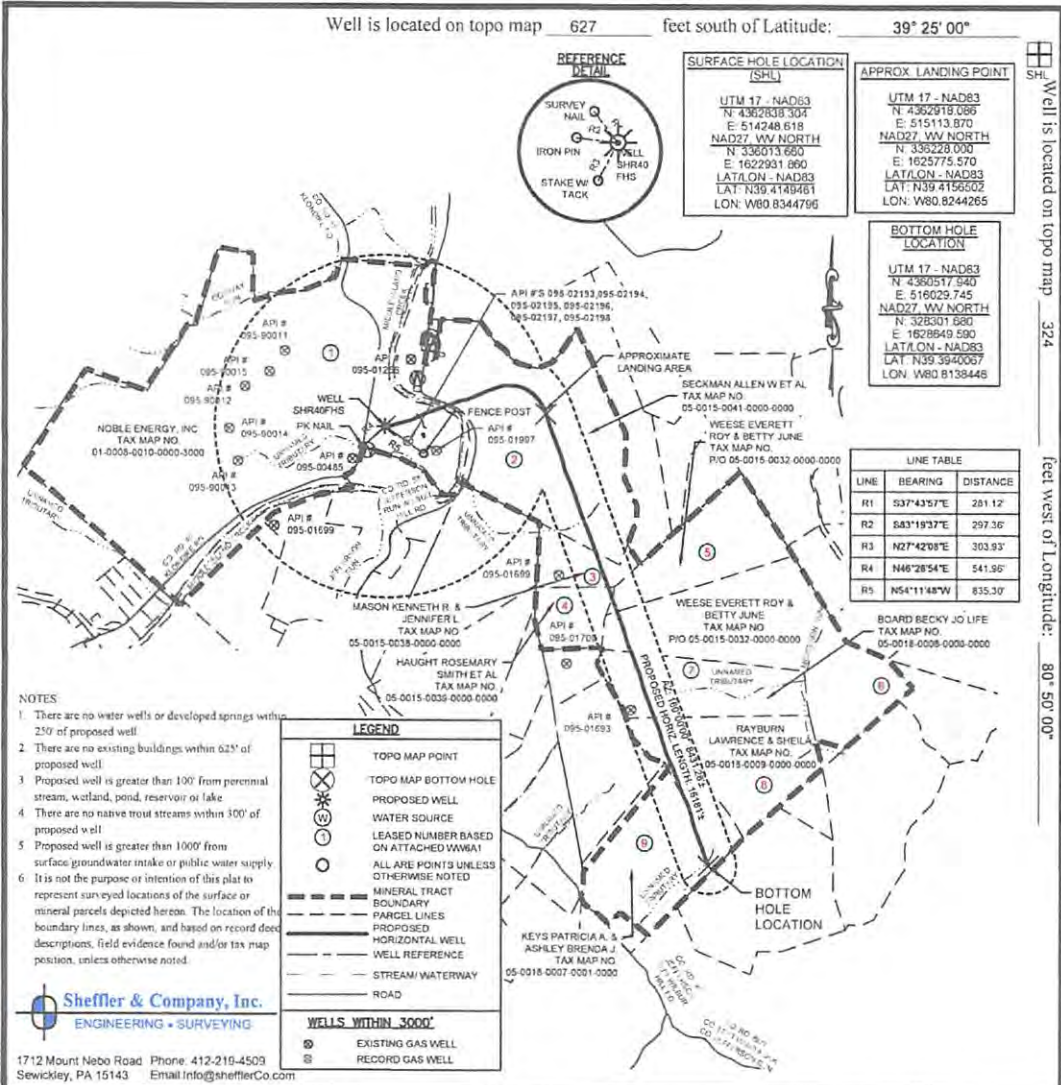
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,381' ± TMD: 16,145' ±  
WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER  
Address: 1000 CONSOL ENERGY DRIVE, CANNONSBURG, PA 15317 Address: 1 DOMINION DRIVE  
City: CANNONSBURG State: PA Zip Code: 15317 City: JANE LEW State: WV Zip Code: 26378

DATE: APRIL 16, 2017  
OPERATOR'S WELL #: SHR 40 DHS  
API WELL # 47 095 2212  
STATE COUNTY PERMIT

08/04/2017

Well is located on topo map 627 feet south of Latitude: 39° 25' 00"

Well is located on topo map 324 feet west of Longitude: 80° 50' 00"



**Sheffler & Company, Inc.**  
ENGINEERING • SURVEYING  
1712 Mount Nabo Road Phone: 412-219-4503  
Sewickley, PA 15143 Email: info@shefflerco.com

FILE #: SHR 40 FHS  
DRAWING #: SHR 40 FHS  
SCALE: 1"=2500'  
MINIMUM DEGREE OF ACCURACY: 1/2500  
PROVEN SOURCE OF ELEVATION: USGS MONUMENT A 142: 724 61'

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SIGNED: [Signature]  
R.P.E.: \_\_\_\_\_ L.L.S.: P.S. NO. \_\_\_\_\_



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304

WELL TYPE:  Oil  Waste Disposal  Production  Deep  Gas  Liquid Injection  Storage  Shallow

WATERSHED: MIDDLE ISLAND CREEK ELEVATION: 771'  
COUNTY/DISTRICT: CENTERTVILLE / TYLER QUADRANGLE: SHIRLEY, W. VA  
SURFACE OWNER: NOBLE ENERGY, INC ACREAGE: 543.35  
OIL & GAS ROYALTY OWNER: DAVID L. MAPLE, ET AL ACREAGE: 351.16

DRILL:  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON   
CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,385' ± TMD 16,181' ±  
WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER  
Address: 1000 CONSOL ENERGY DRIVE, CANNONSBURG, PA 15317 Address: 1 DOMINION DRIVE  
City: CANNONSBURG State: PA Zip Code: 15317 City: JANE LEW State: WV Zip Code: 26378

DATE: APRIL 18, 2017  
OPERATOR'S WELL #: SHR 40 FHS  
API WELL # 47 095 2212  
STATE COUNTY PERMIT

08/04/2017

WW-9  
(4/16)

API Number 47 - 95 - 02294 F  
Operator's Well No. SHR40FHS

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name CNX GAS COMPANY LLC OP Code 494458046

Watershed (HUC 10) Headwaters Middle Island Creek Quadrangle Shirley

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: no utilization of a pit

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 at next anticipated wells SHR3 A,B,C,D. 4709502193, 4709502124, 470952194, 4709502195 )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No drilling activity, unused frac water will be reused at other wells in the area.)

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

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. NA No Drilling

-If oil based, what type? Synthetic, petroleum, etc. NA No Drilling

Additives to be used in drilling medium? NA No Drilling

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. NA No Drilling

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

-Landfill or offsite name/permit number? NA

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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 *Matt Hanley*

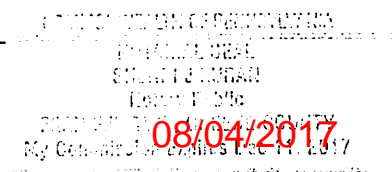
Company Official (Typed Name) Matt Hanley

Company Official Title Manager - Permitting

Subscribed and sworn before me this 17 day of February, 2017

*Shelli Kellan* Notary Public

My commission expires 12-11-17



95-02214F

WW-9  
(9/13)

API Number 47 - 095 -  
Operator's Well No. SHR 40 AHS

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Noble Energy, Inc. OP Code 494501907

Watershed (HUC 10) Headwaters Middle Island Creek Quadrangle Shirley

Elevation 771' County 095-Tyler District Centerville

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: closed loop-no utilization of a pit

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 see attached sheet )
- Reuse (at API Number at next anticipated well )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

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

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Aluminum based mud through intermediate string then 600ml

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

Additives to be used in drilling medium? Please see attached sheet

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

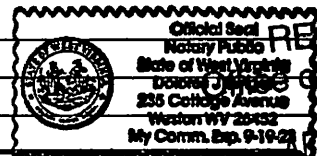
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust)

-Landfill or offsite name/permit number? please see attached sheet

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 [Signature]  
Company Official (Typed Name) Kim Ward/Dee Swiger  
Company Official Title Regulatory Analyst



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AUG 21 2017

Subscribed and sworn before me this 24 day of Sept, 2014

[Signature] Notary Public

My commission expires 09/19/2023

WV Department of Environmental Protection  
08/04/2017

95-02214 F

Form WW-9

Operator's Well No. SHR 40 AHS

**Noble Energy, Inc.**

Proposed Revegetation Treatment: Acres Disturbed 5.42 Prevegetation pH 6.0

Lime 2-3 Tons/acre or to correct to pH \_\_\_\_\_  
10-20-20 or equal

Fertilizer type \_\_\_\_\_

Fertilizer amount 500 lbs/acre

Mulch Hay or Straw at 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

\*\*alternative seed mixtures are shown on the Site Design.

**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 Daff

Comments: Pre seed and mulch all cut area, maintain all E & S during operation.

Title: Oil and Gas Inspector

Date: 9-9-14

Field Reviewed?  Yes  No

08/04/2017

95-02214F

# Safety Plan for SHR40 Well Pad

Wells SHR40AHS, SHR40BHS, SHR40DHS, SHR40FHS

## CNX Gas Company LLC

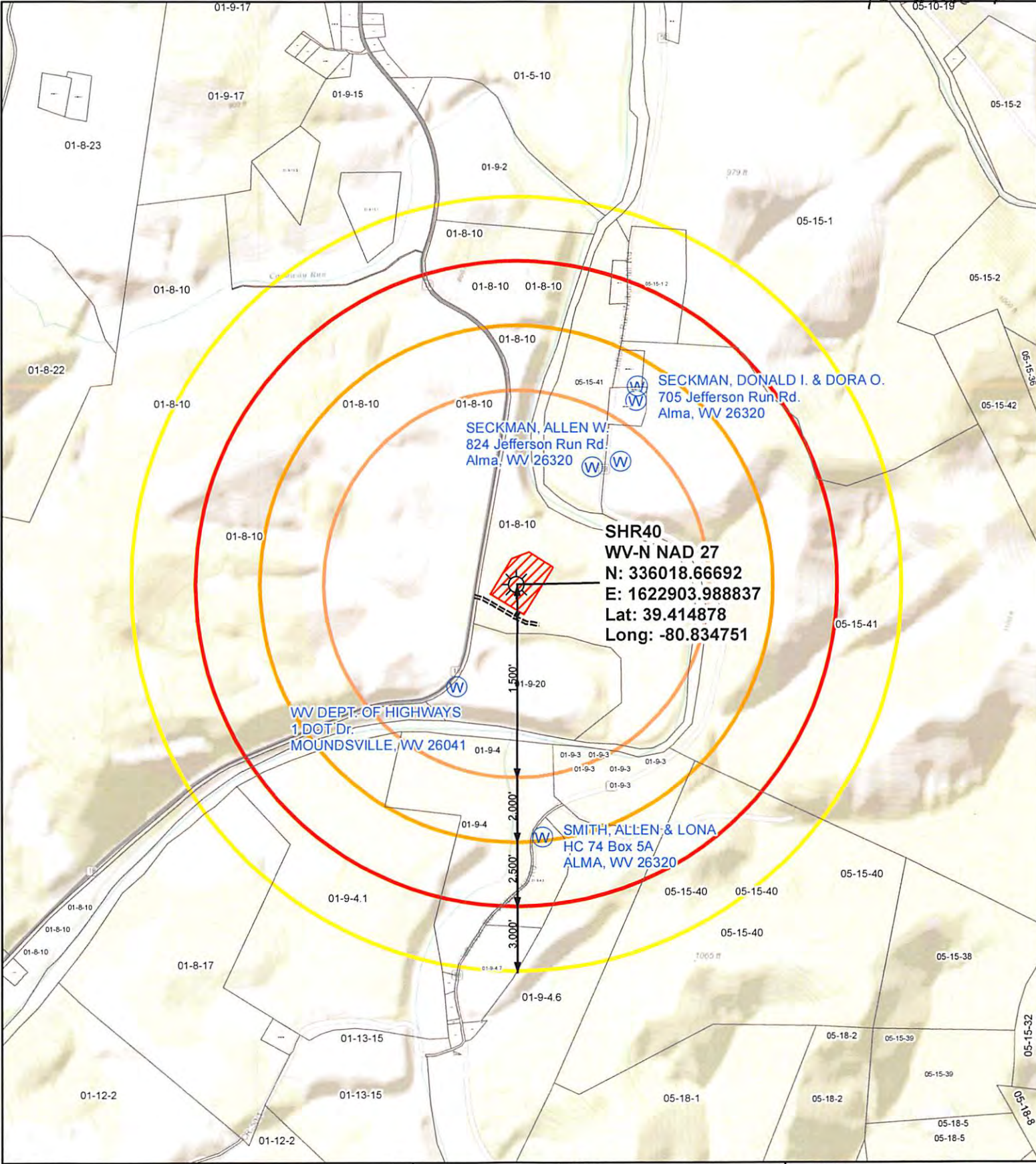


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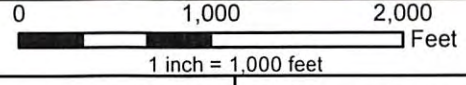
WV Department of  
Environmental Protection  
08/04/2017 1

95-02214



- Legend**
- Water Wells
  - Well Site
  - Access Road
  - Well Pad
  - Surface Parcel

- Buffer Distance**
- 1500 ft
  - 2000 ft
  - 2500 ft
  - 3000 ft



Original Date: 4/20/2017	Prepared By: Julie Long
Revision Date: 4/20/2017	Approved By: Ray Hoon

**CONSOL ENERGY**  
 CNX Center, Canonsburg, PA  
 Office of Oil and Gas

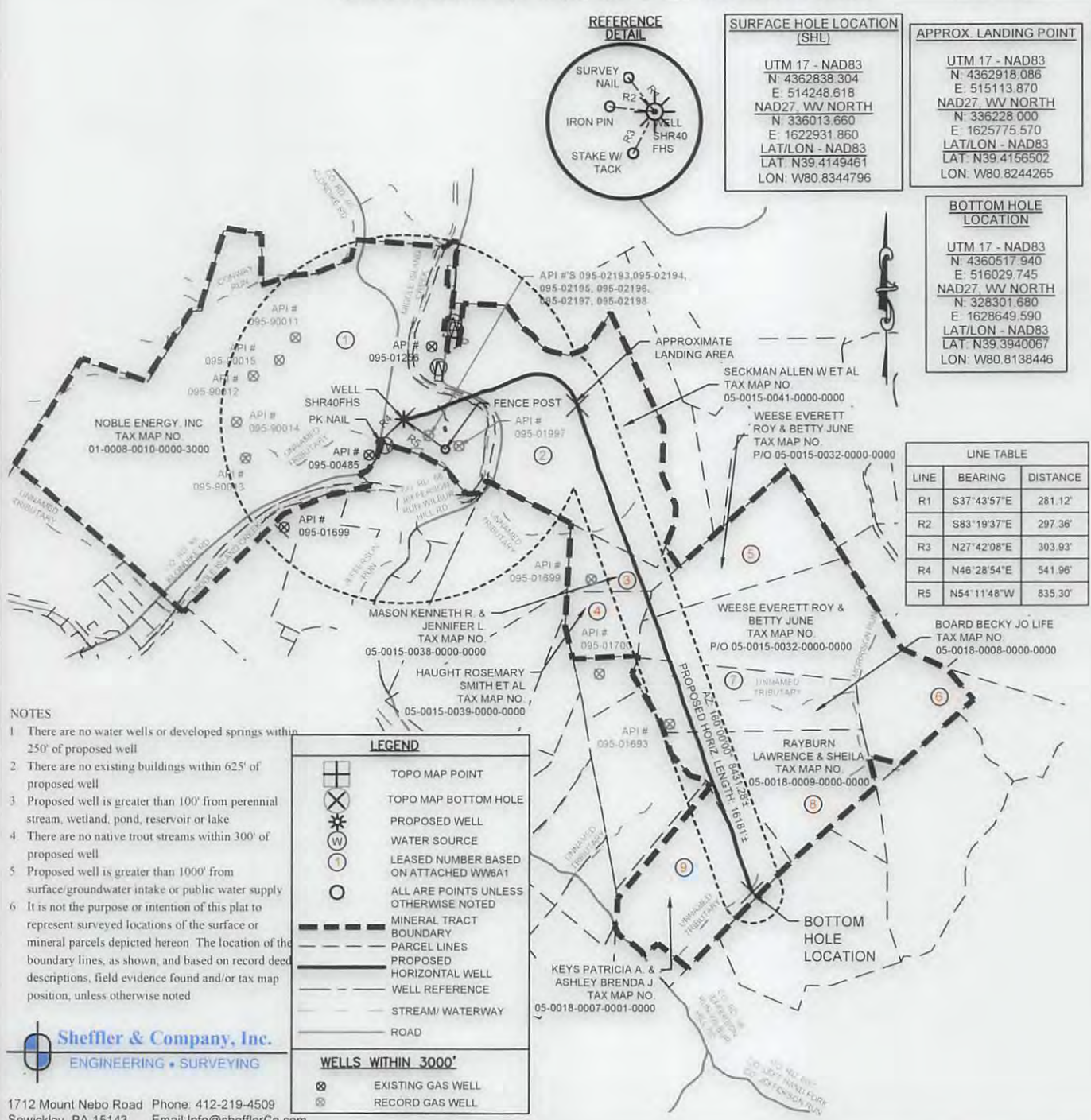
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SHR40  
 WV Department of Environmental Protection  
 Water Quality Map

This map is property of CNX Land Resources Inc. and contains information that is proprietary and confidential in nature and may not be copied or reproduced without prior written consent.  
 © Copyright CNX Land Resources Inc. 2011

Well is located on topo map 627 feet south of Latitude: 39° 25' 00"

Well is located on topo map 324 feet west of Longitude: 80° 50' 00"



- NOTES**
- There are no water wells or developed springs within 250' of proposed well
  - There are no existing buildings within 625' of proposed well
  - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake
  - There are no native trout streams within 300' of proposed well
  - Proposed well is greater than 1000' from surface/groundwater intake or public water supply
  - It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, and based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted

**Sheffler & Company, Inc.**  
ENGINEERING • SURVEYING

1712 Mount Nebo Road Phone: 412-219-4509  
Sewickley, PA 15143 Email: Info@shefflerCo.com

FILE #: SHR 40 FHS

DRAWING #: SHR 40 FHS

SCALE: 1"=2500'

MINIMUM DEGREE OF ACCURACY: 1/2500

PROVEN SOURCE OF ELEVATION: USGS MONUMENT A 142: 724.61'

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED: [Signature]

R.P.E.: \_\_\_\_\_ L.L.S.: P.S. NO. \_\_\_\_\_



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304

WELL Type:  Oil  Waste Disposal  Production  Deep  Gas  Liquid Injection  Storage  Shallow

WATERSHED: MIDDLE ISLAND CREEK ELEVATION: 771'

COUNTY/DISTRICT: CENTERVILLE / TYLER QUADRANGLE: SHIRLEY, W. VA

SURFACE OWNER: NOBLE ENERGY, INC ACREAGE: 543.35

OIL & GAS ROYALTY OWNER: DAVID L. MAPLE, ET AL. ACREAGE: 351.16

DATE: APRIL 18, 2017

OPERATOR'S WELL #: SHR 40 FHS

API WELL # 47 095 02214

STATE COUNTY PERMIT H6A

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY) \_\_\_\_\_

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,385' ± TMD: 16,181' ±

WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER

Address: 1000 CONSOL ENERGY DRIVE, CANNONSBURG, PA 15317 Address: 1 DOMINION DRIVE

City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

08/04/2017



Well is located on topo map 8,254 feet south of Latitude: 39° 25' 00"

Well is located on topo map 6,266 feet west of Longitude: 80° 47' 30"

⊗  
BHL

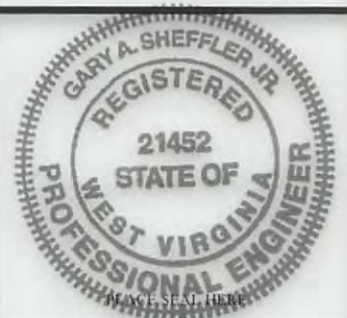


1712 Mount Nebo Road Phone: 412-219-4509  
Sewickley, PA 15143 Email: Info@shefflerCo.com

FILE #: SHR 40 FHS  
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MINIMUM DEGREE OF ACCURACY: 1/2500  
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SIGNED: [Signature]  
R.P.E.: \_\_\_\_\_ L.L.S.: \_\_\_\_\_ P.S. NO. \_\_\_\_\_



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304



DATE: APRIL 18, 2017  
OPERATOR'S WELL #: SHR 40 FHS  
API WELL # 47 095 02214F  
STATE COUNTY PERMIT  
H6A

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow

WATERSHED: MIDDLE ISLAND CREEK ELEVATION: 771'  
COUNTY/DISTRICT: CENTERVILLE / TYLER QUADRANGLE: SHIRLEY, W. VA  
SURFACE OWNER: NOBLE ENERGY, INC ACREAGE: 543.35  
OIL & GAS ROYALTY OWNER: DAVID L. MAPLE, ET AL. ACREAGE: 351.16

08/04/2017

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON   
CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,385' ± TMD: 16,181' ±  
WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER  
Address: 1000 CONSOL ENERGY DRIVE, CANNONBURG, PA 15317 Address: 1 DOMINION DRIVE  
City CANONBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

95-022141

WW-6A1  
(5/13)

Operator's Well No. SHR40FHS

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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See Attached

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

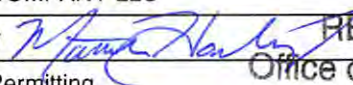
- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: CNX GAS COMPANY LLC

By:

Matt Hanley



Its:

Manager - Permitting

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<u>Tract ID</u>	<u>Tax Map &amp; Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
1	1-8-10	279251000	David H. Weekley and Linda C. Weekley, h/w	Antero Resources Corporation	Not less than 1/8	507/246
			Daniel A. Weekley and Suzanne L. Weekly, h/w	Antero Resources Corporation	Not less than 1/8	507/241
			Antero Resources Corporation	CNX Gas Company and Noble Energy, Inc.	Assignment	534/460
			AMP Fund III, LP	Noble Energy, Inc.	Not less than 1/8	527/465
			Noble Energy, Inc.	CNX Gas Company LLC	Assignment	534/483

<u>Tract ID</u>	<u>Tax Map &amp; Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
2	5-15-41	108628000	Lillie Seckman	Drilling Appalachian Corporation	Not less than 1/8	268/457
			George V. Myers and Merle V. Myers, h/w	Drilling Appalachian Corporation	Not less than 1/8	273/278
			Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	401/499
			Drilling Appalachian Corporation	Antero Resources Corporation	Corrective Assignment	421/138
			Antero Resources Corporation	CNX Gas Company and Noble Energy, Inc.	Assignment	422/517
			Noble Energy, Inc.	CNX Gas Company	Assignment	550/273
			Allen W. Seckman and Nancy J. Seckman, h/w	Noble Energy, Inc.	Not less than 1/8	465/594
			Noble Energy, Inc.	CNX Gas Company	Assignment	550/273

<u>Tract ID</u>	<u>Tax Map &amp; Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
3	5-15-38	108503000	Kenneth R. Mason and Jennifer L. Mason, h/w	Acropolis, Inc.	Not less than 1/8	331/475
			Acropolis, Inc.	Drilling Appalachian Corporation	Assignment	331/483
			Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	391/416
			Antero Resources Corporation	CNX Gas Company and Noble Energy, Inc.	Assignment	422/517
			Noble Energy, Inc.	CNX Gas Company	Assignment	550/273

<u>Tract ID</u>	<u>Tax Map &amp; Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
4	5-15-39	261710000	Rosemary Haught	Drilling Appalachian Corporation	Not less than 1/8	331/102
			Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	391/416
			Drilling Appalachian Corporation	Antero Resources Corporation	Corrective Assignment	421/130
			Antero Resources Corporation	CNX Gas Company and Noble Energy, Inc.	Assignment	422/517

Noble Energy, Inc.	CNX Gas Company	Assignment	550/273
Larry Henthorn Noble Energy, Inc.	Noble Energy, Inc. CNX Gas Company	Not less than 1/8 Assignment	465/588 550/273
Alice and George Swiger, h/w Mabel Seckman	Drilling Appalachian Corporation Drilling Appalachian Corporation	Not Less than 1/8 Not Less than 1/8	331/206 331/210
Dorothy Owens, Individually and as Attorney in Fact for Denzil Ownes, h/w	Drilling Appalachian Corporation	Not Less than 1/8	331/214
Nina and George Kennedy, h/w	Drilling Appalachian Corporation	Not Less than 1/8	331/244
Fayette J. Griffin	Drilling Appalachian Corporation	Not Less than 1/8	331/248
Laura V. Gibson	Drilling Appalachian Corporation	Not Less than 1/8	331/344
Kathleen U. Birklein	Drilling Appalachian Corporation	Not less than 1/8	331/348
Jim and Lisa Seckman, h/w	Drilling Appalachian Corporation	Not less than 1/8	331/402
Robert L. Underwood	Drilling Appalachian Corporation	Not less than 1/8	331/406
Florence Seckman	Drilling Appalachian Corporation	Not less than 1/8	331/479
Sandra and Donald Treadway, h/w	Drilling Appalachian Corporation	Not less than 1/8	331/779
Violet Seckman, by Sandra L. Treadway, Power of Attorney	Drilling Appalachian Corporation	Not Less than 1/8	331/783
Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	391/416
Drilling Appalachian Corporation	Antero Resources Corporation	Corrective Assignment	421/130
Antero Resources Corporation	CNX Gas Company and Noble Energy, Inc.	Assignment	422/517
Noble Energy, Inc.	CNX Gas Company	Assignment	550/273
Cleta D. Shook	Noble Energy, Inc.	Not less than 1/8	449/766
Jack A. and Jeanne Seckman, h/w	Noble Energy, Inc.	Not less than 1/8	449/768
Lewis W. and Helen Seckman, h/w	Noble Energy, Inc.	Not less than 1/8	449/758
Holly Dudash	Noble Energy, Inc.	Not less than 1/8	444/63
John and Beverly Dudash	Noble Energy, Inc.	Not less than 1/8	444/67
Gary B. Solak	Noble Energy, Inc.	Not less than 1/8	444/65
Karen J. Solak	Noble Energy, Inc.	Not less than 1/8	449/762
Delores and Ernest Church	Noble Energy, Inc.	Not less than 1/8	446/81
Rosalee and Joseph C. Snyder, h/w	Noble Energy, Inc.	Not less than 1/8	449/756
Ray B. and Nancy Mosser, h/w	Noble Energy, Inc.	Not less than 1/8	449/760
Bernice Collins	Noble Energy, Inc.	Not less than 1/8	449/764
Lawrence D. and Diana Mossor, h/w	Noble Energy, Inc.	Not less than 1/8	453/643
William and Rita Mossor, h/w	Noble Energy, Inc.	Not less than 1/8	453/541
Steve and Barbara Poling	Noble Energy, Inc.	Not less than 1/8	453/631
Debbie Sword	Noble Energy, Inc.	Not less than 1/8	458/761
Judy Burdine	Noble Energy, Inc.	Not less than 1/8	458/769
Noble Energy, Inc.	CNX Gas Company	Assignment	550/273

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Title  
Opinion QLS  
#

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5, 7 5-15-32 238357000

Grantor, Lessor, etc

Grantee, Lessee, etc

Royalty

Book/Page

Everett Roy Weese and Betty June Weese, h/w  
KEPCO, Inc.  
  
KEPCO  
  
Union Drilling Inc.  
Equitable Resources Exploration, Inc.  
  
Swift Energy Company  
  
Swift Energy Income Partners 1987-D Ltd. (34%)  
Swift Energy Income Partners 1988-A Ltd. (33%)  
Swift Energy Income Partners 1988-B Ltd. (22%)  
Swift Energy Income Partners 1988-1 Ltd. (11%)  
Swift Energy Income Partners 1987-D Ltd. (34%)  
Swift Energy Income Partners 1988-A Ltd. (33%)  
Swift Energy Income Partners 1988-B Ltd. (22%)  
Swift Energy Income Partners 1988-1 Ltd. (11%)  
  
Peake Energy, Inc.  
  
North Coast Energy Eastern, Inc.  
  
EXCO Resources (WV), LLC  
  
EXCO Resources (WV), Inc. (49.75%)  
EXCO Production Company (WV), LLC (49.75%)  
EXCO Resources (PA), Inc. (0.5%)  
BG Production Company (WV), LLC (49.75%)  
Antero Resources Corporation  
Noble Energy, Inc.  
  
Gloria Morris  
Ralph T. Sweeney and Shelley A. Sweeney  
Donald Lee Sweeney  
Rodger A. Sweeney  
Devon Ruth Horsley (Sweeney)  
Anna Sweeney  
LaMoynne Sweeney  
Four Leaf Land Company  
Antero Resources Corporation  
Noble Energy, Inc.

KEPCO, Inc.  
Swift Energy Company  
  
Union Drilling, Inc.  
  
Equitable Resources Exploration, Inc.  
Swift Energy Company  
  
Swift Energy Income Partners 1987-D Ltd. (34%)  
Swift Energy Income Partners 1988-A Ltd. (33%)  
Swift Energy Income Partners 1988-B Ltd. (22%)  
Swift Energy Income Partners 1988-1 Ltd. (11%)  
  
Peake Energy, Inc.  
  
Peake Energy, Inc.  
  
North Coast Energy Eastern, Inc.  
  
EXCO - North Coast Energy Eastern, Inc.  
  
EXCO Resources (WV), Inc. (49.75%)  
EXCO Resources (PA), Inc. (0.5%)  
BG Production Company (WV), LLC (49.75%)  
  
EXCO Production Company (WV), LLC (49.75%)  
  
Antero Resources Corporation  
  
CNX Gas Company LLC and Noble Energy, Inc.  
CNX Gas Company LLC  
  
Four Leaf Land Company  
Four Leaf Land Company  
Four Leaf Land Company  
Four Leaf Land Company  
Four Leaf Land Company  
Four Leaf Land Company  
Four Leaf Land Company  
Antero Resources Appalachian Corporation  
CNX Gas Company LLC and Noble Energy, Inc.  
CNX Gas Company LLC

Not less than 1/8  
Assignment (50%)  
  
Merger  
  
Name Change  
Assignment (50%)  
  
Assignment  
  
Assignment  
  
Corrective Assignment  
  
Name Change  
Name Change  
  
Assignment  
  
Name Change  
  
Assignment  
  
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Assignment  
  
Not less than 1/8  
Not less than 1/8  
Not less than 1/8  
Not less than 1/8  
Not less than 1/8  
Not less than 1/8  
Not less than 1/8  
Assignment  
Assignment  
Assignment

232/30  
254/5  
  
WV Sec of State  
WV Sec of State  
275/566  
  
287/352  
  
319/291  
  
321/652  
  
WV Sec of State  
WV Sec of State  
374/808  
  
WV Sec of State  
406/195  
422/517  
550/273  
  
397/669  
397/675  
370/605  
370/611  
370/629  
370/635  
370/617  
403/566  
422/517  
550/273

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Four Leaf Land Company  
 Antero Resources Corporation  
 Noble Energy, Inc.

Antero Resources Appalachian Corporation  
 CNX Gas Company LLC and Noble Energy, Inc.  
 CNX Gas Company LLC

Not less than 1/8 403/561  
 Assignment 422/517  
 Assignment 550/273

Mary Sue Furbee Zebley  
 Thomas Val Furbee and Katherine Shelek-Furbee, h/w  
 Allison McKay Hardin (Allison Furbee Herring)  
 Rani J. Boyt  
 Noble Energy, Inc.  
 Noble Energy, Inc.

Noble Energy, Inc.  
 Noble Energy, Inc.  
 Noble Energy, Inc.  
 Noble Energy, Inc.  
 CNX Gas Company LLC  
 CNX Gas Company LLC

Not less than 1/8 440/447  
 Not less than 1/8 440/443  
 Not less than 1/8 440/453  
 Not less than 1/8 445/835  
 Assignment 484/288  
 Assignment 550/273

<u>Tract ID</u>	<u>Tax Map &amp; Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
6	5-18-8	108567000	Leota B. McKinney and Lester McKinney, h/w Howard Stubbs and Nelda Stubbs, h/w Marvin G. Board and Becky Jo Board, h/w Robert Travis and Carol Travis, h/w Creal Hoover Joseph Travis and Carole Travis, h/w Eva Jean Hoover Glenda Gregory Drilling Appalachian Corporation Drilling Appalachian Corporation Antero Resources Corporation Noble Energy, Inc.	Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Antero Resources Appalachian Corporation Antero Resources Corporation CNX Gas Company LLC and Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Corrective Assignment Assignment Assignment	330/237 330/241 330/426 330/487 330/491 330/511 330/542 330/546 391/416 421/130 422/517 550/273
			Josephine Spencer and David Spencer, h/w Walter Seckman and Eva Seckman, h/w Michael Fisher Joe Seckman Antonia Underwood Camella Ash Jill Robinson Donna Wolther Jennifer Sexson Drilling Appalachian Corporation Drilling Appalachian Corporation Antero Resources Corporation Noble Energy, Inc.	Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation Antero Resources Appalachian Corporation Antero Resources Corporation CNX Gas Company LLC and Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Corrective Assignment Assignment Assignment	330/233 330/430 330/503 330/507 330/550 330/575 330/579 330/742 330/657 401/499 421/138 422/517 550/273
			Kimberly Dawn Jackson Scott Seckman James F. Bonnell and Jacqueline S. Bonnell, h/w	Drilling Appalachian Corporation Drilling Appalachian Corporation Drilling Appalachian Corporation	Not less than 1/8 Not less than 1/8 Not less than 1/8	395/795 395/797 409/253

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95022114 F

Drilling Appalachian Corporation  
Noble Energy, Inc.

Noble Energy, Inc.  
CNX Gas Company LLC

Assignment 452/641  
Assignment 542/147

Keith E. Rheinhardt  
Gary A. Rheinhardt, Jr.  
Charles D. Rheinhardt and Denise M. Rheinhardt, h/w  
Randall Rheinhardt, a single man  
David Rheinhardt, a single man  
Iris Rheinhardt, a single woman  
Tami Dawn Rheinhardt  
Noble Energy, Inc.

Noble Energy, Inc.  
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Noble Energy, Inc.  
Noble Energy, Inc.  
Noble Energy, Inc.  
Noble Energy, Inc.  
Noble Energy, Inc.  
CNX Gas Company LLC

Not less than 1/8 DB 449/525  
Not less than 1/8 DB 449/527  
Not less than 1/8 DB 449/531  
Not less than 1/8 DB 453/535  
Not less than 1/8 DB 453/633  
Not less than 1/8 DB 458/642  
Not less than 1/8 DB 465/270  
Assignment 550/273

<u>Tract ID</u>	<u>Tax Map &amp; Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
8	5-18-9	281687000	Wm. Blaine Underwood and Laura J. Underwood, h/w, Donald Underwood, Hugh Underwood and Pearline Underwood, h/w, and D.L. Haught and Susan O. Haught, h/w Equitable Gas Company Equitrans, Inc. Equitable Resources, Inc. Equitable Gas Company LLC and EQT Corporation Equitrans, LP Equitrans, LP EQT Production Company EQT Production Company Noble Energy, Inc.	Equitable Gas Company Equitrans, Inc. Equitable Gas Company LLC Equitrans, LP EQT Production Company EQT Production Company CNX Gas Company LLC and Noble Energy, Inc. CNX Gas Company LLC and Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Assignment Merger Merger Assignment Sublease Sublease Farmout Assignment Assignment	186/86 274/471 433/738 433/755 433/777 396/640 420/10 411/252 449/480 550/273

<u>Tract ID</u>	<u>Tax Map &amp; Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
9	5-18-7.1	257270000	Mary Keys and Haskell Keys, h/w, and John L. Seckman J.M.L. Smith Duncan Sartain Duncan Sartain Duncan Sartain Douglas A. Williams Douglas A. Williams Douglas A. Williams Douglas A. Williams Douglas A. Williams	J.M.L. Smith Duncan Sartain W.E. Pope W.E. Pope Douglas A. Williams W. Truett Smith, Frank Rose and George S. Finley Walter F. Tucker Joe H. Foy Archie Bean R.C. Crabb Marvin Hanz	Not less than 1/8 Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment	158/214 158/235 158/439 159/377 158/459 158/429 158/460 158/478 158/479 159/326 158/577

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W. Truett Smith, Frank Rose and George S. Finley	W.E. Pope	Assignment	216/304
W. Truett Smith, Frank Rose and George S. Finley	W.E. Pope	Assignment	216/307
W.F. Tucker	W.E. Pope	Assignment	163/216
Joe H. Foy	W.E. Pope	Assignment	216/303
Archie Bean	W.E. Pope	Assignment	216/306
W.E. Pope	Judith A. Pope, as Executrix	Recital in Assignment	311/655
Estate of W.E. Pope, acting through Independent Executrix	Drilling Appalachian Corporation	Assignment	311/655
Judith A. Pope	Southwest Savings and Loan Association	Assignment	176/264
R.C. Crabb	Hugh Spencer	Assignment	Unrecorded
Southwest Savings and Loan Association	Drilling Appalachian Corporation	Assignment	315/466
Spencer Enterprises, by Hugh Spencer, owner	Drilling Appalachian Corporation	Assignment	313/243
Mary Hanz	Antero Resources Appalachian Corporation	Assignment	391/416
Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Corrective Assignment	421/130
Drilling Appalachian Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
Antero Resources Corporation	CNX Gas Company LLC	Assignment	550/273
Noble Energy, Inc.			

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95-02214 F





Matthew Hanley  
Manager – Gas Permitting  
CONSOL Energy Inc.  
1000 CONSOL Energy Drive  
Canonsburg, PA 15317

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304-2345

**RE: Road Letter – SHR 40 Well Pad Rework Applications**

To Whom It May Concern:

CNX Gas Company LLC has the right to drill, stimulate and produce wells that are drilled under the County and State Roads as designated on the plats.

Should you have any questions or need additional information, please do not hesitate to contact me at [matthanley@consolenergy.com](mailto:matthanley@consolenergy.com) or 724-485-3011.

Sincerely,

A handwritten signature in blue ink that reads 'Matthew Hanley'.

Matthew Hanley  
CNX Gas Company LLC

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WV Department of  
Environmental Protection  
08/04/2017

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE CERTIFICATION**

Date of Notice Certification: 4-20-17

API No. 47- 95 - 02214  
Operator's Well No. SHR40FHS  
Well Pad Name: SHR40

**Notice has been given:**

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>514245.726</u>
County: <u>095-Tyler</u>	UTM NAD 83 Northing: <u>4362847.122</u>
District: <u>Centerville</u>	Public Road Access: <u>County Rt.18</u>
Quadrangle: <u>Shirley</u>	Generally used farm name: <u>Noble Energy, Inc</u>
Watershed: <u>Headwaters Middle Island Creek</u>	

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p align="center"><b>NO DRILLING</b></p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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**Required Attachments:**

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

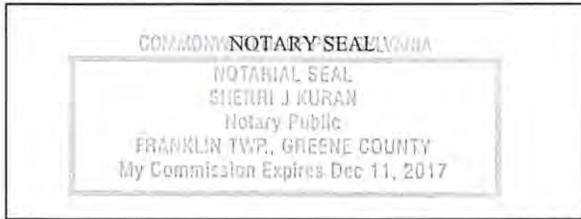
08/04/2017

**Certification of Notice is hereby given:**

THEREFORE, I Matt Hanley, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, 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 and imprisonment.

Well Operator: CNX GAS COMPANY LLC  
By: Matt Hanley *[Signature]*  
Its: Manager - Permitting  
Telephone: 724-485-3011

Address: 1000 Consol Energy Dr  
Canonsburg, PA 15317  
Facsimile: \_\_\_\_\_  
Email: Matthanley@consolenergy.com



Subscribed and sworn before me this 9th day of February 2017.  
Sherri J Kuran Notary Public  
My Commission Expires 12-11-17

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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08/04/2017  
WV Department of  
Environmental Protection

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION**

**Notice Time Requirement:** notice shall be provided no later than the **filing date of permit application.**

**Date of Notice:** 9/20/17 **Date Permit Application Filed:** 9/20/17

**Notice of:**

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

**Delivery method pursuant to West Virginia Code § 22-6A-10(b)**

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice  WSSP Notice  E&S Plan Notice  Well Plat Notice is hereby provided to:

SURFACE OWNER(s)  
 Name: Noble Energy, Inc  
 Address: 1000 Noble Energy Drive  
Canonsburg, PA 15317

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

COAL OPERATOR  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
 Name: Allen W. Seckman  
 Address: 824 Jefferson Run Rd.  
Alma, WV 26320

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

\*Please attach additional forms if necessary

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION**

**Notice Time Requirement:** notice shall be provided no later than the **filing date of permit application.**

**Date of Notice:** 4/20/17 **Date Permit Application Filed:** 4/20/17

**Notice of:**

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

**Delivery method pursuant to West Virginia Code § 22-6A-10(b)**

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice  WSSP Notice  E&S Plan Notice  Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: Noble Energy, Inc  
Address: 1000 Noble Energy Drive  
Canonsburg, PA 15317

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OPERATOR

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: WV Department of Highways  
Address: 1 DOT Drive  
Moundsville, WV 26041

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**RECEIVED**  
**Office of Oil and Gas**

\*Please attach additional forms if necessary

APR 21 2017

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

**This Notice Shall Include:**

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells in relation to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

**Water Well Testing:**

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

**Water Testing Laboratories:**

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

**Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:**

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

**Written Comment:**

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

**Time Limits and Methods for Filing Comments.**

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

**Comment Requirements**

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

**Permit Denial or Condition**

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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APR 21 2017

08/04/2017  
WV Department of  
Environmental Protection



WW-6A  
(8-13)

API NO. 47- 95 - 02214 F  
OPERATOR WELL NO. SHR40FHS  
Well Pad Name: SHR40

**Notice is hereby given by:**

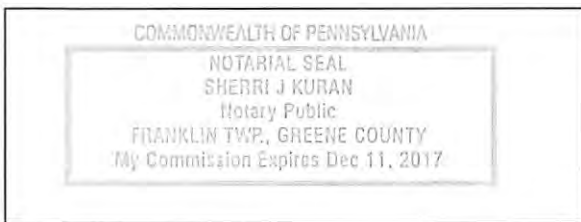
Well Operator: CNX GAS COMPANY LLC  
Telephone: 724-485-3011  
Email: MattHanley@consolenergy.com



Address: 1000 CONSOL ENERGY DRIVE  
Canonsburg, PA 15317  
Facsimile:

**Oil and Gas Privacy Notice:**

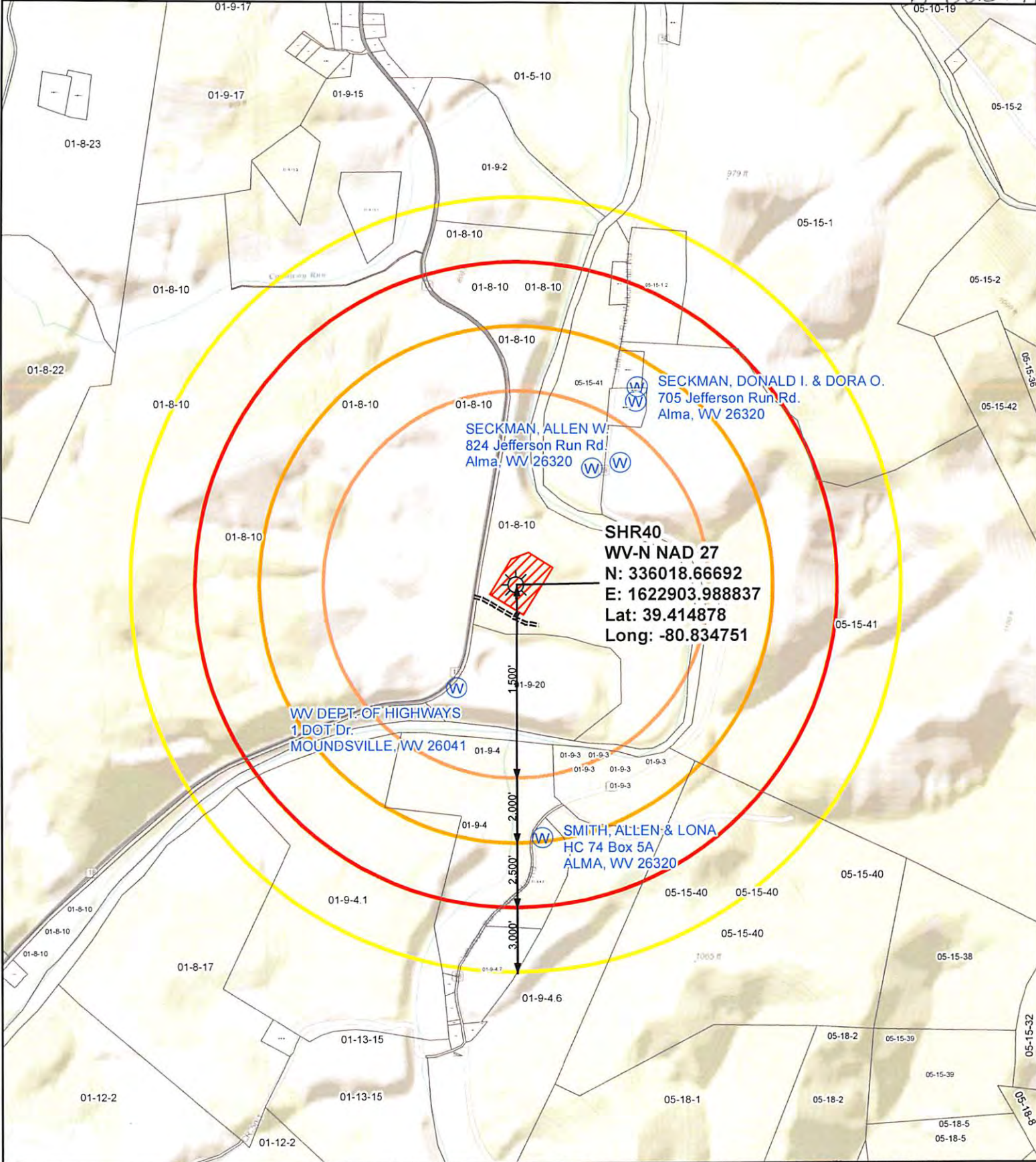
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).



Subscribed and sworn before me this 9<sup>th</sup> day of February 2017.

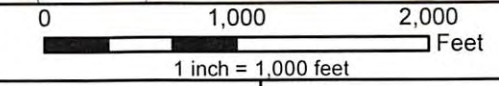
Sherril J. Kuran Notary Public

My Commission Expires 12-11-17



- Legend**
- Water Wells
  - Well Site
  - Access Road
  - Well Pad
  - Surface Parcel

- Buffer Distance**
- 1500 ft
  - 2000 ft
  - 2500 ft
  - 3000 ft



Original Date: 4/20/2017	Prepared By: Julie Long
Revision Date: 4/20/2017	Approved By: Ray Hoon

**RECEIVED**  
**CONSOL ENERGY**  
 Office of Oil and Gas  
 CNX Center, Canonsburg, PA

APR 21 2017

SHR40  
 WV Department of  
 Environmental Protection  
 Water (39) 02 2117

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 © Copyright CNX Land Resources Inc. 2011

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE OF PLANNED OPERATION**

**Notice Time Requirement:** notice shall be provided no later than the filing date of permit application.

**Date of Notice:** 4/20/17 **Date Permit Application Filed:** 4/20/17

**Delivery method pursuant to West Virginia Code § 22-6A-16(c)**

- CERTIFIED MAIL  
RETURN RECEIPT REQUESTED
- HAND  
DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

**Notice is hereby provided to the SURFACE OWNER(s)**  
(at the address listed in the records of the sheriff at the time of notice):

Name: Noble Energy, Inc / Name: \_\_\_\_\_  
Address: 1000 Noble Energy Drive Address: \_\_\_\_\_  
Canonsburg, PA 15317

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 514245.726  
County: 095-Tyler Northing: 4362847.122  
District: Centerville Public Road Access: County Rt.18  
Quadrangle: Shirley Generally used farm name: Noble Energy, Inc  
Watershed: Headwaters Middle Island Creek

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: CNX GAS COMPANY LLC Address: 1000 Consol Energy Dr  
Telephone: 724-485-3011 Canonsburg, PA 15317  
Email: Matthanley@consolenergy.com Facsimile: \_\_\_\_\_

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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Office of Oil and Gas  
APR 21 2017  
WV Department of  
Environmental Protection **08/04/2017**



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • (304) 558-3505

Jim Justice  
Governor

Thomas J. Smith, P. E.  
Secretary of Transportation/  
Commissioner of Highways

February 28, 2017

James A. Martin, Chief  
Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Subject: DOH Permit for the SHR-40 Pad, Tyler County  
SHR-40 Well Site

47-095-02214

Dear Mr. Martin,

The West Virginia Division of Highways has transferred Permit #06-2013-0420 for the subject site to CNX Gas Company LLC, for access to the State Road for the well site located off of WV Route 18 in Tyler County.

The operator has signed an OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton  
Regional Maintenance Engineer  
Central Office Oil & Gas Coordinator

Office of Oil and Gas

APR 21 2017

WV Department of  
Environmental Protection

08/04/2017

Cc: Ray Hoon  
CNX Gas Company LLC  
CH, OM, D-6  
File

## Section V – Proposed Additives to be used in Fracturing or Stimulations

Type: Water CAS: 7732-18-5

Type: Silica CAS: 14808-60-7

Type: Hydrochloric Acid CAS: 7647-01-0

Type: Copolymer of Two Propenamide CAS: 69418-26-4

Type: Petroleum distillate CAS: 64742-47-8

Type: Glutaraldehyde CAS: 111-30-8

Type: Ethylene glycol CAS: 107-21-1

Type: Diethylene glycol mono n-butyl ether CAS: 112-34-5

Type: Oleic acid diethanolamide CAS: 93-83-4

Type: Alcohols, C12-16, ethoxylated CAS: 68551-12-2

Type: Quaternary ammonium compound CAS: 68424-85-1

Type: Ammonium chloride CAS: 12125-02-9

Type: Short chained glycol ether CAS: 112-34-5

Type: Ethoxylated (C10-16) alcohols CAS: 68002-97-1

Type: Metanol CAS: 67-56-1

Type: Formaldehyde CAS: 50-00-0

Type: Thiourea CAS: 62-56-6

Type: Acetophenone CAS: 98-86-2

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Office of Oil and Gas

APR 21 2017

WV Department of  
Environmental Protection  
08/04/2017

JH1100-56



LOCATION MAP  
NOT TO SCALE



NOBLE ENERGY, INC.  
333 TECHNOLOGY DRIVE, SUITE 116  
CANONSBURG, PA 15317  
TEL: (724) 820-3000

# SHR40 WELL SITE

## WELL SITE LOCATION

NAD 83 - LAT: N 39°24'54.057"; LONG: W 80°50'03.975"  
NAD 27 - LAT: N 39°24'53.768"; LONG: W 80°50'04.595"

## ENTRANCE LOCATION

NAD 83 - LAT: N 39°24'52.809"; LONG: W 80°50'08.464"  
NAD 27 - LAT: N 39°24'52.520"; LONG: W 80°50'09.084"

SHIRLEY QUADRANGLE  
TYLER COUNTY, WEST VIRGINIA  
DATE: MARCH 24, 2015



Engineers and Land Surveyors

11023 Mason Dixon Hwy.  
Burton, WV 26562-9656  
(304) 662-6486

NOTE: DRAWING WAS CREATED ON 22X34 PAPER. 11X17 DRAWINGS  
ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING.



LOCATION MAP  
SHIRLEY, WV 7.5M USGS QUADRANGLE  
SCALE 1"=1000'

Transferred to CNX Gas Company 3/28/2017



### PROPERTY OWNERS

- JAMES L HOWARD 01-08-0010  
4804 HATHAWAY DR.  
FRANKLIN, OH 45005
- DAVID & LINDA WEEKLEY 01-08-0010  
2908 MACON ST  
SOUTH CHARLESTON, WV 25303
- DANIEL & SUZANNE WEEKLEY 01-08-0010  
75 NICOLE DR  
GLASTON BURY, CT 6073
- JOHN JAMES HOWARD LIVING TRUST 01-08-0010  
2750 WESTFAIR AVE  
LANCASTER, OH 43130
- JOSEPH HOWARD 01-08-0010  
10 WOODLAND PARK DR  
PARKERSBURG, WV 26104

SHEET INDEX	
DRAWING NUMBER	DRAWING NAME
1	COVER SHEET
2.3	AS-BUILT CONDITIONS PLAN
4.5	AS-BUILT CONDITIONS PLAN W/ ORTHO

**Blue Mountain Inc.**  
Engineers and Land Surveyors  
11023 Mason Dixon Hwy  
Burton, WV 26562-9656  
Phone: 304-662-6486

NOBLE ENERGY  
333 TECHNOLOGY DRIVE, SUITE 116  
CANONSBURG, PA 15317

SHR40 WELL PAD  
AS-BUILT COVER SHEET

**noble energy**

REVISIONS

DRAWN BY: DEC

CHECKED BY: MCH

DATE: 6/24/15

SCALE: AS SHOWN

JOB NO: 1266-15

DRAWING NAME: SHR40\_COMPLETE\_AS\_BUILT.DWG

SHEET 1 OF 3

**WVDEP OOG  
ACCEPTED AS-BUILT**  
Fracture Permit only

7-25-2017

**CONSTRUCTION QUANTITIES**  
AREA IN CUT 126,074.55 S.F. - 2.89 ACRES  
AREA IN FILL 85,754.90 S.F. - 1.97 ACRES  
TOTAL INCLUSION AREA 211,829.45 S.F. - 4.86 ACRES  
CUT TO FILL RATIO 1.06  
AVERAGE CUT DEPTH 5.82  
AVERAGE FILL DEPTH 2.85  
MAX CUT DEPTH 12.67 MAX FILL DEPTH 12.72  
CUT VOLUME 48,690.1 C.F. - 17,842.38 C.Y.  
FILL VOLUME 245,378.2 C.F. - 9,088.08 C.Y.

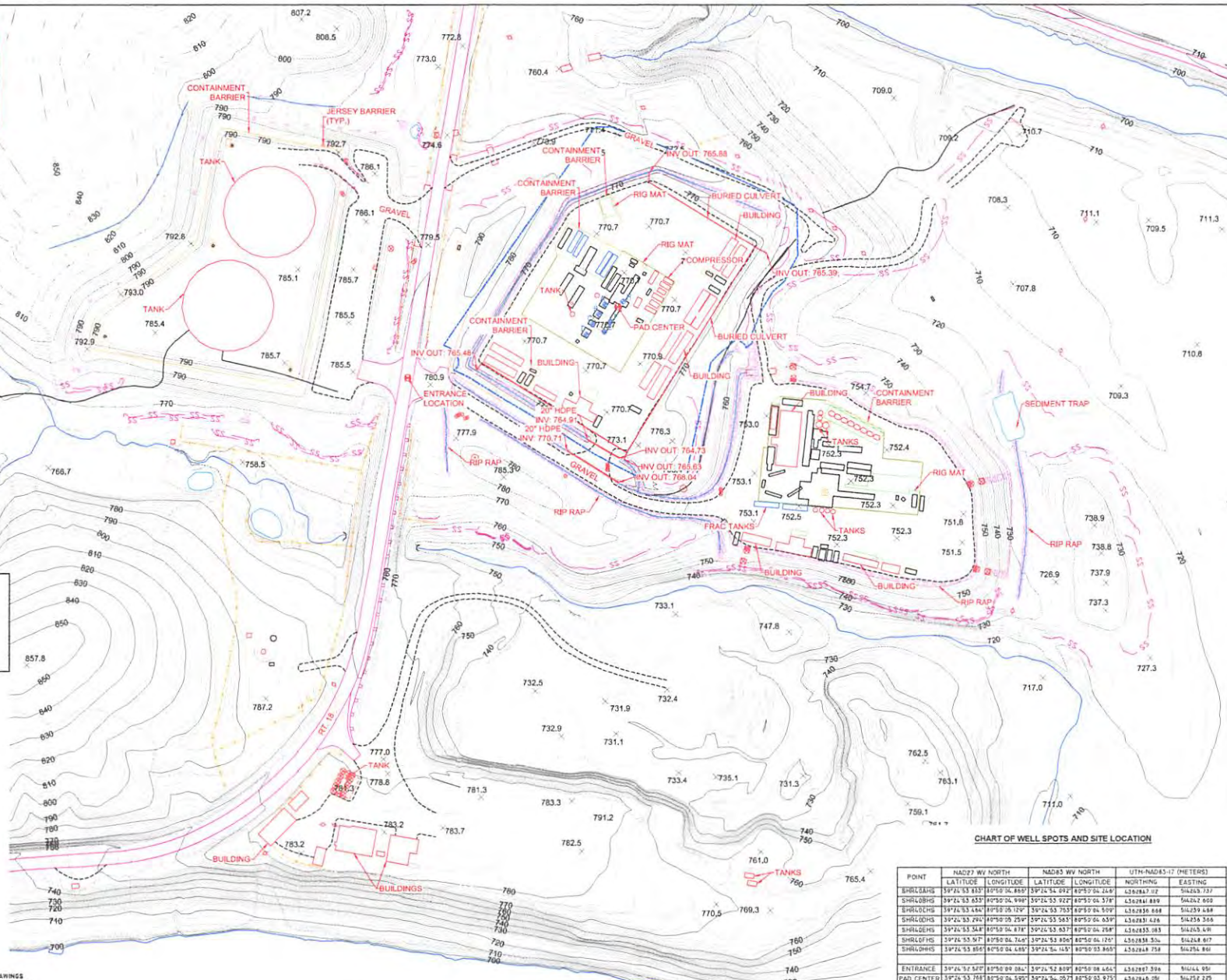
**GENERAL NOTES**  
1. DRAWING UTILIZES PRE-EXISTING AND POST-CONSTRUCTION AERIAL MAPPING COMBINED WITH SURVEY DATA. ALL PROVIDED BY BLUE MOUNTAIN. PRE-EXISTING PHOTOGRAPHY DATE 08/05/14. POST-CONSTRUCTION PHOTOGRAPHY DATE 03/12/15. POST-CONSTRUCTION SURVEY DATE 01/26/15.  
2. COORDINATE SYSTEM: NAD83 WEST VIRGINIA STATE PLANE, NORTH ZONE, US FOOT.

**LEGEND**

- DITCH
- FENCE LINE
- RIP RAP
- EDGE OF GRAVEL
- SILT FENCE
- SILT SOCK
- STREAM
- TREE LINE
- TREE CONTOUR (POST CONSTR.)
- INTERIM CONTOUR (POST CONSTR.)
- CONTOUR (PRE-EXISTING)
- DESIGN LOD
- UTILITY POLE
- MISCELLANEOUS POLE OR SIGN
- POST



NOTE: DRAWING WAS CREATED ON 22x34 PAPER. 11x17 DRAWINGS ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING.



**CHART OF WELL SPOTS AND SITE LOCATION**

POINT	NAD83 WV NORTH		NAD83 WV NORTH		UTM-NAD83-17 (METERS)	
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	NORTHING	EASTING
BHRLS84S	39°24'53.837"	80°50'04.885"	39°24'54.492"	80°50'04.148"	4326847.02	564263.737
SHRL08S	39°24'53.457"	80°50'04.998"	39°24'53.922"	80°50'04.578"	4326841.889	564262.069
BHRL08S	39°24'53.464"	80°50'05.129"	39°24'53.753"	80°50'04.509"	4326836.688	564259.688
SHRL08S	39°24'53.296"	80°50'05.294"	39°24'53.555"	80°50'04.639"	4326831.488	564258.348
BHRL08S	39°24'53.348"	80°50'04.878"	39°24'53.437"	80°50'04.768"	4326835.083	564263.493
SHRL08S	39°24'53.97"	80°50'04.748"	39°24'53.806"	80°50'04.129"	4326838.35	564264.617
SHRL08S	39°24'53.856"	80°50'04.485"	39°24'54.155"	80°50'03.865"	4326848.758	564264.868
ENTRANCE	39°24'52.807"	80°50'03.284"	39°24'52.809"	80°50'03.464"	4326827.59	564261.95
PAD CENTER	39°24'53.768"	80°50'04.595"	39°24'54.057"	80°50'03.975"	4326849.08	564262.225

**Blue Mountain Inc.**  
Engineers and Land Surveyors  
11023 Mason Drive Hwy  
Blue Mountain, PA 17815  
(717) 662-2494

NOBLE ENERGY  
353 TECHNOLOGY DRIVE, SUITE 116  
CANONSBURG, PA 15317  
**SHRLO WELL PAD  
AS-BUILT**

**noble energy**

**REVISIONS**

DATE	TYPE

DRAWN BY: DEC  
CHECKED BY: MCH  
DATE: 05/26/15  
SCALE: 1" = 80'  
JOB NO: 0308-15  
DRAWING NAME: SHRLOCOMPLETE\_ASBUILD.DWG  
**SHEET 2 OF 3**

9502214F

**WVDEP OOG**  
**ACCEPTED AS-BUILT**  
 For Fracture Permit only  
*[Signature]*  
**7-25-2017**

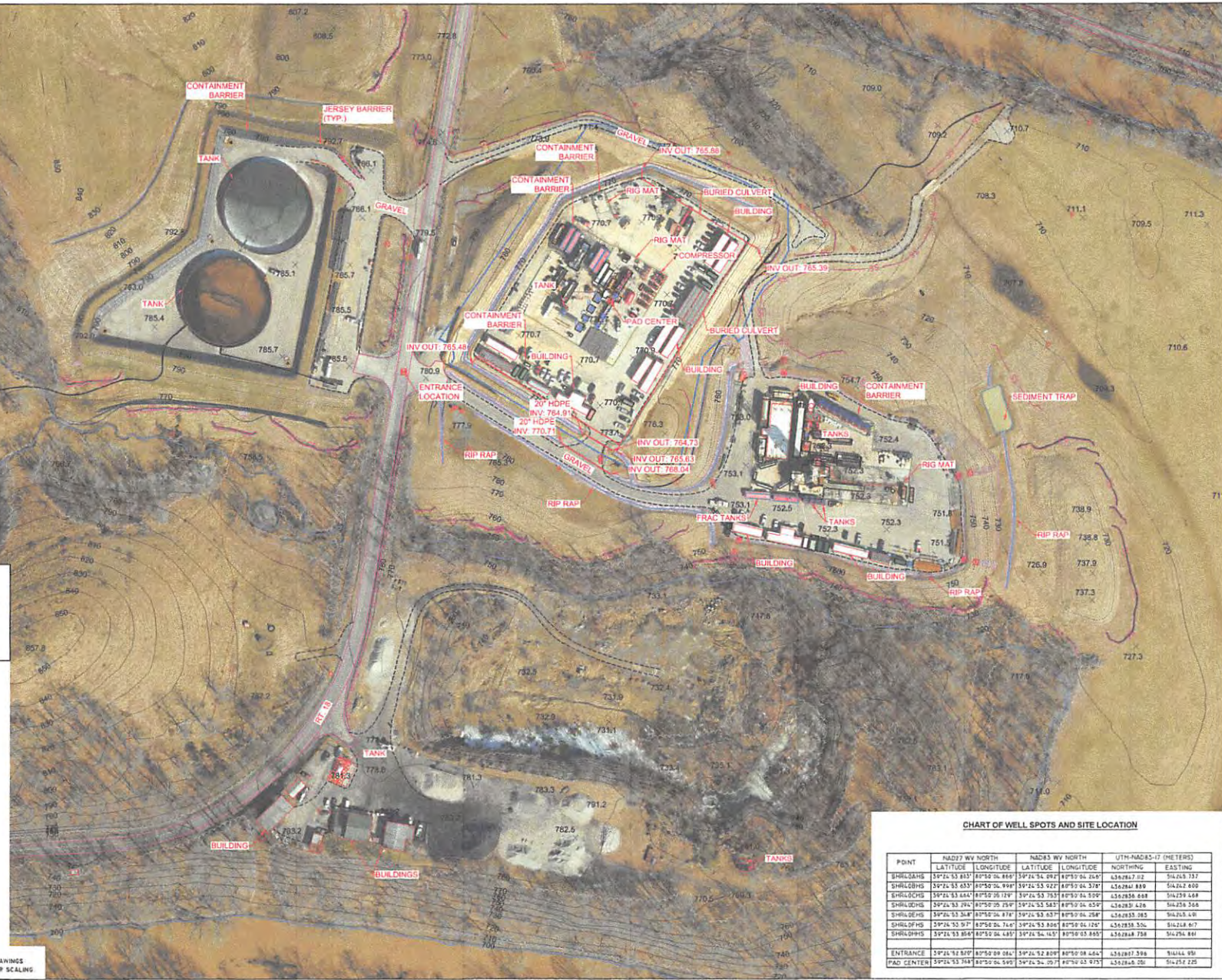
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 AREA IN FILL 85,784.9 S.F. 1.97 ACRES  
 TOTAL INCLUSION AREA 211,859.4 S.F. 4.86 ACRES  
 CUT TO FILL RATIO 1.09  
 AVERAGE CUT DEPTH 5.82  
 AVERAGE FILL DEPTH 2.86  
 MAX CUT DEPTH 19.62 MAX FILL DEPTH 12.72  
 CUT VOLUME 486,692.1 C.Y. 7,842.38 C.Y.  
 FILL VOLUME 245,378.7 C.F. 9,088.01 C.Y.

**GENERAL NOTES**  
 1. DRAWING UTILIZES PRE-EXISTING AND POST-CONSTRUCTION AERIAL MAPPING COMBINED WITH SURVEY DATA. ALL PROVIDED BY BLUE MOUNTAIN PRE-EXISTING PHOTOGRAPHY DATE 06/05/14. POST-CONSTRUCTION PHOTOGRAPHY DATE 03/12/15. POST-CONSTRUCTION SURVEY DATE 01/28/15.  
 2. COORDINATE SYSTEM: NAD83 WEST VIRGINIA STATE PLANE, NORTH ZONE, US FOOT.

**LEGEND**

- DITCH
- FENCE LINE
- RIP RAP
- EDGE OF GRAVEL
- SILT FENCE
- SILT SOCK
- STREAM
- TREELINE
- AREA CONTOUR (POST CONSTR.)
- INTERIOR CONTOUR (POST CONSTR.)
- CONTOUR (PRE-EXISTING)
- DESIGN LOD
- UTILITY POLE
- MISCELLANEOUS POLE OR SIGN
- POST

NOTE: DRAWING WAS CREATED ON 22X34 PAPER (11x17) DRAWINGS ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING.



**CHART OF WELL SPOTS AND SITE LOCATION**

POINT	NAD83 WV NORTH		NAD83 WV NORTH		UTM-NAD83-17 (METERS)	
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	NORTHING	EASTING
SHR40S4H	39°21' 53.853"	80°50' 51.889"	39°21' 54.092"	80°50' 51.829"	434,294.782	514,262.737
SHR40S4B	39°21' 53.633"	80°50' 51.991"	39°21' 53.922"	80°50' 51.370"	434,294.810	514,262.600
SHR40S4C	39°21' 53.684"	80°50' 52.129"	39°21' 53.753"	80°50' 51.559"	434,295.688	514,239.668
SHR40S4E	39°21' 53.294"	80°50' 52.759"	39°21' 53.583"	80°50' 51.850"	434,293.426	514,239.266
SHR40S4F	39°21' 53.348"	80°50' 52.817"	39°21' 53.637"	80°50' 52.284"	434,293.783	514,243.130
SHR40S4G	39°21' 53.917"	80°50' 52.740"	39°21' 53.806"	80°50' 51.120"	434,295.326	514,248.617
SHR40S4H	39°21' 53.854"	80°50' 52.645"	39°21' 54.145"	80°50' 51.855"	434,294.728	514,254.841
ENTRANCE	39°21' 54.819"	80°50' 52.884"	39°21' 52.819"	80°50' 51.844"	434,287.316	514,111.931
PAD CENTER	39°21' 53.714"	80°50' 52.519"	39°21' 54.257"	80°50' 51.975"	434,284.200	514,212.225

NOBLE ENERGY  
 333 TECHNOLOGY DRIVE, SUITE 116  
 CANONSBURG, PA 15317

**noble energy**

SHR4.0 WELL PAD  
 AS-BUILT WITH ORTHO

**REVISIONS**

DATE	TYPE

DRAWN BY: DEC  
 CHECKED BY: MC  
 DATE: 03/14/15  
 SCALE: 1" = 80'  
 JOB NO: 1366-15  
 DRAWING NAME: SHR40井址竣工图  
 SHEET 3 OF 3