



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
Phone: (304) 926-0450
Fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
dep.wv.gov

January 15, 2019

2018 Waiver Report

Pursuant to W. Va. Code 22-6A-2(a)(6), commencing on January 1, 2013 and each year thereafter, the Office of Oil and Gas shall submit to the Legislature a written report of the number of waivers of certain minimum requirements of Chapter 22, Article 6A granted by the Secretary during the preceding year. During the 2018 calendar year, the Office of Oil and Gas granted fourteen (14) waivers from the site restriction requirements of W. Va. Code § 22-6A-12(b), which states:

No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream...or a wetland... 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.

Copies of the Orders granting the waivers are attached.

Thus submitted, the 15th day of January 2019.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
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**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: XTO Energy, Inc.
810 Houston Street
Fort Worth, TX 76102

DATE: May 15, 2018
ORDER NO.: 2018-W-1

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to XTO Energy, Inc. (hereinafter "XTO" or "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. XTO is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 810 Houston Street, Fort Worth, Texas 76102
3. On May 19, 2017, XTO submitted a well work permit application identified as API# 47-033-05898. Then on November 1, 2017 and January 10, 2018, XTO Energy, Inc. also submitted well work permit applications identified as API#s 47-033-05913 and 47-033-05919. The three proposed wells are to be located on the Ice Pad in Clay District of Harrison County, West Virginia.
4. On May 19, 2017, XTO requested a waiver for Wetlands A and B outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-033-05898, 47-033-05913 and 47-033-05919.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for Wetlands A and B from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-033-05898, 47-033-05913 and 47-033-05919. The Office of Oil and Gas hereby **ORDERS** that XTO shall meet the following site construction and operational requirements for the Ice Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland A is not at risk sedimentation due to its location upslope of the well pad.
- d. Wetland B shall be protected by the berm constructed around the pad but due to its location across the slope from the pad it is unlikely to be at risk for sedimentation or impact. Extra care shall be provided during construction to ensure no impact to the wetland shall occur.
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 15th day of May, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By:



JAMES A. MARTIN, CHIEF



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: American Petroleum Partners Operating, LLC
4600 J. Barry Court Suite 310
Canonsburg, Pa 15317

DATE: May 21, 2018
ORDER NO.: 2018-W-2

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to American Petroleum Partners Operating, LLC (hereinafter "APP" or "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. APP is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 4600 J. Barry Court Suite 310, Canonsburg, Pa 15317.
3. On February 26, 2018 APP submitted a well work permit application identified as API# 47-051-02018. The proposed well is to be located on the Casterly Rock Pad in Union District of Marshall County, West Virginia.
4. On February 26, 2018 APP requested a waiver for Wetlands 1, 2 and 3 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02018. Wetland 1 will be excluded from this waiver since it is situated inside of the limits of disturbance and will be impacted then restored under an ACOE nationwide permit 39.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”

2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”

3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for Wetlands 2 and 3 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02018. The Office of Oil and Gas hereby **ORDERS** that APP shall meet the following site construction and operational requirements for the Casterly Rock Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland 2 and 3 shall have a layer of super silt fence and a layer of thirty-two inch (23”) compost filter sock to prevent sediment from reaching the wetlands.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

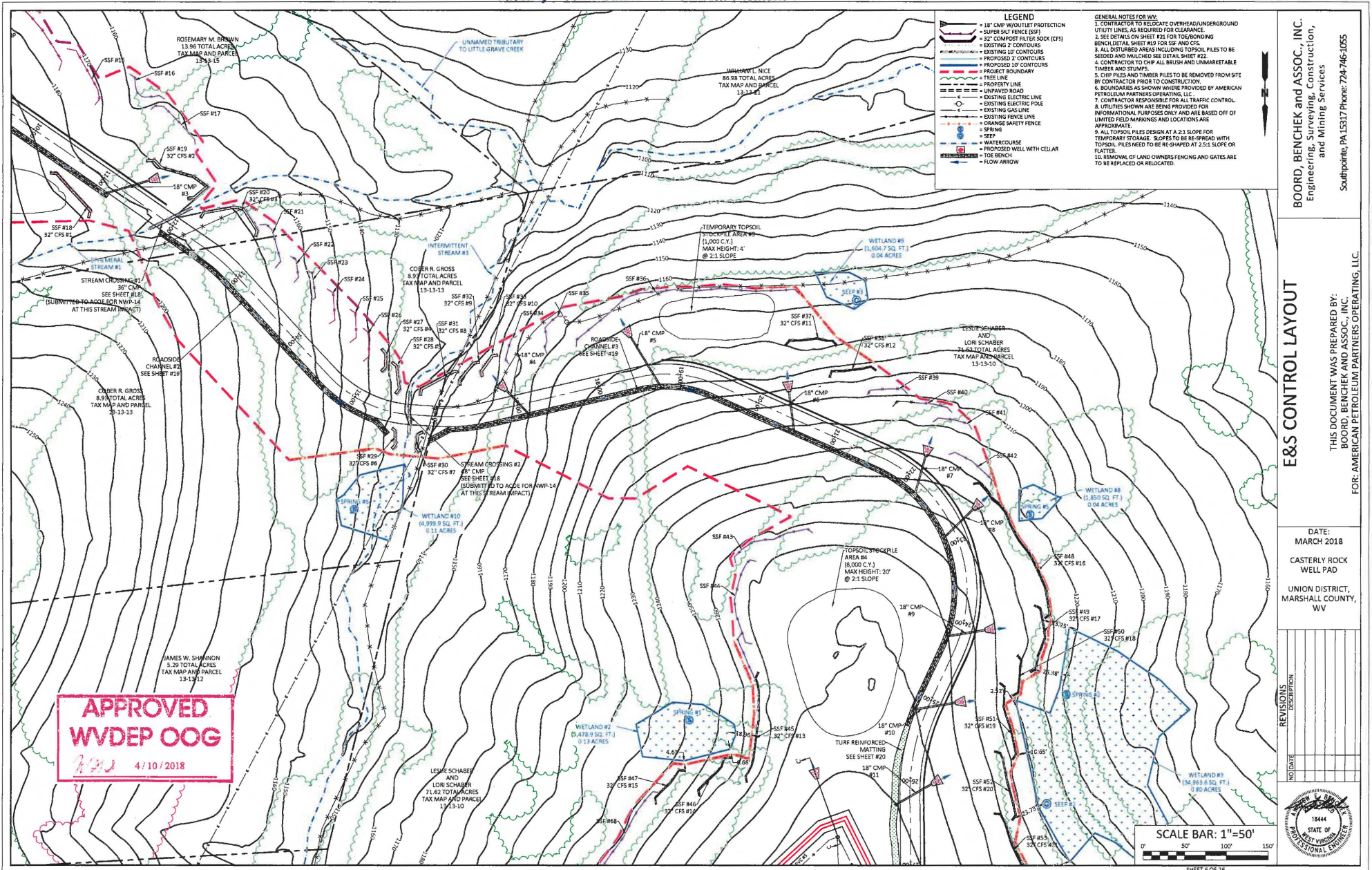
Thus ORDERED, the 21th day of May, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF

Casterly Rock Wetland Waiver - Attachment 1



LEGEND

- 18" CMP W/OUTLET PROTECTION
- SUPER Silt Fence (SSF)
- 32" COMPOST FILTER SOCK (CFS)
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROJECT BOUNDARY
- TREE LINE
- PROPERTY LINE
- UNPAVED ROAD
- EXISTING ELECTRIC LINE
- EXISTING ELECTRIC POLE
- EXISTING GASLINE
- EXISTING FENCE LINE
- ORANGE SAFETY FENCE
- SPRING
- WATERCOURSE
- PROPOSED WELL WITH CELLAR
- SEEP
- TOE BENCH
- FLOW ARROW

- GENERAL NOTES FOR WW:**
1. CONTRACTOR TO RELOCATE OVERHEAD/UNDERGROUND UTILITY LINES, AS REQUIRED FOR CLEARANCE.
 2. SEE DETAILS ON SHEET #21 FOR TOE/BONDING BENCH/DETAIL SHEET #19 FOR SSF AND CFS.
 3. ALL DISTURBED AREAS INCLUDING TOPSOIL PILES TO BE SEEDED AND MULCHED. SEE DETAIL SHEET #22.
 4. CONTRACTOR TO CHIP ALL BRUSH AND UNMARKETABLE TIMBER AND STUMPS.
 5. CHIP PILES AND TIMBER PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
 6. BOUNDARIES AS SHOWN WERE PROVIDED BY AMERICAN PETROLEUM PARTNERS OPERATING, LLC.
 7. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
 8. UTILITIES SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED OFF OF LIMITED FIELD MARKINGS AND LOCATIONS ARE APPROXIMATE.
 9. ALL TOPSOIL PILES DESIGN AT A 2:1 SLOPE FOR TEMPORARY STORAGE. SLOPES TO BE RE-SHAPED WITH TOPSOIL PILES NEED TO BE RE-SHAPED AT 2:1 SLOPE OR FLATTER.
 10. REMOVAL OF LAND OWNERS FENCING AND GATES ARE TO BE REPLACED OR RELOCATED.

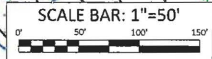
BOARD, BENCHEK AND ASSOC., INC.
 Engineering, Surveying, Construction,
 and Mining Services
 Southpointe, PA 15317 Phone: 724-746-1055

E&S CONTROL LAYOUT

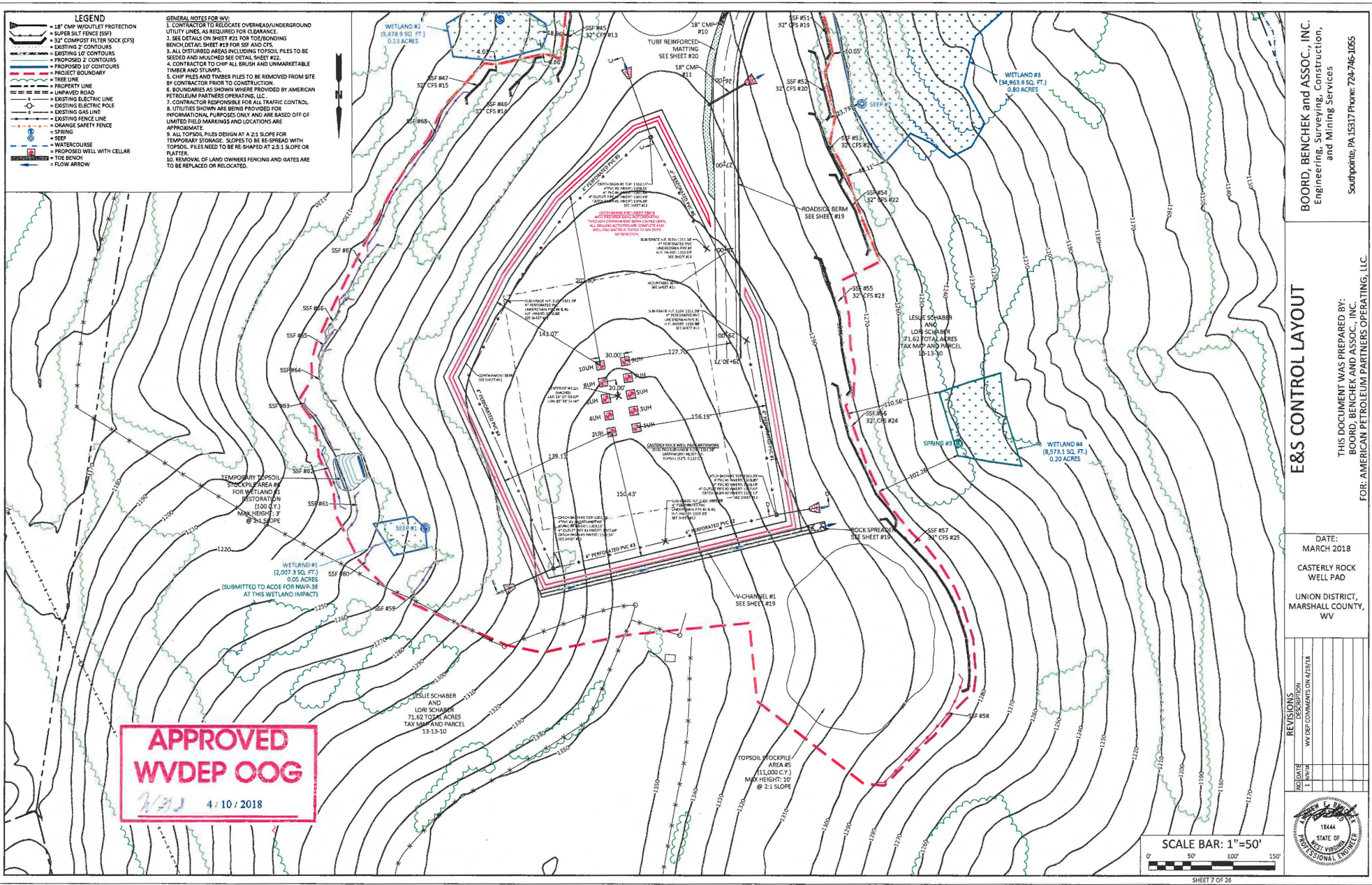
THIS DOCUMENT WAS PREPARED BY:
BOARD, BENCHEK AND ASSOC., INC.
 FOR: AMERICAN PETROLEUM PARTNERS OPERATING, LLC.

DATE: MARCH 2018
 CASTERLY ROCK WELL PAD
 UNION DISTRICT, MARSHALL COUNTY, WV

| NO. | REVISIONS | DESCRIPTION |
|-----|-----------|-------------|
| | | |
| | | |
| | | |
| | | |



Casterly Rock Wetland Waiver - Attachment 1



LEGEND

- 18" CMP W/OUTLET PROTECTION
- SUMBERGILT FENCE (SBF)
- 32" COMPACT FILTER SOCK (CFS)
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- PROPOSED 2' CONTOURS
- PROPOSED 10' CONTOURS
- PROJECT BOUNDARY
- TREE LINE
- PROPERTY LINE
- UNPAVED ROAD
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING FENCE LINE
- ORANGE SAFETY FENCE
- SPRING
- SEEP
- WATER COURSE
- PROPOSED WELL WITH CELLAR
- TOE BENCH
- FLOW ARROW

GENERAL NOTES FOR WVE:

- CONTRACTOR TO RELOCATE OVERHEAD/UNDERGROUND UTILITY LINES AS REQUIRED FOR CLEARANCE.
- SEE DETAILS ON SHEET #21 FOR TOE/BENCHING BENCH DETAIL SHEET #23 FOR SBF AND CFS.
- ALL DISTURBED AREAS INCLUDING TOPSOIL PILES TO BE SEEDED AND MULCHED SEE DETAIL SHEET #22.
- CONTRACTOR TO CHIP ALL BRUSH AND UNMARKETABLE TIMBER AND STUMPS.
- CMP PILES AND TRAPERS PILES TO BE REMOVED FROM SITE BY CONTRACTOR PRIOR TO CONSTRUCTION.
- BOUNDARIES AS SHOWN WHERE PROVIDED BY AMERICAN PETROLEUM PARTNERS OPERATING, LLC.
- CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL.
- UTILITIES SHOWN ARE BEING PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND ARE BASED OFF OF LIMITED FIELD MARKINGS AND LOCATIONS ARE APPROXIMATE.
- ALL TOPSOIL PILES DESIGN AT A 2:1 SLOPE FOR TEMPORARY STORAGE. SLOPES TO BE RE-Spread WITH TOPSOIL PILES NEED TO BE RE-SHAPED AT 2.5:1 SLOPE OR FLATTER.
- REMOVAL OF LAND OWNERS FENCINGS AND GATES ARE TO BE REPLACED OR RELOCATED.

APPROVED WVDEP OOG
4/10/2018

BOARD, BENCHEK AND ASSOC., INC.
Engineering, Surveying, Construction,
and Mining Services
Southpointe, PA 15317 Phone: 724-746-1065

E&S CONTROL LAYOUT
THIS DOCUMENT WAS PREPARED BY:
BOARD, BENCHEK AND ASSOC., INC.
FOR: AMERICAN PETROLEUM PARTNERS OPERATING, LLC.

DATE: MARCH 2018
CASTERLY ROCK WELL PAD
UNION DISTRICT, MARSHALL COUNTY, WV

| NO. | DATE | REVISIONS DESCRIPTION |
|-----|---------|-----------------------------|
| 1 | 4/10/18 | WV DEPT COMMENTS ON 4/10/18 |



SCALE BAR: 1"=50'
0' 50' 100' 150'



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: Arsenal Resources
6031 Wallace Road Extension Suite 603
Wexford, Pa 15090

DATE: July 25, 2018
ORDER NO.: 2018-W-3

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to Arsenal Resources (hereinafter “Arsenal” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Arsenal is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 6031 Wallace Road Extension Suite 603, Wexford, PA 15090
3. On April 27, 2018 Arsenal submitted a well work permit application identified as API# 47-033-05923. The proposed well is to be located on the Lang Pad in District 12 of Harrison County, West Virginia.
4. On April 27, 2018 Arsenal requested a waiver for Stream 1, Stream 2 and Wetland A outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-033-05923.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for Stream 1, Stream 2 and Wetland A from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-033-05923. The Office of Oil and Gas hereby **ORDERS** that Arsenal shall meet the following site construction and operational requirements for the Lang Well Pad:

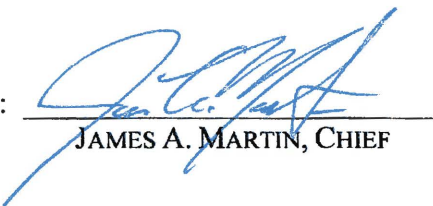
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Stream 1 shall be protected by thirty-two inch (32”) compost filter sock at the toe of the stockpile and a triple stack of compost filter sock comprised of two twenty four inch (24”) socks with an eighteen inch (18”) sock on top nearest the pad. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the wetlands
- d. Stream 2 shall be protected by a triple stack of compost filter sock comprised of two twenty-four inch (24”) socks with an eighteen inch (18”) sock on top. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the wetlands.
- e. Wetland A shall be protected by thirty-two inch (32”) compost filter sock at the toe of the stockpile and a triple stack of compost filter sock comprised of two twenty four inch (24”) socks with an eighteen inch (18”) sock on top nearest the pad. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the wetlands
- f. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- g. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- h. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- i. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- j. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- k. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- l. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- m. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 25th day of July, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By:



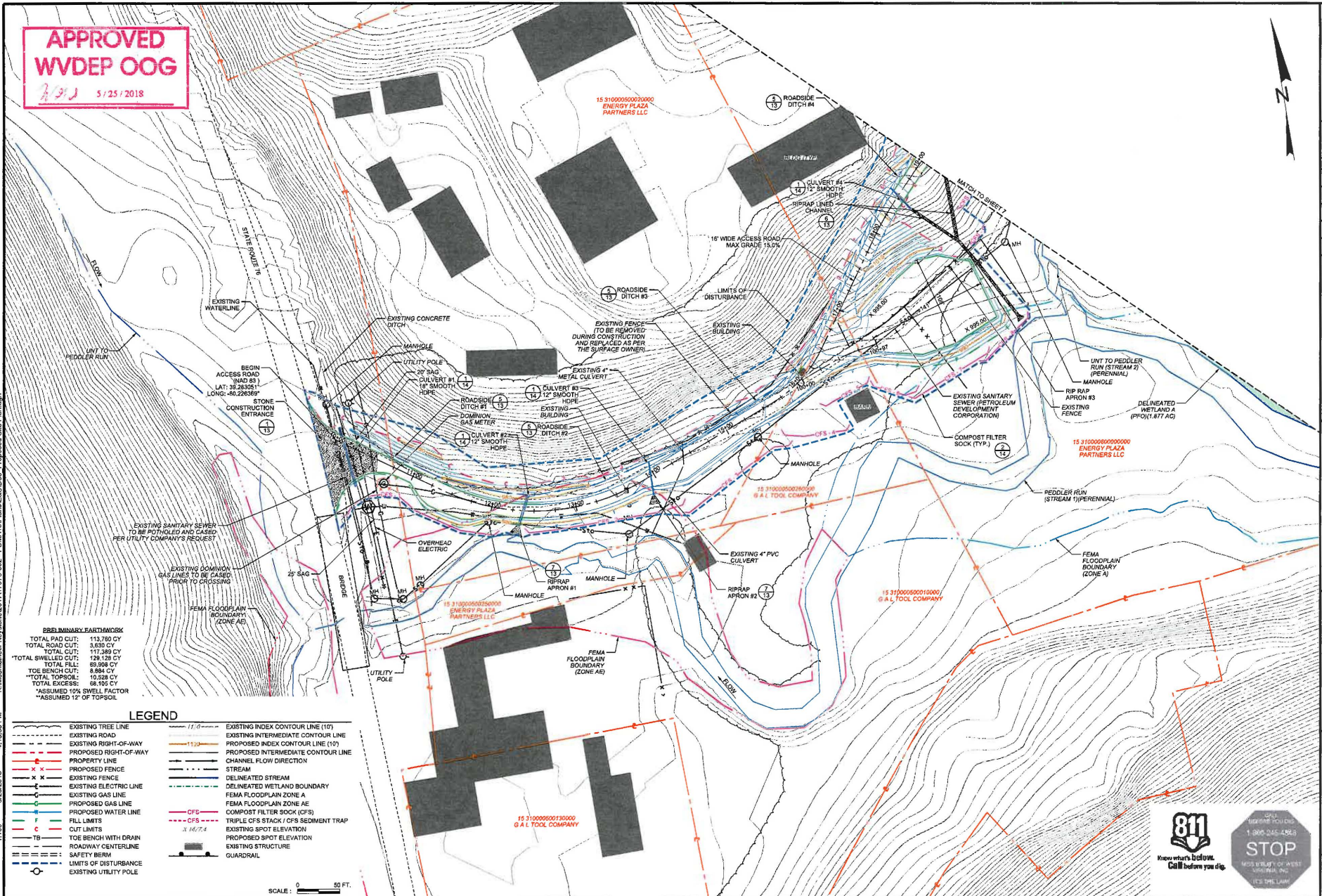
A handwritten signature in blue ink, appearing to read 'J.A. Martin', is written over a horizontal line. The signature is stylized and cursive.

JAMES A. MARTIN, CHIEF

Attachment 1 Wetland Waiver - Arsenal Land Pad

APPROVED WVDEP OOG

3/23 5/25/2018



PRELIMINARY EARTHWORK
 TOTAL PAD CUT: 113,760 CY
 TOTAL ROAD CUT: 3,830 CY
 TOTAL CUT: 117,590 CY
 TOTAL SWELLED CUT: 129,128 CY
 TOTAL FILL: 89,308 CY
 TOE BENCH CUT: 8,884 CY
 **TOTAL TOPSOIL: 10,528 CY
 TOTAL EXCESS: 68,105 CY
 *ASSUMED 10% SWELL FACTOR
 **ASSUMED 12" OF TOPSOIL

LEGEND

| | | | |
|-------------------|------------------------|-------------------|--------------------------------------|
| --- (dashed line) | EXISTING TREE LINE | --- (dashed line) | EXISTING INDEX CONTOUR LINE (10') |
| --- (dashed line) | EXISTING ROAD | --- (dashed line) | EXISTING INTERMEDIATE CONTOUR LINE |
| --- (dashed line) | EXISTING RIGHT-OF-WAY | --- (dashed line) | PROPOSED INDEX CONTOUR LINE (10') |
| --- (dashed line) | PROPOSED RIGHT-OF-WAY | --- (dashed line) | PROPOSED INTERMEDIATE CONTOUR LINE |
| --- (dashed line) | PROPERTY LINE | --- (dashed line) | CHANNEL FLOW DIRECTION |
| --- (dashed line) | PROPOSED FENCE | --- (dashed line) | STREAM |
| X X | EXISTING FENCE | --- (dashed line) | DELINEATED STREAM |
| --- (dashed line) | EXISTING ELECTRIC LINE | --- (dashed line) | DELINEATED WETLAND BOUNDARY |
| --- (dashed line) | EXISTING GAS LINE | --- (dashed line) | FEMA FLOODPLAIN ZONE A |
| --- (dashed line) | PROPOSED GAS LINE | --- (dashed line) | FEMA FLOODPLAIN ZONE AE |
| --- (dashed line) | PROPOSED WATER LINE | --- (dashed line) | COMPOST FILTER SOCK (CFS) |
| --- (dashed line) | FILL LIMITS | --- (dashed line) | TRIPLE CFS STACK / CFS SEDIMENT TRAP |
| --- (dashed line) | CUT LIMITS | --- (dashed line) | EXISTING SPOT ELEVATION |
| --- (dashed line) | TOE BENCH WITH DRAIN | --- (dashed line) | PROPOSED SPOT ELEVATION |
| --- (dashed line) | ROADWAY CENTERLINE | --- (dashed line) | EXISTING STRUCTURE |
| --- (dashed line) | SAFETY BERM | --- (dashed line) | GUARDRAIL |
| --- (dashed line) | LIMITS OF DISTURBANCE | | |
| --- (dashed line) | EXISTING UTILITY POLE | | |

SCALE 0 30 FT.



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| NO. | DESCRIPTION |
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| 2 | REVISION TO COMMENTS |
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DIFFENBAUGH & HIRTZ, LLC
 1000 W. MARKET ST., SUITE 200
 WASHINGTON, WV 25701
 P: 304.860.8500 F: 304.860.8507



CLIENT
 LANG HSP-15

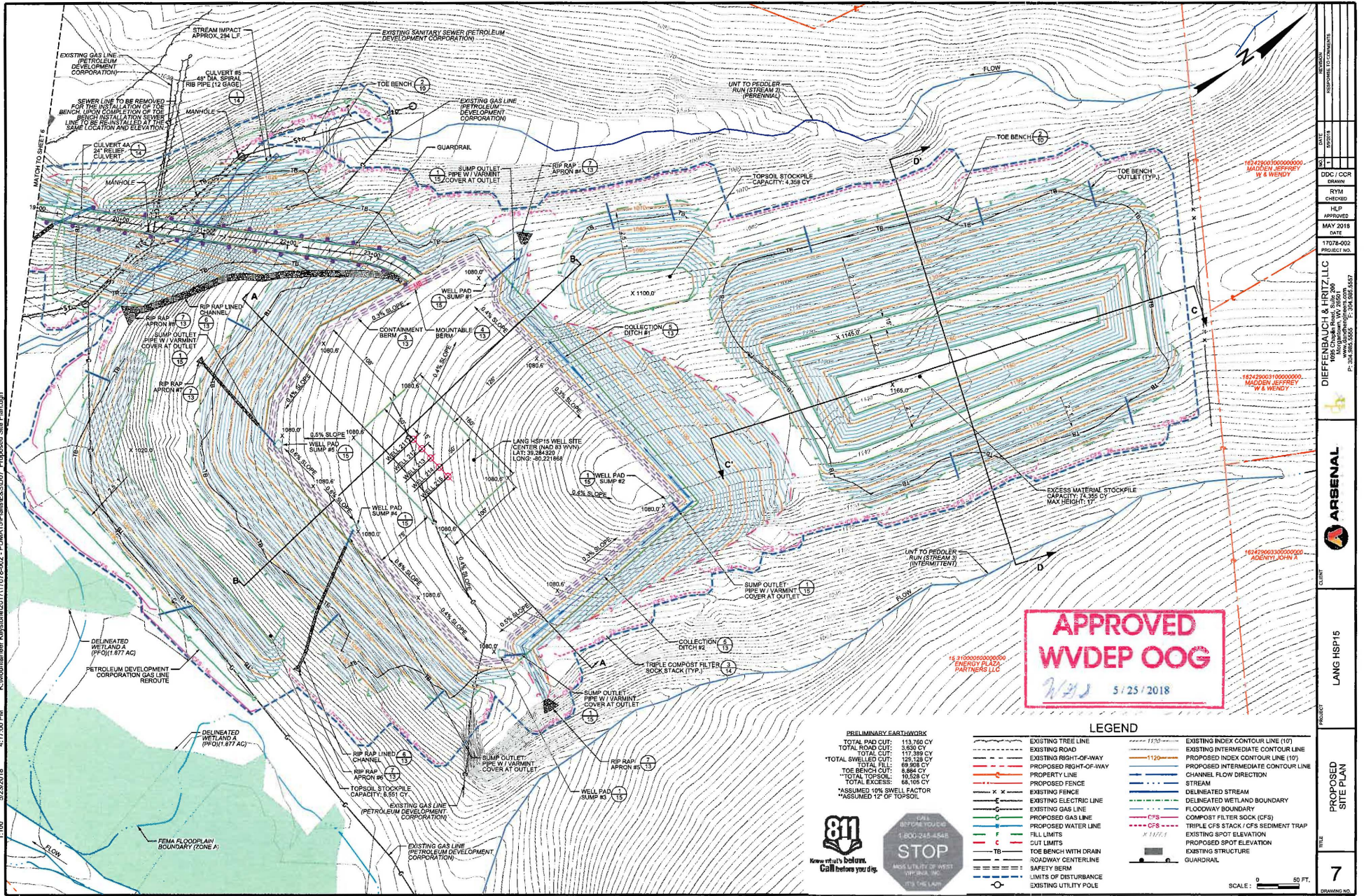
PROJECT
 PROPOSED SITE PLAN

TITLE
 6 DRAWING NO.



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Attachment 1 Wetland Waiver - Arsenal Land Pad



APPROVED
WVDEP OOG
 2/25 5/25/2018

PRELIMINARY EARTHWORK
 TOTAL PAD OUTF: 113,760 CY
 TOTAL ROAD CUT: 3,636 CY
 TOTAL CUT: 117,396 CY
 TOTAL SWELLED CUT: 125,728 CY
 TOTAL FILL: 68,884 CY
 TOE BENCH CUT: 6,884 CY
 TOTAL TOPSOIL: 60,528 CY
 TOTAL EXCESS: 68,196 CY
 *ASSUMED 10% SWELL FACTOR
 *ASSUMED 12" OF TOPSOIL

| LEGEND | |
|--------|--------------------------------------|
| | EXISTING TREE LINE |
| | EXISTING ROAD |
| | EXISTING RIGHT-OF-WAY |
| | PROPOSED RIGHT-OF-WAY |
| | PROPERTY LINE |
| | PROPOSED FENCE |
| | EXISTING FENCE |
| | EXISTING ELECTRIC LINE |
| | EXISTING GAS LINE |
| | PROPOSED GAS LINE |
| | PROPOSED WATER LINE |
| | FILL LIMITS |
| | CUT LIMITS |
| | TOE BENCH WITH DRAIN |
| | ROADWAY CENTERLINE |
| | SAFETY BERM |
| | LIMITS OF DISTURBANCE |
| | EXISTING UTILITY POLE |
| | EXISTING INDEX CONTOUR LINE (10') |
| | EXISTING INTERMEDIATE CONTOUR LINE |
| | PROPOSED INDEX CONTOUR LINE (10') |
| | PROPOSED INTERMEDIATE CONTOUR LINE |
| | CHANNEL FLOW DIRECTION |
| | STREAM |
| | DELINEATED STREAM |
| | DELINEATED WETLAND BOUNDARY |
| | FLOODWAY BOUNDARY |
| | COMPOSITE FILTER SOCK (CFS) |
| | TRIPLE CFS STACK / CFS SEDIMENT TRAP |
| | EXISTING SPOT ELEVATION |
| | PROPOSED STRUCTURE |
| | GUARDRAIL |



SCALE: 0 50 FT.

5/23/2018 4:17:00 PM K:\wv\ahner\kay\arsenal\001\17076-002 - PJM\15\Plan\ES\SD7 - Proposed Site Plan.dgn

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|---|---------------------------|
| DATE | DESCRIPTION |
| 17076-002 | PROJECT NO. |
| MAY 2018 | DATE |
| HLP | APPROVED |
| RYM | CHECKED |
| DDC / OCR | DESIGN |
| WV | EXPIRES TO CONTRACT |
| 1624290031000000000 | MODERNA JOFFREY W & WENDY |
| 1624290031000000000 | MODERNA JOFFREY W & WENDY |
| 1624290031000000000 | AGENCY JOHN A |
| 1624290031000000000 | PARTNERS LLC |
| DIFFENBAUGH & HRITZ, LLC | CLIENT |
| 100 Chesapeake Blvd., Suite 200 Farmingdale, NY 11735 P: 631.442.8200 F: 631.442.8207 | PROJECT |
| LANG HSP15 | PROPOSED SITE PLAN |
| 7 | TITLE |
| 7 | DRAWING NO. |



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: Tug Hill Operating
380 Southpointe Boulevard, Plaza II, Suite 200
Cannonsburg, Pa 15317

DATE: July 25, 2018
ORDER NO.: 2018-W-4

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to Tug Hill Operating (hereinafter “Tug Hill” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Tug Hill is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 380 Southpointe Boulevard, Plaza II, Suite 200, Cannonsburg, Pa 15317
3. On May 5, 2018 Tug Hill submitted a well work permit application identified as API# 47-051-02041. The proposed well is to be located on the Keith Stern Pad in the Meade District of Marshall County, West Virginia.
4. On May 5, 2018 Tug Hill requested a waiver for Perennial Stream S1, Wetland W1 and Wetland W2 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02041.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

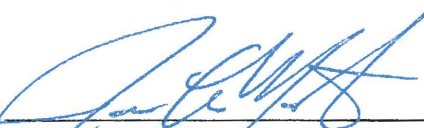
West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Perennial Stream S1, Wetland W1 and Wetland W2 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02041. The Office of Oil and Gas hereby **ORDERS** that Tug Hill shall meet the following site construction and operational requirements for the Keith Stern Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Stream 1 shall be protected by twenty-four-inch (24”) compost filter sock and super silt fence. SedCatch inlet protection for existing culverts shall also be provided. This along with temporary and permanent vegetative cover will prevent sediment from reaching the stream.
- d. Wetlands W1 and W2 shall be protected by twenty-four-inch (24”) compost filter sock and super silt fence. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetlands
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 25th day of July, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 

JAMES A. MARTIN, CHIEF



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: SWN Production Company, LLC
Post Office Box 12359
Spring TX 77391-4954

DATE: August 2, 2018
ORDER NO.: 2018-W-5

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to SWN Production Company, LLC (hereinafter “SWN” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. SWN is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as Post Office Box 12359, Spring TX 77391-4954
3. On May 24, 2018 SWN submitted a well work permit application identified as API# 47-009-00257. The proposed well is to be located on the WV DNR C Pad in Cross Creek District of Brooke County, West Virginia.
4. On May 24, 2018 SWN requested a waiver for Wetland W-MRK-023 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-009-00257.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

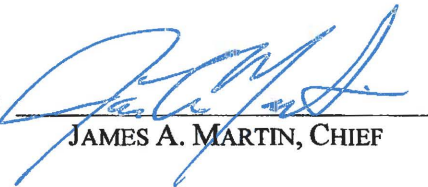
West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetland W-MRK-023 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-009-00257. The Office of Oil and Gas hereby **ORDERS** that SWN shall meet the following site construction and operational requirements for the WV DNR C Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland W-MRK-023 shall be protected by triple stacked filter socks consisting of two thirty-two inch filter socks and an eighteen inch filter sock. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the wetlands
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 2nd day of August, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: Tug Hill Operating
380 Southpointe Boulevard, Plaza II, Suite 200
Cannonsburg, Pa 15317

DATE: August 21, 2018
ORDER NO.: 2018-W-6

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to Tug Hill Operating (hereinafter “Tug Hill” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Tug Hill is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 380 Southpointe Boulevard, Plaza II, Suite 200, Cannonsburg, Pa 15317
3. On June 5, 2018 Tug Hill submitted a well work permit application identified as API# 47-051-02051. Then on June 18, 2018 Tug Hill also submitted well work permits identified as API#s 47-051-02056, 47-051-02057, 47-051-02058, 47-051-02059 and 47-051-02060. The proposed wells are to be located on the Accettolo Pad in the Franklin District of Marshall County, West Virginia.
4. On August 16, 2018 Tug Hill requested a waiver for Wetland W1 and Wetland W3 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API# 47-051-02051, 47-051-02056, 47-051-02057, 47-051-02058, 47-051-02059 and 47-051-02060.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”

2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”

3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

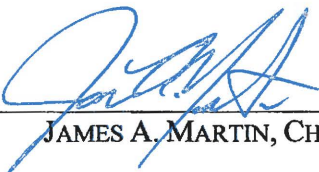
West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetland W1 and Wetland W3 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02051, 47-051-02056, 47-051-02057, 47-051-02058, 47-051-02059 and 47-051-02060. The Office of Oil and Gas hereby **ORDERS** that Tug Hill shall meet the following site construction and operational requirements for the Accettolo Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetlands W1 and W3 shall be protected by twenty-four-inch (24”) compost filter sock and super silt fence. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetlands
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 21th day of August, 2018.

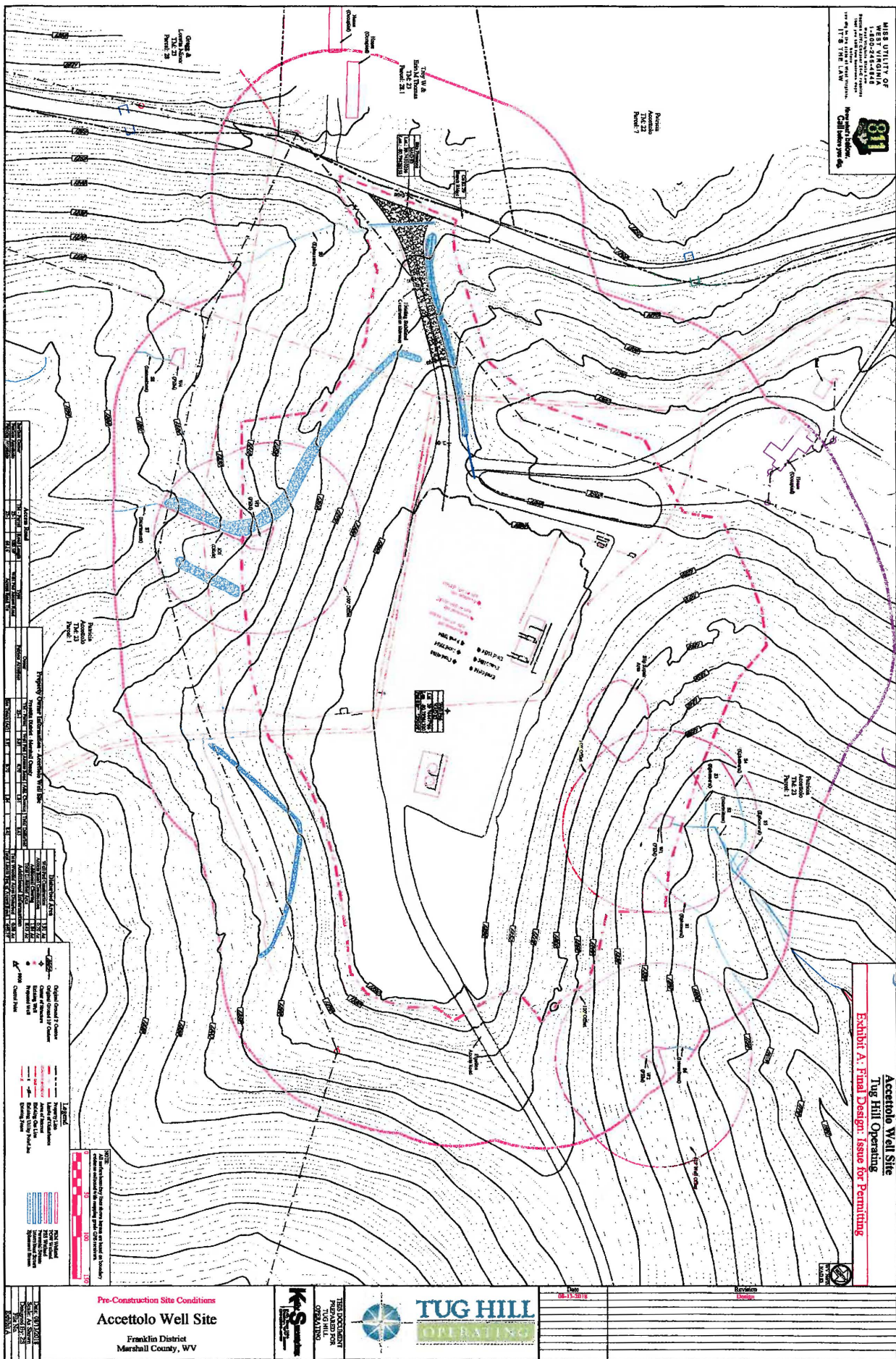
IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 

JAMES A. MARTIN, CHIEF

Attachment #1 - Existing Conditions



Accetollo Well Site
Tug Hill Operating
Exhibit A: Final Design: Issue for Permitting

| | | | | |
|---|---|--|--|--|
| <p>DATE: 10/15/2018 SCALE: AS SHOWN</p> | <p>Pre-Construction Site Conditions Accetollo Well Site Franklin District Marshall County, WV</p> | | <p>THIS DOCUMENT PREPARED FOR OPERATIONS</p> | <p>DATE: 10-15-2018 REVISION: 10/15/18</p> |
|---|---|--|--|--|



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: American Petroleum Partners Operating, LLC
4600 J. Barry Court Suite 310
Canonsburg, Pa 15317

DATE: September 13, 2018
ORDER NO.: 2018-W-7

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to American Petroleum Partners Operating, LLC (hereinafter “APP” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. APP is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 4600 J. Barry Court Suite 310, Canonsburg, Pa 15317.
3. On May 7, 2018 APP submitted a well work permit application identified as API# 47-051-02044. The proposed well is to be located on the Castle Black Pad in Webster District of Marshall County, West Virginia.
4. On August 15, 2018 APP requested a waiver for Wetlands 1 and 2 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02044.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for Wetlands 1 and 2 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02044. The Office of Oil and Gas hereby **ORDERS** that APP shall meet the following site construction and operational requirements for the Castle Black Well Pad:

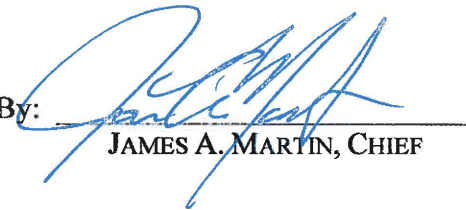
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland 1 is situated at an elevation that runoff from the construction cannot impact the wetland
- d. Wetland 2 shall have a layer of twenty-four inch (24”) super silt fence and a layer of eighteen inch (18”) compost filter sock to prevent sediment from reaching the wetlands.
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 13th day of September, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

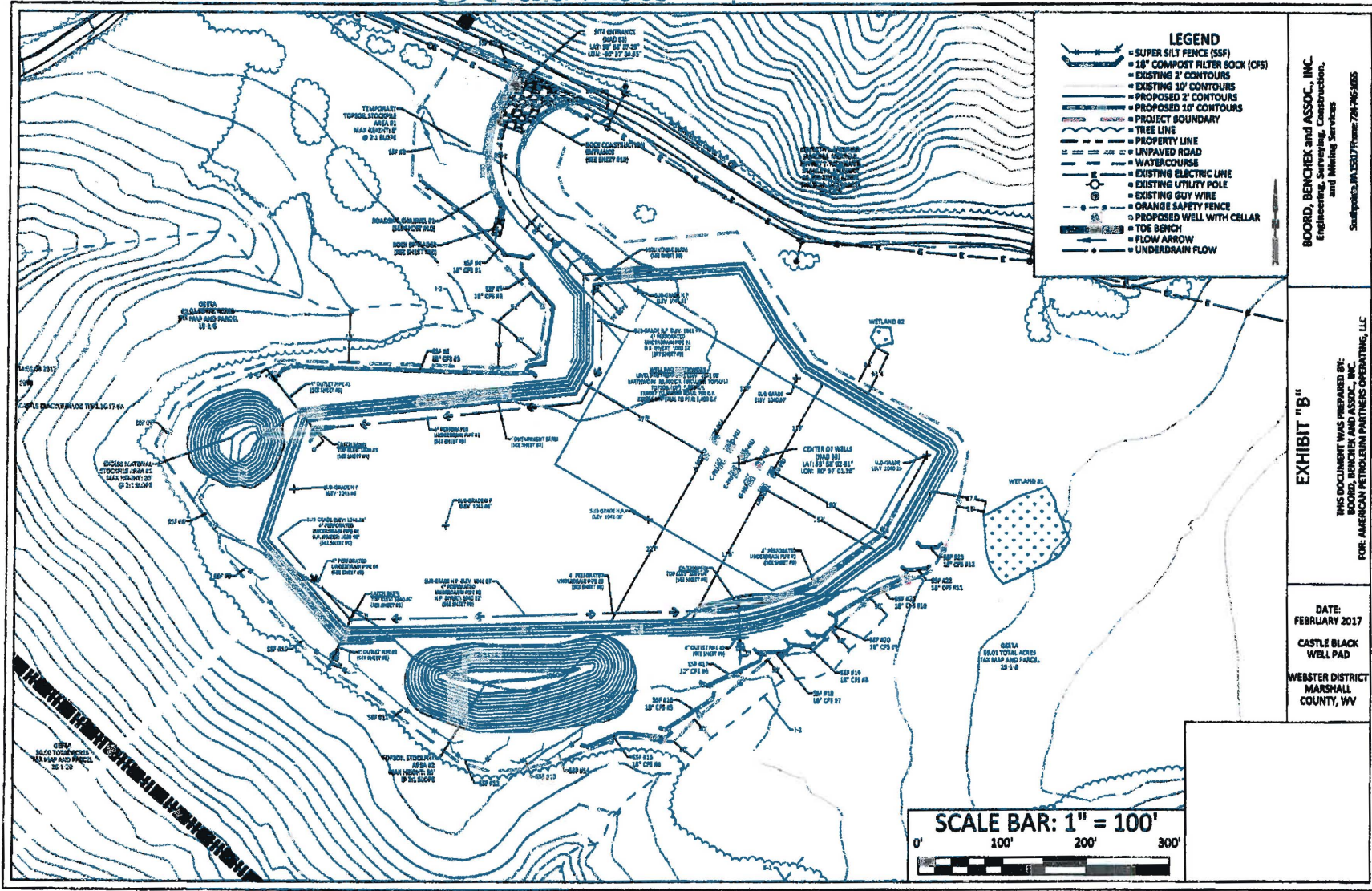
OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA

By: _____



JAMES A. MARTIN, CHIEF

Attachment #1





west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: CNX Gas Company, LLC
1000 Consol Energy Drive
Canonsburg PA 15317

DATE: October 9, 2018
ORDER NO.: 2018-W-8

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to CNX Gas Company, LLC (hereinafter “CNX” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. CNX is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 1000 Consol Energy Drive, Canonsburg PA 15317
3. On August 9, 2018 CNX submitted a well work permit application identified as API# 47-061-01815. The proposed well is to be located on the WDTN 19 Pad in Battelle District of Monongalia County, West Virginia.
4. On August 9, 2018 CNX requested a waiver for Wetlands WET01-007, WET01-008, WET01-009, WET01-011 as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-061-01815.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for Wetlands WET01-007, WET01-008, WET01-009, WET01-011 from well location restriction requirements in W.Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-061-001815. The Office of Oil and Gas hereby **ORDERS** that CNX shall meet the following site construction and operational requirements for the WDTN 19 Well Pad:

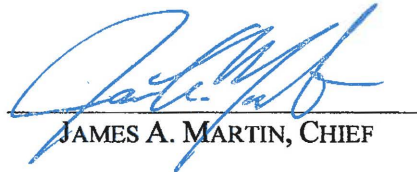
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetlands WET01-007, WET01-008, WET01-009, WET01-011 shall be protected by triple stacked filter socks consisting of two twenty-four inch (24”) filter socks and an eighteen inch (18”) filter sock along with silt fence. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the wetlands
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 9rd day of October, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By:



JAMES A. MARTIN, CHIEF



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: HG Energy II Appalachia, LLC
5260 Dupont Road
Parkersburg, WV 26101

DATE: October 16, 2018
ORDER NO.: 2018-W-9

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to HG Energy II Appalachia, LLC (hereinafter “HG” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. HG is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 5260 Dupont Road Parkersburg, WV 26101.
3. On June 18, 2018 HG submitted a well work permit application identified as API# 47-033-05930. The proposed well is to be located on the Nays 1209 Pad in Union District of Harrison County, West Virginia.
4. On June 18, 2018 HG requested a waiver for the perennial stream West Fork River and Wetlands A, D and Z outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-033-05930. Wetland A, D and Z will be excluded from this waiver since they are situated more than 100’ from of the limits of disturbance of the well pad.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for the perennial stream West Fork River from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-033-05930. The Office of Oil and Gas hereby **ORDERS** that HG shall meet the following site construction and operational requirements for the Nays 1209 Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Perennial stream West Fork River shall have triple stacked eight inch (8”) compost filter sock to prevent sediment from reaching the stream. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the stream.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

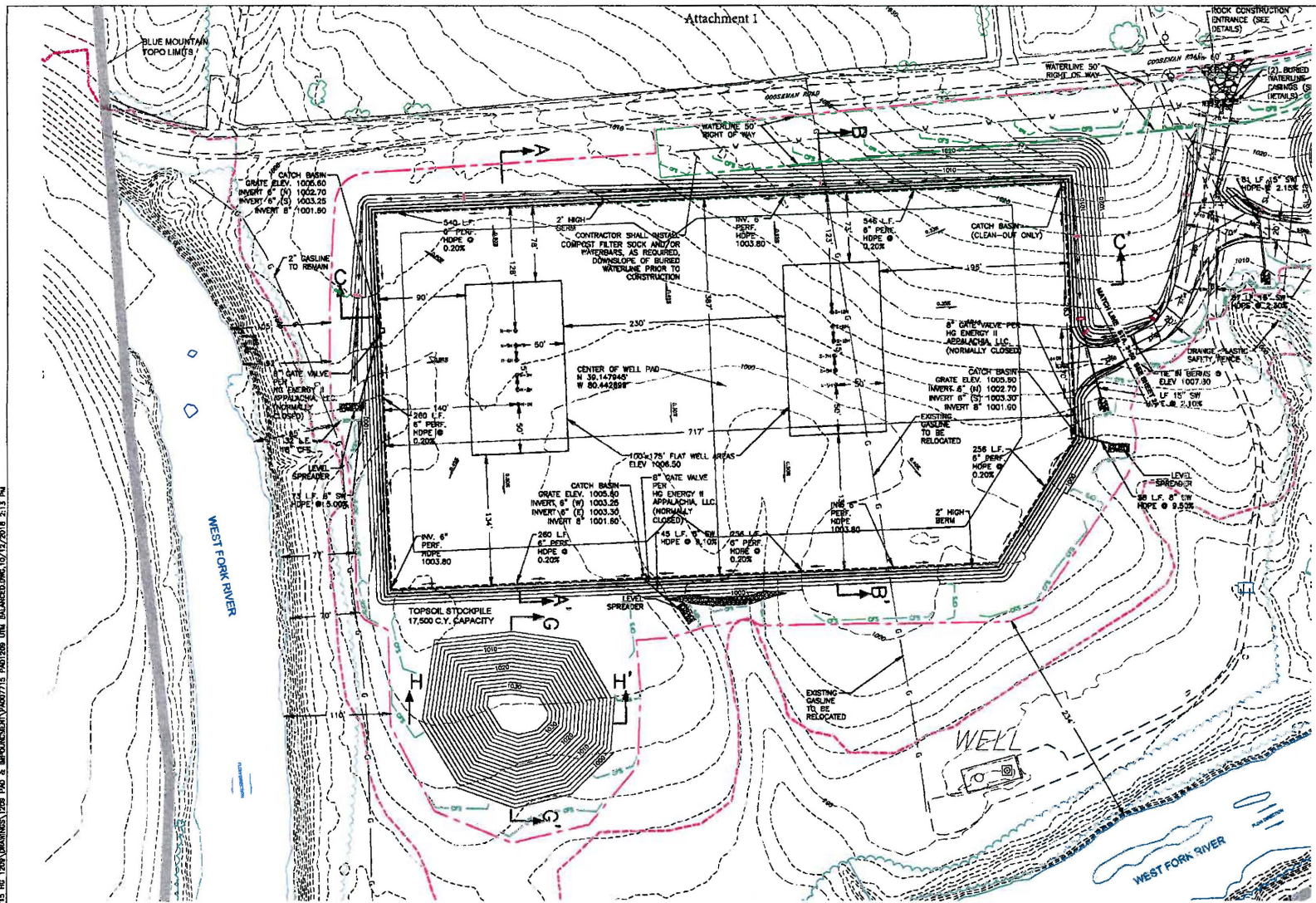
Thus ORDERED, the 16th day of October, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF

S:\PROJECT FILES\4000-PAD07715-18_1209\DRAWINGS\1209 PAD & IMPROVEMENT\PAD07715 PAD1209 UTM BALANCED.DWG, 10/12/2018, 2:13 PM

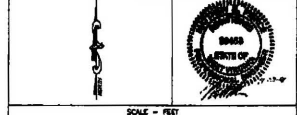


- LEGEND**
- ROCK CHECK DAM
 - RIMPAP APRON
 - ACCESS ROAD/PAD CHANNEL
 - COMPOST FILTER SOCK 6" UNLESS OTHERWISE NOTED
 - STANDARD COMPOST FILTER SOCK 6"
 - APPROXIMATE LIMITS OF DISTURBANCE
 - APPROXIMATE 50' BUFFERLINE RIGHT OF WAY
 - APPROXIMATE PROPERTY LINE
 - EXISTING SLOPE CONTOUR
 - EXISTING INTERMEDIATE CONTOUR
 - PROPOSED FINAL GRADE WHERE CONTAINMENT
 - PROPOSED FINAL GRADE INTERMEDIATE CONTOUR
 - LIMITS OF BLUE MOUNTAIN MAPPING
 - EXISTING TREE LINE
 - APPROXIMATE 100 YR FLOODPLAIN BOUNDARY
 - IF DOWN LAKE FORCE WITH SECURITY CURB
 - EXISTING CHANNEL

- NOTES**
1. REPRODUCE THIS SHEET WITH THE CONTRACTOR NOTES AND DETAILS.
 2. CONTRACTOR SHALL CONDUCT SOFT SHOULDER UTILITY INVESTIGATION PER 811. A MINIMUM OF 3' CLEAR SPACE IS REQUIRED AROUND ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RECORDS TO CONDUCT THIS INVESTIGATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RECORDS TO CONDUCT THIS INVESTIGATION.
 3. SITE SHALL BE CONSTRUCTED IN ACCORDANCE WITH WELL DRILLING PERMITS AND RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RECORDS TO CONDUCT THIS INVESTIGATION.
 4. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RECORDS TO CONDUCT THIS INVESTIGATION.
 5. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RECORDS TO CONDUCT THIS INVESTIGATION.
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 15. ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND RECORDS TO CONDUCT THIS INVESTIGATION.

REVISIONS

| NO. | DATE | DESCRIPTION |
|-----|----------|--|
| 1 | 5/31/18 | ISSUE PERMITS AND APPROPRIATE FOR SET CHANGES |
| 2 | 5/31/18 | REVISE APPROXIMATE 50' BUFFERLINE AND DISTURBANCE |
| 3 | 5/12/18 | REWORK PERMITS, ISSUED FOR SET CHANGES AND DISTURBANCE |
| 4 | 7/02/18 | REWORK PERMITS FOR SET CHANGES |
| 5 | 10/01/18 | APPROPRIATE 50' BUFFERLINE AND DISTURBANCE |
| 6 | 10/17/18 | APPROPRIATE 50' BUFFERLINE AND DISTURBANCE |



SITE DEVELOPMENT PLAN WITH EROSION AND SEDIMENTATION CONTROLS
HG 1209 PAD & IMPROVEMENT
 UNION DISTRICT
 HARRISON COUNTY, WEST VIRGINIA

PREPARED FOR
HG ENERGY II APPALACHIA, LLC
 PARKERSBURG, WEST VIRGINIA

APPROVED: **HGP 05/31/2018**
 CHECKED: **HGP 05/31/2018**
 DRAWN: **DJA 05/08/2018**
 PROJECT NO.: **4000-PAD07715**

DESIGN NUMBER: **PAD07715-001**
 SHEET 28

WEST VIRGINIA CALL BEFORE YOU DIG! Dial 811 or 800.248.4848

COORDINATES: UTM WITH NAD 83 DATUM, ZONE 17, U.S. FOOT, CENTRAL

1. SERVICE UTILITY LINES ARE NOT SHOWN ON THIS PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING, AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE.





west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: Arsenal Resources
6031 Wallace Road Extension Suite 603
Wexford, Pa 15090

DATE: October 22, 2018
ORDER NO.: 2018-W-10

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to Arsenal Resources (hereinafter “Arsenal” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Arsenal is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 6031 Wallace Road Extension Suite 603, Wexford, PA 15090.
3. On July 20, 2018 Arsenal submitted a well work permit application identified as API# 47-091-01347. The proposed well is to be located on the Fiber TFP22 Pad in District 4 of Taylor County, West Virginia.
4. On July 20, 2018 Arsenal requested a waiver for Stream 7, Wetlands F, G, H and I outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-091-01347.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

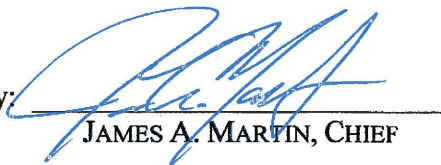
West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Stream 7, and Wetlands F, G, H and I from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-091-01347. The Office of Oil and Gas hereby **ORDERS** that Arsenal shall meet the following site construction and operational requirements for the Fiber TFP22 Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Stream 7 shall be protected by diversion ditches and compost filter sock. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the stream;
- d. Wetland F, G, H and I shall be protected by both silt fence and super silt fence. This along temporary and permanent vegetative cover will prevent sediment from reaching the wetlands;
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 22th day of October, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

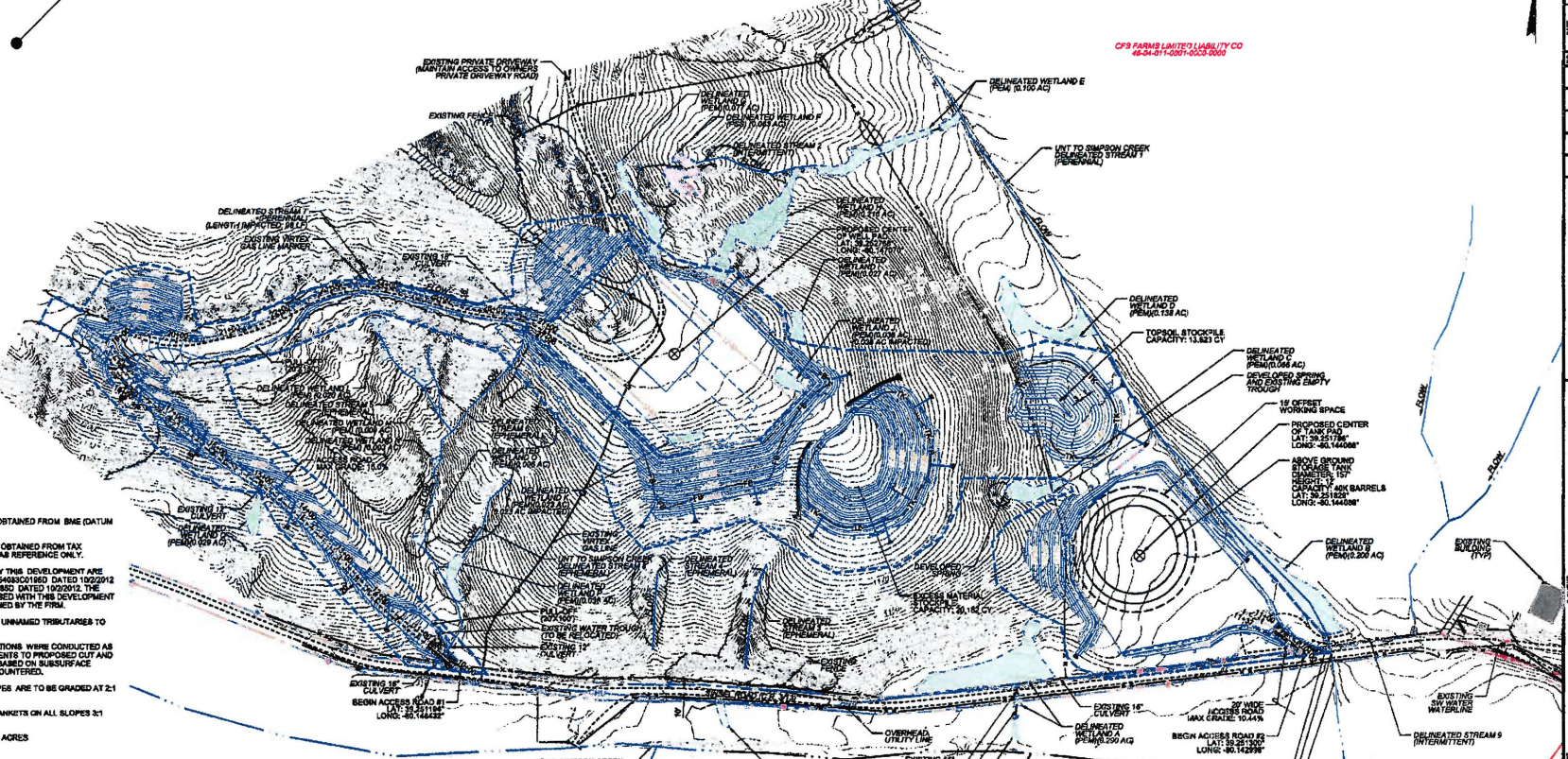
OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA

By: 
JAMES A. MARTIN, CHIEF

Attachment 1

APPROX. LOCATION OF
ALTIUMS PETROLEUM CORPORATION
ACTIVITY WELL
PERMIT NUMBER: 091-00221
AKC #1907-0221

CPS FABRIS LIMITED LIABILITY CO
48-24-41-1-0007-0000-0000



- NOTES:
1. TOPOGRAPHIC INFORMATION OBTAINED FROM BME (DATUM NAD83 WVA)
 2. PROPERTY LINE INFORMATION OBTAINED FROM TAX MAPS AND SHOULD BE USED AS REFERENCE ONLY.
 3. THE PROPERTIES AFFECTED BY THIS DEVELOPMENT ARE LOCATED ON FRM MAP NUMBER 64083021802 DATED 10/22/2012 AND FRM MAP NUMBER 64083020885 DATED 10/26/2012. THE LIMITS OF DISTURBANCE PROPOSED WITH THIS DEVELOPMENT IS LOCATED IN ZONE (A) AS DEFINED BY THE FRM.
 4. RECEIVING STREAMS: NINE (9) UNNAMED TRIBUTARIES TO SIMPSON CREEK
 5. NO GEOTECHNICAL INVESTIGATIONS WERE CONDUCTED AS PART OF THIS DESIGN. ADJUSTMENTS TO PROPOSED CUT AND FILL SLOPES MAY BE REQUIRED BASED ON SUBSURFACE CONDITIONS AND MATERIAL ENCOUNTERED.
 6. PROPOSED CUT AND FILL SLOPES ARE TO BE GRADED AT 2:1 UNLESS OTHERWISE NOTED.
 7. PLACE EROSION CONTROL BLANKETS ON ALL SLOPES 3:1 AND STEEPER.
 8. LIMITS OF DISTURBANCE: 17.06 ACRES

LEGEND

| | | | |
|-----|------------------------------------|-----|----------------------------|
| --- | EXISTING INDEX CONTOUR LINE (10') | --- | EXISTING TREE LINE |
| --- | EXISTING INTERMEDIATE CONTOUR LINE | --- | EXISTING ROAD |
| --- | PROPOSED INDEX CONTOUR LINE (10') | --- | EXISTING RIGHT-OF-WAY |
| --- | PROPOSED INTERMEDIATE CONTOUR LINE | --- | PROPOSED RIGHT-OF-WAY |
| --- | PROPERTY LINE | --- | CHANNEL FLOW DIRECTION |
| --- | EXISTING FENCE | --- | STREAM |
| --- | ORANGE CONSTRUCTION FENCE (OCF) | --- | DELIMITED STREAM |
| --- | OVERHEAD UTILITY LINE | --- | DELIMITED WETLAND BOUNDARY |
| --- | EXISTING GAS LINE | --- | FEMA FLOODPLAIN (ZONE A) |
| --- | PROPOSED GAS LINE | --- | 8:1 FENCE (8F) |
| --- | PROPOSED WATER LINE | --- | COMPOST FILTER ROCK (CFR) |
| --- | FULL LIMITS | --- | SUPER SILT FENCE (SBF) |
| --- | CUT LIMITS | --- | CUT/FILL TRANSITION |
| --- | TOE KEY WITH DRAIN | --- | EXISTING SPOT ELEVATION |
| --- | FOUNDATION BENCH | --- | PROPOSED SPOT ELEVATION |
| --- | ROADWAY CENTERLINE | --- | EXISTING STRUCTURE |
| --- | SAFETY BERM | --- | EXISTING UTILITY POLE |
| --- | LIMITS OF DISTURBANCE | --- | |

WETLAND IMPACTS

| WETLAND | LOSS (AC) | TEMP (AC) |
|--------------|--------------|-----------|
| WETLAND J | 0.038 | 0 |
| WETLAND K | 0.023 | 0 |
| TOTAL | 0.061 | 0 |

STREAM IMPACTS

| STREAM | LOSS (FT) | TEMP (FT) |
|----------|-----------|-----------|
| STREAM 7 | 98 | 40 |

PRELIMINARY EARTHWORK - WELL PAD

| | | |
|-----------------------|--------|----|
| TOTAL RAW CUT | 25,242 | CY |
| TOTAL SWELLED CUT | 27,796 | CY |
| TOTAL FILL | 20,908 | CY |
| TOTAL TOPSOIL | 6,315 | CY |
| TOTAL EXCESS MATERIAL | 6,862 | CY |

PRELIMINARY EARTHWORK - TANK PAD

| | | |
|-----------------------|-------|----|
| TOTAL RAW CUT | 6,330 | CY |
| TOTAL SWELLED CUT | 7,183 | CY |
| TOTAL FILL | 7,139 | CY |
| TOTAL TOPSOIL | 3,619 | CY |
| TOTAL EXCESS MATERIAL | -16 | CY |

PRELIMINARY EARTHWORK - ACCESS ROAD

| | | |
|-----------------------|--------|----|
| TOTAL RAW CUT | 9,788 | CY |
| TOTAL SWELLED CUT | 10,761 | CY |
| TOTAL FILL | 1,804 | CY |
| TOTAL TOPSOIL | 3,596 | CY |
| TOTAL EXCESS MATERIAL | 8,557 | CY |

PRELIMINARY EARTHWORK - TOTAL SITE

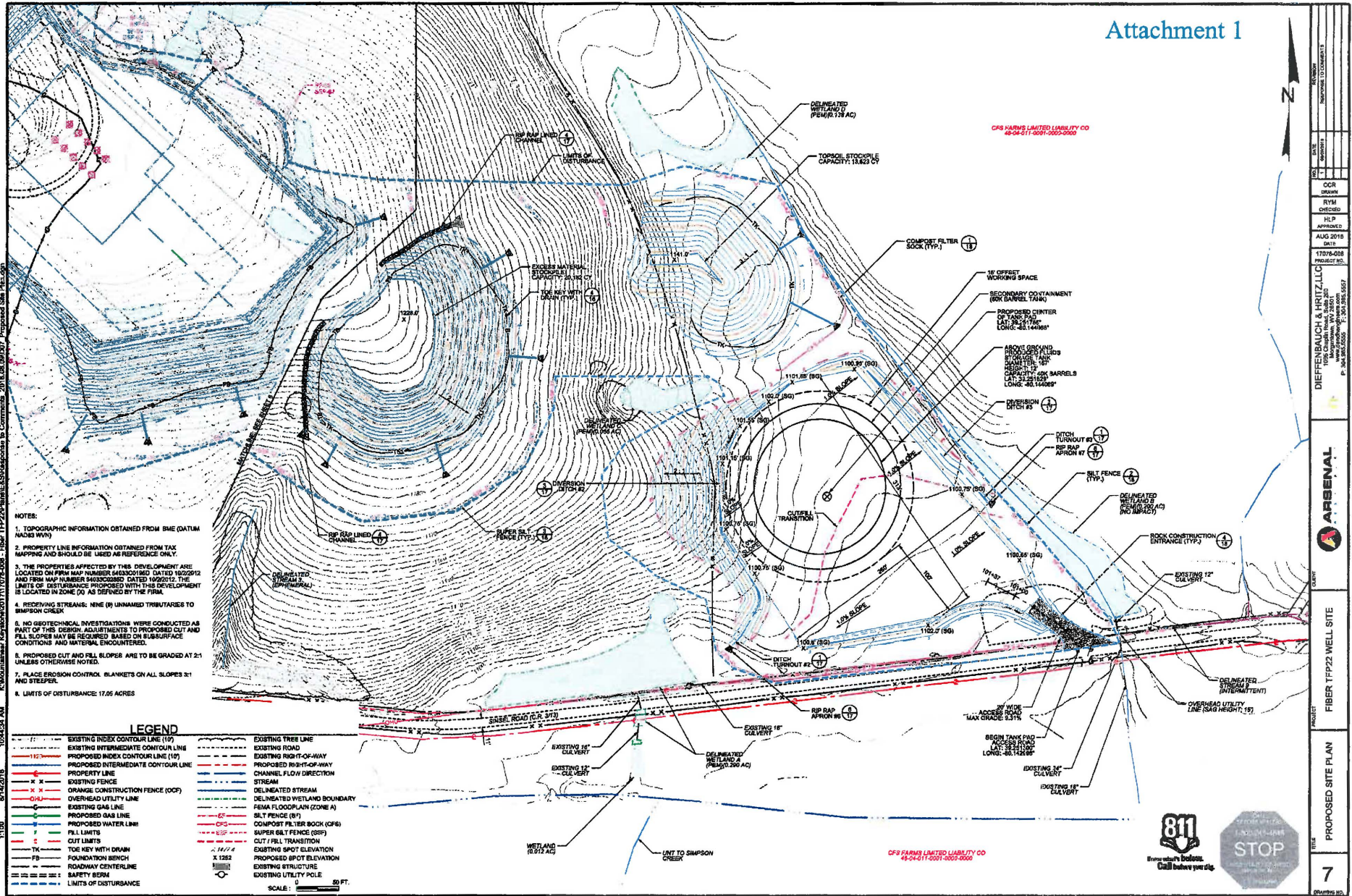
| | | |
|-----------------------|--------|----|
| TOTAL RAW CUT | 41,596 | CY |
| TOTAL SWELLED CUT | 45,740 | CY |
| TOTAL FILL | 29,957 | CY |
| TOTAL TOPSOIL | 13,532 | CY |
| TOTAL EXCESS MATERIAL | 15,865 | CY |



8/14/2018 10:44:28 AM K:\myanmar\user\devonson\2017\17078-008 - Fiber TFP22\Parent\ESI\Responses to Comments - 2018.06.09\006 - Overall Site Plan.dwg

DATE: 08/14/2018
 DRAWN BY: J. HENRITZ
 CHECKED BY: J. HENRITZ
 APPROVED BY: J. HENRITZ
 DATE: 08/14/2018
 PROJECT NO: 17078-008
 CCR: 000000
 RYM: 000000
 DIFFENBAUGH & HENRITZ, LLC
 17078-008
 PROJECT NO. 17078-008
 P: 504.555.0555 F: 504.555.1007
 ARSENAL
 FIBER TFP22 WELL SITE
 OVERALL SITE PLAN
 5

Attachment 1



- NOTES:
1. TOPOGRAPHIC INFORMATION OBTAINED FROM BME (DATUM NAD83 WYV)
 2. PROPERTY LINE INFORMATION OBTAINED FROM TAX MAPING AND SHOULD BE USED AS REFERENCE ONLY.
 3. THE PROPERTIES AFFECTED BY THIS DEVELOPMENT ARE LOCATED ON FIRM MAP NUMBER 6430301863 DATED 10/22/12 AND FIRM MAP NUMBER 6430302853 DATED 10/22/12. THE LIMITS OF DISTURBANCE PROPOSED WITH THIS DEVELOPMENT IS LOCATED IN ZONE (X) AS DEFINED BY THE FIRM.
 4. RECEIVING STREAMS: NINE (9) UNNAMED TRIBUTARIES TO SIMPSON CREEK
 5. NO GEOTECHNICAL INVESTIGATIONS WERE CONDUCTED AS PART OF THIS DESIGN. ADJUSTMENTS TO PROPOSED CUT AND FILL SLOPES MAY BE REQUIRED BASED ON SUBSURFACE CONDITIONS AND MATERIAL ENCOUNTERED.
 6. PROPOSED CUT AND FILL SLOPES ARE TO BE GRADED AT 2:1 UNLESS OTHERWISE NOTED.
 7. PLACE EROSION CONTROL BLANKETS ON ALL SLOPES 3:1 AND STEEPER.
 8. LIMITS OF DISTURBANCE: 17.05 ACRES

LEGEND

| | | | |
|--------------|------------------------------------|-----|----------------------------|
| --- 10' --- | EXISTING INDEX CONTOUR LINE (10') | --- | EXISTING TREE LINE |
| --- 20' --- | EXISTING INTERMEDIATE CONTOUR LINE | --- | EXISTING ROAD |
| --- 100' --- | PROPOSED INDEX CONTOUR LINE (10') | --- | EXISTING RIGHT-OF-WAY |
| --- | PROPOSED INTERMEDIATE CONTOUR LINE | --- | PROPOSED RIGHT-OF-WAY |
| --- | PROPERTY LINE | --- | CHANNEL FLOW DIRECTION |
| X X X | EXISTING FENCE | --- | STREAM |
| --- | ORANGE CONSTRUCTION FENCE (OCF) | --- | DELIMITED STREAM |
| --- | OVERHEAD UTILITY LINE | --- | DELIMITED WETLAND BOUNDARY |
| --- | EXISTING GAS LINE | --- | FEMA FLOODPLAIN (ZONE A) |
| --- | PROPOSED GAS LINE | --- | SILT FENCE (S) |
| --- | PROPOSED WATER LINE | --- | COMPOST FILTER SOCK (CFS) |
| --- | FILL LIMITS | --- | SUPER SILT FENCES (SSF) |
| --- | CUT LIMITS | --- | CUT / FILL TRANSITION |
| --- | TOE KEY WITH DRAIN | --- | EXISTING SPOT ELEVATION |
| --- | FOUNDATION BENCH | --- | PROPOSED SPOT ELEVATION |
| --- | ROADWAY CENTERLINE | --- | EXISTING STRUCTURE |
| --- | SAFETY BERM | --- | EXISTING UTILITY POLE |
| --- | LIMITS OF DISTURBANCE | --- | |

SCALE: 1" = 50 FT.

CFS FARMS LIMITED LIABILITY CO
48-24-511-3001-3003-3006

CFS FARMS LIMITED LIABILITY CO
48-24-511-3001-3003-3006

| | | |
|-----|------|---------------------------------------|
| NO. | DATE | REVISION |
| 1 | | ISSUED FOR PERMITTING TO CONSTRUCTION |
| 2 | | FOR REVIEW |
| 3 | | FOR REVIEW |
| 4 | | FOR REVIEW |
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| 100 | | FOR REVIEW |

PROJECT: FIBER TP22 WELL SITE
 TITLE: PROPOSED SITE PLAN
 SHEET: 7
 DRAWING NO.



DIEFENBACH & HOLTZ LLC
 1200 UNIVERSITY AVENUE
 MORGANTOWN, WV 26501
 P: 304.585.6500 F: 304.585.6507

CGR
 DRAWN
 RYM
 CHECKED
 HLP
 APPROVED
 AUG 2016
 SHEET
 17078-028
 PROJECT NO.



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: HG Energy II Appalachia, LLC
5260 Dupont Road
Parkersburg, WV 26101

DATE: November 26, 2018
ORDER NO.: 2018-W-11

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.*, to HG Energy II Appalachia, LLC (hereinafter "HG" or "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. HG is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 5260 Dupont Road Parkersburg, WV 26101.
3. On September 5, 2018 HG submitted a well work permit application identified as API# 47-085-10374. The proposed well is to be located on the Goodnight 1409 Pad in Murphy District of Ritchie County, West Virginia.
4. On September 5, 2018 HG requested a waiver for Wetlands JB and C outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-085-10374.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

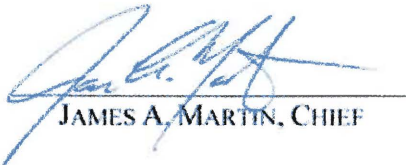
West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for the Wetlands JB and C from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-085-10374. The Office of Oil and Gas hereby **ORDERS** that HG shall meet the following site construction and operational requirements for the Goodnight 1409 Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetlands JB and C shall have triple stacked twelve inch (12”) compost filter sock to prevent sediment from reaching the wetland. This along with rip-rap level spreaders, temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 26th day of November, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF



west virginia department of environmental protection

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

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

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: Chevron Appalachia, LLC
P.O. Box 611
Moon Township, PA 15108

DATE: November 27, 2018
ORDER NO.: 2018-W-12

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to Chevron Appalachia, LLC (hereinafter “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Chevron Appalachia, LLC is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as P.O. Box 611, Moon Township, Pennsylvania.
3. On August 3, 2018, Chevron Appalachia, LLC submitted well work permit applications identified as API#s 47-051-02092, 47-051-02093, 47-051-02094, 47-051-02095, 47-051-02096, 47-051-02097, 47-051-02099 and 47-051-02100. Then on August 7, 2018 Chevron Appalachia, LLC submitted well work permit applications identified as API#s 47-051-02107, 47-051-02108, 47-051-02109, 47-051-02110, 47-051-02111 and 47-051-02112. The proposed wells are to be located on the Hazlett Pad in Union District of Marshall County, West Virginia.
4. On August 3, 2018, Chevron Appalachia, LLC requested a waiver for Wetlands 1A, 3A, 3B and 4 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-051-02092, 47-051-02093, 47-051-02094, 47-051-02095, 47-051-02096, 47-051-02097, 47-051-02099, 47-051-02100, 47-051-02107, 47-051-02108, 47-051-02109, 47-051-02110, 47-051-02111 and 47-051-02112. Wetlands 1A and 4 will be excluded from this waiver because they are more than 100’ from the LOD of the pad.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “[n]o 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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “[n]o 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. The Office of Oil and Gas grants the request for a waiver for Wetlands 3A and 3B from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-051-02092, 47-051-02093, 47-051-02094, 47-051-02095, 47-051-02096, 47-051-02097, 47-051-02099, 47-051-02100, 47-051-02107, 47-051-02108, 47-051-02109, 47-051-02110, 47-051-02111 and 47-051-02112. The Office of Oil and Gas hereby **ORDERS** that Chevron Appalachia, LLC shall meet the following site construction and operational requirements for the Hazlett Well Pad:


- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland 3A shall have both a compost filter sock trap and a layer of thirty two-inch (32”) compost filter sock to prevent any sediment from reaching the wetland from the well pad. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Wetland 3B shall have two layers of eighteen-inch (18”) compost filter sock to prevent any sediment from reaching the wetland from the well pad. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 27th day of November, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By:



JAMES A. MARTIN, CHIEF



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: EQT Production Company
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

DATE: December 19, 2018
ORDER NO.: 2018-W-13

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to EQT Production Company (hereinafter "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. EQT Production Company is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 625 Liberty Ave., Suite 1700, Pittsburgh, PA 15222.
3. On September 20, 2018, EQT Production Company submitted well work permit applications identified as API#s 47-103-02950, 47-103-02951, 47-103-02952, 47-103-02953, 47-103-02954, 47-103-02955 and 47-103-03012. The proposed wells are to be located on the Erlewine Pad in Proctor District of Wetzel County, West Virginia.
4. On September 20, 2018, EQT Production Company requested a waiver for Wetland A as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-103-02950, 47-103-02951, 47-103-02952, 47-103-02953, 47-103-02954, 47-103-02955 and 47-103-03012.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “[n]o 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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

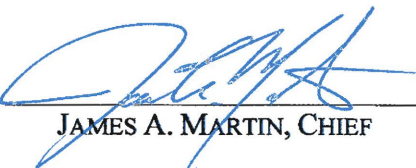
West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetland A from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-103-02950, 47-103-02951, 47-103-02952, 47-103-02953, 47-103-02954, 47-103-02955 and 47-103-03012. The Office of Oil and Gas hereby **ORDERS** that EQT Production Company shall meet the following site construction and operational requirements for the Eriewine Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland A shall have two layers of silt fence to prevent any sediment from reaching the wetland from the well pad. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 19th day of December 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF

1:30 12/4/2018 12:05:30 PM X:\Oil and Gas\EQT\201818070-078 Erlewine Pad\Cadd\Preliminary\Wetland Protection Plan.dgn

NOTES:
 AS SOON AS PRACTICABLE FOLLOWING DISTURBANCE,
 OPERATOR SHALL INITIATE TEMPORARY & PERMANENT
 SEEDING AS OUTLINED IN THE WEST VIRGINIA E&S BMP
 MANUAL.

LEGEND

- EXISTING TREE LINE
- EXISTING ROAD
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPERTY LINE
- PROPOSED FENCE
- EXISTING FENCE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- PROPOSED GAS LINE
- PROPOSED WATER LINE
- LIMITS OF DISTURBANCE
- FILL LIMITS
- CUT LIMITS
- EXISTING INDEX CONTOUR LINE (10')
- EXISTING INTERMEDIATE CONTOUR LINE
- PROPOSED INDEX CONTOUR LINE (10')
- PROPOSED INTERMEDIATE CONTOUR LINE
- CHANNEL FLOW DIRECTION
- STREAM
- DELINEATED STREAM
- DELINEATED WETLAND BOUNDARY
- ASSUMED FLOODWAY BOUNDARY
- RIPARIAN BUFFER
- COMPOST FILTER SOCK (CFS)
- EROSION CONTROL BLANKET
- WATERBAR
- TRENCH PLUG
- EXISTING UTILITY POLE
- EXISTING STRUCTURE
- FEMA 100 YEAR FLOODPLAIN



| NO. | DATE | REVISION |
|-----|------|----------|
| | | |
| | | |
| | | |

DIEFFENBAUCH & HRITZ
 1095 Chaplin Road, Suite 200
 Morgantown, WV 26501
 www.dandengineers.com
 P: 304.985.5555 F: 304.985.5557

CLIENT
EQT PRODUCTION COMPANY
 2400 ANSYS DRIVE, SUITE 200
 CANONSBURG, PA 15317

PROJECT
ERLEWINE PAD SITE MODIFICATION

SCALE
 1" = 40'
DATE
 AUG 2017
PROJECT NO.
 17070-018

TITLE
WETLAND PROTECTION PLAN

1
 DRAWING NO.



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: American Petroleum Partners Operating, LLC
4600 J. Barry Court Suite 310
Canonsburg, PA 15317

DATE: December 20, 2018
ORDER NO.: 2018-W-14

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to American Petroleum Partners Operating, LLC (hereinafter “APP” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. APP is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 4600 J. Barry Court Suite 310, Canonsburg, PA 15317.
3. On August 9, 2018 APP submitted a well work permit application identified as API# 47-051-02117. The proposed well is to be located on the River Run Pad in Webster District of Marshall County, West Virginia.
4. On August 9, 2018 APP requested a waiver for Wetlands W-180419-1411, W-180419-1341, W-180419-1321 and W-180419-1511 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02117.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

ORDER

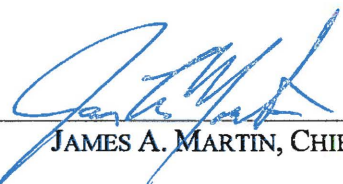
West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetlands W-180419-1411, W-180419-1341, W-180419-1321 and W-180419-1511 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-051-02117. The Office of Oil and Gas hereby **ORDERS** that APP shall meet the following site construction and operational requirements for the River Run Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetlands W-180419-1411, W-180419-1341, W-180419-1321 and W-180419-1511 shall have a layer of super silt fence and a layer of thirty-two inch (23”) compost filter sock to prevent sediment from reaching the wetlands.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 20th day of December, 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 

JAMES A. MARTIN, CHIEF

NOT FOR CONSTRUCTION/NOT FOR BIDDING

DATE: 06/24/2016
SHEET NO. 4 OF 18
DRAWING NO. 1082820

WESTER TAX DISTRICT
MARSHALL COUNTY, WV
WV DEP E&S PLAN
FOR
DIRE WOLF-RIVERRUN PAD

AMERICAN PETROLEUM PARTNERS
OPERATING, L.L.C.
4800 J. BARRY COURT
SUITE 310
CANNONBURG, PA 15317

CLINT
AMERICAN PETROLEUM PARTNERS
OPERATING, L.L.C.
4800 J. BARRY COURT
SUITE 310
CANNONBURG, PA 15317

DATE: 06/24/2016
SHEET NO. 4 OF 18
DRAWING NO. 1082820

AMERICAN PETROLEUM PARTNERS
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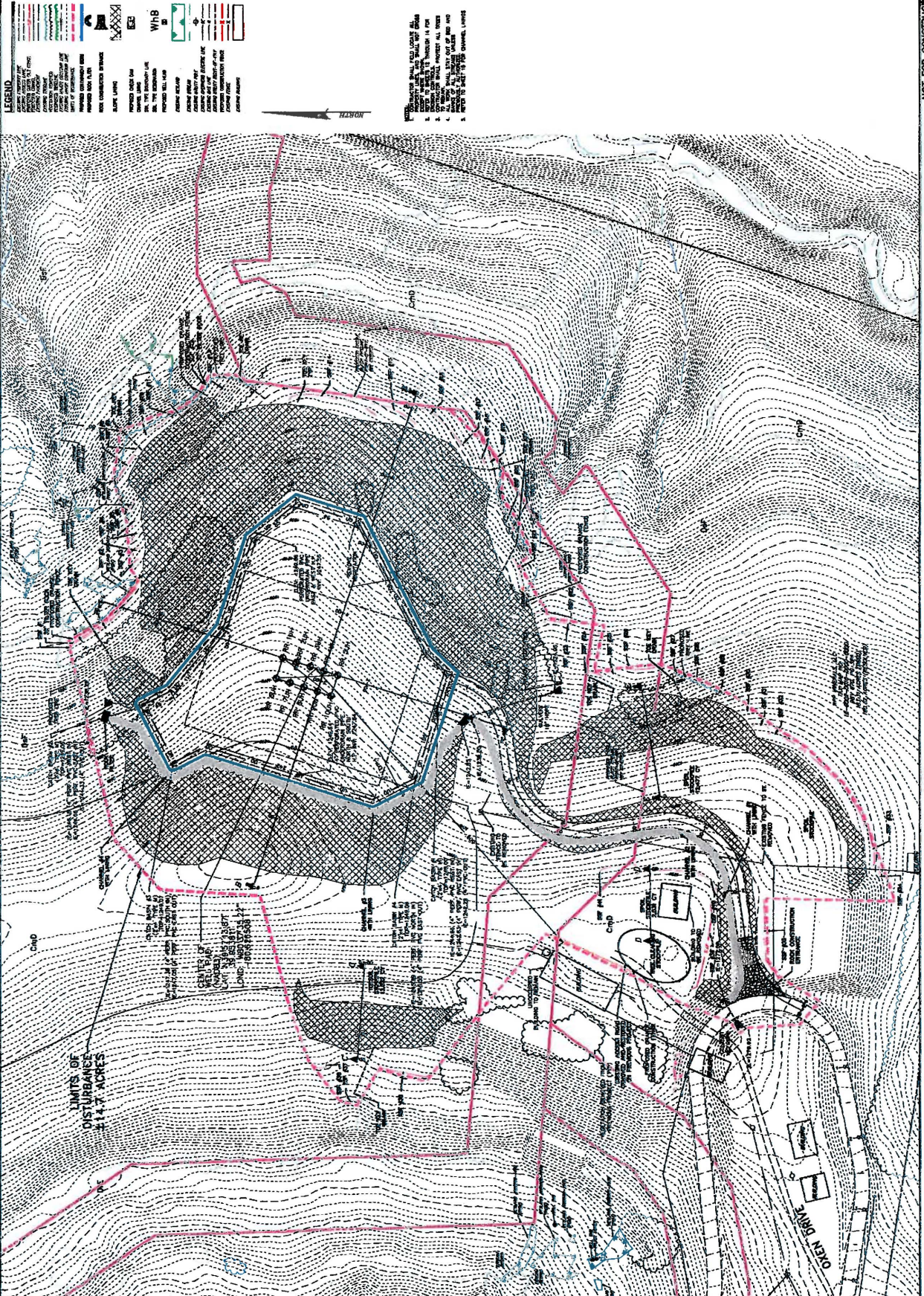
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SUITE 310
CANNONBURG, PA 15317

DATE: 06/24/2016
SHEET NO. 4 OF 18
DRAWING NO. 1082820



LEGEND

- LIMITS OF DISTURBANCE
- EXISTING CONSTRUCTION
- PROPOSED CONSTRUCTION
- EXISTING UTILITIES
- PROPOSED UTILITIES
- EXISTING EROSION CONTROL
- PROPOSED EROSION CONTROL
- EXISTING VEGETATION
- PROPOSED VEGETATION
- EXISTING WATER BODIES
- PROPOSED WATER BODIES
- EXISTING ROADS
- PROPOSED ROADS
- EXISTING FENCES
- PROPOSED FENCES
- EXISTING POWER LINES
- PROPOSED POWER LINES
- EXISTING TELEPHONE LINES
- PROPOSED TELEPHONE LINES
- EXISTING RAILROADS
- PROPOSED RAILROADS
- EXISTING AIRWAYS
- PROPOSED AIRWAYS
- EXISTING BARRIERS
- PROPOSED BARRIERS
- EXISTING OBSTACLES
- PROPOSED OBSTACLES
- EXISTING STRUCTURES
- PROPOSED STRUCTURES

DATE: 06/24/2016
SHEET NO. 4 OF 18
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