



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

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

Tuesday, August 15, 2017
WELL WORK PERMIT
Horizontal 6A / New Drill

CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY

CORAOPOLIS, PA 15108

Re: Permit approval for HINES M10H
47-051-01932-00-00

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

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

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: HINES M10H
Farm Name: DONALD HINES ET UX
U.S. WELL NUMBER: 47-051-01932-00-00
Horizontal 6A / New Drill
Date Issued: 8/15/2017

Promoting a healthy environment.

08/18/2017

PERMIT CONDITIONS 05101932

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

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: _____

PERMIT CONDITIONS 4705101932

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

08/18/2017



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
800 Mountain View Drive
Smithfield, PA 15478

DATE: August 14, 2017
ORDER NO.: 2017-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 Chevron Appalachia, LLC (hereinafter “Chevron” 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. Chevron is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 800 Mountain View Drive, Smithfield, Pennsylvania.
3. On April 24, 2017, Chevron submitted well work permit applications identified as API#s 47-051-01926, 47-051-01927, 47-051-01928, 47-051-01929, 47-051-01930, 47-051-01931, 47-051-01932 and 47-051-01933. The eight proposed wells are to be located on the Hines Pad in Washington District of Marshall County, West Virginia.
4. On April 24, 2017, Civil and Environmental Consultants, Inc. (CEC), on behalf of Chevron, requested a waiver for Wetlands 2A, 2B, 3A, and 3B 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 47-051-01926, 47-051-01927, 47-051-01928, 47-051-01929, 47-051-01930, 47-051-01931, 47-051-01932 and 47-051-01933. Wetlands 3A and 3B will be excluded from this waiver due to being located outside the area of the pad LOD.

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

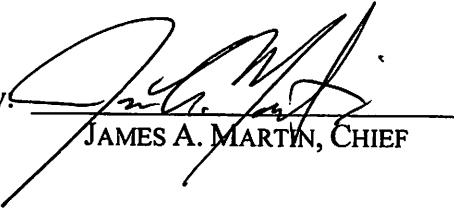
West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetlands 2A and 2B from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-051-01926, 47-051-01927, 47-051-01928, 47-051-01929, 47-051-01930, 47-051-01931, 47-051-01932 and 47-051-01933. The Office of Oil and Gas hereby **ORDERS** that Chevron shall meet the following site construction and operational requirements for the Hines 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 2A shall have two layers of eighteen-inch (18”) compost filter sock trap to prevent sediment from reaching the wetlands.
- d. Wetland 2B shall have two layers of twenty-four inch (24”) compost filter sock trap 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 14th day of August, 2017.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

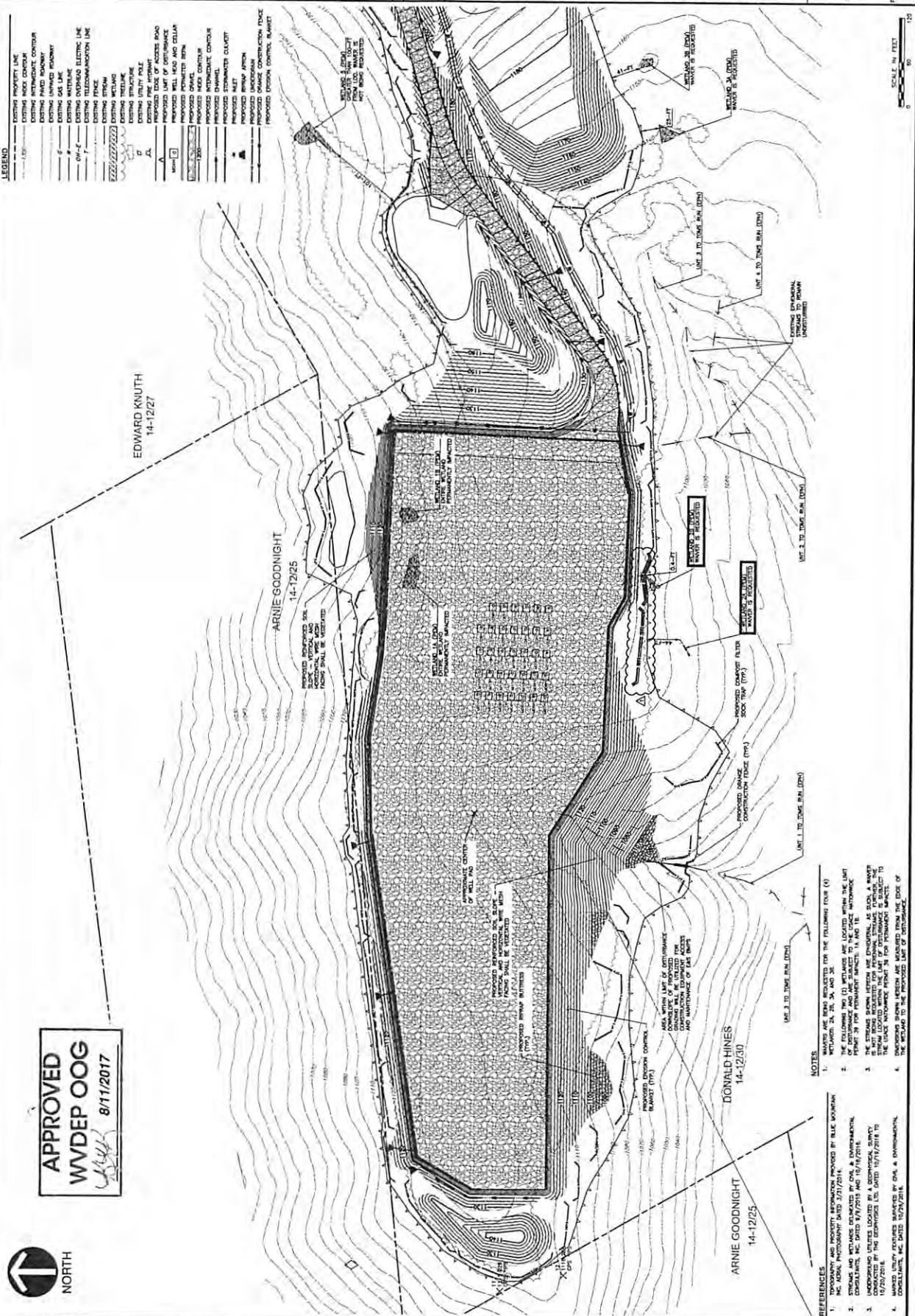
By: 
JAMES A. MARTIN, CHIEF

| NO. | DATE | DESCRIPTION |
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| 02 | | |
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| 08 | | |

REVISION RECORD

CHEVRON APPALACHIA, LLC
 PREPARED FOR
 WASHINGTON DISTRICT
 MARSHALL COUNTY, WEST VIRGINIA
 SMITHFIELD, PA 15478

FIG 3
 WETLAND WAIVER
 REQUEST FIGURE



APPROVED
 WDEP OOG
 8/11/2017



- REFERENCES**
1. TOPOGRAPHY AND PROPERTY INFORMATION PROVIDED BY BLUE MOUNTAIN INC. AERIAL PHOTOGRAPHY DATED 3/31/2014.
 2. CONVEYANCE AND WETLANDS DEPARTMENTS BY CHEV. A. ENVIRONMENTAL CONSULTANTS, INC. DATED 10/17/2016 TO CHEV. A. ENVIRONMENTAL CONSULTANTS, INC. DATED 10/17/2016 TO CHEV. A. ENVIRONMENTAL CONSULTANTS, INC. DATED 10/17/2016.
 3. UNDERGROUND UTILITIES LOCATED BY A GEOTECHNICAL SURVEY CONDUCTED BY THE GEOTECHNICAL SURVEY, DATED 10/17/2016 TO CHEV. A. ENVIRONMENTAL CONSULTANTS, INC. DATED 10/17/2016.
 4. CONVEYANCE AND WETLANDS DEPARTMENTS BY CHEV. A. ENVIRONMENTAL CONSULTANTS, INC. DATED 10/17/2016.
- NOTES**
1. WETLANDS ARE SHOWN IN ACCORDANCE WITH THE FOLLOWING FOUR (4) WITHIN 24, 24, 24, AND 30.
 2. THE FOLLOWING TWO (2) WETLANDS ARE LOCATED WITHIN THE LISTED PERMITS IN PERMITS 24, 24, 24, AND 30.
 3. THE STIPES BAYON SECTION ARE ENVIRONMENTAL AS SUCH, A WETLAND WAIVER IS NOT REQUIRED FOR THESE WETLANDS. HOWEVER, THE STIPES BAYON SECTION ARE LOCATED WITHIN THE LISTED PERMITS IN PERMITS 24, 24, 24, AND 30. THE WETLAND WAIVER IS NOT REQUIRED FOR THESE WETLANDS.
 4. THE WETLAND WAIVER IS NOT REQUIRED FOR THESE WETLANDS.



March 2, 2017

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

Dear Reviewer:

Subject: Wetland and Perennial Stream Waiver Request Form
Chevron Appalachia, LLC
Hines Well Pad Project
Washington District, Marshall County, West Virginia
CEC Project 164-052

1.0 INTRODUCTION

On behalf of Chevron Appalachia, LLC (Chevron), Civil & Environmental Consultants, Inc. (CEC) is submitting a Wetland and Perennial Stream Waiver Request form pursuant to Chapter 22 Article 6A Section 12 of the West Virginia Code. Chevron is requesting a waiver to construct a natural gas well pad within 100 feet of four (4) palustrine emergent wetlands for their proposed Hines Well Pad Project located in Washington District, Marshall County, West Virginia.

Chevron is proposing to construct a natural gas well pad and associated access road. The total limit of disturbance (LOD) for the project is approximately 19 acres. The waiver request form is included in Attachment A. The following figures are included in Attachment B: Site Location Map, Aquatics Impact Map, and Wetland Waiver Request Figure. The Erosion & Sediment Control (E&S) Plan is included in Attachment C. Existing wetlands and streams were delineated by qualified CEC biologists on September 9, 2015 and October 18, 2016. The following section provides additional information as required by the waiver.

2.0 WETLAND WAIVER REQUEST

Question 1: Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.

The proposed Hines Well Pad Project is located off Campbell Hill Road in Washington District, Marshall County, West Virginia southeast of the City of Moundsville, as shown on the Site Location Map. The project's proposed LOD is located within 100 feet of four (4) wetlands, as shown on the Aquatic Impacts Map. The approximate distance of each wetland to the nearest boundary of the LOD is as follows:

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- Wetland 2A – 44 linear feet;
- Wetland 2B – 0.4 linear feet;
- Wetland 3A – 25 linear feet; and
- Wetland 3B – 41 linear feet.

No perennial streams are located within 100 feet of the project LOD. A waiver is not being requested for the wetlands and the ephemeral stream located within the LOD, which includes Wetlands 1A and 1B and an unnamed tributary (UNT) 1 to Toms Run. Chevron is requesting authorization from the U.S. Army Corps of Engineers (USACE) Pittsburgh District for impacts to these features. A copy of the Nationwide Permit 39 Application to the USACE for these impacts is included in Attachment D.

Question 2: Justify the proposed activity by describing alternatives to this project that were considered.

- a. Include a No-Action Alternative as to show “the future without the project”.*

The No-Action alternative represents “no alteration” of the existing environment, meaning the site would not be developed and no immediate environmental impacts would occur. Oil and gas extraction would not occur at this site, and Chevron would be required to find an alternative site. This option is highly undesirable and would not fulfill the project’s purpose and need.

- b. Location alternatives must be shown.*

The current single well pad and access road design approach of the Hines Well Pad combines three separate well pads and access roads that were conceptually planned by Chevron in the vicinity of the Hines Well Pad location. The overall earth disturbance of three separate projects would have been greater than the current one pad and access road project. Further, on the Hines property, the current location is the primary desired location due to the size of the proposed well pad and the steep topography of the surrounding area. Minor adjustments to the dimensions of the proposed well pad were made during the conceptual planning phase of the project; however, the current location of the well pad has remained unchanged due to the limitations listed above. The size of the well pad is optimized for the extraction and production equipment that will be set on the well pad. As such, minimizing the dimensions of the well pad beyond the dimensions provided is not feasible. The location of the well pad and LOD are shown on Figure 3 – Wetland Waiver Request Figure provided in Attachment B.

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Environmental Protection 03/18/2017

c. Must demonstrate why a one hundred foot buffer cannot be maintained.

Maintaining a 100-foot buffer from all on-site wetlands is not feasible due to topographic constraints and locations of the existing features. The four (4) wetlands that are located within 100 feet of the LOD are located on the southern side of the proposed well pad and access road. In order to maintain a 100-foot buffer from the four (4) wetlands, the well pad and access road would need to be shifted north, which is not feasible due to the steep topography located to the north of the proposed well pad. In addition, shifting the access to the north would cause the LOD to be within 100 feet of Wetland 5.

The other alternative to meet the setback requirements would be a reduction in the project's footprint; however, the proposed design represents the minimum footprint required to meet the project's purpose and need. A reduction in the well pad's limits would mean the project could not be developed.

d. Describe how the proposed project is the least environmentally damaging practicable alternative.

As stated above, the current Hines Well Pad has been designed to take the place of three separate well pad and access road projects. As such, the singular well pad and access road will have less earth disturbance than the three separate projects. The current proposed Hines Well Pad design represents the alternative which reduces permanent impacts to the greatest degree practicable. Shifting the proposed well pad south or north would create higher fill slopes, and greater disturbance to existing streams and wetlands.

Question 3: Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.

As part of the well pad permitting process, an E&S Plan has been prepared for the Hines Well Pad project which stipulates implementations to reduce soil erosion, compaction, and sedimentation of receiving streams and wetlands. The following measures will be implemented as part of the E&S Plan to protect the existing wetlands and streams:

- Compost filter sock traps will be positioned downslope of larger drainage areas and upslope of the existing wetlands and/or ephemeral streams;
- Compost filter socks will be positioned downslope of smaller drainage areas and upslope of the existing wetlands and/or ephemeral streams;

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Environmental Protection
08/18/2017

- Orange construction fence will be erected along the edge of the LOD to clearly mark and help protect the wetlands from being impacted during construction operations;
- Erosion control blanket will be placed on slopes greater than 3 Horizontal to 1 Vertical (3H:1V) to limit erosion and promote vegetative growth;
- Riprap aprons will be constructed at the outfalls of pipes to dissipate runoff;
- Disturbed areas within the LOD shall be stabilized within 21 days of construction activity temporarily or permanently ceasing; and
- The ephemeral stream located within the LOD and downgradient of the proposed fill slope toe-key outlet drain will be restored to approximate original dimensions and lined with riprap.

Question 4: Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.

- a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect wetlands and/or perennial streams for which the waiver is sought.*


Refer to the E&S Plan and details in Attachment C for locations of erosion control measures, specifications on installation and maintenance requirements, and the construction sequence.


3.0 CLOSING

We appreciate your review of this Wetland and Perennial Stream Waiver Request Form. Please contact Katie Moberg at 724-327-5200 or kmoberg@cecinc.com, if you have any questions or require additional information.

Respectfully submitted,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC


Sarah V. Parker
Assistant Project Manager


Katie L. Moberg
Project Manager

SVP:KLM/jg
Enclosures

cc: Jenny Hayes, Chevron Appalachia, LLC

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L-164052.March 18
APR 24 2017
WV Department of
Environmental Protection
03/18/2017

ATTACHMENT A

WETLAND AND PERENNIAL STREAM WAIVER REQUEST FORM

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: 47-051-01932

Operator's Well Number: _____

Well Operator: Chevron Appalachia, LLC

Well Number: _____

Well Pad Name: Hines Well Pad

County, District, Quadrangle of Well Location: Marshall County, Washington District, Moundsville Quad

Answer the questions below to request a waiver from West Virginia Department of Environmental Protection for any wetlands or perennial streams which lie within one hundred feet of proposed project Limit of Disturbance (LOD), which includes any erosion and sediment control devices to be used.

This waiver shall be requested pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code, which states:

§22-6A-12(b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows:

- (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir.
- (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake.
- (3) For a groundwater source, the distance shall be measured from the wellhead or spring.

The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.

§22-6A-12(c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section.

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11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: _____

Answer in the space provided, or use additional pages as necessary to fully answer the questions below:

- 1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.**

Please refer to Section 2.0, Question 1 of the letter.

- 2. Justify the proposed activity by describing alternatives to this project that were considered.**

- a. Include a No-Action Alternative as to show "the future without the project"
- b. Location Alternatives must be shown
- c. Must demonstrate why a one hundred foot buffer cannot be maintained
- d. Describe how the proposed project is the least environmentally damaging practicable alternative

Please refer to Section 2.0, Question 2 of the letter.

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Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: _____

3. **Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.**

Please refer to Section 2.0, Question 3 of the letter.

4. **Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.**
 - a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.

Please refer to Section 2.0, Question 4 of the letter.

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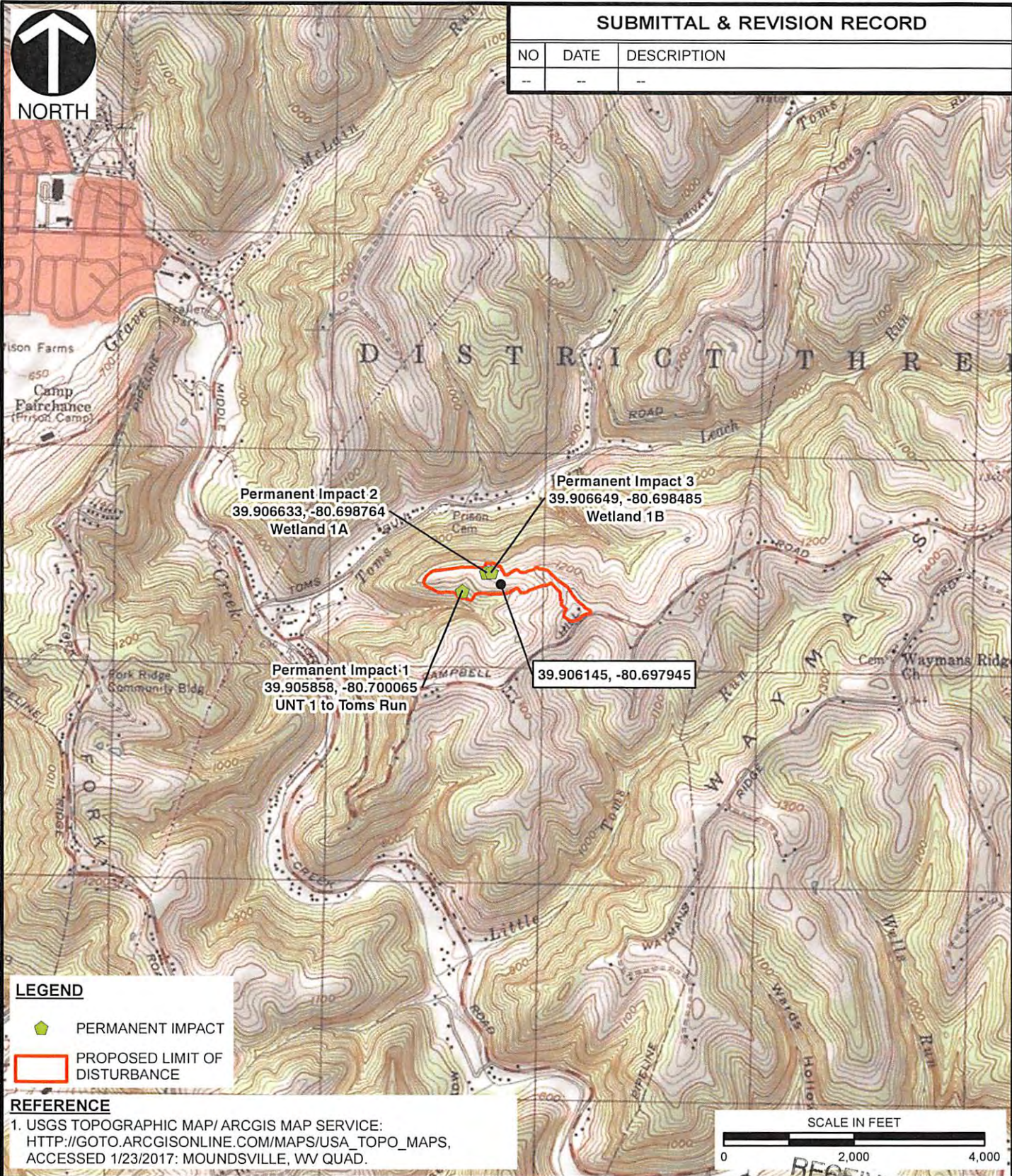
ATTACHMENT B
FIGURES





NORTH

SUBMITTAL & REVISION RECORD

| NO | DATE | DESCRIPTION |
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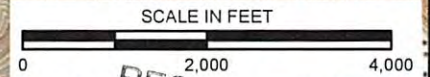


LEGEND

-  PERMANENT IMPACT
-  PROPOSED LIMIT OF DISTURBANCE

REFERENCE

- USGS TOPOGRAPHIC MAP/ ARCGIS MAP SERVICE:
[HTTP://GOTO.ARCGISONLINE.COM/MAPS/USA_TOPO_MAPS](http://gto.arcgis.com/maps/usa_topo_maps),
 ACCESSED 1/23/2017: MOUNDSVILLE, WV QUAD.



Civil & Environmental Consultants, Inc.

4000 Triangle Lane, Suite 200 - Export, PA 15632
 724-327-5200 · 800-899-3610
www.cecinc.com

CHEVRON APPALACHIA RECEIVED
 HINES WELL PAD and Gas
 WASHINGTON DISTRICT
 MARSHALL COUNTY, WEST VIRGINIA
 RECEIVED
 WV DEP. OF ENVIRONMENTAL PROTECTION
 01/24/2017

USGS SITE LOCATION MAP

| | | | | | | |
|-----------|------------|-------------|-------------|--------------|--|---------------|
| DRAWN BY: | JDM | CHECKED BY: | SVP | APPROVED BY: | <i>Hand signature</i> PAK* <i>on file</i> | FIGURE 1 of 1 |
| DATE: | 01/24/2017 | SCALE: | 1" = 2,000' | PROJECT NO: | 164-052 | 08/18/2017 |

P:\2016\164-052-GIS\Maps\WV\164052_FIG_1_NWP_SITE_LOC.mxd 1/23/2017 7:24 PM (imendicino)



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- LEGEND**
- PERMANENT IMPACT
 - STREAM IMPACT
 - NHD STREAM
 - EPHEMERAL STREAM
 - ▨ WETLAND IMPACT
 - ▨ WETLAND (PEM)
 - ▭ DELINEATION BOUNDARY
 - PROPOSED LIMIT OF DISTURBANCE

- REFERENCES**
- NATIONAL HYDROGRAPHY DATASET US GEOLOGICAL SURVEY 2011
 - WVGIS CLEARING HOUSE: 10' CONTOURS MOUNDSVILLE, WV QUAD 2005
 - ESRI WORLD IMAGERY / ARCGIS MAP SERVICE HTTP://GOTO.ARCGISONLINE.COM/ARCS/ WORLD_IMAGERY/ ACCESSSED 1/20/2017 IMAGERY DATE: 2014

- NOTES**
- THE WETLAND AND STREAM DELINEATION WAS CONDUCTED BY LVEL & ENVIRONMENTAL CONSULTANTS, INC. ON 9/6/2015 AND 10/18/2015
 - CIVIL & ENVIRONMENTAL CONSULTANTS, INC. CONDUCTED THE WETLAND DELINEATION IN A MANNER CONSISTENT WITH THE CRITERIA CONTAINED IN THE 1987 U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (1987 MANUAL) AND THE 2013 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, EASTERN MOUNTAINS AND REGIONAL REGIONAL VERSION 2.0 2013 REGIONAL SUPPLEMENT. AND WITH THE LEVEL OF CARE AND SKILL ORDINARILY EXERCISED BY MEMBERS OF THE ENVIRONMENTAL CONSULTING PROFESSION PRACTICING CONTEMPORANEOUSLY UNDER SIMILAR CONDITIONS IN THE LOCALITY OF THE PROJECT. IT MUST BE RECOGNIZED THE WETLAND DELINEATION WAS BASED ON FIELD OBSERVATIONS AND CIVIL & ENVIRONMENTAL CONSULTANTS' PROFESSIONAL INTERPRETATION OF THE CRITERIA IN THE 1987 MANUAL AND THE 2013 REGIONAL SUPPLEMENT. WETLAND DETERMINATIONS MAY CHANGE SUBJECT TO CIVIL & ENVIRONMENTAL CONSULTANTS' DELINEATION BASED ON CHANGES TO REGULATORY CRITERIA, CHANGES TO DRAINAGE, AND OTHER HUMAN ACTIVITIES AND/OR LAND DISTURBANCES.



Civil & Environmental Consultants, Inc.
 4000 Heritage Lane, Suite 200, Capton, VA 22622
 Ph: 704-327-5000 • 800-869-3810
 www.cecinc.com

**CHEVRON APPALACHIA, LLC
 HINES WELL PAD
 WASHINGTON DISTRICT
 MARSHALL COUNTY, WEST VIRGINIA**

DESIGNED BY: JOM CHECKED BY: SWP APPROVED BY: [Signature] DATE: 01/24/2017 SCALE: 1" = 100' PROJECT NO: 154-032

AQUATIC IMPACTS MAP 2

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 ENVIRONMENTAL PROTECTION
 DEPARTMENT OF

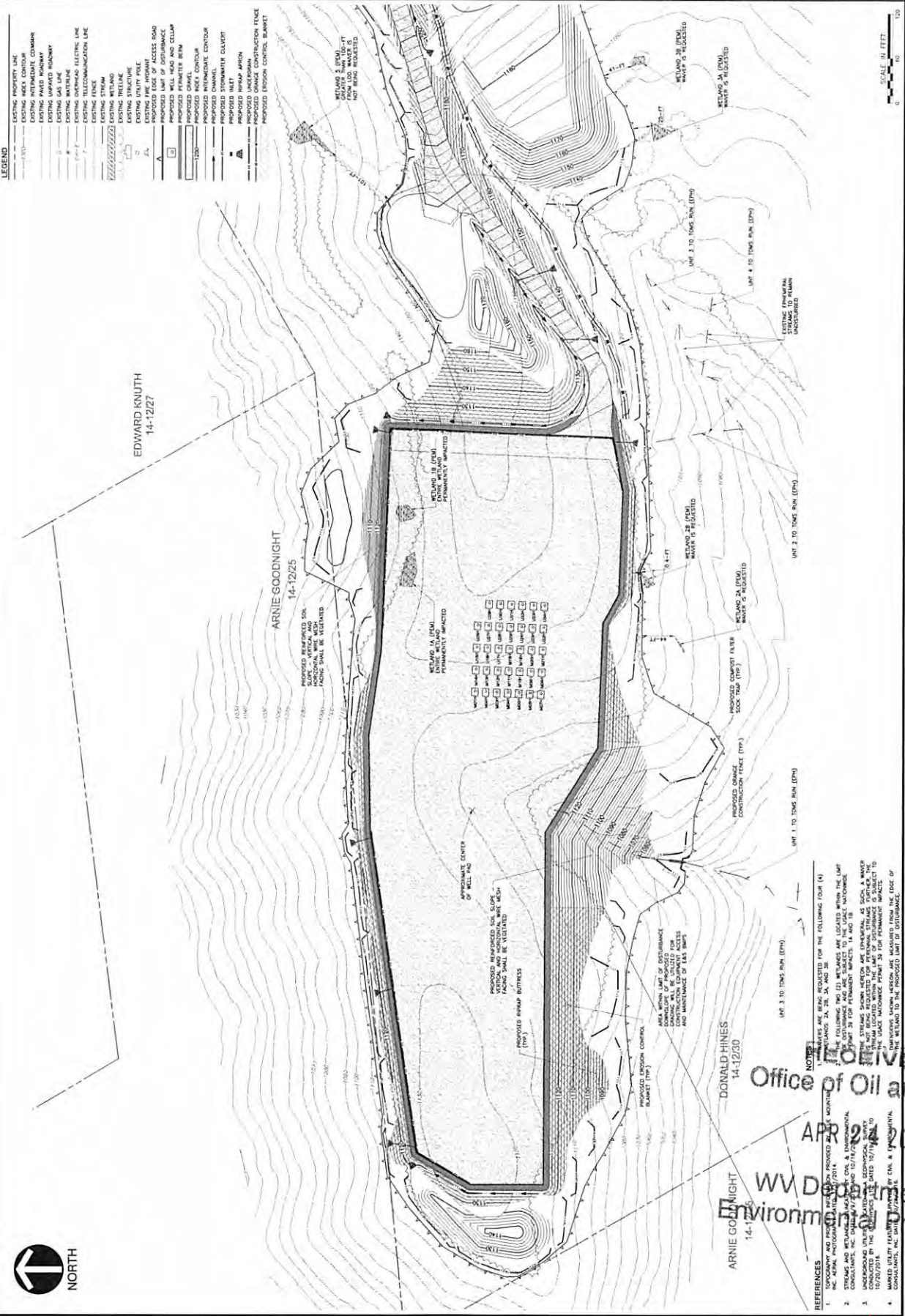


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| 19 | 11/11/17 | ISSUED FOR PERMIT |
| 20 | 11/11/17 | ISSUED FOR PERMIT |

CHEVRON APPALACHIA, LLC
 PREPARED FOR
 MARSHALL COUNTY, WEST VIRGINIA
 WASHINGTON DISTRICT
 SMITHFIELD, PA 15478

WETLAND WAIVER REQUEST FIGURE
 PROJECT NUMBER: 14-1227-0203
 DATE: 11/11/17
 CHECKED BY: JST
 PROJECT MANAGER: PSC

FIG 3



- LEGEND**
- EXISTING PROPERTY LINE
 - EXISTING ROCK CONTOUR
 - EXISTING INTERIMMENT CORNER
 - EXISTING PAVED ROADWAY
 - EXISTING CONCRETE DRIVEWAY
 - EXISTING GAS LINE
 - EXISTING WATERLINE
 - EXISTING OVERHEAD ELECTRIC LINE
 - EXISTING TELECOMMUNICATION LINE
 - EXISTING FENCE
 - EXISTING STREAM
 - EXISTING WETLAND
 - EXISTING STRUCTURE
 - EXISTING UTILITY POLE
 - EXISTING FIRE ALARM
 - EXISTING EROSION CONTROL
 - PROPOSED LIMIT OF DISTURBANCE
 - PROPOSED WELL HEAD AND CELLAR
 - PROPOSED PERMITS BERM
 - PROPOSED ROCK CONTOUR
 - PROPOSED INTERIMMENT CORNER
 - PROPOSED STORMWATER CATCH
 - PROPOSED INLET
 - PROPOSED BUMP APRON
 - PROPOSED EROSION CONTROL FENCE
 - PROPOSED EROSION CONTROL BLANKET



NOTES

1. TOPOGRAPHY AND PROPOSED WETLAND WAIVER ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE FOR THE FOLLOWING PARCELS: 14-1227-01, 14-1227-02, 14-1227-03, 14-1227-04, 14-1227-05, 14-1227-06, 14-1227-07, 14-1227-08, 14-1227-09, 14-1227-10, 14-1227-11, 14-1227-12, 14-1227-13, 14-1227-14, 14-1227-15, 14-1227-16, 14-1227-17, 14-1227-18, 14-1227-19, 14-1227-20, 14-1227-21, 14-1227-22, 14-1227-23, 14-1227-24, 14-1227-25, 14-1227-26, 14-1227-27, 14-1227-28, 14-1227-29, 14-1227-30, 14-1227-31, 14-1227-32, 14-1227-33, 14-1227-34, 14-1227-35, 14-1227-36, 14-1227-37, 14-1227-38, 14-1227-39, 14-1227-40, 14-1227-41, 14-1227-42, 14-1227-43, 14-1227-44, 14-1227-45, 14-1227-46, 14-1227-47, 14-1227-48, 14-1227-49, 14-1227-50, 14-1227-51, 14-1227-52, 14-1227-53, 14-1227-54, 14-1227-55, 14-1227-56, 14-1227-57, 14-1227-58, 14-1227-59, 14-1227-60, 14-1227-61, 14-1227-62, 14-1227-63, 14-1227-64, 14-1227-65, 14-1227-66, 14-1227-67, 14-1227-68, 14-1227-69, 14-1227-70, 14-1227-71, 14-1227-72, 14-1227-73, 14-1227-74, 14-1227-75, 14-1227-76, 14-1227-77, 14-1227-78, 14-1227-79, 14-1227-80, 14-1227-81, 14-1227-82, 14-1227-83, 14-1227-84, 14-1227-85, 14-1227-86, 14-1227-87, 14-1227-88, 14-1227-89, 14-1227-90, 14-1227-91, 14-1227-92, 14-1227-93, 14-1227-94, 14-1227-95, 14-1227-96, 14-1227-97, 14-1227-98, 14-1227-99, 14-1227-100.
2. THE FOLLOWING WETLANDS ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE FOR THE FOLLOWING PARCELS: 14-1227-01, 14-1227-02, 14-1227-03, 14-1227-04, 14-1227-05, 14-1227-06, 14-1227-07, 14-1227-08, 14-1227-09, 14-1227-10, 14-1227-11, 14-1227-12, 14-1227-13, 14-1227-14, 14-1227-15, 14-1227-16, 14-1227-17, 14-1227-18, 14-1227-19, 14-1227-20, 14-1227-21, 14-1227-22, 14-1227-23, 14-1227-24, 14-1227-25, 14-1227-26, 14-1227-27, 14-1227-28, 14-1227-29, 14-1227-30, 14-1227-31, 14-1227-32, 14-1227-33, 14-1227-34, 14-1227-35, 14-1227-36, 14-1227-37, 14-1227-38, 14-1227-39, 14-1227-40, 14-1227-41, 14-1227-42, 14-1227-43, 14-1227-44, 14-1227-45, 14-1227-46, 14-1227-47, 14-1227-48, 14-1227-49, 14-1227-50, 14-1227-51, 14-1227-52, 14-1227-53, 14-1227-54, 14-1227-55, 14-1227-56, 14-1227-57, 14-1227-58, 14-1227-59, 14-1227-60, 14-1227-61, 14-1227-62, 14-1227-63, 14-1227-64, 14-1227-65, 14-1227-66, 14-1227-67, 14-1227-68, 14-1227-69, 14-1227-70, 14-1227-71, 14-1227-72, 14-1227-73, 14-1227-74, 14-1227-75, 14-1227-76, 14-1227-77, 14-1227-78, 14-1227-79, 14-1227-80, 14-1227-81, 14-1227-82, 14-1227-83, 14-1227-84, 14-1227-85, 14-1227-86, 14-1227-87, 14-1227-88, 14-1227-89, 14-1227-90, 14-1227-91, 14-1227-92, 14-1227-93, 14-1227-94, 14-1227-95, 14-1227-96, 14-1227-97, 14-1227-98, 14-1227-99, 14-1227-100.
3. UNDERGROUND UTILITIES SHOWN HEREON ARE ENPHASIS, AS SUCH, A WAIVER OF THE REQUIREMENTS OF THE FEDERAL REGULATIONS, 40 CFR 101.10, IS REQUIRED BY THE LOCAL AGENCIES FOR THE PERMANENT IMPACTS OF THE PROPOSED CONSTRUCTION OF THE WETLAND WAIVER REQUEST.
4. MARKED (S) BY THE ENGINEER AS A CONSTRUCTION OF THE WETLAND WAIVER REQUEST.

Office of Oil and Gas

APR 24 2017

WV Department of Environmental Protection

08/18/2017

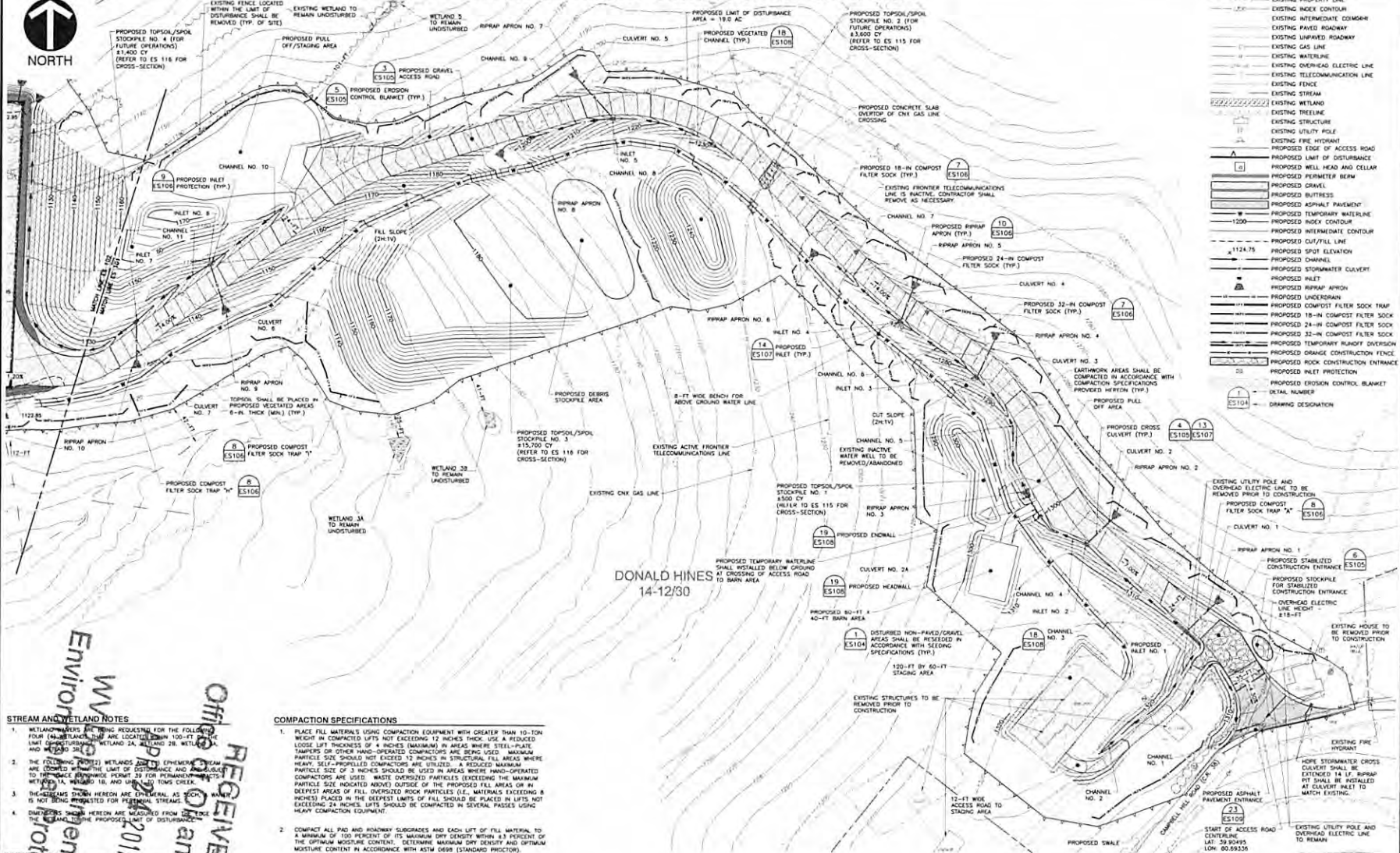
ATTACHMENT C
EROSION AND SEDIMENT CONTROL PLAN

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WV Department of
Environmental Protection

FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY



| LEGEND | |
|--------|-------------------------------------|
| | EXISTING PROPERTY LINE |
| | EXISTING INTERMEDIATE CONTOUR |
| | EXISTING UNPAVED ROADWAY |
| | EXISTING PAVED ROADWAY |
| | EXISTING GAS LINE |
| | EXISTING WATERLINE |
| | EXISTING OVERHEAD ELECTRIC LINE |
| | EXISTING TELECOMMUNICATION LINE |
| | EXISTING FENCE |
| | EXISTING STREAM |
| | EXISTING WETLAND |
| | EXISTING TREE LINE |
| | EXISTING STRUCTURE |
| | EXISTING UTILITY POLE |
| | EXISTING FIRE HYDRANT |
| | PROPOSED EDGE OF ACCESS ROAD |
| | PROPOSED LIMIT OF DISTURBANCE |
| | PROPOSED WELL HEAD AND CELLAR |
| | PROPOSED PERIMETER BERM |
| | PROPOSED GRAVEL |
| | PROPOSED BUFFER |
| | PROPOSED ASPHALT PAVEMENT |
| | PROPOSED TEMPORARY WATERLINE |
| | PROPOSED ROCK CONTOUR |
| | PROPOSED INTERMEDIATE CONTOUR |
| | PROPOSED CUT/FILL LINE |
| | PROPOSED SPOT ELEVATION |
| | PROPOSED STORMWATER CULVERT |
| | PROPOSED INLET |
| | PROPOSED RIPRAP APRON |
| | PROPOSED UNDERDRAIN |
| | PROPOSED COMPOST FILTER SOCK TRAP |
| | PROPOSED 18-IN COMPOST FILTER SOCK |
| | PROPOSED 24-IN COMPOST FILTER SOCK |
| | PROPOSED 32-IN COMPOST FILTER SOCK |
| | PROPOSED TEMPORARY BLUFF/DIVERSION |
| | PROPOSED ORANGE CONSTRUCTION FENCE |
| | PROPOSED ROCK CONSTRUCTION ENTRANCE |
| | PROPOSED INLET PROTECTION |
| | PROPOSED EROSION CONTROL BLANKET |
| | DETAIL NUMBER |
| | DRAWING DESIGNATION |

DONALD HINES
14-12/30

STREAM AND WETLAND NOTES

- WETLAND AREAS ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS THAT ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE: WETLAND 2A, WETLAND 2B, WETLAND 2C, AND WETLAND 2D.
- THE FOLLOWING (FIVE) WETLANDS ARE BEING REQUESTED FOR AND ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE: WETLAND 1A, WETLAND 1B, AND WETLAND 1C. THESE WETLANDS ARE BEING REQUESTED FOR PERMANENT PROTECTION UNDER THE FEDERAL CLEAN WATER ACT AND STATE WETLANDS PROTECTION ACT.
- THICKNESS MEASUREMENTS ARE BEING REQUESTED AS THEY ARE NOT BEING REQUESTED FOR PERMANENT PROTECTION.
- DIMENSIONS SHOWN HEREIN ARE MEASURED FROM THE CENTERLINE OF THE PROPOSED LIMIT OF DISTURBANCE.

REFERENCES

- TOPOGRAPHY AND PROPERTY INFORMATION PROVIDED BY THE MOUNTAIN VIEW SURVEYING, INC. DATED 3/31/2014.
- TOPOGRAPHY AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/26/2016.
- GEOPHYSICAL UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICS LTD. DATED 07/19/2018 TO 08/22/2018.
- MARKED UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/26/2016.

COMPACTION SPECIFICATIONS

- PLACE FILL MATERIALS USING COMPACTION EQUIPMENT WITH GREATER THAN 10-TON WEIGHT IN COMPACTED LIFTS NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LIFT THICKNESS OF 4 INCHES (MAXIMUM) IN AREAS WHERE STEEL-PLATE TAMPERS OR OTHER HAND-OPERATED COMPACTORS ARE BEING USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 1 1/2 INCHES IN STRUCTURAL FILL AREAS WHERE HEAVY, SELF-PROPULSED COMPACTORS ARE UTILIZED. A REDUCED MAXIMUM PARTICLE SIZE OF 3/8 INCHES SHOULD BE USED IN AREAS WHERE HAND-OPERATED COMPACTORS ARE USED. WASTE OVERSIZED PARTICLES (EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE) OUTSIDE OF THE PROPOSED FILL AREAS OR IN DEEPEST AREAS OF FULL OVERSIZED ROCK PARTICLES (I.E., MATERIALS EXCEEDING 8 INCHES) PLACED IN THE DEEPEST PARTS OF FILL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 24 INCHES. LIFTS SHOULD BE COMPACTED IN SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
- COMPACT ALL PAD AND ROADWAY SUBGRADES AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 100 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN ±3 PERCENT OF THE OPTIMUM MOISTURE CONTENT. DETERMINE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR).

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West Virginia State Law
[Section 20] Chapter 24-2 requires that you call two business days before you dig in the state of West Virginia
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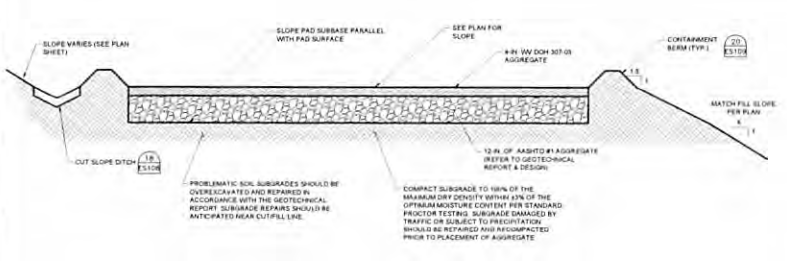
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WASHINGTON COUNTY, WEST VIRGINIA
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR
CHEVRON APPALACHIA, LLC
800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA 15748

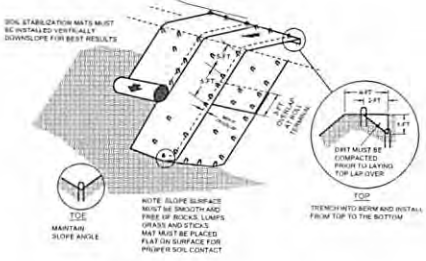
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Project Number: 156.052.0040
Drawing Scale: 1"=50'
Date Issued: 10/26/2016
Issue Number:
Drawn By: JAM
Checked By: TCB
Project Manager: MJS

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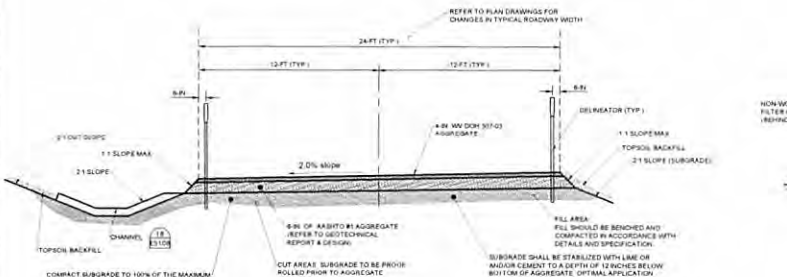
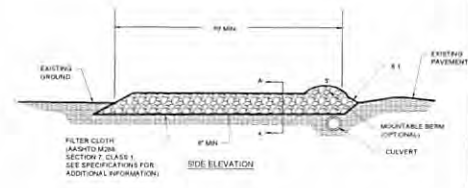
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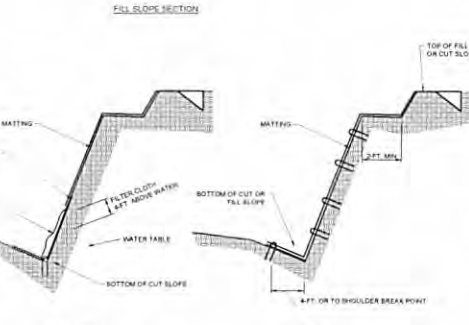
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WELL PAD SECTION
NOT TO SCALE



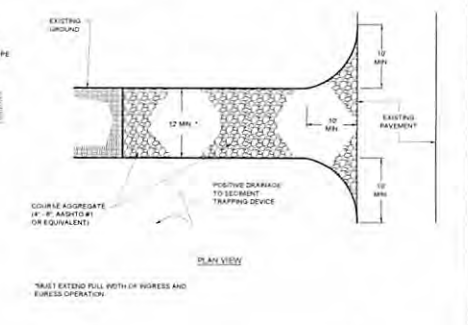
FILL SLOPE SECTION



DETAIL 3
ACCESS ROAD TYPICAL SECTION
NOT TO SCALE

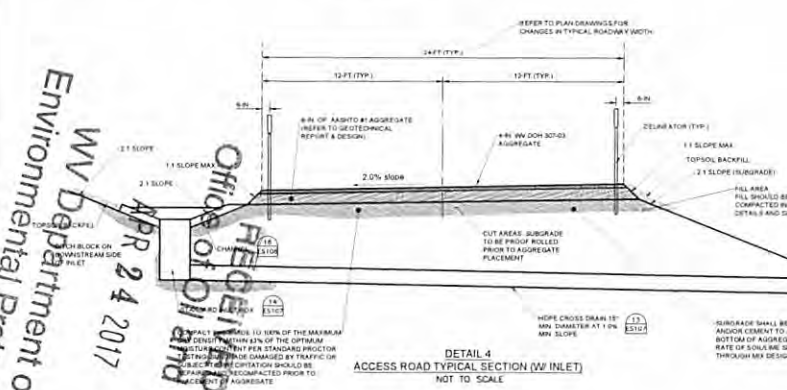


NOTE 1 THIS DETAIL PREPARED BY CHEVRON
DETAIL 5
EROSION CONTROL BLANKET
NOT TO SCALE



MAINTENANCE
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSINGS WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLS, DISPOSED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. WHEELS ON ALL VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. IF WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH STONE WHICH DRAINS INTO APPROVED SEDIMENT TRAPPING DEVICE. IF THE STREET IS WASHED, PRECAUTIONS MUST BE TAKEN TO PREVENT RAINY WATER FROM RUNNING INTO WETLANDS OR STORM SEWERS. INSPECTION AND REGULAR MAINTENANCE SHOULD BE PROVIDED ONLY BY A MEMBER OF EVERY SEVEN DAYS, AND AFTER EVERY RAIN OF 1/2 INCH OR GREATER.

NOTE 1 THIS DETAIL PREPARED BY CHEVRON
DETAIL 6
ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE



DETAIL 4
ACCESS ROAD TYPICAL SECTION (W/ INLET)
NOT TO SCALE



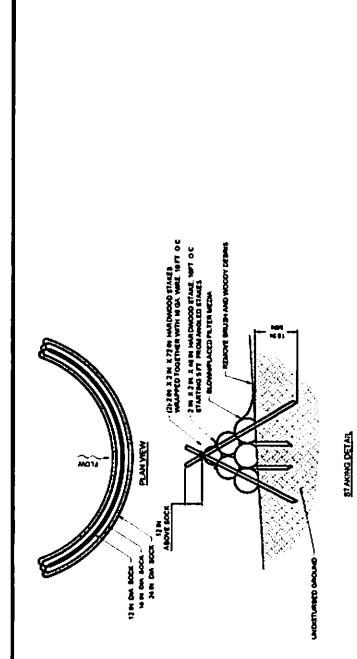
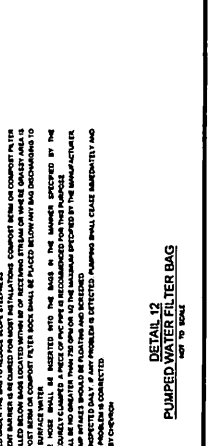
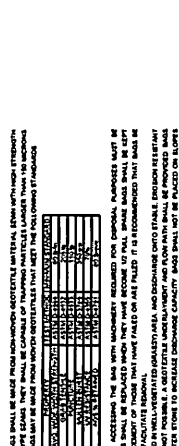
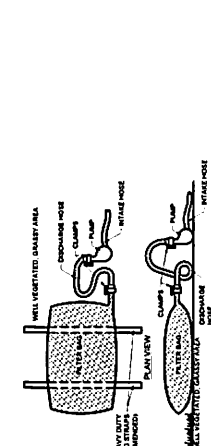
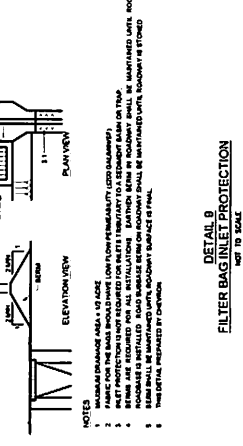
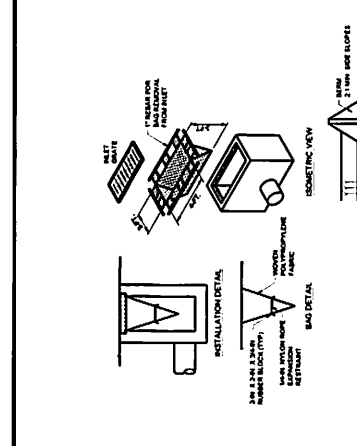
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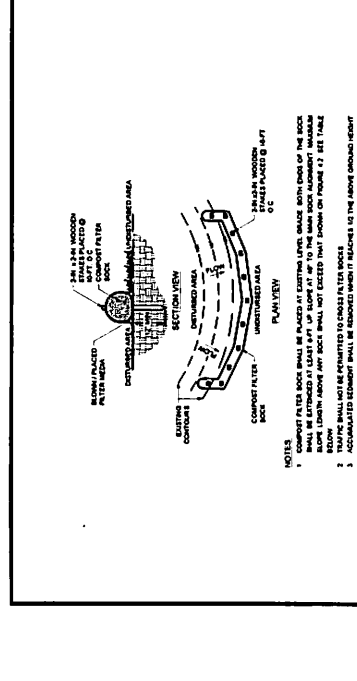
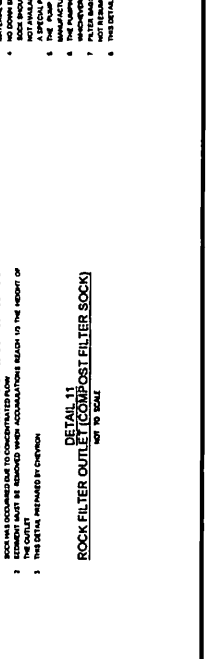
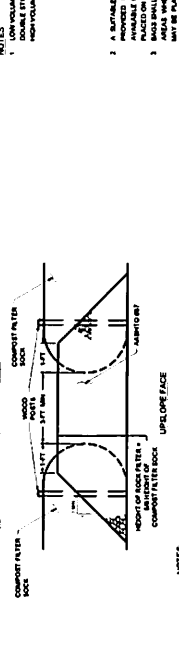
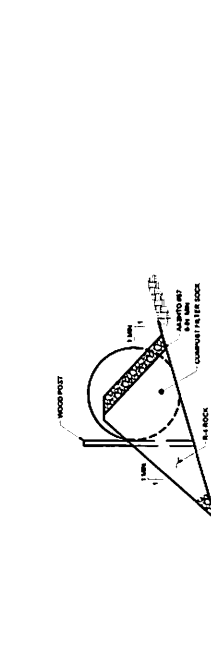
Environmental Protection
 WV Department of Environmental Protection
 APR 24 2017
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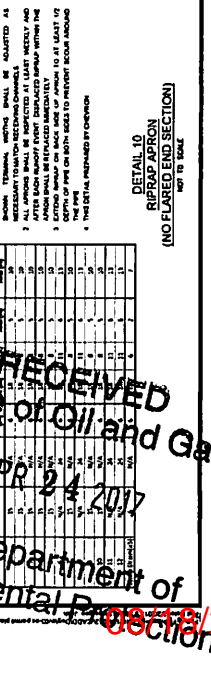
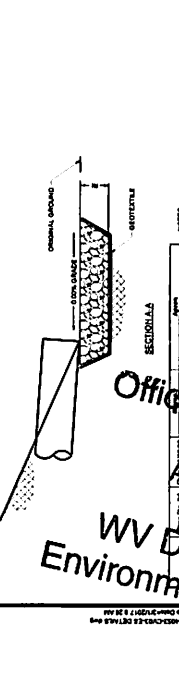
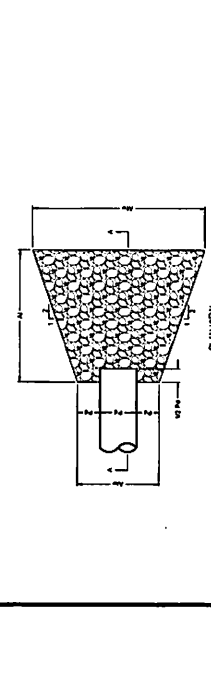
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| TRAP DESIGNATION | TYPICAL EL. OF BOTTOM OF TRAP | TYPICAL EL. OF TOP OF TRAP | TYPICAL EL. OF TOP OF COVER | MINIMUM TRAP VOLUME (GAL) | SOCKET SIZE |
|------------------|-------------------------------|----------------------------|-----------------------------|---------------------------|-------------|
| A | 1282.00 | 1282.00 | 1282.00 | 4.00 | 2.0\"/> |



| SOCKET SIZE | MINIMUM TRAP VOLUME (GAL) | TYPICAL EL. OF TOP OF TRAP | TYPICAL EL. OF TOP OF COVER |
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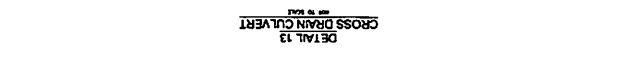
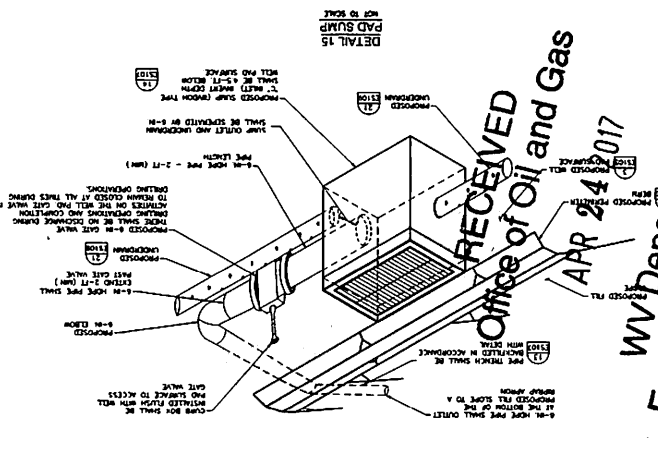


TABLE 1: MINIMUM TRENCH WIDTHS

| TRENCH WIDTH | MINIMUM TRENCH WIDTH |
|--------------|----------------------|
| 1-4 | 12 |
| 5-9 | 18 |
| 10-14 | 24 |
| 15-19 | 30 |
| 20-24 | 36 |
| 25-29 | 42 |
| 30-34 | 48 |
| 35-39 | 54 |
| 40-44 | 60 |
| 45-49 | 66 |
| 50-54 | 72 |
| 55-59 | 78 |
| 60-64 | 84 |
| 65-69 | 90 |
| 70-74 | 96 |
| 75-79 | 102 |
| 80-84 | 108 |
| 85-89 | 114 |
| 90-94 | 120 |
| 95-99 | 126 |
| 100-104 | 132 |
| 105-109 | 138 |
| 110-114 | 144 |
| 115-119 | 150 |
| 120-124 | 156 |
| 125-129 | 162 |
| 130-134 | 168 |
| 135-139 | 174 |
| 140-144 | 180 |
| 145-149 | 186 |
| 150-154 | 192 |
| 155-159 | 198 |
| 160-164 | 204 |
| 165-169 | 210 |
| 170-174 | 216 |
| 175-179 | 222 |
| 180-184 | 228 |
| 185-189 | 234 |
| 190-194 | 240 |
| 195-199 | 246 |
| 200-204 | 252 |

TABLE 2: BACKFILL REQUIREMENTS

| CLASSIFICATION | MIN. COMP. (%) | MIN. REL. HUM. (%) |
|----------------|----------------|--------------------|
| CLASS I | 90 | 95 |
| CLASS II | 85 | 90 |
| CLASS III | 80 | 85 |
| CLASS IV | 75 | 80 |

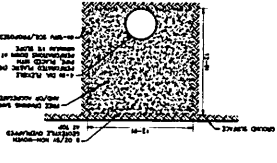
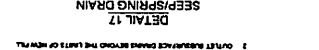
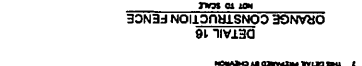
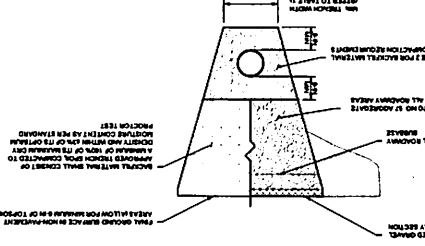
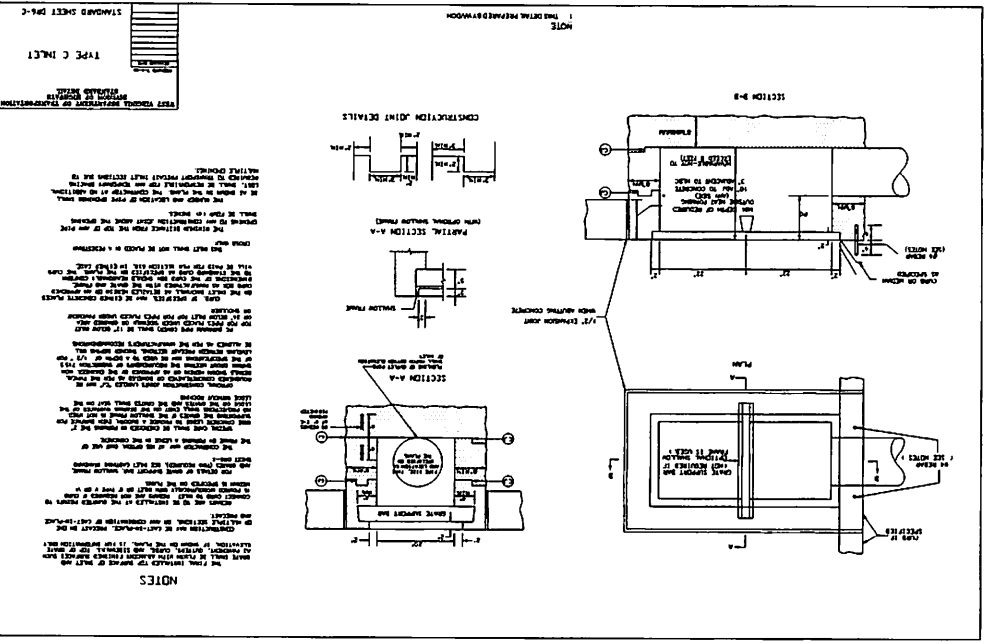


TABLE 3: SAWT SCHEMATA

| SCHEMATA NO. | SCHEMATA NAME |
|--------------|---------------|
| 1 | SCHEMATA 1 |
| 2 | SCHEMATA 2 |
| 3 | SCHEMATA 3 |
| 4 | SCHEMATA 4 |
| 5 | SCHEMATA 5 |
| 6 | SCHEMATA 6 |
| 7 | SCHEMATA 7 |



NOTES

- The construction fence shall be secured at the top and bottom of each panel.
- Orange plastic safety caps shall be secured to each panel.
- The construction fence shall be secured at the top and bottom of each panel.

HINES WELL SITE
CHEVRON APPALACHIA, LLC
MADISON COUNTY, WEST VIRGINIA
SOUTH OF VANDY BROOK
SOUTH OF VANDY BROOK
SOUTH OF VANDY BROOK

REVISION RECORD

| NO. | DATE | DESCRIPTION |
|-----|------|-------------------|
| 1 | | ISSUED FOR PERMIT |
| 2 | | |
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ES 107

| NO. | DATE | DESCRIPTION |
|-----|----------|---------------------|
| 1 | 11/18/15 | ISSUED FOR PERMITS |
| 2 | 12/01/15 | REVISED FOR PERMITS |
| 3 | 01/27/16 | REVISED FOR PERMITS |
| 4 | 02/02/16 | REVISED FOR PERMITS |
| 5 | 02/02/16 | REVISED FOR PERMITS |
| 6 | 02/02/16 | REVISED FOR PERMITS |
| 7 | 02/02/16 | REVISED FOR PERMITS |
| 8 | 02/02/16 | REVISED FOR PERMITS |
| 9 | 02/02/16 | REVISED FOR PERMITS |
| 10 | 02/02/16 | REVISED FOR PERMITS |
| 11 | 02/02/16 | REVISED FOR PERMITS |
| 12 | 02/02/16 | REVISED FOR PERMITS |
| 13 | 02/02/16 | REVISED FOR PERMITS |
| 14 | 02/02/16 | REVISED FOR PERMITS |
| 15 | 02/02/16 | REVISED FOR PERMITS |
| 16 | 02/02/16 | REVISED FOR PERMITS |
| 17 | 02/02/16 | REVISED FOR PERMITS |
| 18 | 02/02/16 | REVISED FOR PERMITS |
| 19 | 02/02/16 | REVISED FOR PERMITS |
| 20 | 02/02/16 | REVISED FOR PERMITS |
| 21 | 02/02/16 | REVISED FOR PERMITS |
| 22 | 02/02/16 | REVISED FOR PERMITS |
| 23 | 02/02/16 | REVISED FOR PERMITS |
| 24 | 02/02/16 | REVISED FOR PERMITS |
| 25 | 02/02/16 | REVISED FOR PERMITS |
| 26 | 02/02/16 | REVISED FOR PERMITS |
| 27 | 02/02/16 | REVISED FOR PERMITS |
| 28 | 02/02/16 | REVISED FOR PERMITS |
| 29 | 02/02/16 | REVISED FOR PERMITS |
| 30 | 02/02/16 | REVISED FOR PERMITS |
| 31 | 02/02/16 | REVISED FOR PERMITS |
| 32 | 02/02/16 | REVISED FOR PERMITS |

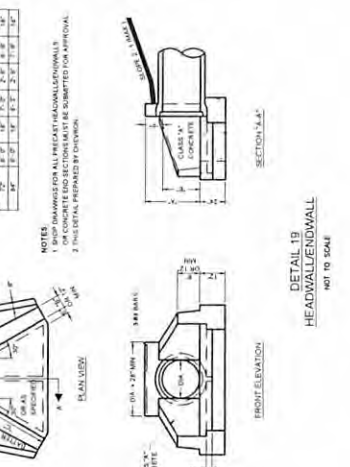


TEMPORARY FILL DIVERSIONS

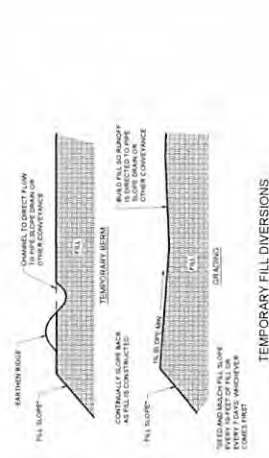
SEE AND MATCH FILL SLOPE TO EXISTING/ADJACENT CHANNELS TO MAINTAIN CHANNEL PROFILES
 EXPOSED TO EROSION
 FILL SLOPE
 TEMPORARY BEAM
 CHANNEL SLOPE (DO NOT EXCEED 3:1)
 EXISTING CHANNEL SLOPE

| NO. | DESCRIPTION | LENGTH (FT) | DEPTH (FT) | TOP WIDTH (FT) | BOTTOM WIDTH (FT) | MAX. VOLUME (CU YD) | EST. QUANTITY (CU YD) | LOCATION |
|-----|-------------|-------------|------------|----------------|-------------------|---------------------|-----------------------|----------|
| 1 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 2 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 3 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 4 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 5 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 6 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 7 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 8 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 9 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 10 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 11 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 12 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 13 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 14 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 15 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 16 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 17 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 18 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 19 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 20 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 21 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 22 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 23 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 24 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 25 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 26 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 27 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 28 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 29 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 30 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 31 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |
| 32 | 1 | 10 | 3 | 8 | 3.5 | 2 | 2 | NAGP300 |

NOTES
 1 SHOW DIMENSIONS FOR ALL PAVED HEADWALLS/ENDWALLS
 2 THIS DETAIL PREPARED BY CHEVRON



DETAIL 19 HEADWALL/ENDWALL
 NOT TO SCALE

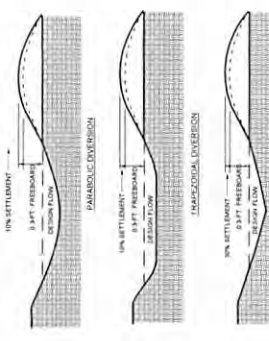


DIVERSIONS

WHENEVER IS REQUIRED TO DIVERT FLOW FROM EXISTING CHANNELS TO OTHER CHANNELS OR TO OTHER STRUCTURES, THE DIVERSION SHALL BE DESIGNED TO MAINTAIN THE EXISTING CHANNEL PROFILES AND TO BE CONSTRUCTED TO MAINTAIN THE EXISTING CHANNEL PROFILES. THE DIVERSION SHALL BE DESIGNED TO MAINTAIN THE EXISTING CHANNEL PROFILES AND TO BE CONSTRUCTED TO MAINTAIN THE EXISTING CHANNEL PROFILES. THE DIVERSION SHALL BE DESIGNED TO MAINTAIN THE EXISTING CHANNEL PROFILES AND TO BE CONSTRUCTED TO MAINTAIN THE EXISTING CHANNEL PROFILES.

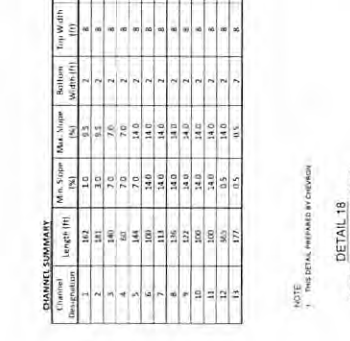
| Channel Designation | Length (ft) | Min. Slope (ft/ft) | Max. Slope (ft/ft) | Top Width (ft) | Bottom Width (ft) | Depth (ft) | Est. Quantity (cu yd) | Location |
|---------------------|-------------|--------------------|--------------------|----------------|-------------------|------------|-----------------------|----------|
| 1 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 2 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 3 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 4 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 5 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 6 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 7 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 8 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 9 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 10 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 11 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 12 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 13 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 14 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |
| 15 | 10 | 1.0 | 0.5 | 7 | 8 | 1.5 | 2 | NAGP300 |

DETAIL 18 VEGETATED CHANNEL
 NOT TO SCALE

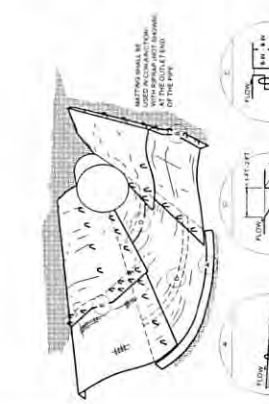


ROLLED EROSION CONTROL PRODUCTS CHANNEL INSTALLATION

MAINTENANCE SHOULD BE PERFORMED REGULARLY TO MAINTAIN THE CHANNEL PROFILES AND TO BE CONSTRUCTED TO MAINTAIN THE EXISTING CHANNEL PROFILES. THE DIVERSION SHALL BE DESIGNED TO MAINTAIN THE EXISTING CHANNEL PROFILES AND TO BE CONSTRUCTED TO MAINTAIN THE EXISTING CHANNEL PROFILES.

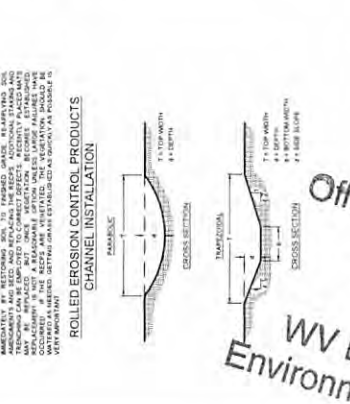


DETAIL 18 VEGETATED CHANNEL
 NOT TO SCALE



ROLLED EROSION CONTROL PRODUCTS CHANNEL INSTALLATION

MAINTENANCE SHOULD BE PERFORMED REGULARLY TO MAINTAIN THE CHANNEL PROFILES AND TO BE CONSTRUCTED TO MAINTAIN THE EXISTING CHANNEL PROFILES. THE DIVERSION SHALL BE DESIGNED TO MAINTAIN THE EXISTING CHANNEL PROFILES AND TO BE CONSTRUCTED TO MAINTAIN THE EXISTING CHANNEL PROFILES.



DETAIL 18 VEGETATED CHANNEL
 NOT TO SCALE

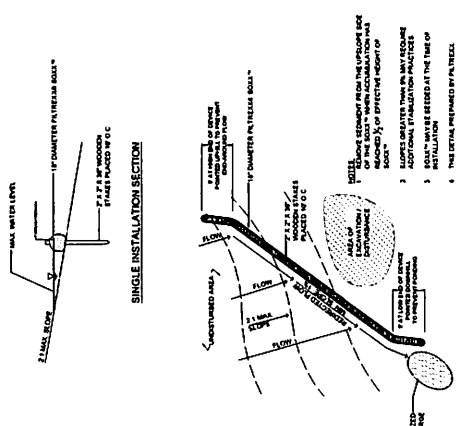
RECEIVED
Office of Oil and Gas
APR 24 2017
WV Department of Environmental Protection



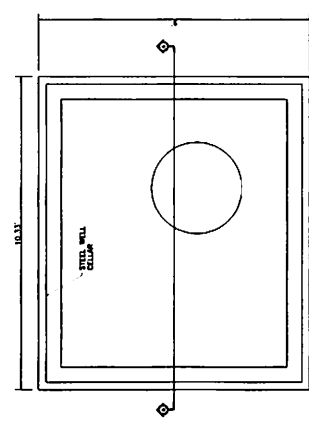
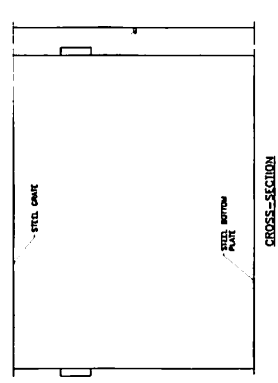
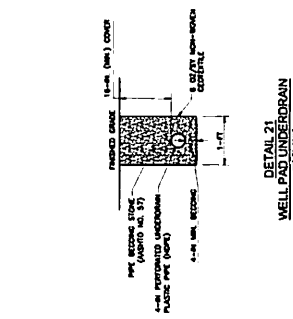
| DATE | REVISION |
|---------|--------------------------|
| 2/15/17 | 1. REVISED PER COMMENTS |
| 1/18/17 | 2. REVISED PER COMMENTS |
| 1/18/17 | 3. REVISED PER COMMENTS |
| 1/18/17 | 4. REVISED PER COMMENTS |
| 1/18/17 | 5. REVISED PER COMMENTS |
| 1/18/17 | 6. REVISED PER COMMENTS |
| 1/18/17 | 7. REVISED PER COMMENTS |
| 1/18/17 | 8. REVISED PER COMMENTS |
| 1/18/17 | 9. REVISED PER COMMENTS |
| 1/18/17 | 10. REVISED PER COMMENTS |

HINES WELL SITE
 MARSHALL COUNTY, WEST VIRGINIA
 PREPARED FOR:
CHEVRON APPALACHIA, LLC
 800 MOUNTAIN VIEW DRIVE
 SMITHFIELD, PA 15478

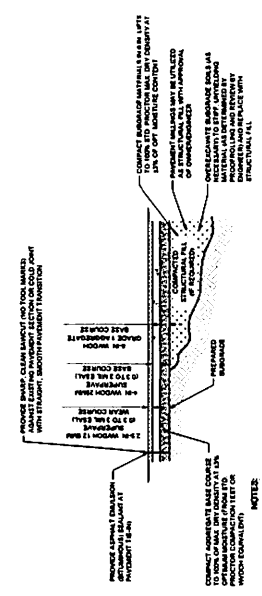
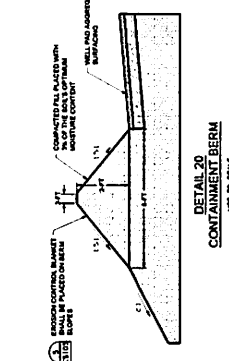
DETAILS (7 OF 7)
 Project Number: 16-027-0103
 Drawing Number: 00000007
 Issue Number: 001
 Date: 01/18/17
 Checked By: LDR
 Project Manager: LDR
ES 109



DETAIL 22
RUNOFF DIVERSION
 NOT TO SCALE



NOTE:
 1. THE DETAILS SHOWN IN THIS DRAWING ARE FOR INFORMATION ONLY.



- NOTES:**
1. PROVIDE THE FOLLOWING MATERIALS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING NOTES:
 2. PROVIDE THE FOLLOWING MATERIALS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING NOTES:
 3. PROVIDE THE FOLLOWING MATERIALS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING NOTES:
 4. PROVIDE THE FOLLOWING MATERIALS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING NOTES:
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 7. PROVIDE THE FOLLOWING MATERIALS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING NOTES:
 8. PROVIDE THE FOLLOWING MATERIALS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING NOTES:
 9. PROVIDE THE FOLLOWING MATERIALS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING NOTES:
 10. PROVIDE THE FOLLOWING MATERIALS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING NOTES:

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 Office of Oil and Gas
 APR 24 2017
 WV Department of Environmental Protection
 03/18/2017

ATTACHMENT D

USACE NATIONWIDE PERMIT 39 APPLICATION

RECEIVED
Office of Oil and Gas
APR 24 2017
WV Department of
Environmental Protection
08/18/2017

**U.S. ARMY CORPS OF ENGINEERS
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT
33 CFR 325. The proponent agency is CECW-CO-R.**

Form Approved -
OMB No. 0710-0003
Expires: 30-SEPTEMBER-2015

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please **DO NOT RETURN** your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

| | | | |
|--------------------|----------------------|------------------|------------------------------|
| 1. APPLICATION NO. | 2. FIELD OFFICE CODE | 3. DATE RECEIVED | 4. DATE APPLICATION COMPLETE |
|--------------------|----------------------|------------------|------------------------------|

(ITEMS BELOW TO BE FILLED BY APPLICANT)

| | | | | | |
|--|--|--|--|--|--|
| 5. APPLICANT'S NAME First - Jenny Middle - Last - Hayes Company - Chevron Appalachia, LLC E-mail Address - jhayes@chevron.com | | | 8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Katie Middle - L Last - Moberg Company - Civil & Environmental Consultants, Inc. E-mail Address - kmoberg@cecinc.com | | |
| 6. APPLICANT'S ADDRESS: Address- 800 Mountain View Drive City - Smithfield State - PA Zip - 15478 Country - US | | | 9. AGENT'S ADDRESS: Address- 4000 Triangle Lane, Suite 200 City - Export State - PA Zip - 15632 Country - US | | |
| 7. APPLICANT'S PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 724-564-3781 724-564-3894 | | | 10. AGENTS PHONE NOs. w/AREA CODE a. Residence b. Business c. Fax 724-327-5200 724-327-5280 | | |

STATEMENT OF AUTHORIZATION

11. I hereby authorize, CEC, Inc. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

Jenny Hayes
SIGNATURE OF APPLICANT

1.24.17
DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

| | | | |
|--|--|--|--|
| 12. PROJECT NAME OR TITLE (see instructions) Hines Well Pad | | 14. PROJECT STREET ADDRESS (if applicable) Address Campbell Hill Road City - Moundsville | |
| 13. NAME OF WATERBODY, IF KNOWN (if applicable) Refer to Waters Impact Summary Table in Attachment D | | 14. PROJECT STREET ADDRESS (if applicable) Address Campbell Hill Road City - Moundsville | |
| 15. LOCATION OF PROJECT Latitude: •N 39.906145 Longitude: •W -80.697938 | | 14. PROJECT STREET ADDRESS (if applicable) Address Campbell Hill Road City - Moundsville | |
| 16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID Municipality Section - Township - Washington District Range - Marshall County | | | |

RECEIVED
Office of Oil and Gas
State of WV Zip- 26041
APR 24 2017

WV Department of Environmental Protection
08/18/2017
Page 1 of 3

17. DIRECTIONS TO THE SITE

From I-470 W, take Exit 2 toward Bethlehem Drive 0.2 mile, and turn left onto Co Hwy 91/1. Drive 0.4 mile, and continue onto 29th St Blvd/W Bethlehem Blvd. Drive 2.2 miles, turn left onto State Rte 2 Alt, and turn left again onto Roberts Ridge Road. Drive 0.1 mile, and turn right onto WV-88 S/Ridgecrest Road. Drive 8.2 miles and turn left onto US-250 S. Drive 2 miles, and turn right onto Campbell Hill Road/Waymans Ridge Road. Drive 2.2 miles, and turn slight right onto Campbell Hill Road. Drive 0.2 mile, and the entrance to the site will be on the right.

18. Nature of Activity (Description of project, include all features)

Chevron Appalachia, LLC is proposing to construct a new natural gas well pad and associated access road. The proposed limit of disturbance is approximately 19 acres and includes an active cattle pasture and wooded hillslopes. The construction of the well pad will require permanent impacts to 0.026 acre of palustrine emergent (PEM) wetlands and 192 linear feet of an ephemeral stream.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The purpose of the project is to construct a natural gas well pad and access road.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

The construction of the facility will require the placement of fill material into one unnamed tributary (UNT) to Toms Run and one PEM wetland. A second PEM wetland will be excavated. These permanent impacts are associated with grading activities for construction of the well pad.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

| Type Amount in Cubic Yards | Type Amount in Cubic Yards | Type Amount in Cubic Yards |
|---|---|-------------------------------|
| 30 CY of earthen material into wetlands | 500 CY of earthen material into streams | N/A |

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 0.026 acre of PEM wetlands
or
Linear Feet 192 linear feet of stream

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Chevron analyzed numerous on-site configurations for the siting of the facility, and the proposed site plan represents the layout which minimizes impacts to the furthest extent practicable while still meeting the project's purpose and need. Grading was minimized along the southern side of the well pad to limit the impact to UNT 1 to Toms Run and to avoid impacts to Wetlands 2A and 2B. Compost filter sock traps and orange construction fencing will be installed around the downstream portion of the impacted stream to avoid additional impacts.

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Office of Oil and Gas

App. 04/2017
WV Department of
Environmental Protection

08/18/2017

U.S. Department of Environmental Protection

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or device, or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to be false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

Office of Oil Spill Response

RECEIVED

Signature of Applicant: [Signature] DATE: 1-24-17
 Signature of Agent: [Signature] DATE: 1-24-17
 for Katie Hobers
 SIGNATURE OF AGENT DATE

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

| AGENCY | TYPE APPROVAL | IDENTIFICATION NUMBER | DATE APPLIED | DATE APPROVED | DATE DENIED |
|-----------|----------------------|-----------------------|--------------|---------------|-------------|
| WVDNR OLS | Right of Entry | Not yet assigned | January 2017 | Pending | |
| WVDEP | Special Condition A | Not yet assigned | January 2017 | Pending | |
| WVDEP | Horizontal 6A Well P | Not yet assigned | January 2017 | Pending | |
| WVDEP | Wetland Waiver | Not yet assigned | January 2017 | Pending | |

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

| City - | Address - | State - | Zip - |
|--------------------|--|-----------------------|-------------|
| City - Glen Dale | Address - Gossett Lance J ET UX - RD 1 BOX 428 A | State - West Virginia | Zip - 26038 |
| City - Moundsville | Address - Goodnight Armie N ET UX - RD 1 BOX 437 | State - West Virginia | Zip - 26041 |
| City - Moundsville | Address - Hines Donald ET UX - 301 4TH Street | State - West Virginia | Zip - 26038 |

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list)

24. Is Any Portion of the Work Already Completed? Yes No IF YES, DESCRIBE THE COMPLETED WORK

1710218180

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

1) Well Operator: Chevron Appalachia, LLC 49449935 Marshall Washington Moundsville, WV
Operator ID County District Quadrangle

2) Operator's Well Number: Hines M10H Well Pad Name: Hines

3) Farm Name/Surface Owner: Donald Hines and Wanda L. Hines Public Road Access: Route 38/Campbell Hill Road

4) Elevation, current ground: 1125' Elevation, proposed post-construction: 1125'

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

(b) If Gas Shallow Deep _____
Horizontal

6) Existing Pad: Yes or No No *JN 3/26/17*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 6260' GL, 50' and 0.64 psi/ft

8) Proposed Total Vertical Depth: 6260

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14189

11) Proposed Horizontal Leg Length: 7289

12) Approximate Fresh Water Strata Depths: 360' GL

13) Method to Determine Fresh Water Depths: 1.5 mi radius offset wells, freshwater wells, and freshwater base level

14) Approximate Saltwater Depths: 840', 1620', and 1961' GL

15) Approximate Coal Seam Depths: 360' and 635' GL

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

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

(a) If Yes, provide Mine Info: Name: Ireland Mine
Depth: 635' GL
Seam: Pittsburgh Coal
Owner: Murray Energy Corporation

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18)

CASING AND TUBING PROGRAM

| TYPE | Size (in) | New or Used | Grade | Weight per ft. (lb/ft) | FOOTAGE: For Drilling (ft) | INTERVALS: Left in Well (ft) | CEMENT: Fill-up (Cu. Ft.)/CTS |
|--------------|------------------|--------------------|--------------|-------------------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| Conductor | 20 | New | | | 60 | 60 | CTS |
| Fresh Water | 13.375 | New | J-55 | 54.5 | 410 | 410 | CTS |
| Coal | | | | | | | |
| Intermediate | 9.625 | New | L-80 | 40 | 1,858 | 1,858 | CTS |
| Production | 5.50 | New | P110 | 20 | 14,189 | 14,189 | 2,358 |
| Tubing | | | | | | | |
| Liners | | | | | | | |

JN 3/26/17

| TYPE | Size (in) | Wellbore Diameter (in) | Wall Thickness (in) | Burst Pressure (psi) | Anticipated Max. Internal Pressure (psi) | Cement Type | Cement Yield (cu. ft./k) |
|--------------|------------------|-------------------------------|----------------------------|-----------------------------|---|--------------------|---------------------------------|
| Conductor | 20 | 26 | | | | | |
| Fresh Water | 13.375 | 17.5 | 0.38 | 2730 | 1911 | Class A | 1.2 |
| Coal | | | | | | | |
| Intermediate | 9.625 | 12.375 & 12.25 | 0.395 | 5750 | 2768 | Class A | 1.19 |
| Production | 5.5 | 8.75 & 8.5 | 0.361 | 14360 | 9975 | Class A, G, or H | 1.25 |
| Tubing | | | | | | | |
| Liners | | | | | | | |

PACKERS

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

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WW-6B
(10/14)

API NO. 47- _____ - _____
OPERATOR WELL NO. Hines M10H
Well Pad Name: Hines

JN 3/26/17

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

Drill vertical depth to the Marcellus at an estimated total vertical depth of approximately 6,260 feet. Drill horizontal leg.

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

18,762 bbl fluid - 1,000,000 lbm sand/stage - 9,400 anticipated max psi - 100 bpm anticipated max rate

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 19.0

22) Area to be disturbed for well pad only, less access road (acres): 10.3

23) Describe centralizer placement for each casing string:

Surface: (1) on shoe track w/ stop collar & (1) per jt over coupling to surface; Intermediate: (1) on shoe track w/ stop collar & (1) per 3 jts over coupling; Production String: (1) centralizer every jt in the lateral and curve & (1) every other joint from KOP to surface.

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

For the Water String the blend will contain class A cement, 3% CaCl₂, and flake. The intermediate will contain class A cement, 3% CaCl₂, and flake. The Production cement will have a lead and tail cement. The lead will contain class A, G, or H cement, KCl, dispersant, suspension agent, and retarder. The tail will contain class A, G, or H cement, Calcium Carbonate, KCl, dispersant, de-foamer, suspension agent, and friction reducer.

25) Proposed borehole conditioning procedures:

Air sections ensured to be clean via air circulation once TD is reached. Fluid sections will be circulated a minimum of 2 bottoms up once casing point has been reached and until uniform properties are achieved.

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*Note: Attach additional sheets as needed.

HINES PAD CEMENT ADDITIVES

- For the Water String the blend will contain class A cement, 3% CaCl₂, and flake.
- The intermediate will contain class A cement, 3% CaCl₂, and flake.
- The Production cement will have a lead and tail cement.
- The lead will contain class A, G, or H cement, KCl, dispersant, suspension agent, and retarder.
- The tail will contain class A, G, or H cement, Calcium Carbonate, KCl, dispersant, de-foamer, suspension agent, and friction reducer

4705101030



Hines M10H

Washington Twp, Marshall Co, WV

Ground Level Elev. (ft above SL): 1,120

| DRILLING FLUID / BIT TYPE / TFA | CENTRALIZER PROGRAM | CASING SIZE / FORMATION | DEPTH | | WELLHEAD DESIGN | HOLE SIZE (IN) | CASING SPECS | CEMENT PROGRAM |
|---------------------------------|---|-------------------------|-----------------|-----------------|-----------------|----------------|---|---|
| | | | MD (FT) | TVD (FT) | | | | |
| Core Barrel / Auger | 2 Bowspring per Jt | 20" Conductor | 60 | 60 | INC AZM | 26 | Conductor 20" API 5L Minimum 40 ft from GL or at least 10 ft into bedrock | Grout to Surface |
| | Bow Spring: (1) on shoe track w/ stop collar & (1) per jt over coupling to surface | 13-3/8" Casing | 410 | 410 | | 17.5 | Surface Casing 13-3/8" 54.5# J-55 BTC 0.380" Wall Coupling OD (in) 14.375 ID (in) 12.615 Drift ID (in) 12.459 Burst (psi) 2,730 Collapse (psi) 1,130 Yield (Jt Strength 1,000 lbs) 853 | Surface Blend (Class A) Cement to Surface |
| | Bow Spring: (1) on shoe track w/ stop collar & (1) per 3 jts over coupling | 9-5/8" Casing | 1,858 | 1,858 | | 12.375 - 12.25 | Intermediate Casing 9-5/8" 40# L-80 BTC 0.395" Wall Coupling OD (in) 10.625 ID (in) 8.835 Drift ID (in) 8.679 Burst (psi) 5,750 Collapse (psi) 3,080 Yield (Jt Strength 1,000 lbs) 916 | Intermediate II Blend (Class A) Cement to Surface |
| | Bow Spring: (1) per every other jt over coupling SpiraGlider or Centek: (1) per jt of csg to KOP | 5-1/2" Casing | 12,877 - 20,778 | 12,877 - 20,778 | | 8.75 - 8.5 | Production Casing 5-1/2" 20# P-110, 0.361" Wall Coupling OD (in) 6.300 ID (in) 4.778 Drift ID (in) 4.653 Burst (psi) 14,360 Collapse (psi) 12,090 Yield (Jt Strength 1,000 lbs) 729 | Production Lead Slurry Cement to 500' below 9-5/8" shoe |
| Non-Conservation | Float Equip. | 5-1/2" Casing | 12,877 - 20,778 | 12,877 - 20,778 | | 8.75 - 8.5 | | |

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08/18/2017

Hines Pad Area of Review

| Well ID | Prior Operator On Record | Operator - DEP | Status | Latitude | Longitude | Vertical TD | Producing Formation | Producing Zones NOT Perforated |
|--------------|--------------------------|-------------------------|-----------|-----------|------------|-------------|---------------------|--------------------------------|
| 47-051-00860 | CNX Gas Company LLC | CNX Gas Company LLC | Active | 39.908767 | -80.686817 | 840' | Pittsburgh Seam | None |
| 47-051-01263 | Chevron Appalachia, LLC | Chevron Appalachia, LLC | Active | 39.892007 | -80.681121 | Unknown | Unknown | None |
| 47-051-00554 | Kentucky Central & Co. | Unknown | Plugged | 39.888303 | -80.677210 | 1441' | Pottsville | None |
| 47-051-01854 | Chevron Appalachia, LLC | Chevron Appalachia, LLC | Permitted | 39.909336 | -80.691893 | 6317 | Marcellus | None |
| 47-051-01856 | Chevron Appalachia, LLC | Chevron Appalachia, LLC | Permitted | 39.909383 | -80.691856 | 6317' | Marcellus | None |
| 47-051-01857 | Chevron Appalachia, LLC | Chevron Appalachia, LLC | Permitted | 39.909430 | -80.691819 | 6317' | Marcellus | None |
| 47-051-01858 | Chevron Appalachia, LLC | Chevron Appalachia, LLC | Permitted | 39.909477 | -80.691782 | 6317' | Marcellus | None |

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Chevron Appalachia, LLC OP Code 49449935

Watershed (HUC 10) Middle Grave Creek - Grave Creek Quadrangle Moundsville, WV 7.5'

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____ at next anticipated well _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes, we will be utilizing multiple open/closed top tanks

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air to KOP, SBM KOP to TMD

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

Additives to be used in drilling medium? barite, fluid loss, emulsifiers, rheological control

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

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

-Landfill or offsite name/permit number? Arden Landfill #100172, South Hills Landfill #100592, Short Creek Landfill #WV0109517

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

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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

Company Official Signature Jenny Hayes
Company Official (Typed Name) Jenny Hayes
Company Official Title Permitting Team Lead

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Subscribed and sworn before me this 13th day of March, 2017

Kristen Brooks

My commission expires Sept 2, 2018

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COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Kristen Brooks, Notary Public
State of Penn, Fayette County
My Commission Expires Sept. 2, 2018
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Proposed Revegetation Treatment: Acres Disturbed 11.6 acres Prevegetation pH Per soils testing report

Lime 3 Tons/acre or to correct to pH unless otherwise noted in soils report

Fertilizer type 10-20-20

Fertilizer amount 300 lbs/acre

Mulch 3, 5 for winter stabilization Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

see attached

see attached

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Jim Unikelson

4705101952

Comments: _____

Title: Oil & Gas Inspector

Date: 3/27/17

Field Reviewed? () Yes () No

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SEED MIXTURES

| <u>Temporary</u> | | | <u>Permanent</u> | | | <u>Permanent</u> | |
|------------------|----|----------|-------------------------|----------|-----|-------------------------------------|----------|
| Seed Type | | lbs/acre | Seed Type | lbs/acre | | Seed Type | lbs/acre |
| Annual Ryegrass | or | 50 | Non Agricultural Upland | | and | Hayfield, Pastureland, and Cropland | |
| Winter Wheat | | 75 | Tall Fescue | 100 | | Orchard Grass | 80 |
| | | | Perennial Ryegrass | 33 | | Timothy | 80 |
| | | | Ladino Clover | 18 | | Birdsfoot - Trefoil | 20 |
| | | | Birdsfoot - Trefoil | 18 | | Ladino Clover | 20 |
| | | | Red Top | 6 | | | |

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Chevron

**Appalachian LLC
WV Well Site Safety Plan**

Pad: Hines Pad A

Well # M05H

JN 3/26/17

**1256 Campbell Hill Road
Moundsville, WV 26041
Washington District
Marshall County, WV**

Access Point – [39.904947°N, 80.693363°W]

Well Site – [39.906387°N, 80.699914°W]

Marshall County, West Virginia

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SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M)
 N:4417391.37
 E:525708.05
 NAD83, WV NORTH
 N:514435.887
 E:1632084.546

APPROX. LANDING POINT
UTM 17-NAD83(M)
 N:4417073.37
 E:525387.72
 NAD83, WV NORTH
 N:513409.917
 E:1631015.928

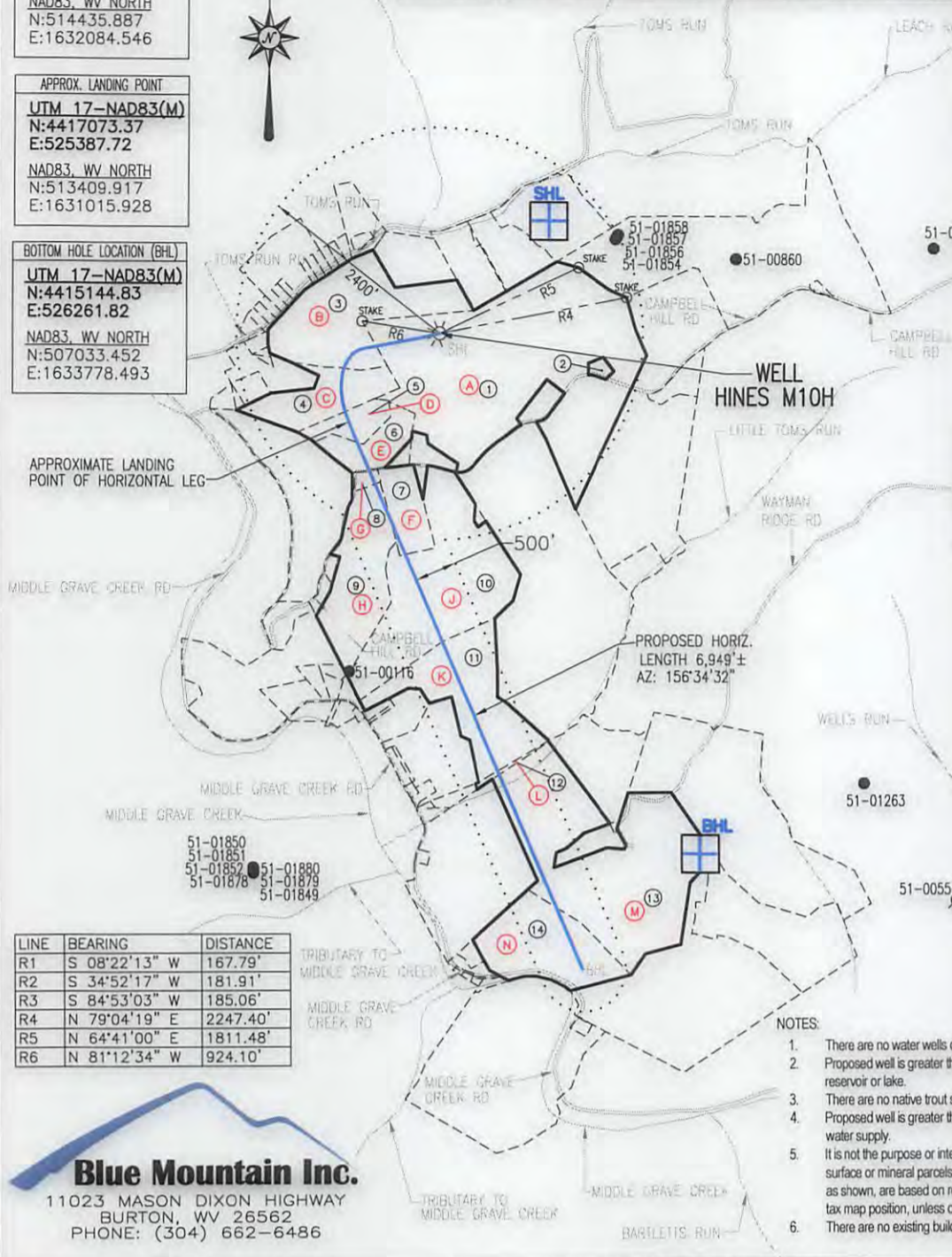
BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M)
 N:4415144.83
 E:526261.82
 NAD83, WV NORTH
 N:507033.452
 E:1633778.493

BHL is located on topo map 11,186 feet south of Latitude: 39° 55' 00"
 SHL is located on topo map 3,807 feet south of Latitude: 39° 55' 00"

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS



BHL is located on topo map 7,347 feet west of Longitude: 80° 40' 00"
 SHL is located on topo map 9,137 feet west of Longitude: 80° 40' 00"



WELL PAD ORIENTATION DETAIL

| | | | | |
|------|------|------|------|------|
| W2H0 | M1R0 | W3H0 | W2H0 | W3H0 |
| M2H0 | M3H0 | U3H0 | W2H0 | W3H0 |
| M2H0 | M2H0 | U1H0 | W2H0 | W3H0 |
| W3H0 | M1H0 | M2H0 | W2H0 | W3H0 |
| M2H0 | M10H | M2H0 | W2H0 | W3H0 |
| M2H0 | M2H0 | M2H0 | W3H0 | W3H0 |
| M2H0 | M2H0 | M2H0 | W2H0 | W3H0 |
| M2H0 | M2H0 | M2H0 | W2H0 | W3H0 |

N.T.S.

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- MINERAL TRACT
- BOUNDARY / PARCEL LINES
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE
- LESSORS
- SURFACE OWNERS
- LOCATE & AVOID

GAS WELLS

- EXISTING WELLS
- PLUGGED WELLS

| LINE | BEARING | DISTANCE |
|------|---------------|----------|
| R1 | S 08°22'13" W | 167.79' |
| R2 | S 34°52'17" W | 181.91' |
| R3 | S 84°53'03" W | 185.06' |
| R4 | N 79°04'19" E | 2247.40' |
| R5 | N 64°41'00" E | 1811.48' |
| R6 | N 81°12'34" W | 924.10' |

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

Blue Mountain Inc.
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

FILE #: HINES M10H

DRAWING #: HINES M10H

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY: 1/2500

PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. Six*

R.P.E.: _____ L.L.S.: P.S. No. 2000



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



DATE: MARCH 7, 2017

OPERATOR'S WELL #: HINES M10H

API WELL #: 47 51 01932

STATE COUNTY PERMIT

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

WATERSHED: MIDDLE GRAVE CREEK-GRAVE CREEK ELEVATION: 1125.45'

COUNTY/DISTRICT: MARSHALL / WASHINGTON QUADRANGLE: MOUNDSVILLE, WV 7.5'

SURFACE OWNER: DONALD HINES ET UX ACREAGE: 114.934±

OIL & GAS ROYALTY OWNER: DONALD HINES ET UX ACREAGE: 419.163±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

PERFORATE NEW FORMATION PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE

(SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,400'± TMD: 14,189'±

WELL OPERATOR CHEVRON APPALACHIA, LLC DESIGNATED AGENT KENNETH E. TAWNEY

Address 800 MOUNTAIN VIEW DRIVE Address 500 LEE STREET, EAST SUITE 1600

City SMITHFIELD State PA Zip Code 15478 City CHARLESTON State WV Zip Code 25301-3202

08/18/2017

HINES M10H PAGE 2 OF 2

| | LESSOR | DIST-TM/PAR |
|--|-------------------------------|-------------|
| A | DONALD HINES ET UX | 14-12/30 |
| B | WILLIAM F. RULONG | 14-12/25 |
| | CHARLES BURTON RULONG | |
| | HAROLD DEAN FURBEE | |
| | DALE FRANCIS FURBEE | |
| | ROBERT L. RULONG | |
| | DRU ELLA FOX | |
| | JOHN T. MORRIS | |
| | LYNN ELLEN COOK | |
| | ETHEL M. RULONG | |
| | TERRY LEE RULONG | |
| | RICHARD J. RULONG | |
| | TRACEY LYNN RULONG | |
| | GARY MORRISON | |
| | ELIZABETH Y. MORRISON | |
| ROGER GLEN RULONG | | |
| TRUSTEES LIMESTONE PRESBYTERIAN CHURCH | | |
| CLYDE DOWLER ET UX | | |
| LAURA J. REYES | | |
| C | ARNIE N. GOODNIGHT ET UX | 14-12/66 |
| D | MORGAN T. LACEFIELD | 14-12/30.5 |
| E | MORGAN T. LACEFIELD | 14-12/30.1 |
| F | DONALD M. BOSTON ET AL | 14-12/33.2 |
| G | ELIHU B. SERDA ET UX | 14-12/45.1 |
| H | SHANNETTE OMEAR | 14-12/45 |
| | SANDRA K. FULLER | |
| | DOUGLAS L. PARSONS | |
| | DONALD M. BOSTON ET UX | |
| | DAVID D. PARSONS ET UX | |
| | JAMES CRAIG PARSONS | |
| | ROBERT B. FULLER TEST TRUSTEE | |
| GRACE I. SCARBOROUGH | | |
| J | SHANNETTE OMEAR | 14-12/33 |
| | SANDRA K. FULLER | |
| | DOUGLAS L. PARSONS | |
| | DONALD M. BOSTON ET UX | |
| | DAVID D. PARSONS ET UX | |
| | JAMES CRAIG PARSONS | |
| | ROBERT B. FULLER TEST TRUSTEE | |
| GRACE I. SCARBOROUGH | | |
| K | SHANNETTE OMEAR | 14-12/34 |
| | SANDRA K. FULLER | |
| | DOUGLAS L. PARSONS | |
| | DONALD M. BOSTON ET UX | |
| | DAVID D. PARSONS ET UX | |
| | JAMES CRAIG PARSONS | |
| | ROBERT B. FULLER TEST TRUSTEE | |
| GRACE I. SCARBOROUGH | | |
| L | RICHARD C. YOHO ET UX | 14-13/41 |
| M | TODD R. KETTLER ET UX | 14-13/2 |
| N | THOMAS AND EVELYN JOHNSON | 14-13/22 |

| | SURFACE OWNER | DIST-TM/PAR |
|----|-------------------------------|-------------|
| 1 | DONALD HINES ET UX | 14-12/30 |
| 2 | TERRY L. DERROW ET UX | 14-12/30.3 |
| 3 | IRENE D. MILLER | 14-12/25 |
| 4 | ARNIE N. GOODNIGHT ET UX | 14-12/66 |
| 5 | MORGAN T. LACEFIELD | 14-12/30.5 |
| 6 | MORGAN LACEFIELD | 14-12/30.1 |
| 7 | DONALD M. BOSTON ET UX - LIFE | 14-12/33.2 |
| 8 | ELIHU B. & MAILA L. SERDA | 14-12/45.1 |
| 9 | HENRY T. PARSONS EST ET AL | 14-12/45 |
| 10 | HENRY T. PARSONS EST ET AL | 14-12/33 |
| 11 | HENRY T. PARSONS EST ET AL | 14-12/34 |
| 12 | RICHARD C. & CARLA V. YOHO | 14-13/41 |
| 13 | TODD & DAWN R. KETTLER | 14-13/2 |
| 14 | EVELYN RUTH JOHNSON | 14-13/22 |

| SURFACE HOLE LOCATION (SHL) |
|-----------------------------|
| UTM 17-NAD83(M) |
| N:4417391.37 |
| E:525708.05 |
| NAD83, WV NORTH |
| N:514435.887 |
| E:1632084.546 |

| APPROX. LANDING POINT |
|-----------------------|
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| N:4417073.37 |
| E:525387.72 |
| NAD83, WV NORTH |
| N:513409.917 |
| E:1631015.928 |

| BOTTOM HOLE LOCATION (BHL) |
|----------------------------|
| UTM 17-NAD83(M) |
| N:4415144.83 |
| E:526261.82 |
| NAD83, WV NORTH |
| N:507033.452 |
| E:1633778.493 |

08/18/2017

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

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

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

| Lease Name or Number | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Book/Page |
|----------------------|-----------------------|-----------------------|---------|-----------|
|----------------------|-----------------------|-----------------------|---------|-----------|

see attached

4705101932

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

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

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

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

Well Operator: Chevron Appalachia, LLC
 By: Jenny Huges
 Its: Permitting Team Lead

HINES M10H

| Plat ID | Lessor | Lessee | Royalty | Book/Page | Assignment #1 | Assignment #2 | Assignment #3 |
|---------------------------------------|----------------------------|---------------------|---------------------|-----------|---------------|---------------|---------------|
| 14-0012-0030-0000-0000 | HINES DONALD ET UX | CHEVRON U.S.A. INC. | 0.160 | 774/290 | N/A | N/A | N/A |
| | RULONG WILLIAM F | CHEVRON U.S.A. INC. | 0.140 | 820/241 | N/A | N/A | N/A |
| | RULONG CHARLES BURTON | CHEVRON U.S.A. INC. | 0.140 | 820/269 | N/A | N/A | N/A |
| | FURBEE HAROLD DEAN | CHEVRON U.S.A. INC. | 0.140 | 820/325 | N/A | N/A | N/A |
| | FURBEE DALE FRANCIS | CHEVRON U.S.A. INC. | 0.140 | 821/219 | N/A | N/A | N/A |
| | RULONG ROBERT L | CHEVRON U.S.A. INC. | 0.140 | 821/212 | N/A | N/A | N/A |
| | FOX DRU ELLA | CHEVRON U.S.A. INC. | 0.140 | 820/313 | N/A | N/A | N/A |
| | MORRIS JOHN T | CHEVRON U.S.A. INC. | 0.140 | 820/344 | N/A | N/A | N/A |
| | COOK LYNN ELLEN SFX | CHEVRON U.S.A. INC. | 0.140 | 828/430 | N/A | N/A | N/A |
| | 14-0012-0025-0000-0000 | RULONG ETHEL M SFX | CHEVRON U.S.A. INC. | 0.140 | 831/396 | N/A | N/A |
| RULONG TERRY LEE | | CHEVRON U.S.A. INC. | 0.140 | 831/389 | N/A | N/A | N/A |
| RULONG RICHARD J | | CHEVRON U.S.A. INC. | 0.140 | 831/518 | N/A | N/A | N/A |
| RULONG TRACEY LYNN | | CHEVRON U.S.A. INC. | 0.140 | 838/389 | N/A | N/A | N/A |
| MORRISON GARY | | CHEVRON U.S.A. INC. | 0.160 | 847/71 | N/A | N/A | N/A |
| MORRISON ELIZABETH Y | | CHEVRON U.S.A. INC. | 0.160 | 847/68 | N/A | N/A | N/A |
| RULONG ROGER GLEN SFX | | CHEVRON U.S.A. INC. | 0.180 | 848/308 | N/A | N/A | N/A |
| TRUSTES LIMESTONE PRESBYTERIAN CHURCH | | CHEVRON U.S.A. INC. | 0.180 | 854/86 | N/A | N/A | N/A |
| DOWLER CLYDE ET UX | | CHEVRON U.S.A. INC. | 0.180 | 868/72 | N/A | N/A | N/A |
| REYES LAURA J | | CHEVRON U.S.A. INC. | 0.160 | 882/392 | N/A | N/A | N/A |
| 14-0012-0066-0000-0000 | GOODNIGHT ARNIE N ET UX | CHEVRON U.S.A. INC. | 0.160 | 831/445 | N/A | N/A | N/A |
| 14-0012-0030-0005-0000 | LACEFIELD MORGAN T | CHEVRON U.S.A. INC. | 0.180 | 853/055 | N/A | N/A | N/A |
| 14-0012-0030-0001-0000 | LACEFIELD MORGAN T | CHEVRON U.S.A. INC. | 0.180 | 853/055 | N/A | N/A | N/A |
| 14-0012-0033-0002-0000 | BOSTON DONALD M ET AL | CHEVRON U.S.A. INC. | 0.180 | 911/500 | N/A | N/A | N/A |
| 14-0012-0045-0001-0000 | SERDA ELIHU B ET UX | CHEVRON U.S.A. INC. | 0.180 | 865/010 | N/A | N/A | N/A |
| | OMEAR SHANNETTE | CHEVRON U.S.A. INC. | 0.180 | 837/297 | N/A | N/A | N/A |
| | FULLER SANDRA K | CHEVRON U.S.A. INC. | 0.180 | 837/182 | N/A | N/A | N/A |
| | PARSONS DOUGLAS L | CHEVRON U.S.A. INC. | 0.180 | 837/279 | N/A | N/A | N/A |
| | BOSTON DONALD M ET UX | CHEVRON U.S.A. INC. | 0.180 | 837/287 | N/A | N/A | N/A |
| | PARSONS DAVID D ET UX | CHEVRON U.S.A. INC. | 0.180 | 837/172 | N/A | N/A | N/A |
| | PARSONS JAMES CRAIG | CHEVRON U.S.A. INC. | 0.180 | 837/177 | N/A | N/A | N/A |
| 14-0012-0045-0000-0000 | FULLER ROBERT B TEST TRSTE | CHEVRON U.S.A. INC. | 0.180 | 837/187 | N/A | N/A | N/A |
| | SCARBOROUGH GRACE I | CHEVRON U.S.A. INC. | 0.180 | 864/20 | N/A | N/A | N/A |
| | OMEAR SHANNETTE | CHEVRON U.S.A. INC. | 0.180 | 837/297 | N/A | N/A | N/A |
| | FULLER SANDRA K | CHEVRON U.S.A. INC. | 0.180 | 837/182 | N/A | N/A | N/A |
| | PARSONS DOUGLAS L | CHEVRON U.S.A. INC. | 0.180 | 837/279 | N/A | N/A | N/A |
| | BOSTON DONALD M ET UX | CHEVRON U.S.A. INC. | 0.180 | 837/287 | N/A | N/A | N/A |
| | PARSONS DAVID D ET UX | CHEVRON U.S.A. INC. | 0.180 | 837/172 | N/A | N/A | N/A |
| 14-0012-0033-0000-0000 | PARSONS JAMES CRAIG | CHEVRON U.S.A. INC. | 0.180 | 837/177 | N/A | N/A | N/A |
| | FULLER ROBERT B TEST TRSTE | CHEVRON U.S.A. INC. | 0.180 | 837/187 | N/A | N/A | N/A |
| | SCARBOROUGH GRACE I | CHEVRON U.S.A. INC. | 0.180 | 864/20 | N/A | N/A | N/A |
| | OMEAR SHANNETTE | CHEVRON U.S.A. INC. | 0.180 | 837/297 | N/A | N/A | N/A |

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| Plat ID | Lessor | Lessee | Royalty | Book/Page | Assignment #1 | Assignment #2 | Assignment #3 |
|------------------------|----------------------------|---------------------|---------|-----------|------------------------------|----------------------------------|---------------|
| 14-0012-0034-0000-0000 | FULLER SANDRA K | CHEVRON U.S.A. INC. | 0.180 | 837/182 | N/A | N/A | N/A |
| | PARSONS DOUGLAS L | CHEVRON U.S.A. INC. | 0.180 | 837/279 | N/A | N/A | N/A |
| | BOSTON DONALD M ET UX | CHEVRON U.S.A. INC. | 0.180 | 837/287 | N/A | N/A | N/A |
| | PARSONS DAVID D ET UX | CHEVRON U.S.A. INC. | 0.180 | 837/172 | N/A | N/A | N/A |
| | PARSONS JAMES CRAIG | CHEVRON U.S.A. INC. | 0.180 | 837/177 | N/A | N/A | N/A |
| | FULLER ROBERT B TEST TRSTE | CHEVRON U.S.A. INC. | 0.180 | 837/187 | N/A | N/A | N/A |
| | SCARBOROUGH GRACE I | CHEVRON U.S.A. INC. | 0.180 | 864/20 | N/A | N/A | N/A |
| 14-0013-0041-0000-0000 | YOHO RICHARD C. ET UX | TRIENERGY, INC. | 0.180 | 706/315 | 24/180 | 756/332 | N/A |
| 14-0013-0002-0000-0000 | KETTLER TODD R ET UX | CHEVRON U.S.A. INC. | 0.180 | 868/78 | TRIENERGY, INC. to NPAR, LLC | NPAR, LLC to CHEVRON U.S.A. INC. | N/A |
| 14-0013-0022-0000-0000 | JOHNSON THOMAS AND EVELYN | TRIENERGY, INC. | 0.160 | 694/274 | N/A | N/A | N/A |
| | | | | | 23/80 | 756/332 | N/A |
| | | | | | TRIENERGY, INC. to NPAR, LLC | NPAR, LLC to CHEVRON U.S.A. INC. | N/A |

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Kelly Bass
Land Representative

April 12, 2017

West Virginia D.E.P.
Office of Oil & Gas
601 57th Street SE
Charleston, WV 25304-2345

RE: Hines 4H, 5H, 6H, 7H, 8H, 9H, 10H, 11H

To whom it may concern,

This letter shall serve as confirmation of Chevron U.S.A. Inc.'s right to access the minerals under all roads traversed by the above referenced laterals. Please do not hesitate to contact myself, the undersigned, for any additional questions or to request further information.

Sincerely,

Kelly Bass
Land Representative

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Appalachian Mountain Business Unit
Chevron North America Exploration and Production Company
A division of Chevron U.S.A. Inc.
700 Cherrington Parkway, Coraopolis, PA 15108
Tel 412 865 1488
KellyBass@Chevron.com

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08/18/2017

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

Date of Notice Certification: 04/13/2017

API No. 47- _____
Operator's Well No. Hines M10H
Well Pad Name: Hines

Notice has been given:

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

| | | |
|--|--|-----------------------------|
| State: <u>West Virginia</u> | UTM NAD 83 | Easting: <u>525708.05</u> |
| County: <u>Marshall</u> | | Northing: <u>4417391.37</u> |
| District: <u>Washington</u> | Public Road Access: <u>Route 38/Campbell Hill Road</u> | |
| Quadrangle: <u>Moundsville, WV 7.5'</u> | Generally used farm name: <u>Hines</u> | |
| Watershed: <u>Middle Grave Creek - Grave Creek</u> | | |

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

| | |
|--|---|
| <p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p> | <p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> |
|--|---|

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Required Attachments:

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

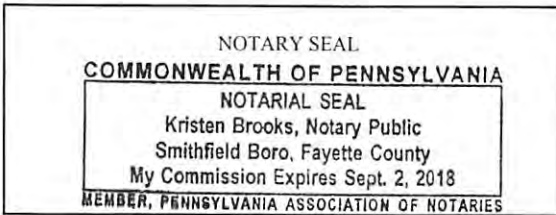
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Certification of Notice is hereby given:

THEREFORE, I Jenny Hayes, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Chevron Appalachia, LLC
By: *Jenny Hayes*
Its: Permitting Team Lead
Telephone: 724-564-3755

Address: 800 Mountain View Drive
Smithfield, PA 15478
Facsimile: 724-564-3894
Email: _____



Subscribed and sworn before me this 13th day of April, 2017
Kristen Brooks Notary Public
My Commission Expires Sept. 2, 2018.

Oil and Gas Privacy Notice:

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

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

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

Date of Notice: 3/16/17 **Date Permit Application Filed:** 4/20/17

Notice of:

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

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

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

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

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

SURFACE OWNER(s)
 Name: Donald Hines and Wanda L Hines
 Address: 301 4th Street
Glen Dale, WV 26038

Name: _____
 Address: _____

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

Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
 Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: Consol Mining Company LLC
 Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
 Name: _____
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: see attached
 Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
 Name: _____
 Address: _____

*Please attach additional forms if necessary

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WW-6A Notice of Application Attachment (Hines Pad)

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEOR(S):

Bobby G Baker ✓
RD 3 Box 249
Moundsville, WV 26041

Mark G. Grandstaff ✓
762 Toms Run Rd
Moundsville, WV 26041

Tobias & Jessica Brown ✓
873 Toms Run Lane
Moundsville, WV 26041

Edward D. Knuth ✓
747 Toms Run Lane
Moundsville, WV 26041

Morgan Lacefield ✓
77 Bridge St. Plz
Moundsville, WV 26041

Gerald Oliver ✓
816 Toms Run Lane
Moundsville, WV 26041

Chevron U.S.A. Inc.
800 Mountain View Drive
Smithfield, PA 15478

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Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

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Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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WV Department of
Environmental Protection
08/01/2017

WW-6A
(8-13)

API NO. 47- _____
OPERATOR WELL NO. Hines M10H
Well Pad Name: Hines

Notice is hereby given by:

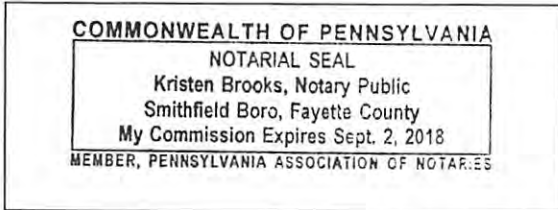
Well Operator: Chevron Appalachia, LLC
Telephone: 724-564-3700
Email: _____

Address: 800 Mountain View Drive
Smithfield, PA 15478
Facsimile: 724-564-3894

Jenny Hayes

Oil and Gas Privacy Notice:

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



Subscribed and sworn before me this 13th day of March 2017.

Kristen Brooks

Notary Public

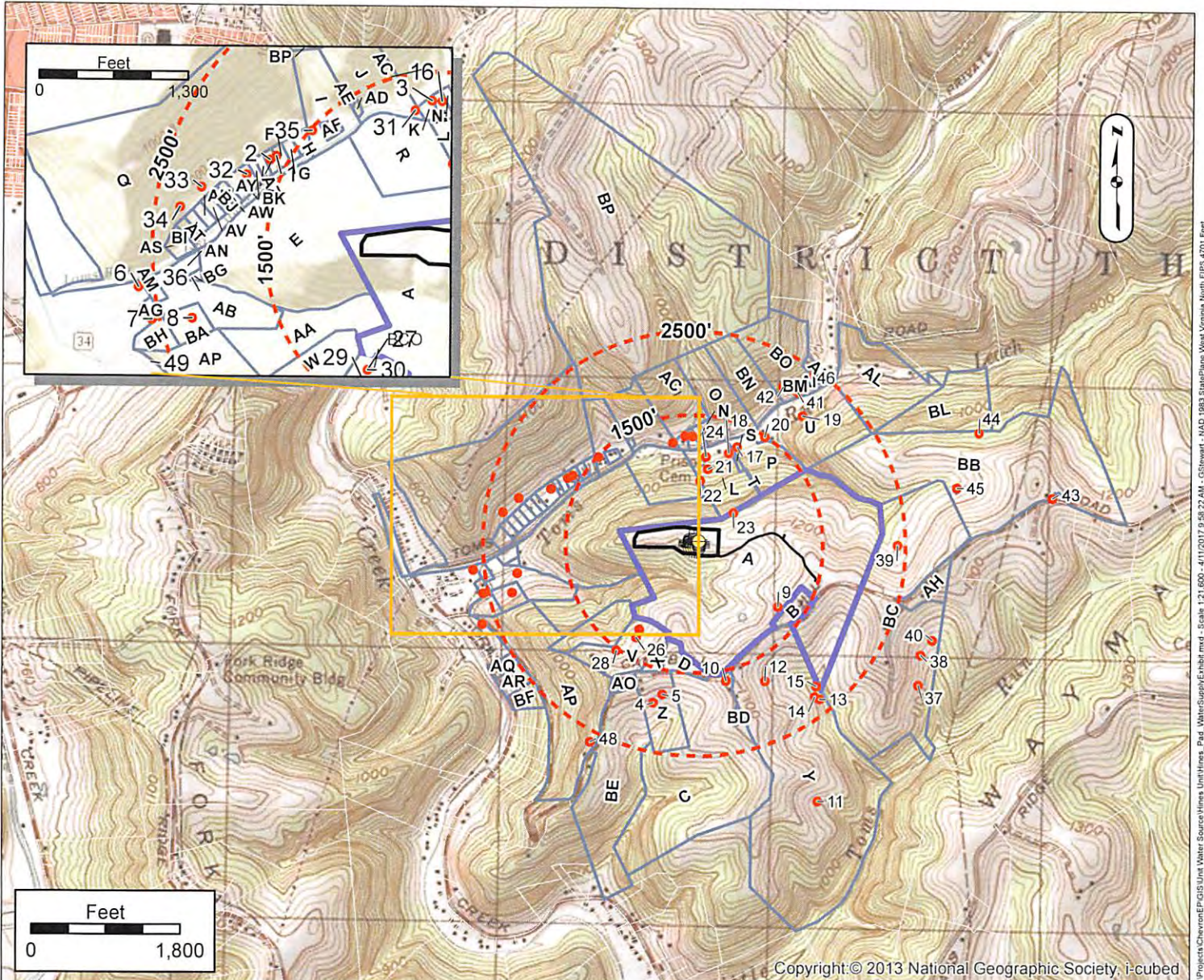
My Commission Expires Sept. 2, 2018.

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WV Department of
Environmental Protection
08/18/2017



WATER SUPPLY EXHIBIT HINES PAD



LOT OWNERS

| Label | OWNER | TM | Label | OWNER | TM | Label | OWNER | TM | Label | OWNER | TM |
|-------|---------------------------|----------------------|-------|-------------------------------|----------------------|-------|------------------------------|----------------------|-------|--------------------------------|----------------------|
| A | HINES DONALD ET UX | 25-14 12003000000000 | Q | HALL CHARLES R | 25-14 12002400000000 | AG | GOODNIGHT ARNIE | 25-14 12006700020000 | AW | YOHOLLYE WAYNE | 25-14 12000070000000 |
| B | GOSSETT LANCE J ET UX | 25-14 12003000020000 | R | STATE OF W VA | 25-14 12002500000000 | AH | ROBERTS EARNEST L ET UX | 25-14 12001100010000 | AX | | 25-14 12009999000000 |
| C | PARSONS HENRY T EST ET AL | 25-14 12003130000000 | S | FITZSIMMONS JOHN E & ANGELA L | 25-14 12002700010000 | AI | PYLES RONNIE ET UX | 25-14 90040000000000 | AY | SMITH PAUL K & BETTY - LIFE | 25-14 12000090000000 |
| D | WOOD CLESTONE HINES | 25-14 12003000040000 | T | KNUTH EDWARD DAVID & KATHY JD | 25-14 12002800010000 | AJ | THOMAS WILLIAM H ET UX | 25-14 90019000010000 | AZ | ANDLINGER SANDRA SUE & LORRI A | 25-14 12001100000000 |
| E | GOODNIGHT ARNIE N ET UX | 25-14 12002500000000 | U | BEUCE JOHN A ET UX | 25-14 12002900000000 | AK | THOMAS WILLIAM H ET UX | 25-14 90019000020000 | BA | GOODNIGHT OSCAR J | 25-14 12006700050000 |
| F | BROWN TERRY K ET UX | 25-14 12002100000000 | V | LACEFIELD MORGAN T | 25-14 12003000010000 | AL | BRADY ROGER A ET UX | 25-14 90019000030000 | BB | RIE DARY L JR | 25-14 11000100000000 |
| G | TUCKER JESS L & HELEN | 25-14 12000120000000 | W | LACEFIELD MORGAN T | 25-14 12003000050000 | AM | HARTLEY PHILLIS C | 25-14 12006700050000 | BC | MOSKINS PATRICIA SUE | 25-14 12001100000000 |
| H | YOHOLLYE RAYMOND P | 25-14 12000130000000 | X | WOODS CLESE | 25-14 12003000060000 | AN | | 25-14 12006700030000 | BD | FULLER ROBERT B ET UX | 25-14 12001100010000 |
| I | MCCARTNEY MICHAEL J ET UX | 25-14 90045000000000 | Y | GOULDSBERRY DOUGLAS EDWARD ET | 25-14 12003200000000 | AO | PARSONS HENRY T JR & VIOLET | 25-14 12004500010000 | BE | PARSONS HENRY T EST ET AL | 25-14 12004500000000 |
| J | LUCAS LEONARD L ET UX | 25-14 90045000000000 | Z | BOSTON DONALD M ET UX | 25-14 12003300020000 | AP | VAN SCYOC DELBERT M ET UX | 25-14 12006700000000 | BF | HARVETH GEORGE R ET UX | 25-14 12006400000000 |
| K | BAKER BOBBY G ET UX | 25-14 90044000100000 | AA | GOODNIGHT ARNIE N ET UX | 25-14 12006600000000 | AQ | JENKINS MICHAEL LEE ET UX | 25-14 12006400060000 | BG | | 25-14 12006400010000 |
| L | KNUTH EDWARD DAVID ET UX | 25-14 12002700000000 | AB | GOODNIGHT GEORGE ET UX ESTS | 25-14 12006700000000 | AR | SCHNEIDER JOHN M & FALLINE J | 25-14 12006400080000 | BH | GOODNIGHT ARNIE | 25-14 12006700010000 |
| M | GRANDSTAFF ELMER JR ET UX | 25-14 90044000300000 | AC | LUCAS LEONARD L ET UX | 25-14 90044000300000 | AS | THOMAS HENRY ET UX | 25-14 12000100000000 | BI | HOLT MARVIN JUNIOR ET UX LIFE | 25-14 12000100000000 |
| N | BAKER BRUCE W ET UX | 25-14 90044000400000 | AD | LUCAS LEONARD L ET UX | 25-14 90044000100000 | AT | WHITELATCH DEBBIE ANN | 25-14 12000200000000 | BJ | YOHOLLYE WAYNE | 25-14 12000070000000 |
| O | OLIVER GERALD ET AL | 25-14 90044000000000 | AE | LUCAS LEONARD L ET UX | 25-14 90044000200000 | AU | FOSTER NORMA | 25-14 12000040000000 | BK | CHURCH OF GOD 7TH DAY TRUSTEES | 25-14 12000080000000 |
| P | BROWN TOBIAS & JESSICA | 25-14 12002800000000 | AF | MCCARTNEY MICHAEL J ET UX | 25-14 90045000100000 | AV | FOSTER NORMA | 25-14 12000050000000 | BL | BRADY ROGER A ET UX | 25-14 90015000000000 |

Surface Owner: DONALD HINES
 Oil/Gas Owner: DONALD HINES
 Well Operator: CHEVRON APPALACHIA, LLC
 Address: 800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA. 15478
 Phone: 724-564-3700

County: MARSHALL
 Township: MOUNDSVILLE, WV
 Surveyor: SERVICES, INC.
 Address: 301 COMMERCE PARK DRIVE
CRANBERRY TOWNSHIP, PA 16066
 Phone: 800-267-2549

NOTICE: THE INTENT OF THIS EXHIBIT IS TO IDENTIFY EXISTING WATER SUPPLIES IN THE VICINITY OF A PROPOSED GAS WELL, AND IS NOT A COMPLETE PROPERTY SURVEY. PROPERTY LINES AND OWNER INFORMATION WERE OBTAINED FROM DEEDS, TAX RECORDS, AERIAL PHOTOGRAPHY, GIS, AND FIELD SURVEYED EVIDENCE.

L:\Projects\Chevron\GIS\Water Supply\Hines Pad\WaterSupplyExhibit.mxd - Scale: 1:21,600 - 4/11/2017 9:56:22 AM - G:\Shewert - NAD 1983 StatePlane West Virginia North (FPS 4701) Feet



WATER SUPPLY EXHIBIT
HINES PAD



| No. | WATER PURVEYOR | SUPPLY | ELEV. | ADDRESS | PHONE # |
|-----|---------------------------------------|----------|--------|-------------------------|--------------|
| 1 | ANDLINGER, SANDRA S. & KORN, LORI A. | Well | 724 | 2315 HANCOCK STREET | 304-280-1108 |
| 2 | ANDLINGER, SANDRA S. (& D. ANDLINGER) | Well | 754 | 2315 HANCOCK STREET | 304-280-1108 |
| 3 | BAKER, BOBBY G. | Well | 621 | RD 3 BOX 249 | 304-845-1836 |
| 4 | BOSTON, DONALD M. | Spring | 1,029 | 1770 CAMPBELL HILL ROAD | 304-845-2506 |
| 5 | BOSTON, DONALD M. | Spring | 1,075 | 1770 CAMPBELL HILL ROAD | 304-845-2506 |
| 6 | GOODNIGHT, ARNIE N. | Well | 556 | 102 GOODNIGHT LANE | 304-845-8505 |
| 7 | GOODNIGHT, ARNIE N. | Well | 654 | 102 GOODNIGHT LANE | 304-845-8505 |
| 8 | GOODNIGHT, OSCAR J. | Well | 654 | 77 GOODNIGHT LANE | 304-845-3813 |
| 9 | GOSSETT, LANCE J. | Spring | 1,134 | 1256 CAMPBELL HILL RD | 304-639-4065 |
| 10 | GOULDSBERRY, DOUGLAS E. | Dug well | 1,293* | 1584 CAMPBELL HILL RD | 304-830-1265 |
| 11 | GOULDSBERRY, DOUGLAS E. | Spring | 1,112* | 1584 CAMPBELL HILL RD | 304-830-1265 |
| 12 | GOULDSBERRY, DOUGLAS E. | Spring | 1,177* | 1584 CAMPBELL HILL RD | 304-830-1265 |
| 13 | GOULDSBERRY, DOUGLAS E. | Spring | 1,062* | 1584 CAMPBELL HILL RD | 304-830-1265 |
| 14 | GOULDSBERRY, DOUGLAS E. | Stream | 1,072* | 1584 CAMPBELL HILL RD | 304-830-1265 |
| 15 | GOULDSBERRY, DOUGLAS E. | Stream | 1,078* | 1584 CAMPBELL HILL RD | 304-830-1265 |

| No. | SUPPLY COORDINATES | H04M | H05M | H06M | H07M | H08M | H09M | H10M | H11M |
|-----|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 39°54'30.344" N 80°42'15.973" W | 1,634 | 1,641 | 1,648 | 1,655 | 1,681 | 1,674 | 1,667 | 1,660 |
| 2 | 39°54'30.006" N 80°42'16.667" W | 1,665 | 1,672 | 1,679 | 1,685 | 1,712 | 1,706 | 1,699 | 1,693 |
| 3 | 39°54'35.290" N 80°41'58.567" W | 1,294 | 1,309 | 1,324 | 1,339 | 1,341 | 1,326 | 1,312 | 1,297 |
| 4 | 39°54'03.560" N 80°42'02.858" W | 1,963 | 1,948 | 1,933 | 1,919 | 1,924 | 1,939 | 1,954 | 1,969 |
| 5 | 39°54'04.579" N 80°42'01.465" W | 1,841 | 1,827 | 1,812 | 1,797 | 1,801 | 1,816 | 1,831 | 1,846 |
| 6 | 39°54'18.882" N 80°42'31.161" W | 2,640 | 2,637 | 2,635 | 2,632 | 2,662 | 2,664 | 2,667 | 2,669 |
| 7 | 39°54'16.135" N 80°42'29.577" W | 2,573 | 2,569 | 2,565 | 2,561 | 2,590 | 2,594 | 2,598 | 2,602 |
| 8 | 39°54'16.293" N 80°42'25.095" W | 2,232 | 2,227 | 2,223 | 2,218 | 2,247 | 2,251 | 2,256 | 2,260 |
| 9 | 39°54'15.123" N 80°41'43.681" W | 1,321 | 1,313 | 1,305 | 1,297 | 1,272 | 1,280 | 1,288 | 1,296 |
| 10 | 39°54'06.289" N 80°41'51.626" W | 1,709 | 1,695 | 1,681 | 1,667 | 1,658 | 1,672 | 1,686 | 1,701 |
| 11 | 39°53'52.097" N 80°41'37.093" W | 3,472 | 3,459 | 3,446 | 3,433 | 3,418 | 3,431 | 3,444 | 3,458 |
| 12 | 39°54'06.339" N 80°41'45.499" W | 1,892 | 1,880 | 1,867 | 1,854 | 1,838 | 1,851 | 1,864 | 1,877 |
| 13 | 39°54'04.283" N 80°41'37.017" W | 2,449 | 2,438 | 2,427 | 2,416 | 2,395 | 2,406 | 2,417 | 2,428 |
| 14 | 39°54'04.579" N 80°41'37.755" W | 2,388 | 2,377 | 2,366 | 2,355 | 2,335 | 2,346 | 2,357 | 2,368 |
| 15 | 39°54'05.810" N 80°41'37.546" W | 2,306 | 2,295 | 2,285 | 2,274 | 2,253 | 2,264 | 2,274 | 2,285 |

4705101072
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 APR 24 2017
 WV Department of
 Environmental Protection
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*ELEVATIONS SHOWN ARE INTERPOLATED FROM LIDAR TOPO AND SUPPLY COORDINATES ARE FROM OTHERS.



WATER SUPPLY EXHIBIT
HINES PAD



| No. | WATER PURVEYOR | SUPPLY | ELEV. | ADDRESS | PHONE # |
|-----|-----------------------------|--------|-------|----------------------|--------------|
| 16 | GRANDSTAFF, MARK G. | Well | 617 | 762 TOMS RUN RD | 304-780-8287 |
| 17 | BROWN, TOBIAS & JESSICA | Well | 769 | 873 TOMS RUN LANE | 304-374-3857 |
| 18 | KNUTH, EDWARD D | Spring | 811 | 747 TOMS RUN LANE | 304-845-7519 |
| 19 | HARDING, JODI L. & TERRY A. | Spring | 752 | 899 TOMS RUN LANE | 304-845-6315 |
| 20 | HARDING, JODI L. & TERRY A. | Stream | 712 | 899 TOMS RUN LANE | 304-845-6315 |
| 21 | KNUTH, EDWARD D | Spring | 747 | 747 TOMS RUN LANE | 304-845-7519 |
| 22 | KNUTH, EDWARD D | Spring | 826 | 747 TOMS RUN LANE | 304-845-7519 |
| 23 | KNUTH, EDWARD D | Spring | 996 | 747 TOMS RUN LANE | 304-845-7519 |
| 24 | KNUTH, EDWARD D | Well | 692 | 747 TOMS RUN LANE | 304-845-7519 |
| 25 | LACEFIELD, MORGAN | Spring | 1,142 | 77 BRIDGE STREET PLZ | 304-639-0727 |
| 26 | LACEFIELD, MORGAN | Spring | 1,195 | 77 BRIDGE STREET PLZ | 304-639-0727 |
| 27 | LACEFIELD, MORGAN | Spring | 1,145 | 77 BRIDGE STREET PLZ | 304-639-0727 |
| 28 | LACEFIELD, MORGAN | Spring | 1,142 | 77 BRIDGE STREET PLZ | 304-639-0727 |
| 29 | LACEFIELD, MORGAN | Spring | 1,195 | 77 BRIDGE STREET PLZ | 304-639-0727 |
| 30 | LACEFIELD, MORGAN | Spring | 1,145 | 77 BRIDGE STREET PLZ | 304-639-0727 |

| No. | SUPPLY COORDINATES | H04M | H05M | H06M | H07M | H08M | H09M | H10M | H11M |
|-----|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 16 | 39°54'35.265" N 80°41'57.447" W | 1,289 | 1,304 | 1,319 | 1,334 | 1,335 | 1,320 | 1,305 | 1,290 |
| 17 | 39°54'34.110" N 80°41'50.506" W | 1,297 | 1,311 | 1,325 | 1,339 | 1,327 | 1,313 | 1,299 | 1,285 |
| 18 | 39°54'33.332" N 80°41'51.777" W | 1,185 | 1,199 | 1,213 | 1,227 | 1,217 | 1,203 | 1,189 | 1,175 |
| 19 | 39°54'37.871" N 80°41'40.362" W | 2,056 | 2,067 | 2,079 | 2,091 | 2,072 | 2,060 | 2,048 | 2,037 |
| 20 | 39°54'35.305" N 80°41'46.201" W | 1,571 | 1,583 | 1,596 | 1,609 | 1,593 | 1,580 | 1,567 | 1,555 |
| 21 | 39°54'31.392" N 80°41'54.974" W | 921 | 935 | 950 | 965 | 960 | 945 | 930 | 915 |
| 22 | 39°54'29.966" N 80°41'56.148" W | 762 | 777 | 791 | 806 | 803 | 788 | 773 | 758 |
| 23 | 39°54'26.226" N 80°41'50.920" W | 644 | 653 | 662 | 672 | 649 | 639 | 629 | 620 |
| 24 | 39°54'32.857" N 80°41'55.287" W | 1,061 | 1,076 | 1,091 | 1,106 | 1,102 | 1,087 | 1,072 | 1,057 |
| 25 | 39°54'09.647" N 80°42'08.715" W | 1,564 | 1,551 | 1,539 | 1,526 | 1,543 | 1,555 | 1,568 | 1,580 |
| 26 | 39°54'11.242" N 80°42'05.723" W | 1,305 | 1,292 | 1,278 | 1,265 | 1,280 | 1,293 | 1,306 | 1,319 |
| 27 | 39°54'12.196" N 80°42'05.270" W | 1,203 | 1,190 | 1,177 | 1,164 | 1,179 | 1,192 | 1,205 | 1,218 |
| 28 | 39°54'09.647" N 80°42'08.715" W | 1,564 | 1,551 | 1,539 | 1,526 | 1,543 | 1,555 | 1,568 | 1,580 |
| 29 | 39°54'11.242" N 80°42'05.723" W | 1,305 | 1,292 | 1,278 | 1,265 | 1,280 | 1,293 | 1,306 | 1,319 |
| 30 | 39°54'12.196" N 80°42'05.270" W | 1,203 | 1,190 | 1,177 | 1,164 | 1,179 | 1,192 | 1,205 | 1,218 |

*ELEVATIONS SHOWN ARE INTERPOLATED FROM LIDAR TOPO AND SUPPLY COORDINATES ARE FROM OTHERS.

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Office of Oil and Gas
APR 24 2017
WV Department of
Environmental Protection
08/18/2017



WATER SUPPLY EXHIBIT
HINES PAD



| No. | WATER PURVEYOR | SUPPLY | ELEV. | ADDRESS | PHONE # |
|-----|----------------------|--------|-------|---|--------------|
| 31 | OLIVER, GERALD | Stream | 734* | 816 TOMS RUN LANE | 304-845-7675 |
| 32 | SCAMELHORN, DENISE | Well | 705 | 432 TOMS RUN LANE | 304-810-0336 |
| 33 | SCAMELHORN, DENISE | Spring | 737 | 432 TOMS RUN LANE | 304-810-0336 |
| 34 | SCAMELHORN, DENISE | Spring | 767 | 432 TOMS RUN LANE | 304-810-0336 |
| 35 | YOHO, RAYMOND P. | Well | 726 | 524 TOMS RUN LANE | 304-845-5250 |
| 36 | GOODNIGHT OSCAR J | Well | 642 | 77 GOODNIGHT LANE MOUNDSVILLE, WV 26041 | 304-845-3813 |
| 37 | HOSKINS PATRICIA SUE | Spring | 1026 | 19 CHARLES DRIVE MOUNDSVILLE, WV 26041 | 304-845-9769 |
| 38 | HOSKINS PATRICIA SUE | Spring | 1094 | 19 CHARLES DRIVE MOUNDSVILLE, WV 26041 | 304-845-9769 |
| 39 | HOSKINS PATRICIA SUE | Spring | 1016 | 19 CHARLES DRIVE MOUNDSVILLE, WV 26041 | 304-845-9769 |
| 40 | HOSKINS PATRICIA SUE | Pond | 1117 | 19 CHARLES DRIVE MOUNDSVILLE, WV 26041 | 304-845-9769 |
| 41 | PYLES RONNIE E ET UX | Well | 895 | 1056 TOMS RUN LANE MOUNDSVILLE, WV 26041 | 304-845-2288 |
| 42 | PYLES RONNIE E ET UX | Spring | 705 | 1056 TOMS RUN LANE MOUNDSVILLE, WV 26041 | 304-845-2288 |
| 43 | RINE OKEY L JR | Well | 1307 | 6 TRACY LANE MOUNDSVILLE, WV 26041 | 304-845-1533 |
| 44 | RINE OKEY L JR | Pond | 1130 | 6 TRACY LANE MOUNDSVILLE, WV 26041 | 304-845-1533 |
| 45 | RINE OKEY L JR | Pond | 1132 | 6 TRACY LANE MOUNDSVILLE, WV 26041 | 304-845-1533 |

| No. | SUPPLY COORDINATES | H04M | H05M | H06M | H07M | H08M | H09M | H10M | H11M |
|-----|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 31 | 39°54'34.462" N 80°42'00.486" W | 1,228 | 1,243 | 1,258 | 1,272 | 1,279 | 1,264 | 1,249 | 1,235 |
| 32 | 39°54'28.713" N 80°42'19.263" W | 1,798 | 1,803 | 1,808 | 1,813 | 1,842 | 1,837 | 1,832 | 1,827 |
| 33 | 39°54'27.565" N 80°42'24.278" W | 2,139 | 2,142 | 2,145 | 2,149 | 2,178 | 2,174 | 2,171 | 2,168 |
| 34 | 39°54'25.851" N 80°42'26.683" W | 2,289 | 2,291 | 2,293 | 2,295 | 2,325 | 2,323 | 2,321 | 2,319 |
| 35 | 39°54'32.558" N 80°42'11.984" W | 1,510 | 1,520 | 1,530 | 1,540 | 1,563 | 1,553 | 1,543 | 1,533 |
| 36 | 39°54'18.6012"N 80°42'24.3252"W | 2,117 | 2,114 | 2,111 | 2,108 | 2,137 | 2,140 | 2,144 | 2,147 |
| 37 | 39°54'06.1092"N 80°41'21.7284"W | 3,254 | 3,247 | 3,240 | 3,233 | 3,214 | 3,215 | 3,221 | 3,228 |
| 38 | 39°54'09.6840"N 80°41'21.4440"W | 3,106 | 3,100 | 3,094 | 3,088 | 3,066 | 3,067 | 3,072 | 3,078 |
| 39 | 39°54'22.6440"N 80°41'25.2816"W | 2,521 | 2,522 | 2,522 | 2,523 | 2,492 | 2,493 | 2,492 | 2,491 |
| 40 | 39°54'11.4516"N 80°41'19.6764"W | 3,163 | 3,159 | 3,154 | 3,149 | 3,125 | 3,126 | 3,130 | 3,135 |
| 41 | 39°54'40.6620"N 80°41'41.1648"W | 2,239 | 2,252 | 2,264 | 2,277 | 2,261 | 2,262 | 2,235 | 2,223 |
| 42 | 39°54'41.2812"N 80°41'43.4832"W | 2,194 | 2,208 | 2,220 | 2,234 | 2,220 | 2,221 | 2,194 | 2,180 |
| 43 | 39°54'28.5516"N 80°41'01.3488"W | 4,428 | 4,431 | 4,433 | 4,436 | 4,404 | 4,405 | 4,401 | 4,399 |
| 44 | 39°54'36.2196"N 80°41'12.9444"W | 3,748 | 3,754 | 3,760 | 3,766 | 3,732 | 3,733 | 3,726 | 3,720 |
| 45 | 39°54'29.6064"N 80°41'16.2096"W | 3,307 | 3,310 | 3,314 | 3,318 | 3,285 | 3,286 | 3,281 | 3,278 |

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Environmental Protection
08/18/2017

*ELEVATIONS SHOWN ARE INTERPOLATED FROM LIDAR TOPO AND SUPPLY COORDINATES ARE FROM OTHERS.



WATER SUPPLY EXHIBIT
HINES PAD



| No. | WATER PURVEYOR | SUPPLY | ELEV. | ADDRESS | PHONE # |
|-----|---------------------------|--------|-------|--|--------------|
| 46 | THOMAS WILLIAM H ET UX | Well | 689 | TOMS RUN RD MOUNDSVILLE, WV 26041 | 304-845-6459 |
| 47 | THOMAS WILLIAM H ET UX | Well | 689 | TOMS RUN RD MOUNDSVILLE, WV 26041 | 304-845-6459 |
| 48 | VAN SCYOC DELBERT M ET UX | Spring | 1137 | 2074 CAMPBELL HILL ROAD MOUNDSVILLE, WV | 304-280-5104 |
| 49 | VAN SCYOC DELBERT M ET UX | Spring | 693 | 2074 CAMPBELL HILL ROAD MOUNDSVILLE, WV | 304-280-5104 |

| No. | SUPPLY COORDINATES | H04M | H05M | H06M | H07M | H08M | H09M | H10M | H11M |
|-----|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 46 | 39°54'42.4584"N 80°41'39.0876"W | 2,481 | 2,493 | 2,506 | 2,518 | 2,502 | 2,489 | 2,477 | 2,464 |
| 47 | 39°54'42.4584"N 80°41'39.0876"W | 2,481 | 2,493 | 2,506 | 2,518 | 2,502 | 2,489 | 2,477 | 2,464 |
| 48 | 39°53'58.7400"N 80°42'12.6180"W | 2,675 | 2,662 | 2,648 | 2,634 | 2,647 | 2,661 | 2,674 | 2,688 |
| 49 | 39°54'12.5064"N 80°42'29.6208"W | 2,690 | 2,685 | 2,679 | 2,673 | 2,701 | 2,707 | 2,712 | 2,718 |

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WV Department of
Environmental Protection
08/18/2017

* ELEVATIONS SHOWN ARE INTERPOLATED FROM LIDAR TOPO AND SUPPLY COORDINATES ARE FROM OTHERS.

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.
Date of Notice: 03/16/2017 **Date Permit Application Filed:** 4/20/17

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

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Donald Hines and Wanda L Hines
Address: 301 4th Street
Glen Dale, WV 26038

Name: _____
Address: _____

Notice is hereby given:

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

| | |
|--|--|
| State: <u>West Virginia</u> | UTM NAD 83 Easting: <u>525708.05</u> |
| County: <u>Marshall</u> | Northing: <u>4417391.37</u> |
| District: <u>Washington</u> | Public Road Access: <u>Route 38/Campbell Hill Road</u> |
| Quadrangle: <u>Moundsville, WV 7.5'</u> | Generally used farm name: <u>Hines</u> |
| Watershed: <u>Middle Grave Creek - Grave Creek</u> | |

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Chevron Appalachia, LLC
Address: 800 Mountain View Drive
Smithfield, PA 15478
Telephone: 724-564-3781
Email: _____
Facsimile: 724-564-3894

Authorized Representative: _____
Address: _____
Telephone: _____
Email: _____
Facsimile: _____

Oil and Gas Privacy Notice:

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

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APR 24 2017
WV Department of
Environmental Protection
09/16/2017

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

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

Date of Notice: 03/16/2017 **Date Permit Application Filed:** 4/20/17

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

- CERTIFIED MAIL** **HAND**
RETURN RECEIPT REQUESTED **DELIVERY**

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

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Donald Hines and Wanda L. Hines
Address: 301 4th Street
Glen Dale, WV 26038

Name: _____
Address: _____

Notice is hereby given:

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

| | | |
|---|---|------------------------------------|
| State: <u>West Virginia</u> | UTM NAD 83 | Easting: <u>525708.05</u> |
| County: <u>Marshall</u> | | Northing: <u>4417391.37</u> |
| District: <u>Washington</u> | Public Road Access: <u>Route 38/Campbell Hill Road</u> | |
| Quadrangle: <u>Moundsville, WV 7.5'</u> | Generally used farm name: <u>Hines</u> | |
| Watershed: <u>Middle Grave Creek - Grave Creek</u> | | |

This Notice Shall Include:

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

Well Operator: Chevron Appalachia, LLC
Telephone: 724-564-3781
Email: _____

Address: 800 Mountain View Dr
Smithfield, PA 15478
Facsimile: 724-564-3894

Oil and Gas Privacy Notice:

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

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Environmental Protection
08/18/2017

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

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

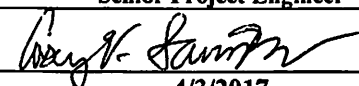
Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Casey V. Saunders, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

| | | | | |
|-------------|----------------------|---------------------------|-----------|----------------------|
| State: | <u>West Virginia</u> | WVSPN NAD 27 | Easting: | <u>1,663,520.742</u> |
| County: | <u>Marshall</u> | | Northing: | <u>514,399.277</u> |
| District: | <u>Washington</u> | Public Road Access: | | |
| Quadrangle: | <u>MOUNDSVILLE</u> | Generally used farm name: | | |
| Watershed: | | | | |

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, provided that Chevron U.S.A. Inc. drills the well on WV North NAD27 coordinates of North 514,399.277, East 1,663,520.742. This statement does not serve as notice that has waived its rights to mine all the coal or accept any responsibility for any damage to the well or surface facilities associated with the well by mining activity. This Voluntary Statement of No Objection does not waive's Common Law Property Rights in the State of West Virginia.

| | |
|---|---|
| <p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input checked="" type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p> | <p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>CONSOL Mining Company, LLC</u></p> <p>By: <u>Casey V. Saunders</u></p> <p>Its: <u>Senior Project Engineer</u></p> <p>Signature: </p> <p>Date: <u>4/3/2017</u></p> <p style="text-align: center;">RECEIVED</p> <p style="text-align: center;">Office of Oil and Gas</p> |
|---|---|

Oil and Gas Privacy Notice:

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

WW-6AW
(1-12)

API NO. _____
OPERATOR WELL NO. Hines M10H
Well Pad Name: Hines

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

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

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Casey V. Saunders, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: West Virginia WVSPN NAD 27 Easting: 1,663,520.742
County: Marshall Northing: 514,399.277
District: Washington Public Road Access: _____
Quadrangle: MOUNDSVILLE Generally used farm name: _____
Watershed: _____

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, provided that Chevron U.S.A. Inc. drills the well on WV North NAD27 coordinates of North 514,399.277, East 1,663,520.742. This statement does not serve as notice that has waived its rights to mine all the coal or accept any responsibility for any damage to the well or surface facilities associated with the well by mining activity. This Voluntary Statement of No Objection does not waive 's Common Law Property Rights in the State of West Virginia.

| | |
|---|--|
| <p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input checked="" type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p> | <p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <hr/> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>CONSOL Mining Company, LLC</u></p> <p>By: <u>Casey V. Saunders</u></p> <p>Its: <u>Senior Project Engineer</u></p> <p>Signature: <u><i>Casey V. Saunders</i></u></p> <p>Date: _____</p> <p style="text-align: right;">4/31 RECEIVED Office of Oil and Gas</p> |
|---|--|

Oil and Gas Privacy Notice:

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

APR 24 2017
WV Department of
Environmental Protection
08/18/2017

**STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION**

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VOLUNTARY STATEMENT OF NO OBJECTION

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| | | | | |
|-------------|---|---------------------------|------------------------------------|-------------------|
| State: | <u>West Virginia</u> | UTM NAD 83 | Easting: | <u>525708.05</u> |
| County: | <u>Marshall</u> | | Northing: | <u>4417391.37</u> |
| District: | <u>Washington</u> | Public Road Access: | <u>Route 38/Campbell Hill Road</u> | |
| Quadrangle: | <u>Moundsville, WV 7.5'</u> | Generally used farm name: | <u>Hines</u> | |
| Watershed: | <u>Middle Grave Creek - Grave Creek</u> | | | |

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

| | |
|--|---|
| <p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input checked="" type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p> | <p align="center">FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p align="center">FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>Chevron U.S.A. Inc.</u></p> <p>By: <u>Chad Eisenman</u></p> <p>Its: <u>Legislative & Regulatory Advisor</u></p> <p>Signature: <u>Chad Eisenman</u></p> <p>Date: <u>4.10.17</u></p> |
|--|---|

Oil and Gas Privacy Notice:

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 Office of Oil and Gas
 APR 24 2017
 WV Department of
 Environmental Protection
 08/18/2017

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

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| | | | | |
|-------------|---|---------------------------|------------------------------------|-------------------|
| State: | <u>West Virginia</u> | UTM NAD 83 | Eastings: | <u>525708.05</u> |
| County: | <u>Marshall</u> | | Northings: | <u>4417391.37</u> |
| District: | <u>Washington</u> | Public Road Access: | <u>Route 38/Campbell Hill Road</u> | |
| Quadrangle: | <u>Moundsville, WV 7.5'</u> | Generally used farm name: | <u>Hines</u> | |
| Watershed: | <u>Middle Grave Creek - Grave Creek</u> | | | |

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

| | |
|--|--|
| <p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input checked="" type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p> | <p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: <u><i>Gerald Oliver</i></u></p> <p>Print Name: <u>GERALD OLIVER</u></p> <p>Date: <u>3-22-17</u></p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: _____</p> <p>By: _____</p> <p>Its: _____</p> <p>Signature: _____</p> <p>Date: _____</p> |
|--|--|

Oil and Gas Privacy Notice:

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

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Jim Justice
Governor

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

February 14, 2017

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

Subject: DOH Permit for the Hines Pad A Well Site, Marshall County

| | | |
|-----------------------------------|-------------------|------------------|
| Hines A Unit M4H | Hines A Unit M5H | Hines A Unit M6H |
| Hines A Unit M7H | Hines A Unit M8H | Hines A Unit M8H |
| Hines A Unit M10H 47-051-01932 | Hines A Unit M11H | |

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2017-0073 for the subject site to Chevron Appalachia, LLC for access to the State Road for the well site located off of Marshall County Route 38 SLS.

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

Very Truly Yours,

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

Cc: Mandy Fordyce
Chevron Appalachia, LLC
CH, OM, D-6
File

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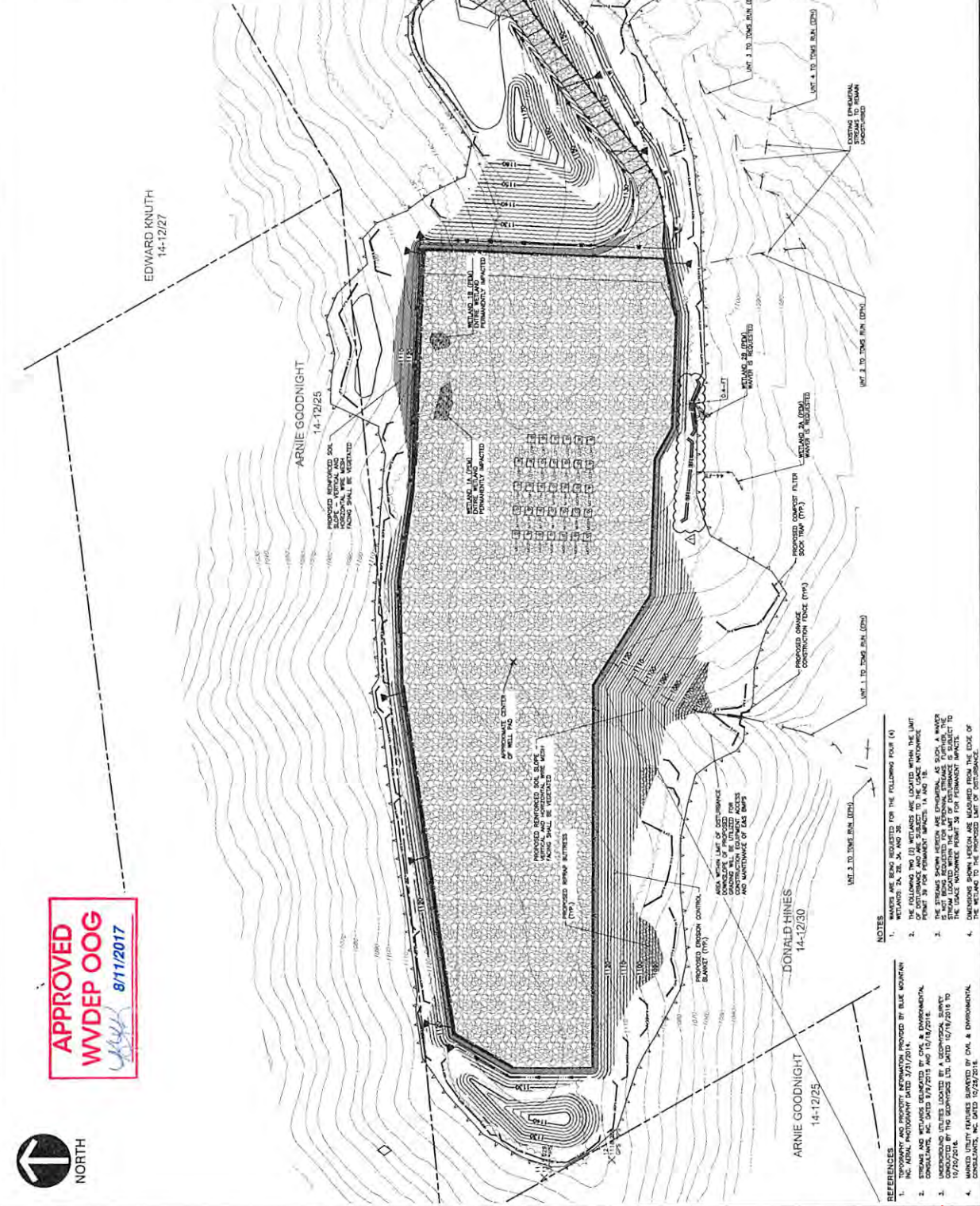
Hydraulic Fracturing Fluid Additives

| Supplier | Name | Purpose |
|-----------------|-----------------------|--|
| Universal | 7.5% HCl Acid | Acid - To open perforations |
| Universal | Unislick ST50 | Friction Reducer for Water and Brine (Anionic) |
| Universal | Scale Inhibitor A | Scale Inhibitor |
| Universal | Iron Control A | Iron Control |
| Universal | Unihib G | Corrosion Inhibitor for Acid |
| Universal | K-Bac 1020 | Biocide/Bactericide |
| Universal | CMHPG (Polyfrac Gel) | Gel |
| Universal | LEB 10X | Gel Breaker |
| Universal | 100 Mesh White Sand | Proppant |
| Universal | 40-70 Mesh White Sand | Proppant |

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| NO. | DATE | DESCRIPTION |
|-----|------------|--------------------------|
| 01 | 07/20/2017 | ISSUED FOR PERMITS |
| 02 | 07/20/2017 | REVISED PER WDEP COMMENT |
| 03 | | |
| 04 | | |
| 05 | | |
| 06 | | |
| 07 | | |
| 08 | | |
| 09 | | |
| 10 | | |



APPROVED
WVDEP OOG
 8/11/2017



- NOTES**
1. WETLANDS TO BE REMOVED FOR THE FOLLOWING FOUR (4) WETLANDS: 2A, 2B, 2C, AND 2D.
 2. THE FOLLOWING TWO (2) WETLANDS ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE USACE MITIGATION PLAN.
 3. THE STREAMS SHOWING WETLANDS ARE EXCLUDED, AS SUCH, A WALKER PLAN BEING SUBMITTED FOR APPROVAL. STREAMS TO BE REMOVED ARE SHOWN WITHIN THE USACE MITIGATION PLAN FOR PERMITS IMPACT.
 4. DIMENSIONS SHOWN HEREON ARE MEASURED FROM THE EDGE OF THE WETLANDS TO THE PROPOSED LIMIT OF DISTURBANCE.

- REFERENCES**
1. THE AERIAL PHOTOGRAPHY PROVIDED BY BLUE WORKMAN CONSULTANTS, INC. DATED 1/17/2016.
 2. STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 1/17/2016 AND 1/18/2016.
 3. WETLANDS WALKER PLAN PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/17/2016 TO 10/20/2016.
 4. DIMENSIONS SHOWN HEREON ARE MEASURED FROM THE EDGE OF THE WETLANDS TO THE PROPOSED LIMIT OF DISTURBANCE.

08/18/2017