



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 M04H
47-051-01926-00-00

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 M04H
Farm Name: DONALD HINES ET UX
U.S. WELL NUMBER: 47-051-01926-00-00
Horizontal 6A / New Drill
Date Issued: 8/15/2017

Promoting a healthy environment.

08/18/2017

PERMIT CONDITIONS

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

CONDITIONS

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.

PERMIT CONDITIONS

- 470510192
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.



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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.

08/18/2017

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:



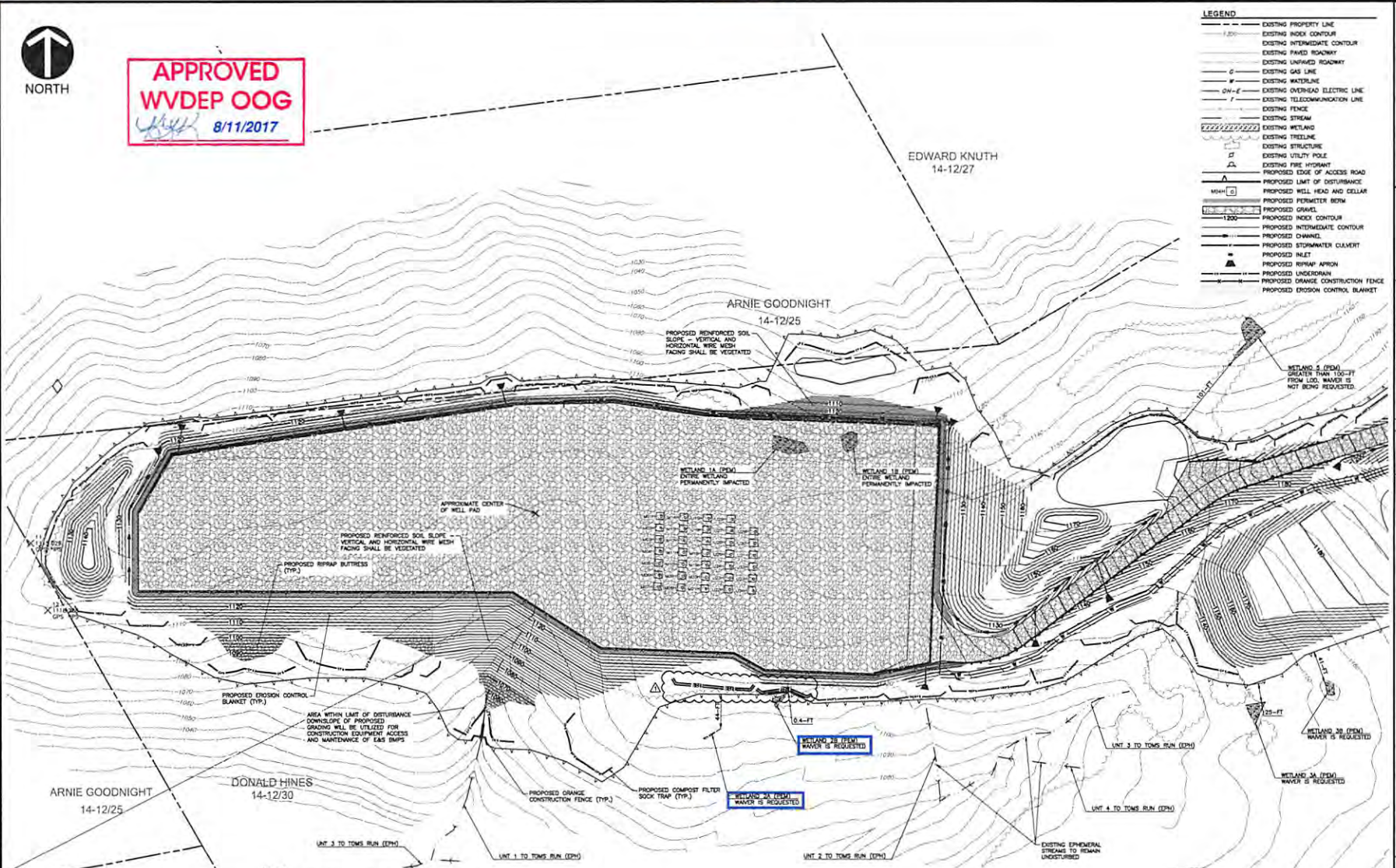
JAMES A. MARTIN, CHIEF



APPROVED
WVDEP OOG
[Signature]
8/11/2017

LEGEND

---	EXISTING PROPERTY LINE
---	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	EXISTING PAVED ROADWAY
---	EXISTING UNPAVED ROADWAY
G	EXISTING GAS LINE
W	EXISTING WATERLINE
OH-E	EXISTING OVERHEAD ELECTRIC LINE
T	EXISTING TELECOMMUNICATION LINE
---	EXISTING FENCE
---	EXISTING STREAM
---	EXISTING WETLAND
---	EXISTING TREELINE
---	EXISTING STRUCTURE
---	EXISTING UTILITY POLE
---	EXISTING FIRE HYDRANT
---	PROPOSED EDGE OF ACCESS ROAD
---	PROPOSED LIMIT OF DISTURBANCE
WHL	PROPOSED WELL HEAD AND CELLAR
---	PROPOSED PERIMETER BERM
---	PROPOSED GRAVEL
---	PROPOSED INDEX CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	PROPOSED CHANNEL
---	PROPOSED STORMWATER CULVERT
---	PROPOSED INLET
---	PROPOSED RIPRAP APRON
---	PROPOSED UNDERDRAIN
---	PROPOSED ORANGE CONSTRUCTION FENCE
---	PROPOSED EROSION CONTROL BLANKET



- NOTES**
1. WAIVERS ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS: 2A, 2B, 3A, AND 3B.
 2. THE FOLLOWING TWO (2) WETLANDS ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE USACE NOTICEDISE PERMIT 38 FOR PERMANENT IMPACTS: 1A AND 1B.
 3. THE STREAMS SHOWN HEREON ARE EPHEMERAL. AS SUCH, A WAIVER IS NOT BEING REQUESTED FOR PERMANENT STREAMS. FURTHER, THE STREAM LOCATED WITHIN THE LIMIT OF DISTURBANCE IS SUBJECT TO THE USACE NOTICEDISE PERMIT 38 FOR PERMANENT IMPACTS.
 4. STRUCTURES SHOWN HEREON ARE LOCATED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

- REFERENCES**
1. TOPOGRAPHY AND PROPERTY INFORMATION PROVIDED BY BLUE MOUNTAIN INC. AERIAL PHOTOGRAPHY DATED 3/31/2014.
 2. STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 8/9/2015 AND 10/18/2016.
 3. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICS LTD. DATED 10/19/2018 TO 10/20/2018.
 4. MAINTENANCE UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/28/2016.



REVISION RECORD

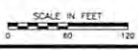
DATE	BY	REVISION
07/20/2017	DT	REVISED PER WVDEP COMMENT

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

WETLAND WAIVER REQUEST FIGURE

Project Number: 164202-0008
Drawing Scale: 1"=20'
Date Issued: 08/02/2017
Index Number:
Drawn By: JAM
Checked By: SVZ
Project Manager: JLM

FIG. 3





Civil & Environmental Consultants, Inc.

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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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;

- 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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ATTACHMENT A

WETLAND AND PERENNIAL STREAM WAIVER REQUEST FORM

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**WV Department of
Environmental Protection**

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: 47-051-01926

Operator's Well Number: M04H

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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Environmental

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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08/18/2017

11/3/14

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

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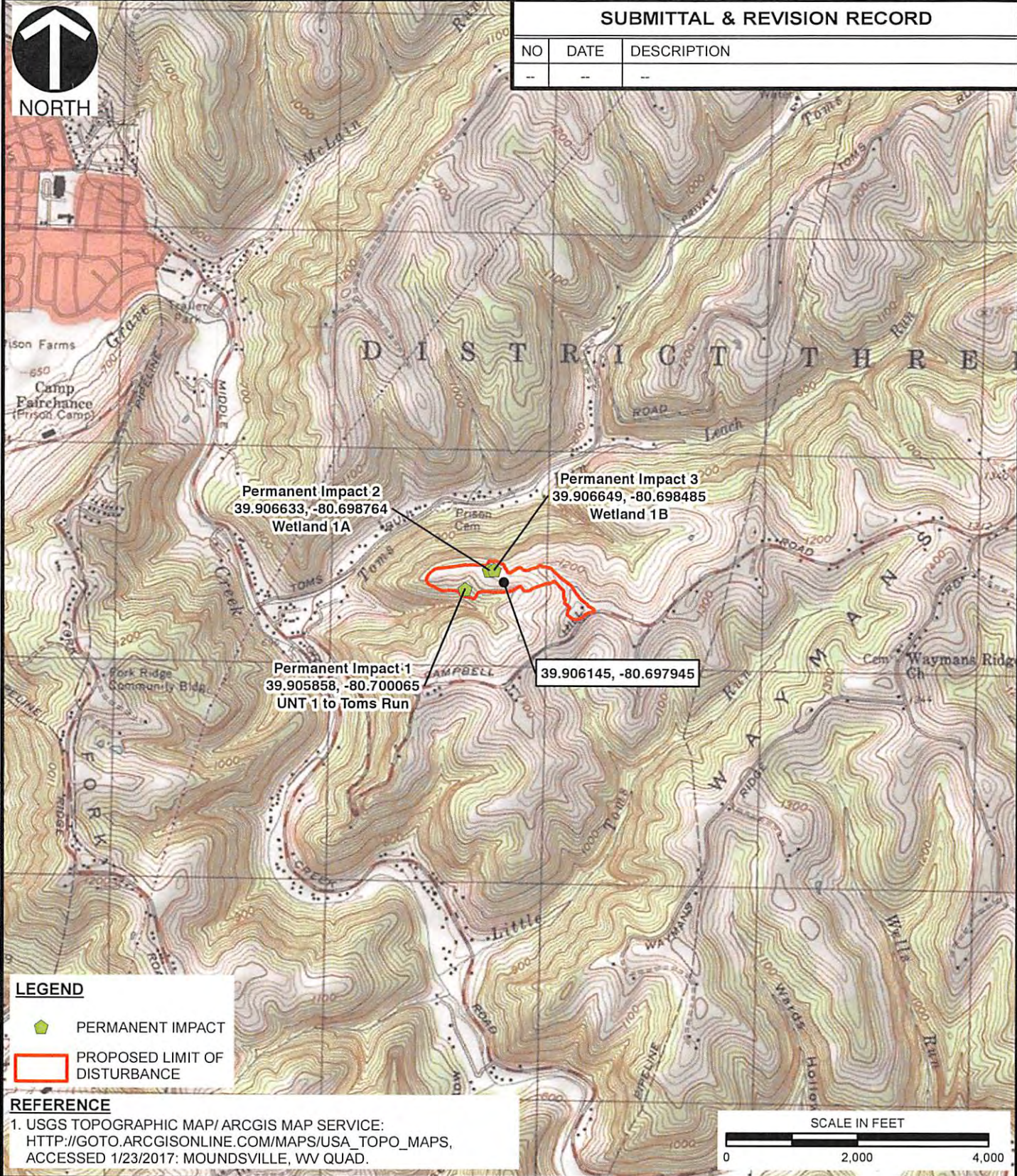
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Environmental Protection
08/18/2017



SUBMITTAL & REVISION RECORD

NO	DATE	DESCRIPTION
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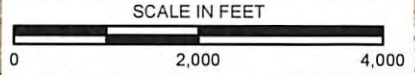


LEGEND

- ◆ PERMANENT IMPACT
- PROPOSED LIMIT OF DISTURBANCE

REFERENCE

1. 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.



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



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, Office of Oil and Gas
 WASHINGTON DISTRICT
 MARSHALL COUNTY, WEST VIRGINIA
 APR 24 2017

USGS SITE LOCATION MAP

DRAWN BY: JDM	CHECKED BY: SVP	APPROVED BY: ^{Hand signature} PAK* _{on file}	FIGURE NO. 1
DATE: 01/24/2017	SCALE: 1" = 2,000'	PROJECT NO: 164-052	WV Department of Environmental Protection 08/18/2017



REVISION RECORD		
NO.	DATE	DESCRIPTION

SUBMITTAL RECORD		
NO.	DATE	DESCRIPTION


LEGEND

PERMANENT IMPACT	WETLAND IMPACT
STREAM IMPACT	WETLAND (PEM)
NHD STREAM	DELINEATION BOUNDARY
EPHEMERAL STREAM	PROPOSED LIMIT OF DISTURBANCE

- REFERENCES**
- NATIONAL HYDROGRAPHY DATASET US GEOLOGICAL SURVEY 2011
 - WQIS CLEARING HOUSE: 10' CONTOURS MOUNDVILLE, WV QUAD 2003
 - ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: HTTP://GOTO.ARCGISONLINE.COM/MAPS/ WORLD IMAGERY ACCESSED 1/20/2017 IMAGERY DATE: 2014

- NOTES**
- THE WETLAND AND STREAM DELINEATION WAS CONDUCTED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. ON 9/2/2015 AND 10/19/2016
 - 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 2015 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (2015 REGIONAL SUPPLEMENT) AND WITH THE LEVEL OF CARE AND SKILL ORDINARILY EXERCISED BY MEMBERS OF THE ENVIRONMENTAL CONSULTING PROFESSION PRACTICING CONTEMPORARILY UNDER SIMILAR CONDITIONS IN THE LOCALITY OF THE PROJECT. IT MUST BE RECORDED: THE WETLAND DELINEATION WAS BASED ON FIELD OBSERVATIONS AND CIVIL & ENVIRONMENTAL CONSULTANTS' PROFESSIONAL INTERPRETATION OF THE CRITERIA IN THE 1987 MANUAL AND THE 2015 REGIONAL SUPPLEMENT. WETLAND DETERMINATIONS MAY CHANGE SUBSEQUENT TO CIVIL & ENVIRONMENTAL CONSULTANTS' DELINEATION BASED ON CHANGES TO REGULATORY CRITERIA, CHANGES TO DRAINAGE, AND OTHER HUMAN ACTIVITIES AND/OR LAND DISTURBANCES.




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 4300 Heritage Lane, Suite 200, Sparks, PA 15622
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CHEVRON APPALACHIA, LLC
HINES WELL PAD
WASHINGTON DISTRICT
MARSHALL COUNTY, WEST VIRGINIA

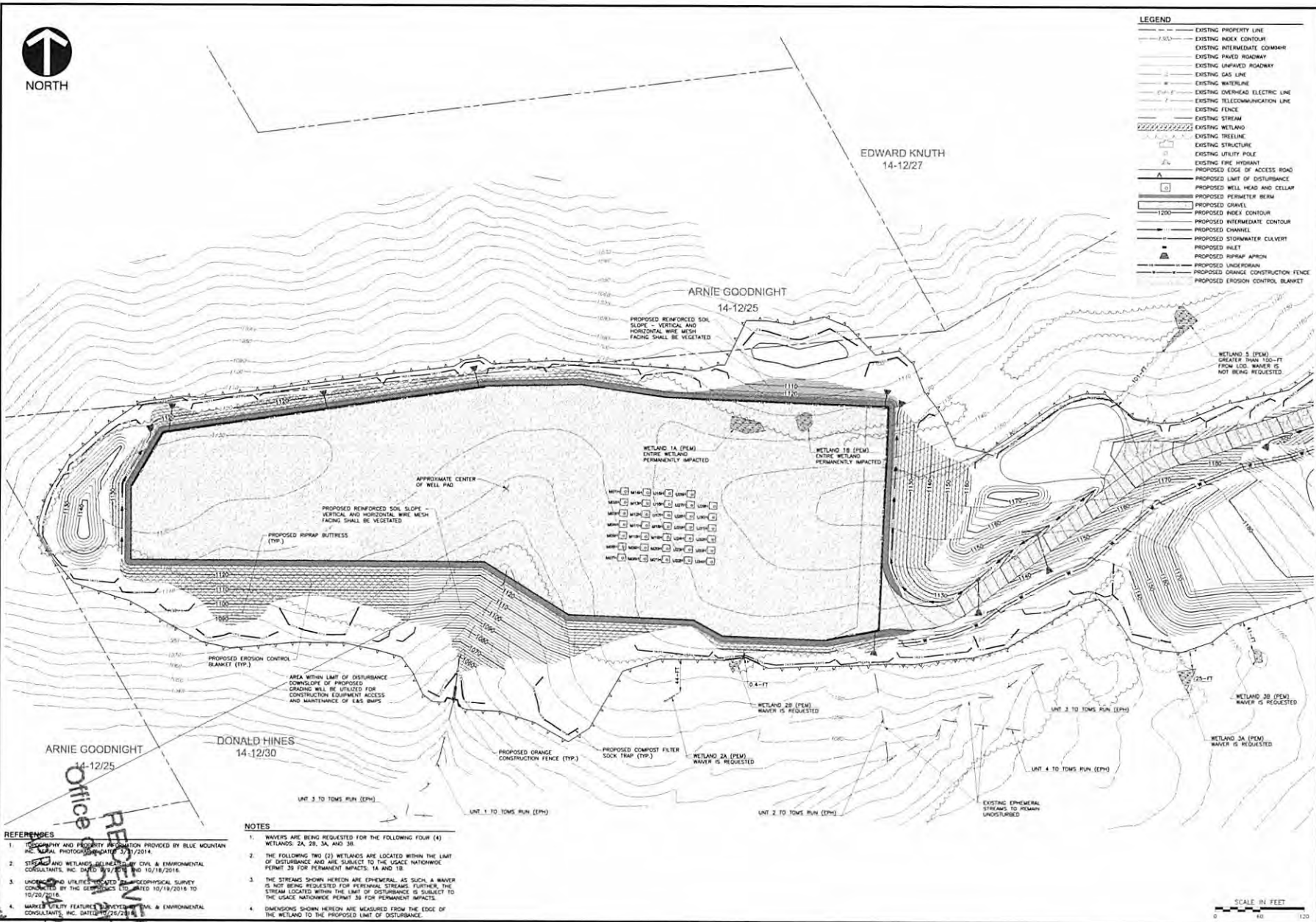
DRAWN BY: SCM	CHECKED BY: SWP	APPROVED BY: [Signature]	PROJECT NO: 164-052
DATE: 01/24/2017	SCALE: 1" = 100'	FIGURE NO: 2	

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



LEGEND

---	EXISTING PROPERTY LINE
---	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	EXISTING PAVED ROADWAY
---	EXISTING UNPAVED 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 INDEX CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	PROPOSED CHANNEL
---	PROPOSED STORMWATER CULVERT
---	PROPOSED INLET
---	PROPOSED RIPRAP APRON
---	PROPOSED UNDERDRAIN
---	PROPOSED ORANGE CONSTRUCTION FENCE
---	PROPOSED EROSION CONTROL BLANKET



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REVISION RECORD

Rev.	No.	Date	Description
01	01		
02	02		
03	03		
04	04		
05	05		
06	06		
07	07		
08	08		

HINES WELL PAD
 CHEVRON APPALACHIA, LLC
 800 MOUNTAIN VIEW DRIVE
 SMITHFIELD, PA 15878

Project Number: 164.052.0038
 Drawing Scale: 1"=60'
 Date Issued: 03/22/2017
 Inset Number:
 Drawn By: JAM
 Checked By: BYP
 Project Manager: DIAK

FIG. 3

Environmental Protection
 WV Department of Environmental Protection
 RECEIVED
 Office of Energy and Gas
 3/22/17

- REFERENCES**
1. LOCATION AND PROPERTY INFORMATION PROVIDED BY BLUE MOUNTAIN INC. AERIAL PHOTOGRAPHY DATED 3/13/2014.
 2. STREAMS AND WETLANDS INVENTORY BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 9/18/2014.
 3. UNDERGROUND UTILITIES LOCATED BY GEOPHYSICAL SURVEY CONDUCTED BY THE GEOTECHNICAL GROUP DATED 10/18/2018 TO 10/20/2018.
 4. MARKET UTILITY FEATURES IDENTIFIED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/25/2018.

- NOTES**
1. WAIVERS ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS: 2A, 2B, 3A, AND 3B.
 2. THE FOLLOWING TWO (2) WETLANDS ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE USACE NATIONWIDE PERMIT 38 FOR PERMANENT IMPACTS: 1A AND 1B.
 3. THE STREAMS SHOWN HEREON ARE EPHEMERAL AS SUCH, A WAIVER IS NOT BEING REQUESTED FOR PERMANENT STREAMS. FURTHER, THE STREAM LOCATED WITHIN THE LIMIT OF DISTURBANCE IS SUBJECT TO THE USACE NATIONWIDE PERMIT 38 FOR PERMANENT IMPACTS.
 4. DIMENSIONS SHOWN HEREON ARE MEASURED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.



ATTACHMENT C
EROSION AND SEDIMENT CONTROL PLAN

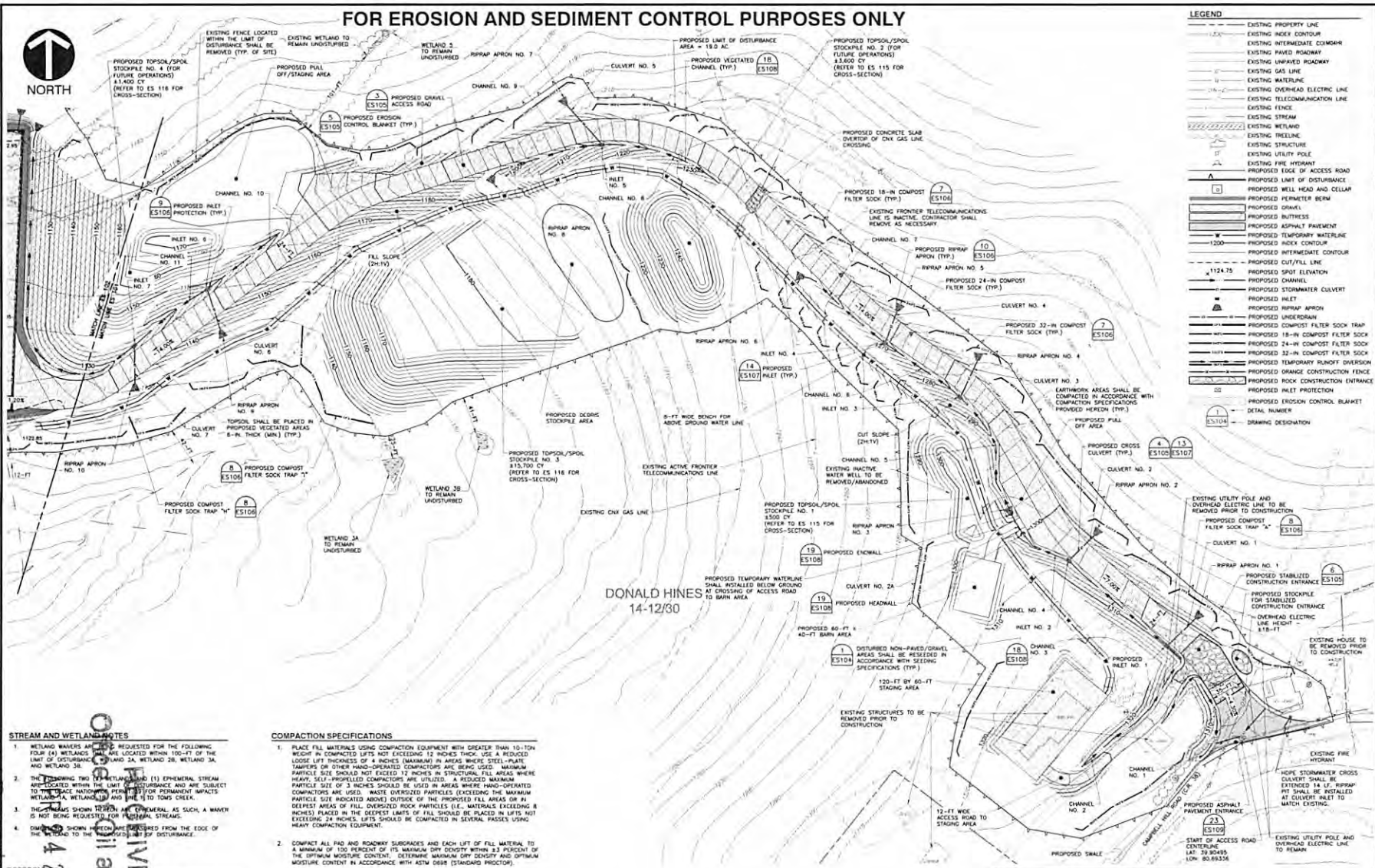
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Office of Oil and Gas

APR 24 2017

WV Department of
Environmental Protection

08/18/2017

FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY



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[Symbol]	PROPOSED 32-IN COMPOST FILTER SOCK
[Symbol]	PROPOSED TEMPORARY RUNOFF DIVERSION
[Symbol]	PROPOSED ORANGE CONSTRUCTION FENCE
[Symbol]	PROPOSED ROCK CONSTRUCTION ENTRANCE
[Symbol]	PROPOSED INLET PROTECTION
[Symbol]	PROPOSED EROSION CONTROL BLANKET
[Symbol]	DETAIL NUMBER
[Symbol]	DRAWING DESIGNATION

DONALD HINES
14-12/30

STREAM AND WETLAND NOTES

1. WETLAND BANKERS ARE REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS THAT ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE: WETLAND 2A, WETLAND 2B, WETLAND 3A, AND WETLAND 3B.
2. THE FOLLOWING TWO (2) WETLANDS (1) EPHEMERAL STREAM ADJACENT WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE STATE NATIONSHIP PERMIT FOR PERMANENT IMPACTS WETLANDS, WETLANDS AND ONE (1) TO TONGUE CREEK.
3. THE STREAMS SHOWN HEREON ARE EPHEMERAL, AS SUCH A WAIVER IS NOT BEING REQUESTED FOR PERMANENT STREAMS.
4. DATA SHOWN HEREON ARE DERIVED FROM THE EDGE OF THE WETLANDS TO THE NEAREST (200-FT) OF DISTURBANCE.

REFERENCES

1. TOPOGRAPHIC AND PROPOSED INFORMATION PROVIDED BY BLUE MOUNTAIN INC. AERIAL PHOTOGRAPHY DATED 1/27/2014.
2. STREAMS AND WETLANDS IDENTIFIED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/18/2016.
3. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICS LTD. DATED 10/19/2016 TO 10/20/2016.
4. MARKET UTILITY FEATURES IDENTIFIED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/18/2016.

COMPACTION SPECIFICATIONS

1. PLACE FILL MATERIALS USING COMPACTION EQUIPMENT WITH GREATER THAN 10-TON WEIGHT IN COMPACTED LIFTS NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LODGE 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 12 INCHES IN STRUCTURAL FILL AREAS WHERE HEAVY, SELF-PROPELLED COMPACTORS ARE UTILIZED. A REDUCED MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 3 INCHES 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 FILL OVERSIZED ROCK PARTICLES (I.E. MATERIALS EXCEEDING 8 INCHES) PLACED IN THE DEEPEST LIMITS OF FILL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 24 INCHES. LIFTS SHOULD BE COMPACTED IN SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
2. COMPACT ALL PAD AND ROADWAY SUBGRADES AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 100 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN 2.5 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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REVISION RECORD

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HINES WELL SITE
WASHINGTON DISTRICT, WEST VIRGINIA
PREPARED FOR
CHEVRON APPALACHIA, LLC
800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA 15883

EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)

Project Number: 154-052 (046)
Drawing Scale: 1"=50'
Date Issued: 03/02/2017
Index Number:
Drawn By: JAM
Checked By: TCB
Project Manager: MJS

ES 101

Environmental Protection

FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY



EDWARD KNUTH
14-12/27

ARNIE GOODNIGHT
14-12/25

DONALD HINES
14-12/30

LEGEND

---	EXISTING PROPERTY LINE
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---	EXISTING INTERMEDIATE CONTOUR
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---	EXISTING UNPAVED ROADWAY
---	EXISTING GAS LINE
---	EXISTING WATERLINE
---	EXISTING OVERHEAD ELECTRIC LINE
---	EXISTING TELECOMMUNICATION LINE
---	EXISTING FENCE
---	EXISTING STREAM
---	EXISTING WETLAND
---	EXISTING TREELINE
---	EXISTING STRUCTURE
---	EXISTING UTILITY POLE
---	EXISTING FIRE HYDRANT
---	PROPOSED EDGE OF ACCESS ROAD
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED WELL HEAD AND CELLAR
---	PROPOSED PERIMETER BEAM
---	PROPOSED GRAVEL
---	PROPOSED BUTTRISS
---	PROPOSED ASPHALT PAVEMENT
---	PROPOSED TEMPORARY WATERLINE
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---	PROPOSED SPOT ELEVATION
---	PROPOSED CHANNEL
---	PROPOSED STORMWATER CULVERT
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---	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 RUNOFF DIVERSION
---	PROPOSED ORANGE CONSTRUCTION FENCE
---	PROPOSED ROCK CONSTRUCTION ENTRANCE
---	PROPOSED INLET PROTECTION
---	PROPOSED EROSION CONTROL BLANKET
---	DETAIL NUMBER
---	DRAWING DESIGNATION

REVISION RECORD

NO.	DATE	DESCRIPTION
1	01/15/16	ISSUED FOR PERMITS
2	01/22/16	ISSUED FOR PERMITS
3	01/29/16	ISSUED FOR PERMITS
4	02/05/16	ISSUED FOR PERMITS
5	02/12/16	ISSUED FOR PERMITS
6	02/19/16	ISSUED FOR PERMITS
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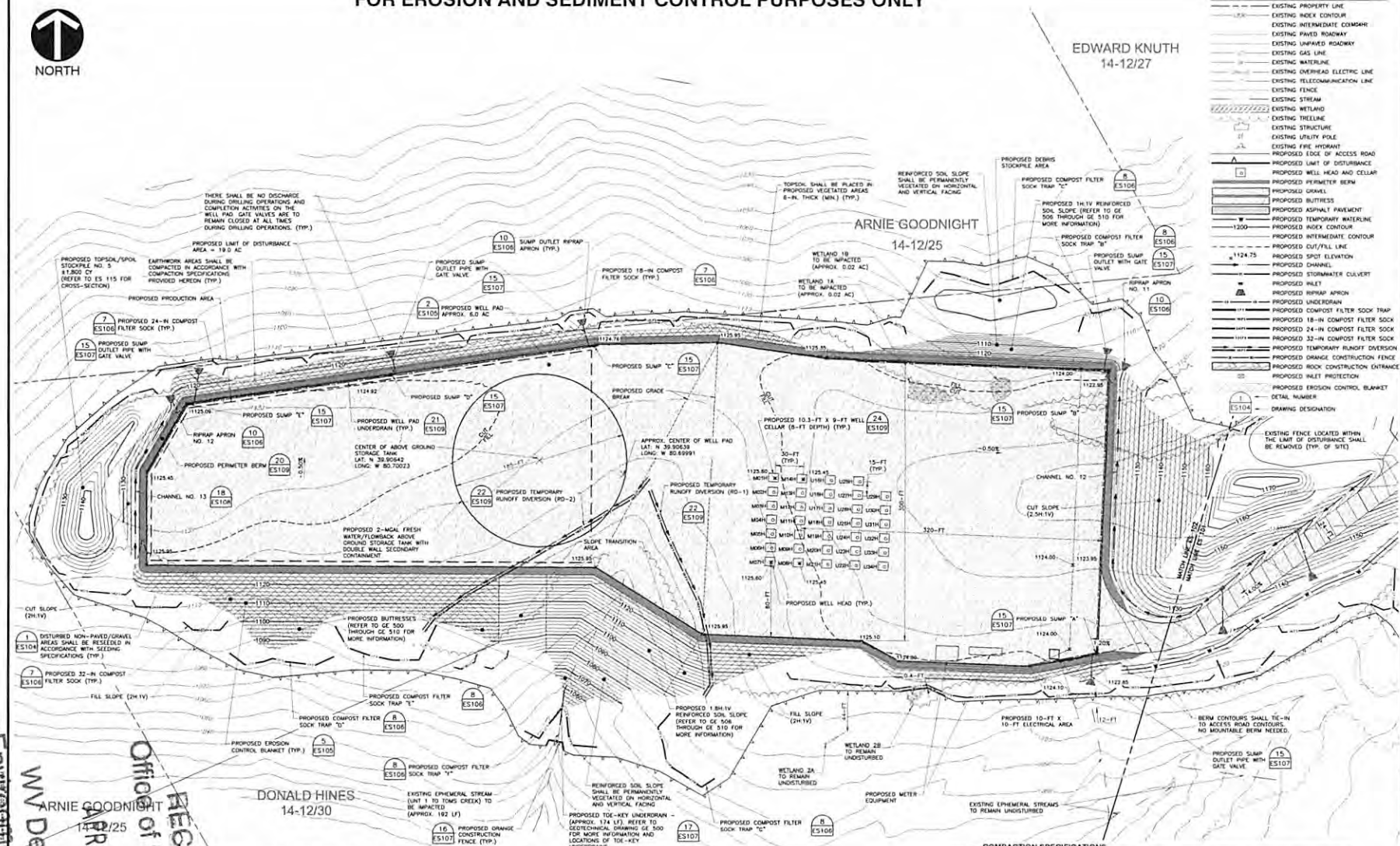


HINES WELL SITE
WASHINGTON DISTRICT
PREPARED FOR
CHEVRON APPALACHIA, LLC
800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA 15288

EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)

Project Number: 1584-002 (0048)
Drawing Scale: 1"=50'
Date Issued: 03/02/2017
Issue Number:
Drawn By: JAM
Checked By: TCB
Project Manager: MJS

ES 102



Office of Environmental Protection
WV Department of Environmental Protection
REC'D
14-12/25
ARNIE GOODNIGHT
14-12/25

REFERENCES

1. TOPOGRAPHY AND PROPERTY INFORMATION PROVIDED BY BLUE MOUNTAIN SURVEYING AND PHOTOGRAPHY DATED 3/24/2016.
2. WETLANDS AND WETLAND DELINEATION BY A PROFESSIONAL CONSULTANT, INC. DATED 10/18/2016.
3. UNDERGROUND UTILITIES LOCATED BY A PROFESSIONAL SURVEY CONSULTANT BY THE CONSULTANTS LTD. DATED 10/15/2016 TO 10/20/2016.
4. ALL UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/26/2016.

STREAM AND WETLAND NOTES

1. WETLAND WAIVERS 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 3A, AND WETLAND 3B.
2. THE FOLLOWING TWO (2) WETLANDS AND (1) EPHEMERAL STREAM ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE LICENSE REQUIREMENTS PERMITS 39 FOR PERMANENT IMPACTS: WETLAND 1A, WETLAND 1B, AND UNIT 1 TO TONS CREEK.
3. THE STREAMS SHOWN HEREON ARE EPHEMERAL. AS SUCH, A WAIVER IS NOT BEING REQUESTED FOR PERMANENT STREAMS.
4. DIMENSIONS SHOWN HEREON ARE MEASURED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

NOTES

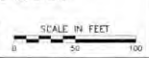
1. CELLARS FOR WELLS WITH THROUGH MAIN TO BE INSTALLED DURING THE INITIAL SITE CONSTRUCTION. THE REMAINING CELLARS TO BE INSTALLED AS THE DRILLING PROGRAM PROGRESSES.
2. RUNOFF DIVERSIONS NO-1 AND NO-2 SHALL BE INSTALLED AT THE START OF THE PROJECT AND BE LEFT IN PLACE DURING REINFORCED SOIL SLOPE CONSTRUCTION UNTIL THE CONSTRUCTION REACHES THE ELEVATION OF THE RUNOFF DIVERSIONS, AT WHICH TIME THE RUNOFF DIVERSIONS MAY BE REMOVED.



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COMPACTION SPECIFICATIONS

1. PLACE FILL MATERIALS USING COMPACTION EQUIPMENT WITH GREATER THAN 10-TON WEIGHT IN COMPACTED LIFTS NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LOOSE LIFT THICKNESS OF 4 INCHES (MAXIMUM) IN AREAS WHERE STEEL-PLATE TAMPORS OR OTHER HAND-OPERATED COMPACTORS ARE BEING USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 12 INCHES IN STRUCTURAL FILL AREAS WHERE HEAVY, SELF-PROPULSED COMPACTORS ARE UTILIZED. A REDUCED MAXIMUM PARTICLE SIZE OF 8 INCHES SHOULD BE USED IN AREAS WHERE HAND-OPERATED COMPACTORS ARE USED. WASTE DIVERSIONS PARTICLES (EXCLUDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE) OUTSIDE OF THE PROPOSED FILL AREAS OR IN DEEPEST AREAS OF FILL, DISTURBED ROCK PARTICLES (I.E., MATERIALS EXCEEDING 8 INCHES) PLACED IN THE DEEPEST AREAS OF FILL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 24 INCHES. LIFTS SHOULD BE COMPACTED IN GENERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
2. COMPACT ALL PAD AND ROADWAY SUBBASES AND EACH LIFT OF FILL MATERIAL TO A MAXIMUM OF 100 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN 4.5 PERCENT OF THE OPTIMUM MOISTURE CONTENT. SET FILLING MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR).



SEDEMENT CONTROL REQUIREMENTS

MARK CLEARING LIMITS

- 1 PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES, CLEARLY MARK ALL LIMITS, EXISTING AREAS AND THEIR BOUNDARIES AND THOSE THAT ARE TO BE PRESERVED WITHIN THE CONSTRUCTION AREA. THESE SHALL BE CLEARLY MARKED BOTH IN THE FIELD AND ON THE PLANS TO PREVENT DAMAGE AND OFFSET IMPACTS.

ESTABLISH CONSTRUCTION ACCESS

- 1 CONSTRUCTION VEHICLES ACCESS AND EXIT SHOULD BE LIMITED TO THE ROUTE IF POSSIBLE.
2 ACCESS POINTS SHALL BE ESTABLISHED WITH CROWNED SUBGRADE TO MINIMIZE THE TRACKING OF SEDIMENT ONTO PUBLIC AND PRIVATE ROADS.
3 WHEEL WASH OR FIRE BATHS SHOULD BE LOCATED ON SITE, IF APPLICABLE.
4 NO SEDIMENT TRACKING ON THE ROADWAY IS ALLOWED. IN THE EVENT THAT SEDIMENT IS UNEXPECTEDLY TRACKED ONTO THE ROAD, THE ROAD SHALL BE CLEANED THOROUGHLY BY THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SPREADING OR PICKUP BEEPING AND SHALL BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHINGS OF SEDIMENTS TO THE STORM DRAINAGE SYSTEM IS NOT ALLOWED. STREET WASH WASTEWATER CAN NOT BE CONTROLLED FROM ENTERING THE STORM DRAINAGE SYSTEM. THEN IT MUST BE PUMPED BACK ONTO THE SITE, CONTAINED AND DISPOSED OF PROPERLY.

INSTALL SEDIMENT CONTROLS

- 1 THE CURF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION SHALL BE RETAINED IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT PRACTICABLE.
2 PRIOR TO LEAVING A CONSTRUCTION SITE, SURFACE WATER RUNOFF FROM DISTURBED AREAS SHALL PASS THROUGH A SEDIMENT BASIN/TRAP OR OTHER APPROPRIATE AND APPROVED SEDIMENT REMOVAL BMP.
3 BMPs INTENDED TO TRAP SEDIMENT ON SITE SHALL BE CONSTRUCTED AS ONE OF THE FIRST STEPS IN GRADING. THESE BMPs SHALL BE FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES TAKE PLACE.
4 EARTHEN STRUCTURES SUCH AS DAMS, DICES AND DIVERSIONS SHALL BE SEEDED AND MULCHED.

STABILIZE SOILS

- 1 EXPOSED AND UNPROTECTED SOILS SHALL BE STABILIZED BY APPLICATION OF SEEDING BMPs THAT PROTECT THE SOIL FROM THE EROSION FORCES OF SANDSIPS, FLOWING WATER, AND WIND. THE GENERAL PERMIT REQUIRES THAT ALL GRADED AREAS THAT ARE AT FINAL GRADE MUST BE SEEDED AND MULCHED WITHIN 7 DAYS AND AREAS THAT WILL NOT BE RESEED AGAIN FOR 1 YEAR OR MORE MUST BE SEEDED AND MULCHED WITHIN 14 DAYS.
2 APPLICABLE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO: TEMPORARY AND PERMANENT SEEDING, SOODING, MULCHING, EROSION CONTROL FABRICS AND MATTING, SOIL APPLICATION OF POLYACRYLAMIDE (PAM), THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE INVEED AND DUFF CONTROL.
3 SELECTED SOIL STABILIZATION MEASURES SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED DURATION OF USE.
4 SOIL STOCKPILES MUST BE STABILIZED AND PROTECTED WITH SEDIMENT TRAPPING MEASURES.
5 LINEAR CONSTRUCTION ACTIVITIES SUCH AS RIGHT-OF-WAY AND SIDEWALK CLEARING, ROADWAY DEVELOPMENT, PIPELINES, AND TRENCHING SHALL BE CONSIDERED TO MEET THE SOIL STABILIZATION REQUIREMENTS. CONTRACTORS SHALL INSTALL THE SEDIMENT MATERIALS, ROADSIDE STRUCTURES, PIPELINES OR UTILITIES AND RE-STABILIZE THE DISTURBED SOILS SO THAT THE 7 DAY REQUIREMENTS ARE MET.

PROTECT SLOPES

- 1 THE GENERAL PERMIT PROHIBITS UPLOUSE RUNOFF FROM FLOODING DOWN HILL SLOPES. CONTAIN FILL RUNOFF WITH TEMPORARY BARRIERS AND IN PILES, SLOPE DRAINS OR STABILIZED CHANNELS.
2 DESIGN, CONSTRUCT AND MAINTAIN CUT AND FILL SLOPES IN A MANNER THAT WILL MINIMIZE EROSION.
3 CONSIDER SOIL TYPE AND ITS POTENTIAL FOR EROSION.
4 REDUCE SOLOE RUNOFF VELOCITIES BY REDUCING CONTINUOUS LENGTHS OF SLOPE WITH BENCHES AND CHECKERS. REDUCE SOLOE STRENGTHS AND REDUCE SOLOE SURFACE.
5 DIVERT SURFACE DRAINAGE AND RUN-OFF WATER WITH INTERCEPTALS AT TOP OF SLOPE. SURFACE WATER FROM OFFSETS SHOULD BE HANDLED SEPARATELY FROM SURFACE WATER SUBSEQUENT ON THE SITE. DIVERSION OF OFFSITE SURFACE WATER AROUND THE SITE MAY BE NECESSARY. DIVERTED FLOW MUST BE REDIRECTED TO THE NATURAL DRAINAGE LOCATION AT OR BEFORE THE PROPERTY BOUNDARY.
6 PROVIDE DRAINAGE TO REMOVE EXCESS WATER INTERSECTING THE SLOPE AREAS OF EXPOSED SOIL AREAS.
7 EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES, CONSISTENT WITH SAFETY AND STABLE CONSIDERATIONS.
8 STABILIZE SOILS ON SLOPES.

CONSTRUCTION SEQUENCE

WELL SITE CONSTRUCTION

- 1 LAYOUT THE LIMITS OF THE DEVELOPMENT AREA AND ESTABLISH BENCHMARKS AND REFERENCE POINTS. STAKE OUT THE LIMIT OF DISTURBANCE FOR WELL PAD GRADING OPERATIONS. IN ADDITION, ORANGE CONSTRUCTION FENCE SHALL BE PLACED AROUND ECOLOGICAL FEATURES (STREAMS/WETLANDS) TO BE PROTECTED DURING SITE OPERATIONS.
2 LOCATE EXISTING UTILITIES WITHIN THE LIMIT OF DISTURBANCE. TAKE CARE NOT TO DAMAGE EXISTING UTILITIES SCHEDULED TO REMAIN IN PLACE DURING CONSTRUCTION. CONCRETE AND/ OR SHALL BE PLACED OUTSIDE OF EXISTING GAS LINES WHERE THE PROPOSED ACCESS ROAD CROSSES THE UTILITY.
3 INSTALL STABILIZED CONSTRUCTION DISTURBANCE AS SHOWN ON THE E&S PLANS AND IN ACCORDANCE WITH THE CONSTRUCTION DETAILS.
4 CLEAR AND GRUB WITHIN THE LIMITS OF DISTURBANCE AND INSTALL COMPOST FILTER SOCK/TRAPS AT THE LOCATIONS SHOWN ON THE E&S PLANS AND IN ACCORDANCE WITH THE CONSTRUCTION DETAILS. STOCKPILE DEBRIS IN LOCATIONS SHOWN ON PLANS. OR REMOVE MATERIAL, OFFSITE AND DISPOSE OF PROPERLY.
5 BEGIN BULK EARTH MOVING AND GRADING OPERATIONS FOR THE WELL PAD AND ACCESS ROAD. STABILIZE WITH GRAVEL, SURFACE AND INSTALL CROSS DRAIN PIPES, BELTS, STORMWATER CONVEYANCE FACILITIES, AND CHANNELS AS REQUIRED IN ACCORDANCE WITH THE DETAILS. INSTALL STORMWATER CONVEYANCE FACILITIES STARTING ON DOWNSTREAM END AND WORK UPSTREAM. INSTALL PILING SYSTEM IN ACCORDANCE WITH THE TRENCH EXCAVATION NOTES. UTILITY EXCAVATED MATERIAL FROM TRENCHING OPERATIONS FOR BACKFILL ON NON-PERFORATED PIPE. STORMWATER CONVEYANCE FACILITY INSTALLATION SHALL BE PERFORMED DURING DRY AND FLOW CONDITIONS. ADJUST INSTALLED E&S BMPs AS NECESSARY TO FACILITATE WORK WHILE MAINTAINING PROTECTION OF STORMWATER FACILITIES. INSTALL ROCK FILTERS BELOW DRAINAGE AND CHANNELS, OUTFALLS AS EACH IS INSTALLED. STOCKPILE TOPSOIL, DEBRIS, AND SITE SOILS AT LOCATIONS INDICATED ON PLANS, OR REMOVE WITHIN, OFFSITE, AND DISPOSE OF PROPERLY. EROSION CONTROL BARRIERS SHALL BE INSTALLED AS REQUIRED IN AREAS WITH SLOPES EXCEEDING 3% W.
6 COMPLETE CONSTRUCTION OF WELL PAD APPURTENANCE FEATURES. STABILIZE SLOPES WITH SEED, MULCH, AND MATTING AS APPROPRIATE. THE WELL PAD SHALL REMAIN UNDISTURBED AS NEEEDED.

WELL PAD AND ACCESS ROAD - SITE RESTORATION

- 1 STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE COMPLETED OR ARE NEARLY COMPLETED.
2 STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE COMPLETED OR ARE NEARLY COMPLETED.
3 STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE COMPLETED OR ARE NEARLY COMPLETED.
4 STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE COMPLETED OR ARE NEARLY COMPLETED.
5 STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE COMPLETED OR ARE NEARLY COMPLETED.
6 STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE COMPLETED OR ARE NEARLY COMPLETED.

PROTECT DRAIN PIPES

- 1 STORM DRAIN PIPES OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SURFACE WATER RUNOFF DOES NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT.
2 APPROACH ROADS SHALL BE KEPT CLEAR.
3 BELTS SHOULD BE INSPECTED WEEKLY AT A MINIMUM AND DAILY DURING STORM EVENTS. BELT PROTECTION DEVICES SHOULD BE CLEANED OR REPLACED BEFORE A RAINFALL OF SEDIMENT CAN ACCUMULATE.

CONVEY STORMWATER IN NON-EROSIVE MANNER

- 1 POINTS OF DISCHARGE AND RECEIVING STREAMS SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY AND PEAK FLOW RATE OF SURFACE WATER RUNOFF FROM THE PROJECT SITE.
2 DESIGN AND ESTABLISH ANY STORMWATER CONVEYANCE FOR PROTECTED FLOWS.
3 CONSIDER ANY LOCAL GOVERNMENT REQUIREMENTS FOR STORMWATER MANAGEMENT.

CONTROL OTHER POLLUTANTS

- 1 ALL POLLUTANTS INCLUDING WASTE MATERIALS AND EMULSION DEBRIS, THAT OCCUR ON SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF SURFACE WATER. WASTY DEBRIS MAY BE CHIPPED AND SPREAD ON SITE.
2 COVER, CONTAINMENT AND PROTECTION FROM MANIPULATION SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS AND NON-HAZARDOUS WASTES PRESENT ON THE SITE.
3 MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL, CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO SURFACE WATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES SUCH AS DIRT PANS CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL. PREVENT EROSION REPAIRS MAY BE PERFORMED ON SITE USING TEMPORARY PLASTIC PLACED BENEATH AND, IF BARRING, OVER THE VEHICLE.
4 WHEEL WASH OR FIRE BATH WASTEWATER SHALL BE DISCHARGED TO A SEPARATE ON SITE TREATMENT SYSTEM OR TO THE SANITARY SEWER.
5 APPLICATION OF AGRICULTURAL CHEMICALS INCLUDING FERTILIZERS AND PESTICIDES SHALL BE CONDUCTED IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO SURFACE WATER RUNOFF. WASTE MANAGEMENT RECOMMENDATIONS FOR APPLICATION RATES AND PROCEDURES SHALL BE FOLLOWED.
6 BMPs SHALL BE USED TO PREVENT OR REDUCE CONTAMINATION OF SURFACE WATER RUNOFF BY SPILLING SOURCES. THESE SOURCES INCLUDE BULK CEMENT, CEMENT MILK DUST, FLY ASH, NEW CONCRETE WASHING AND CURING WATER, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND SAWING, EXPOSED ASBESTOS PROCESSES, AND CONCRETE PUMPING AND WASH WATER SOURCES.

CONTROL DUST

- 1 FOUNDATION, VAULT AND TRENCH DEWATERING WATER SHALL BE DISCHARGED TO A CONTROLLED CONVEYANCE SYSTEM PRIOR TO DISCHARGE TO A COMPOST FILTER SOCK TRAP. CHANNELS MUST BE STABILIZED.
2 CLEAN, NON-TURBID DEWATERING WATER, SUCH AS WELL-POINT GROUND WATER, CAN BE DISCHARGED TO SYSTEMS TREATING TO REUSE SURFACE WATERS, PROVIDED THE DEWATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS. THESE CLEAN WATERS SHOULD NOT BE ROUTED THROUGH SURFACE WATER SEDIMENT PANS.
3 HIGHLY TURBID OR CONTAMINATED DEWATERING WATER FROM CONSTRUCTION EQUIPMENT OPERATION, ON WHICH INSIDE A COPPERPAN SHALL BE HANDLED SEPARATELY FROM SURFACE WATER.

MAINTAIN BMPs

- 1 TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPs SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. MAINTENANCE AND REPAIR SHALL BE CONDUCTED IN ACCORDANCE WITH BMPs.
2 SEDIMENT CONTROL BMPs SHALL BE INSPECTED WEEKLY OR AFTER EACH STORM OF VOLUME OR MORE.
3 TEMPORARY EROSION AND SEDIMENT CONTROL BMPs SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL, RESULTING FROM REMOVAL OF BMPs OR VEGETATION SHALL BE PERMANENTLY ESTABLISHED.

TRENCH EXCAVATION NOTES

- 1 LIMIT PIPE EXCAVATION TO THE HEIGHT OF PIPE THAT CAN BE INSTALLED IN ONE (1) DAY.
2 PLACE EXCAVATED MATERIAL UPLOUSE OF PIPE TRENCH.
3 BACKFILL AND STABILIZE TRENCHES AT THE END OF EACH WORK DAY. STABILIZE WITH SUBBASE MATERIAL IN PAVEMENT AREAS AND WITH SEDIMENT OR VEGETATED AREAS.
4 MAINTAIN GRADED WATER PATER BAGS ON SITE TO DEWATER TRENCHES AS NECESSARY. FILTER BAGS MUST DISCHARGE TO A WELL VEGETATED AREA AT A GRADE LESS THAN 5 PERCENT. ONCE THE BAG IS ONE-HALF FULL OF SEDIMENT, DISPOSE SEDIMENT AT AN APPROVED WASTE FACILITY.

PROJECT DESCRIPTION:

THE PROPOSED PROJECT CONSISTS OF CONSTRUCTING AN APPROXIMATE 6-ACRE PERMANENT GRAVEL WELL PAD FOR NATURAL GAS EXPLORATION PURPOSES. THE WELL PAD WILL BE ACCESSIBLE BY A TEMPORARY GRAVEL ROADWAY APPROXIMATELY 3/4 MILE IN LENGTH AND 24 FEET IN WIDTH, WHICH WILL BYPASS FROM CAMPBELL HILL ROAD (R. 28) TRAVEL NORTH AND WEST, AND TERMINATE AT THE PROPOSED WELL PAD AREA FOR TEMPORARY DEBRIS STORAGE, EARTHMOOR SIGNALS, AND TOPSOIL, ETC. STOCKPILES ARE PROVIDED AS PART OF THE SITE DESIGN. THE LAND COVER AT THE SITE GENERALLY CONSISTS OF GRAZED PASTURE, WOODS, EXISTING SMALLINGS AND APPURTENANCE FARM STRUCTURES. THE SITE IS GENERALLY LOCATED ON A ROSE PALMSHED SOUTH-EAST TO NORTHWEST WITH MODERATELY STEEP SLOPES RANGING IN ELEVATION FROM 1260 FEET TO 1325 FEET BASED ON AERIAL SURVEY TOPOGRAPHY PROVIDED BY BLUE MOUNTAIN, INC.

MINIMIZE THE PROJECT

- 1 PHASING OF CONSTRUCTION / DEVELOPMENT PROJECTS SHALL BE PHASED IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENT FROM THE DEVELOPMENT SITE DURING CONSTRUCTION UNLESS THE PROJECT ENGINEER CAN DEMONSTRATE THAT CONSTRUCTION PHASING IS FEASIBLE. REVEGETATION OF EXPOSED AREAS AND MAINTENANCE OF THAT VEGETATION SHALL BE AN INTEGRAL PART OF THE CLEARING ACTIVITIES FOR ANY PHASE.
2 CLEARING AND REMOVAL ACTIVITIES FOR DEVELOPMENT SHALL BE PERMITTED ONLY IF CONDUCTED PURSUANT TO AN APPROVED SITE DEVELOPMENT PLAN (E.G., SUBDIVISION APPROVAL THAT ESTABLISHES AREAS OF CLEARING, GRADING, CUTTING, AND FILLING). WHEN ESTABLISHING CLEARING AND GRADING AREAS, CONSIDERATION SHOULD BE GIVEN TO MINIMIZING REMOVAL OF EXISTING TREES AND DISTURBANCE AND COMPACTION OF NATIVE SOILS. ANY AREAS REQUIRED TO PRESERVE CRITICAL OR SENSITIVE AREAS, AND BUFFERS, SHALL BE DELINEATED ON BOTH THE PLANS AND THE SITE.
3 COORDINATION WITH UTILITIES AND OTHER CONTRACTORS - THE PRIMARY PROJECT MANAGER SHALL EVALUATE WITH INPUT FROM UTILITIES AND OTHER CONTRACTORS, THE SURFACE WATER MANAGEMENT REQUIREMENTS FOR THE ENTIRE PROJECT, INCLUDING THE UTILITIES, WHEN PREPARING THE E&S PLAN.
4 INSPECTION AND MONITORING - ALL BMPs SHALL BE INSPECTED, MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. WHOMEVER INSPECTS AND/OR MONITORS SHALL REVEAL THAT THE BMPs IDENTIFIED IN THE E&S PLAN ARE INADEQUATE, THE E&S PLAN SHALL BE MODIFIED, AS APPROPRIATE, IN A TIMELY MANNER.
5 REPORTING - REPORT SPILLS OR DISCHARGES OF POLLUTANTS WITHIN 24 HOURS.
6 EQUIPMENT MAINTENANCE - MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL, CHANGES, HYDRAULIC SYSTEM DRAIN DOWN, SOLVENT AND DE-GREASING CLEANING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO SURFACE WATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES, SUCH AS DIRT PANS. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL. PREVENT EROSION REPAIRS MAY BE PERFORMED ON SITE USING TEMPORARY PLASTIC PLACED BENEATH AND, IF RAINING, OVER THE VEHICLE.
7 MAINTENANCE OF THE E&S PLAN - THE E&S PLAN SHALL BE RETAINED ON SITE. THE E&S PLAN SHALL BE MODIFIED WHENEVER THERE IS A SIGNIFICANT CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE OF ANY BMP. THE DEP MUST BE NOTIFIED OF ANY CHANGES TO THE CONSTRUCTION E&S PLAN, DEPENDING ON THE SIGNIFICANCE OF THE REVISION, A PERMIT MODIFICATION MAY NEED TO BE SUBMITTED TO THE DEP.

STABILIZATION

- 1 THE CONSTRUCTION SITE SHOULD BE ESTABLISHED AS SOON AS POSSIBLE AFTER COMPLETION. ESTABLISHMENT OF FINAL COVER MUST BE INITIATED NO LATER THAN 7 DAYS AFTER REACHING FINAL GRADE. A NOTICE OF TERMINATION MUST BE FILED WITH DEP WHICH THE SITE REACHED FINAL STABILIZATION. FINAL STABILIZATION MEANS THAT ALL SOIL-DISTURBING ACTIVITIES ARE COMPLETED AND THAT EITHER A PERMANENT VEGETATIVE COVER WITH A DENSITY OF JOBS OR GRASS HAS BEEN ESTABLISHED OR THAT THE SURFACE HAS BEEN STABILIZED BY HARD COVER SUCH AS PAVEMENT OR BUILDINGS. IT SHOULD BE NOTED THAT THE JOBS REQUIREMENT REFERS TO THE TOTAL AREA VEGETATED AND NOT JUST A PERCENT OF THE SITE.



REVISION RECORD table with columns for Date, Description, and Revision Number.

HINES WELL SITE WASHINGTON DISTRICT BARBERSHILL COUNTY, WEST VIRGINIA PREPARED FOR CHEVRON APPALACHIA, LLC 800 MOUNTAIN VIEW DRIVE SMITHFIELD, PA 15478

DETAILS (1 OF 7) Project Number: 166-022-0040 Drawing Scale: 1/4" = 1' Date Issued: 03/02/2017 Title Number: 10038 Drawn By: JAH Checked By: TCD Project Manager: SJS

Environmental Protection Department of Environmental and Natural Resources

TEMPORARY SEEDING SPECIFICATIONS:

LAWN RAW GROUND AGRICULTURAL LIMESTONE CONTAINING MORE THAN 80 PERCENT CALCIUM CARBONATE ADJUST PH LEVELS TO 6.5 TO 7.0, APPLY AT A RATE OF 3 TONS PER ACRE AT 50% EFFECTIVE NUTRIENT VALUE (N DVN), UNLESS OTHERWISE INDICATED BY SOIL TESTS

COMMERCIAL FERTILIZER IN ABSENCE OF A SOIL TEST, USE 500 POUNDS PER ACRE OF 10-20-20 MIXED INTO SEEDBED PRIOR TO SEEDING OR IN A TANK WITH SEED WHEN HYDROSEEDING. ADJUST AS NECESSARY BASED UPON SEASON, DISTANCE TO WETLANDS AND STREAMS AND SOIL TEST RESULTS

MULCH GRASS HAY OR STRAW, FEED QUALITY HAY OR STRAW, WHEED FREE STRAW OR GRASS HAY OR CEREAL STRAW FREE FROM MATURE SEED BEARING STALKS OR ROOTS OF PROHIBITED OR NOxious WEEDS AS DEFINED BY THE PENNSYLVANIA SEED ACT. HAY APPLY AT A RATE OF 3 TONS PER ACRE OR 5 TONS PER ACRE FOR WINTER STABILIZATION. PRECAUTION SHALL BE TAKEN TO STABILIZE THE MULCH UNTIL THE VEGETATIVE COVER IS ESTABLISHED

SEED MIXTURE SEED MIXTURE SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS AND SHALL BE COMPOSED OF THE FOLLOWING VARIETIES AND USED IN THE PROPORTIONS SPECIFIED

TEMPORARY SEED MIXTURE (TABLE A)	PROPORTION BY WEIGHT	MINIMUM PURITY	MINIMUM GERMINATION
ANNUAL RYEGRASS	100%	95%	85%
WINTER WHEAT	100%	95%	85%
CEREAL RYEGRASS	100%	95%	85%

SEEDING TYPE ANNUAL RYEGRASS SHALL BE USED FOR THE FOLLOWING LAND COVER TYPES: NON-AGRICULTURAL UPLAND, SHELTER ROW, UNMOWED SLOPES/BANKS, HAYFIELD, PASTURELAND, AND CROPLAND. RESIDENTIAL SHELTER ROW #1 AND AROUND MOWED YARDS. DROUGHTY SITES AREAS WHERE ROCK IS BLASTED OR DUG. USUALLY IN FORESTED AREAS WITH ACID SOILS, AND STRIP MOWED OR OTHER UNMOWED AREAS. SITES LACKING PRE-MEDIA RECLAMATION STABILIZATION AREAS WHERE ROCK IS BLASTED OR DUG. USUALLY IN FORESTED AREAS WITH ACID SOILS. WINTER WHEAT SHALL BE USED FOR WINTER STABILIZATION. CEREAL RYEGRASS SHALL BE USED FOR THE FOLLOWING LAND COVER TYPE: WETLAND (STABILIZATION OF GRASS WETLANDS WITHIN THE UTILITY ROW)

SEEDING RATE TEMPORARY SEEDING SHALL BE APPLIED AT RATE OF FIFTY (50) POUNDS PER ACRE EXCEPT FOR WINTER WHEAT WHICH SHALL BE APPLIED AT A RATE OF SEVENTY FIVE (75) POUNDS PER ACRE OR NINETY (90) POUNDS PER ACRE ON ADVERSE SITES

NOTES ALL AREAS TO BE SEEDING SHALL BE LOOSENED TO A DEPTH OF AT LEAST TWO INCHES BY MECHANICAL MEANS, OR AS APPROVED BY THE OWNER

MULCH SEEDING AREAS IMMEDIATELY AFTER SEEDING

HYDROSEEDING WITH TACKLER MAY BE USED IN LBS/1000 SQ. YARD AS APPROVED BY THE OWNER

PERMANENT SEEDING SPECIFICATIONS:

TOPSOIL 4" MIN TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS FOR SITE RECLAMATION

LAWN RAW GROUND AGRICULTURAL LIMESTONE CONTAINING MORE THAN 80 PERCENT CALCIUM CARBONATE ADJUST PH LEVELS TO 6.5 TO 7.0, APPLY AT A RATE OF 3 TONS PER ACRE AT 50% EFFECTIVE NUTRIENT VALUE (N DVN), UNLESS OTHERWISE INDICATED BY SOIL TESTS

LAWN/COMMERCIAL FERTILIZER IN ABSENCE OF A SOIL TEST, USE 500 POUNDS PER ACRE OF 10-20-20 MIXED INTO SEEDBED PRIOR TO SEEDING OR IN A TANK WITH SEED WHEN HYDROSEEDING

MOULCH MOULCH FOR TREATING LITRANISUS SEEDS SHALL BE A STANDARD COMMERCIAL PRODUCT CONSISTING OF A SUITABLE CARRIER CONTAINING A CULTURE OF INTRODUCED BACTERIA SPECIFIC FOR SEEDS TO BE INOCULATED. MOULCH SHALL NOT BE USED LATER THAN DATE INDICATED ON THE CONTAINER

MULCH GRASS HAY OR STRAW, FEED QUALITY HAY OR STRAW, WHEED FREE STRAW OR GRASS HAY OR CEREAL STRAW FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOxious WEEDS AS DEFINED BY THE PENNSYLVANIA SEED ACT. HAY APPLY AT A RATE OF 3 TONS PER ACRE OR 5 TONS PER ACRE FOR WINTER STABILIZATION. PRECAUTION SHALL BE TAKEN TO STABILIZE THE MULCH UNTIL THE VEGETATIVE COVER IS ESTABLISHED

SEED MIXTURE SEED MIXTURE SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS AND SHALL BE COMPOSED OF THE FOLLOWING VARIETIES AND USED IN THE PROPORTIONS SPECIFIED

PERMANENT SEED MIX BY LAND COVER TYPE (TABLE B)	PROPORTION BY WEIGHT	MINIMUM PURITY	MINIMUM GERMINATION
NON-AGRICULTURAL UPLAND SHELTER ROW (UNMOWED SLOPES/BANKS)			
TALL FESCUE (TAMM VARIETY)	57%	95%	85%
DEER TONGUE	15%	95%	85%
LADINO CLOVER	10%	95%	80%
BIRDFOOT TREFLO, UNOCULATED	10%	95%	80%
RED TOP	7%	95%	80%
HAYFIELD PASTURELAND AND CROPLAND MIX			
ORCHARD GRASS	45%	95%	85%
TRITICARY	40%	95%	80%
BIRDFOOT TREFLO, UNOCULATED	10%	95%	80%
LADINO CLOVER	10%	95%	80%

NOTE USE LANDOWNER LEASE STIPULATED MIX IF APPLICABLE

RESIDENTIAL MIX SHELTER ROW #1 AND AROUND MOWED YARDS)

CREEPING RED FESCUE	30%	95%	85%
KEYHOLE BLUEGRASS	20%	95%	85%
PIE PERSIMMON RYEGRASS	15%	95%	80%
ASPEN PERENNIAL RYEGRASS	15%	95%	80%
ASPEN PERENNIAL RYEGRASS	15%	95%	80%

FLOODPLAIN AEROSOL BUFFER MIX (ENVIRONMENTAL PROTECTION AGENCY 40 CFR 155.306)

DEERTONGUE "TODD"	30%	95%	75%
VIRGINIA WILDRIVE	15%	95%	85%
BIG BLUESTEM "THUNDER"	15%	95%	85%
FOX SODDE, PA ECOTYPE	10%	95%	85%
INTHORNALIS "CANTHAGE"	10%	95%	85%
BLUE VETCHMAN, PA ECOTYPE	10%	95%	75%
BOWSETT, PA ECOTYPE	10%	95%	75%
GRASS BLUE LORRAINE, PA ECOTYPE	7%	95%	85%
PERENNIAL BROMUS, PA ECOTYPE	7%	95%	85%
CUTE BUNFLOWER, PA ECOTYPE	7%	95%	85%
BROWN TIPS, PA ECOTYPE	7%	95%	85%
JOE PEE PEE, PA ECOTYPE	7%	95%	85%
SHARP MOUND, PA ECOTYPE	7%	95%	85%
PURPLESTEM, PA ECOTYPE	7%	95%	85%
WILD REDSTART, PA ECOTYPE	7%	95%	85%

DROUGHTY SITES AREAS WHERE ROCK IS BLASTED OR DUG USUALLY IN FORESTED AREAS WITH ACID SOILS

HARD FESCUE	50%	95%	85%
SHEEP FESCUE	50%	95%	85%
CHEWING GRASS	50%	95%	85%
CREEPING RED FESCUE	50%	95%	85%
ORCHARD GRASS	50%	95%	85%
WHITE CLOVER	50%	95%	85%
RED TOP	50%	95%	85%

STRIP MOWED OR OTHER UNMOWED AREAS SHELTER ROW #1 AND AROUND MOWED YARDS AREAS WHERE ROCK IS BLASTED OR DUG OR CONDITIONS WITH AN ADOPTING COMPOUND)

TALL FESCUE (TAMM VARIETY)	25%	95%	85%
DEER TONGUE GRASS	15%	95%	85%
BIRDFOOT TREFLO (UNOCULATED)	15%	95%	80%
ORCHARD GRASS	15%	95%	85%
CHEWING GRASS	15%	95%	85%
CREEPING RED FESCUE	10%	95%	85%
HARD FESCUE	7%	95%	85%
ALBINO CLOVER	7%	95%	85%
RED TOP	7%	95%	85%

DETAIL 1 SEEDING SPECIFICATIONS

NOTES

- NON-AGRICULTURAL UPLAND SEED MIXTURE SHALL BE UTILIZED FOR THIS PROJECT. ALTERNATIVES SHALL BE APPROVED BY CHEVON
- THIS DETAIL PREPARED BY CHEVON

SEEDING RATE PERMANENT SEEDING SHALL BE APPLIED AT THE FOLLOWING RATES:

NON-AGRICULTURAL UPLAND	175 LBS / ACRE
HAYFIELD PASTURELAND AND CROPLAND	200 LBS / ACRE
RESIDENTIAL FLOODPLAIN	250 LBS / ACRE
RESIDENTIAL FLOODPLAIN	300 LBS / ACRE OR 90 LBS/ACRE GRASS HAY COVER
DROUGHTY SITES	150 LBS / ACRE
STRIP MOWED OR OTHER UNMOWED AREAS	175 LBS / ACRE

PREPARATION OF SEEDING GRASS AS NECESSARY TO BEING SUBGRADE TO A TRUE, SMOOTH SLOPE PARALLEL TO AND 60 INCHES BELOW FINISHED GRADE. PLACE TOPSOIL OVER SPECIFIED AREAS TO A DEPTH SUFFICIENTLY GREATER THAN 60 INCHES SO THAT AFTER SETTLEMENT AND LIGHT ROLLING THE COMPLETE WORK WILL CONFORM TO LINE 8, GRADES AND ELEVATIONS SHOWN

GENERAL NOTES FERTILIZER AND AGRICULTURAL LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL BY ROTOTILLAGE OR OTHER METHOD TO A MINIMUM DEPTH OF FOUR (4) INCHES. THE ENTIRE SURFACE SHALL THEN BE REGRADDED AND ROLLED. AREAS TO BE SEEDING SHALL THEN BE LOOSENED TO A DEPTH OF TWO (2) INCHES. SEEDING SHALL BE DONE IN TWO SEPARATE OPERATIONS. THE SECOND SEEDING SHALL BE DONE IMMEDIATELY AFTER THE FIRST AND AT RIGHT ANGLES TO THE FIRST SEEDING AND LIGHTLY RAKED INTO THE SOIL. MULCH SEEDING AREAS IMMEDIATELY AFTER SEEDING

AN OWNER APPROVED BONDED FIBER MATRIX (BPM) MAY BE USED IN LIEU OF EROSION CONTROL BLANKET PRIOR TO HYDROSEEDING

GRASS SEED COMPOSING TO THE WEST VIRGINIA DEPARTMENT OF AGRICULTURE RULE TITLE #1 LEGISLATIVE RULES, SERIES # WEST VIRGINIA SEED LAW, FILED ON APRIL 30, 2004 WITH AN EFFECTIVE DATE OF JULY 1, 2004. MEET ALL OTHER APPLICABLE REGULATIONS OF THE WEST VIRGINIA DEPARTMENT OF AGRICULTURE. PROVIDE SEEDS THAT HAVE BEEN SEEDING AND APPROVED FOR THE SPECIFIED SEEDING VARIETIES, GERMINATION AND SEED TEST ANALYSIS LIMITS AND OTHER APPLICABLE DEPARTMENT OF AGRICULTURE RULES FOR SEED TESTING

GENERAL SEED NOTES: LEGUME SEED SHOULD BE INOCULATED APPROPRIATE TO THE SPECIES. SEEDS OF THE LEPIDOPTERA, THE CLOVERES AND THE CROTONACEAE SHOULD BE INOCULATED TO PROMOTE UNIFORM GERMINATION. APPLY SEED UNIFORMITY WITH A BROADCAST SEEDER, DRILL, CATHY-HACKER SEEDER OR HYDROSEEDER. SEEDING DEPTH SHOULD BE A QUARTER TO HALF INCH. TO AVOID POOR GERMINATION RATES AS A RESULT OF SEED DAMAGE DURING HYDROSEEDING, IT IS RECOMMENDED THAT IF A MACHINERY BREAKDOWN OF 30 MINUTES TO TWO HOURS OCCURS, 60 PERCENT MORE SEED BE ADDED TO THE TANK, BASED ON THE PROPORTION OF THE SLURRY REMAINING IN THE TANK, BEYOND TWO HOURS, A FULL RATE OF SEED SHOULD BE USED. SURFACE ROUGHNESS IS PARTICULARLY IMPORTANT WHEN HYDROSEEDING AS A ROUNDED SLOPE WILL PROVIDE SOME NATURAL COVERAGE FOR LIME, FERTILIZER AND SEED. LEGUME INOCULANTS SHOULD BE APPLIED AT FIVE TIMES THE RECOMMENDED RATE WHEN THE INOCULANT IS INCLUDED IN THE HYDROSEEDER SLURRY

THE PLOD PLOT MIX IS NO LONGER AN OPTION UNLESS SPECIFIED BY LEASE STIPULATION. CHEVON SEED MIXES HAVE PLANT SPECIFIC MIXES FOR PLOD PLOTS. CROUCHY CLOVERS AND OTHER PERENNIAL HERBS CAN BE UTILIZED AS REQUIRED

FLOODPLAIN OPTIMAL SEEDING MONTHS - OCTOBER THROUGH MAY IN FULL SUN OR PARTIAL SHADE

SEEDING PERIODS MARCH 15 - MAY 31 AND AUGUST 1 TO SEPTEMBER 15

GOOD SEEDING PERIOD (OPTIMUM SEEDING) - DECEMBER 1 TO MARCH 14

HIGH RISK PERIOD (MONTHLY STRESS LIKELY) - JUNE 1 TO JULY 31

HIGH RISK PERIOD (PRECEDZ DAMAGE TO YOUNG SEEDLINGS) - OCTOBER 1 TO NOVEMBER 30

PROJECT CONDITIONS WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT

TEMPORARY SEEDING: TEMPORARY SEED WHERE EXPOSED SOIL SURFACES ARE NOT TO BE PINE-GRADED FOR PERIODS OF LONGER THAN 31 DAYS. SUCH AREAS INCLUDE DITCHED AREAS, SOIL STOCKPILES, DRAIN CANALS, SLOES OF SEDIMENT BASINS, TEMPORARY ROAD BANKS, ETC. A PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO AREAS LEFT UNMOWED FOR A PERIOD OF MORE THAN 60 MONTHS

EMBANKMENTS AND CUTS CONSTRUCTED DURING THE WINTER SEASON SHALL BE CONSTRUCTED AND CUTS CONSTRUCTED DURING THE WINTER SEASON SHALL BE TREATED AS FOLLOWS

MULCH ALONG - FOR EMBANKMENTS OR CUTS 1:5 TO 1:1 ON FLATTER, SUSCEPTIBLE TO CRITICAL EROSION DURING PERIODS OF COLD WEATHER, THE OWNER MAY REQUIRE A FIVE TON PER ACRE APPLICATION GRASS HAY OR CEREAL STRAW FREE OF PROHIBITED WEED SEEDS. A CHEMICAL MULCH UNDER OTHER TACKLER SHALL BE USED FOR ANCHORING MULCH UPON OWNER APPROVAL. WHEN THE WEATHER BECOMES FAVORABLE IN THE SPRING THESE AREAS SHALL BE SEEDING USING THE NORMAL APPLICATION RATES OF SEED.

FERTILIZER AND LIME IF ADDITIONAL MULCH IS NEEDED: WOOD CELLULOSE FIBER HAY OR STRAW SHALL BE USED. THE RATE OF APPLICATION AND AREAS TO BE MULCHED WITH WOOD CELLULOSE FIBER HAY OR STRAW SHALL BE AS DETERMINED BY THE OWNER.

TEMPORARY SEED MIX - IF REQUIRED BY THE OWNER, THE ABOVE AREAS SHALL ALSO BE SEEDING WITH A WINTER STABILIZATION MIX. SUCH MIX SHALL BE ONE HUNDRED PERCENT WINTER WHEAT APPLIED AT SEVENTY FIVE (75) POUNDS PER ACRE OR NINETY (90) POUNDS PER ACRE ON ADVERSE SITES



REVISION RECORD

No.	Date	Description
1		
2		
3		
4		
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6		
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8		

HINES WELL SITE
WASHINGTON DISTRICT
MARSHALL COUNTY, WEST VIRGINIA

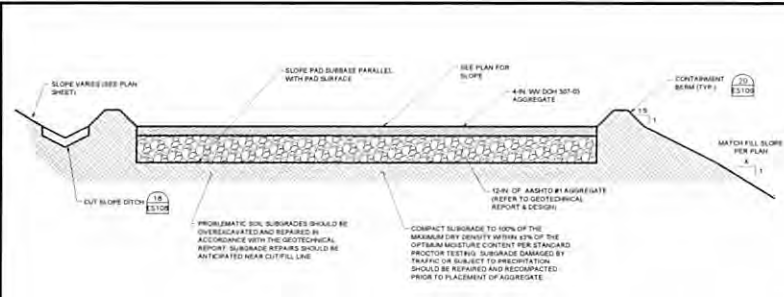
PREPARED FOR:
CHEVON APPALACHIA, LLC
800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA 15176

DETAILS (2 OF 7)

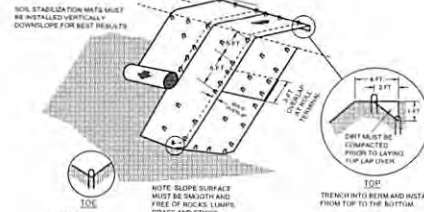
Project Number: 354-032-0040
Drawing Scale: R1:5
Date Issued: 03/02/2017
Index Number:
Drawn By: JAS
Checked By: TCB
Project Manager: MZS

ES 104

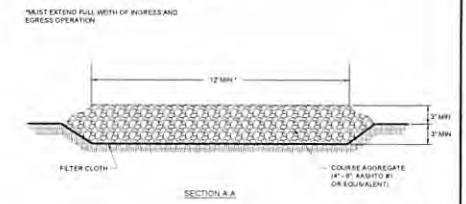
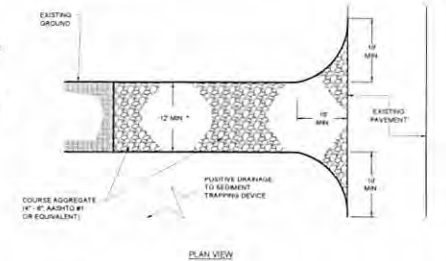
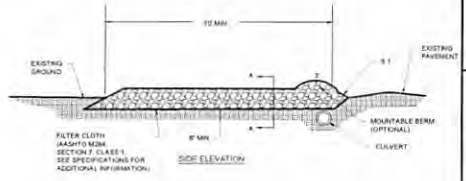
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APR 24 2017
Environmental Protection
WV Department of Environmental Protection



**DETAIL 2
WELL PAD SECTION**
NOT TO SCALE



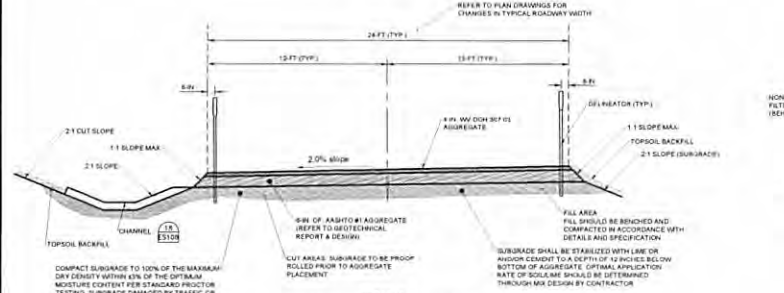
FILL SLOPE SECTION



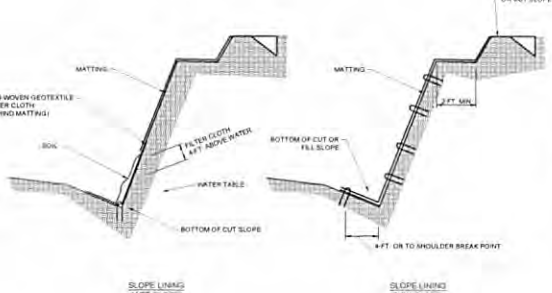
MAINTENANCE
THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONAL DEMANDS AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLS, GUMPS, WHEELS OR TRACKS 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 ON AN AREA STABILIZED WITH STONE AND WASH DRAINING INTO APPROVED SEDIMENT TRAPPING DEVICE. IF THE STREET IS WASHED, PRECAUTIONS MUST BE TAKEN TO PREVENT MUD/WATER FROM RUNNING INTO WATERWAYS OR STORM SEWERS. INSPECTION AND NEEDED MAINTENANCE SHOULD BE PROVIDED ONLY BY A MEMBER OF EVERY SEVEN DAYS AND AFTER EVERY RAIN OF 1/8-INCH OR GREATER.

NOTE
1 THIS DETAIL PREPARED BY CHEVRON

**DETAIL 6
ROCK CONSTRUCTION ENTRANCE**
NOT TO SCALE

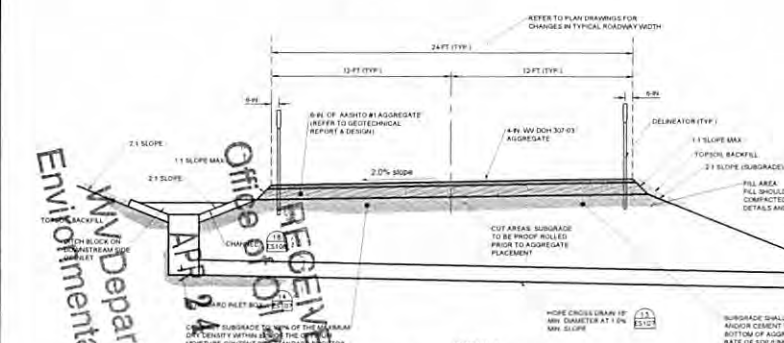


**DETAIL 3
ACCESS ROAD TYPICAL SECTION**
NOT TO SCALE



NOTE
1 THIS DETAIL PREPARED BY CHEVRON

**DETAIL 5
EROSION CONTROL BLANKET**
NOT TO SCALE



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

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 Office of
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 Gas
 2
 4
 7

CEE
Civil & Environmental Consultants, Inc.
1600 Triangle Lane, Suite 200 - Export, PA 15622
724-237-0300 800-899-3410



REVISION RECORD

NO.	DATE	DESCRIPTION
1		
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HINES WELL SITE
WASHINGTON DISTRICT, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA 15878

DETAILS (3 OF 7)

Project Number: 164.052.0040
Drawing Scale: 1" = 1'-0"
Date Issued: 03/20/2017
Issue Number:
Drawn By: JMS
Checked By: TCB
Project Manager: MJS

ES 105

ATTACHMENT D
USACE NATIONWIDE PERMIT 39 APPLICATION

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

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)

a. Address- Hines Donald ET UX - 301 4TH Street

City - Glen Dale State - West Virginia Zip - 26038

b. Address- Gossett Lance J ET UX - RD 1 BOX 428 A

City - Moundsville State - West Virginia Zip - 26041

c. Address- Goodnight Arnie N ET UX - RD 1 BOX 437

City - Moundsville State - West Virginia Zip - 26041

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

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

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	

* Would include but is not restricted to zoning, building, and flood plain permits

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.

Jenny Hayes
SIGNATURE OF APPLICANT

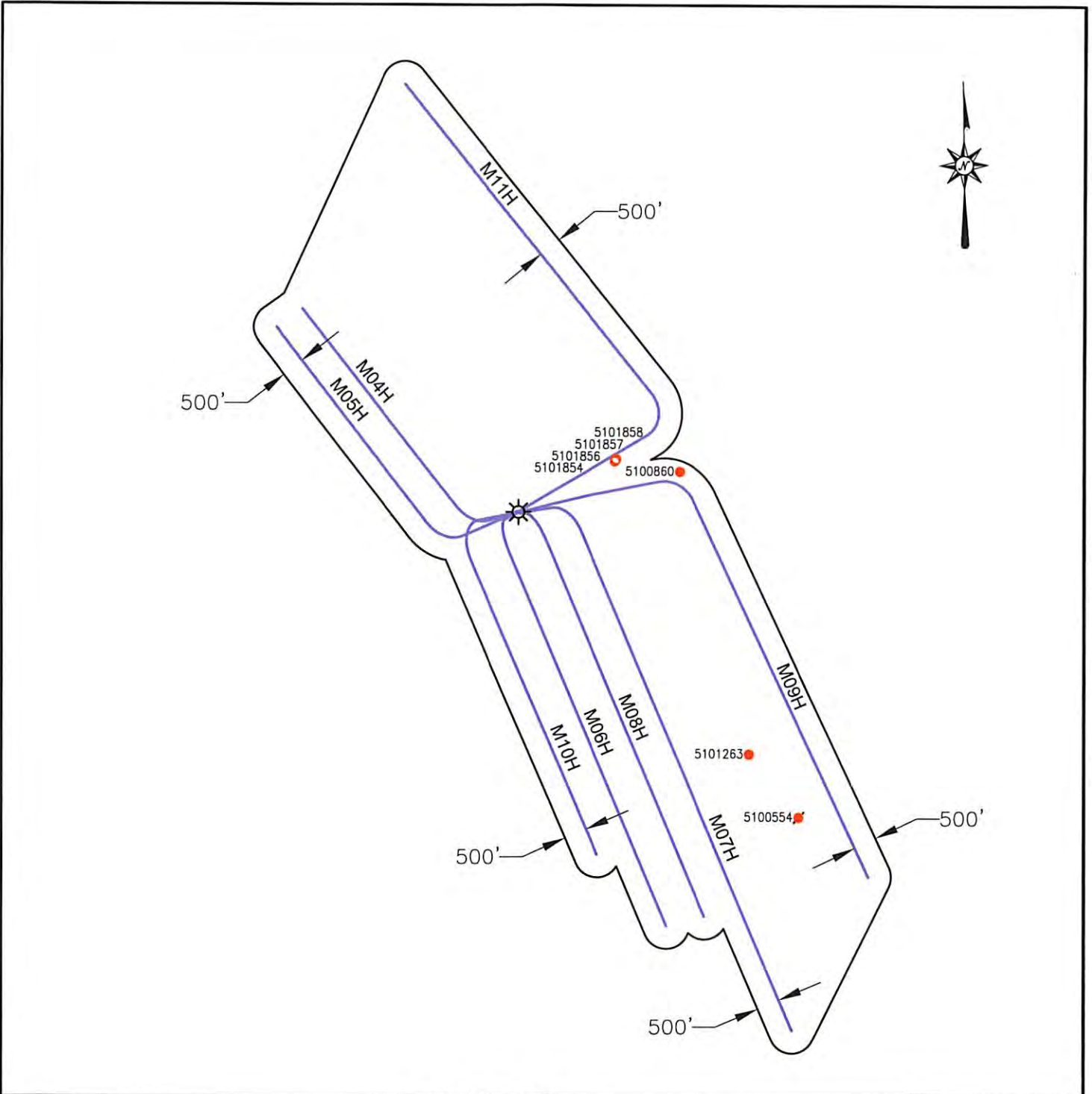
1-24-17
DATE

Katie Mabe
SIGNATURE OF AGENT
Office of Oil and Gas

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APR 24 2017

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.

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 disguises a material fact by making any false or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



Blue Mountain Inc.
 10125 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

PREPARED FOR:
 CHEVRON APPALACHIA, LLC
 800 MOUNTAIN VIEW DRIVE
 SMITHFIELD, PA 15478

LEGEND

- WELL LOCATION
- ACTIVE WELL
- PLUGGED WELL
- PERMITTED WELL

HINES
 AREA OF REVIEW MAP
 MARSHALL COUNTY
 WASHINGTON DISTRICT
 WEST VIRGINIA

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TOPO QUAD: MOUNDSVILLE, WV
 SCALE: 1" = 3000'
 DATE: MARCH 2, 2017
 APR 24 2017

WV Department of Environmental Protection
 08/18/2017

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 M04H Well Pad Name: Hines

3) Farm Name/Surface Owner: Donald Hines & 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 47 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: 12558

11) Proposed Horizontal Leg Length: 5808

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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Page 1 of 3
08/18/2017

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	12,558	12,558	2,358
Tubing							
Liners							

47056
 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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JW 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 mud properties are achieved.

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*Note: Attach additional sheets as needed.

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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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

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Environmental Protection

08/18/2017



Hines M04H

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)	INC	AZM			
Core Barrel / Auger	2 Bowspring per Jt	20" Conductor	60	60			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 ft 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 ft over coupling	9-5/8" Casing	1,658	1,658			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 ft over coupling SpiralGilder or Centek: (1) per ft of csg to KOP	5-1/2" Casing	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 Production Tail Slurry TOC minimum 200' above Marcellus

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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

Subscribed and sworn before me this 13th day of March

Kristen Brooks

My commission expires Sept 2, 2018

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

WV Department of Environmental Protection **08/18/2017**

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: *Justin Nicholas*

Comments: _____

4705101025

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Title: Oil + Gas Inspector

Date: 3/27 APR 24 2017

Field Reviewed? () Yes () No

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Environmental Protection

08/18/2017

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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Environmental Protection



Chevron

Appalachian LLC
WV Well Site Safety Plan

Pad: Hines Pad A

Well # M11H

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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1

08/18/2017

BHL is located on topo map 14,660 feet south of Latitude: 39° 57' 30"
 SHL is located on topo map 3,791 feet south of Latitude: 39° 55' 00"

SEE PAGES 2-4 FOR SURFACE OWNERS AND LESSORS

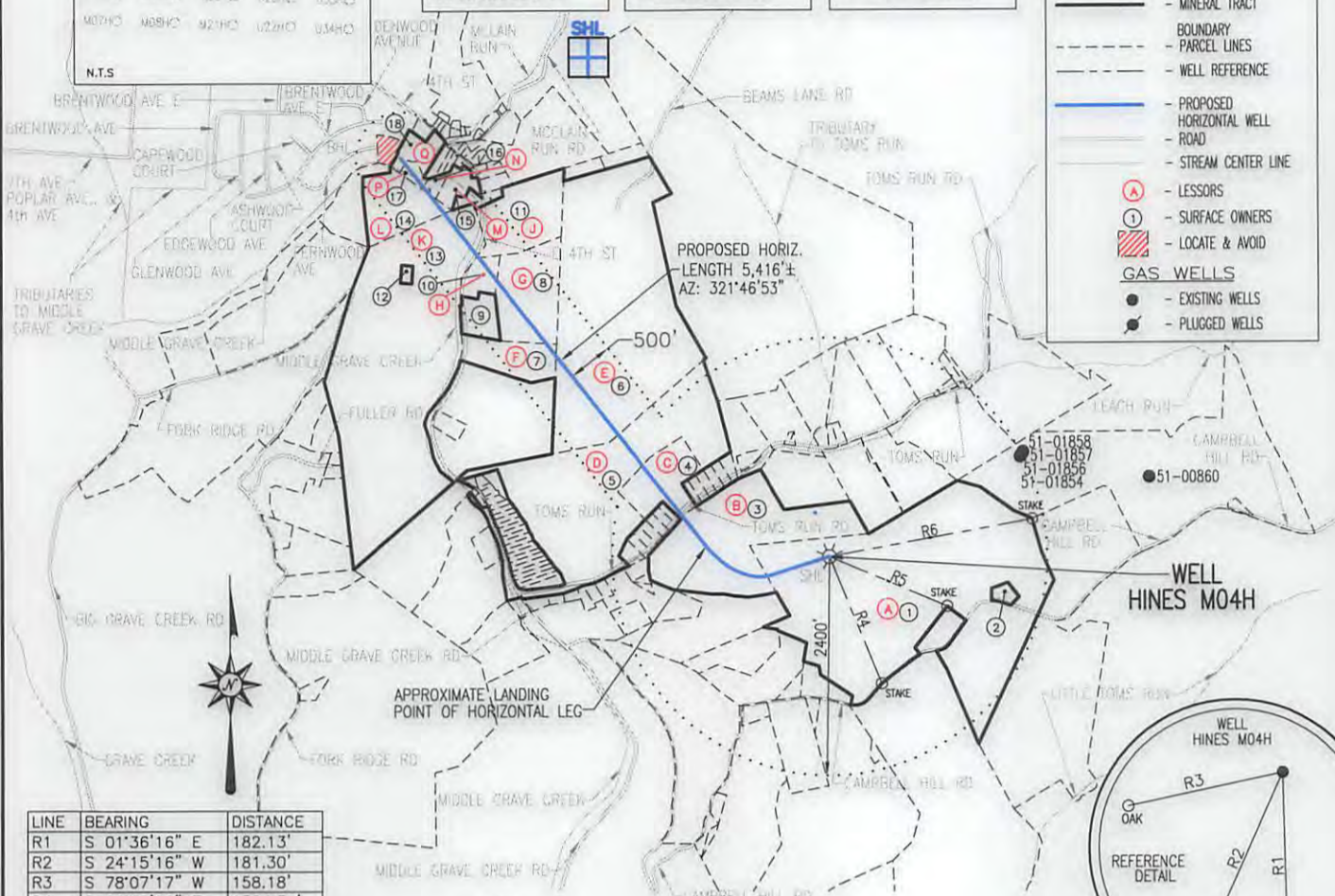
WELL PAD ORIENTATION DETAIL			
M01HC	M14HC	U15HC	U28HC
M02HC	M13HC	U16HC	U27HC
M03HC	M12HC	U17HC	U26HC
M04HC	M11HC	U18HC	U25HC
M05HC	M10HC	U19HC	U24HC
M06HC	M09HC	U20HC	U23HC
M07HC	M08HC	U21HC	U22HC
N.T.S.			

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M)
 N:4417396.15
 E:525699.01
 NAD83, WV NORTH
 N:514452.051
 E:1632055.157

APPROX. LANDING POINT
UTM 17-NAD83(M)
 N:4417425.06
 E:525284.40
 NAD83, WV NORTH
 N:514569.681
 E:1630696.182

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M)
 N:4418704.36
 E:524241.89
 NAD83, WV NORTH
 N:518824.890
 E:1627345.345

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 01°36'16" E	182.13'
R2	S 24°15'16" W	181.30'
R3	S 78°07'17" W	158.18'
R4	S 22°18'28" E	1504.54'
R5	S 67°14'38" E	1406.63'
R6	N 79°36'37" E	2273.45'

- NOTES:
1. There are no water wells or developed springs within 250' of proposed well.
 2. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 3. There are no native trout streams within 300' of proposed well.
 4. Proposed well is greater than 1000' from surface groundwater intake or public water supply.
 5. 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.
 6. There are no existing buildings within 625' of proposed well.

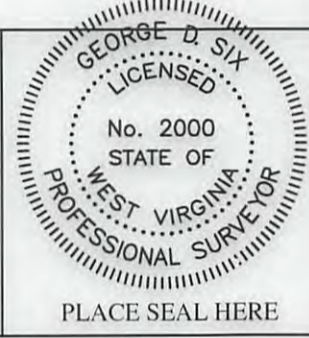


Blue Mountain Inc.
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

FILE #: HINES M04H
 DRAWING #: HINES M04H
 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: [Signature]
 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

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: 460.861±

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: 12,559'±
 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



DATE: MARCH 7, 2017
 OPERATOR'S WELL #: HINES M04H
 API WELL #: 47 51 01926 HCA
 STATE COUNTY PERMIT

08/18/2017

BHL is located on topo map 2,246 feet west of Longitude: 80° 42' 30"
 SHL is located on topo map 9,167 feet west of Longitude: 80° 40' 00"

HINES

M04H

PAGE 2 OF 4

	SURFACE OWNER	DIST-TM/PAR
1	DONALD HINES ET UX.	14-12/30
2	TERRY L. DERROW ET UX.	14-12/30.3
3	ARNIE N. GOODNIGHT ET UX.	14-12/25
4	CHRISTOPHER S. & DENISE L. SCAMEHORN	14-12/24.1
5	CHARLES R. HALL EST.	14-12/24
6	ALAN N. CROW ET AL.	14-9/48
7	GEORGE R. MASON ET UX.	14-9/49.2
8	STACIE CROSSING ASSOCIATES	14-9/49
9	HILL VIEW LIMITED PARTNERSHIP	14-9/49.3
10	HILL VIEW II LTD PARTNERSHIP	14-9/49.4
11	PATRICK J. ROGERS	14-9/50
12	MARSHALL CO. DAY CARE & CHILD	4-3/46.2
13	MARSHALL CO. ACTIVITIES DEVELOPMENT	4-3/46
14	MARSHALL CO. ACTIVITIES DEVELOPMENT	4-3/46.1
15	*BRADLEY C. RINE	14-9/7.2
16	*KEVIN DREW RINE ET UX.	14-9/7.8
17	BARRY C. SULLIVAN	14-9/7.1
18	BARRY C. SULLIVAN	14-9/7.7

	LESSOR	DIST-TM/PAR
A	DONALD HINES ET UX.	14-12/30
B	TRUSTEES LIMESTONE PRESBYTERIAN CHURCH	14-12/25
	CLYDE DOWLER ET UX	
	GARY MORRISON	
	ELIZABETH Y. MORRISON	
	WILLIAM F. RULONG	
	CHARLES BURTON RULONG	
	ROGER GLEN RULONG	
	LAURA J. REYES	
	ROBERT L. RULONG	
	DALE FRANCIS FURBEE	
	HAROLD DEAN FURBEE	
	JOHN T. MORRIS	
	DRU ELLA FOX	
	LYNN ELLEN COOK	
	ETHEL M. RULONG	
	TERRY LEE RULONG	
	RICHARD J. RULONG	
	TRACEY LYNN RULONG	

* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M) N:4417396.15 E:525699.01
NAD83, WV NORTH N:514452.051 E:1632055.157

APPROX. LANDING POINT
UTM 17-NAD83(M) N:4417425.06 E:525284.40
NAD83, WV NORTH N:514569.681 E:1630696.182

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M) N:4418704.36 E:524241.89
NAD83, WV NORTH N:518824.890 E:1627345.345

08/18/2017

HINES

M04H

PAGE 3 OF 4

	LESSOR	DIST-TM/PAR
C	DALE HALL	14-12/24.1
	DENISE SCAMEHORN	
	DAVID HALL	
	DONNA HOLLIDAY	
	CECIL R. LIGTNER	
	MELANIE J. YOUNG	
	APRIL DAWN WELLS	
	HARVEY LEE WELLS JR.	
	LONNIE V. BLAKE	
	SHIRLEY PONDER	
	EARLE VINCENT BLAKE - SPL COM DAVID C. WHITE	
	RACHEL EARNEST	
	NANCY GREATHOUSE	
	STEVEN D. WELLS	
	DENISE A. WELLS	
	GREGORY A. PFAUS	
	ANDREW PFAUS	
	CATHERINE A. GUSTIN	
	MATHEW PFAUS	
	MELISSA S. PRICE	
	CHANTEE M. DANCIK	
	ROBERT JOHN MCCLELLAN	
	MELISSA A. WAGGONER	
	KIMBERLY R. FRANKENFIELD	
	DEBORAH ELDER	
	DARCY MICHAELS	
	DARLA THURMAN	
	MARY WIDDER	
	RANDALL W. DENNIS	
	KAY WATSON	
	DONALD MCCLELLAND	
	GEORGE MCCLELLAN JR.	
	DONNA DAVIS	
	DIANA LOUISE MCKINNEY	
	DIANE MINCKS	
	WAYNE KENNETH MCCLELLAN	
	BEULAH J. CURRY	
	DONALD E. GEARHART	
	AARON CURRY	
	DENISE K. PETREE	
	GEOFFREY A. ROWLANDS	
	KIMBERLY PAULA VARNER	
	RALPH E. WELLMAN ET AL	
	CANDICE J. CASTLE	
	JASON M. SANDOR	
	JENNIFER JORDAN	
	JAMES M. SANDOR JR.	
	ANDREW W. FLOYD	
	LINDA HAYS	
	KEVIN L. ROWLANDS	
	THOMAS MAZZAFERRO	
	SANDRA TRESSLER	
	RONALD MAZZAFERRO	
	JOHN T. WELLING	
	MELANY L. WASKO	
	ROBERT L. WELLING	
	LORREN ROGERS	
	MARK D. WELLING	
	THERESA B. WORKMAN	
	JAMES R. BLAKE	
	RANDY SEIBERT	
	TERRY SEIBERT	
	SHEREE SINCLAIR	
	BETH GODFREY	
	JAMES E. RICE	
	STEVE RICE	
	STEVEN DALE PIERSON	
	IVAN L. WELLMAN ET UX	
	ROBERT K. BLAKE ET UX	
	TIMOTHY L. CURRY ET UX	
	ELMER Z. WELLMAN ET UX	
	CHARLES L. BLAKE ET UX	
	TAMRA C. MORGAN	
	GARREN D. WELLMAN	
	MARTHA E. DICKERHOOF	

	LESSOR	DIST-TM/PAR
D	DALE HALL	14-12/24
	DENISE SCAMEHORN	
	DAVID HALL	
	DONNA HOLLIDAY	
	CECIL R. LIGHTNER	
	MELANIE J. YOUNG	
	APRIL DAWN WELLS	
	HARVEY LEE WELLS JR.	
	LONNIE V. BLAKE	
	SHIRLEY PONDER	
	EARLE VINCENT BLAKE - SPL COM DAVID C. WHITE	
	RACHEL EARNEST	
	NANCY GREATHOUSE	
	STEVEN D. WELLS	
	DENISE A. WELLS	
	GREGORY A. PFAUS	
	ANDREW PFAUS	
	CATHERINE A. GUSTIN	
	MATHEW PFAUS	
	MELISSA S. PRICE	
	CHANTEE M. DANCIK	
	ROBERT JOHN MCCLELLAN	
	MELISSA A. WAGGONER	
	KIMBERLY R. FRANKENFIELD	
	DEBORAH ELDER	
	DARCY MICHAELS	
	DARLA THURMAN	
	MARY WIDDER	
	RANDALL W. DENNIS	
	KAY WATSON	
	DONALD MCCLELLAND	
	GEORGE MCCLELLAN JR.	
	DONNA DAVIS	
	DIANA LOUISE MCKINNEY	
	DIANE MINCKS	
	WAYNE KENNETH MCCLELLAN	
	BEULAH J. CURRY	
	DONALD E. GEARHART	
	AARON CURRY	
	DENISE K. PETREE	
	GEOFFREY A. ROWLANDS	
	KIMBERLY PAULA VARNER	
	RALPH E. WELLMAN ET AL	
	CANDICE J. CASTLE	
	JASON M. SANDOR	
	JENNIFER JORDAN	
	JAMES M. SANDOR JR	
	ANDREW W. FLOYD	
	LINDA HAYS	
	KEVIN L. ROWLANDS	
	THOMAS MAZZAFERRO	
	SANDRA TRESSLER	
	RONALD MAZZAFERRO	
	JOHN T. WELLING	
	MELANY L. WASKO	
	ROBERT L. WELLING	
	LORREN ROGERS	
	MARK D. WELLING	
	THERESA B. WORKMAN	
	JAMES R. BLAKE	
	RANDY SEIBERT	
	TERRY SEIBERT	
	SHEREE SINCLAIR	
	BETH GODFREY	
	JAMES E. RICE	
	STEVE RICE	
	STEVEN DALE PIERSON	
	IVAN L. WELLMAN ET UX	
	ROBERT K. BLAKE ET UX	
	TIMOTHY L. CURRY ET UX	
	ELMER Z. WELLMAN ET UX	
	CHARLES L. BLAKE ET UX	
	TAMRA C. MORGAN	
	GARREN D. WELLMAN	
	MARTHA E. DICKERHOOF	
E	ALAN NEIL CROW	14-9/48
	RUTH ANN CROW	
	MARY KATHRYN NEEHOUSE	
F	GEORGE R. MASON ET UX	14-9/48
G	STACIE CROSSING ASSOCIATES LP	14-9/48
H	HILL VIEW II LTD PARTNERSHIP	14-9/49.4
J	PATRICK J. ROGERS	14-9/50

08/18/2017

* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

HINES

M04H

PAGE 4 OF 4

	LESSOR	DIST-TM/PAR
K	DEBORAH MAXWELL YARBROUGH	4-3/46
	RAYMOND W. WOODS	
	BONNIE D. ANDERSON	
	RICHARD W. WOODS	
	WILLIAM L. MAXWELL	
	BARBARA A. MCINALLY	
	WILLIAM J. MINES	
	STEPHEN LESLIE MAXWELL	
	BEVERLY K. TIEMAN	
	CAROLYN K. GABROVSEK	
	RETTA JANE WAYNE	
	ROBERT KOESTERS	
	ANNALEE BERNARD	
	GARY KOESTERS	
	ROBERT L. MINES JR.	
	MICHAEL JOSEPH KOESTERS	
	CYNTHIA KURTZ	
	CHARLES RICHARD KOESTERS	
	FREDRICK M. YEATER	
	LOIS W. DOWLER AIF DAVID B. DOWLER	
	ERIC W. BROWN	
	DAVID J. MAXWELL	
	HOLLIS ZULICK	
	LESLIE M. ZIRINGER	
	MELISSA ELAIN SCHROTH	
	HENRY M. HUPP	
	HARRY L. MAXWELL AIF BRIAN L. MAXWELL	
	CLARENCE R. BROWN	
	JAMES H. MAXWELL	
	MARY A. MORGAN	
	NILA ELAINE ROGERSON AIF GARY ROGERSON	
	MARK DAVID HUNT	
	CHRISTOPHER M. BROWN	
	BEVERLY JOYCE ARMSTRONG	
	JEFFREY LYNN CELLARS	
	KEVIN MERLE BROWN	
	CHARLES EDWARD CELLARS	
	JD CELLARS	
	THOMAS WILLIAM CELLARS	
	DONALD WAYNE CELLARS	
	TERRY ALAN CELLARS	
L	DEBORAH MAXWELL YARBROUGH	4-3/46.1
	RAYMOND W. WOODS	
	BONNIE D. ANDERSON	
	RICHARD W. WOODS	
	WILLIAM L. MAXWELL	
	BARBARA A. MCINALLY	
	WILLIAM J. MINES	
	STEPHEN LESLIE MAXWELL	
	BEVERLY K. TIEMAN	
	CAROLYN K. GABROVSEK	
	RETTA JANE WAYNE	
	ROBERT KOESTERS	
	ANNALEE BERNARD	
	GARY KOESTERS	
	ROBERT L. MINES JR.	
	MICHAEL JOSEPH KOESTERS	
	CYNTHIA KURTZ	
	CHARLES RICHARD KOESTERS	
	FREDRICK M. YEATER	
	LOIS W. DOWLER AIF DAVID B. DOWLER	
	ERIC W. BROWN	
	DAVID J. MAXWELL	
	HOLLIS ZULICK	
	LESLIE M. ZIRINGER	
	MELISSA ELAIN SCHROTH	
	HENRY M. HUPP	
	HARRY L. MAXWELL AIF BRIAN L. MAXWELL	
	CLARENCE R. BROWN	
	JAMES H. MAXWELL	
	MARY A. MORGAN	
	NILA ELAINE ROGERSON AIF GARY ROGERSON	
	MARK DAVID HUNT	
	CHRISTOPHER M. BROWN	
	BEVERLY JOYCE ARMSTRONG	
	JEFFREY LYNN CELLARS	
	KEVIN MERLE BROWN	
	CHARLES EDWARD CELLARS	
	JD CELLARS	
	THOMAS WILLIAM CELLARS	
	DONALD WAYNE CELLARS	
	TERRY ALAN CELLARS	

	LESSOR	DIST-TM/PAR
M	*ERIC CHAMBERLAIN	14-9/7.2
	*BRAD CHAMBERLAIN	
	*ALYN BRENT CHAMBERLAIN	
	*TODD CHAMBERLAIN	
	*GERALDINE PLOWDEN	
	*BARRY F. LARSON ET UX	
	*JULIE CARTWRIGHT	
	*GREG BIETH	
	*JENNIFER KELLER	
	*TANYA BIETH	
	*DALE JONES	
	*GERALDINE PLOWDEN	
	*PAUL C. NIX	
	*FIRST UNITED METHODIST CHURCH OF ORLANDO	
	*DIXIE UNITED METHODIST CHURCH	
	*BISHOP GRAY RETIREMENT FOUNDATION	
	*JOYCE K. LARSON	
	*FL UNITED METHODIST CHILDRENS HOME INC	
	*EMMANUEL EPISCOPAL CHURCH	
	*EDGEWOOD CHILDRENS RANCH INC	
N	*ERIC CHAMBERLAIN	14-9/7.8
	*BRAD CHAMBERLAIN	
	*ALYN BRENT CHAMBERLAIN	
	*TODD CHAMBERLAIN	
	*GERALDINE PLOWDEN	
	*BARRY F. LARSON ET UX	
	*JULIE CARTWRIGHT	
	*GREG BIETH	
	*JENNIFER KELLER	
	*TANYA BIETH	
	*DALE JONES	
	*GERALDINE PLOWDEN	
	*PAUL C. NIX	
	*FIRST UNITED METHODIST CHURCH OF ORLANDO	
	*DIXIE UNITED METHODIST CHURCH	
	*BISHOP GRAY RETIREMENT FOUNDATION	
	*JOYCE K. LARSON	
	*FL UNITED METHODIST CHILDRENS HOME INC	
	*EMMANUEL EPISCOPAL CHURCH	
	*EDGEWOOD CHILDRENS RANCH INC	
P	ROBERT B. SULLIVAN	14-9/7.1
Q	ROBERT B. SULLIVAN	14-9/7.7

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

08/18/2017

* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

**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

9708101723

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

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

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

RECEIVED
Office of Oil and Gas

APR 24 2017

WV Department of
Environmental Protection

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 Hays
Its: Permitting Team Lead

HINES M04H

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
	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
	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 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
	RULONG ROGER GLEN	CHEVRON U.S.A. INC.	0.180	848/308	N/A	N/A	N/A
	REYES LAURA J	CHEVRON U.S.A. INC.	0.160	882/392	N/A	N/A	N/A
	14-0012-0025-0000-0000	RULONG ROBERT L	CHEVRON U.S.A. INC.	0.140	821/212	N/A	N/A
FURBEE DALE FRANCIS		CHEVRON U.S.A. INC.	0.140	821/219	N/A	N/A	N/A
FURBEE HAROLD DEAN		CHEVRON U.S.A. INC.	0.140	820/325	N/A	N/A	N/A
MORRIS JOHN T		CHEVRON U.S.A. INC.	0.140	820/344	N/A	N/A	N/A
FOX DRU ELLA		CHEVRON U.S.A. INC.	0.140	820/313	N/A	N/A	N/A
COOK LYNN ELLEN		CHEVRON U.S.A. INC.	0.140	828/430	N/A	N/A	N/A
RULONG ETHEL M SFX		CHEVRON U.S.A. INC.	0.140	831/396	N/A	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
					24/180	24/490	25/1
HALL DALE	TRIENERGY HOLDINGS, LLC	0.160	699/23	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHIEF EXPLORATION & DEVELOPMENT, LLC	CHIEF EXPLORATION & DEVELOPMENT, LLC to CHEVRON U.S.A. INC.	
					24/180	24/490	25/1
SCAMEHORN DENISE	TRIENERGY HOLDINGS, LLC	0.160	699/25	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHIEF EXPLORATION & DEVELOPMENT, LLC	CHIEF EXPLORATION & DEVELOPMENT, LLC to CHEVRON U.S.A. INC.	
					24/180	24/466	25/1
HALL DAVID	TRIENERGY HOLDINGS, LLC	0.160	699/27	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHIEF EXPLORATION & DEVELOPMENT, LLC	CHIEF EXPLORATION & DEVELOPMENT, LLC to CHEVRON U.S.A. INC.	
					24/180	24/466	25/1
HOLLIDAY DONNA	TRIENERGY HOLDINGS, LLC	0.160	699/31	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHIEF EXPLORATION & DEVELOPMENT, LLC	CHIEF EXPLORATION & DEVELOPMENT, LLC to CHEVRON U.S.A. INC.	
LIGHTNER CECIL R	CHEVRON U.S.A. INC.	0.180	889/472	N/A	N/A	N/A	
YOUNG MELANIE J -SFX	CHEVRON U.S.A. INC.	0.170	875/55	N/A	N/A	N/A	
WELLS APRIL DAWN	CHEVRON U.S.A. INC.	0.170	887/607	N/A	N/A	N/A	

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Plat ID	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
	WELLS HARVEY LEE JR	CHEVRON U.S.A. INC.	0.170	887/585	N/A	N/A	N/A
	BLAKE LONNIE V	CHEVRON U.S.A. INC.	0.180	887/570	N/A	N/A	N/A
	PONDER SHIRLEY	CHEVRON U.S.A. INC.	0.160	896/8	N/A	N/A	N/A
	BLAKE EARLE VINCENT - SPL COM DAVID C WHITE	CHEVRON U.S.A. INC.	0.160	897/577	N/A	N/A	N/A
	EARNEST RACHEL	CHEVRON U.S.A. INC.	0.170	847/218	N/A	N/A	N/A
	GREATHOUSE NANCY	CHEVRON U.S.A. INC.	0.170	861/167	N/A	N/A	N/A
	WELLS STEVEN D	CHEVRON U.S.A. INC.	0.170	861/113	N/A	N/A	N/A
	WELLS DENISE A	CHEVRON U.S.A. INC.	0.170	861/149	N/A	N/A	N/A
	PFAUS GREGORY A	CHEVRON U.S.A. INC.	0.170	849/48	N/A	N/A	N/A
	PFAUS ANDREW	CHEVRON U.S.A. INC.	0.170	849/66	N/A	N/A	N/A
	GUSTIN CATHERINE A	CHEVRON U.S.A. INC.	0.170	848/373	N/A	N/A	N/A
	PFAUS MATHEW	CHEVRON U.S.A. INC.	0.170	849/30	N/A	N/A	N/A
	PRICE MELISSA S	CHEVRON U.S.A. INC.	0.170	849/84	N/A	N/A	N/A
	DANCIK CHANTEE M	CHEVRON U.S.A. INC.	0.170	861/56	N/A	N/A	N/A
	MCCLELLAN ROBERT JOHN	CHEVRON U.S.A. INC.	0.170	861/131	N/A	N/A	N/A
	WAGGONER MELISSA A	CHEVRON U.S.A. INC.	0.170	863/120	N/A	N/A	N/A
	FRANKENFIELD KIMBERLY R	CHEVRON U.S.A. INC.	0.170	853/134	N/A	N/A	N/A
	ELDER DEBORAH	CHEVRON U.S.A. INC.	0.170	853/202	N/A	N/A	N/A
	MICHAELS DARCY	CHEVRON U.S.A. INC.	0.170	853/184	N/A	N/A	N/A
	THURMAN DARLA	CHEVRON U.S.A. INC.	0.170	853/284	N/A	N/A	N/A
	WIDDER MARY	CHEVRON U.S.A. INC.	0.170	863/46	N/A	N/A	N/A
	DENNIS RANDALL W	CHEVRON U.S.A. INC.	0.170	862/524	N/A	N/A	N/A
	WATSON KAY	CHEVRON U.S.A. INC.	0.170	863/64	N/A	N/A	N/A
	MCCLELLAND DONALD	CHEVRON U.S.A. INC.	0.170	863/28	N/A	N/A	N/A
	MCCLELLAN GEORGE JR	CHEVRON U.S.A. INC.	0.170	863/159	N/A	N/A	N/A
	DAVIS DONNA	CHEVRON U.S.A. INC.	0.170	863/1	N/A	N/A	N/A
	MCKINNEY DIANA LOUISE	CHEVRON U.S.A. INC.	0.170	859/201	N/A	N/A	N/A
	MINCKS DIANE	CHEVRON U.S.A. INC.	0.170	859/237	N/A	N/A	N/A
	MCCLELLAN WAYNE KENNETH	CHEVRON U.S.A. INC.	0.170	859/219	N/A	N/A	N/A
	CURRY BEULAH J	CHEVRON U.S.A. INC.	0.170	861/203	N/A	N/A	N/A
	GEARHART DONALD E	CHEVRON U.S.A. INC.	0.170	861/38	N/A	N/A	N/A
14-0012-0024-0001-0000	CURRY AARON	CHEVRON U.S.A. INC.	0.170	861/239	N/A	N/A	N/A
	PETREE DENISE K	CHEVRON U.S.A. INC.	0.170	861/20	N/A	N/A	N/A
	ROWLANDS GEOFFREY A	CHEVRON U.S.A. INC.	0.170	861/221	N/A	N/A	N/A
	VARNER KIMBERLY PAULA	CHEVRON U.S.A. INC.	0.170	861/185	N/A	N/A	N/A
	WELLMAN RALPH E ET AL	CHEVRON U.S.A. INC.	0.180	861/347	N/A	N/A	N/A
	CASTLE CANDICE J	CHEVRON U.S.A. INC.	0.170	861/257	N/A	N/A	N/A
	SANDOR JASON M	CHEVRON U.S.A. INC.	0.170	862/542	N/A	N/A	N/A
	JORDAN JENNIFER	CHEVRON U.S.A. INC.	0.170	862/599	N/A	N/A	N/A
	SANDOR JAMES M JR	CHEVRON U.S.A. INC.	0.170	862/617	N/A	N/A	N/A

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Plat ID	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
	FLOYD ANDREW W	CHEVRON U.S.A. INC.	0.170	862/581	N/A	N/A	N/A
	HAYS LINDA	CHEVRON U.S.A. INC.	0.170	867/266	N/A	N/A	N/A
	ROWLANDS KEVIN L	CHEVRON U.S.A. INC.	0.170	867/228	N/A	N/A	N/A
	MAZZAFERRO THOMAS	CHEVRON U.S.A. INC.	0.170	867/248	N/A	N/A	N/A
	TRESSLER SANDRA	CHEVRON U.S.A. INC.	0.170	867/120	N/A	N/A	N/A
	MAZZAFERRO RONALD	CHEVRON U.S.A. INC.	0.170	867/192	N/A	N/A	N/A
	WELLING JOHN T	CHEVRON U.S.A. INC.	0.170	867/210	N/A	N/A	N/A
	WASKO MELANY L	CHEVRON U.S.A. INC.	0.170	867/174	N/A	N/A	N/A
	WELLING ROBERT L	CHEVRON U.S.A. INC.	0.170	867/156	N/A	N/A	N/A
	ROGERS LORREN	CHEVRON U.S.A. INC.	0.170	867/138	N/A	N/A	N/A
	WELLING MARK D	CHEVRON U.S.A. INC.	0.170	868/570	N/A	N/A	N/A
	WORKMAN THERESA B	CHEVRON U.S.A. INC.	0.170	868/552	N/A	N/A	N/A
	BLAKE JAMES R	CHEVRON U.S.A. INC.	0.170	868/534	N/A	N/A	N/A
	SEIBERT RANDY	CHEVRON U.S.A. INC.	0.180	871/290	N/A	N/A	N/A
	SEIBERT TERRY	CHEVRON U.S.A. INC.	0.180	875/73	N/A	N/A	N/A
	SINCLAIR SHEREE	CHEVRON U.S.A. INC.	0.180	874/616	N/A	N/A	N/A
	GODFREY BETH	CHEVRON U.S.A. INC.	0.180	875/37	N/A	N/A	N/A
	RICE JAMES E	CHEVRON U.S.A. INC.	0.180	875/19	N/A	N/A	N/A
	RICE STEVE	CHEVRON U.S.A. INC.	0.180	875/1	N/A	N/A	N/A
	PIERSON STEVEN DALE	CHEVRON U.S.A. INC.	0.180	873/215	N/A	N/A	N/A
					26/123	26/201	
	WELLMAN IVAN L ET UX	TRIENERGY HOLDINGS, LLC	0.170	736/352	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHEVRON U.S.A. INC.	N/A
					26/123	26/201	
	BLAKE ROBERT K ET UX	TRIENERGY HOLDINGS, LLC	0.170	736/347	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHEVRON U.S.A. INC.	N/A
					26/123	26/201	
	CURRY TIMOTHY L ET UX	TRIENERGY HOLDINGS, LLC	0.170	738/221	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHEVRON U.S.A. INC.	N/A
					26/123	26/201	
	WELLMAN ELMER Z ET UX	TRIENERGY HOLDINGS, LLC	0.170	736/357	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHEVRON U.S.A. INC.	N/A
					26/123	26/201	
	BLAKE CHARLES L ET UX	TRIENERGY HOLDINGS, LLC	0.170	738/236	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHEVRON U.S.A. INC.	N/A
					26/123	26/201	
	MORGAN TAMRA C	TRIENERGY HOLDINGS, LLC	0.170	738/241	TRIENERGY HOLDINGS, LLC to NPAR, LLC	NPAR, LLC to CHEVRON U.S.A. INC.	N/A

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Plat ID	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
	WELLMAN GARREN D	TRIENERGY HOLDINGS, LLC	0.170	738/251	26/123 TRIENERGY HOLDINGS, LLC to NPAR, LLC	26/201 NPAR, LLC to CHEVRON U.S.A. INC.	N/A
	DICKERHOOF MARTHA E	TRIENERGY HOLDINGS, LLC	0.170	738/256	26/123 TRIENERGY HOLDINGS, LLC to NPAR, LLC	26/201 NPAR, LLC to CHEVRON U.S.A. INC.	N/A
	HALL DALE	TRIENERGY HOLDINGS, LLC	0.160	699/23	24/180 TRIENERGY HOLDINGS, LLC to NPAR, LLC	24/490 NPAR, LLC to CHIEF EXPLORATION & DEVELOPMENT, LLC	25/1 CHIEF EXPLORATION & DEVELOPMENT, LLC to CHEVRON U.S.A. INC.
	SCAMEHORN DENISE	TRIENERGY HOLDINGS, LLC	0.160	699/25	24/180 TRIENERGY HOLDINGS, LLC to NPAR, LLC	24/490 NPAR, LLC to CHIEF EXPLORATION & DEVELOPMENT, LLC	25/1 CHIEF EXPLORATION & DEVELOPMENT, LLC to CHEVRON U.S.A. INC.
	HALL DAVID	TRIENERGY HOLDINGS, LLC	0.160	699/27	24/180 TRIENERGY HOLDINGS, LLC to NPAR, LLC	24/466 NPAR, LLC to CHIEF EXPLORATION & DEVELOPMENT, LLC	25/1 CHIEF EXPLORATION & DEVELOPMENT, LLC to CHEVRON U.S.A. INC.
	HOLLIDAY DONNA	TRIENERGY HOLDINGS, LLC	0.160	699/31	24/180 TRIENERGY HOLDINGS, LLC to NPAR, LLC	24/466 NPAR, LLC to CHIEF EXPLORATION & DEVELOPMENT, LLC	25/1 CHIEF EXPLORATION & DEVELOPMENT, LLC to CHEVRON U.S.A. INC.
	LIGHTNER CECIL R	CHEVRON U.S.A. INC.	0.180	889/472	N/A	N/A	N/A
	YOUNG MELANIE J -SFX	CHEVRON U.S.A. INC.	0.170	875/55	N/A	N/A	N/A
	WELLS APRIL DAWN	CHEVRON U.S.A. INC.	0.170	887/607	N/A	N/A	N/A
	WELLS HARVEY LEE JR	CHEVRON U.S.A. INC.	0.170	887/585	N/A	N/A	N/A
	BLAKE LONNIE V	CHEVRON U.S.A. INC.	0.180	887/570	N/A	N/A	N/A
	PONDER SHIRLEY	CHEVRON U.S.A. INC.	0.160	896/8	N/A	N/A	N/A
	BLAKE EARLE VINCENT - SPL COM DAVID C WHITE	CHEVRON U.S.A. INC.	0.160	897/577	N/A	N/A	N/A
	EARNEST RACHEL	CHEVRON U.S.A. INC.	0.170	847/218	N/A	N/A	N/A
	GREATHOUSE NANCY	CHEVRON U.S.A. INC.	0.170	861/167	N/A	N/A	N/A
	WELLS STEVEN D	CHEVRON U.S.A. INC.	0.170	861/113	N/A	N/A	N/A
	WELLS DENISE A	CHEVRON U.S.A. INC.	0.170	861/149	N/A	N/A	N/A
	PFAUS GREGORY A	CHEVRON U.S.A. INC.	0.170	849/48	N/A	N/A	N/A
	PFAUS ANDREW	CHEVRON U.S.A. INC.	0.170	849/66	N/A	N/A	N/A
	GUSTIN CATHERINE A	CHEVRON U.S.A. INC.	0.170	848/373	N/A	N/A	N/A
	PFAUS MATHEW	CHEVRON U.S.A. INC.	0.170	849/30	N/A	N/A	N/A
	PRICE MELISSA S	CHEVRON U.S.A. INC.	0.170	849/84	N/A	N/A	N/A

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	DANCIK CHANTEE M	CHEVRON U.S.A. INC.	0.170	861/56	N/A	N/A	N/A
	MCCELLELLAN ROBERT JOHN	CHEVRON U.S.A. INC.	0.170	861/131	N/A	N/A	N/A
	WAGGONER MELISSA A	CHEVRON U.S.A. INC.	0.170	863/120	N/A	N/A	N/A
	FRANKENFIELD KIMBERLY R	CHEVRON U.S.A. INC.	0.170	853/134	N/A	N/A	N/A
	ELDER DEBORAH	CHEVRON U.S.A. INC.	0.170	853/202	N/A	N/A	N/A
	MICHAELS DARCY	CHEVRON U.S.A. INC.	0.170	853/184	N/A	N/A	N/A
	THURMAN DARLA	CHEVRON U.S.A. INC.	0.170	853/284	N/A	N/A	N/A
	WIDDER MARY	CHEVRON U.S.A. INC.	0.170	863/46	N/A	N/A	N/A
	DENNIS RANDALL W	CHEVRON U.S.A. INC.	0.170	862/524	N/A	N/A	N/A
	WATSON KAY	CHEVRON U.S.A. INC.	0.170	863/64	N/A	N/A	N/A
	MCCELLELAND DONALD	CHEVRON U.S.A. INC.	0.170	863/28	N/A	N/A	N/A
	MCCELLELLAN GEORGE JR	CHEVRON U.S.A. INC.	0.170	863/159	N/A	N/A	N/A
	DAVIS DONNA	CHEVRON U.S.A. INC.	0.170	863/1	N/A	N/A	N/A
14-0012-0024-0000-0000	MCKINNEY DIANA LOUISE	CHEVRON U.S.A. INC.	0.170	859/201	N/A	N/A	N/A
	MINCKS DIANE	CHEVRON U.S.A. INC.	0.170	859/237	N/A	N/A	N/A
	MCCELLELLAN WAYNE KENNETH	CHEVRON U.S.A. INC.	0.170	859/219	N/A	N/A	N/A
	CURRY BEULAH J	CHEVRON U.S.A. INC.	0.170	861/203	N/A	N/A	N/A
	GEARHART DONALD E	CHEVRON U.S.A. INC.	0.170	861/38	N/A	N/A	N/A
	CURRY AARON	CHEVRON U.S.A. INC.	0.170	861/239	N/A	N/A	N/A
	PETREE DENISE K	CHEVRON U.S.A. INC.	0.170	861/20	N/A	N/A	N/A
	ROWLANDS GEOFFREY A	CHEVRON U.S.A. INC.	0.170	861/221	N/A	N/A	N/A
	VARNER KIMBERLY PAULA	CHEVRON U.S.A. INC.	0.170	861/185	N/A	N/A	N/A
	WELLMAN RALPH E ET AL	CHEVRON U.S.A. INC.	0.180	861/347	N/A	N/A	N/A
	CASTLE CANDICE J	CHEVRON U.S.A. INC.	0.170	861/257	N/A	N/A	N/A
	SANDOR JASON M	CHEVRON U.S.A. INC.	0.170	862/542	N/A	N/A	N/A
	JORDAN JENNIFER	CHEVRON U.S.A. INC.	0.170	862/599	N/A	N/A	N/A
	SANDOR JAMES M JR	CHEVRON U.S.A. INC.	0.170	862/617	N/A	N/A	N/A
	FLOYD ANDREW W	CHEVRON U.S.A. INC.	0.170	862/581	N/A	N/A	N/A
	HAYS LINDA	CHEVRON U.S.A. INC.	0.170	867/266	N/A	N/A	N/A
	ROWLANDS KEVIN L	CHEVRON U.S.A. INC.	0.170	867/228	N/A	N/A	N/A
	MAZZAFERRO THOMAS	CHEVRON U.S.A. INC.	0.170	867/248	N/A	N/A	N/A
	TRESSLER SANDRA	CHEVRON U.S.A. INC.	0.170	867/120	N/A	N/A	N/A
	MAZZAFERRO RONALD	CHEVRON U.S.A. INC.	0.170	867/192	N/A	N/A	N/A
	WELLING JOHN T	CHEVRON U.S.A. INC.	0.170	867/210	N/A	N/A	N/A
	WASKO MELANY L	CHEVRON U.S.A. INC.	0.170	867/174	N/A	N/A	N/A
	WELLING ROBERT L	CHEVRON U.S.A. INC.	0.170	867/156	N/A	N/A	N/A
	ROGERS LORREN	CHEVRON U.S.A. INC.	0.170	867/138	N/A	N/A	N/A
	WELLING MARK D	CHEVRON U.S.A. INC.	0.170	868/570	N/A	N/A	N/A
	WORKMAN THERESA B	CHEVRON U.S.A. INC.	0.170	868/552	N/A	N/A	N/A
	BLAKE JAMES R	CHEVRON U.S.A. INC.	0.170	868/534	N/A	N/A	N/A
	SEIBERT RANDY	CHEVRON U.S.A. INC.	0.180	871/290	N/A	N/A	N/A

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	SEIBERT TERRY	CHEVRON U.S.A. INC.	0.180	875/73	N/A	N/A	N/A
	SINCLAIR SHEREE	CHEVRON U.S.A. INC.	0.180	874/616	N/A	N/A	N/A
	GODFREY BETH	CHEVRON U.S.A. INC.	0.180	875/37	N/A	N/A	N/A
	RICE JAMES E	CHEVRON U.S.A. INC.	0.180	875/19	N/A	N/A	N/A
	RICE STEVE	CHEVRON U.S.A. INC.	0.180	875/1	N/A	N/A	N/A
	PIERSON STEVEN DALE	CHEVRON U.S.A. INC.	0.180	873/215	N/A	N/A	N/A
	WELLMAN IVAN L ET UX	TRIENERGY HOLDINGS, LLC	0.170	736/352	26/123	26/201	N/A
	BLAKE ROBERT K ET UX	TRIENERGY HOLDINGS, LLC	0.170	736/347	26/123	26/201	N/A
	CURRY TIMOTHY L ET UX	TRIENERGY HOLDINGS, LLC	0.170	738/221	26/123	26/201	N/A
	WELLMAN ELMER Z ET UX	TRIENERGY HOLDINGS, LLC	0.170	736/357	26/123	26/201	N/A
	BLAKE CHARLES L ET UX	TRIENERGY HOLDINGS, LLC	0.170	738/236	26/123	26/201	N/A
	MORGAN TAMRA C	TRIENERGY HOLDINGS, LLC	0.170	738/241	26/123	26/201	N/A
	WELLMAN GARREN D	TRIENERGY HOLDINGS, LLC	0.170	738/251	26/123	26/201	N/A
	DICKERHOOF MARTHA E	TRIENERGY HOLDINGS, LLC	0.170	738/256	26/123	26/201	N/A
14-0009-0048-0000-0000	CROW ALAN NEIL	CHEVRON U.S.A. INC.	0.180	889/108	N/A	N/A	N/A
	CROW RUTH ANN	CHEVRON U.S.A. INC.	0.180	889/113	N/A	N/A	N/A
	NEEHOUSE MARY KATHRYN	CHEVRON U.S.A. INC.	0.180	889/103	N/A	N/A	N/A
14-0009-0049-0002-0000	MASON GEORGE R ET UX	TRIENERGY HOLDINGS, LLC	0.190	699/39	24/180	756/332	N/A
14-0009-0049-0000-0000	STACIE CROSSING ASSOCIATES LP	NPAR, LLC	0.188	731/218	756/332	N/A	N/A
14-0009-0049-0004-0000	HILL VIEW II LTD PARTNERSHIP	NPAR, LLC	0.188	731/208	756/332	N/A	N/A
14-0009-0050-0000-0000	ROGERS PATRICK J	TRIENERGY HOLDINGS, LLC	0.190	699/15	24/180	756/332	N/A
	YARBROUGH DEBORAH MAXWELL	CHEVRON U.S.A. INC.	0.180	847/147	N/A	N/A	N/A
	WOODS RAYMOND W	CHEVRON U.S.A. INC.	0.180	868/522	N/A	N/A	N/A
	ANDERSON BONNIE D	CHEVRON U.S.A. INC.	0.180	867/114	N/A	N/A	N/A
	WOODS RICHARD W	CHEVRON U.S.A. INC.	0.180	868/528	N/A	N/A	N/A
	MAXWELL WILLIAM L	CHEVRON U.S.A. INC.	0.180	868/516	N/A	N/A	N/A
	MCINALLY BARBARA A	CHEVRON U.S.A. INC.	0.180	867/27	N/A	N/A	N/A
	MINES WILLIAM J	CHEVRON U.S.A. INC.	0.180	867/13	N/A	N/A	N/A
	MAXWELL STEPHEN LESLIE	CHEVRON U.S.A. INC.	0.180	867/39	N/A	N/A	N/A

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Plat ID	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
	TIEMAN BEVERLY K	CHEVRON U.S.A. INC.	0.180	866/633	N/A	N/A	N/A
	GABROVSEK CAROLYN K	CHEVRON U.S.A. INC.	0.180	867/63	N/A	N/A	N/A
	WAYNE RETTA JANE	CHEVRON U.S.A. INC.	0.180	867/7	N/A	N/A	N/A
	KOESTERS ROBERT	CHEVRON U.S.A. INC.	0.180	867/51	N/A	N/A	N/A
	BERNARD ANNALEE	CHEVRON U.S.A. INC.	0.180	867/45	N/A	N/A	N/A
	KOESTERS GARY	CHEVRON U.S.A. INC.	0.180	867/57	N/A	N/A	N/A
	MINES ROBERT L JR	CHEVRON U.S.A. INC.	0.180	867/21	N/A	N/A	N/A
	KOESTERS MICHAEL JOSEPH	CHEVRON U.S.A. INC.	0.180	868/592	N/A	N/A	N/A
	KURTZ CYNTHIA	CHEVRON U.S.A. INC.	0.180	867/33	N/A	N/A	N/A
	KOESTERS CHARLES RICHARD	CHEVRON U.S.A. INC.	0.180	866/639	N/A	N/A	N/A
	YEATER FREDRICK M	CHEVRON U.S.A. INC.	0.180	870/199	N/A	N/A	N/A
	DOWLER LOIS W AIF DAVID B DOWLER	CHEVRON U.S.A. INC.	0.180	870/193	N/A	N/A	N/A
04-0003-0046-0000-0000	BROWN ERIC W	CHEVRON U.S.A. INC.	0.180	870/205	N/A	N/A	N/A
	MAXWELL DAVID J	CHEVRON U.S.A. INC.	0.180	870/211	N/A	N/A	N/A
	ZULICK HOLLIS	CHEVRON U.S.A. INC.	0.180	869/1	N/A	N/A	N/A
	ZIRINGER LESLIE M	CHEVRON U.S.A. INC.	0.180	870/175	N/A	N/A	N/A
	SCHROTH MELISSA ELAIN	CHEVRON U.S.A. INC.	0.180	870/187	N/A	N/A	N/A
	HUPP HENRY M	CHEVRON U.S.A. INC.	0.180	870/181	N/A	N/A	N/A
	MAXWELL HARRY L AIF BRIAN L MAXWELL	CHEVRON U.S.A. INC.	0.180	872/367	N/A	N/A	N/A
	BROWN CLARENCE R	CHEVRON U.S.A. INC.	0.180	870/229	N/A	N/A	N/A
	MAXWELL JAMES H	CHEVRON U.S.A. INC.	0.180	870/217	N/A	N/A	N/A
	MORGAN MARY A	CHEVRON U.S.A. INC.	0.180	870/223	N/A	N/A	N/A
	ROGERSON NILA ELAINE AIF GARY ROGERSON	CHEVRON U.S.A. INC.	0.180	868/194	N/A	N/A	N/A
	HUNT MARK DAVID	CHEVRON U.S.A. INC.	0.180	868/628	N/A	N/A	N/A
	BROWN CHRISTOPHER M	CHEVRON U.S.A. INC.	0.180	868/598	N/A	N/A	N/A
	ARMSTRONG BEVERLY JOYCE	CHEVRON U.S.A. INC.	0.180	868/640	N/A	N/A	N/A
	CELLARS JEFFREY LYNN	CHEVRON U.S.A. INC.	0.180	868/634	N/A	N/A	N/A
	BROWN KEVIN MERLE	CHEVRON U.S.A. INC.	0.180	872/403	N/A	N/A	N/A
	CELLARS CHARLES EDWARD	CHEVRON U.S.A. INC.	0.180	872/385	N/A	N/A	N/A
	CELLARS JD	CHEVRON U.S.A. INC.	0.180	872/397	N/A	N/A	N/A
	CELLARS THOMAS WILLIAM	CHEVRON U.S.A. INC.	0.180	872/373	N/A	N/A	N/A
	CELLARS DONALD WAYNE	CHEVRON U.S.A. INC.	0.180	872/379	N/A	N/A	N/A
	CELLARS TERRY ALAN	CHEVRON U.S.A. INC.	0.180	872/391	N/A	N/A	N/A
	YARBROUGH DEBORAH MAXWELL	CHEVRON U.S.A. INC.	0.180	847/147	N/A	N/A	N/A
	WOODS RAYMOND W	CHEVRON U.S.A. INC.	0.180	868/522	N/A	N/A	N/A
	ANDERSON BONNIE D	CHEVRON U.S.A. INC.	0.180	867/114	N/A	N/A	N/A
	WOODS RICHARD W	CHEVRON U.S.A. INC.	0.180	868/528	N/A	N/A	N/A
	MAXWELL WILLIAM L	CHEVRON U.S.A. INC.	0.180	868/516	N/A	N/A	N/A

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Plat ID	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
	MCINALLY BARBARA A	CHEVRON U.S.A. INC.	0.180	867/27	N/A	N/A	N/A
	MINES WILLIAM J	CHEVRON U.S.A. INC.	0.180	867/13	N/A	N/A	N/A
	MAXWELL STEPHEN LESLIE	CHEVRON U.S.A. INC.	0.180	867/39	N/A	N/A	N/A
	TIEMAN BEVERLY K	CHEVRON U.S.A. INC.	0.180	866/633	N/A	N/A	N/A
	GABROVSEK CAROLYN K	CHEVRON U.S.A. INC.	0.180	867/63	N/A	N/A	N/A
	WAYNE RETTA JANE	CHEVRON U.S.A. INC.	0.180	867/7	N/A	N/A	N/A
	KOESTERS ROBERT	CHEVRON U.S.A. INC.	0.180	867/51	N/A	N/A	N/A
	BERNARD ANNALEE	CHEVRON U.S.A. INC.	0.180	867/45	N/A	N/A	N/A
	KOESTERS GARY	CHEVRON U.S.A. INC.	0.180	867/57	N/A	N/A	N/A
	MINES ROBERT L JR	CHEVRON U.S.A. INC.	0.180	867/21	N/A	N/A	N/A
	KOESTERS MICHAEL JOSEPH	CHEVRON U.S.A. INC.	0.180	868/592	N/A	N/A	N/A
	KURTZ CYNTHIA	CHEVRON U.S.A. INC.	0.180	867/33	N/A	N/A	N/A
	KOESTERS CHARLES RICHARD	CHEVRON U.S.A. INC.	0.180	866/639	N/A	N/A	N/A
	YEATER FREDRICK M	CHEVRON U.S.A. INC.	0.180	870/199	N/A	N/A	N/A
	DOWLER LOIS W AIF DAVID B DOWLER	CHEVRON U.S.A. INC.	0.180	870/193	N/A	N/A	N/A
04-0003-0046-0001-0000	BROWN ERIC W	CHEVRON U.S.A. INC.	0.180	870/205	N/A	N/A	N/A
	MAXWELL DAVID J	CHEVRON U.S.A. INC.	0.180	870/211	N/A	N/A	N/A
	ZULICK HOLLIS	CHEVRON U.S.A. INC.	0.180	869/1	N/A	N/A	N/A
	ZIRINGER LESLIE M	CHEVRON U.S.A. INC.	0.180	870/175	N/A	N/A	N/A
	SCHROTH MELISSA ELAIN	CHEVRON U.S.A. INC.	0.180	870/187	N/A	N/A	N/A
	HUPP HENRY M	CHEVRON U.S.A. INC.	0.180	870/181	N/A	N/A	N/A
	MAXWELL HARRY L AIF BRIAN L MAXWELL	CHEVRON U.S.A. INC.	0.180	872/367	N/A	N/A	N/A
	BROWN CLARENCE R	CHEVRON U.S.A. INC.	0.180	870/229	N/A	N/A	N/A
	MAXWELL JAMES H	CHEVRON U.S.A. INC.	0.180	870/217	N/A	N/A	N/A
	MORGAN MARY A	CHEVRON U.S.A. INC.	0.180	870/223	N/A	N/A	N/A
	ROGERSON NILA ELAINE AIF GARY ROGERSON	CHEVRON U.S.A. INC.	0.180	868/194	N/A	N/A	N/A
	HUNT MARK DAVID	CHEVRON U.S.A. INC.	0.180	868/628	N/A	N/A	N/A
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	ARMSTRONG BEVERLY JOYCE	CHEVRON U.S.A. INC.	0.180	868/640	N/A	N/A	N/A
	CELLARS JEFFREY LYNN	CHEVRON U.S.A. INC.	0.180	868/634	N/A	N/A	N/A
	BROWN KEVIN MERLE	CHEVRON U.S.A. INC.	0.180	872/403	N/A	N/A	N/A
	CELLARS CHARLES EDWARD	CHEVRON U.S.A. INC.	0.180	872/385	N/A	N/A	N/A
	CELLARS JD	CHEVRON U.S.A. INC.	0.180	872/397	N/A	N/A	N/A
	CELLARS THOMAS WILLIAM	CHEVRON U.S.A. INC.	0.180	872/373	N/A	N/A	N/A
	CELLARS DONALD WAYNE	CHEVRON U.S.A. INC.	0.180	872/379	N/A	N/A	N/A
	CELLARS TERRY ALAN	CHEVRON U.S.A. INC.	0.180	872/391	N/A	N/A	N/A
	CHAMBERLAIN ERIC	CHEVRON U.S.A. INC.	0.160	854/306	N/A	N/A	N/A
	CHAMBERLAIN BRAD	CHEVRON U.S.A. INC.	0.160	854/247	N/A	N/A	N/A

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Plat ID	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3	
14-0009-0007-0002-0000	CHAMBERLAIN ALYN BRENT	CHEVRON U.S.A. INC.	0.160	854/269	N/A	N/A	N/A	
	CHAMBERLAIN TODD	CHEVRON U.S.A. INC.	0.160	867/284	N/A	N/A	N/A	
	PLOWDEN GERALDINE	CHEVRON U.S.A. INC.	0.180	880/335	N/A	N/A	N/A	
	LARSON BARRY F ET UX	CHEVRON U.S.A. INC.	0.160	854/287	N/A	N/A	N/A	
	CARTWRIGHT JULIE	CHEVRON U.S.A. INC.	0.160	863/101	N/A	N/A	N/A	
	BIETH GREG	CHEVRON U.S.A. INC.	0.160	863/82	N/A	N/A	N/A	
	KELLER JENNIFER	CHEVRON U.S.A. INC.	0.160	854/358	N/A	N/A	N/A	
	BIETH TANYA	CHEVRON U.S.A. INC.	0.160	854/396	N/A	N/A	N/A	
	JONES DALE	CHEVRON U.S.A. INC.	0.160	854/377	N/A	N/A	N/A	
	PLOWDEN GERALDINE	CHEVRON U.S.A. INC.	0.180	880/335	N/A	N/A	N/A	
	NIX PAUL C	CHEVRON U.S.A. INC.	0.180	873/177	N/A	N/A	N/A	
	FIRST UNITED METHODIST CHURCH OF ORLANDO	CHEVRON U.S.A. INC.	0.160	873/196	N/A	N/A	N/A	
	DIXIE UNITED METHODIST CHURCH	CHEVRON U.S.A. INC.	0.160	889/160	N/A	N/A	N/A	
	BISHOP GRAY RETIREMENT FOUNDATION	CHEVRON U.S.A. INC.	0.180	889/179	N/A	N/A	N/A	
	LARSON JOYCE K	CHEVRON U.S.A. INC.	0.160	889/199	N/A	N/A	N/A	
	FL UNITED METHODIST CHILDRENS HOME INC	CHEVRON U.S.A. INC.	0.180	887/398	N/A	N/A	N/A	
	EMMANUEL EPISCOPAL CHURCH	CHEVRON U.S.A. INC.	0.160	901/172	N/A	N/A	N/A	
	EDGEWOOD CHILDRENS RANCH INC	CHEVRON U.S.A. INC.	0.180	887/378	N/A	N/A	N/A	
	14-0009-0007-0008-0000	CHAMBERLAIN ERIC	CHEVRON U.S.A. INC.	0.160	854/306	N/A	N/A	N/A
		CHAMBERLAIN BRAD	CHEVRON U.S.A. INC.	0.160	854/247	N/A	N/A	N/A
CHAMBERLAIN ALYN BRENT		CHEVRON U.S.A. INC.	0.160	854/269	N/A	N/A	N/A	
CHAMBERLAIN TODD		CHEVRON U.S.A. INC.	0.160	867/284	N/A	N/A	N/A	
PLOWDEN GERALDINE		CHEVRON U.S.A. INC.	0.180	880/335	N/A	N/A	N/A	
LARSON BARRY F ET UX		CHEVRON U.S.A. INC.	0.160	854/287	N/A	N/A	N/A	
CARTWRIGHT JULIE		CHEVRON U.S.A. INC.	0.160	863/101	N/A	N/A	N/A	
BIETH GREG		CHEVRON U.S.A. INC.	0.160	863/82	N/A	N/A	N/A	
KELLER JENNIFER		CHEVRON U.S.A. INC.	0.160	854/358	N/A	N/A	N/A	
BIETH TANYA		CHEVRON U.S.A. INC.	0.160	854/396	N/A	N/A	N/A	
JONES DALE		CHEVRON U.S.A. INC.	0.160	854/377	N/A	N/A	N/A	
PLOWDEN GERALDINE		CHEVRON U.S.A. INC.	0.180	880/335	N/A	N/A	N/A	
NIX PAUL C		CHEVRON U.S.A. INC.	0.180	873/177	N/A	N/A	N/A	
FIRST UNITED METHODIST CHURCH OF ORLANDO		CHEVRON U.S.A. INC.	0.160	873/196	N/A	N/A	N/A	
DIXIE UNITED METHODIST CHURCH		CHEVRON U.S.A. INC.	0.160	889/160	N/A	N/A	N/A	
BISHOP GRAY RETIREMENT FOUNDATION		CHEVRON U.S.A. INC.	0.180	889/179	N/A	N/A	N/A	
LARSON JOYCE K		CHEVRON U.S.A. INC.	0.160	889/199	N/A	N/A	N/A	

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Plat ID	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
	FL UNITED METHODIST CHILDRENS HOME INC	CHEVRON U.S.A. INC.	0.180	887/398	N/A		N/A
	EMMANUEL EPISCOPAL CHURCH	CHEVRON U.S.A. INC.	0.160	901/172	N/A		N/A
	EDGEWOOD CHILDRENS RANCH INC	CHEVRON U.S.A. INC.	0.180	887/378	N/A		N/A
14-0009-0007-0001-0000	SULLIVAN ROBERT B	TRIENERGY HOLDINGS, LLC	0.180	740/368	TRIENERGY HOLDINGS, LLC to CHEVRON U.S.A. INC 28/348		N/A
14-0009-0007-0007-0000	SULLIVAN ROBERT B	TRIENERGY HOLDINGS, LLC	0.180	740/368	TRIENERGY HOLDINGS, LLC to CHEVRON U.S.A. INC		N/A

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470810



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

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

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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 M04H
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>525699.01</u>
County:	<u>Marshall</u>		Northing:	<u>4417396.15</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: 40px;"><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 electronic or personal delivery, the return receipt card or other postal receipt for certified mailing.

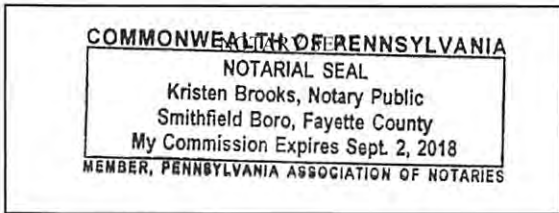
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Environmental Protection

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:	<u>Chevron Appalachia, LLC</u>	Address:	<u>800 Mountain View Drive</u>
By:	<u><i>Jenny Hayes</i></u>		<u>Smithfield, PA 15478</u>
Its:	<u>Permitting Team Lead</u>	Facsimile:	<u>724-564-3894</u>
Telephone:	<u>724-564-3755</u>	Email:	<u></u>



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
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>1,663,491.354</u>
County:	<u>Marshall</u>		Northing:	<u>514,415.442</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 514,415.442, East 1,663,491.354. 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>Project Engineer</u></p> <p>Signature: <u><i>Casey V. Saunders</i></u></p> <p>Date: <u>APR 07 2017</u></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 depprivacyofficer@wv.gov.

**WV Department of
Environmental Protection**

08/18/2017



CNX Coal Resources LP

CNX Center
1000 Consol Energy Drive
Canonsburg, PA 15317

phone: 724.663.7106
fax: 724.663.7159
e-mail: CaseySaunders@cnxlp.com

CASEY V. SAUNDERS

Senior Project Engineer

April 3, 2017

Mr. James Martin
West Virginia Department of Environmental Protection
601 57th Street
Office of Oil & Gas
Charleston, West Virginia 25304

RE: Chevron U.S.A. Inc. Proposed Hines M04H-M11H Wells

Dear Mr. Martin,

CONSOL Mining Company, LLC does not object to the Chevron U.S.A. Inc. well drilling applications for the above referenced proposed wells. Attached is the voluntary statement of no objection form WW-6AW. Please be aware that CONSOL Mining Company, LLC owns the Pittsburgh Seam at the location referenced in the permit applications. If you have any questions or require additional information, please contact me at 724-663-7106.

Sincerely,

A handwritten signature in black ink that reads 'Casey V. Saunders'.

Casey V. Saunders
Senior Project Engineer

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08/18/2017

**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: _____

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*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 variance, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing, 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 or reparation work they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. (f) If the secretary determines that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration 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

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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.

WW-6A
(8-13)

API NO. 47- _____ -
OPERATOR WELL NO. Hines M04H
Well Pad Name: Hines

Notice is hereby given by:

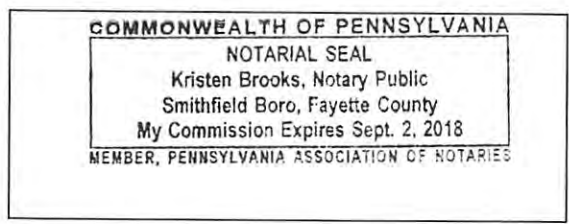
Well Operator: Chevron Appalachia, LLC
Telephone: 724-564-3700
Email: _____

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

Jenny Keys

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.



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

470-10708

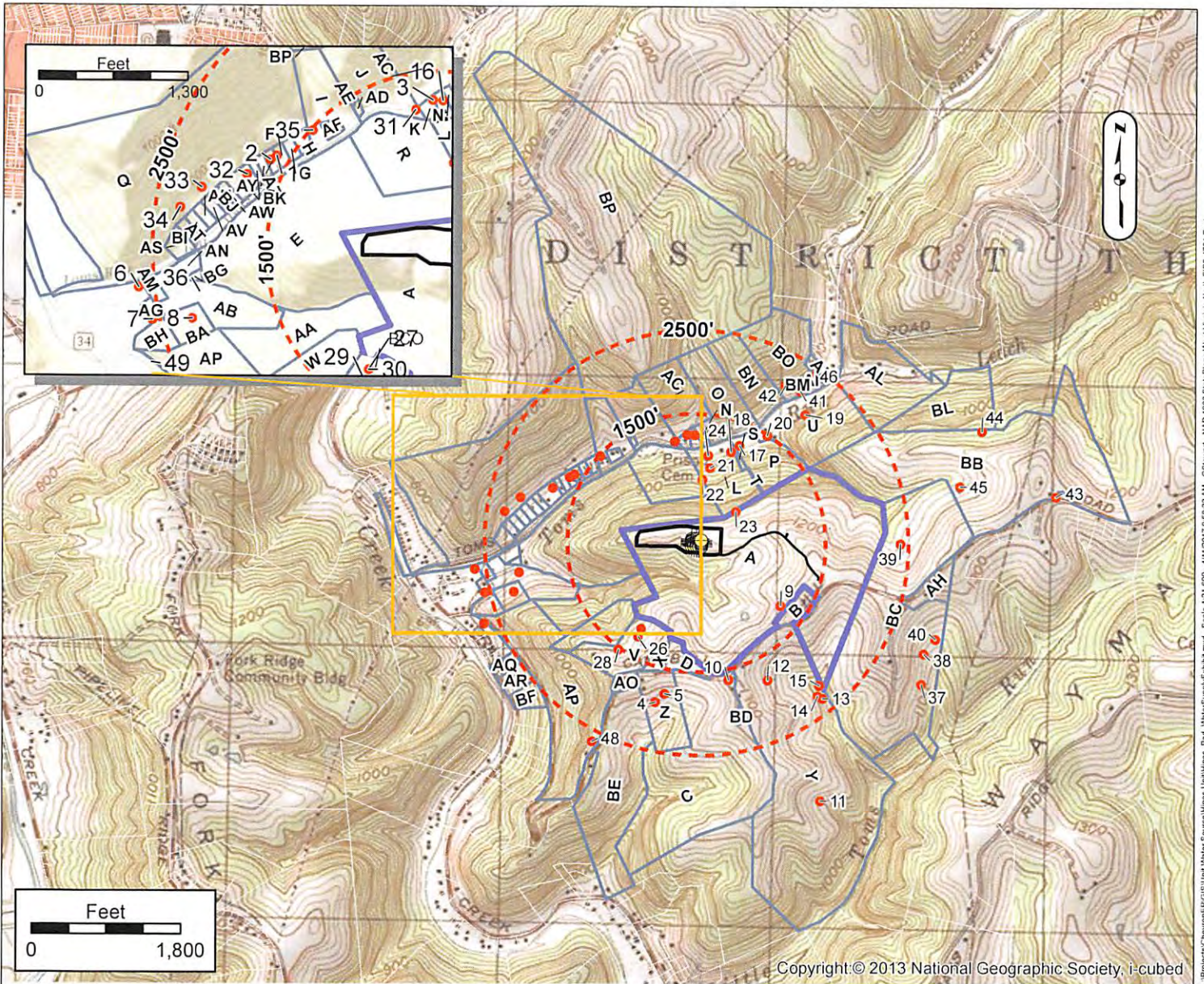
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08/18/2017



WATER SUPPLY EXHIBIT HINES PAD



LOT OWNERS

Label	OWNER	TM	Label	OWNER	TM	Label	OWNER	TM	Label	OWNER	TM
A	HINES DONALD E ET UX	25-14 1200310000000000	Q	HALL CHARLES B	25-14 1200240000000000	AG	GOODNIGHT ARNIE	25-14 1200670002000000	AW	YOHIO LYLE WAYNE	25-14 12A00070000000000
B	GOSSETT LANCE J ET UX	25-14 1200310000200000	R	STATE OF W VA	25-14 1200260000000000	AH	ROBERTS EARNEST L ET UX	25-14 1200310000100000	AX		
C	PARSONS HENRY T EST ET AL	25-14 1200310000000000	S	FITZSIMMONS JOHN E & ANGELA L	25-14 1200270000100000	AJ	PYLES RONNIE E ET UX	25-14 9004000000000000	AY	SMITH PAUL K & BETTY - LIFE	25-14 12A00990000000000
D	WOOD CLESTENE HINES	25-14 1200310000400000	T	KNUTH EDWARD DAVID & KATHY JO	25-14 1200280000100000	AK	THOMAS WILLIAM H ET UX	25-14 9003900010000000	AZ	ANDLINGER SANDRA SUE & LORI A	25-14 12A001000000000000
E	GOODNIGHT ARNIE N ET UX	25-14 1200250000000000	U	BEUFCKE JOHN A ET UX	25-14 1200290000000000	AL	THOMAS WILLIAM H ET UX	25-14 1200290000000000	BA	GOODNIGHT OSCAR J	25-14 1200670000100000
F	BROWN TERRY C ET UX	25-14 12A001100000000	V	LACFIELD MORGAN	25-14 1200300001000000	AM	BRADY ROGER A ET UX	25-14 9003900000000000	BB	RINE CHEY L JE	25-14 1100010000000000
G	TUCKER JESS L & HELEN	25-14 12A0012000000000	W	LACFIELD MORGAN T	25-14 1200300002000000	AN	HARTLEY PHYLLIS C	25-14 1200650003000000	BC	HOSKINS PATRICIA SUE	25-14 1200310000000000
H	YOHIO RAYMOND P	25-14 12A0013000000000	X	WOODS CLESIE	25-14 1200300006000000	AO	PARSONS HENRY T JR & VIOLET	25-14 1200450001000000	BD	FULLER ROBERT B ET UX	25-14 1200330001000000
I	MCCARTNEY MICHAEL J ET UX	25-14 9004500000000000	Y	GOULDSBERRY DOUGLAS EDWARD ET	25-14 1200320000000000	AP	VAN SCYOC DELBERT M ET UX	25-14 1200650000000000	BE	PARSONS HENRY T EST ET AL	25-14 1200450000000000
J	LUCAS LEONARD L ET UX	25-14 9004500000000000	Z	BOSTON DONALD M ET UX	25-14 1200330000200000	AQ	JENKINS MICHAEL LEE ET UX	25-14 1200540006000000	BF	HARVETH GEORGE R ET UX	25-14 1200640000000000
K	BAKER BOBBY G ET UX	25-14 9004400010000000	AA	GOODNIGHT ARNIE N ET UX	25-14 1200660000000000	AR	SCHNEIDER JOHN M & FALINE J	25-14 1200940008000000	BG		25-14 1200660000100000
L	KNUTH EDWARD DAVID ET UX	25-14 1200270000000000	AB	GOODNIGHT GEORGE ET UX ESTS	25-14 1200670000000000	AS	THOMAS HARRY ET UX	25-14 12A00010000000000	BH	GOODNIGHT ARNIE	25-14 1200670001000000
M	GRANDSTAFF EIMER JR ET UX	25-14 9004400010000000	AC	LUCAS LEONARD L ET UX	25-14 9004400020000000	AT	WHITELATCH DEBBE ANN	25-14 12A00020000000000	BI	HOLT MARVIN JUNIOR ET UX LIFE	25-14 12A00010000000000
N	BAKER BRUCE W ET UX	25-14 9004400040000000	AD	LUCAS LEONARD ET UX	25-14 9004400010000000	AU	FOSTER NORMA	25-14 12A00040000000000	BJ	YOHIO LYLE WAYNE	25-14 12A00060000000000
O	OLIVER GERALD ET AL	25-14 9004400000000000	AE	LUCAS LEONARD ET UX	25-14 9004400020000000	AV	FOSTER NORMA	25-14 12A00050000000000	BK	CHURCH OF GOD 7TH DAY TRUSTEES	25-14 12A00080000000000
P	BROWN TOBIAS & JESSICA	25-14 1200280000000000	AF	MCCARTNEY MICHAEL J ET UX	25-14 9004500010000000				BL	BRADY ROGER A ET UX	25-14 9003500000000000

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: MOUNDALE
 Groundwater & Environmental Services, Inc.
 Address: 301 COMMERCE PARK DR
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 SURVEY. PROPERTY LINES AND OWNER INFORMATION WERE OBTAINED FROM DEEDS, TAX RECORDS, AERIAL PHOTOGRAPHY, GIS, AND FIELD SURVEYED EVIDENCE.

08/16/2017

L:\Projects\Chevron\PGUS\Unit Water Sources\Hines_Pad_WaterSupplyExhibit.mxd - Scale: 1:1,000 - 4/11/2017 9:56:22 AM - G:\Server - NAD 1983 StatePlane West Virginia North FIPS 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

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

08/18/2017



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

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Environmental Protection

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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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WV Department of
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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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Environmental Protection

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08/18/2017

WW-6A4
(1/12)

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 Name: _____
Address: 301 4th Street Address: _____
Glen Dale, WV 26038

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: West Virginia UTM NAD 83 Easting: 525699.01
County: Marshall Northing: 4417396.15
District: Washington Public Road Access: Route 38/Campbell Hill Road
Quadrangle: Moundsville, WV 7.5' Generally used farm name: Hines
Watershed: Middle Grave Creek - Grave Creek

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: 470570198
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, 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
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>1,663,491.354</u>
County:	<u>Marshall</u>		Northing:	<u>514,415.442</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 514,415.442, East 1,663,491.354. 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: <u>Casey V. Saunders</u></p> <p>Date: <u>APR 24 2017</u></p>
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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.

**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

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, _____, 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>	UTM NAD 83	Easting: <u>525699.01</u>
County: <u>Marshall</u>		Northing: <u>4417396.15</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: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>Chevron U.S. Inc.</u></p> <p>By: <u>Chad Eisenman</u></p> <p>Its: <u>Legislative Office of Oil and Gas</u></p> <p>Signature: <u>Chad Eisenman</u></p> <p>Date: <u>4.10.17</u></p>
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WV Department of
Environmental Protection

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.

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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Comment and Waiver Provisions

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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, _____, 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>	UTM NAD 83 Easting: <u>525699.01</u>
County: <u>Marshall</u>	UTM NAD 83 Northing: <u>4417396.15</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 style="text-align: center;">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 style="text-align: center;">FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: _____</p> <p>By: _____</p> <p>Its: _____</p> <p>Signature: _____</p> <p>Date: <u>RECEIVED</u></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. 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 depprivacyofficer@wv.gov.

APR 24 2017
WV Department of Environmental Protection



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

47-051-01926	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	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

RECEIVED
Office of Oil and Gas

APR 24 2017

WV Department of
Environmental Protection

08/18/2017

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

HINES WELL SITE EROSION AND SEDIMENT CONTROL PLAN

CAMPBELL HILL ROAD (C.R. 38)

WASHINGTON DISTRICT, MARSHALL COUNTY, WEST VIRGINIA

PREPARED FOR:

CHEVRON APPALACHIA, LLC

800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA 15478

**APPROVED
WVDEP OOG**

5/15/2017

CONSULTANTS
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
4000 TRIANGLE LANE, SUITE 200
EXPORT, PA 15632
PHONE: 724-327-5200

CIVIL/SITE ENGINEER CONTACT: TODD C. BALDWIN, P.E.
EMAIL ADDRESS: tbaldein@cecinc.com

GEOTECHNICAL ENGINEER CONTACT: MICHAEL J. SHELEVEDA, P.E.
EMAIL ADDRESS: mshelevedo@cecinc.com

SITE COORDINATES AND WATERSHED

START OF ACCESS ROAD
LATITUDE: 39.90495° N, LONGITUDE: 80.69336° W

END OF ACCESS ROAD
LATITUDE: 39.90592° N, LONGITUDE: 80.69911° W

APPROXIMATE CENTER OF WELL PAD
LATITUDE: 39.90639° N, LONGITUDE: 80.69991° W

CENTER OF ABOVE GROUND STORAGE TANK
LATITUDE: 39.90642° N, LONGITUDE: 80.70023° W

*BASED ON NAD 83, WEST VIRGINIA NORTH ZONE

WATERSHED NAME: UPPER OHIO SOUTH
RECEIVING STREAM: UNNAMED TRIBUTARIES TO TOMS RUN

**STREAM AND WETLAND PERMANENT IMPACTS
(SUBJECT TO USACE NATIONAL WETLANDS PERMIT 39)**

UNIT 1 TO TOMS CREEK (EPH) - 192 LF

WETLAND 1A (PEM) - 0.02 AC

WETLAND 1B (PEM) - 0.01 AC

**WETLANDS WITHIN 100 LF OF THE LIMIT OF
DISTURBANCE (SUBJECT TO WETLAND WAIVER REQUEST)**

WETLAND 2A (PEM) - 44 FT FROM LOD

WETLAND 2B (PEM) - 0.4 LF FROM LOD

WETLAND 3A (PEM) - 25 LF FROM LOD

WETLAND 4A (PEM) - 41 LF FROM LOD

REFERENCES

- TOPOGRAPHY AND PROPERTY INFORMATION PROVIDED BY BLUE MOUNTAIN INC. AERIAL PHOTOGRAPHY DATED 3/31/2014.
- STREAM AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/19/2016.
- UNDERGROUND UTILITIES LOCATED BY A GEOTECHNICAL SURVEY CONDUCTED BY THE GEOTECHNICAL LTD. DATED 10/19/2016 TO 10/20/2016.
- MARKED UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/28/2016.

Wellhead No.	Northing	Eastng	Latitude (North)	Longitude (West)
M001	514487.016	1632056.919	39.900382	80.699340
M024	514482.028	1632056.332	39.900341	80.699341
M029	514487.039	1632055.744	39.900299	80.699342
M044	514482.051	1632055.157	39.900258	80.699344
M054	514487.062	1632054.569	39.900217	80.699345
M074	514482.074	1632053.982	39.900176	80.699346
M074	514487.085	1632053.394	39.900135	80.699348
M089	514482.097	1632052.807	39.900094	80.699349
M089	514487.108	1632052.219	39.900053	80.699350
M089	514482.119	1632051.632	39.900012	80.699351
M089	514487.130	1632051.044	39.900015	80.699352
M089	514482.141	1632050.457	39.900015	80.699353
M089	514487.152	1632050.869	39.900015	80.699354
M089	514482.163	1632050.282	39.900015	80.699355
M089	514487.174	1632050.694	39.900015	80.699356
M089	514482.185	1632050.107	39.900015	80.699357
M089	514487.196	1632049.519	39.900015	80.699358
M089	514482.207	1632048.932	39.900015	80.699359
M089	514487.218	1632048.344	39.900015	80.699360
M089	514482.229	1632047.757	39.900015	80.699361
M089	514487.240	1632047.169	39.900015	80.699362
M089	514482.251	1632046.582	39.900015	80.699363
M089	514487.262	1632045.994	39.900015	80.699364
M089	514482.273	1632045.407	39.900015	80.699365
M089	514487.284	1632044.819	39.900015	80.699366
M089	514482.295	1632044.232	39.900015	80.699367
M089	514487.306	1632043.644	39.900015	80.699368
M089	514482.317	1632043.057	39.900015	80.699369
M089	514487.328	1632042.469	39.900015	80.699370
M089	514482.339	1632041.882	39.900015	80.699371
M089	514487.350	1632041.294	39.900015	80.699372
M089	514482.361	1632040.707	39.900015	80.699373
M089	514487.372	1632040.119	39.900015	80.699374
M089	514482.383	1632040.532	39.900015	80.699375
M089	514487.394	1632039.944	39.900015	80.699376
M089	514482.405	1632039.357	39.900015	80.699377
M089	514487.416	1632038.769	39.900015	80.699378
M089	514482.427	1632038.182	39.900015	80.699379
M089	514487.438	1632037.594	39.900015	80.699380
M089	514482.449	1632037.007	39.900015	80.699381
M089	514487.460	1632036.419	39.900015	80.699382
M089	514482.471	1632035.832	39.900015	80.699383
M089	514487.482	1632035.244	39.900015	80.699384
M089	514482.493	1632034.657	39.900015	80.699385
M089	514487.504	1632034.069	39.900015	80.699386
M089	514482.515	1632033.482	39.900015	80.699387
M089	514487.526	1632032.894	39.900015	80.699388
M089	514482.537	1632032.307	39.900015	80.699389
M089	514487.548	1632031.719	39.900015	80.699390
M089	514482.559	1632031.132	39.900015	80.699391
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M089	514482.603	1632028.782	39.900015	80.699395
M089	514487.614	1632028.194	39.900015	80.699396
M089	514482.625	1632027.607	39.900015	80.699397
M089	514487.636	1632027.019	39.900015	80.699398
M089	514482.647	1632026.432	39.900015	80.699399
M089	514487.658	1632025.844	39.900015	80.699400
M089	514482.669	1632025.257	39.900015	80.699401
M089	514487.680	1632024.669	39.900015	80.699402
M089	514482.691	1632024.082	39.900015	80.699403
M089	514487.702	1632023.494	39.900015	80.699404
M089	514482.713	1632022.907	39.900015	80.699405
M089	514487.724	1632022.319	39.900015	80.699406
M089	514482.735	1632021.732	39.900015	80.699407
M089	514487.746	1632021.144	39.900015	80.699408
M089	514482.757	1632020.557	39.900015	80.699409
M089	514487.768	1632019.969	39.900015	80.699410
M089	514482.779	1632019.382	39.900015	80.699411
M089	514487.790	1632018.794	39.900015	80.699412
M089	514482.801	1632018.207	39.900015	80.699413
M089	514487.812	1632017.619	39.900015	80.699414
M089	514482.823	1632017.032	39.900015	80.699415
M089	514487.834	1632016.444	39.900015	80.699416
M089	514482.845	1632015.857	39.900015	80.699417
M089	514487.856	1632015.269	39.900015	80.699418
M089	514482.867	1632014.682	39.900015	80.699419
M089	514487.878	1632014.094	39.900015	80.699420
M089	514482.889	1632013.507	39.900015	80.699421
M089	514487.900	1632012.919	39.900015	80.699422
M089	514482.911	1632012.332	39.900015	80.699423
M089	514487.922	1632011.744	39.900015	80.699424
M089	514482.933	1632011.157	39.900015	80.699425
M089	514487.944	1632010.569	39.900015	80.699426
M089	514482.955	1632010.982	39.900015	80.699427
M089	514487.966	1632010.394	39.900015	80.699428
M089	514482.977	1632009.807	39.900015	80.699429
M089	514487.988	1632009.219	39.900015	80.699430
M089	514482.999	1632008.632	39.900015	80.699431
M089	514488.010	1632008.044	39.900015	80.699432
M089	514488.021	1632007.457	39.900015	80.699433
M089	514488.032	1632006.869	39.900015	80.699434
M089	514488.043	1632006.282	39.900015	80.699435
M089	514488.054	1632005.694	39.900015	80.699436
M089	514488.065	1632005.107	39.900015	80.699437
M089	514488.076	1632004.519	39.900015	80.699438
M089	514488.087	1632003.932	39.900015	80.699439
M089	514488.098	1632003.344	39.900015	80.699440
M089	514488.109	1632002.757	39.900015	80.699441
M089	514488.120	1632002.169	39.900015	80.699442
M089	514488.131	1632001.582	39.900015	80.699443
M089	514488.142	1632000.994	39.900015	80.699444
M089	514488.153	1632000.407	39.900015	80.699445
M089	514488.164	1632000.819	39.900015	80.699446
M089	514488.175	1632000.232	39.900015	80.699447
M089	514488.186	1632000.644	39.900015	80.699448
M089	514488.197	1632000.057	39.900015	80.699449
M089	514488.208	1632000.469	39.900015	80.699450
M089	514488.219	1632000.882	39.900015	80.699451
M089	514488.230	1632000.294	39.900015	80.699452
M089	514488.241	1632000.707	39.900015	80.699453
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M089	514488.274	1632000.944	39.900015	80.699456
M089	514488.285	1632000.357	39.900015	80.699457
M089	514488.296	1632000.769	39.900015	80.699458
M089	514488.307	1632000.182	39.900015	80.699459
M089	514488.318	1632000.594	39.900015	80.699460
M089	514488.329	1632000.007	39.900015	80.699461
M089	514488.340	1632000.419	39.900015	80.699462
M089	514488.351	1632000.832	39.900015	80.699463
M089	514488.362	1632000.244	39.900015	80.699464
M089	514488.373	1632000.657	39.900015	80.699465
M089	514488.384	1632000.069	39.900015	80.699466
M089	514488.395	1632000.482	39.900015	80.699467
M089	514488.406	1632000.894	39.900015	80.699468
M089	514488.417	1632000.307	39.900015	80.699469
M089	514488.428	1632000.719	39.900015	80.699470
M089	514488.439	1632000.132	39.900015	80.699471
M089	514488.450	1632000.544	39.900015	80.699472
M089	514488.461	1632000.957	39.900015	80.699473
M089	514488.472	1632000.369	39.900015	80.699474
M089	514488.483	1632000.782	39.900015	80.699475
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M089	514488.505	1632000.607	39.900015	80.699477
M089	514488.516	1632000.019	39.900015	80.699478
M089	514488.527	1632000.432	39.900015	80.699479
M089	514488.538	1632000.844	39.900015	80.699480
M089	514488.549	1632000.257	39.900015	80.699481
M089	514488.560	1632000.669	39.900015	80.699482
M089	514488.571	1632000.082	39.900015	80.699483
M089	514488.582	1632000.494	39.900015	80.699484
M089	514488.593	1632000.907	39.900015	80.699485
M089	514488.604	1632		

FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY



APPROVED
WVDEP OOG
 8/21 5/15/2017

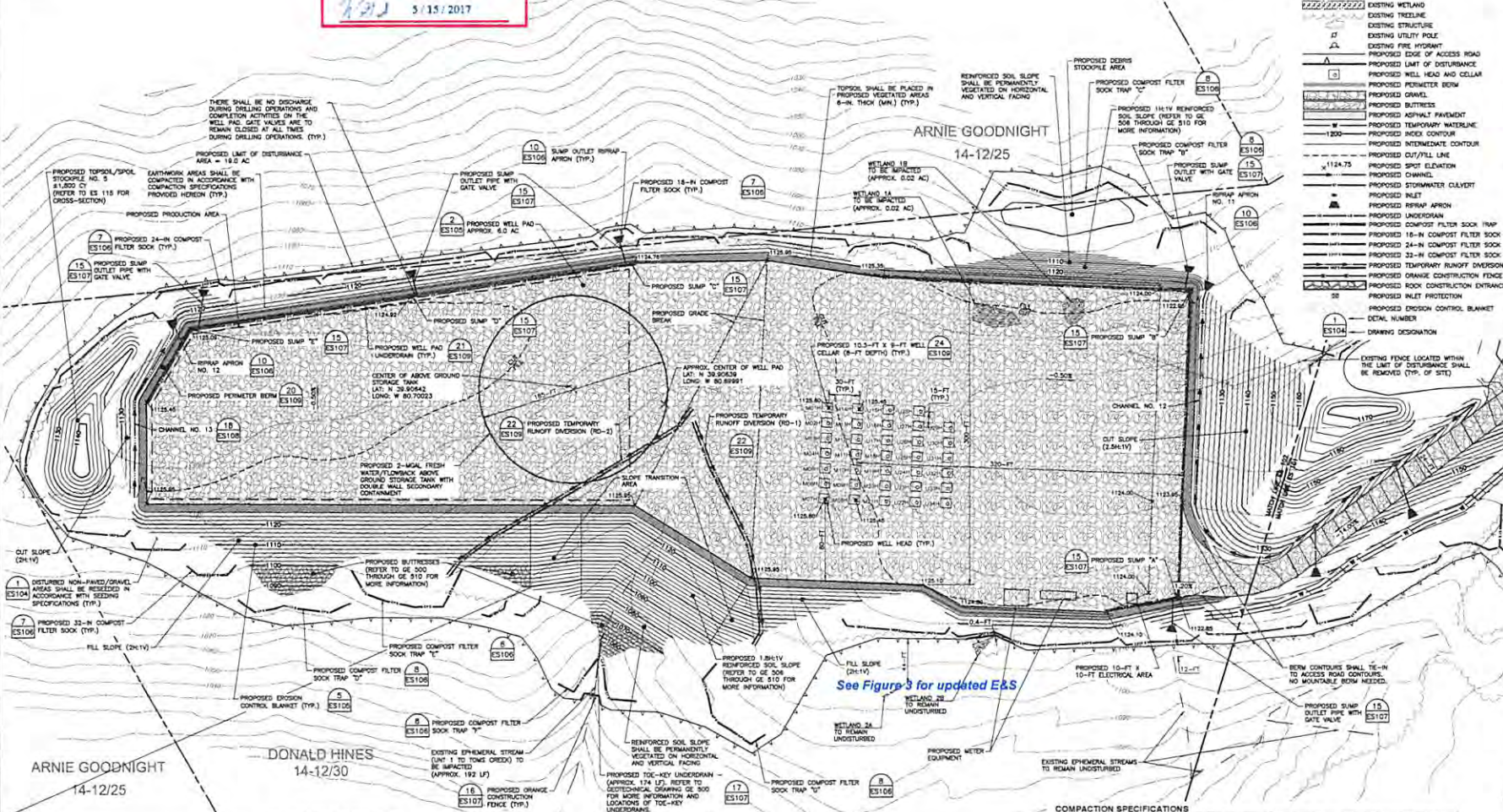
EDWARD KNUTH
14-12/27

ARNIE GOODNIGHT
14-12/25

DONALD HINES
14-12/30

LEGEND

---	EXISTING PROPERTY LINE
---	EXISTING INDOOR CONTOUR
---	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 TREELINE
---	EXISTING STRUCTURE
---	EXISTING UTILITY POLE
---	EXISTING FIRE HYDRANT
---	PROPOSED EDGE OF ACCESS ROAD
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED WELL HEAD AND CELLAR
---	PROPOSED PERIMETER BEAM
---	PROPOSED BUTTRESS
---	PROPOSED ASPHALT PAVEMENT
---	PROPOSED TEMPORARY WATERLINE
---	PROPOSED INDOOR CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	PROPOSED OUTFALL LINE
---	PROPOSED SLOPE ELEVATION
---	PROPOSED CHANNEL
---	PROPOSED STORMWATER CULVERT
---	PROPOSED INLET
---	PROPOSED BRRAP APRON
---	PROPOSED UNDERDRAIN
---	PROPOSED COMPOST FILTER SOCK TRAP
---	PROPOSED 18-IN COMPOST FILTER SOCK
---	PROPOSED 24-IN COMPOST FILTER SOCK
---	PROPOSED 33-IN COMPOST FILTER SOCK
---	PROPOSED TEMPORARY RUNOFF DIVERSION
---	PROPOSED ORANGE CONSTRUCTION FENCE
---	PROPOSED ROCK CONSTRUCTION ENTRANCE
---	PROPOSED INLET PROTECTION
---	PROPOSED EROSION CONTROL BLANKET
---	DETAILED NUMBER
---	DRAWING DESIGNATION



- REFERENCES**
1. TOPOGRAPHY AND PROPERTY INFORMATION PROVIDED BY BLUE MOUNTAIN INC. AERIAL PHOTOGRAPHY DATED 3/21/2014.
 2. STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/18/2016.
 3. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICS LTD. DATED 10/18/2016 TO 10/20/2016.
 4. MARKED UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 10/26/2016.

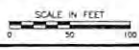
- STREAM AND WETLAND NOTES**
1. WETLAND WANDERS ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WETLANDS THAT ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE: WETLAND 2A, WETLAND 2B, WETLAND 3A, AND WETLAND 3B.
 2. THE FOLLOWING TWO (2) WETLANDS AND (1) EPHEMERAL STREAM ARE LOCATED WITHIN THE LIMIT OF DISTURBANCE AND ARE SUBJECT TO THE LICENSE NUMBERING POINT 38 FOR PERMANENT IMPACTS: WETLAND 1A, WETLAND 1B, AND LIMIT 1 TO TONS OREX.
 3. THE STREAMS SHOWN HEREIN ARE EPHEMERAL. AS SUCH, A WAIVER IS NOT BEING REQUESTED FOR PERMANENT STREAMS.
 4. DIMENSIONS SHOWN HEREIN ARE MEASURED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

- NOTES**
1. CELLARS FOR WELLS MOUTH THROUGH M14M TO BE INSTALLED DURING THE INITIAL SITE CONSTRUCTION. THE REMAINING CELLARS TO BE INSTALLED AS THE DRILLING PROGRAM PROGRESSES.
 2. RUNOFF DIVERSIONS RD-1 AND RD-2 SHALL BE INSTALLED AT THE START OF THE PROJECT AND BE LEFT IN PLACE DURING REINFORCED SOIL SLOPE CONSTRUCTION UNTIL THE CONSTRUCTION REACHES THE ELEVATION OF THE RUNOFF DIVERSIONS AT WHICH TIME THE RUNOFF DIVERSIONS MAY BE REMOVED.



MISS UTILITY OF
WEST VIRGINIA
1-800-245-4848
West Virginia State Line
(Section XV, Chapter 24-C requires that you dig in the state of West Virginia.
IT'S THE LAW

- COMPACTION SPECIFICATIONS**
1. PLACE FILL MATERIALS USING COMPACTION EQUIPMENT WITH GREATER THAN 10-TON WEIGHT IN COMPACTED LIFTS NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LOOSE LIFT THICKNESS OF 8 INCHES MAXIMUM IN AREAS WHERE STEEL-PLATE TAMPERS OR OTHER HAND-OPERATED COMPACTIONERS ARE BEING USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 12 INCHES IN STRUCTURAL FILL AREAS WHERE HEAVY, SELF-PROPELLED COMPACTIONERS ARE UTILIZED. A REDUCED MAXIMUM PARTICLE SIZE OF 3 INCHES SHOULD BE USED IN AREAS WHERE HAND-OPERATED COMPACTIONERS ARE USED. WASTE OVERSIZED PARTICLES (EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE) OUTSIDE OF THE PROPOSED FILL AREAS OR IN DEEPEST AREAS OF FILL, OVERSIZED ROCK PARTICLES (I.E., MATERIALS EXCEEDING 8 INCHES) PLACED IN THE DEEPEST LIMITS OF FILL SHOULD BE PLACED IN LIFTS NOT EXCEEDING 24 INCHES. LIFTS SHOULD BE COMPACTED IN SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
 2. 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 PRACTICE).



REVISION RECORD

NO.	DATE	DESCRIPTION
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HINES WELL SITE
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA 15478

EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)
Project Number: 156-025-0040
Drawing Scale: 1"=50'
Date Issued: 05/02/2017
Index Number: 05/02/2017
Drawn By: JAM
Checked By: LCE
Project Manager: SUE
ES 102

