



 west virginia department of environmental protection

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

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

Friday, March 1, 2019
 WELL WORK PERMIT
 Horizontal 6A / New Drill

CHEVRON APPALACHIA, LLC
 700 CHERRINGTON PARKWAY


CORAOPOLIS, PA 15108

Re: Permit approval for FREELAND M04H
 47-051-02146-00-00

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: FREELAND M04H
 Farm Name: JOSEPH L. FREELAND ET UX
 U.S. WELL NUMBER: 47-051-02146-00-00
 Horizontal 6A New Drill
 Date Issued: 3/1/2019

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.

API Number: _____

03/08/2019

PERMIT CONDITIONS

4705102146

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.



west virginia department of environmental protection

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

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

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

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

DATE: February 24, 2019
ORDER NO.: 2019-W-5

INTRODUCTION

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

FINDINGS OF THE CHIEF

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

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. Chevron Appalachia, LLC is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as P.O. Box 611, Moon Township, Pennsylvania.
3. On December 17, 2018, Chevron Appalachia, LLC submitted well work permit applications identified as API#s 47-051-02142, 47-051-02143, 47-051-02145, 47-051-02146, 47-051-02148, 47-051-02151, 47-051-02153 and 47-051-02154. The proposed wells are to be located on the Freeland Pad in Clay District of Marshall County, West Virginia.
4. On February 20, 2019, Chevron Appalachia, LLC requested a waiver for Wetlands 1A, 1B, 2 and 4 outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s s 47-051-02142, 47-051-02143, 47-051-02145, 47-051-02146, 47-051-02148, 47-051-02151, 47-051-02153 and 47-051-02154.

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

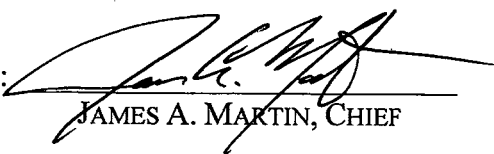
West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetlands 1A 1B, 2 and 4 from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s s 47-051-02142, 47-051-02143, 47-051-02145, 47-051-02146, 47-051-02148, 47-051-02151, 47-051-02153 and 47-051-02154. The Office of Oil and Gas hereby **ORDERS** that Chevron Appalachia, LLC shall meet the following site construction and operational requirements for the Freeland Well Pad:

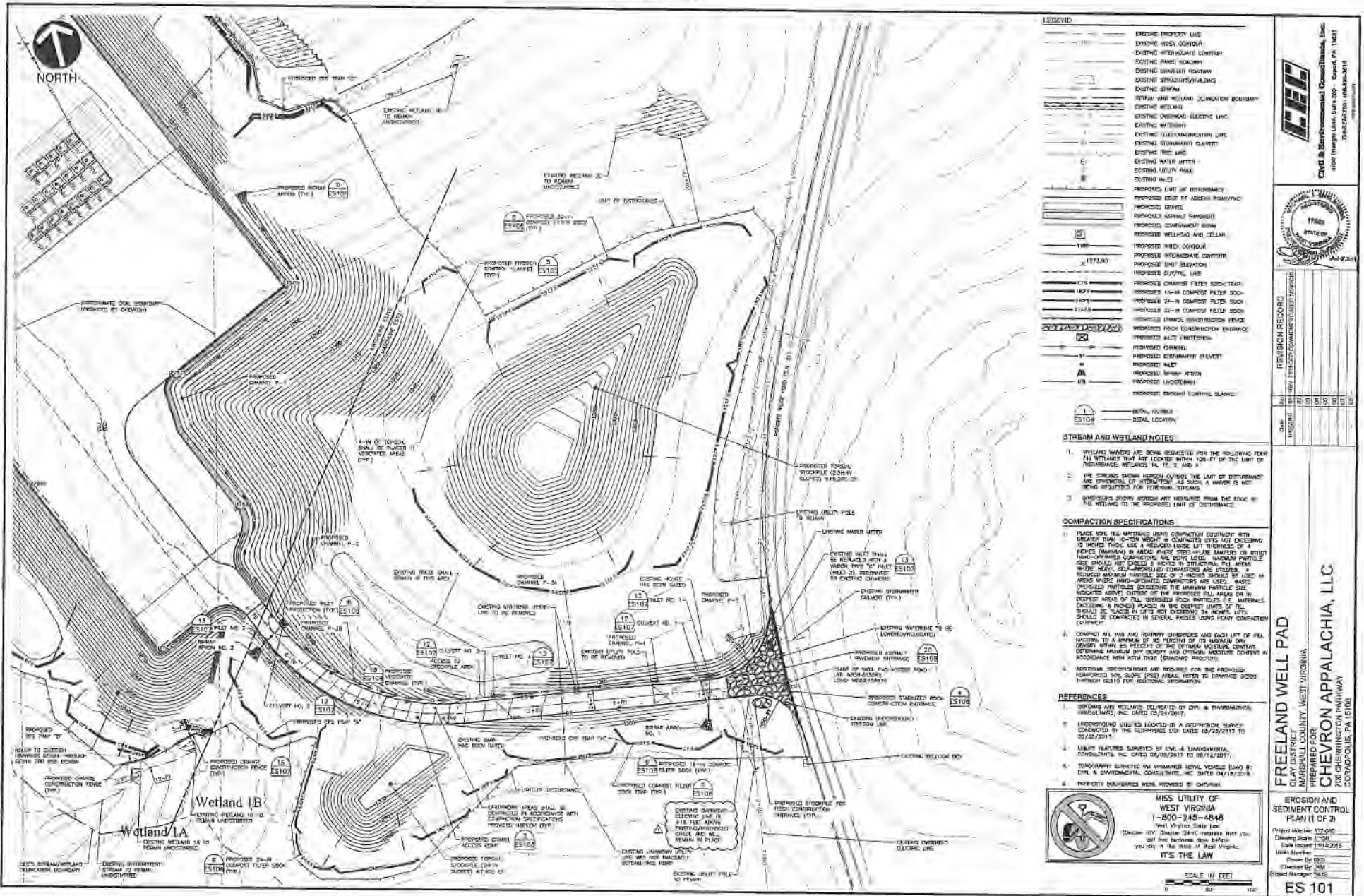
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland 1A, 1B and 2 shall have both a compost filter sock trap and a layer of thirty two-inch (32”) compost filter sock to prevent any sediment from reaching the wetland from the well pad. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Wetland 4 shall have a compost filter sock trap and a layer of thirty two-inch (32”) compost filter sock or a layer of eighteen-inch (18”) compost filter sock to prevent any sediment from reaching the wetland from the well pad. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- e. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- f. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- g. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- h. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- i. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- j. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- k. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- l. All records from inspections shall be maintained on site for the life of the project and be available upon request.

Thus ORDERED, the 24th day of February, 2019.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF



ENVIRONMENTAL CONSULTANTS, INC.
1401 HERRING LANE SUITE 200 - COVINGTON, KY 40301
PH: 502-845-1111
WWW.ENVCONS.COM



REVISION RECORD

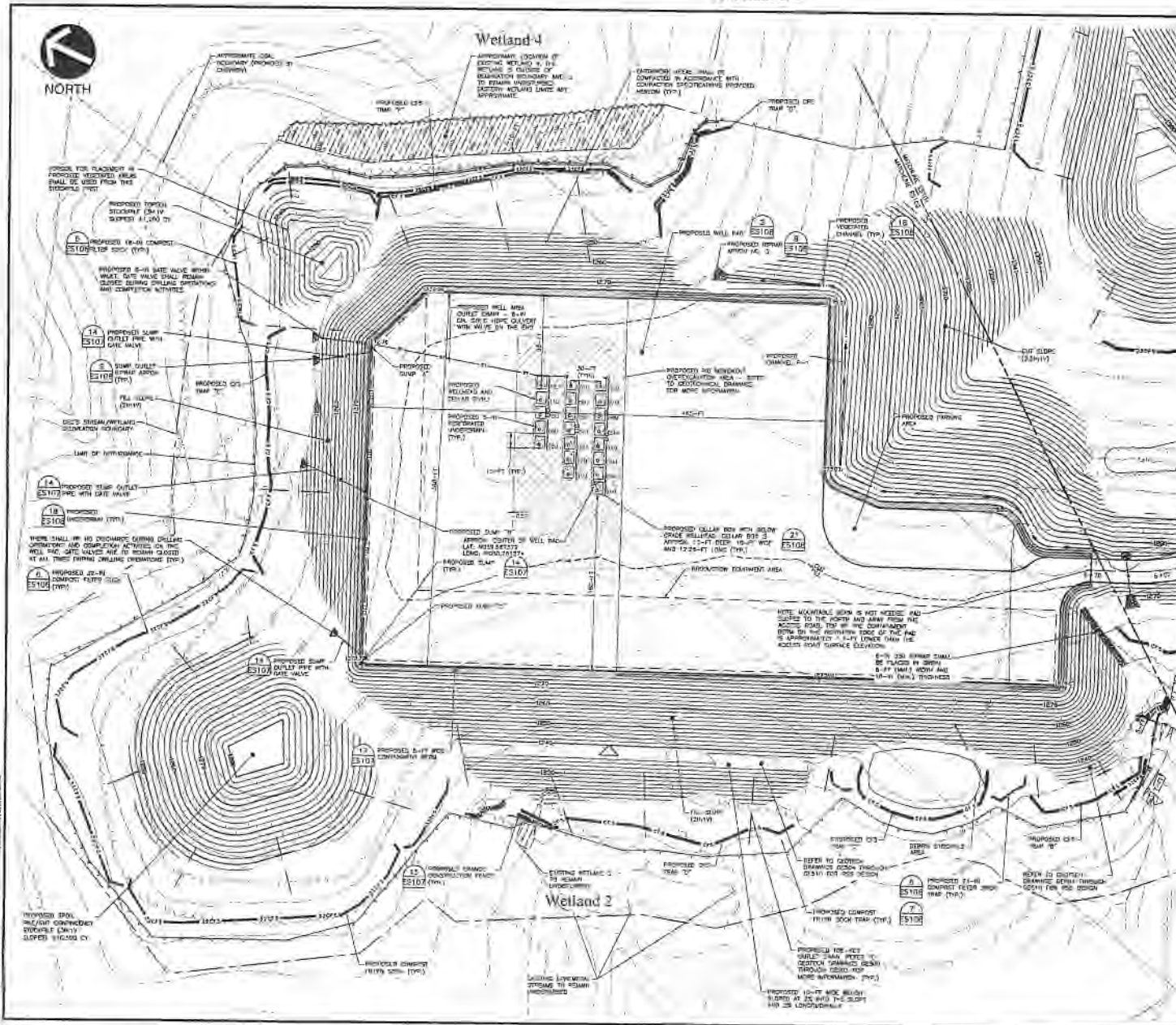
NO.	DATE	DESCRIPTION
1	08/14/2018	ISSUED FOR PERMIT
2	08/14/2018	ISSUED FOR PERMIT
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4	08/14/2018	ISSUED FOR PERMIT
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100	08/14/2018	ISSUED FOR PERMIT

FREELAND WELL PAD
CLAY DISTRICT
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR
CHEVRON APPALACHIA, LLC
700 CHERINGTON PARKWAY
CORADROPOLIS, PA 15108

EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)

Project Number: 172-040
Drawing Title: ESC
Scale: 1/4" = 1'-0"
Date Issued: 08/14/2018
Issue Number: 1
Drawn By: JAW
Checked By: JAW
Good Manager: SEB

ES 101



LEGEND

- EXISTING PROPERTY LINE
- EXISTING WELLS CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING PAVED ROADWAY
- EXISTING GRAVEL ROADWAY
- EXISTING STRUCTURE/FOUNDATION
- EXISTING STREAM
- CROWN AND WELAND DELINEATION ROADWAY
- EXISTING WELAND CONTOUR
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING WATERLINE
- EXISTING TELEPHONE/CABLELINE
- EXISTING STORMWATER DRAINAGE
- EXISTING TREE LINE
- EXISTING WATER WHEEL
- EXISTING METAL POLE
- EXISTING WELLS
- PROPOSED LOT OF DEVELOPMENT
- PROPOSED EDGE OF ACCESS ROAD/PAVED
- PROPOSED ROADWAY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE RETAIN WALL
- PROPOSED CONCRETE AND CURB
- PROPOSED WOOD CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- PROPOSED 200' ELEVATION
- PROPOSED 250' ELEVATION
- PROPOSED CONCRETE FILTER SAND TRAP
- PROPOSED 18-IN CONCRETE FILTER SAND
- PROPOSED 24-IN CONCRETE FILTER SAND
- PROPOSED 32-IN CONCRETE FILTER SAND
- PROPOSED GRAVEL CONSTRUCTION PAD
- PROPOSED ROCK CONSTRUCTION EXPOSED
- PROPOSED SILT PROTECTION
- PROPOSED CHANNEL
- PROPOSED STORMWATER DRAINAGE
- PROPOSED WELLS
- PROPOSED BRUSH ARCH
- PROPOSED WOODSHED
- PROPOSED CROWN CONTROL BATTERY

100' HORIZONTAL
50' VERTICAL

STREAM AND WETLAND NOTES

- WELAND BOUNDARIES ARE BEING PROTECTED FOR THE FOLLOWING FOUR (4) WETLANDS THAT ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE: WETLAND 1A, 1B, 2, AND 4.
- THE STREAM SHOWN WITHIN OUTSIDE THE LIMIT OF DISTURBANCE ARE DETERMINED ON RECONSTRUCTION AS SUCH, A ROAD IS NOT BEING RECONSTRUCTED WITHIN WETLANDS.
- WETLANDS SHOWN WITHIN ARE RECORDED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

COMPACTION SPECIFICATIONS

- PLACE ALL FILL MATERIALS USING COMPACTION EQUIPMENT WITH DEEPER THAN 10-IN DEPTH IS EQUIVALENT WITH NOT EXCEEDING 18 INCHES THICK. USE A REDUCED SOLE LIFT THICKNESS OF 12 INCHES (WARNING: IN AREAS WHERE STEEL-WHEEL TRACKS OR OTHER UNWEIGHTED COMPACTORS ARE USED, MAXIMUM IMPACT SIZE SHOULD NOT EXCEED 8 INCHES IN DIAMETER). THE SOLE LIFT SHOULD BE PLACED IN AREAS WHERE THE SOLE LIFT IS REDUCED MAXIMUM PARTICLE SIZE OF 3 INCHES SHOULD BE USED IN AREAS WHERE UNWEIGHTED COMPACTORS ARE USED. THESE OVERLAP PATTERNS (EXCEEDING THE NORMAL PATTERNS) SHOULD INDICATE ABOVE OUTSIDE OF THE PROPOSED FILL AREAS OR IN KEPTLY AREAS OF FILL. OVERLAP PATTERNS (IE. MATERIALS EXCEEDING 8 INCHES) PLACED IN THE CENTER LAYS OF FILL SHOULD BE PLACED IN LAYS NOT EXCEEDING 24 INCHES. LAYS SHOULD BE COMPACTED IN SEVERAL PASSES (8-10) HEAVY COMPACTOR EQUIPMENT.
- LOCATE ALL TWO AND FOUR WHEEL TRACKS AND EACH LIFT OF FILL MATERIAL IS A MINIMUM OF 10 PERCENT OF ITS MAXIMUM DRY SOUPH RETAIN AS PERCENT OF THE STREAM BEDROCK CONTROL OUTLINE MAXIMUM SOUPH DENSITY AND OPTIMAL MOISTURE CONTROL IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR).
- ADDITIONAL SPECIFICATIONS ARE REQUIRED FOR THE PROPOSED WETLANDS: SEE SOUPH AREAS REFER TO PROPOSED SPECIFICATIONS FOR ADDITIONAL INFORMATION.

REFERENCES

- STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/24/2018
- UNDERGROUND UTILITIES LOCATED BY A GEOTECHNICAL SURVEY CONDUCTED BY THE ENGINEER, CIVIL ENGINEERING (CIVIL) BY 05/25/2017
- UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/25/2017 TO 05/26/2017
- TOPOGRAPHY SURVEYED ON UNIMPAVED AREAS, UTILITY LINES BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 04/16/2018
- PROPERTY BOUNDARIES WERE PROVIDED BY: DIVERS

MISS UTILITY OF WEST VIRGINIA
1-800-245-4845
West Virginia State Law
(Section 20-2-10) Requires that all utility work must be done in the state of West Virginia
IT'S THE LAW

SCALE IN FEET
1" = 50'

Civil & Environmental Consultants, Inc.
1000 Thompson Lane, Suite 100 - Charleston, PA 15422
724.762.0330 - 724.762.0341

REVISION RECORD

NO.	DATE	DESCRIPTION
1	05/24/2018	ISSUE FOR PERMIT
2	05/24/2018	ISSUE FOR PERMIT
3	05/24/2018	ISSUE FOR PERMIT
4	05/24/2018	ISSUE FOR PERMIT
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6	05/24/2018	ISSUE FOR PERMIT
7	05/24/2018	ISSUE FOR PERMIT
8	05/24/2018	ISSUE FOR PERMIT

FREELAND WELL PAD
CLAY DISTRICT
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHEROKEE PARKWAY
COURTSDALE, PA 15101

EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)

Project Number: 15280
Drawing Title: 15107
Date: 05/24/2018
Scale: AS SHOWN
Drawn By: JAL
Checked By: JAL
Project Manager: TAE

ES 102

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 Clay Powhatan Point, VA
Operator ID County District Quadrangle

2) Operator's Well Number: M04H Well Pad Name: Freeland

3) Farm Name/Surface Owner: Freeland Public Road Access: CR 21 Robert Ridge Road

4) Elevation, current ground: 1274' Elevation, proposed post-construction: 1275'

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

(b) If Gas Shallow X Deep _____
Horizontal X _____

6) Existing Pad: Yes or No No

Handwritten signature and date: 12/5/18

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 6370' below GL, 50' thick; Pore Pressure Gradient 0.64 psift

8) Proposed Total Vertical Depth: 6,395

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 20,016

11) Proposed Horizontal Leg Length: 11,589

12) Approximate Fresh Water Strata Depths: 572' below GL

13) Method to Determine Fresh Water Depths: Based on deepest water well within 2 mile radius

14) Approximate Saltwater Depths: 1709', 1789', 2120' below GL

15) Approximate Coal Seam Depths: Pittsburgh Coal top 794' below GL

16) Approximate Depth to Possible Void (coal mine, karst, other): No Void - In solid coal pillar

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

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

RECEIVED
Office of Oil and Gas
DEC 17 2018
WV Department of
Environmental Protection

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	X52	78.67	60	60	CTS
Fresh Water	13.375	New	J-55	54.5	622	622	CTS
Coal							
Intermediate	9.625	New	L-80	40	2,170	2,170	CTS
Production	5.5	New	P110	20	20,016	20,016	2,670' (500' below 9.625" shoe)
Tubing							
Liners							

ju
12/11/18

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	0.375				
Fresh Water	13.375	17.5	0.38	2,730	400	Class A	1.2
Coal							
Intermediate	9.625	12.375 & 12.25	0.395	5,750	500	Class A	1.19
Production	5.5	8.75 & 8.5	0.361	14,360	2050	Class A, G, or H	1.25
Tubing							
Liners							

PACKERS

RECEIVED
Office of Oil and Gas

DEC 17 2018

WV Department of
Environmental Protection

Kind:				
Sizes:				
Depths Set:				

J
12/13/18

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 6,395 feet. Drill horizontal leg.

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

9525 bbl fluid - 400,000 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): 24.2

22) Area to be disturbed for well pad only, less access road (acres): 5.0

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, Salt, 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.

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Cement Additives

The Water String the blend will contain class A cement, 3% CaCl₂, and flake.

The intermediate will contain class A cement, 10% CaCl₂, Salt, 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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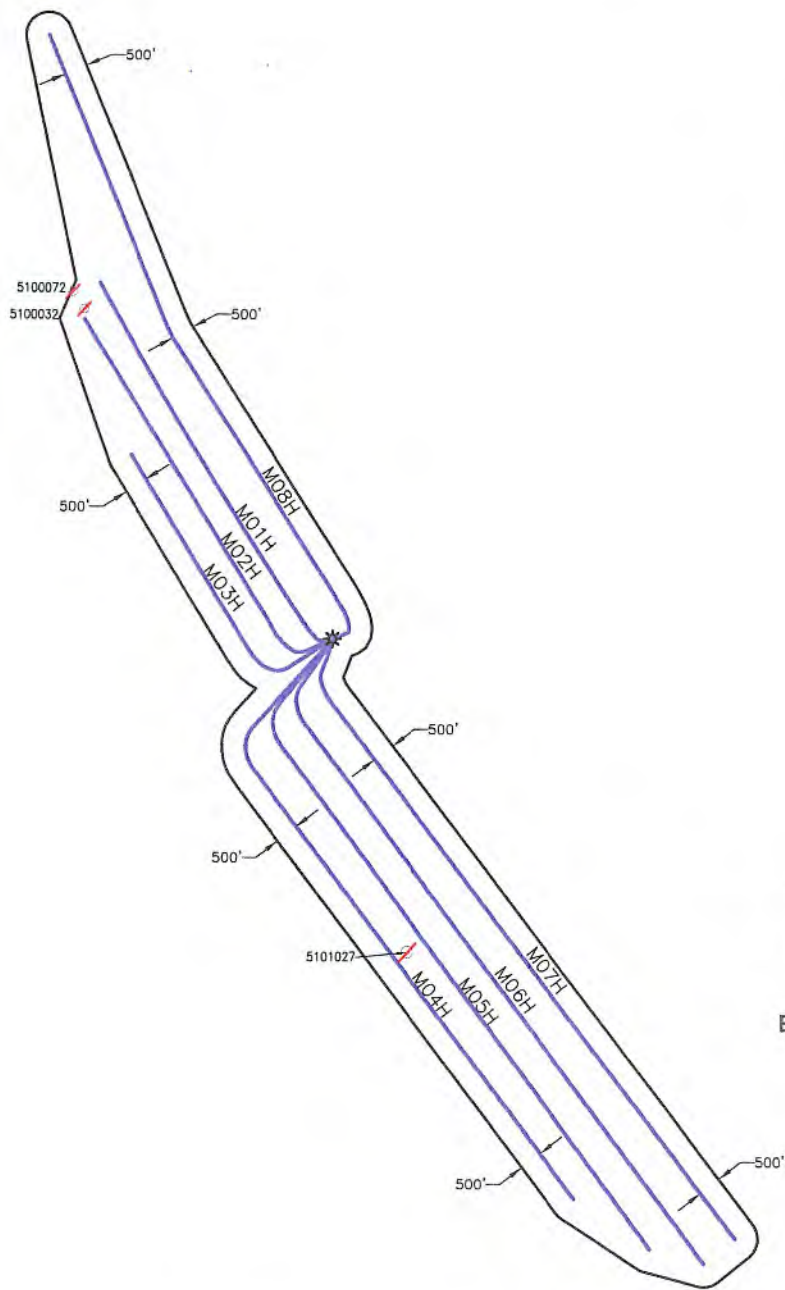
03/08/2019

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Freeland M04H

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							
Clay Twp, Marshall Co, WV										
Ground Level Elev. (ft above SL): 1,274										
Core Barrel / Auger										
2 Bowspring per Jt										
20" Conductor										
65 65										
30										
Conductor 20" API SL Minimum 40 ft from GL or at least 10 ft into bedrock										
Bow Spring: (1) on shoe track w/ stop collar & (1) per jt over coupling to surface										
13-3/8" Casing										
622 622										
17.5										
Surface Casing 13-3/8" 54.5# J-55 BTC 0.380" Wall Coupling OD (in) 14.275 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										
Minimum 50 ft past deepest known fresh water										
Bow Spring: (1) on shoe track w/ stop collar & (1) per 3 Jts over coupling										
9-5/8" Casing										
2,170 2,170										
12.375 - 12.25										
Intermediate Casing 9-5/8" 40# L-80 BTC 0.395" Wall Coupling OD (in) 10.625 ID (in) 8.835 Drift ID (in) 8.679 Burst (psi) 5,750 Collapse (psi) 3,080 Yield (Jt Strength 1,000 lbs) 916										
Intermediate II Blend (Class A) Cement to Surface										
Bow Spring: (1) per every other jt over coupling										
SpiraGlider or Centek: (1) per jt of cog to KOP										
5-1/2" Casing										
20,016										
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										
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Production Tail Slurry TOC minimum 200' above Marcellus										
Float Equip. Float Equip.										
5-1/2" Casing										
20,016										
8.75 - 8.5										

Handwritten signature and date:
12/15/18



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

PREPARED FOR:

CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY
CORAOPLIS, PA 15108

LEGEND

- WELL LOCATION
- PLUGGED WELL
- ABANDON WELL

**FREELAND
AREA OF REVIEW MAP
MARSHALL COUNTY
CLAY DISTRICT
WEST VIRGINIA**

TOPO QUAD: POWHATAN POINT, WV

SCALE: 1" = 4000'

DATE: SEPTEMBER 7, 2018

4705102146

Well ID	Prior Operator On Record	Operator - DEP	Status	Latitude	Longitude	Vertical TD	Producing Formation	Producing Zones: NOT Perforated
47-051-00072	Wasmuth-Callahan Gas Co.	Operator Unknown	ABANDONED	39.887867	-80.781834	N/A	N/A	None
47-051-00032	R L McDowdell	Operator Unknown	ABANDONED	39.886851	-80.780892	N/A	N/A	None
47-051-01027	CNX Gas Company	CNX Gas Company LLC	ABANDONED	39.849249	-80.75489	N/A	N/A	None

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WW-9
(4/16)

4705 * 02146

03/08/2019

API Number 47 - _____
Operator's Well No. M04H _____

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) Short Creek - Ohio River Quadrangle Powhatan Point, 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 Pit Wastes:

- Land Application
- 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 _____)

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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 & Oil from 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) N/A

-Landfill or offsite name/permit number? Short Creek Landfill/SWF-1034/WV0109517 and Arden Landfill/#100172

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

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

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

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

Subscribed and sworn before me this 24th day of September, 2018 Commonwealth of Pennsylvania
Laura Savage Notary Public County of Allegheny

My commission expires September 17, 2022

Commonwealth of Pennsylvania - Notary Seal
Laura Savage, Notary Public
Allegheny County
My commission expires September 17, 2022
Commission number 1285773
Member, Pennsylvania Association of Notaries

Chevron Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 18.8 Prevegetation pH 6.5-7.0

Lime 3 tons/acre Tons/acre or to correct to pH

Fertilizer type 10-20-20 or as directed by soil test

Fertilizer amount 300#/acre or as directed by soil test lbs/acre

Mulch 3 tons/acre or 5 tons/acre for winter stabilization Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Annual Ryegrass - 50

See Attached

Winter Wheat - 75

Cereal Ryegrass - 50

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, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments:

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WV Department of Environmental Protection

Title: Oil & Gas Inspector Date: 12/5/18

Field Reviewed? (2) Yes () No

4705102146

Seed Mixtures

Seed Type	3ton/ac	lbs/acre
Non Agricultural Upland		6000 and
Tall Fescue	57%	3420.00
Perennial Ryegrass	19%	649.80
Ladino Clover	10%	64.98
Birdfoot - Trefoil	10%	6.50
Red Top	4%	0.26

Seed Type	lbs/acre
Hayfield, Pastureland, and Cropland	6000
Orchard Grass	40% 2400.00
Timothy	40% 960.00
Birdfoot - Trefoil	10% 96.00
Ladino Clover	10% 9.60

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Chevron

**Appalachian LLC
WV Well Site Safety Plan
Pad: **Freeland Pad A**
Well # M04H**

ju
12/5/12

**3599 Roberts Ridge Rd
Moundsville, WV 26041
Clay District
Marshall County, WV**

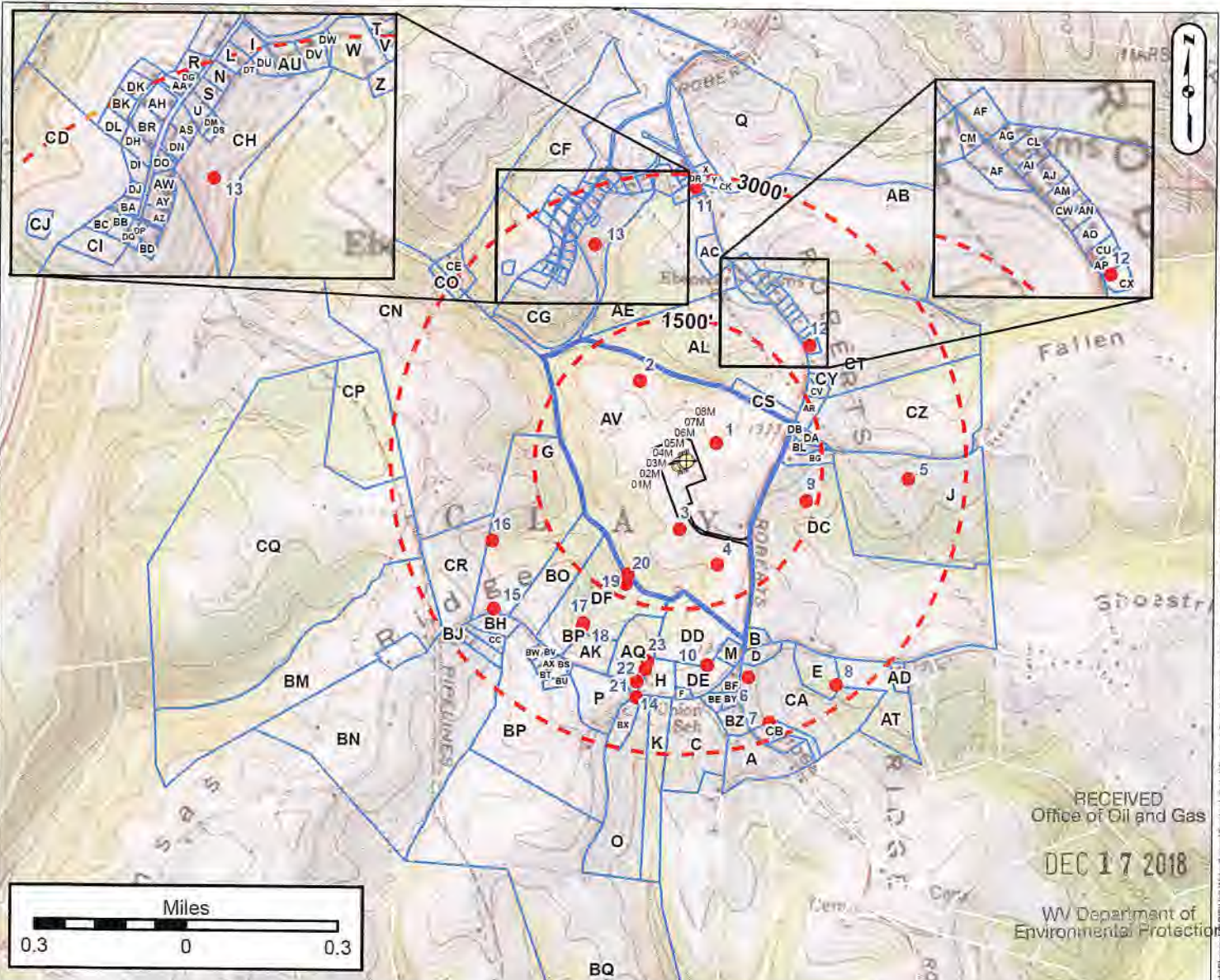
**Access Point – [39.865278°N, 80.758511°W]
Well Site – [39.867578°N, 80.761275°W]
Marshall County, West Virginia**

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WATER SUPPLY EXHIBIT 4705102140 FREELAND PAD A

03/08/2019



LOT OWNERS

Lot#	OWNER	PARTIAL ID	Label	OWNER	PARTIAL ID	Label	OWNER	PARTIAL ID	Label	OWNER	PARTIAL ID	Label	OWNER	PARTIAL ID	Label
1	ROBERTSON GREG ELWOOD	25-04 1300180000	DR	ROBERTSON GREG ELWOOD	25-04 1300180000	DR	ROBERTSON GREG ELWOOD	25-04 1300180000	DR	ROBERTSON GREG ELWOOD	25-04 1300180000	DR	ROBERTSON GREG ELWOOD	25-04 1300180000	DR
2	HUNT WILLIAM ROBERT	25-04 7000000000	DR	HUNT WILLIAM ROBERT	25-04 7000000000	DR	HUNT WILLIAM ROBERT	25-04 7000000000	DR	HUNT WILLIAM ROBERT	25-04 7000000000	DR	HUNT WILLIAM ROBERT	25-04 7000000000	DR
3	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
4	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
5	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
6	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
7	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
8	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
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10	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
11	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
12	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
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14	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
15	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
16	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
17	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
18	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
19	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
20	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
21	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
22	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR
23	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR	CHERRY PHILIP ET AL	25-04 1300120000	DR

Surface Owner: JOSEPH FREELAND
 Oil/Gas Owner: JOSEPH FREELAND
 Well Operator: CHEVRON APPALACHIA, LLC
 Address: 700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108
 Phone: 724-564-3700

County: MARSHALL
 Township: MOUNDSVILLE, WV
 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 BOUNDARY SURVEY. PROPERTY LINES AND OWNER INFORMATION WERE OBTAINED FROM DEEDS, TAX RECORDS, AERIAL PHOTOGRAPHY, GIS, AND FIELD SURVEYED EVIDENCE.

L:\Project\Chevron\GIS\Una Water Source\Freeland_Pad_A\Freeland_Pad_A_WaterSupplyExhibit.mxd - Scale 1:10,000 - 03/08/2019 11:54:15 AM - G:\SWER\ - WAD 1801 StatePlane West Virginia North FIPS 4701 Feet

BHL is located on topo map 14,620 feet south of Latitude: 39° 52' 30"
 SHL is located on topo map 2,715 feet south of Latitude: 39° 52' 30"

SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

SEE PAGE 3 FOR LESSORS



03/08/2019

	SURFACE OWNER	DIST-TM/PAR
1	JOSEPH L. FREELAND ET UX	4-7/21
2	NORMAN L. DERROW ET UX	4-7/32.1
3	NORMAN L. DERROW ET UX	4-7/32
4	EUGENE C. & ELIZABETH A. ESTEP	4-13/1
5	EUGENE C. & ELIZABETH A. ESTEP	4-13/2
6	SHAWN T. & KELLY J. DANAHEY	4-13/4
7	*SHAWN T. DANAHEY ET UX	4-13/4.2
8	LARRY & CATHERINE FOSTER	4-13/5.9
9	LAKEN H. DRAKE	4-13/5.8
10	DONALD WAYT	5-3/2
11	RALPH & ELLA BEA CHAPLIN	5-3/2.1
12	DONALD WAYT	5-3/3
13	RALPH A. & ELLA BEA CHAPLIN	5-3/32
14	RICHARD & HEATHER L. ROBINSON	5-3/4.3
15	AV LAUTTAMUS COMMUNICATIONS INC	5-3/4.2
16	MARSHALL COUNTY PUB SER DIST	5-3/4.1
17	EDUCATIONAL MEDIA FOUNDATION	5-3/4.4
18	TELESPECTRUM INC DBA 360	5-3/4.5
19	RALPH & ELLA BEA CHAPLIN	5-3/4
20	DENNIS LEE WARD ET UX	5-3/32.5
21	DENNIS L. & TERRI JO WARD	5-3/32.7
22	PAUL M. & BRENDA E. RINE	5-3/32.6
23	DALLAS PAUL RINE	5-3/32.12
24	RALPH A. & ELLA BEA CHAPLIN	5-3/32.1
25	JEFFREY A. SZAFRAN	5-3/6
26	THOMAS MONTI ET AL	5-3/9
27	SIDNEY L. & FRED A. JONES	5-3/25
28	RALPH ALLEN & ROBIN HOLMES	5-3/11
29	RALPH ALLEN & ROBIN HOLMES	5-3/12
30	RALPH A. & ROBIN R. HOLMES	5-3/24
31	CNX LAND RESOURCES INC	5-3/23

BHL is located on topo map 9,353 feet west of Longitude: 80° 42' 30"
 SHL is located on topo map 3,291 feet west of Longitude: 80° 45' 00"



SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M) N:4413091.57 E:520427.94
NAD83, WV NORTH N:500615.656 E:1614521.989

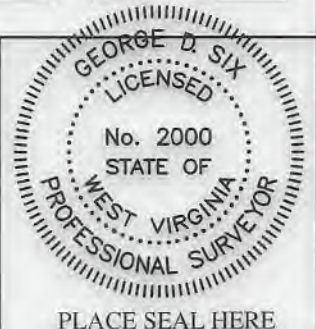
APPROX. LANDING POINT
UTM 17-NAD83(M) N:4412230.48 E:519918.92
NAD83, WV NORTH N:497817.922 E:1612804.401

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M) N:4409461.05 E:522109.57
NAD83, WV NORTH N:488609.886 E:1619841.172

FILE #: FREELAND M04H
 DRAWING #: FREELAND 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: *George D. Six*
 R.P.E.: _____ L.L.S.: P.S. No. 2000



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



DATE: OCTOBER 12, 2018
 OPERATOR'S WELL #: FREELAND M04H
 API WELL #: 47 51 02146
 STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK-OHIO RIVER ELEVATION: 1274.00'

COUNTY/DISTRICT: MARSHALL / CLAY QUADRANGLE: POWHATAN POINT, WV 7.5'

SURFACE OWNER: JOSEPH L. FREELAND ET UX ACREAGE: 104.22±

OIL & GAS ROYALTY OWNER: JOSEPH FREELAND ET UX ACREAGE: 674.796±

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

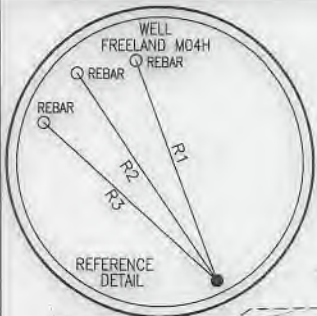
PERFORATE NEW FORMATION PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE

(SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,395'± TMD: 20,016.02'±

WELL OPERATOR CHEVRON APPALACHIA, LLC DESIGNATED AGENT KENNETH E. TAWNEY
 A.address 700 CHERRINGTON PARKWAY Address 500 LEE STREET, EAST SUITE 1600
 City CORAOPOLIS State PA Zip Code 15108 City CHARLESTON State WV Zip Code 25301-3202

FREELAND M04H PAGE 2 OF 3



03/08/2019



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

GAS WELLS

- EXISTING WELLS
- PLUGGED WELLS
- ABANDONED WELLS

LINE	BEARING	DISTANCE
R1	N 21°12'19" W	217.46'
R2	N 35°06'01" W	233.31'
R3	N 48°40'19" W	220.33'
R4	N 39°53'00" W	1648.55'
R5	S 21°14'13" E	1810.80'
R6	N 71°44'06" E	1188.72'

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M)
 N:4413091.57
 E:520427.94
 NAD83, WV NORTH
 N:500615.656
 E:1614521.989

APPROX. LANDING POINT
UTM 17-NAD83(M)
 N:4412230.48
 E:519918.92
 NAD83, WV NORTH
 N:497817.922
 E:1612804.401

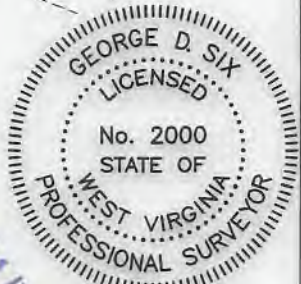
BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M)
 N:4409461.05
 E:522109.57
 NAD83, WV NORTH
 N:488609.886
 E:1619841.172

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

OCTOBER 12, 2018

Blue Mountain
 11023 MASON DIXON HIGHWAY
 BURTON, WV 25562
 PHONE: (304) 662-6486

George D. Six



FREELAND

M04H

PAGE 3 OF 3

03/08/2019

	LESSOR	DIST-TM/PAR
A	JOSEPH FREELAND ET UX	4-7/21
B	NORMAN L. DERROW ET UX	4-7/32.1
C	NORMAN L. DERROW ET UX	4-7/32
D	EUGENE C. ESTEP ET UX	4-13/1
E	EUGENE C. ESTEP ET UX	4-13/2
F	SHAWN T. DANAHEY ET UX	4-13/4
G	*SHAWN T. DANAHEY ET UX	4-13/4.2
H	LARRY H. FOSTER ET UX	4-13/5.9
J	STANLEY W. HUNT	4-13/5.8
K	DONALD WAYT	5-3/2
L	JAMES R. CHAPLIN	5-3/2.1
M	DONALD WAYT	5-3/3
N	JAMES R. CHAPLIN	5-3/4
P	DENNIS L. WARD ET UX	5-3/32.5
Q	DENNIS L. WARD ET UX	5-3/32.7
R	PAUL M. RINE ET UX	5-3/32.6
S	AMP FUND II GP LLC	5-3/32.12
T	AMP FUND II GP LLC	5-3/32.1
U	CHARLOTTE S. SZAFRAN	5-3/6
	JEFFREY A. SZAFRAN	
	JEFFREY D. ROBINSON UX	
	RANDY D. ROBINSON	
	MARK A. ROBINSON	
	BRIAN FURBEE	
	GREGORY D. FURBEE	
	MARSHA A. SINGER	
	EDMOND J. FURBEE	
	CHRISTOPHER G. FURBEE	
	MATTHEW R. FURBEE	
	MAUREEN C. COOPER	
	REXENA A. CUNNINGHAM	
	RICHARD CECIL ET UX	
	SHERRY L. MORRIS	
	WILLIAM R. POLEN	
	DEBBIE MAE MOORE	
	ETHEL E. STARKEY AKA ETHEL ELAINE STARKEY	
	CALLENE M. PETERSON FKA CALLENE M. STARKEY	
	REBECCA JEAN BROWN	
	PAULA J. ROHRER	
	MARLA K. STRUHAR	
	SARAH SISLEY FKA SARAH SALSBERY ET VIR	
	CARALOTTA J. GIBSON FKA CARALOTTA SALSBERY	
	JOHN M. SALSBERY BY JASON L. JACKSON GUARDIAN	
	DELLA J. COVERDALE ET UX	
	TRACY M. SALSBERY AKA TRACY SALSBERY	
	GINGER L. SALSBERY AKA GINGER SALSBERY	
	DALE A. SALSBERY AKA DALE ADORIN SALSBERY	
	JODIE R. MORRIS FKA JODIE SALSBERY	
	BARBARA L. MCGAHA	
	ELAINE M. KEENER	
	SHERRY KAY RISHER	
	SANDRA LEE KNAPSKI	
	BRENT LEE STARKEY	
	FORREST STARKEY ET UX	
	ANITA STANLEY FKA ANITA STARKEY	
	LINDA D. MAYO ET VIR	
	CAROL JEAN MALILKA ALBERT	
	SHARON L. SCHATIGER	
	JANET SHADDICK	
	DUANE M. STARKEY ET UX	
	REGINA KAY ST GEORGE ET VIR	
	BETTY LOU STARKEY	
	PATTIE S. MADRID FKA PATTIE S. SPEAR	
V	STEPHEN M. THOMAS ET UX	5-3/9
	R. STEPHEN THOMAS ET UX	
	JOHN RESSEGER	
	LAURA VIRGINIA RESSEGER	
	WILLIAM ELMER RESSEGER	
W	SIDNEY L. JONES	5-3/25
X	RALPH ALLEN HOLMES	5-3/11
Y	RALPH ALLEN HOLMES	5-3/12
Z	MASTER MINERAL HOLDINGS I LP - TOP LSE	5-3/24
AA	LARRY E. HILL	5-3/23

SURFACE HOLE LOCATION (SHL)	APPROX. LANDING POINT	BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M) N:4413091.57 E:520427.94	UTM 17-NAD83(M) N:4412230.48 E:519918.92	UTM 17-NAD83(M) N:4409461.05 E:522109.57
NAD83, WV NORTH N:500615.656 E:1614521.989	NAD83, WV NORTH N:497817.922 E:1612804.401	NAD83, WV NORTH N:488609.886 E:1619841.172

* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

OCTOBER 12, 2018

**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

**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

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

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

4705102146

Freeland Unit #4H - BATCH 1 - MRCL FULL

Plat ID	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
A	4-7-21	FREELAND JOSEPH ET UX	Chevron U.S.A. Inc.	0.180	932/374	n/a	n/a	n/a
B	4-7-32.1	DERROW NORMAN L ET UX	Chevron U.S.A. Inc.	0.18	852/409	n/a	n/a	n/a
C	4-7-32	DERROW NORMAN L ET UX	Chevron U.S.A. Inc.	0.18	852/409	n/a	n/a	n/a
D	4-13-1	ESTEP EUGENE C ET UX	Chevron U.S.A. Inc.	0.18	861/613	n/a	n/a	n/a
E	4-13-2	ESTEP EUGENE C ET UX	Chevron U.S.A. Inc.	0.18	861/613	n/a	n/a	n/a
F	4-13-4	DANAHEY SHAWN T ET UX	TH Exploration, LLC	0.18	876/64	36/168 TH Exploration, LLC to Chevron U.S.A. Inc.	n/a	n/a
G	4-13-4.2	DANAHEY SHAWN T ET UX	TH Exploration, LLC	0.18	876/64	36/168 TH Exploration, LLC to Chevron U.S.A. Inc.	n/a	n/a
H	4-13-5.9	FOSTER LARRY H ET UX	Chesapeake Appalachia, LLC	0.17	701/382	29/325 Chesapeake Appalachia, LLC to Statoil USA Onshore Properties, Inc.	30/392 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.	30/404 Statoil USA Onshore Properties Inc. to Chevron U.S.A. Inc.
J	4-13-5.8	HUNT STANLEY W	Chesapeake Appalachia, LLC	0.17	701/386	29/325 Chesapeake Appalachia, LLC to Statoil USA Onshore Properties, Inc.	30/392 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.	30/404 Statoil USA Onshore Properties Inc. to Chevron U.S.A. Inc.
K	5-3-2	DONALD WAYT	Noble Energy, Inc.	0.16	796/127	39/1 Noble Energy, Inc. to HG Energy II Appalachia	40/577 HG Energy II Appalachia to Chevron U.S.A. Inc.	n/a
L	5-3-2.1	CHAPLIN JAMES R	Chevron U.S.A. Inc.	0.15	876/271	n/a	n/a	n/a
M	5-3-3	DONALD WAYT	Noble Energy, Inc.	0.16	796/127	39/1 Noble Energy, Inc. to HG Energy II Appalachia	40/577 HG Energy II Appalachia to Chevron U.S.A. Inc.	n/a
N	5-3-4	JAMES R CHAPLIN	Noble Energy, Inc.	0.18	805/573	39/1 Noble Energy, Inc. to HG Energy II Appalachia	40/577 HG Energy II Appalachia to Chevron U.S.A. Inc.	n/a

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Freeland Unit #4H - BATCH 1 - MRCL FULL

Plat ID	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
P	5-3-32.5	WARD DENNIS L ET UX	TriEnergy Holdings, LLC	0.16	740/21	25/489 TriEnergy Holdings, LLC to NPAR, LLC	756/332 NPAR, LLC to Chevron U.S.A. Inc.	n/a
Q	5-3-32.7	WARD DENNIS L ET UX	TriEnergy Holdings, LLC	0.16	740/21	25/489 TriEnergy Holdings, LLC to NPAR, LLC	756/332 NPAR, LLC to Chevron U.S.A. Inc.	n/a
R	5-3-32.6	RINE PAUL M ET UX	Chevron U.S.A. Inc.	0.15	920/598	n/a	n/a	n/a
S	5-3-32.12	AMP FUND II GP LLC	American Petroleum Partners Operating, LLC	0.125	919/380	40/267 American Petroleum Partners Operating, LLC to Chevron U.S.A. Inc.	n/a	n/a
T	5-3-32.1	AMP FUND II GP LLC	American Petroleum Partners Operating, LLC	0.125	919/380	40/267 American Petroleum Partners Operating, LLC to Chevron U.S.A. Inc.	n/a	n/a
		SZAFRAN CHARLOTTE S - SFX	Chevron U.S.A. Inc.	0.200	939/124	n/a	n/a	n/a
		SZAFRAN JEFFREY A - SFX	Chevron U.S.A. Inc.	0.200	939/223	n/a	n/a	n/a
		ROBINSON JEFFREY D UX - SFX	Chevron U.S.A. Inc.	0.180	887/576	n/a	n/a	n/a
		ROBINSON RANDY D - SFX	Chevron U.S.A. Inc.	0.180	880/539	n/a	n/a	n/a
		ROBINSON MARK A - SFX	Chevron U.S.A. Inc.	0.180	887/573	n/a	n/a	n/a
		FURBEE BRIAN - SFX	Chevron U.S.A. Inc.	0.180	939/136	n/a	n/a	n/a
		FURBEE GREGORY D - SFX	Chevron U.S.A. Inc.	0.180	939/139	n/a	n/a	n/a
		SINGER MARSHA A - SFX	Chevron U.S.A. Inc.	0.180	890/469	n/a	n/a	n/a
		FURBEE EDMOND J - SFX	Chevron U.S.A. Inc.	0.180	926/68	n/a	n/a	n/a
		FURBEE CHRISTOPHER G - SFX	Chevron U.S.A. Inc.	0.180	873/613	n/a	n/a	n/a
		FURBEE MATTHEW R - SFX	Chevron U.S.A. Inc.	0.180	880/440	n/a	n/a	n/a
		COOPER MAUREEN C - SFX	Chesapeake Appalachia, LLC	0.125	691/26	24/338 Chesapeake Appalachia, LLC to Statoil USA Onshore Properties, Inc.	30/427 Statoil USA Onshore Properties, Inc to Chevron U.S.A. Inc.	30/461 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.
		CUNNINGHAM REXENA A - SFX	Chevron U.S.A. Inc.	0.180	873/610	n/a	n/a	n/a

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Freeland Unit #4H - BATCH 1 - MRCL FULL

Plat ID	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
U	5-3-6	CECIL RICHARD ET UX - SFX	Chevron U.S.A. Inc.	0.180	871/132	n/a	n/a	n/a
		MORRIS SHERRY L - SFX	Chevron U.S.A. Inc.	0.160	929/526	n/a	n/a	n/a
		POLEN WILLIAM R - SFX	Chevron U.S.A. Inc.	0.160	880/419	n/a	n/a	n/a
		MOORE DEBBIE MAE - SFX	Chesapeake Appalachia, LLC	0.125	690/564	24/338 Chesapeake Appalachia, LLC to Statoil USA Onshore Properties, Inc.	30/427 Statoil USA Onshore Properties, Inc to Chevron U.S.A. Inc.	30/461 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.
		STARKEY ETHEL E AKA STARKEY ETHEL ELAINE - SFX	Chevron U.S.A. Inc.	0.180	871/152	n/a	n/a	n/a
		PETERSON CALLENE M FKA STARKEY CALLENE M - SFX	Chevron U.S.A. Inc.	0.180	871/114	n/a	n/a	n/a
		BROWN REBECCA JEAN - SFX	Chevron U.S.A. Inc.	0.180	873/309	n/a	n/a	n/a
		ROHRER PAULA J - SFX	Chevron U.S.A. Inc.	0.180	873/312	n/a	n/a	n/a
		STRUHAR MARLA K - SFX	Chevron U.S.A. Inc.	0.180	873/321	n/a	n/a	n/a
		SISLEY SARAH FKA SALSBERY SARAH ET VIR - SFX	Chevron U.S.A. Inc.	0.180	871/145	n/a	n/a	n/a
		GIBSON CARALOTTA J FKA SALSBERY CARALOTTA - SFX	Chevron U.S.A. Inc.	0.180	871/138	n/a	n/a	n/a
		SALSBERY JOHN M BY JASON L JACKSON GUARDIAN - SFX	Chevron U.S.A. Inc.	0.180	882/203	n/a	n/a	n/a
		COVERDALE DELLA J ET UX - SFX	Chevron U.S.A. Inc.	0.180	871/173	n/a	n/a	n/a
		SALSBERY TRACY M AKA SALSBERY TRACY - SFX	Chevron U.S.A. Inc.	0.180	871/159	n/a	n/a	n/a
		SALSBERY GINGER L AKA SALSBERY GINGER - SFX	Chevron U.S.A. Inc.	0.180	871/167	n/a	n/a	n/a
		SALSBERY DALE A AKA SALSBERY DALE ADORIN - SFX	Chevron U.S.A. Inc.	0.180	871/315	n/a	n/a	n/a
		MORRIS JODIE R FKA SALSBERY JODIE - SFX	Chevron U.S.A. Inc.	0.180	871/126	n/a	n/a	n/a
		MCGAHA BARBARA L - SFX	Chevron U.S.A. Inc.	0.180	872/98	n/a	n/a	n/a
		KEENER ELAINE M - SFX	Chevron U.S.A. Inc.	0.180	872/101	n/a	n/a	n/a
		RISHER SHERRY KAY - SFX	Chevron U.S.A. Inc.	0.160	803/562	n/a	n/a	n/a
KNAPSKI SANDRA LEE - SFX	Chevron U.S.A. Inc.	0.180	873/315	n/a	n/a	n/a		
STARKEY BRENT LEE - SFX	Chevron U.S.A. Inc.	0.180	873/318	n/a	n/a	n/a		

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Freeland Unit #4H - BATCH 1 - MRCL FULL

Plat ID	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2	Assignment #3
		STARKEY FORREST ET UX - SFX	Chevron U.S.A. Inc.	0.180	872/154	n/a	n/a	n/a
		STANLEY ANITA FKA STARKEY ANITA - SFX	Chevron U.S.A. Inc.	0.180	872/151	n/a	n/a	n/a
		MAYO LINDA D ET VIR - SFX	Chevron U.S.A. Inc.	0.180	872/157	n/a	n/a	n/a
		ALBERT CAROL JEAN MALILKA - SFX	Chevron U.S.A. Inc.	0.180	893/268	n/a	n/a	n/a
		SCHARTIGER SHARON L - SFX	Chevron U.S.A. Inc.	0.180	893/205	n/a	n/a	n/a
		SHADDICK JANET - SFX	Chevron U.S.A. Inc.	0.180	893/271	n/a	n/a	n/a
		STARKEY DUANE M ET UX - SFX	Chevron U.S.A. Inc.	0.180	893/265	n/a	n/a	n/a
		ST GEORGE REGINA KAY ET VIR - SFX	Chevron U.S.A. Inc.	0.180	872/104	n/a	n/a	n/a
		STARKEY BETTY LOU - SFX	Chevron U.S.A. Inc.	0.180	872/107	n/a	n/a	n/a
		MADRID PATTIE S FKA SPEAR PATTIE S - SFX	Chevron U.S.A. Inc.	0.180	871/120	n/a	n/a	n/a
V	5-3-9	THOMAS STEPHEN M ET UX - SFX	TriEnergy Holdings, LLC	0.180	704/374	24/180 TriEnergy Holdings, LLC to NPAR, LLC	756/332 NPAR, LLC to Chevron U.S.A. Inc.	n/a
		THOMAS R STEPHEN ET UX - SFX	TriEnergy Holdings, LLC	0.180	704/376	24/180 TriEnergy Holdings, LLC to NPAR, LLC	756/332 NPAR, LLC to Chevron U.S.A. Inc.	n/a
		RESSEGER JOHN - SFX	Chevron U.S.A. Inc.	0.160	891/78	n/a	n/a	n/a
		RESSEGER LAURA VIRGINIA - SFX	Chevron U.S.A. Inc.	0.160	893/183	n/a	n/a	n/a
		RESSEGER WILLIAM ELMER - SFX	Chevron U.S.A. Inc.	0.160	893/186	n/a	n/a	n/a
W	5-3-25	SIDNEY L JONES	Noble Energy, Inc.	0.125	808/378	39/1 Noble Energy, Inc. to HG Energy II Appalachia	40/577 HG Energy II Appalachia to Chevron U.S.A. Inc.	n/a
X	5-3-11	HOLMES RALPH ALLEN - SFX	Chevron U.S.A. Inc.	0.180	914/566	n/a	n/a	n/a
Y	5-3-12	HOLMES RALPH ALLEN - SFX	Chevron U.S.A. Inc.	0.180	914/566	n/a	n/a	n/a
Z	5-3-24	MASTER MINERAL HOLDINGS I LP - TOP LSE	Chevron U.S.A. Inc.	0.160	916/475	n/a	n/a	n/a
AA	5-3-23	HILL LARRY E	Chevron U.S.A. Inc.	0.150	911/588	n/a	n/a	n/a

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Kevin J Cruz
Land Representative, AMBU

September 10, 2018

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

RE: Freeland 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H

To Whom It May Concern,

This letter is to confirm that Chevron U.S.A. Inc. has the rights to access minerals under any road along the above referenced laterals. If you should have any further questions or need additional documentation, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin J Cruz".

Kevin J Cruz
Land Representative

Chevron North America Exploration and Production Company
(a Chevron U.S.A. Inc. division)
700 Cherrington Parkway Coraopolis, PA 15108
Tel 412-865-1562
kevincruz@chevron.com

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

Date of Notice Certification: 12/13/18

API No. 47- _____ - _____
Operator's Well No. M04H
Well Pad Name: Freeland

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>520427.94</u>
County:	<u>Marshall</u>		Northing:	<u>4413091.57</u>
District:	<u>Clay</u>	Public Road Access:	<u>CR 21 Robert Ridge Road</u>	
Quadrangle:	<u>Powhatan Point, WV 7.5'</u>	Generally used farm name:	<u>Freeland</u>	
Watershed:	<u>Short Creek - Ohio River</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.

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: *PLEASE CHECK ALL THAT APPLY <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED <input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED <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 <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION <input checked="" type="checkbox"/> 5. PUBLIC NOTICE <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		OOG OFFICE USE ONLY <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED <input checked="" type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED
RECEIVED Office of Oil and Gas DEC 17 2018 WV Department of Environmental Protection		

Required Attachments:

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

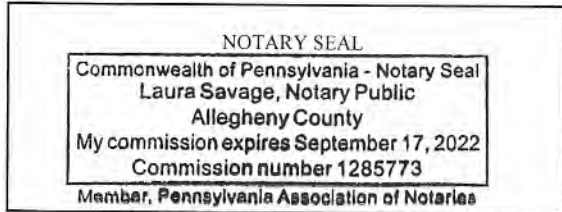
Certification of Notice is hereby given:

4705102146

THEREFORE, I Jenny Butchko, 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.

Jenny Butchko

Well Operator:	<u>Chevron Appalachia, LLC</u>	Address:	<u>700 Cherrington Parkway</u>
By:	<u>Jenny Butchko</u>		<u>Coraopolis, PA 15108</u>
Its:	<u>Permitting Team Lead</u>	Facsimile:	<u>412-865-2403</u>
Telephone:	<u>412-865-1533</u>	Email:	<u>JZYK@chevron.com</u>



Commonwealth of Pennsylvania
County of Allegheny
Subscribed and sworn before me this 24th day of September 2018.
Laura Savage Notary Public
My Commission Expires September 17, 2022

Oil and Gas Privacy Notice:

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

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DEC 17 2018
WV Department of
Environmental Protection

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

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

Date of Notice 11/15/18 Date Permit Application Filed: 12/14/18
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: Joseph L. Freeland and Debra J. Freeland
Address: 813 Clearview Terrace
New Martinsville, WV 26155
Name: Joseph L. Freeland
Address: 813 Clearview Terrace
New Martinsville, WV 260155

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: Murray Energy Corp.
Address: 46226 National Road
St. Clairsville, OH 43950

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

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

*Please attach additional forms if necessary

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WV Department of
Environmental Protection

DEC 17 2018

API NO. 47- -
OPERATOR WELL NO. M04H
Well Pad Name: Freeland 03/08/2019

WV Department of
Environmental Protection

4705102146

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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API NO. 47- _____
OPERATOR WELL NO. M04H _____
Well Pad Name: Freeland 03/08/2019

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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DEC 17 2018

WV Department of
Environmental Protection

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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Environmental Protection

WW-6A
(8-13)

API NO. 47- _____ - _____ **03/08/2019**
OPERATOR WELL NO. M04H _____
Well Pad Name: Freeland _____
4705102146

Notice is hereby given by:

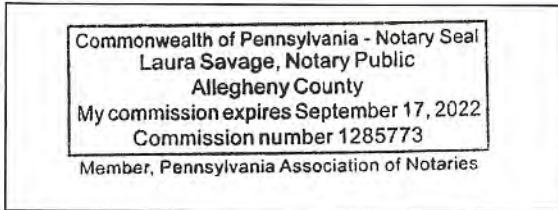
Well Operator: Chevron Appalachia, LLC
Telephone: 412-865-1533
Email: JZYK@chevron.com

Address: 700 Cherrington Parkway
Coraopolis, PA 15108
Facsimile: 412-865-2403

Jenny Batenko

Oil and Gas Privacy Notice:

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



Commonwealth of Pennsylvania
County of Allegheny
Subscribed and sworn before me this 24th day of September 2018.
Laura Savage Notary Public
My Commission Expires September 17, 2022

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WV Department of
Environmental Protection

03/08/2019

4705102146

Attachment to WW-6A

API No. 47- _____ - _____

OPERATOR WELL NO. M04H

Well Pad Name: Freeland

- SURFACE OWNER**
Name:
Address:

- COAL OWNER OR LESSEE**
Name:
Address:

- COAL OPERATOR**
Name:
Address:

- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name: Joseph L. Freeland ET UX
Address: 813 Clearview Terrace /
New Martinsville, WV 26155

- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name: Cathy J. and Carl F Petrucci, Jr. /
Address: 863 Petrucci Lane
Moundsville, WV 26041

- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name: Norman L. Darrow, ET UX /
Address: 97 Old Homestead Lane
Moundsville, WV 26041

- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name:
Address:

- SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR**
Name:
Address:

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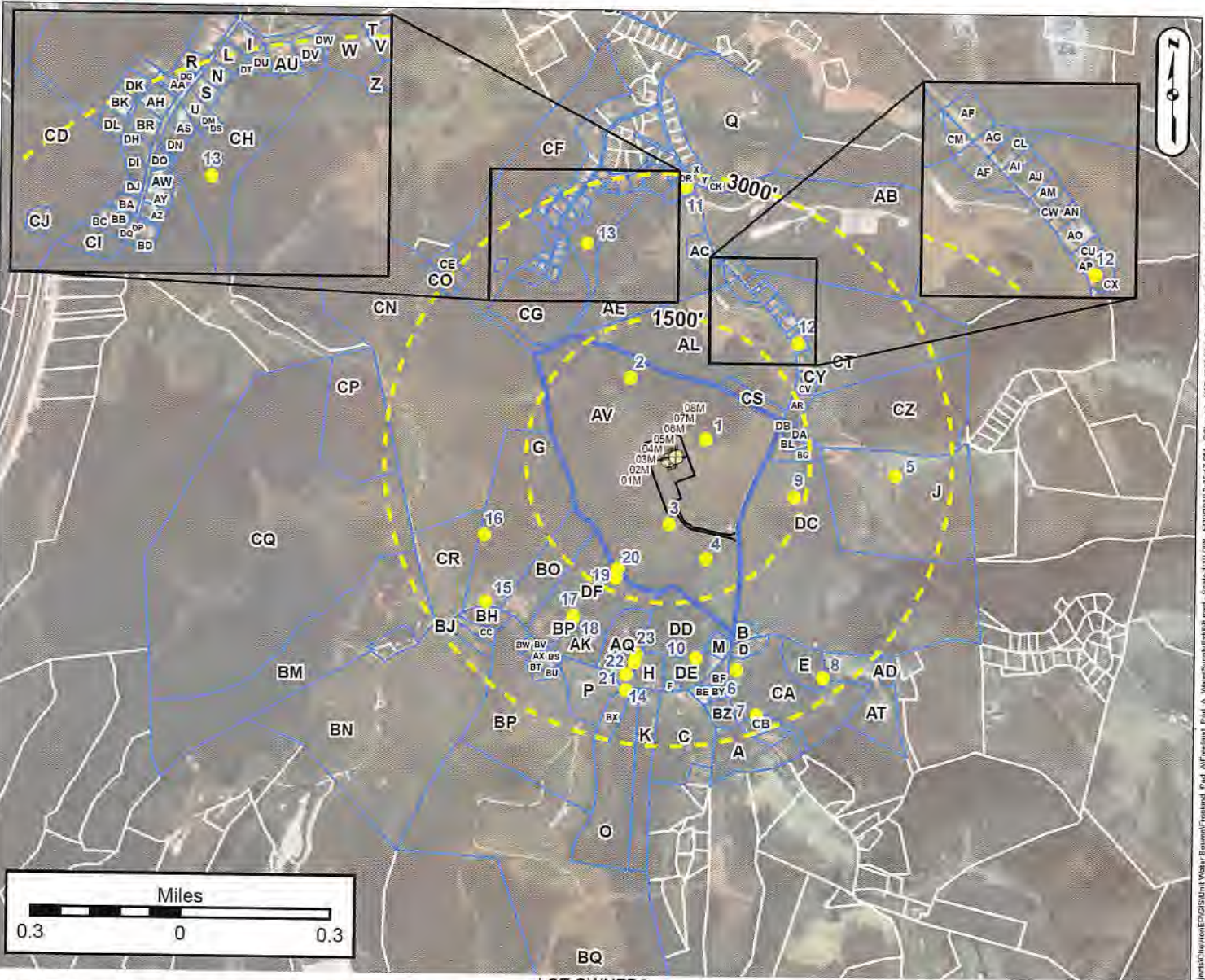
DEC 17 2018

WV Department of
Environmental Protection



WATER SUPPLY EXHIBIT FREELAND PAD A

4705102 03/08/2019



LOT OWNERS

Parcel ID	Owner	Parcel ID	Owner	Parcel ID	Owner	Parcel ID	Owner	Parcel ID	Owner	Parcel ID	Owner	Parcel ID	Owner
25-04 1301100000	BARRETT SPIRO ELWOOD	25-04 7800500000	HARTUNG DIANE W & LORI	25-04 7800500000	DAVIS GARCO T	25-04 7800500000	BRIDGEMAN RICHARD W	25-04 7800500000	COLINS MICHAEL WILLIAM	25-04 7800500000	PREELAND BRIGON	25-04 7800500000	PREELAND BRIGON
25-04 7800500000	JOINT WILLIAM ROBERT	25-04 7800500000	HINDRICKSON ELAINE D	25-04 7800500000	VOLING MICHAEL WILLIAM	25-04 7800500000	WILSON WARRIEN M	25-04 7800500000	WILSON WARRIEN M	25-04 7800500000	WILSON WARRIEN M	25-04 7800500000	WILSON WARRIEN M
25-04 1300300000	JOHN JEROME ET UX	25-04 7800500000	NESTOR JACK L ET UX	25-04 7800500000	ROTHWILSON JUDITH DUELL	25-04 7800500000	ROTHWILSON JUDITH DUELL	25-04 7800500000	ROTHWILSON JUDITH DUELL	25-04 7800500000	ROTHWILSON JUDITH DUELL	25-04 7800500000	ROTHWILSON JUDITH DUELL
25-04 1300300000	JOHN JEROME ET UX	25-04 7800500000	NESTOR JACK L ET UX	25-04 7800500000	ROTHWILSON JUDITH DUELL	25-04 7800500000	ROTHWILSON JUDITH DUELL	25-04 7800500000	ROTHWILSON JUDITH DUELL	25-04 7800500000	ROTHWILSON JUDITH DUELL	25-04 7800500000	ROTHWILSON JUDITH DUELL
25-04 7800500000	GRANTWORTH JACQUELINE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	MASON JENNIFER A	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	GENOVA ANTONELLA B. BIRIBARA	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	ROBINSON MARK A ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	EVANS WILLIAM A ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	HIGDON WILIAM STEVEN L ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	DANIELSON THOMAS ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	BARRETT SPIRO ELWOOD	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	KANTONEN MICHAEL G ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	DANHOFF ANDREW T & KELLY	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	BELTZ CHARLES W ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	HARTEN CHARLES DEBRA ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	WATSON GORDON M ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	RYAN JAMES A & CHARLENE WOOD	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	LUCAS JOSEPH J ET UX	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	EMASTERS MICHELLE M	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE
25-04 7800500000	EMERS MARINA A LUZE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE	25-04 7800500000	SMITH LUCAS DONALD R & JANE

Surface Owner: JOSEPH FREELAND Date: DEC 17 2018 County: MARSHALL

Oil/Gas Owner: JOSEPH FREELAND Township: MOUNDSVILLE, WV

Well Operator: CHEVRON APPALACHIA, LLC Surveyor: SERVICES, INC.

Address: 700 CHERRINGTON PARKWAY Address: 301 COMMERCE PARK DR
CORAOPOLIS, PA 15108 CRANBERRY TOWNSHIP, PA 16066

Phone: 724-564-3700 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 BOUNDARY SURVEY. PROPERTY LINES AND OWNER INFORMATION WERE OBTAINED FROM DEEDS, TAX RECORDS, AERIAL PHOTOGRAPHY, GIS, AND FIELD SURVEYED EVIDENCE.

L:\Projects\Chevron\EPG\GIS\Water\Groundwater\Map_A_VerifierSupplyExhibit.mxd - Stake 1115.088 - 52302018.2.05.17 PM - G:\Shawn - MD 1983 - Stake\Plane West Virginia\Job# E.PS 4701 Foot



Water Supply Exhibit
Freeland Pad

03/08/2019

No.	WATER PURVEYOR	SUPPLY	ELEV.	ADDRESS	PHONE #
1	FREELAND JOSEPH L ET UX	Spring	1207	3599 ROBERTS RIDGE	304-771-3000
2	FREELAND JOSEPH L ET UX	Spring	1140	3599 ROBERTS RIDGE	304-771-3000
3	FREELAND JOSEPH L ET UX	Spring	1239	3599 ROBERTS RIDGE	304-771-3000
4	FREELAND JOSEPH L ET UX	Spring	1216	3599 ROBERTS RIDGE	304-771-3000
5	HIGGINBOTHAM STEVEN L ET UX	Spring	1164	211 FALLEN TIMBER LANE	304-845-5357
6	MASON LEMONT & RHONDA L	Pond	1326	4274 ROBERTS RDGE ROAD	304-845-9182 / 304-559-5535 / 304-639-5338
7	MASON LEMONT & RHONDA L	Stream	1288	4274 ROBERTS RDGE ROAD	304-845-9182 / 304-559-5535 / 304-639-5338
8	MASON LEMONT & RHONDA L	Stream	1229	4274 ROBERTS RDGE ROAD	304-845-9182 / 304-559-5535 / 304-639-5338
9	PETRUCCI CATHY J & CARL F JR	Well	1264	863 PETRUCCI LANE	304-843-1791
10	ROBERTS RIDGE VOL FIRE DEPT	Spring	1320*	23 KANSAS RIDGE ROAD	304-559-3241
11	THOMPSON PHILLIP E & JANE	Well	1260	2823 ROBERTS RIDGE RODD	304-845-4818
12	YOHO DAVID BOYD ET UX	Spring	1315	3202 ROBERTS RIDGE ROAD	304-843-1625 or 304-639-2114
13	YOUNG MICHAEL WILLIAM	Stream	1136	332 SENTIMENTAL DRIVE	304-845-7609
14	DANAHEY SHAWN T & KELLY J	Well	1323*	212 KANSAS RIDGE LANE	304-215-0385
15	DERROW NORMAN L & BIBIANA	Well	1266*	97 OLD HOMESTEAD LANE	304-845-6769

No.	SUPPLY COORDINATES	01M	02M	03M	04M	05M	06M	07M	08M
1	39°52'05.45988000"N 80°45'35.69004000"W	451	434	418	405	386	371	360	347
2	39°52'11.61012000"N 80°45'46.06992000"W	947	948	950	951	951	953	954	956
3	39°51'56.54016000"N 80°45'40.34016000"W	676	682	688	694	704	710	716	723
4	39°51'52.99992000"N 80°45'35.16984000"W	1,120	1,120	1,120	1,121	1,124	1,125	1,127	1,129
5	39°52'02.17992000"N 80°45'09.90000000"W	2,403	2,388	2,372	2,361	2,345	2,332	2,322	2,310
6	39°51'41.64480000"N 80°45'30.77640000"W	2,316	2,317	2,317	2,319	2,323	2,324	2,326	2,328
7	39°51'37.06560000"N 80°45'27.90720000"W	2,828	2,828	2,829	2,830	2,833	2,834	2,835	2,837
8	39°51'41.01840000"N 80°45'19.02240000"W	2,811	2,807	2,802	2,800	2,798	2,794	2,792	2,790
9	39°51'59.73120000"N 80°45'23.52960000"W	1,384	1,370	1,357	1,347	1,334	1,323	1,314	1,304
10	39°51'42.75000000"N 80°45'36.29160000"W	2,099	2,103	2,107	2,111	2,117	2,121	2,125	2,129
11	39°52'31.55016000"N 80°45'39.21984000"W	2,869	2,862	2,855	2,849	2,840	2,834	2,829	2,823
12	39°52'15.61440000"N 80°45'23.52960000"W	1,834	1,818	1,802	1,790	1,772	1,758	1,747	1,735
13	39°52'25.44996000"N 80°45'52.44012000"W	2,429	2,429	2,429	2,429	2,427	2,427	2,427	2,427
14	39°51'39.31200000"N 80°45'45.64800000"W	2,450	2,510	2,475	2,467	2,458	2,486	2,495	2,502
15	39°51'48.06000000"N 80°46' 04.92600000"W	2,434	2,536	2,479	2,466	2,450	2,497	2,511	2,523

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Office of Oil and Gas

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Environmental Protection

*ELEVATIONS SHOWN ARE COLLECTED IN THE FIELD. ALL OTHER ELEVATIONS DETERMINED VIA GOOGLE EARTH.



Water Supply Exhibit
Freeland Pad

4705102146 03/08/2019

No.	WATER PURVEYOR	SUPPLY	ELEV.	ADDRESS	PHONE #
16	DERROW NORMAN L & BIBIANA	Spring	1108*	97 OLD HOMESTEAD LANE	304-845-6769
17	DERROW NORMAN L ET UX	Pond	1232*	97 OLD HOMESTEAD LANE	304-845-6769
18	DERROW NORMAN L ET UX	Pond	1232*	97 OLD HOMESTEAD LANE	304-845-6769
19	DERROW NORMAN L ET UX	Spring	1097*	97 OLD HOMESTEAD LANE	304-845-6769
20	DERROW NORMAN L ET UX	Stream	1088*	97 OLD HOMESTEAD LANE	304-845-6769
21	MASON JAMES E II & CARRIE A	Spring	1292*	323 KANSAS RIDGE ROAD	304-843-5211
22	ROBINSON MARK A ET UX	Spring	1276*	197 KANSAS RIDGE ROAD	304-845-1664
23	ROBINSON MARK A ET UX	Spring	1235*	197 KANSAS RIDGE ROAD	304-845-1664

No.	SUPPLY COORDINATES	01M	02M	03M	04M	05M	06M	07M	08M
16	39°51'54.98280000"N 80°46'05.36880000"W	2,097	2,202	2,144	2,131	2,114	2,162	2,177	2,189
17	39°51'46'.75680000"N 80°45'52.92720000"W	1,920	2,006	1,957	1,946	1,933	1,973	1,985	1,995
18	39°51'46'.49400000"N 80°45'53.03520000"W	1,947	2,033	1,984	1,974	1,960	2,000	2,012	2,022
19	39°51'50.80680000"N 80°45'47.37960000"W	1,360	1,439	1,394	1,384	1,372	1,408	1,419	1,429
20	39°51'51.82200000"N 80°45'47.13120000"W	1,258	1,338	1,292	1,282	1,270	1,307	1,318	1,327
21	39°51'40.91760000"N 80°45'45.67680000"W	2,290	2,351	2,315	2,308	2,299	2,327	2,336	2,343
22	39°51'42.18120000"N 80°45'44.55000000"W	2,150	2,208	2,174	2,167	2,158	2,186	2,194	2,201
23	39°51'42.99120000"N 80°45'44.33040000"W	2,066	2,125	2,091	2,083	2,075	2,102	2,110	2,117

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Environmental Protection

*ELEVATIONS SHOWN ARE COLLECTED IN THE FIELD. ALL OTHER ELEVATIONS DETERMINED VIA GOOGLE EARTH.

4705102146 03/08/2019

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: 11/15/18 **Date Permit Application Filed:** 12/14/18

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: Joseph L. Freeland and Debra J. Freeland
Address: 813 Clearview Terrace
New Martinsville, WV 26155

Name: Joseph L. Freeland
Address: 813 Clearview Terrace
New Martinsville, WV 26155

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: 520427.94
County: Marshall Northing: 4413091.57
District: Clay Public Road Access: CR 21 Robert Ridge Road
Quadrangle: Powhatan Point, WV 7.5' Generally used farm name: Freeland
Watershed: Short Creek - Ohio River

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.dcp.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Chevron Appalachia, LLC
Address: 700 Cherrington Parkway
Coraopolis, PA 15108
Telephone: 412-865-1533
Email: JZYK@chevron.com
Facsimile: 412-865-2403

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

Oil and Gas Privacy Notice:

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

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

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

Date of Notice: 11/15/18 Date Permit Application Filed: 12/14/18

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

CERTIFIED MAIL RETURN RECEIPT REQUESTED HAND DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)

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

Name: Joseph L. Freeland and Debra J. Freeland
Address: 813 Clearview Terrace
New Martinsville, WV 26155

Name: Joseph L. Freeland
Address: 813 Clearview Terrace
New Martinsville, WV 26155

Notice is hereby given:

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

State: West Virginia UTM NAD 83 Easting: 520427.94
County: Marshall Northing: 4413091.57
District: Clay Public Road Access: CR 21 Robert Ridge Road
Quadrangle: Powhatan Point, WV 7.5' Generally used farm name: Freeland
Watershed: Short Creek - Ohio River

This Notice Shall Include:

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

Well Operator: Chevron Appalachia, LLC
Telephone: 412-865-1533
Email: JZYK@chevron.com

Address: 700 Cherrington Parkway
Coraopolis, PA 15108
Facsimile: 412-865-2403

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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Office of Oil and Gas

DEC 17 2018

WV Department of
Environmental Protection

4705102146

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: _____	West Virginia	UTM NAD 83 Easting: _____	520427.94
County: _____	Marshall	UTM NAD 83 Northing: _____	4413091.57
District: _____	Clay	Public Road Access: _____	CR 21 Robert Ridge Road
Quadrangle: _____	Powhatan Point, WV 7.5'	Generally used farm name: _____	Freeland
Watershed: _____	Short Creek - Ohio River		

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 checked="" 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 type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>RECEIVED Office of Oil and Gas</p> <p>DEC 17 2018</p> <p>WV Department of Environmental Protection</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: <u>Joseph L Freeland</u></p> <p>Print Name: <u>JOSEPH L FREELAND</u></p> <p>Date: <u>11-20-18</u></p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: _____</p> <p>By: _____</p> <p>Its: _____</p> <p>Signature: _____</p> <p>Date: _____</p>
--	--	--

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, 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.

4705102146

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, Mason Smith, 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	Eastings:	<u>520427.940</u>
County:	<u>Marshall</u>		Northing:	<u>4413091.566</u>
District:	<u>Clay</u>	Public Road Access:	<u>Robers Ridge Road</u>	
Quadrangle:	<u>Powhatan Point 7.5'</u>	Generally used farm name:	<u>Freeland</u>	
Watershed:	<u>Upper Ohio-Beaver</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 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>Murray American Energy Inc</u></p> <p>By: <u>Mason Smith</u></p> <p>Its: <u>Lead, oil + gas relations manager</u></p> <p>Signature: <u>[Signature]</u></p> <p>Date: <u>10-29-18</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.

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DEC 17 2018

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

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

November 2, 2018

Jill M. Newman
Deputy Commissioner

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 Freeland Pad, Marshall County
Freeland M04H

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2018-0862 for the subject site to Chevron North America Exploration and Production Company for access to the State Road for the well pad located off of Marshall County Route 21 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: Nikolai Softcheck
Chevron Appalachia, LLC
CH, OM, D-6
File

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Environmental Protection

03/08/2019

4705102146

Hydraulic Fracturing Fluid Additives

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

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WV Department of
Environmental Protection

FREELAND WELL PAD EROSION AND SEDIMENT CONTROL PLAN

3599 RIDGE ROAD (COUNTY ROUTE 21)
CLAY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA

PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108

CONSULTANTS

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
4000 TRIANGLE LANE, SUITE 200
EXPORT, PA 15612
PHONE: 724-327-5200

CIVIL/SITE ENGINEER CONTACT: JOSH MACARGE
EMAIL ADDRESS: jmacarge@cecinc.com

GEOTECHNICAL ENGINEER CONTACT: AARON LAVAGE
EMAIL ADDRESS: alavage@cecinc.com

SITE COORDINATED AND WATERSHED

START OF WELL PAD ACCESS ROAD
LATITUDE: 39.859592° N, LONGITUDE: 80.758570° W

APPROXIMATE CENTER OF WELL PAD
LATITUDE: 39.857275° N, LONGITUDE: 80.761274° W

*BASED ON NAD 83, WEST VIRGINIA NORTH ZONE

WATERSHED NAME: UPPER OHIO SOUTH
RELEVANT STREAM: UNNAMED TRIBUTARIES TO PCH RUN

Wellhead No.	Acres	Latitude (North)	Longitude (West)
01A	0.05871317	39.84803015	80.8575815
02A	0.00813643	39.84815484	80.7612731
03A	0.00014688	39.84803345	80.7612734
04A	0.00613555	39.84811805	80.761479
05A	0.00013737	39.84813745	80.7614545
06A	0.00027747	39.84819440	80.7614276
07A	0.00613748	39.84811775	80.7614793
02A	0.00023403	39.84818353	80.7614541
01F	0.006110181	39.84814417	80.7614546
07D	0.006271043	39.84819383	80.7614712
03D	0.006291359	39.84819384	80.7614838
04D	0.006291359	39.84819384	80.7614838
05D	0.006291359	39.84819384	80.7614838
06D	0.006291359	39.84819384	80.7614838
07D	0.006291359	39.84819384	80.7614838
08D	0.006291359	39.84819384	80.7614838
09D	0.006291359	39.84819384	80.7614838
10D	0.006291359	39.84819384	80.7614838
11D	0.006291359	39.84819384	80.7614838
12D	0.006291359	39.84819384	80.7614838



ITEM	DESCRIPTION	VALUE
1	TOTAL AREA	32.8
2	WATERSHED AREA DISTURBED	1.7
3	WELL PAD	12.7
4	ACCESS ROAD	1.1
5	STOCKPILE AREA	0.6

FIG. NO.	SHEET TITLE	INCIDENT	LAST REVISED
CS 000	COVER SHEET	X	12/14/2018
CS 050	EXISTING TOPOGRAPHIC PLAN	X	12/14/2018
CS 200	OVERALL EROSION AND SEDIMENT CONTROL PLAN	X	12/14/2018
CS 101	EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)	X	12/14/2018
CS 202	EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)	X	12/14/2018
CS 103	EROSION AND SEDIMENT CONTROL DETAILS (1 OF 5)	X	12/14/2018
CS 124	EROSION AND SEDIMENT CONTROL DETAILS (2 OF 5)	X	12/14/2018
CS 125	EROSION AND SEDIMENT CONTROL DETAILS (3 OF 5)	X	12/14/2018
CS 126	EROSION AND SEDIMENT CONTROL DETAILS (4 OF 5)	X	12/14/2018
CS 107	EROSION AND SEDIMENT CONTROL DETAILS (5 OF 5)	X	12/14/2018
CS 208	EROSION AND SEDIMENT CONTROL DETAILS (6 OF 6)	X	12/14/2018
CS 179	WELL PAD PLAN AND CROSS-SECTIONS	X	12/14/2018
CS 210	ACCESS ROAD PLAN AND (6) PROFILES	X	12/14/2018
CS 181	ACCESS ROAD CROSS-SECTIONS	X	12/14/2018
CS 182	STOCKPILE CROSS-SECTIONS	X	12/14/2018
CS 220	GEOTECHNICAL SUBSURFACE CROSS-SECTIONS	X	12/14/2018
CS 221	GEOTECHNICAL NOTES AND TABLES	X	12/14/2018
CS 209	GEOTECHNICAL DETAILS	X	12/14/2018
CS 504	RIS PLAN AND ELEVATION VIEW (1 OF 2)	X	12/14/2018
CS 505	RIS PLAN AND ELEVATION VIEW (2 OF 2)	X	12/14/2018
CS 506	RIS CROSS-SECTION (1 OF 3)	X	12/14/2018
CS 507	RIS CROSS-SECTION (2 OF 3)	X	12/14/2018
CS 508	RIS CROSS-SECTION (3 OF 3)	X	12/14/2018
CS 509	RIS SPECIFICATIONS AND QUANTITIES	X	12/14/2018
CS 510	RIS DETAILS	X	12/14/2018
CS 600	SITE PLAN WITH AERIAL	X	12/14/2018
CS 601	POST-CONSTRUCTION REVEGETATION PLAN	X	12/14/2018
CS 602	POST-CONSTRUCTION REVEGETATION DETAILS	X	12/14/2018

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

- WETLAND 1A (PEM) - 7 FT FROM LOD
- WETLAND 1B (PEM) - 5 LF FROM LOD
- WETLAND 2 (PSS) - 2 LF FROM LOD
- WETLAND 4 (PEM/PSS) - 10 LF FROM LOD

REFERENCES

1. STREAMS AND WETLANDS Delineated by CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 02/21/2017.
2. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICAL LTD. DATED 03/21/2017 TO 03/25/2017.
3. UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 08/09/2017 TO 08/12/2017.
4. TEMPORARILY SURVEYED VA Delineated AERIAL VIDEO (AVV) BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 04/17/2018.
5. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVRON.
6. BACKGROUND AERIAL IMAGE FROM GOOGLE EARTH PRO, DATED 2018.

LEGEND

<p>EXISTING PROPERTY LINE</p> <p>EXISTING INDEX CONTOUR</p> <p>EXISTING INTERMEDIATE CONTOUR</p> <p>EXISTING PAVED ROADWAY</p> <p>EXISTING GRAVEL ROADWAY</p> <p>EXISTING STRUCTURE/BUILDING</p> <p>EXISTING STREAM</p> <p>STREAM AND WETLAND DELINEATION BOUNDARY</p> <p>EXISTING WETLAND</p> <p>EXISTING INTERMEDIATE ELECTRIC LINE</p> <p>EXISTING WATERLINE</p> <p>EXISTING TELECOMMUNICATION LINE</p> <p>EXISTING STORMWATER CULVERT</p> <p>EXISTING TRAIL LINE</p> <p>EXISTING WATER METER</p> <p>EXISTING UTILITY POLE</p> <p>EXISTING INLET</p>	<p>1:100</p> <p>x 1272.90</p> <p>01</p> <p>02</p> <p>03</p> <p>04</p> <p>05</p> <p>06</p> <p>07</p> <p>08</p> <p>09</p> <p>10</p>	<p>PROPOSED LINE OF DISTURBANCE</p> <p>PROPOSED EDGE OF ACCESS ROAD/PAV</p> <p>PROPOSED GRAVEL</p> <p>PROPOSED ASPHALT PAVEMENT</p> <p>PROPOSED ELEVATION BOUND</p> <p>PROPOSED WELLHEAD AND CELLAR</p> <p>PROPOSED INDEX CONTOUR</p> <p>PROPOSED INTERMEDIATE CONTOUR</p> <p>PROPOSED SPOT ELEVATION</p> <p>PROPOSED CUT/FILL LINE</p> <p>PROPOSED CHANGE</p> <p>PROPOSED STORMWATER CULVERT</p> <p>PROPOSED INLET</p> <p>PROPOSED BRUSH APRON</p> <p>PROPOSED UNDERDRAIN</p>	<p>02-1</p> <p>02-2</p> <p>02-3</p> <p>02-4</p> <p>02-5</p> <p>02-6</p> <p>02-7</p> <p>02-8</p> <p>02-9</p> <p>02-10</p> <p>02-11</p> <p>02-12</p>	<p>PROPOSED COMPOST FILTER SOCK TRAP</p> <p>PROPOSED 18-IN COMPOST FILTER SOCK</p> <p>PROPOSED 24-IN COMPOST FILTER SOCK</p> <p>PROPOSED 30-IN COMPOST FILTER SOCK</p> <p>PROPOSED BRUSH CONSTRUCTION FENCE</p> <p>PROPOSED POST-CONSTRUCTION ENTRANCE</p> <p>PROPOSED INLET PROTECTION</p> <p>PROPOSED EROSION CONTROL BLANKET</p>
---	---	--	--	---

MISS UTILITY OF WEST VIRGINIA
1-800-245-4848
West Virginia Title Law
(Section XV, Chapter 24-C requires that you call two business days before you dig in the state of West Virginia.)
IT'S THE LAW

Civil & Environmental Consultants, Inc.
4000 Triangle Lane, Suite 200 - Export, PA 15622
724-327-5200 - 724-327-5202
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REVISION RECORD

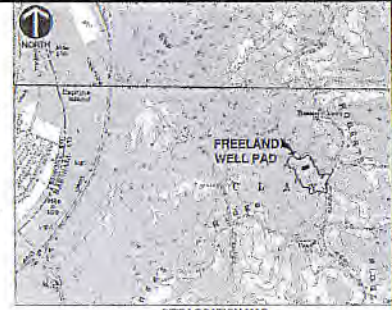
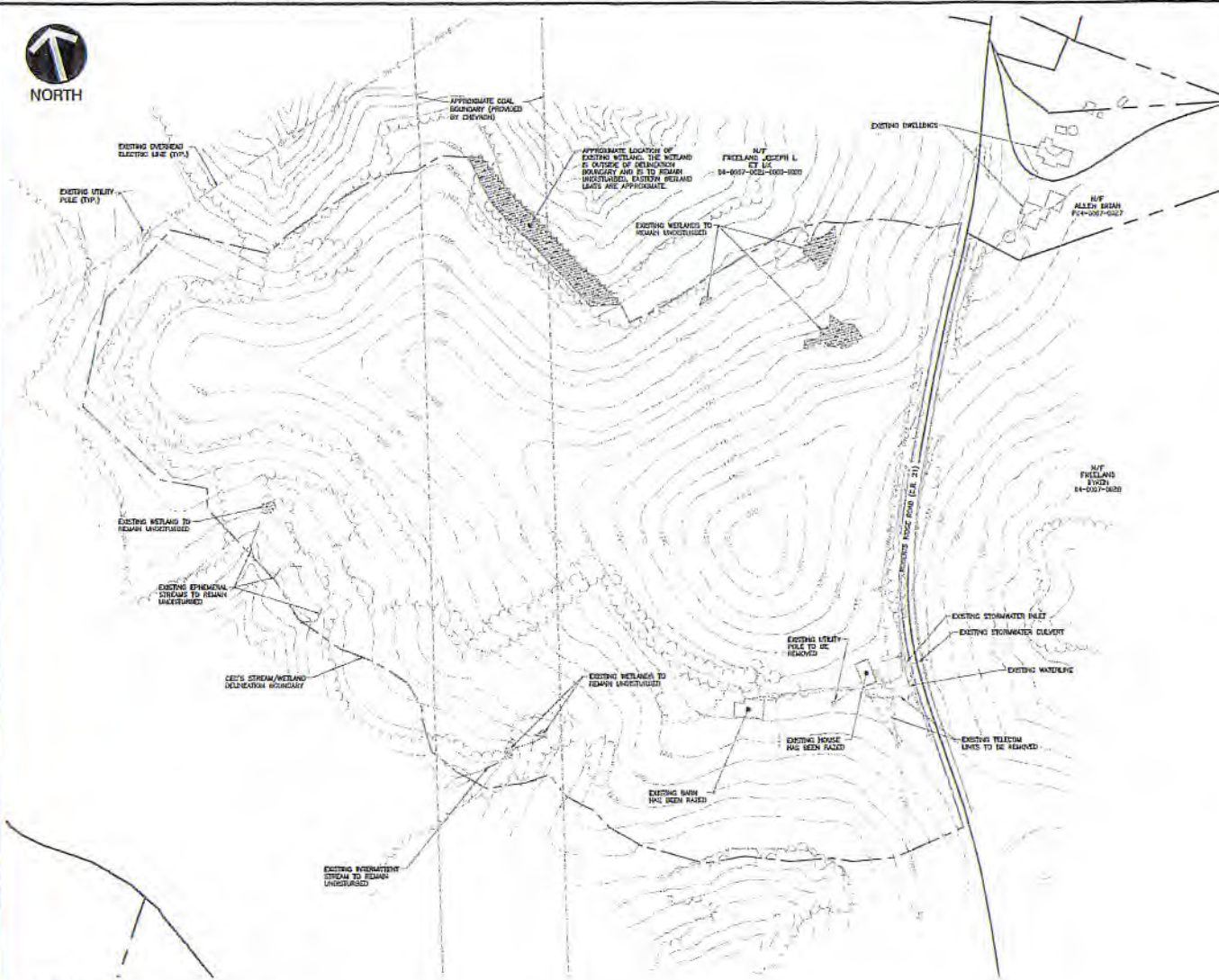
NO.	DATE	DESCRIPTION

FREELAND WELL PAD
CLAY DISTRICT
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108

COVER SHEET

Project Number: 172-043
Drawing Scale: 1"=200'
Date Issued: 12/14/2018
Issue Number:
Drawn By: JMM
Checked By: JMM
Project Manager: JMM

CS 000



SITE LOCATION MAP
SCALE IN FEET
0 2000 4000

REFERENCE
U.S.G.S. 7.5' TOPOGRAPHIC MAP, POMMAN POINT QUADRANGLE, CIVIL WAR EDITION, 1964, PHOTO REPRODUCED 1972 AND 1976, PHOTO REPRODUCED 1994

LEGEND

---	EXISTING PROPERTY LINE
---	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	EXISTING ROAD
---	EXISTING GRAVEL ROADWAY
---	EXISTING STRUCTURE/BLDG
---	EXISTING STREAM
---	STREAM AND WELLS DELINEATION BOUNDARY
---	EXISTING WELLS
---	EXISTING OVERHEAD ELECTRIC LINE
---	EXISTING WATERLINE
---	EXISTING TELECOM/WORKLINE
---	EXISTING STORAGE TANK
---	EXISTING TIE LINE
---	EXISTING WATER METER
---	EXISTING UTILITY POLE
---	EXISTING INLET

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724-237-8222 FAX 724-237-8223
www.civilandenv.com



REVISION RECORD

NO.	DATE	DESCRIPTION

FREELAND WELL PAD
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHESTNUT PARKWAY
COBALT, WV, PA 26038

EXISTING TOPOGRAPHIC PLAN
Project Number: 172-047
Drawing Scale: 1"=400'
Date Issued: 11/14/2018
Issue Number:
Drawn By: JWB
Checked By: JWB
Project Manager: JWB
ES 050

- REFERENCES
1. STREAMS AND WELLS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 06/24/2017.
 2. UNDERGROUND UTILITIES LOCATED BY A DIVISIONAL SURVEY CONDUCTED BY THE GEOLOGICAL SURVEY DATED 05/23/2017 TO 05/25/2017.
 3. UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 06/09/2017 TO 06/12/2017.
 4. TOPOGRAPHY SURVEYED VIA UNMANNED AERIAL VEHICLE (UAV) BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 04/18/2018.
 5. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVRON.

MISS UTILITY OF WEST VIRGINIA 1-800-245-4648
West Virginia State Law
Section 30-1 Chapter 24-C requires that you call two business days before you dig in the state of West Virginia.
IT'S THE LAW

SCALE IN FEET
0 100 200

172-047-050 (11/14/2018) 11/14/2018 11:23:58 AM



325-FT OFFSET FROM APPROXIMATE CENTER OF WELL PAD

APPROXIMATE COAL BOUNDARY (PROVED BY CHEVRON)

APPROXIMATE LOCATION OF EXISTING WETLAND & THE WETLAND IS OUTSIDE OF RESTRICTION ET AL BOUNDARY AND IS TO REMAIN UNCHANGED. EXISTING WETLAND LIMITS ARE APPROXIMATE.

N/T FREELAND JOSEPH L. ET AL
04-2007-0025-0002-0006

APPROXIMATE LOCATION OF ELONGEST WETLAND TO THE APPROXIMATE CENTER OF THE PROPOSED WELL PAD

N/T ALLEN WYMAN
FOA-2007-0025



SITE LOCATION MAP
SCALE IN FEET
0 500 1000

REFERENCE
U.S.G.S. 2.5 TOPOGRAPHIC MAP, PORTSMOUTH FROM QUADRMAGE, OH-WY DATED 1982, PHOTOGRAPHIC: 1974 AND 1976, PHOTOGRAPHIC: 1984.

LEGEND

---	EXISTING PROPERTY LINE
---	EXISTING WELLS CENTER
---	EXISTING APPROXIMATE CENTER
---	EXISTING FENCED BOUNDARY
---	EXISTING GRAVELED ROADWAY
---	EXISTING STRUCTURE/WEEDING
---	EXISTING STREAM
---	STREAM AND WETLAND VEGETATION BOUNDARY
---	EXISTING WETLAND
---	EXISTING OVERHEAD ELECTRIC LINE
---	EXISTING WATERLINE
---	EXISTING TELECOMMUNICATION LINE
---	EXISTING FIBER/OPTIC CABLE
---	EXISTING TRAIL LINE
---	EXISTING HOSE METERS
---	EXISTING UTILITY POLE
---	EXISTING PALE
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED EDGE OF ACCESS ROAD/PAD
---	PROPOSED GRAVEL
---	PROPOSED ASPHALT PAVEMENT
---	PROPOSED CONCRETE/STONE
---	PROPOSED WETLAND AND CELLAR
---	PROPOSED INDEX CENTER
---	PROPOSED WETLAND/CELLAR CENTER
---	PROPOSED SPOT ELEVATION
---	PROPOSED CUT/FILL LINE
---	PROPOSED COMPOST FILTER SOCK TRAP
---	PROPOSED 18-IN COMPOST FILTER SOCK
---	PROPOSED 24-IN COMPOST FILTER SOCK
---	PROPOSED 30-IN COMPOST FILTER SOCK
---	PROPOSED ORANGE CONSTRUCTION FENCE
---	PROPOSED BROWN CONSTRUCTION ENTRANCE
---	PROPOSED PALE PROTECTION
---	PROPOSED CHANNEL
---	PROPOSED STEELWATER CLAVENT
---	PROPOSED PALE
---	PROPOSED REPAIR ACTION
---	PROPOSED UNDERPASS

PRELIMINARY EARTHWORK

	CUT (CY)	FILL (CY)	NET
WELL PAD	83,800	91,200	2,100 CUT
WELL PAD ACCESS ROAD	1,900	1,800	500 FILL
TOTAL	85,700	93,000	2,670 CUT
TOPSOIL STOCKPILES REQUIRED	N/A	10,000	
TOPSOIL STOCKPILES PROVIDED	N/A	10,000	
CUT OVERSIGHT/PILE STOCKPILES PROVIDED	N/A	10,000	

NOTE: QUANTITIES LISTED ABOVE ARE APPROXIMATE AND HAVE BEEN ADJUSTED USING 1.0-FT OF TOPSOIL AS WELL AS 0.5-FT OF AGGREGATE ON THE PAD AND ACCESS ROAD. NO ADJUSTMENTS WERE MADE FOR TRENCH OR WELL QUANTITIES ALSO DO NOT INCLUDE PROPOSED/FUTURE CELLAR AREA OR FUTURE VEGETATION REGRASSMENT.

ACCESS ROAD

	APPROX. LENGTH	MAX. WIDTH (FT)	TYP. WIDTH
WELL PAD ACCESS ROAD	270 FT	12.5 FT	24 FT

LIMIT OF DISTURBANCE
32.4 ACRES

SCALE IN FEET
0 100 200

CEE
Civil & Environmental Consultants, Inc.
4800 Village Lane, Suite 200 - Forest PA 15024
724.222.0200 - FAX 724.222.0210
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REVISION RECORD

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

PROJECT NUMBER: 175-245
DRAWING NUMBER: 175-245-010
DATE: 08/11/2010
SCALE: AS SHOWN
DRAWN BY: JPB
CHECKED BY: JPB
PROJECT MANAGER: JPB

EROSION AND BEDDIMENT CONTROL PLAN OVERVIEW
FREELAND WELL PAD
CLAY DISTRICT
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHEERSINGTON PARKWAY
CORAOPOLIS, PA 15109
ES 100

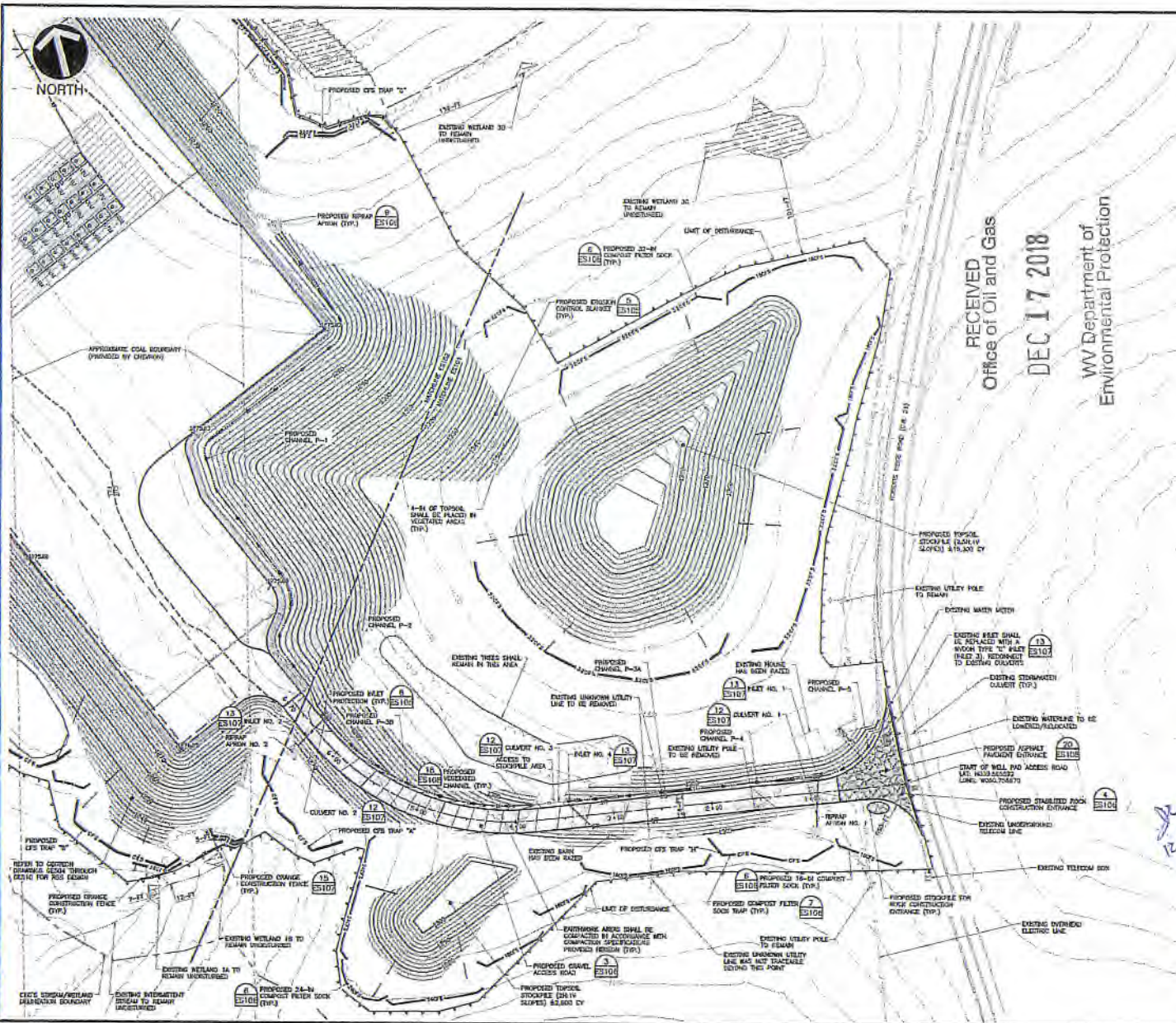
THIS PLAN IS THE PROPERTY OF CHEVRON APPALACHIA, LLC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CHEVRON APPALACHIA, LLC.

- REFERENCES
1. STREAMS AND WETLANDS DELINEATED BY CHEV. & ENVIRONMENTAL CONSULTANTS, INC. DATED 02/14/2017.
 2. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICAL LTD. DATED 05/23/2017 TO 05/25/2017.
 3. TOPOGRAPHY AND MARKED UTILITY FEATURES SURVEYED BY CHEV. & ENVIRONMENTAL CONSULTANTS, INC. DATED 06/05/2017 TO 06/12/2017.
 4. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVRON.

MISS UTILITY OF WEST VIRGINIA
1-800-245-4848
West Virginia State Law
Chapter 20C Chapter 24-C requires that you call two business days before you dig in the state of West Virginia.
IT'S THE LAW

- EARTHWORK NOTES
1. EARTHWORK ANALYSIS IS PRELIMINARY AND FOR INFORMATION PURPOSES ONLY.
 2. ACTUAL EARTHWORK WILL VARY BASED ON SITE CONDITIONS AND MATERIALS USED.
 3. EARTHWORK ANALYSIS DOES NOT CONSIDER SOIL SWELL OR SETTLE.
 4. TRENCH SHOULDS ARE NOT INCLUDED.

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DEC 17 2018
WV Department of Environmental Protection



LEGEND

	EXISTING PROPERTY LINE
	EXISTING BACK CONTOUR
	EXISTING INTERMEDIATE CONTOUR
	EXISTING FENCE ROADWAY
	EXISTING GRAVELLED ROADWAY
	EXISTING CONCRETE/ALLUVIAL STREAM
	EXISTING STREAM
	STREAM AND WETLAND DELINEATION BOUNDARY
	EXISTING WETLAND
	EXISTING OVERHEAD ELECTRIC LINE
	EXISTING WATERLINE
	EXISTING TELECOMMUNICATION LINE
	EXISTING STORMWATER CULVERT
	EXISTING TREE LINE
	EXISTING WATER METER
	EXISTING UTILITY POLE
	EXISTING INLET
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED EDGE OF ACCESS ROAD/PAD
	PROPOSED CHANNEL
	PROPOSED ASPHALT PAVEMENT
	PROPOSED COMPACTED STONE
	PROPOSED WELLHEAD AND CELLAR
	PROPOSED INDEX CONTOUR
	PROPOSED INTERMEDIATE CONTOUR
	PROPOSED SPOT ELEVATION
	PROPOSED CUT/FILL LINE
	PROPOSED COMPACT FILTER SOCK TRAP
	PROPOSED 18-IN COMPACT FILTER SOCK
	PROPOSED 24-IN COMPACT FILTER SOCK
	PROPOSED 30-IN COMPACT FILTER SOCK
	PROPOSED ORANGE CONSTRUCTION FENCE
	PROPOSED ROCK CONSTRUCTION ENTRANCE
	PROPOSED CHANNEL
	PROPOSED STORMWATER CULVERT
	PROPOSED INLET
	PROPOSED REPAIR APRON
	PROPOSED BACKHOE
	PROPOSED EROSION CONTROL BLANKET
	DETAIL NUMBER
	DETAIL LOCATION

STREAM AND WETLAND NOTES

1. WETLAND NUMBERS ARE BEING REQUESTED FOR THE FOLLOWING PAIR (A) WETLANDS THAT ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE: WETLANDS 1A, 1B, 2, AND 4.
2. THE STREAMS SHOWN HEREON OUTSIDE THE LIMIT OF DISTURBANCE ARE PRESENT OR SUSPECTED; AS SUCH, A WATERSHED IS NOT BEING REQUESTED FOR FEDERAL STREAMS.
3. LENGTHS SHOWN HEREON ARE MEASURED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

COMPACTION SPECIFICATIONS

1. PLACE THE FILL MATERIALS USING COMPACTION EQUIPMENT WITH SUFFICIENT WEIGHT AND WEIGHT IN CONTACT WITH THE EXISTING 12 INCHES THICK. USE A REDUCED LAYER THICKNESS OF 4 INCHES (MAXIMUM) IN AREAS WHERE OVER-PLACEMENT BY OTHER MEANS (HANDING) IS REQUIRED. WHEEL-DRIVEN TRACKED OR OTHER TRACKED COMPACTORS ARE BEING USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 3/8 INCHES IN STRUCTURAL FILL AREAS WHERE HEAVY EQUIPMENTED COMPACTORS ARE USED. A REDUCED MAXIMUM PARTICLE SIZE OF 3/8 INCHES SHOULD BE USED IN AREAS WHERE TRACKED COMPACTORS ARE USED. WHITE OVERCAST PARTICLES (EXCEEDING THE MAXIMUM PARTICLE SIZE REQUESTED) ARE OFF-LIMITS OF THE PROPOSED FILL AREAS OR IN SELECT AREAS OF FILL. OVERCAST ROCK PARTICLES (I.E., MATERIALS EXCEEDING 6 INCHES) PLACED IN THE DEEPEST LAYERS OF FILL SHOULD BE PLACED IN LOTS NOT EXCEEDING 24 INCHES. LOTS SHOULD BE COMPACTED BY SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
2. CONTACT ALL PAD AND ROADWAY SUBGRADE AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 25 PERCENT OF ITS MAXIMUM DRY TENSITY WITHIN 45 PERCENT OF THE OPTIMAL MOISTURE CONTENT. MAINTAIN MAXIMUM SOY TENSITY AND OPTIMAL MOISTURE CONTENT IN ACCORDANCE WITH ASHS (STANDARD PRACTICE).
3. ADDITIONAL SPECIFICATIONS ARE REQUIRED FOR THE PROPOSED SUBGRADE AND SOILS. SEE SPEC. AREA. REFER TO GRADING DESIGNS THROUGH O&G FOR ADDITIONAL INFORMATION.

REFERENCES

1. STREAMS AND WETLANDS DELINEATED BY C&E & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/24/2017.
2. UNDERGROUND UTILITIES LOCATED BY A GEOTECHNICAL SURVEY CONDUCTED BY SFC SERVICES, LLC DATED 03/20/2018 TO 05/20/2018.
3. UTILITY FEATURES SCANNED BY C&E & ENVIRONMENTAL CONSULTANTS, INC. DATED 09/29/2017 TO 09/12/2018.
4. TOPOGRAPHY PROVIDED BY MA UNIMATED ASSET, WETLAND DATA BY C&E & ENVIRONMENTAL CONSULTANTS, INC. DATED 04/18/2018.
5. PROPERTY ENCLOSED WERE PROVIDED BY CHEBRON.

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West Virginia State Law
Section 20C Chapter 24C requires that you call two business days before you dig in the state of West Virginia.
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SCALE IN FEET
1" = 20'

REVISION RECORD

NO.	DATE	DESCRIPTION
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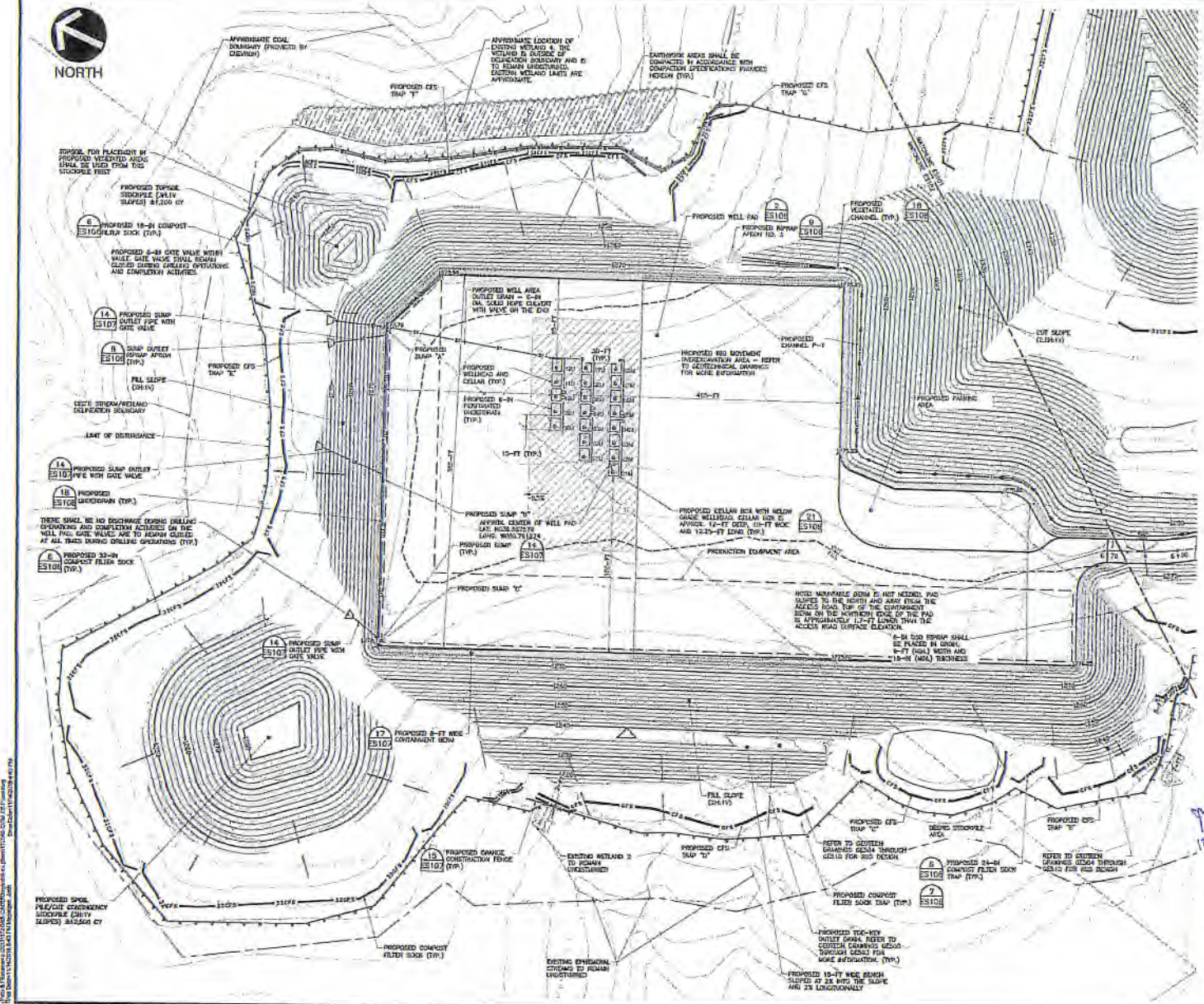
FREELAND WELL PAD
CLAY DISTRICT
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHEVRON PARKWAY
CORAOPOLIS, PA 15108

EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)
Project Number: 172-050
Drawing Scale: 1"=20'
Plan Interval: 10 FEET
Index Filename:
Drawn By: JTB
Checked By: JTB
Project Manager: JTB

ES 101

RECEIVED
Office of Oil and Gas
DEC 17 2018
WV Department of
Environmental Protection

C&E & Environmental Consultants, Inc.
4000 Temple Lane, Suite 200 - Forest, PA 15229
724.337.0200 - fax 724.337.2470
www.candec.com



LEGEND

- EXISTING PROPERTY LINE
- - - - EXISTING AREA BOUNDARY
- EXISTING METEOROLOGIC CONTOUR
- EXISTING PAVED ROADWAY
- EXISTING GRAVELLED ROADWAY
- EXISTING STRUCTURE/BUILDING
- EXISTING STREAM
- STREAM AND WETLAND DEMARCATION BOUNDARY
- EXISTING WETLAND
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING WIRELINE
- EXISTING TELECOMMUNICATION LINE
- EXISTING EROSION CONTROL DRAINAGE
- EXISTING TRAIL LINE
- EXISTING WATER METER
- EXISTING UTILITY POLE
- EXISTING FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED EDGE OF ACCESS ROAD/PAD
- PROPOSED DRIVEWAY
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED CONCRETE DRIVEWAY
- PROPOSED WALLHEAD AND COLLAR
- PROPOSED ROCK BENCH
- PROPOSED METEOROLOGIC CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED CUT/FILL LINE
- PROPOSED COMPACT FILTER SOCK TRAP
- PROPOSED 18-IN COMPACT FILTER SOCK
- PROPOSED 24-IN COMPACT FILTER SOCK
- PROPOSED 36-IN COMPACT FILTER SOCK
- PROPOSED DRAINAGE CONSTRUCTION FENCE
- PROPOSED SOCK CONSTRUCTION FENCE
- PROPOSED PILEY PROTECTION
- PROPOSED CHAIN
- PROPOSED STORMWATER CULVERT
- PROPOSED RILEY
- PROPOSED BERM AFRON
- PROPOSED UNDISTURBED
- PROPOSED EROSION CONTROL BENCHLET
- DETAIL NUMBER
- DETAIL LOCATION

- STREAM AND WETLAND NOTES**
1. WETLANDS ARE BEING REQUESTED FOR THE FOLLOWING: (A) WETLANDS THAT ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE, (B) WETLANDS IN A, B, C, AND D.
 2. THE STREAMS SHOWN HEREON OUTSIDE THE LIMIT OF DISTURBANCE ARE EMBANKED OR OTHERWISE AS SUCH, A WALLS WILL BE BEING REQUESTED FOR PERMANENT PROTECTION.
 3. DIMENSIONS SHOWN HEREON ARE MEASURED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

- COMPACTION SPECIFICATIONS**
1. PLACE SOIL FILL MATERIALS USING COMPACTION EQUIPMENT WITH CAPACITY TO 18-INCH DEPTH IN COMPACTED LIFTS NOT EXCEEDING 12 INCHES THICK. USE A REDUCED LIFT LIFT THICKNESS OF 6 INCHES (MAXIMUM) IN AREAS WHERE STEEL-PLATE, DRUMS, OR OTHER HIGH-SPEED COMPACTORS ARE BEING USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 1/8 INCHES IN STRUCTURAL FILL AREAS WHERE HIGH-SPEED COMPACTORS ARE USED. A REDUCED MAXIMUM PARTICLE SIZE OF 3/8 INCHES SHOULD BE USED IN AREAS WHERE HIGH-SPEED COMPACTORS ARE USED. PLACE OVERLAP PARTICLES (EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED) OUTSIDE OF THE PROPOSED FILL AREAS OR IN OTHER AREAS OF FILL OVERLAP PARTICLES (I.E. MATERIALS EXCEEDING A MAXIMUM PARTICLE SIZE OF 3/8 INCHES) SHOULD BE PLACED IN LIFTS NOT EXCEEDING 24 INCHES. LIFTS SHOULD BE COMPACTED IN SEVERAL PLACES USING HEAVY COMPACTION EQUIPMENT.
 2. COMPACT ALL PAD AND ROADWAY SUBGRADES AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 95 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN AS PERCENT OF THE OPTIMUM MOISTURE CONTENT. (STANDARD WETNESS TEST METHOD AND OPTIMUM MOISTURE CONTENT) IN ACCORDANCE WITH ASTM D698 (STANDARD PRACTICE).
 3. ADDITIONAL SPECIFICATIONS ARE REQUIRED FOR THE PROPOSED WETLANDS TO BE SLOPED FROM THE WETLAND TO CHANNELS (SEE) THROUGH DRAINAGE CUTS AND OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698 (STANDARD PRACTICE).

- REFERENCES**
1. STREAMS AND WETLANDS DERIVED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 02/24/2017.
 2. UNDISTURBED WETLANDS LOCATED BY A GEOLOGICAL SURVEY CONDUCTED BY THE GEOSCIENCE LTD. DATED 05/22/2017 TO 05/24/2017.
 3. UTILITY RECORDS DERIVED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 06/09/2017 TO 05/22/2017.
 4. PHOTOGRAPH CAPTURED VIA UNMANNED AERIAL VEHICLE (UAV) BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 04/16/2018.
 5. PROPERTY SUBGRADES WERE PROVIDED BY CHEVRON.

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West Virginia State Law
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SCALE IN FEET
0 50 100

Civil & Environmental Consultants, Inc.
1000 Thomas Lane, Suite 300 • Greer, VA 24622
703-767-0020 • 800-872-2110



REVISION RECORD

NO.	DATE	DESCRIPTION
1	12/18/18	ISSUED FOR PERMIT
2		
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FREELAND WELL PAD
CLAY DISTRICT
JAMES HALL COUNTY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY
CORRAOPOLIS, PA 15108

EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)
Project Number: EES-243
Drawing Scale: 1"=50'
Date Issued: 12/18/2018
Issue Number:
Drawn By: EMB
Checked By: JEB
Project Manager: CJS

ES 102

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Office of Oil and Gas
DEC 17 2018
WV Department of
Environmental Protection

OPERATOR: Chevron Appalachia, LLC WELL NO: M04H

PAD NAME: Freeland

REVIEWED BY: Nikolai Softcheck SIGNATURE: *Nikolai G Softcheck*

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR

DEP Waiver and Permit Conditions

At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR

DEP Waiver and Permit Conditions

At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR

DEP Waiver and Permit Conditions

At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

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Office of Oil and Gas

DEC 17 2018

**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: Moundsville Echo

Public Notice Date: Dec 3rd and Dec 10th, 2018

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: Chevron Appalachia, LLC **Well Number:** See Attached for Freeland

Address: 700 Cherrington Parkway, Coraopolis, PA 15108

Business Conducted: Natural gas production.

Location –

State:	<u>West Virginia</u>	County:	<u>Marshall</u>
District:	<u>Clay</u>	Quadrangle:	<u>Powhatan Point, WV 7.5'</u>
UTM Coordinate NAD83 Northing:	<u>See Attached</u>		
UTM coordinate NAD83 Easting:	<u>See Attached</u>		
Watershed:	<u>Short Creek - Ohio River</u>		

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.comments@wv.gov.

Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

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	Northing	Easting
Freeland M01H	4413085.83	520415.49
Freeland M02H	4413087.74	520419.64
Freeland M03H	4413089.65	520423.79
Freeland M04H	4413091.57	520427.94
Freeland M05H	4413093.48	520432.09
Freeland M06H	4413095.39	520436.24
Freeland M07H	4413097.30	520440.39
Freeland M08H	4413099.21	520444.55

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Environmental Protection

FREELAND WELL PAD EROSION AND SEDIMENT CONTROL PLAN

3599 RIDGE ROAD (COUNTY ROUTE 21)
CLAY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA

APPROVED
WVDEP OOG
2/26/2018

PREPARED FOR:

CHEVRON APPALACHIA, LLC

700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108

CONSULTANTS

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

CAD/SITE ENGINEER CONTACT: JOSH MAGARSEE
4000 TRIANGLE LAKE, SUITE 200
EXPORT, PA 15632
EMAIL ADDRESS: jmagarsee@cecinc.com

GEOTECHNICAL ENGINEER CONTACT: AARON LAVAGE
4000 TRIANGLE LAKE, SUITE 200
EXPORT, PA 15632
EMAIL ADDRESS: alavage@cecinc.com

SITE COORDINATES AND WATERSHED

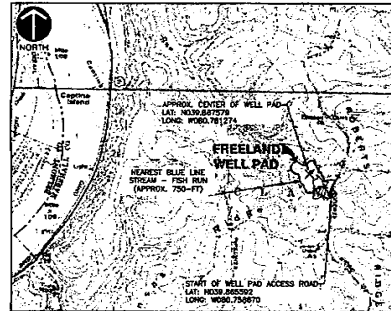
START OF WELL PAD ACCESS ROAD
LATITUDE: 39.865992° N, LONGITUDE: 80.758870° W

APPROXIMATE CENTER OF WELL PAD
LATITUDE: 39.875707° N, LONGITUDE: 80.761274° W

*BASED ON ROAD 83, WEST VIRGINIA NORTH ZONE

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

Neighboring No.	Neighboring	Containing	Latitude (North)	Longitude (West)
01M	509597.9170	184440.8066	39.8675665	80.7612906
02I4	509609.5832	184496.5849	39.8678937	80.7612470
03M	509620.6094	184508.2655	39.8676028	80.7611914
04M	509615.8555	184523.9870	39.8676179	80.7611444
05M	509621.7017	184535.7155	39.8676351	80.7610962
06M	509627.7479	184549.4440	39.8676522	80.7610475
07M	509633.7941	184563.1725	39.8676693	80.7610090
08M	509639.8403	184576.9010	39.8676864	80.7609604
09U	509645.8865	184590.6295	39.8677035	80.7609118
10I	509651.9327	184604.3580	39.8677206	80.7608632
11U	509657.9789	184618.0865	39.8677377	80.7608146
02U	509663.0251	184631.8150	39.8677548	80.7607660
03U	509668.0713	184645.5435	39.8677719	80.7607174
04U	509673.1175	184659.2720	39.8677890	80.7606688
05U	509678.1637	184673.0005	39.8678061	80.7606202
06U	509683.2099	184686.7290	39.8678232	80.7605716
07U	509688.2561	184700.4575	39.8678403	80.7605230
08U	509693.3023	184714.1860	39.8678574	80.7604744
09U	509698.3485	184727.9145	39.8678745	80.7604258
10U	509703.3947	184741.6430	39.8678916	80.7603772
11U	509708.4409	184755.3715	39.8679087	80.7603286



SITE LIMITS OF DISTURBANCE/IMPACTS TO NONWATERSHED	
LANDOWNER - JOSEPH L. FREELAND (A.C)	
TOTAL AREA	22.4
WOODLAND DISTURBED	1.7
WELL PAD	22.7
ACCESS ROAD	3.1
STOCKPILE AREA	6.6

REFERENCE
U.S.G.S. 7.5' TOPOGRAPHIC MAP, POTOMAC POINT
QUADRANGLE, OH-MY DATUM, 1980, PHOTOLOGUED
1872 AND 1976, PHOTODIAPHRASED, 1984.

LEGEND

-----	EXISTING PROPERTY LINE	=====	PROPOSED LIMIT OF DISTURBANCE	=====	PROPOSED COMPOST FILTER SOCK TRAP
-----	EXISTING INDEX CONTOUR	-----	PROPOSED EDGE OF ACCESS ROAD/PAD	=====	PROPOSED 18-IN COMPOST FILTER SOCK
-----	EXISTING INTERMEDIATE CONTOUR	-----	PROPOSED ASPHALT PAVEMENT	=====	PROPOSED 24-IN COMPOST FILTER SOCK
-----	EXISTING PAVED ROADWAY	-----	PROPOSED CONCRETE DRIVE	=====	PROPOSED 32-IN COMPOST FILTER SOCK
-----	EXISTING GRAVELLED ROADWAY	-----	PROPOSED WELLS HEAD AND CELLAR	=====	PROPOSED ORANGE CONSTRUCTION FENCE
-----	EXISTING STRUCTURE/BUILDING	○	PROPOSED INDEX CONTOUR	-----	PROPOSED ROCK CONSTRUCTION ENTRANCE
-----	EXISTING STREAM	-----	PROPOSED INTERMEDIATE CONTOUR	-----	PROPOSED BALE PROTECTION
-----	STREAM AND WETLAND DELINEATION BOUNDARY	-----	PROPOSED SPOT ELEVATION	-----	PROPOSED EROSION CONTROL BLANKET
-----	EXISTING WETLAND	-----	PROPOSED CLAY/PILL LINE	-----	
-----	EXISTING OVERHEAD ELECTRIC LINE	-----	PROPOSED CHANNEL	-----	
-----	EXISTING WIRELINE	-----	PROPOSED STORMWATER CULVERT	-----	
-----	EXISTING TELECOMMUNICATION LINE	-----	PROPOSED BULLET	-----	
-----	EXISTING STORMWATER CULVERT	-----	PROPOSED REPAUP APRON	-----	
-----	EXISTING TREE LINE	-----	PROPOSED UNDERDRAIN	-----	
-----	EXISTING WATER METER	-----		-----	
-----	EXISTING UTILITY POLE	-----		-----	
-----	EXISTING RILEY	-----		-----	

WETLANDS WITHIN 168 LF OF THE LIMIT OF DISTURBANCE (SUBJECT TO WETLAND WAIVER REQUEST)

WETLAND 1A (PEM) - 7 FT FROM LOD
WETLAND 1B (PCA) - 5 LF FROM LOD
WETLAND 2 (PSS) - 2 LF FROM LOD
WETLAND 4 (PDM/PSS) - 10 LF FROM LOD

REFERENCES

- STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/24/2017.
- UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY TWO GEOPHYSICS LTD. DATED 02/23/2017 TO 03/09/2017.
- UTILITY FEATURES SURVEYED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 08/09/2017 TO 08/12/2017.
- TOPOGRAPHY SURVEYED VIA UNMARKED AERIAL VEHICLE (UAV) BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 04/18/2018.
- PROPERTY BOUNDARIES WERE PROVIDED BY CHEVRON.
- BACKGROUND AERIAL IMAGE FROM GOOGLE EARTH PRO. DATED 2018.

DWG NO.	SHEET TITLE	INCLUDED	LAST REVISED
CS 000	COVER SHEET	X	11/14/2018
ES 050	EXISTING TOPOGRAPHIC PLAN	X	11/14/2018
ES 100	OVERALL EROSION AND SEDIMENT CONTROL PLAN	X	11/14/2018
ES 101	EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)	X	11/14/2018
ES 102	EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)	X	11/14/2018
ES 103	EROSION AND SEDIMENT CONTROL DETAILS (1 OF 6)	X	11/14/2018
ES 104	EROSION AND SEDIMENT CONTROL DETAILS (2 OF 6)	X	11/14/2018
ES 105	EROSION AND SEDIMENT CONTROL DETAILS (3 OF 6)	X	11/14/2018
ES 106	EROSION AND SEDIMENT CONTROL DETAILS (4 OF 6)	X	11/14/2018
ES 107	EROSION AND SEDIMENT CONTROL DETAILS (5 OF 6)	X	11/14/2018
ES 108	EROSION AND SEDIMENT CONTROL DETAILS (6 OF 6)	X	11/14/2018
ES 109	WELL PAD PLAN AND CROSS-SECTIONS	X	11/14/2018
ES 110	ACCESS ROAD PLAN AND PROFILE	X	11/14/2018
ES 111	ACCESS ROAD CROSS-SECTIONS	X	11/14/2018
ES 112	STOCKPILE CROSS-SECTIONS	X	11/14/2018
GE 500	GEOTECHNICAL SUBSURFACE SUMMARY	X	11/14/2018
GE 501	GEOTECHNICAL SURFACE CROSS-SECTIONS	X	11/14/2018
GE 502	GEOTECHNICAL NOTES AND TABLES	X	11/14/2018
GE 503	GEOTECHNICAL DETAILS	X	11/14/2018
GE 504	RSS PLAN AND ELEVATION VIEW (1 OF 2)	X	11/14/2018
GE 505	RSS PLAN AND ELEVATION VIEW (2 OF 2)	X	11/14/2018
GE 506	RSS CROSS-SECTION (1 OF 3)	X	11/14/2018
GE 507	RSS CROSS-SECTION (2 OF 3)	X	11/14/2018
GE 508	RSS CROSS-SECTION (3 OF 3)	X	11/14/2018
GE 509	RSS SPECIFICATIONS AND QUANTITIES	X	11/14/2018
GE 610	RSS DETAILS	X	11/14/2018
PC 600	SITE PLAN WITH AERIAL	X	11/14/2018
PC 601	POST-CONSTRUCTION RECLAMATION PLAN	X	11/14/2018
PC 602	POST-CONSTRUCTION RECLAMATION DETAILS	X	11/14/2018

C&E
Civil & Environmental Consultants, Inc.
4000 Triangle Lake, Suite 200 - Export, PA 15632
724-327-5200 - 724-327-5210
www.cecinc.com



REVISION RECORD

NO.	DATE	DESCRIPTION

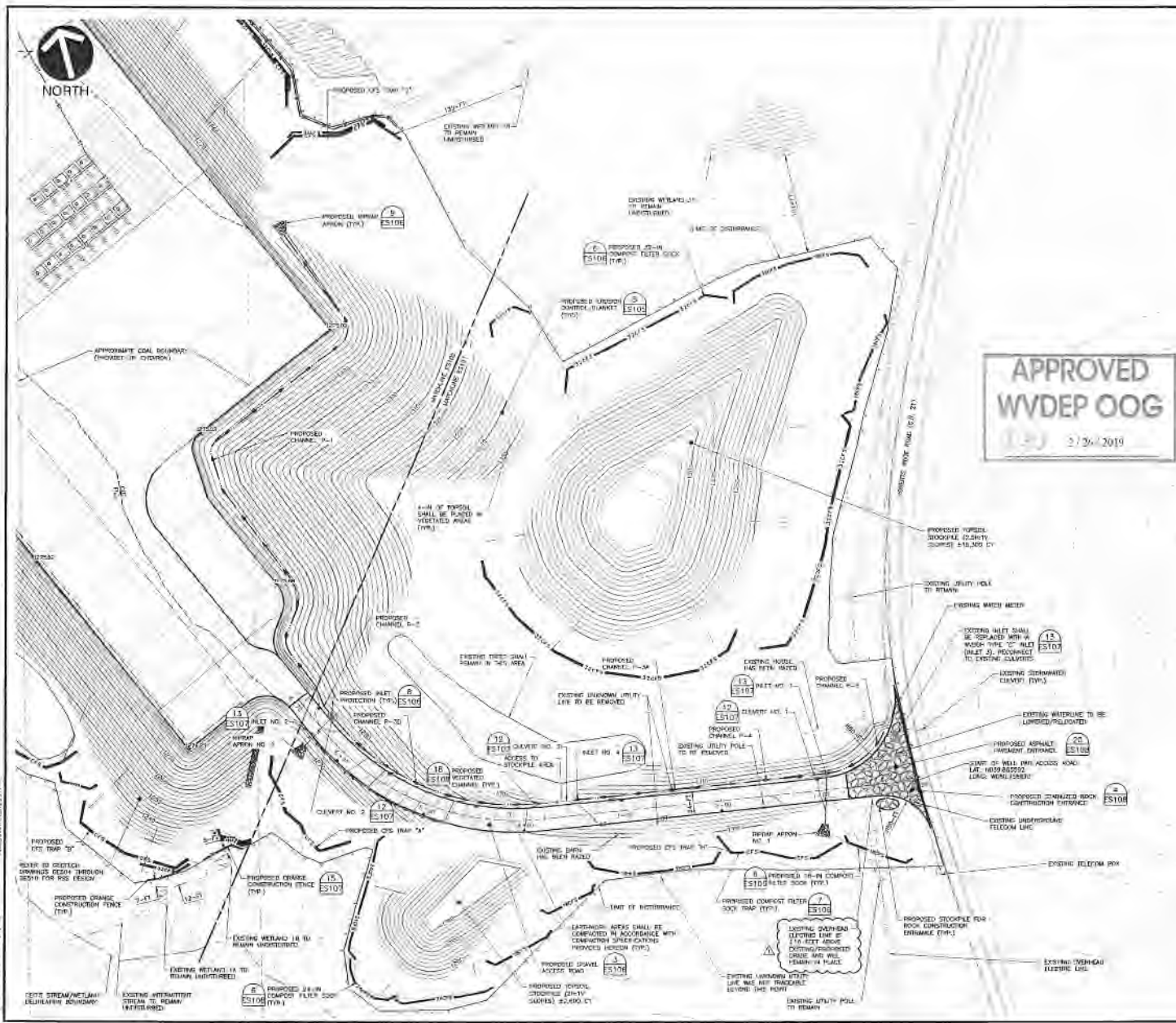
NO.	DATE	DESCRIPTION

FREELAND WELL PAD
CLAY DISTRICT
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR:
CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108

COVER SHEET
Project Number: 172-046
Drawing Scale: 1/2"=20'
Date Issued: 11/14/2018
Order Number:
Drawn By: JLF
Checked By: JLF
Project Manager: JLF

**MISS UTILITY OF
WEST VIRGINIA**
1-800-245-4848
West Virginia State Law
(Section 24C, Chapter 24-C requires that you
call two business days before
you dig in the state of West Virginia.)
IT'S THE LAW

CS 000



LEGEND

[Symbol]	EXISTING PROPERTY LINE
[Symbol]	EXISTING ASSESSOR'S CONTOUR
[Symbol]	EXISTING FENCE/ROADWAY
[Symbol]	EXISTING UNPAVED ROADWAY
[Symbol]	EXISTING STRUCTURE/BUILDING
[Symbol]	EXISTING STREAM
[Symbol]	STREAM AND WETLAND DELINEATION BOUNDARY
[Symbol]	EXISTING WETLAND
[Symbol]	EXISTING OVERHEAD ELECTRIC LINE
[Symbol]	EXISTING WATERLINE
[Symbol]	EXISTING TELECOMMUNICATION LINE
[Symbol]	EXISTING SIDEWALKED DRIVEWAY
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[Symbol]	EXISTING WATER METER
[Symbol]	EXISTING UTILITY POLE
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[Symbol]	PROPOSED LIMIT OF DISTURBANCE
[Symbol]	PROPOSED EDGE OF ACCESS ROAD/PAV
[Symbol]	PROPOSED DRIVEWAY
[Symbol]	PROPOSED ASPHALT PAVEMENT
[Symbol]	PROPOSED CONCRETE BEAM
[Symbol]	PROPOSED WELLED AND SELLER
[Symbol]	PROPOSED INDEX CONTOUR
[Symbol]	PROPOSED INTERMEDIATE CONTOUR
[Symbol]	PROPOSED SPOT ELEVATION
[Symbol]	PROPOSED ELEVATION LINE
[Symbol]	PROPOSED CONCRETE FILTER SOCK TRAP
[Symbol]	PROPOSED 18-IN CONCRETE FILTER SOCK
[Symbol]	PROPOSED 24-IN CONCRETE FILTER SOCK
[Symbol]	PROPOSED 36-IN CONCRETE FILTER SOCK
[Symbol]	PROPOSED GRAVEL DISTRIBUTION STACK
[Symbol]	PROPOSED ROCK CONSTRUCTION ENTRANCE
[Symbol]	PROPOSED INLET PROTECTION
[Symbol]	PROPOSED CHANNEL
[Symbol]	PROPOSED STEPPED WATER CURB
[Symbol]	PROPOSED HOLEY
[Symbol]	PROPOSED MOUND APRON
[Symbol]	PROPOSED UNDERDRAIN
[Symbol]	PROPOSED EROSION CONTROL BLANKET
[Symbol]	DETAIL NUMBER
[Symbol]	DETAIL LOCATOR

STREAM AND WETLAND NOTES

1. WETLAND WAIVERS ARE BEING REQUESTED FOR THE FOLLOWING (A) WETLANDS THAT ARE LOCATED WITHIN 100-FT OF THE LIMIT OF DISTURBANCE INCLUDING 1A, 1B, 2, AND 4.
2. THE STREAMS SHOWN HEREIN OUTSIDE THE LIMIT OF DISTURBANCE ARE EXEMPTED OR INTENTIONALLY AS SUCH, A WAIVER IS NOT BEING REQUESTED FOR FEDERAL STREAMS.
3. ELEVATIONS SHOWN HEREIN ARE MEASURED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.

COMPACTION SPECIFICATIONS

1. PLACE OR FILL MATERIALS USING COMPACTION EQUIPMENT WITH CAPACITY 2000 LB TO 10000 LB WITHIN 1000 FEET EXCEEDING 10 INCHES THICK. USE A REDUCED LOCKE LIFT THICKNESS OF 4 INCHES (MAXIMUM) IN AREAS WHERE STEEL-PLATE TAMPERS OR OTHER HAND-OPERATED COMPACTION ARE BEING USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 3/8 INCH IN STRUCTURAL FILL AREAS WHERE HEAVY SELF-PROPULSED COMPACTION ARE UTILIZED. A WETTED MAXIMUM PARTICLE SIZE OF 3/8 INCH SHOULD BE USED IN AREAS WHERE HAND-OPERATED COMPACTION ARE USED. MOST OVERSIZED PARTICLES (EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE) OUTSIDE OF THE PROPOSED FILL AREAS OR IN SELECT AREAS OF FILL, OVERSIZED ROCK PARTICLES (E.G. WETLANDS EXCLUDING 6 INCHES) PLACED IN THE NEAREST LAYS OF FILL SHOULD BE PLACED IN LAYS NOT EXCEEDING 24 INCHES. LAYS SHOULD BE COMPACTED IN SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
2. COMPACT ALL FILL AND ROADWAY SUBGRADE AND EACH LAY OF FILL MATERIAL TO A MINIMUM OF 95 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN 2% TOLERANCE OF THE OPTIMUM MOISTURE CONTENT. RETAINING MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D1557 (STANDARD) PROCEDURE.
3. ADDITIONAL SPECIFICATIONS ARE REQUIRED FOR THE PROPOSED SUBGRADE 20% SILTY (S15) AREAS. REFER TO DRAWING DESIGN THROUGH DESIGN FOR ADDITIONAL INFORMATION.

- REFERENCES**
1. STREAMS AND WETLANDS DELINEATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/24/2017
 2. UNDERGROUND UTILITIES LOCATED BY A GEOPHYSICAL SURVEY CONDUCTED BY THE GEOPHYSICAL LTD. (WV) 09/20/2017 TO 09/25/2017.
 3. UTILITY SERVICES CONDUCTED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 06/09/2017 TO 06/15/2017.
 4. TOPOGRAPHY SURVEYED BY UNANNOUNCED AERIAL VEHICLE (UAV) BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 04/19/2016.
 5. PROPERTY BOUNDARIES WERE PROVIDED BY CHEVON.

MISS. UTILITY OF WEST VIRGINIA
1-800-245-4848
 West Virginia State 114
 Election 10% Chapter 24-C requires that you put the mark above before you dig in any hole in West Virginia.
IT'S THE LAW

CHEVON Environmental Consultants, Inc.
 4400 Peachtree Lane, Suite 200 • Atlanta, GA 30326
 770.432.0000 • 800.999.0070

REVISION RECORD

No.	Date	By	Revised
1	02/26/2019	ES	ISSUED FOR PERMIT

FREELAND WELL PAD
 CHEVON WEST VIRGINIA
 MARSHALL COUNTY, WEST VIRGINIA
 PREPARED FOR:
CHEVRON APPALACHIA, LLC
 700 CHEVINGDON HIGHWAY
 COLUMBIANA, PA 15065

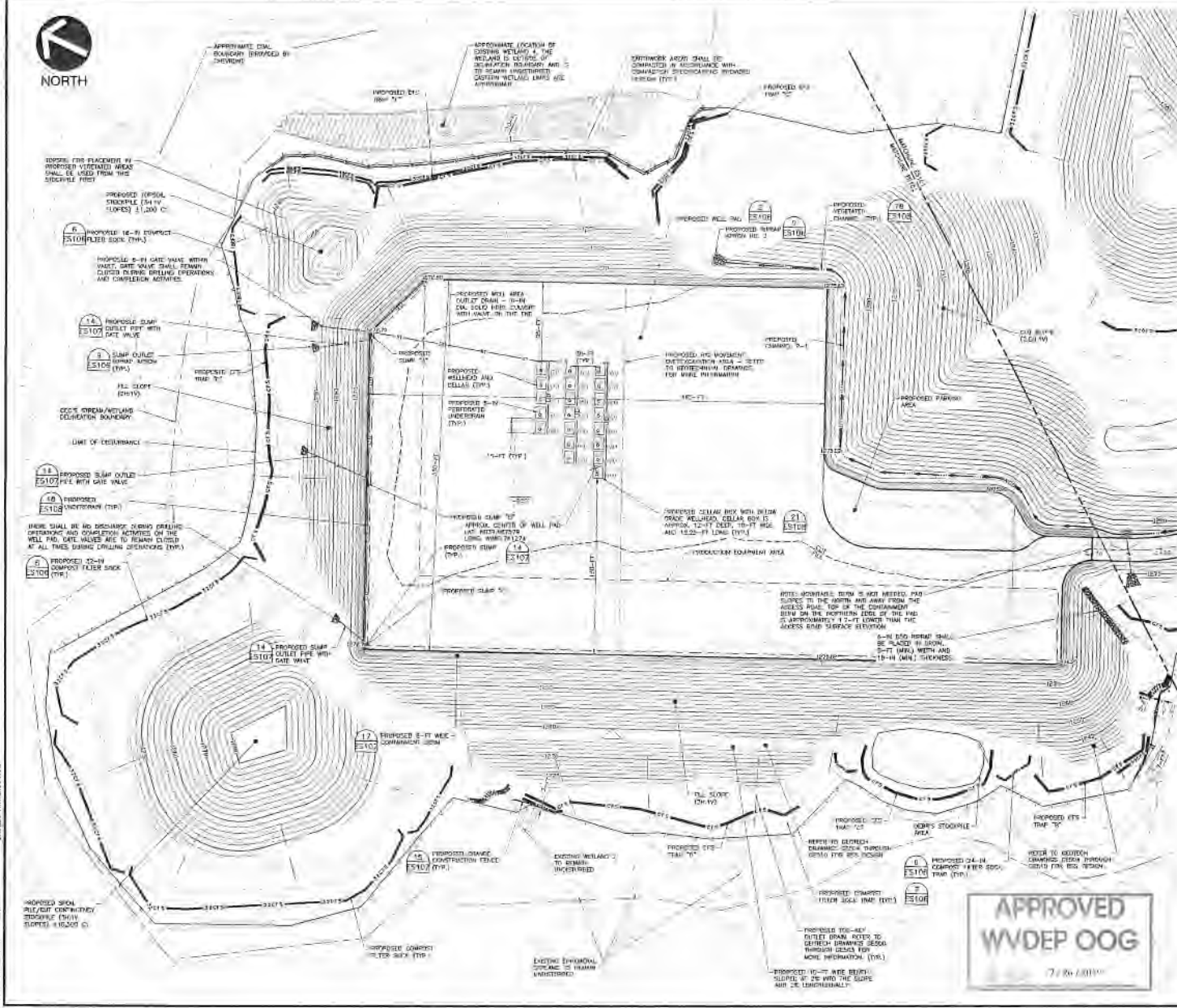
EROSION AND SEDIMENT CONTROL PLAN (1 OF 2)

Project Number: 15-026
 Drawing Number: 1502
 Date: 02/26/2019
 Scale: As Shown
 User: [Name]
 Checked by: [Name]
 Plotted by: [Name]

ES 101



NORTH



- LEGEND**
- EXISTING PROPERTY LINE
 - EXISTING ADJAC. CORRIDOR
 - EXISTING INTERMEDIATE CORRIDOR
 - EXISTING FENCED BOUNDARY
 - EXISTING CHANNEL ROOFTOP
 - EXISTING STRUCTURE/BUILDING
 - EXISTING STREAM
 - STREAM AND WETLAND DELINEATION BOUNDARY
 - EXISTING WETLAND
 - EXISTING OVERHEAD ELECTRIC LINE
 - EXISTING WATERLINE
 - EXISTING TELECOMMUNICATION LINE
 - EXISTING STORMWATER DRAINAGE
 - EXISTING TREE LINE
 - EXISTING WATER METER
 - EXISTING UTILITY POLE
 - EXISTING ALLEY
 - PROPOSED LIMIT OF DISTURBANCE
 - PROPOSED EDGE OF ACCESS ROAD/PAV
 - PROPOSED DRIVEWAY
 - PROPOSED ADJACENT FENCELINE
 - PROPOSED CONFINEMENT BERM
 - PROPOSED WELLSHEAD AND COLLAR
 - PROPOSED BULKY STORAGE
 - PROPOSED PERMANENT CONTOUR
 - PROPOSED SPOT ELEVATION
 - PROPOSED CUT/FILL LINE
 - PROPOSED COMPOST FILTER SOCK, 20'x4'
 - PROPOSED 18"-IN COMPOST FILTER SOCK
 - PROPOSED 24"-IN COMPOST FILTER SOCK
 - PROPOSED 36"-IN COMPOST FILTER SOCK
 - PROPOSED ROCK CONSTRUCTION FENCE
 - PROPOSED ROCK CONSTRUCTION ENTRANCE
 - PROPOSED HOLE PROTECTION
 - PROPOSED CHANNEL
 - PROPOSED DRAINAGE DRAINAGE
 - PROPOSED HOLE PROTECTION
 - PROPOSED BRUSH ARCHWAY
 - PROPOSED UNDERDRAIN
 - PROPOSED EROSION CONTROL BLANKET
- STREAM AND WETLAND NOTES**
- WETLAND BOUNDARIES ARE BEING REQUESTED FOR THE FOLLOWING FOUR (4) WELLSHEADS THAT ARE LOCATED WITHIN 100'-FT OF THE LIMIT OF DISTURBANCE: WELLSHEADS 1A, 1B, 2, AND 4.
 - THE STREAMS SHOWN WITHIN OUTSIDE THE LIMIT OF DISTURBANCE ARE ESSENTIAL OR INTERMITTENT AS SUCH, A FENCE IS NOT BEING REQUESTED FOR PERMANENT STORAGE.
 - DRAINAGES SHOWN HEREIN ARE MEASURED FROM THE EDGE OF THE WETLAND TO THE PROPOSED LIMIT OF DISTURBANCE.
- COMPACTION SPECIFICATIONS**
- PLACE SOIL FILL MATERIALS USING COMPACTION EQUIPMENT WITH WEIGHTED DRUMS OR ROLLERS TO A DEPTH OF 18" TO 24" (WHATEVER IS GREATER) WITHIN 18" TO 24" (WHATEVER IS GREATER) OF THE SURFACE. 15 HITS PER FOOT. USE A PERKINS LIGHT TAMPERS OF 4" (WHATEVER IS GREATER) IN AREAS WHERE STEEL-PLATE TAMPERS OR OTHER HAND-OPERATED COMPACTIONERS ARE USED. MAXIMUM PARTICLE SIZE SHOULD NOT EXCEED 6" INCHES IN STRUCTURAL FILL AREAS WHERE HEAVY, ONE-OPERATED COMPACTIONERS ARE USED. A REDUCED MAXIMUM PARTICLE SIZE OF 3" INCHES SHOULD BE USED IN AREAS WHERE HAND-OPERATED COMPACTIONERS ARE USED. WASTE DISPOSAL MATERIALS EXCEEDING THE MAXIMUM PARTICLE SIZE INDICATED ABOVE SHOULD BE PLACED IN THE PROPOSED FILL AREAS OF 14" DEEPEST AREAS OF FILL. DISPOSER ROCK PARTICLES (E.G. WASTEWATER EXCEEDING 6" INCHES) PLACED IN THE PROPOSED FILL AREAS OF 14" DEEPEST AREAS OF FILL SHOULD NOT EXCEED 24" INCHES. LIFTS SHOULD BE COMPACTED IN SEVERAL PASSES USING HEAVY COMPACTION EQUIPMENT.
 - COMPACT ALL FILL AND EXISTING SUBSURFACES AND EACH LIFT OF FILL MATERIAL TO A MINIMUM OF 95 PERCENT OF ITS MAXIMUM DRY DENSITY WITHIN 48" (WHATEVER IS GREATER) OF THE SURFACE. DETERMINE MAXIMUM DRY DENSITY AND OPTIMAL MOISTURE CONTENT IN ACCORDANCE WITH ASTM D1556 (STANDARD PROCTOR).
 - ADDITIONAL SPECIFICATIONS ARE REQUIRED FOR THE PROPOSED PROPOSED SOIL SLOPE (POST) AREAS. REFER TO DRAWINGS ALSO THROUGHOUT FOR ADDITIONAL INFORMATION.
- REFERENCES**
- STREAMS AND WETLAND DELINEATION BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/24/2017.
 - INTERFERENCES UTILITIES LOCATED BY A GEOTECHNICAL SURVEY CONDUCTED BY THE ENGINEERING LTD. DATED 05/23/2017 TO 10/25/2017.
 - UTILITY PLANETS SERVICED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 05/24/2017 TO 10/25/2017.
 - INTERFERENCES UTILITIES LOCATED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 04/18/2016.
 - PROPERTY RECORDS WERE PROVIDED BY CHEVRON.
- MISS UTILITY OF WEST VIRGINIA**
1-800-245-4848
West Virginia State Law
Section 20-2-2 (a) requires that you
you dig to the state of West Virginia.
IT'S THE LAW.
- APPROVED WVDEP OOG**
7/18/2017
- SCALE: 1" = 100'**

C&E
Civil & Environmental Consultants, Inc.
1000 Lincoln Lane, Suite 200 - Export, PA 15622
(724)272-8200 - ext.2000



REVISION RECORD

NO.	DATE	DESCRIPTION
1	7/18/17	ISSUED FOR PERMIT

FREELAND WELL PAD
LOCAL DISTRICT
MARSHALL COUNTY, WEST VIRGINIA
PREPARED FOR
CHEVRON APPALACHIA, LLC
700 CHESTERMATION PARKWAY
COOPERVILLE, PA 15106

EROSION AND SEDIMENT CONTROL PLAN (2 OF 2)
FORM 14 (REV. 12/2016)
MARSHALL COUNTY
DATE ISSUED: 11/15/2017
ISSUED BY: [Signature]
DRAWN BY: [Signature]
CHECKED BY: [Signature]
ES 102