



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, January 25, 2019
WELL WORK PERMIT
Horizontal 6A / New Drill

CHEVRON APPALACHIA, LLC
700 CHERRINGTON PARKWAY

CORAOPOLIS, PA 15108

Re: Permit approval for M11H
47-051-02131-00-00


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

A blue ink signature of James A. Martin, written in a cursive style, is positioned to the right of his name and title.

Operator's Well Number: M11H
Farm Name: GRAHAM H. LONGWORTH 
U.S. WELL NUMBER: 47-051-02131-00-00
Horizontal 6A New Drill
Date Issued: 1/25/2019

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.

PERMIT CONDITIONS

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.

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 Glen Easton, WV
Operator ID County District Quadrangle

2) Operator's Well Number: M11H Well Pad Name: Longworth

3) Farm Name/Surface Owner: Graham H. Longworth, Jr. Public Road Access: Roberts Ridge Road/WV 21

4) Elevation, current ground: 1270' Elevation, proposed post-construction: 1270'

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

(b) If Gas Shallow Deep _____
Horizontal _____

6) Existing Pad: Yes or No Yes *JN 10/10/18*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 6,511 ft below GL, 50 ft thick with pore pressure gradient 0.64 psift

8) Proposed Total Vertical Depth: 6,511

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 17,274

11) Proposed Horizontal Leg Length: 9,829

12) Approximate Fresh Water Strata Depths: 568' below GL

13) Method to Determine Fresh Water Depths: based on deepest water well within 1 mi radius

14) Approximate Saltwater Depths: 1269 ft, 1880 ft, 2134 ft below GL

15) Approximate Coal Seam Depths: Pittsburgh #8 coal seam top 835 ft below GL

16) Approximate Depth to Possible Void (coal mine, karst, other): No void expected

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

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

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CASING AND TUBING PROGRAM

<u>TYPE</u>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	20	New			60	60	CTS
Fresh Water	13.375	New	J-55	54.5	618	618	CTS
Coal							
Intermediate	9.625	New	L-80/N-80	40	2,184	2,184	CTS
Production	5.5	New	P110	20	17,274	17,274	2,684 (500' below 9.625" shoe)
Tubing							
Liners							

JN 10/10/18

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

PACKERS

Kind:				
Sizes:				
Depths Set:				

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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 6,511 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): 38.9

22) Area to be disturbed for well pad only, less access road (acres): 19.3

23) Describe centralizer placement for each casing string:

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

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

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

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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Longworth M11H

Clay Twp, Marshall Co, WV			Ground Level Elev. (ft above SL):		1270			
DRILLING FLUID / BIT TYPE / TTA	CENTRALIZER PROGRAM	CASING SIZE / FORMATION	DEPTH		WELLHEAD DESIGN	HOLE SIZE (IN)	CASING SPECS	CEMENT PROGRAM
			MD (FT)	TVD (FT)				
Core Barrel / Auger	2 Bow Spring per ft	20" Conductor	42	42	INC	30	Conductor 20" 78.67# X-52 Minimum 40 ft from GL or at least 10 ft into bedrock	Grout to Surface
	Bow Spring: (1) on shoe track w/ stop collar & (1) per ft over coupling to surface	13-3/8" Casing	618	618		17.5	Surface Casing 13-3/8" 54.5# J-55 BTC 0.38" Wall Coupling OD (in) 14.375 ID (in) 12.615 Drift ID (in) 12.459 Burst (psi) 2730 Collapse (psi) 1,150 Yield (ft Strength 1,000 lbs) 853	Surface Blend (Class A) Cement to Surface
	Bow Spring: (1) on shoe track w/ stop collar & (1) per 3 ft over coupling	9-5/8" Casing	2,184	2,184		12.875 - 12.25	Intermediate Casing 9-5/8" 40# J-55 BTC 0.395" Wall Coupling OD (in) 10.625 ID (in) 8.835 Drift ID (in) 8.678 Burst (psi) 3,950 Collapse (psi) 2,570 Yield (ft Strength 1,000 lbs) 630	Intermediate II Blend (Class A) Cement to Surface
	Vertical Bow Spring: (1) per every other ft over coupling <u>Curve and Lateral</u> Solid Composite (1) per ft of csg to KOP	Middlesex Burkett Shale Tuffy Limestone Hamilton shale Upper Marcellus Lower Marcellus Basal Marcellus	6,293 6,369 6,389 6,423 6,491 6,522 6,547				Production Casing 5-1/2" 20# P-110 EC, 0.361" Wall Coupling OD (in) 8.300 ID (in) 4.778 Drift ID (in) 4.653 Burst (psi) 14360 Collapse (psi) 12090 Yield (ft Strength 1,000 lbs) 729	Production Lead Slurry Cement to Surface Production Tail Slurry TOC minimum 200' above Marcellus
Non-Conservation	Float Equip. (2) ft of Csg Float Equip.	5-1/2" Casing	17,274	6,511		6.5 - 6.75		

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WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. M11H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Chevron Appalachia, LLC OP Code 49449935

Watershed (HUC 10) Middle Grave Creek - Grave Creek Quadrangle Glen Easton, 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 _____)

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

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

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

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

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

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

-Landfill or offsite name/permit number? Arden Landfill #100172, South Hills Landfill #100592, Short Creek Landfill #WV109517

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

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Subscribed and sworn before me this 17th day of October, 202018

Laura Savage

Notary Public

OCT 26 2018
Commonwealth of West Virginia
County of Allegheny
WV Department of
Environmental Protection

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 14.2 Prevegetation pH Per soil testing report

Lime Per soil testing report Tons/acre or to correct to pH Per soil testing report

Fertilizer type See table C attached

Fertilizer amount 1,000 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

See table A attached

See table B attached

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, 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: 

Comments: _____

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Title: Oil and Gas Inspector

Date: 10/9/18

Field Reviewed? Yes

No

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TABLE A - TEMPORARY SEEDING MIXTURES (FROM WV DOT DOH STANDARD SPECIFICATIONS)			
VARIETY OF SEED	SPRING MAR 1 - MAY 15 LBS/ ACRE	SUMMER MAY 16 - AUG 15 LBS/ ACRE	FALL AND WINTER AUG 16 - APR 30 LBS/ ACRE
ANNUAL RYEGRASS	10		10
BARLEY OF OATS (LOCAL SEEDS)	50		
MILLET (HUNGARIAN, GERMAN OR JAPANESE)		50	
CEREAL RYE OR CEREAL WHEAT			50
TOTAL	60	50	60

TABLE B - SEED MIXTURES (FROM WV DOT DOH STANDARD SPECIFICATIONS)		
VARIETY OF SEED	TYPE D* (CUT AND FILL SLOPES) LBS/ ACRE	TYPE L (ALL OTHER AREAS) LBS/ ACRE
KENTUCKY 31 FESCUE	20	
RED FESCUE (PENNLAWN)	20	41
CROWN VETCH	20	
HARD FESCUE MIXTURE **		53
ANNUAL RYEGRASS AUG 1 TO MAY 15 OR WEEPING LOVEGRASS MAY 15 TO AUGUST 1	7	12 5

*30 LB OF CEREAL RYE OR WHEAT SHALL BE ADDED TO TYPE D MIXTURE WHEN WOOD CELLULOSE FIBER IS USED AS A MULCH
 **A COMBINATION OF APPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL HARD FESCUE

TABLE C - FERTILIZER		
TYPE	FORMULA	RATE (LBS/ ACRE)
MIXED GRASSES AND LEGUMES	10-10-20	1,000
LEGUME STANDS ONLY	5-20-10 (PREFERRED) OR 10-20-10	1,000
GRASS STANDS ONLY	10-10-20	1,000



Chevron

**Appalachian LLC
WV Well Site Safety Plan**

**Pad: Longworth Pad A
Well # M11H**

*ju
10/19/15*

**5962 Roberts Ridge Rd
Moundsville, WV 26041
Washington District
Marshall County, WV**

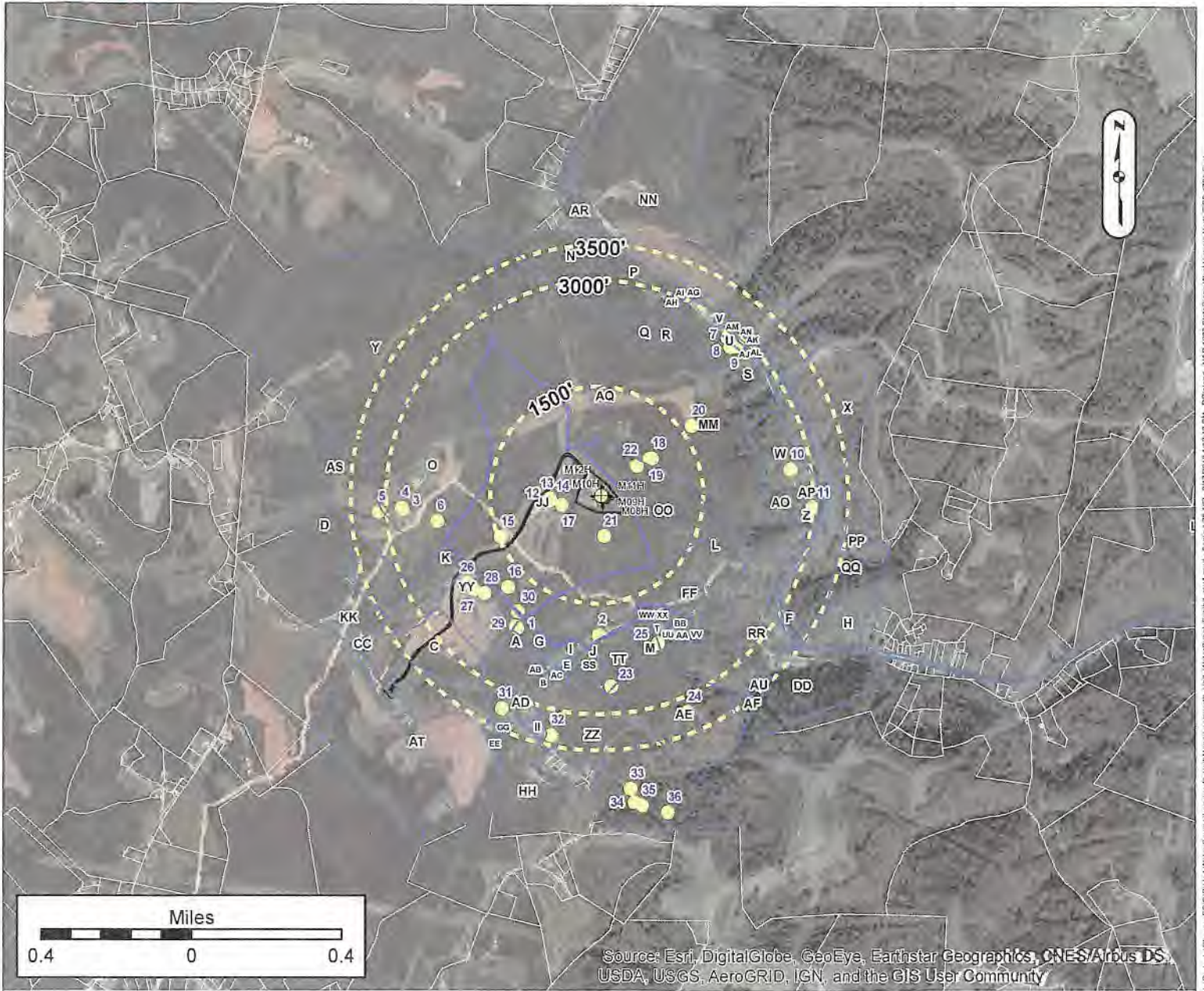
Access Point – [39.839575°N, 80.737044°W]

Well Site – [39.847350°N, 80.726939°W]

Marshall County, West Virginia



WATER SUPPLY EXHIBIT LONGWORTH BATCH #3



LOT OWNERS

Label	OWNER	TM	Label	OWNER	TM	Label	OWNER	TM	Label	OWNER	TM
A	MIDCAP RAYMOND L & DOROTHY L	75-04 1100560010000	P	JOBES SHERRY M	25-04 1200120000000	LL	CAIRNLY KAREN M & ABRAHAM S	25-05 3001300030000	TT	LIGHTNER JOHN D ET UX	25-04 1100540004000
B	WHITLATCH KENNETH E ET UX	25-04 1100560004000	D	JOBES KATHY	25-04 1200120002000	FF	YOHIO JAMES E & LEAH A	25-04 1100540012000	LU	MIDCAP RAYMOND L ET UX	25-04 1100540006000
C	HOLMES MARY	25-04 1300330000000	R	JOBES KATHY	25-04 1200120000000	GG	HUGGINS RICHARD M & CRYSTAL M	25-05 3001600000000	VV	STUCKEY JAMES A ET UX	25-04 1100540007000
D	HADTLEY LOREN F & PATRICIA A	25-04 1300330002000	S	MORRISON JAMES W ET UX	25-04 1200140000000	HH	CLARK GILBERT E JR & ANITA L	25-05 3004100000000	WW	WILLIAMS EDWARD ET UX	25-04 1100540010000
E	MIDCAP RAYMOND L ET UX	25-04 1100560010000	T	MIDCAP BRADY I EST ET UX	25-04 1100560003000	II	FLOWERS CLINT E & BRENT B	25-04 1100560006000	XX	WILLIAMS EDWARD ET UX	25-04 1100540011000
F	ROUSH DEAN ET UX	25-04 1100560010000	U	STEVIE HERBERT R ET UX	25-04 1200120001000	JJ	LONGWORTH GRAHAM H JR	25-04 1100510000000	YY	HOLMES MARY	25-04 1100540008000
G	MIDCAP RAYMOND L & DOROTHY L	25-04 1100560005000	V	WHITE JOHN STANLEY ET UX	25-04 1200120002000	KK	KIRKES RONALD A ET UX	25-04 1300380000000	ZZ	FLOWERS CLINT E & BRENT B	25-04 1100560000000
H	CORNER GLEN W ET UX	25-04 1100510000000	W	SHAFER ROBERT L SR ET UX	25-04 1200150003000	LL	CONSOLIDATION COAL COMPANY	25-04 1100560000000	AB	MIDCAP RAYMOND L & DOROTHY L	25-04 1100560007000
I	LIGHTNER JOHN D ET UX	25-04 1100540002000	X	ROUSH HARRY F ET UX	25-04 1100510000000	MM	LONGWORTH DANIEL C	25-04 1200160000000	AC	MIDCAP RAYMOND L & DOROTHY L	25-04 1100560010000
J	MIDCAP RAYMOND LLOYD JR	25-04 1100540003000	Y	JARRETT CODY M	25-04 1200150003000	NN	MOUNDSVILLE CITY OF	25-04 1000010000000	AD	FLOWERS CLINT E & BRENT B	25-04 1100560013000
K	HOLMES JEFFREY SCOTT ET AL	25-04 1300330001000	Z	WINLAND KELLY BRUCE	25-04 1200150002000	OO	LONGWORTH GRAHAM H JR	25-04 1100510000000	AE	LIGHTNER JOHN D ET UX	25-04 1100540003000
L	FOX DELORES	25-04 1100540000000	AA	STUCKEY JAMES A ET UX	25-04 1100540002000	PP	ROUSH HARRY F	25-04 1100510000000	AF	JOBES SHERRY M	25-04 1200120000000
M	MIDCAP BRADY EST ET UX	25-04 1100530000000	BB	THATCHER JAMES C & MELISSA S	25-04 1100540009000	QQ	ROUSH HARRY F ET UX	25-04 1100510000000	AG	JOBES KATHY	25-04 1200120000000
N	HADTHT THOMAS I & CLARA I	25-04 1300130002000	CC	CECIL KELLY J ET UX	25-04 1300130001000	RR	TECH PARK NON-PROFIT	25-04 1100540001000	AH	JOBES KATHY	25-04 1200120000000
O	CUNNINGHAM DALE & MARY	25-04 1300330000000	DD	TECH PARK NON-PROFIT	25-05 1300220000000	SS	MIDCAP RAYMOND L	25-04 1100540001000	AI	JOBES KATHY	25-04 1200120000000

Surface Owner: GRAHAM H LONGWORTH, JR.

Oil/Gas Owner: GRAHAM H LONGWORTH, JR.

Well Operator: CHEVRON APPALACHIA, LLC

Address: 700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108

Phone: 724-564-3700

County: MARSHALL

Township: MOUNDSVILLE, WV

Surveyor: GROUNDWATER & ENVIRONMENTAL SERVICES, INC.

Address: 301 COMMERCE PARK DR
CRANBERRY TOWNSHIP, PA 16066

Phone: 800-267-2549

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WATER SUPPLY EXHIBIT
LONGWORTH BATCH #3

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No.	WATER PURVEYOR	SUPPLY	ELEV.	ADDRESS	PHONE #
1	MIDCAP RAYMOND L & DOROTHY L	Stream	1,148	163 Roberts Ridge	304-845-6114
2	ARNETT, SUSAN DUNCAN-ARNETT	Well	1,272	356 Wilson Hill Lane	304-639-2314
3	CUNNINGHAM DALE & MARY	Well	1,294	446 Cunningham Lane	304-845-0864
4	CUNNINGHAM DALE & MARY	Cistern	1,291	446 Cunningham Lane	304-845-0864
5	CUNNINGHAM DALE & MARY	Spring	1,241	446 Cunningham Lane	304-845-0864
6	CUNNINGHAM DALE & MARY	Spring	1,220	446 Cunningham Lane	304-845-0864
7	MORRISON JAMES W ET UX	Well	715	94 Big Grave Crk	304-845-1835
8	MORRISON JAMES W ET UX	Spring	727	94 Big Grave Crk	304-845-1835
9	MORRISON JAMES W ET UX	Pond	652	94 Big Grave Crk	304-845-1835
10	SHAFFER ROBERT L SR ET UX	Drilled Well	670	95 Big Grave Crk	304-845-6083
11	SHAFFER ROBERT L SR ET UX	Dug Well	679	95 Big Grave Crk	304-845-6083
12	LONGWORTH GRAHAM H JR	Dug Well	1,312	2527 Fork Ridge Road	304-281-4840
13	LONGWORTH GRAHAM H JR	Dug Well	1,303	2527 Fork Ridge Road	304-281-4840
14	LONGWORTH GRAHAM H JR	Cistern	1,309	2527 Fork Ridge Road	304-281-4840
15	LONGWORTH GRAHAM H JR	Pond	1,251	2527 Fork Ridge Road	304-281-4840

No.	SUPPLY COORDINATES	8H	9H	10H	11H	12H				
1	39° 50' 31.99920"N 80° 43' 50.45880"W	2,148	2,178	2,178	2,178	2,178				
2	39° 50' 31.13880"N 80° 43' 35.65200"W	1,878	1,903	1,911	1,919	1,928				
3	39° 50' 47.99400"N 80° 44' 11.34600"W	2,820	2,839	2,827	2,815	2,803				
4	39° 50' 48.12000"N 80° 44' 11.46480"W	2,829	2,847	2,835	2,823	2,811				
5	39° 50' 47.55840"N 80° 44' 15.60840"W	3,155	3,173	3,161	3,150	3,138				
6	39° 50' 46.43880"N 80° 44' 05.11440"W	2,352	2,372	2,361	2,350	2,339				
7	39° 51' 12.27240"N 80° 43' 13.22040"W	2,859	2,829	2,829	2,831	2,832				
8	39° 51' 10.91160"N 80° 43' 12.61560"W	2,779	2,750	2,751	2,753	2,755				
9	39° 51' 10.99080"N 80° 43' 11.43120"W	2,845	2,815	2,817	2,819	2,821				
10	39° 50' 54.25800"N 80° 43' 01.44840"W	2,677	2,656	2,667	2,678	2,689				
11	39° 50' 49.15320"N 80° 42' 57.36240"W	2,956	2,940	2,952	2,965	2,978				
12	39° 50' 49.62840"N 80° 43' 44.71680"W	738	755	743	731	719				
13	39° 50' 49.76160"N 80° 43' 44.91480"W	754	770	758	746	734				
14	39° 50' 49.67160"N 80° 43' 44.91480"W	754	771	759	746	734				
15	39° 50' 44.37960"N 80° 43' 53.60520"W	1,529	1,554	1,545	1,536	1,528				

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Environmental Protection

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



WATER SUPPLY EXHIBIT
LONGWORTH BATCH #3

4705 02131
GEM

No.	WATER PURVEYOR	SUPPLY	ELEV.	ADDRESS	PHONE #
16	LONGWORTH GRAHAM H JR	Spring	1,190	2527 Fork Ridge Road	304-281-4840
17	LONGWORTH GRAHAM H JR	Spring	1,288	2527 Fork Ridge Road	304-281-4840
18	LONGWORTH DANIEL C	Spring	1,148	812 Spindle Lane	304-845-0413
19	LONGWORTH DANIEL C	Spring	1,168	812 Spindle Lane	304-845-0413
20	LONGWORTH DANIEL C	Dug Well	1,201	812 Spindle Lane	304-845-0413
21	LONGWORTH GRAHAM H JR	Spring	1,217	2527 Fork Ridge Road	304-281-4840
22	LONGWORTH GRAHAM H JR	Pond	1,151	2527 Fork Ridge Road	304-281-4840
23	LIGHTNER JOHN D ET UX	Stream	984	264 Wilson Hill Lane	304-280-9370
24	LIGHTNER JOHN D ET UX	Dug Well	1,082	264 Wilson Hill Lane	304-280-9370
25	MIDCAP RAYMOND L ET UX	Stream	1,132	5655 Roberts Ridge	304-845-6114
26	HOLMES MARY	Pond	1,241	197 Spindle Lane	304-845-0703
27	HOLMES MARY	Pond	1,241	197 Spindle Lane	304-845-0703
28	HOLMES MARY	Pond	1,189	197 Spindle Lane	304-845-0703
29	HOLMES MARY	Stream	1,055	197 Spindle Lane	304-845-0703
30	HOLMES MARY	Stream	1,137	197 Spindle Lane	304-845-0703

No.	SUPPLY COORDINATES	8H	9H	10H	11H	12H				
16	39° 50' 37.55040"N 80° 43' 52.09320"W	1,799	1,828	1,825	1,821	1,818				
17	39° 50' 48.94440"N 80° 43' 42.63240"W	581	601	590	579	569				
18	39° 50' 55.43520"N 80° 43' 26.41440"W	901	873	877	882	887				
19	39° 50' 55.37400"N 80° 43' 26.90760"W	868	839	843	848	852				
20	39° 51' 00.00360"N 80° 43' 19.33680"W	1,621	1,593	1,597	1,601	1,606				
21	39° 50' 44.70720"N 80° 43' 34.83480"W	506	530	539	548	557				
22	39° 50' 54.42000"N 80° 43' 29.10720"W	677	648	651	655	658				
23	39° 50' 24.18360"N 80° 43' 33.22560"W	2,586	2,610	2,619	2,628	2,637				
24	39° 50' 20.94000"N 80° 43' 19.41960"W	3,161	3,177	3,190	3,202	3,215				
25	39° 50' 30.21000"N 80° 43' 24.89880"W	2,130	2,147	2,160	2,172	2,185				
26	39° 50' 38.04720"N 80° 43' 59.52000"W	2,230	2,257	2,251	2,245	2,239				
27	39° 50' 37.13640"N 80° 43' 58.28520"W	2,200	2,228	2,223	2,218	2,213				
28	39° 50' 36.69360"N 80° 43' 56.34840"W	2,107	2,135	2,131	2,126	2,122				
29	39° 50' 32.17560"N 80° 43' 50.67840"W	2,142	2,172	2,172	2,172	2,172				
30	39° 50' 34.24200"N 80° 43' 50.41200"W	1,960	1,990	1,989	1,989	1,988				

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WATER SUPPLY EXHIBIT
LONGWORTH BATCH #3



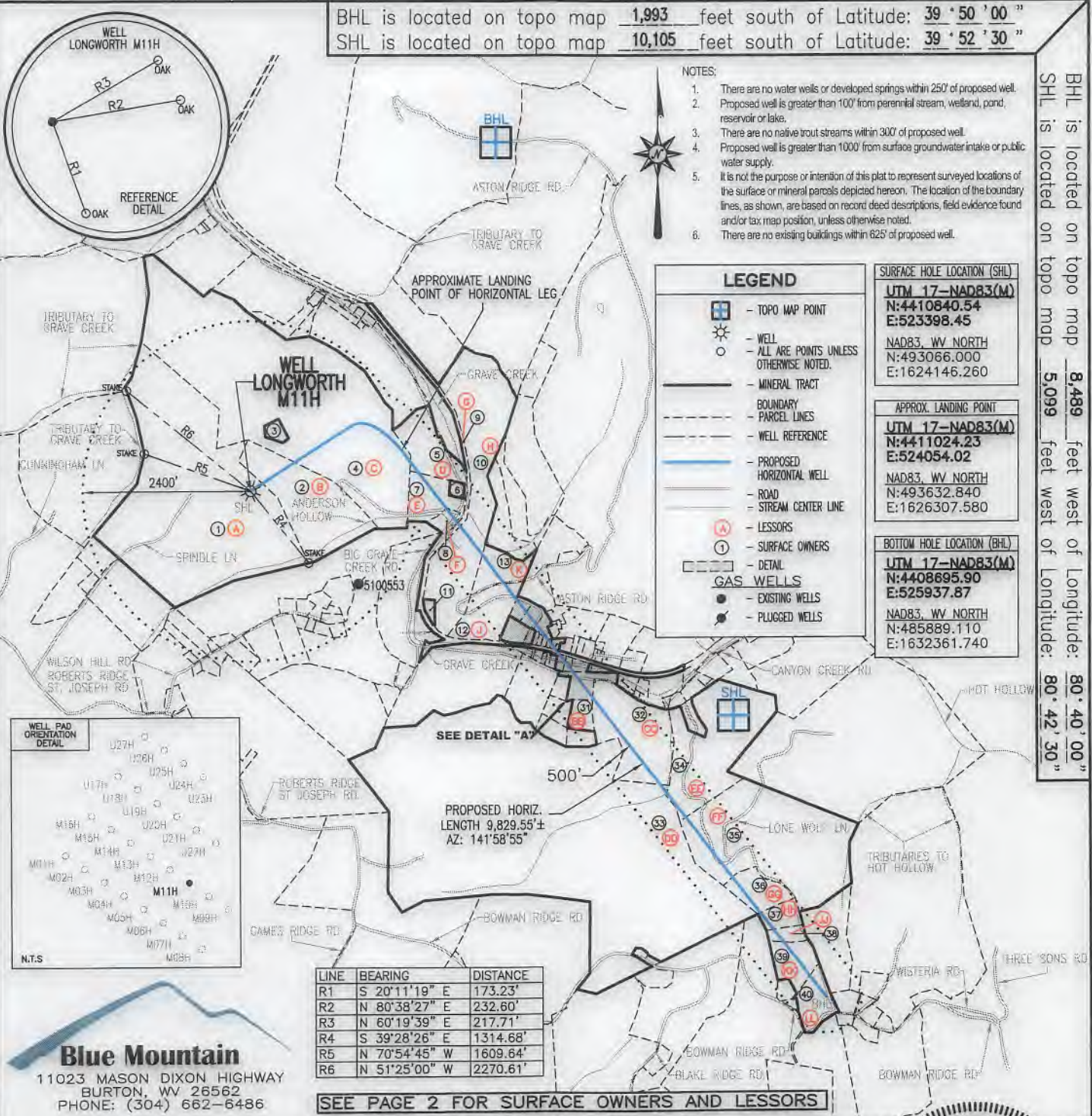
No.	WATER PURVEYOR	SUPPLY	ELEV.	ADDRESS	PHONE #
31	FLOWERS CLINT E & BRENT B	Spring	1,272	6404 Roberts Ridge Road	304-639-4499
32	FLOWERS CLINT E & BRENT B	Spring	1,273	6404 Roberts Ridge Road	304-639-4499
33	FLOWERS CLINT E & BRENT B	Spring	1,284	6404 Roberts Ridge Road	304-639-4499
34	FLOWERS CLINT E & BRENT B	Spring	1,303	6404 Roberts Ridge Road	304-639-4499
35	FLOWERS CLINT E & BRENT B	Spring	1,297	6404 Roberts Ridge Road	304-639-4499
36	FLOWERS CLINT E & BRENT B	Spring	1,313	6404 Roberts Ridge Road	304-639-4499

No.	SUPPLY COORDINATES	8H	9H	10H	11H	12H				
31	39° 50' 20.94360"N 80° 43' 53.01120"W	3,222	3,252	3,254	3,256	3,258				
32	39° 50' 17.44080"N 80° 43' 44.02560"W	3,335	3,362	3,368	3,374	3,379				
33	39° 50' 10.26600"N 80° 43' 29.49960"W	4,015	4,038	4,047	4,057	4,067				
34	39° 50' 08.39400"N 80° 43' 28.77240"W	4,209	4,232	4,242	4,252	4,262				
35	39° 50' 07.99800"N 80° 43' 27.40080"W	4,263	4,286	4,296	4,306	4,316				
36	39° 50' 07.10880"N 80° 43' 22.72800"W	4,418	4,439	4,450	4,461	4,472				

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

BHL is located on topo map 1,993 feet south of Latitude: 39° 50' 00"
 SHL is located on topo map 10,105 feet south of Latitude: 39° 52' 30"

BHL is located on topo map 8,489 feet west of Longitude: 80° 40' 00"
 SHL is located on topo map 5,099 feet west of Longitude: 80° 42' 30"



FILE #: LONGWORTH M11H
 DRAWING #: LONGWORTH M11H
 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: SEPTEMBER 5, 2018
 OPERATOR'S WELL #: LONGWORTH M11H
 API WELL #: 47 51 02131
 STATE COUNTY PERMIT

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

WATERSHED: MIDDLE GRAVE CREEK-GRAVE CREEK ELEVATION: 1270'

COUNTY/DISTRICT: MARSHALL / CLAY QUADRANGLE: GLEN EASTON, WV 7.5'

SURFACE OWNER: GRAHAM H. LONGWORTH JR. ACREAGE: 123.589±

OIL & GAS ROYALTY OWNER: GRAHAM H. LONGWORTH JR. ACREAGE: 871.063±

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: 6,511± TMD: 17,274.25±

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

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

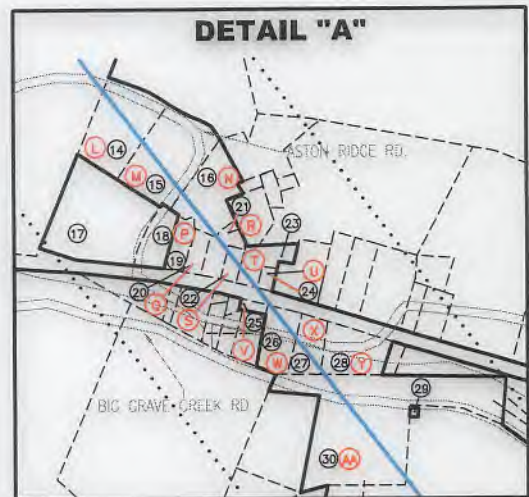
LONGWORTH M11H PAGE 2 OF 2

	LESSOR	DIST-TM/PAR
A	GRAHAM H. LONGWORTH JR., ET AL	4-11/1
B	GRAHAM H. LONGWORTH JR., ET AL	4-11/2
	LISA NICEWARNER	
	JULIA RODGERS	
	KEITH FRIESE	
	MARK FRIESE	
	ANTHONY FRIESE	
	JAMES FRIESE	
	HENRY FRIESE	
C	GRAHAM H. LONGWORTH JR., ET AL	4-12/16
	SHERI L. EVRAETS FAMILY TRUST	
	LISA NICEWARNER	
	JULIA RODGERS	
	KEITH FRIESE	
	MARK FRIESE	
	ANTHONY FRIESE	
	JAMES FRIESE	
D	ROBERT L. SR. & PAMELA L. SHAFFER	4-12/15.3
	ROBERT L. SR. & PAMELA L. SHAFFER	4-12/15
F	KELLY B. & CONNIE S. WINLAND	4-12/15.2
G	CNX GAS COMPANY LLC	4-11A/25
H	HARRY F. & DONNA L. ROUSH	4-11/3
J	GLEN W. & RHONDA S. CONNER	4-11/51
K	HARRY F. & DONNA L. ROUSH	4-11/5
	HEIRS OF HARRISON M. EVANS	
L	LARRY E. YOHO	4-11A/24
M	LARRY E. YOHO	4-11A/23
N	WILLIAM CONNER GLEN	4-11A/22
	HOMER W. WHITE	
P	*ALVIN D. BARRETT	4-11A/3
Q	*DALE L. WITLACH	4-11A/4
R	DALE L. WITLACH	4-11A/5
S	CHARLES M. HENRY	4-11A/6

	LESSOR	DIST-TM/PAR
T	CHARLES M. HENRY	4-11A/7
U	*CHARLES M. HENRY	4-11A/8
V	*HARRY F. & DONNA L. ROUSH	4-11/4
W	JOHN Z. GARRISON	4-11A/35
X	JOHN Z. GARRISON	4-11A/36
Y	GOLDIE M. OLIVER	4-11A/37
AA	WELLMAN HEIRS	9-1/4
	ROBERT L., SR. & MARGARET J. TRAYON	
BB	*WELLMAN HEIRS	9-1/4.3
	*ROBERT L., JR. & AMY J. TRAYON	
CC	CONSOLIDATION COAL	9-1/5
DD	HOWARD E. BY AIF SUSAN YOUNG	9-1/18
EE	R.G. & ELIZABETH J. DAKAN HEIRS	9-1/12
FF	ROBERT A. WILLIAMS	9-1/13
GG	ROBERT A. WILLIAMS	9-1/13.3
HH	ROBERT A. WILLIAMS	9-1/13.4
JJ	ROBERT A. WILLIAMS	9-1/13.5
KK	KENNETH D. TUCKER	9-1/13.7
LL	GERALD E. LOGSDON	9-1/13.6

	SURFACE OWNER	DIST-TM/PAR
1	GRAHAM H. LONGWORTH JR.	4-11/1
2	GRAHAM H. LONGWORTH JR.	4-11/2
3	DANIEL C. SR., & JEANNETTE L. LONGWORTH	4-12/16.1
4	DANIEL C. LONGWORTH	4-12/16
5	ROBERT L. SHAFFER SR., ET AL	4-12/15.3
6	ROBERT S. COWGILL	4-12/15.1
7	ROBERT L. SHAFFER SR., ET AL	4-12/15
8	KELLY BRUCE WINLAND ET UX	4-12/15.2
9	CONSOLIDATION COAL COMPANY/MURRAY ENERGY C/O LAND DEPT	4-11A/25
10	HARRY F. ROUSH ET UX	4-11/3
11	DEAN ROUSH ET UX	4-11/3.1
12	GLEN W. CONNER ET UX	4-11/51
13	HARRY F. ROUSH ET UX	4-11/5
14	LARRY E. YOHO ET UX - G. E. YOHO	4-11A/24
15	LARRY E. YOHO ET UX	4-11A/23
16	GLEN WILLIAM CONNER ET AL	4-11A/22
17	KERMIT W. YOHO JR.	4-11A/1
18	ALVIN D. & CAROL D. BARRETT	4-11A/2
19	*ALVIN DALE BARRETT ET UX	4-11A/3
20	*DALE L. WHITLATCH ET UX	4-11A/4
21	DALE L. WHITLATCH ET UX	4-11A/5
22	CHARLES M. HENRY ET UX	4-11A/6
23	CHARLES M. HENRY ET UX	4-11A/7
24	*CHARLES M. HENRY ET UX	4-11A/8
25	*HARRY F. ROUSH	4-11/4
26	JONATHAN Z. & CARLA L. GARRISON	4-11A/35
27	JONATHAN Z. & CARLA L. GARRISON	4-11A/36
28	VIRGINIA L. CROW	4-11A/37
29	MANUFACTURERS LIGHT & HEAT	9-1/6
30	MARGARET JUNE TRAYON - LIFE	9-1/4
31	*ROBERT L. TRAYON ET UX	9-1/4.3
32	CONSOLIDATION COAL COMPANY/MURRAY ENERGY C/O LAND DEPT	9-1/5
33	CNX LAND RESOURCES INC	9-1/18
34	ROBERT L. CLARK ET AL	9-1/12
35	CNX LAND RESOURCES INC	9-1/13
36	CNX LAND LLC	9-1/13.3
37	MACK L. CROW	9-1/13.4
38	MACK L. CROW	9-1/13.5
39	MISTY D. & MACK L. CROW	9-1/13.7
40	GERALD E. LOGSDON ET UX	9-1/13.6

SURFACE HOLE LOCATION (SHL)	APPROX. LANDING POINT	BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M) N:4410840.54 E:523398.45 NAD83, WV NORTH N:493066.000 E:1624146.260	UTM 17-NAD83(M) N:4411024.23 E:524054.02 NAD83, WV NORTH N:493632.840 E:1626307.580	UTM 17-NAD83(M) N:4408695.90 E:525937.87 NAD83, WV NORTH N:485889.110 E:1632361.740



**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:

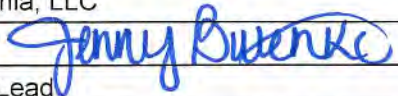
Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached				

**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

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 
 Its: Permitting Team Lead

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Environmental Protection

Longworth Unit #11H

Plat ID	Parcel Number	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2
1	4-11-1.0	LONGWORTH GRAHAM H JR ET AL	Chevron U.S.A. Inc.	0.14	BK 790 - PG 129	n/a	n/a
2	4-11.2.0	LONGWORTH GRAHAM H JR ET AL	Chevron U.S.A. Inc.	0.14	BK 790 - PG 129	n/a	n/a
		NICEWARNER LISA	TriEnergy Holdings, LLC	0.14	BK 751 - PG 260	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		RODGERS JULIA	TriEnergy Holdings, LLC	0.14	BK 751 - PG 262	TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		FRIESE KEITH	TriEnergy Holdings, LLC	0.14	BK 751 - PG 264	TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		FREISE MARK	TriEnergy Holdings, LLC	0.14	Bk 751 - PG 250	TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		FREISE ANTHONY	TriEnergy Holdings, LLC	0.14	BK 753 - PG 580	TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		FRIESE JAMES	TriEnergy Holdings, LLC	0.14	BK 751 - PG 254	TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a

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Longworth Unit #11H

Plat ID	Parcel Number	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2
						BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		FREISE HENRY	TriEnergy Holdings, LLC	0.14	BK 752 - PG 382	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		FRIESE STEVEN	TriEnergy Holdings, LLC	0.14	BK 751 - PG 252	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
4	4-12-16.0	LONGWORTH GRAHAM H JR ET AL	Chevron U.S.A. Inc.	0.14	BK 790 - PG 129	n/a	n/a
		EVRAETS SHERI L FAMILY TRUST	TriEnergy Holdings, LLC	0.16	BK 730 - PG 407	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
		NICEWARNER LISA	TriEnergy Holdings, LLC	0.14	BK 751 - PG 260	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		RODGERS JULIA	TriEnergy Holdings, LLC	0.14	BK 751 - PG 262	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		FRIESE KEITH	TriEnergy Holdings, LLC	0.14	BK 751 - PG 264	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		FREISE MARK	TriEnergy Holdings, LLC	0.14	Bk 751 - PG 250	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a

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Plat ID	Parcel Number	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2
						BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		FREISE ANTHONY	TriEnergy Holdings, LLC	0.14	BK 753 - PG 580	TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		FRIESE JAMES	TriEnergy Holdings, LLC	0.14	BK 751 - PG 254	TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		FREISE HENRY	TriEnergy Holdings, LLC	0.14	BK 752 - PG 382	TriEnergy Holdings, LLC to Chevron U.S.A. Inc. BK 28 - PG 348	n/a
		FRIESE STEVEN	TriEnergy Holdings, LLC	0.14	BK 751 - PG 252	TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
5	4-12-15.3	SHAFFER ROBERT ET UX	TriEnergy Holdings, LLC	0.16	BK 693 - PG 155	BK 25 - 463 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
7	4-12-15.0	SHAFFER ROBERT ET UX	TriEnergy Holdings, LLC	0.16	BK 693 - PG 155	BK 25 - 463 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
8	4-12-15.2	POSTLE CONNIE	Chevron U.S.A. Inc.	0.14	BK 829 - PG 571	n/a	n/a
9	4-11A-25.0	CNX GAS COMPANY	Chevron U.S.A. Inc.	0.20	BK 818 - PG 553	n/a	n/a
10	4-11.3.0	ROUSH HARRY F ET UX	Chevron U.S.A. Inc.	0.16	BK 838 - PG 381	n/a	n/a
12	4-11-51.0	GLEN CONNER WILLIAM	Chevron U.S.A. Inc.	0.16	BK 838 - PG 485	n/a	n/a
13	4-11-5.0	ROUSH HARRY F ET UX - SFX FRANKLIN JODI RAE - SFX	Chevron U.S.A. Inc. Chevron U.S.A. Inc.	0.16 0.18	BK 838 - PG 381 BK 888 - PG 553	n/a n/a	n/a n/a

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WV Department of
Environmental Protection

Longworth Unit #11H

Plat ID	Parcel Number	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2
		KAEMMERLING REBECCA LEE - SFX	Chevron U.S.A. Inc.	0.18	BK 888 - PG 556	n/a	n/a
		WNEK MICHELLE LYNN - SFX	Chevron U.S.A. Inc.	0.18	BK 888 - PG 562	n/a	n/a
		WILLIAMS DAVID BRENT - SFX	Chevron U.S.A. Inc.	0.18	BK 888 - PG 559	n/a	n/a
		RULONG ROBERT L - SFX	Chevron U.S.A. Inc.	0.18	BK 888 - PG 565	n/a	n/a
		HORSTMAN NEIL WILLIARD - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 388	n/a	n/a
		JACOBS MARILYN A - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 582	n/a	n/a
		CROWE STEVEN M - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 576	n/a	n/a
		EVANS TODD - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 579	n/a	n/a
		FISCHER LORAYNE ARTELLA - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 542	n/a	n/a
		EVANS SCOTT M - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 573	n/a	n/a
		LOY DEAN E - SFX	Chevron U.S.A. Inc.	0.15	BK 888 - PG 568	n/a	n/a
		LOY MARK A - SFX	Chevron U.S.A. Inc.	0.15	BK 880 - PG 570	n/a	n/a
		LOY PAUL R - SFX	Chevron U.S.A. Inc.	0.15	BK 880 - PG 551	n/a	n/a
		SHELLER ROBERT - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 548	n/a	n/a
		HOLMES CHERYL - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 545	n/a	n/a
		WITT DAN - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 567	n/a	n/a
		FISHER EARL M - SFX	Chevron U.S.A. Inc.	0.18	BK 889 - PG 315	n/a	n/a
		LOY DANIEL J - SFX	Chevron U.S.A. Inc.	0.15	BK 889 - PG 288	n/a	n/a
		SHELTON SALLY - SFX	Chevron U.S.A. Inc.	0.18	BK 889 - PG 291	n/a	n/a
		RENNER CYNTHIA L - SFX	Chevron U.S.A. Inc.	0.15	BK 880 - PG 562	n/a	n/a
		FISHER MICHAEL - SFX	Chevron U.S.A. Inc.	0.18	BK 884 - PG 066	n/a	n/a
		BERISFORD BETH - SFX	Chevron U.S.A. Inc.	0.15	BK 884 - PG 074	n/a	n/a
		ORR PATRICIA - SFX	Chevron U.S.A. Inc.	0.15	BK 882 - PG 395	n/a	n/a
		FISHER STEVEN - SFX	Chevron U.S.A. Inc.	0.18	BK 882 - PG 305	n/a	n/a
		ASH JACQUELINE E - SFX	Chevron U.S.A. Inc.	0.18	BK 882 - PG 302	n/a	n/a
		FISHER CHARLES - SFX	Chevron U.S.A. Inc.	0.18	BK 882 - PG 299	n/a	n/a
		WITT NANCY GIBSON - SFX	Chevron U.S.A. Inc.	0.18	BK 882 - PG 466	n/a	n/a
		FISHER CONNIE - SFX	Chevron U.S.A. Inc.	0.18	BK 882 - PG 296	n/a	n/a
		LOY THOMAS A - SFX	Chevron U.S.A. Inc.	0.15	BK 882 - PG 457	n/a	n/a
		HEMINGWAY BARBARA A - SFX	Chevron U.S.A. Inc.	0.15	BK 882 - PG 451	n/a	n/a
		BALDWIN MARY E - SFX	Chevron U.S.A. Inc.	0.15	BK 882 - PG 463	n/a	n/a

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		TAMBERELLI SHERYL - SFX	Chevron U.S.A. Inc.	0.15	BK 882 - PG 460	n/a	n/a
		ASH JEFFREY R - SFX	Chevron U.S.A. Inc.	0.18	BK 882 - PG 454	n/a	n/a
		JOHNSTON CONSTANCE WALKER - SFX	Chevron U.S.A. Inc.	0.18	BK 882 - PG 430	n/a	n/a
		CUTRIGHT DANA H - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 591	n/a	n/a
		FRISZ JOSEPH F - SFX	Chevron U.S.A. Inc.	0.18	BK 880 - PG 594	n/a	n/a
		ASH JENNIFER J - SFX	Chevron U.S.A. Inc.	0.18	BK 882 - PG 257	n/a	n/a
		PATTESON JAMES DOUGLAS - SFX	Chevron U.S.A. Inc.	0.18	BK 884 - PG 89	n/a	n/a
		RUHL JEFFREY - SFX	Chevron U.S.A. Inc.	0.15	BK 883 - PG 578	n/a	n/a
		RUHL RICKEY L - SFX	Chevron U.S.A. Inc.	0.15	BK 883 - PG 572	n/a	n/a
		BLAUVELT DAVID L - SFX	Chevron U.S.A. Inc.	0.15	BK 883 - PG 575	n/a	n/a
		DUNKINSON BILLIE JEANNE - SFX	Chevron U.S.A. Inc.	0.15	BK 884 - PG 43	n/a	n/a
		MILLER NANCY - SFX	Chevron U.S.A. Inc.	0.15	BK 883 - PG 581	n/a	n/a
		CORTEYOU PATRICIA - SFX	Chevron U.S.A. Inc.	0.15	BK 883 - PG 569	n/a	n/a
		ANDERSON CINDY LOU - SFX	Chevron U.S.A. Inc.	0.18	BK 883 - PG 560	n/a	n/a
		SHOOK PAMELA - SFX	Chevron U.S.A. Inc.	0.15	BK 883 - PG 566	n/a	n/a
		MACK LEAH - SFX	Chevron U.S.A. Inc.	0.18	BK 883 - PG 563	n/a	n/a
		PATTESON SCOTT	Chevron U.S.A. Inc.	0.18	BK 885 - PG 434	n/a	n/a
		BLAUVELT JAMES A - SFX	Chevron U.S.A. Inc.	0.15	BK 883 - PG 557	n/a	n/a
		HIRSHKOWITZ DIANE - SFX	Chevron U.S.A. Inc.	0.18	BK 885 - PG 491	n/a	n/a
		MACK HEATHER - SFX	Chevron U.S.A. Inc.	0.18	BK 901 - PG 41	n/a	n/a
		DALY DAWN - SFX	Chevron U.S.A. Inc.	0.18	BK 901 - PG 53	n/a	n/a
		CUVA DENISE - SFX	Chevron U.S.A. Inc.	0.18	BK 901 - PG 131	n/a	n/a
		TYLER PEGGY J - SFX	Chevron U.S.A. Inc.	0.15	BK 890 - PG 478	n/a	n/a
		RHOADES BILLE C - SFX	Chevron U.S.A. Inc.	0.15	BK 893 - PG 189	n/a	n/a
		DAVIS KELLEY JO - SFX	Chevron U.S.A. Inc.	0.14	BK 898 - PG 276	n/a	n/a
		PELAEZ ROBERT - SFX	Chevron U.S.A. Inc.	0.14	BK 898 - PG 279	n/a	n/a
		MCPMAHON DEBORAH ANN - SFX	Chevron U.S.A. Inc.	0.17	BK 899 - PG 255	n/a	n/a
		THE JOSEPH AND NYLA WILSON 2004 TRST - SFX	Chevron U.S.A. Inc.	0.14	BK 899 - PG 237	n/a	n/a
		SKILLMAN ERMALEE C - SFX	Chevron U.S.A. Inc.	0.16	BK 897 - PG 592	n/a	n/a
		FLOCK JUNE S - SFX	Chevron U.S.A. Inc.	0.16	BK 899 - PG 532	n/a	n/a
		ALTENBAUMER LARRY - SFX	Chevron U.S.A. Inc.	0.17	BK 898 - PG 519	n/a	n/a

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Plat ID	Parcel Number	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2
		HOLT PATRICIA AIF PAMELA MERIWEATHER - SFX	Chevron U.S.A. Inc.	0.14	BK 898 - PG 140	n/a	n/a
		PERKINS RUSSEL G JR - SFX	Chevron U.S.A. Inc.	0.16	BK 906 - PG 194	n/a	n/a
		LORANCE SUSIE	Chevron U.S.A. Inc.	0.16	BK 906 - PG 191	n/a	n/a
		RILEY MARY AVERIL - SFX	Chevron U.S.A. Inc.	0.16	BK 899 - PG 449	n/a	n/a
		EVANS JON S REV - SFX	Chevron U.S.A. Inc.	0.16	BK 901 - PG 398	n/a	n/a
		ST PAUL UNITED METHODIST CHURCH - SFX	Chevron U.S.A. Inc.	0.16	BK 904 - PG 338	n/a	n/a
		SHEPARD BETTY CO RHOADES TRUDY ET AL - SFX	Chevron U.S.A. Inc.	0.14	BK 902 - PG 513	n/a	n/a
		WEST TRAVIS - SFX	Chevron U.S.A. Inc.	0.14	BK 906 - PG 197	n/a	n/a
		ALLENDER ROBERT M II - SFX	Chevron U.S.A. Inc.	0.16	BK 903 - PG 167	n/a	n/a
		MOSS EMILY - SFX	Chevron U.S.A. Inc.	0.14	BK 903 - PG 189	n/a	n/a
		BOLTON, MICHAEL	Chevron U.S.A. Inc.	0.17	BK 954 - PG 1	n/a	n/a
		BAUR SHAUNA - SFX	Chevron U.S.A. Inc.	0.17	BK 961 - PG 560	n/a	n/a
		HINCY FLORENCE FEE	Chevron U.S.A. Inc.	FEE	BK 921 - PG 291	n/a	n/a
		EVANS CHRISTOPHER - FEE	Chevron U.S.A. Inc.	FEE	BK 965 PG 40	n/a	n/a
		MILLER ELIZABETH E - SFX	Chevron U.S.A. Inc.	0.17	BK 944 - PG 382	n/a	n/a
		EVANS EARL - FEE	Chevron U.S.A. Inc.	FEE	BK 965 PG 40	n/a	n/a
		EVANS RALPH B - SFX	Chevron U.S.A. Inc.	0.17	BK 945 - PG 542	n/a	n/a
		TODD DONNA MARIE - FEE	Chevron U.S.A. Inc.	FEE	BK 1010 - PG 433	n/a	n/a
		INGSTRUP BETSY MORGAN EVANS - SFX	Chevron U.S.A. Inc.	0.17	BK 961 - PG 77	n/a	n/a
		DAVIS VIRGINIA - FEE	Chevron U.S.A. Inc.	FEE	BK 965 - PG 40	n/a	n/a
		HOGAN RALPH JERON - FEE	Chevron U.S.A. Inc.	FEE	BK 1010 - PG 442	n/a	n/a
		PIERCE CHARLES L - FEE	Chevron U.S.A. Inc.	FEE	BK 1010 - PG 439	n/a	n/a
		MUSILLAMI NANCY - FEE	Chevron U.S.A. Inc.	FEE	BK 1010 - PG 445	n/a	n/a
		MOORHEAD ROBERT L - FEE	Chevron U.S.A. Inc.	FEE	BK 1010 - PG 433	n/a	n/a
14	4-11A-24.0	YOHO LARRY E ET UX	TriEnergy Holdings, LLC	0.16	BK 709 - PG 39	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.

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Plat ID	Parcel Number	Lessor	Lessee	Royalty	Book/Page	Assignment #1	Assignment #2
15	4-11A-23.0	YOHO LARRY E ET UX	TriEnergy Holdings, LLC	0.16	BK 709 - PG 39	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
16	4-11A-22.0	WHITE HOMER W ET UX - SFX	Chevron U.S.A. Inc.	0.14	BK 818 - PG 13	n/a	n/a
		GLEN CONNER WILLIAM - SFX	Chevron U.S.A. Inc.	0.16	BK 838 - PG 485	n/a	n/a
19	4-11A-3.0	BARRETT ALVIN D ET UX	Chevron U.S.A. Inc.	0.18	BK 837 - PG 163	n/a	n/a
20	4-11A-4.0	WHITLATCH DALE L ET UX	TriEnergy Holdings, LLC	0.16	BK 711 - PG 497	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
21	4-11A-5.0	WHITLATCH DALE L ET UX	TriEnergy Holdings, LLC	0.16	BK 711 - PG 497	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
22	4-11A-6.0	HENRY CHARLES M ET UX	TriEnergy Holdings, LLC	0.16	BK 711 - PG 302	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
23	4-11A-7.0	HENRY CHARLES M ET UX	TriEnergy Holdings, LLC	0.16	BK 711 - PG 302	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
24	4-11A-8.0	HENRY CHARLES M ET UX	TriEnergy Holdings, LLC	0.16	BK 711 - PG 302	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
25	4-11.4.0	ROUSH HARRY F ET UX - SFX	Chevron U.S.A. Inc.	0.16	BK 838 - PG 381	n/a	n/a

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26	4-11A-35.0	GARRISON JOHN Z	TriEnergy Holdings, LLC	0.16	BK 711 - PG 337	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
27	4-11A-36.0	GARRISON JOHN Z	TriEnergy Holdings, LLC	0.16	BK 711 - PG 337	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
28	4-11A-37.0	OLIVER GOLDIE M	TriEnergy Holdings, LLC	0.16	BK 711 - PG 329	BK 25 - PG 449 TriEnergy Holdings, LLC to NPAR, LLC	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.
30	9-1-4.0	TRAYON ROBERT SR ET UX - SFX	TriEnergy Holdings, LLC	0.16	BK 700 - PG 243	NPAR to CVX BK 756 - PG 332	n/a
		BOARDWINE CHRISTINA L - SFX	Chevron U.S.A. Inc.	0.16	BK 880 - PG 379	n/a	n/a
		KROL FRANCIS THOMAS JR - SFX LEVASSEUR WILLIAM R JR - SFX	Chevron U.S.A. Inc. Chevron U.S.A. Inc.	0.16 0.16	BK 880 - PG 394 BK 880 - PG 373	n/a n/a	n/a n/a
30	9-1-4.0	WELLMAN JOE PAUL - SFX	TriEnergy Holdings, LLC	0.17	BK 745 - PG 469	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		BONNETT MARGARET ANN - SFX	TriEnergy Holdings, LLC	0.17	BK 748 - PG 115	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
30	9-1-4.0	WELLMAN DIANA L - SFX	TriEnergy Holdings, LLC	0.17	BK 753 - PG 557	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a

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31	9-1-4.3	TRAYON ROBERT L JR ET UX - SFX	TriEnergy Holdings, LLC	0.16	BK 701 - PG 470	BK 756 - PG 332 NPAR, LLC to Chevron U.S.A. Inc.	n/a
		BOARDWINE CHRISTINA L - SFX	Chevron U.S.A. Inc.	0.16	BK 880 - PG 379	n/a	n/a
		KROL FRANCIS THOMAS JR - SFX	Chevron U.S.A. Inc.	0.16	BK 880 - PG 394	n/a	n/a
		LEVASSEUR WILLIAM R JR - SFX	Chevron U.S.A. Inc.	0.16	BK 880 - PG 373	n/a	n/a
		WELLMAN JOE PAUL - SFX	TriEnergy Holdings, LLC	0.17	BK 745 - PG 469	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		BONNETT MARGARET ANN - SFX	TriEnergy Holdings, LLC	0.17	BK 748 - PG 115	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		WELLMAN DIANA L - SFX	TriEnergy Holdings, LLC	0.17	BK 753 - PG 557	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
32	9-1-5.0	CNX GAS COMPANY LLC - SFX	Chevron U.S.A. Inc.	0.20	BK 818 - PG 553	n/a	n/a
		BOARDWINE CHRISTINA L - SFX	Chevron U.S.A. Inc.	0.16	BK 880 - PG 379	n/a	n/a
		KROL FRANCIS THOMAS JR - SFX	Chevron U.S.A. Inc.	0.16	BK 880 - PG 394	n/a	n/a
		LEVASSEUR WILLIAM R JR - SFX	Chevron U.S.A. Inc.	0.16	BK 880 - PG 373	n/a	n/a
		WELLMAN JOE PAUL - SFX	TriEnergy Holdings, LLC	0.17	BK 745 - PG 469	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a

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						BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		BONNETT MARGARET ANN - SFX	TriEnergy Holdings, LLC	0.17	BK 748 - PG 115	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
		WELLMAN DIANA L - SFX	TriEnergy Holdings, LLC	0.17	BK 753 - PG 557	BK 28 - PG 348 TriEnergy Holdings, LLC to Chevron U.S.A. Inc.	n/a
33	9-1-18.0	YOUNG HOWARD E BY AIF SUSAN YOUNG	Chevron U.S.A. Inc.	0.16	BK 797 - PG 272	n/a	n/a
34	9-1-12.0	CLARK ROBERT L ET AL - SFX	Chesapeake Appalachia, LLC	0.125	BK 686 - PG 304	BK 30 - PG 461 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.	n/a
		DAKAN KENNETH EUGENE ET UX - SFX	Chesapeake Appalachia, LLC	0.125	BK 688 - PG 97	BK 30 - PG 461 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.	n/a
		GUZEK DOLLYE LEE - SFX	Chesapeake Appalachia, LLC	0.125	BK 688 - PG 103	BK 30 - PG 461 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.	n/a
		SEDOSKY DOROTHY - SFX	Chesapeake Appalachia, LLC	0.125	BK 688 - PG 100	BK 30 - PG 461 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.	n/a
		DAKAN JOSEPH D - SFX	Chesapeake Appalachia, LLC	0.125	BK 688 - PG 86	BK 30 - PG 461 Chesapeake Appalachia, LLC to Chevron U.S.A. Inc.	n/a

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						BK 30 - PG 461 Chesapeake	
		THOMA LINDSEY R - SFX	Chesapeake Appalachia, LLC	0.125	BK 690 - PG 576	Appalachia, LLC to Chevron U.S.A. Inc. BK 30 - PG 461 Chesapeake	n/a
		RACKLEY NANCY D - SFX	Chesapeake Appalachia, LLC	0.125	BK 690 - PG 572	Appalachia, LLC to Chevron U.S.A. Inc. BK 30 - PG 461 Chesapeake	n/a
		THE DAKAN FAMILY REVOCABLE LIVING TRUST - SFX	Chesapeake Appalachia, LLC	0.125	BK 690 - PG 524	Appalachia, LLC to Chevron U.S.A. Inc. BK 30 - PG 461 Chesapeake	n/a
		FONTES ELAINE A AKA FAITE ELAINE DAKAN - SFX	Chesapeake Appalachia, LLC	0.125	BK 695 - PG 378	Appalachia, LLC to Chevron U.S.A. Inc.	n/a
		DAKAN DAVID H - SFX	Chevron U.S.A. Inc.	0.160	BK 868 - PG 199	n/a	n/a
		FURFARI BARBARA D - SFX	Chevron U.S.A. Inc.	0.160	BK 868 - PG 304	n/a	n/a
		DAKAN RONALD W - SFX	Chevron U.S.A. Inc.	0.160	BK 902 - PG 507	n/a	n/a
		SWIFT SUZANNE D - SFX	Chevron U.S.A. Inc.	0.160	BK 872 - PG 23	n/a	n/a
		BUTTS LESLIE M - SFX	Chevron U.S.A. Inc.	0.180	BK 884 - PG 80	n/a	n/a
		WILLIS DIANE CLARE ET VIR - SFX	Chevron U.S.A. Inc.	0.180	BK 884 - PG 77	n/a	n/a
35	9-1-13.0	WILLIAMS ROBERT A ET UX	Chevron U.S.A. Inc.	0.18	BK 847 - PG 521	n/a	n/a
36	9-1-13.3	WILLIAMS ROBERT A ET UX	Chevron U.S.A. Inc.	0.18	BK 902 - PG 556	n/a	n/a
37	9-1-13.4	WILLIAMS ROBERT A ET UX	Chevron U.S.A. Inc.	0.18	BK 902 - PG 556	n/a	n/a
38	9-1-13.5	WILLIAMS ROBERT A ET UX	Chevron U.S.A. Inc.	0.18	BK 902 - PG 556	n/a	n/a
39	9-1-13.7	TUCKER KENNETH D ET UX	Chevron U.S.A. Inc.	0.16	BK 907 - PG 048	n/a	n/a
40	9-1-13.6	LOGSDON GERALD E ET UX	TriEnergy Holdings, LLC	0.16	BK 712 - PG 532	n/a	n/a

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Luke Slagel
Land Representative

September 10, 2018

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

RE: Longworth 08H, 09H, 10H, 11H, 12H

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 that reads "Luke Slagel".

Luke Slagel
Land Representative

Appalachian Mountain Business Unit
Chevron North America Exploration and Production Company
A Division of Chevron U.S.A. Inc.
700 Cherrington Parkway, Coraopolis, PA 15108
Tel 412 865 1426
Luke.Slagel@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: 10/25/18

API No. 47- _____ - _____
Operator's Well No. M11H
Well Pad Name: Longworth

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>523398.45</u>
County:	<u>Marshall</u>		Northing:	<u>4410840.54</u>
District:	<u>Clay</u>	Public Road Access:	<u>Roberts Ridge Road/WW 21</u>	
Quadrangle:	<u>Glen Easton, WV 7.5'</u>	Generally used farm name:	<u>Longworth</u>	
Watershed:	<u>Middle Grave Creek - Grave Creek</u>			

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

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

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

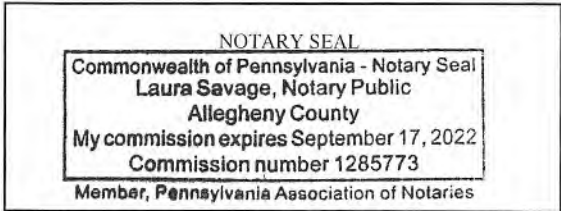
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WV Department of
Environmental Protection

Certification of Notice is hereby given:

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 17th day of October 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 depprivacyofficer@wv.gov.

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

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

Date of Notice: 10/4/18 **Date Permit Application Filed:** 10/25/18

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: Graham H. Longworth, Jr.
Address: 2527 Fork Ridge Road
Moundsville, WV 26041

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Mary Holmes
Address: 107 Spindle Lane
Moundsville, WV 26041

Name: The Estate of Barbara J. Darrow
Address: 6247 Roberts Ridge Road
Moundsville, WV 26041

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

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

COAL OPERATOR
Name: Murray Energy Corporation
Address: 46226 National Road
St. Clairsville, OH 43950

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Daniel C. Longworth
Address: 812 Spindle Lane
Moundsville, WV 26041

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

*Please attach additional forms if necessary

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Notice is hereby given:

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

This Notice Shall Include:

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

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

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

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and 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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examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

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WV Department of
Environmental Protection

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- _____ - _____
OPERATOR WELL NO. M11H
Well Pad Name: Longworth

Notice is hereby given by:

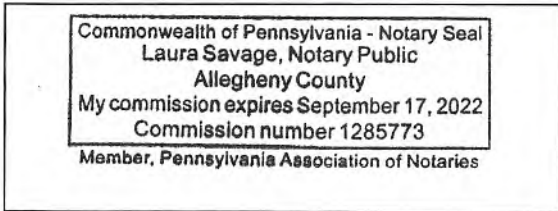
Well Operator: Chevron Appalachia, LLC
Telephone: 412-865-1533
Email: JZYK@chevron.com

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

Jenny Bultko

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.

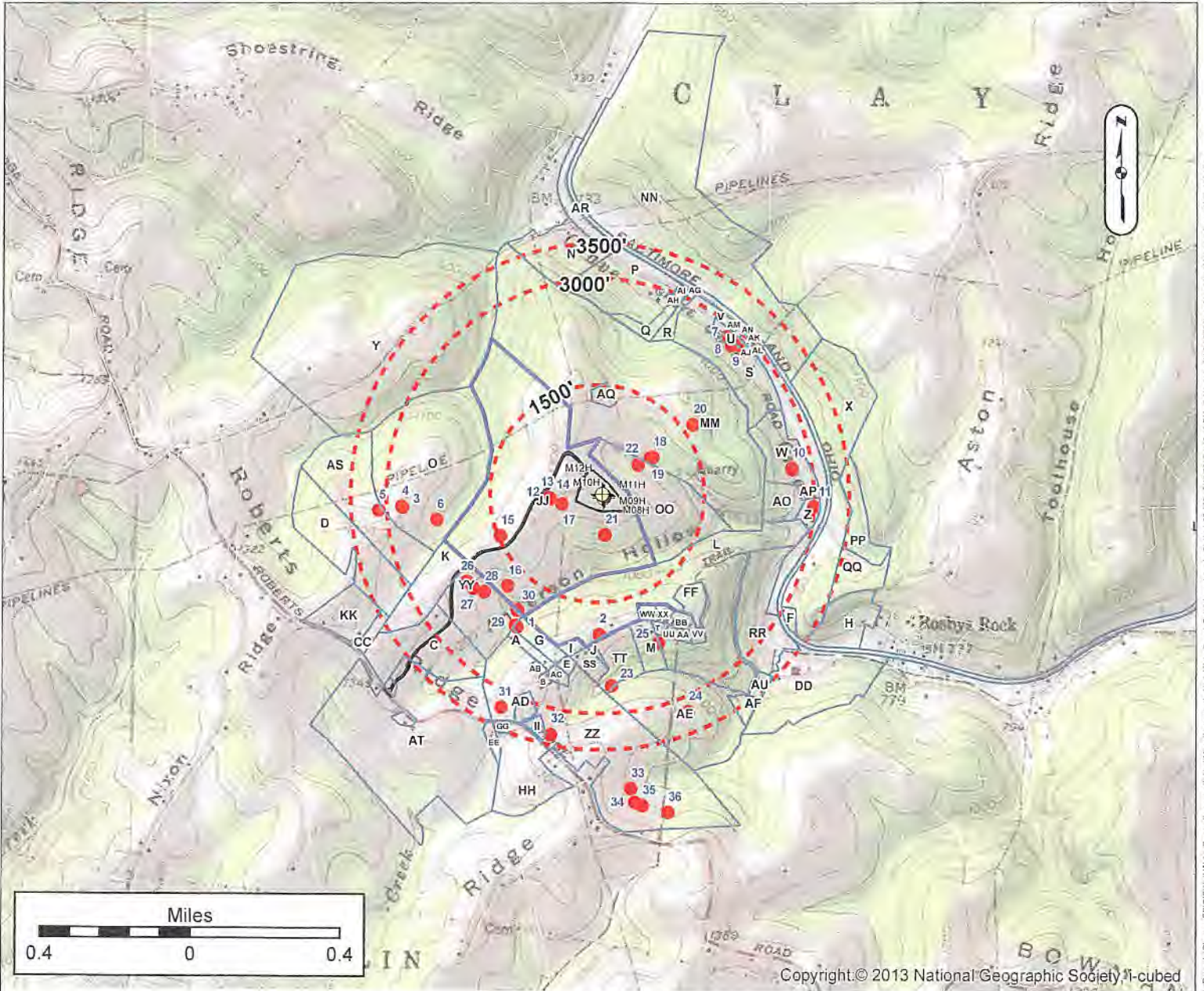


Commonwealth of Pennsylvania
County of Allegheny
Subscribed and sworn before me this 3rd day of October 2018.
Laura Savage Notary Public
My Commission Expires September 17, 2022

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WATER SUPPLY EXHIBIT LONGWORTH BATCH #3



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LOT OWNERS

Label	OWNER	TM	Label	OWNER	TM	Label	OWNER	TM	Label	OWNER	TM
A	MIDCAP RAYMOND L & DOROTHY I	25-04 11005600110000	F	JOBES SHERRY M	25-04 12001700000000	EE	CARNEY KAREN M & ABRAHAM S	25-05 3001300530000	TT	LIGHTNER JOHN D ET UX	25-04 11005400040000
B	WHITLATCH KENNETH F ET UX	25-04 11009600040000	Q	JOBES KATHY	25-04 11001200020000	FF	YONHO JAMES E & LEAH A	25-04 11007400120000	UU	MIDCAP RAYMOND L ET UX	25-04 11005400040000
C	HOLMES MARY	25-04 13003500000000	R	JOBES KATHY	25-04 12001300000000	GG	HUGGINS RICHARD M & CRYSTAL M	25-05 3003600000000	VV	STUCKEY JAMES A ET UX	25-04 11005400040000
D	HARTLEY LOREN E & PATRICIA A	25-04 13003500000000	S	MORRISON JAMES W ET UX	25-04 12001400050000	HH	CLARK GIBERT E JR & ANITA L	25-05 3004100000000	WW	WILLIAMS EDWARD ET UX	25-04 11005400040000
E	MIDCAP RAYMOND I ET UX	25-04 11005600110000	T	MIDCAP BRADY L ET UX	25-04 11005400040000	II	FLOWERS CLINT E & BRENT B	25-04 13003800000000	XX	WILLIAMS EDWARD ET UX	25-04 11005400040000
F	ROUSH DEAN ET UX	25-04 11000300010000	U	STEVEY HERBERT R ET UX	25-04 12001400050000	JJ	LONGWORTH GRAHAM H JR	25-04 12001600000000	YY	HOLMES MARY	25-04 11005400040000
G	MIDCAP RAYMOND L & DOROTHY I	25-04 11005600110000	V	WHITE JOHN STANLEY ET UX	25-04 12001400050000	KK	KEREKES RONALD A ET UX	25-04 13003800000000	ZZ	FLOWERS CLINT E & BRENT B	25-04 11005400040000
H	CORNER GLEN W ET UX	25-04 11005400040000	W	SHAFFER ROBERT L SR ET UX	25-04 12001500010000	LL	CONSOLIDATION COAL COMPANY	25-04 11005200000000	AA	MIDCAP RAYMOND L & DOROTHY I	25-04 11005600110000
I	LIGHTNER JOHN D ET UX	25-04 11005400040000	X	ROUSH HARRY F ET UX	25-04 13003800000000	MM	LONGWORTH DANIEL C	25-04 12001600000000	BB	MIDCAP RAYMOND I & DOROTHY I	25-04 11005600110000
J	MIDCAP RAYMOND LLOYD JR	25-04 11005400040000	Y	JARRETT CODY M	25-04 12001500010000	NN	MOUNDSVILLE CITY OF	25-04 10000100000000	CC	FLOWERS CLINT E & BRENT B	25-04 13003800000000
K	HOLMES JEFFREY SCOTT ET AL	25-04 13003500000000	Z	WINLAND KELLY BRUCE	25-04 12001500010000	OO	LONGWORTH GRAHAM H JR	25-04 11005400040000	DD	LIGHTNER JOHN D ET UX	25-04 11005400040000
L	FOX DELORES	25-04 11005400040000	AA	STUCKEY JAMES A ET UX	25-04 12001300000000	PP	ROUSH HARRY F	25-04 11005400040000	EE	JOBES SHERRY M	25-04 12001700000000
M	MIDCAP BRADY L ET UX	25-04 11005400040000	BB	THAYER JAMES C & VIELISSA	25-04 11005400040000	QQ	ROUSH HARRY F ET UX	25-04 11005400040000	FF	JOBES KATHY	25-04 12001700000000
N	HAUGHT THOMAS L & CLARA J	25-04 12001500010000	CC	CECIL KELLY J ET UX	25-04 13003800000000	RR	TECH PARK NON-PROFIT	25-04 11005200000000	GG	JOBES KATHY	25-04 12001700000000
O	CUNNINGHAM DALE & MARY	25-04 13003500000000	DD	TECH PARK NON-PROFIT	25-09 10003000000000	SS	MIDCAP RAYMOND I	25-04 11005400040000	HH	JOBES KATHY	25-04 12001700000000

Surface Owner: GRAHAM H LONGWORTH, JR.

Oil/Gas Owner: GRAHAM H LONGWORTH, JR.

Well Operator: CHEVRON APPALACHIA, LLC

Address: 700 CHERRINGTON PARKWAY
CORAOPOLIS, PA 15108

Phone: 724-564-3700

County: MARSHALL

Township: MOUNDSVILLE, WV

GROUNDWATER & ENVIRONMENTAL

Surveyor: SERVICES, INC.

Address: 301 COMMERCE PARK DR
CRANBERRY TOWNSHIP, PA 16066

Phone: 800-267-2549

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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.

**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: 10/4/18 **Date Permit Application Filed:** 10/25/18

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: Graham H. Longworth, Jr.
Address: 2527 Fork Ridge Road
Moundsville, WV 26041

Name: Mary Holmes
Address: 197 Spindle Lane
Moundsville, WV 26041

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>523398.45</u>
County: <u>Marshall</u>	Northing: <u>4410840.54</u>
District: <u>Clay</u>	Public Road Access: <u>Roberts Ridge Road/WV 21</u>
Quadrangle: <u>Glen Easton, WV 7.5'</u>	Generally used farm name: <u>Longworth</u>
Watershed: <u>Middle Grave Creek - Grave Creek</u>	

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator: Chevron Appalachia, LLC
Address: 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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Office of Oil and Gas
OCT 26 2018
WV Department of
Environmental Protection

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: 10/4/18 **Date Permit Application Filed:** 10/25/18

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: The Estate of Barbara J. Darrow
Address: 6247 Roberts Ridge Road
Moundsville, WV 26041

Name: _____
Address: _____

Notice is hereby given:

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>523398.45</u>
County:	<u>Marshall</u>		Northing:	<u>4410840.54</u>
District:	<u>Clay</u>	Public Road Access:	<u>Roberts Ridge Road/WV-21</u>	
Quadrangle:	<u>Glen Easton, WV 7.5'</u>	Generally used farm name:	<u>Longworth</u>	
Watershed:	<u>Middle Grave Creek - Grave Creek</u>			

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator: Chevron Appalachia, LLC
Address: 700 Cherrington Parkway
Coraopolis, WV 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. **RECEIVED**
appropriately secure your personal information. If you have any questions about our use or your personal information, please contact **Office of Oil and Gas**
DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

OCT 26 2018
WV Department of
Environmental Protection

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: 10/4/18 **Date Permit Application Filed:** 10/25/18

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

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)

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

Name: Graham H. Longworth, Jr.
Address: 2527 Fork Ridge Road
Moundsville, WV 26041

Name: Mary Holmes
Address: 197 Spindle Lane
Moundsville, WV 26041

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>523398.45</u>
County: <u>Marshall</u>		Northing: <u>4410840.54</u>
District: <u>Clay</u>	Public Road Access: <u>Roberts Ridge Road/WV 21</u>	
Quadrangle: <u>Glen Easton, WV 7.5'</u>	Generally used farm name: <u>Longworth</u>	
Watershed: <u>Middle Grave Creek - Grave Creek</u>		

This Notice Shall Include:

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

Well Operator: Chevron Appalachia, LLC
Telephone: 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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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 Easting:	<u>523398.448</u>
County:	<u>Marshall</u>	UTM NAD 83 Northing:	<u>4410840.539</u>
District:	<u>Clay</u>	Public Road Access:	<u>Roberts Ridge Road</u>
Quadrangle:	<u>Glen Easton 7.5'</u>	Generally used farm name:	<u>Longworth</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>Consolidation Coal Co.</u></p> <p>By: <u>Mason Smith</u></p> <p>Its: <u>Coal, oil and gas relations manager</u></p> <p>Signature: <u>Mason Smith</u></p> <p>Date: <u>8-9-18</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. The Office of Oil and Gas will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Environmental Protection

DEC 23 2011

OIL AND GAS ROAD STATEWIDE BONDING AGREEMENT

THIS AGREEMENT, executed in duplicate, made and entered into this 14th day of January, 2012, by and between the **WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS**, hereinafter called "**DEPARTMENT**," and **CHEVRON APPALACHIA, LLC**, a Pennsylvania Limited Liability company, hereinafter called "**COMPANY**."

WITNESSETH:

WHEREAS, Company has horizontal gas well drilling operations in certain areas of West Virginia; and

WHEREAS, the Department believes that the frequent and repetitive use of certain sections of highways in the State by Company, its contractors, agents, independent contractors or suppliers of drilling materials or drilling equipment, and employees contributes to increased wear and tear to public roads in the state road system in the State, including local roads ("State Owned Roads"); and,

WHEREAS, the Department and Company have entered into this Agreement to satisfy the requirements of the Department's policy entitled "Oil & Gas Road Policy" dated February 1, 2011, as issued by Paul A. Mattox, Jr., Secretary of Transportation / Commissioner of Highways, and any subsequent related policies, hereinafter called "Policy", a copy of which is made a part of this Bonding Agreement and is identified as Attachment 1.

NOW, THEREFORE, for and in consideration of the mutual agreements hereinafter set forth, the parties agree as follows:

I. For purposes of this Bonding Agreement, "Project Transportation Usage" of the Company shall be understood to mean use of one or more State Owned Roads for the delivery and removal of drilling materials and drilling equipment at the site or location of one or more of Company's horizontal gas well pad locations. To the extent reasonably practical, prior to commencing use of a State Owned Road for Project Transportation Usage after January 1, 2011, the Company shall submit to the Department a section or sections of current official WVDOH County Highway maps identifying the exact location of the proposed project and the State Owned Roads that the Company will utilize for the Project Transportation Usage.

II. Company and Department shall within 14 days of the Company's submittal, agree to a list of these sections of State Owned Roads, hereinafter called "Project Roads List", to be utilized for each of Company's projects, identified by route number and milepost; at a time to be mutually agreed to by the parties prior to initial commencement of Project Transportation Usage of a particular State Owned Road on a Project Roads List, the Company and Department will jointly review the condition of the roads and bridges on the Project Roads List. The Department will document the road type and surface condition and general right-of-way width of each section of road on the Project Road List. Either party may supplement this documentation with photographs, video or other evidence of the present condition of the road surface, shoulders, ditches, culverts, bridges or other structures or appurtenances of roads on the Project Road List, as well as approaches to the roads, utility facilities located within or along the right-of-way, or any other condition, including third-party activities, that may affect the duties and responsibilities of the parties under this Agreement. A copy of any such documentation must be made and provided to the other party within ten business days after the joint review of the roads on the Project Roads List.

III. Department shall issue a Project Agreement or Project Permit, as appropriate, to Company to use State Owned Roads and may include any minor or major improvements required of Company prior to, during or after Project with the assignment of responsibilities of

both parties prior to, during and after the operator has completed well fracturing..

IV. In the Project Agreement/Project Permit, the Department shall not require the use of State Owned Roads other than the roads proposed by Company unless the Department has safety concerns as to the Company's proposed roads. A failure to agree on roads that may otherwise be lawfully used for a particular Project Transportation Usage shall result in the designation of the State Owned Roads proposed by Company, with milepost determinations as designated by Department. This Agreement shall only cover portions of State Owned Roads designated on the Project Roads List.

V. For the duration of Company's Project Transportation Usage of the Stated Owned Roads on the Project Roads List, whether by the Company, its contractors (while working on behalf of Company), agents, independent contractors or suppliers of drilling materials or drilling equipment, or employees, the Company agrees to pay for all reasonable maintenance and repair costs incurred by the Department to repair areas of the State Owned Roads included in the Project Roads List that were directly damaged by Company's Project Transportation Usage, as determined to be reasonably necessary and appropriate by the Department. The Department shall keep a record of all labor performed by Department employees and contractors for such maintenance and repairs and shall send an invoice for the same to Company.

VI. Company shall be responsible for the cost of all maintenance and repairs reasonably necessary to put the existing roadways, bridges and appurtenances on the Project Roads List utilized for the Project Transportation Usage in the condition that existed immediately prior to the Project Transportation Usage. Company shall not be required to pay for maintenance or repairs to put any areas of such roadways, bridges and appurtenances on the Project Roads List in a condition better than the condition that existed immediately prior to the Project Transportation Usage. Company shall also not be required to pay for maintenance or repairs to any areas of these roadways, bridges or appurtenances on the Project Roads List that are not actually utilized for the Project Transportation Usage or for damage not caused by Project Transportation Usage.

VII. Company shall notify the Department in writing of Company's final completion of Project Transportation Usage for particular roadways, bridges and appurtenances on the Project Roads List. Within fourteen days after its receipt of written notification of the completion of the Project Transportation Usage for all roads on a Project Roads List, the Department will review the condition of the roadways, bridges and appurtenances on the Project Roads List actually utilized for the Project Transportation Usage and advise Company of any final repairs reasonably necessary to leave these roads, bridges and appurtenances in a condition reasonably deemed by Department to be equal to their condition prior to commencement of Project Transportation Usage; and, upon completion of all such final repairs by or on behalf of Company and acceptance by Department, the Company shall be released from all further liability for maintenance or repairs to roads, bridges, or appurtenances on said Project Roads List. Any maintenance or repair work under the Project Agreement/Project Permit for roads, bridges or appurtenances on the Project Roads List may be performed by a contractor directly chosen by the Company as approved by the Department, the Department's workforce, or a private contractor hired by the Department through the public bid process in accordance with state law, all of which work shall be subject to the standards and specifications of the Department.

VIII. In order to ensure performance of Company's performance and payment obligations under this Bonding Agreement, the Company shall post a corporate surety bond, hereinafter called "Master Bond", with the Department named as the beneficiary, which form of bond shall be subject to the consent of the Department, not to be unreasonably withheld. The amount and form of the bond shall be in accordance with the Policy as set forth above. However, the amount of the Master Bond does not limit the amount of claims that may be made by the Department against the Company under this Bonding Agreement. The Company shall provide the Master Bond to the Department within one (1) month after the execution of this Bonding Agreement. The Master Bond shall secure the good faith performance of all payment obligations of Company under the terms of this Bonding Agreement respecting the roads, bridges and appurtenances on the Project Roads List for each Project Transportation Usage undertaken by the Company, and shall remain in effect until termination of this Agreement. Company shall not be obligated to provide any other bonds, sureties, or other guarantees of performance to the Department for Company's use of State Owned Roads, except as required in this Agreement.

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IX. Company shall maintain Commercial General Liability Insurance in the amount of two million dollars, with a minimum coverage of one million dollars per occurrence, for personal injury or death to persons, or for property damage, resulting from Company's Project Transportation Usage and shall present evidence of such insurance to Department upon request.

X. Company's usage of State Owned Roads under the Project Agreement/Project Permit shall comply with all applicable Federal, State and local laws and regulations including, but not limited to, to the extent applicable, the National Environmental Policy Act, Section 404 of the Clean Water Act, Section 106 of the National Historic Preservation Act, Rare, Threatened and Endangered Species Act, Section 401 Water Quality Certification, and hazardous waste requirements. Further, upon reasonable written request of Department, Company shall furnish Department with acceptable documentation of such compliance which is in the possession of the Company.

XI. Company shall defend, indemnify and hold Department harmless from and against any and all losses, damage, and liability, and from all claims for damages on account of or by reason of bodily injury, including death, which may be sustained, or claimed to be sustained, by any person or persons, including employees of Department, and from and against any and all claims, losses or liabilities for damages to property, arising out of the negligent or willful acts or omissions of Company, its agents, independent contractors and suppliers of drilling materials or drilling equipment, employees and contractors, in the performance of all Project Transportation Usage activities undertaken pursuant to this Agreement (collectively, "claims"). The Company shall not be responsible to indemnify, defend or hold harmless Department for any claims caused by the negligent or willful acts or omissions of the Department or its agents, employees and contractors or third parties not performing work at the direction of Company or delivering drilling equipment or drilling materials, including water, for use by or for company.

XII. If a provision of this Agreement is or becomes illegal, invalid or unenforceable in any jurisdiction, that shall not affect the validity or enforceability of any other provision of this Agreement; or the validity or enforceability in other jurisdictions of that or any other provision of this Agreement.

XIII. Department shall give Company a minimum of thirty days written notice of default under the terms of this Bonding Agreement and the opportunity to cure this default during such thirty-day period. If a default is not cured to the satisfaction of Department, or provision acceptable to Department is not made for a cure, Department may then elect to terminate this Bonding Agreement in whole or in part, and may in addition exercise its rights under the Master Bond or seek any other lawful relief available. Company may terminate this Bonding Agreement upon thirty days written notice to Department for any reason. In the event Company terminates this Agreement for any reason, it shall be liable for the repair and maintenance costs set forth above for prior Project Transportation Usage.

XIV. Nothing herein shall be construed to mean that Company shall have any jurisdiction or control over any public roads in the state road system.

XV. Company, its contractors, agents, employees and suppliers shall at all times be subject to applicable provisions of state and federal law, including without limitation laws requiring operation of vehicles in accordance with legal size and weight restrictions and posted weight limits. Oversize/overweight permits for vehicle or loads not otherwise conforming with law must be obtained in accordance with law; Department agrees to work in good faith with Company to review and grant (where authorized by law) such permits in a timely manner upon request by Company.

XVI. This Bonding Agreement shall be construed and enforced in accordance with the laws of the State of West Virginia, as they may be amended.

XVII. This Bonding Agreement shall be binding upon the successors and assigns of each party hereto.

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OCT 26 2018

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IN WITNESS WHEREOF, the parties hereto have caused this Bonding Agreement to be executed by their duly authorized officers effective as of the date first above written.

WEST VIRGINIA DEPARTMENT OF
TRANSPORTATION,
DIVISION OF HIGHWAYS

Doreen Baria
Witness "Executive Secretary"

By: *James Murphy*
State Highway Engineer

CHEVRON APPALACHIA, LLC

Michael A. Frazer
Witness Michael A. Frazer
Supply Chain Manager

By: *John F. Hammond*
John F. Hammond
Title: Assistant Secretary

(To be executed in duplicate)

APPROVED AS TO FORM THIS
11th DAY OF Jan 2012
J. M. ...
ATTORNEY LEGAL DIVISION
WEST VIRGINIA DEPARTMENT
OF HIGHWAYS
~~WEST VIRGINIA DEPARTMENT
OF HIGHWAYS
ATTORNEY LEGAL DIVISION~~
DAY OF 20
APPROVED AS TO FORM THIS

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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

October 10, 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 Longworth A Well Pad, Marshall County

Longworth M11H

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2016-0411 for the subject site to Chevron Appalachia, LLC for access to the State Road for the well site 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: Christopher Rerko
Chevron Appalachia, LLC
CH, OM, D-6

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Hydraulic Fracturing Fluid Additives

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

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REVISION RECORD		
NO.	DATE	DESCRIPTION

LONGWORTH WELL SITE AS-BUILT SURVEY

ROBERTS RIDGE SAINT JOSEPH ROAD
CLAY DISTRICT, MARSHALL COUNTY, WEST VIRGINIA

EXISTING API NUMBERS

- 47-051-01903
- 47-051-01904
- 47-051-01914
- 47-051-01916
- 47-051-01917
- 47-051-02078
- 47-051-02079
- 47-051-02080
- 47-051-02081
- 47-051-02082
- 47-051-02083

**WVDEP OOG
ACCEPTED AS-BUILT**

VJL 1/25/2019

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

CONSULTANTS

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
4000 TRIMBLE LANE, SUITE 200
EXPORT, PA 15632
PHONE: 724-337-5200

CIVIL/SITE ENGINEER CONTACT: JOSHUA A. MAGARICE
EMAIL ADDRESS: jmagarice@cecinc.com

ELECTRICAL ENGINEER CONTACT: MICHAEL J. SHELDON, P.E.
EMAIL ADDRESS: msheldon@cecinc.com

SURVEY CONTACT: JAMES R. BRUGGEMAN, P.L.S.
EMAIL ADDRESS: jbruggerman@cecinc.com

SITE COORDINATES AND WATERSHED

START OF ACCESS ROAD
LATITUDE: 39° 50' 22.42" N, LONGITUDE: 80° 44' 13.39" W

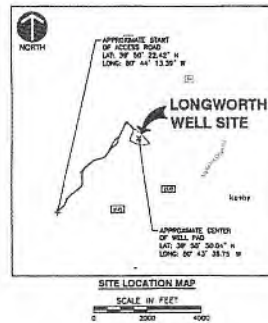
END OF ACCESS ROAD
LATITUDE: 39° 50' 53.12" N, LONGITUDE: 80° 43' 38.11" W

WELL HEAD MOON
LATITUDE: 39° 50' 50.13" N, LONGITUDE: 80° 43' 38.07" W

APPROXIMATE CENTER OF WELL PAD
LATITUDE: 39° 50' 50.04" N, LONGITUDE: 80° 43' 35.75" W

*BASED ON NAD 83, WEST VIRGINIA NORTH ZONE

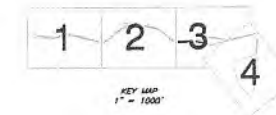
WATERSHED NAME: UPPER OHIO SOUTH
RECEIVING STREAM: UNNAMED TRIBUTARIES TO GRAVE CREEK



LIST OF DRAWINGS

DRAWING NUMBER	SHEET TITLE
ASB-0	COVER SHEET
ASB-1 TO ASB-4	AS-BUILT SURVEY
ASB-5 TO ASB-6	AS-BUILT ROAD PROFILE

JR
1/24/19



KEY MAP
1" = 1000'

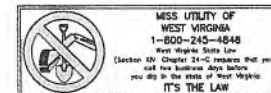
CERTIFICATION

THIS PROJECT WAS CONSTRUCTED IN GENERAL ACCORDANCE WITH THE PERMIT CONDITIONS WHICH APPLICABLE DISCRETIONARY DURING CONSTRUCTION WERE ADEQUATELY ADDRESSED IN THE FIELD BY CHEVRON PERSONNEL.



LEGEND

	EXISTING CONTOUR		CATCH BASIN
	FENCE		WATER MANHOLE
	STORM SEWER LINE		WATER BOX (WB)
	GAS LINE		WATER LINE MARKER
	WATER LINE		FIRE HYDRANT
	TELEPHONE LINE		GAS BOX (GB)
	UNDERGROUND ELECT. LINE		GAS LINE MARKER
	OVERHEAD ELECTRIC		POWER POLE
	CULVERT PIPE		VENT PIPE
	FIRELINE		TELEPHONE PEDISTAL
	SPOT		ELECTRIC POLE POST
	BOLLARD		LIMIT OF DISTURBANCE



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www.cecinc.com

AS-BUILT SURVEY
LONGWORTH WELL SITE
Sited in
CLAY DISTRICT
MARSHALL COUNTY, WEST VIRGINIA
Made For
CHEVRON U.S.A. INC.

DATE	01/23/2019	SCALE	AS SHOWN	DRAWING NO
DRAWN BY	EKG	CHECKED BY	JAM	ASB-0
PROJECT NO	161-418	APPROVED BY	MJB	SHEET 1 OF 7

