



west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

June 16, 2014

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-5101752, issued to CHEVRON APPALACHIA, LLC, 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: HART 6H
Farm Name: HART, JOHN J. & RENEE
API Well Number: 47-5101752
Permit Type: Horizontal 6A Well
Date Issued: 06/16/2014

Promoting a healthy environment.

INSPECTORS PERMIT SUMMARY FORM

GPS YES [] NO []

DATE STARTED/LOCATION: _____ OPERATOR: CHEVRON APPALACHIA, LLC
 DRILLING COMMENCED: _____ FARM: HART, JOHN J. & RENEE
 TO DATE: _____ DEPTHS: _____ Well No: HART 6H
 WATER DEPTHS: _____ COAL DEPTHS _____

QUESTIONS FOR THIS REPORT ARE IN ACCORDANCE OF WV CODE 22-6-30 AND REGULATIONS 35CSR 4-12.1 AND 35CSR 4-16 AND THE GENERAL WATER POLLUTION CONTROL PERMIT.

POINTS ARE TO BE GIVEN UP TO MAXIMUM AS SHOWN BASED ON PERFORMANCE.

1. DID OPERATOR GIVE PROPER NOTICE TO INSPECTOR BEFORE THE FOLLOWING:
 - A. CONSTRUCTION YES [] NO [] (2_PTS) (4_PTS) _____
 - B. DRILLING YES [] NO [] (2_PTS)
2. WAS THE TIMBER CUT, STACKED, AND BRUSH USED FOR SEDIMENT BARRIERS BEFORE DIRT WORK STARTED? YES [] NO [] (2_PTS) (4_PTS) _____
3. ARE ALL LOCATION AND/OR ROAD BANKS BEING SLOPED? YES [] NO [] (4_PTS) (4_PTS) _____
4. CONSTRUCTIONS:
WERE THE FOLLOWING SEDIMENT CONTROL STRUCTURES PROPERLY INSTALLED/MAINTAINED?
 - A. ROAD DITCHES (1)_ (2)_ (3)_ (4)_ (PTS) B. CROSS DRAINS (1)_ (2)_ (3)_ (4)_ (5)_ (PTS)
 - C. CULVERTS (1)_ (2)_ (3)_ (4)_ (5)_ (PTS) D. CREEK CROSSINGS (1)_ (2)_ (3)_ (PTS)
 - E. DIVERSION DITCHES (1)_ (2)_ (3)_ (PTS) F. BARRIERS (1)_ (2)_ (3)_ (PTS)
 - G. TEMPORARY SEEDING YES [] NO [] (10_PTS)

POINTS AVAILABLE FOR QUESTION 4: (33_PTS) _____

5. HAS TOP SOIL (IF ANY) BEEN STOCKED PILED? YES [] NO [] (2_PTS) (2_PTS) _____
6. IS THE PIT PROPERLY INSTALLED AND MAINTAINED? YES [] NO [] (9_PTS) (9_PTS) _____
7. RECLAMATION:
 - A. ROADWAY (1)_ (2)_ (3)_ (PTS) B. LOCATION (1)_ (2)_ (3)_ (PTS)
 - C. PITS (1)_ (2)_ (3)_ (PTS) D. PIPELINES (1)_ (2)_ (3)_ (PTS)
 - E. TANK DIKES (1)_ (2)_ (3)_ (PTS) F. API INSTALLED YES [] NO [] (3_PTS)
 - G. ADEQUATE SEEDING MATERIALS (1)_ (2)_ (3)_ (PTS)
 - H. WAS SEED BED ADEQUATE (1)_ (2)_ (3)_ (PTS)

POINTS AVAILABLE FOR QUESTION 7: (24_PTS) _____

8. WAS RECLAMATION COMPLETED WITHIN:
6 MTHS OF TD 6_PTS ONLY; 4 MTHS OF TD 12_PTS ONLY; 2 MTHS OF TD 19_PTS ONLY;

POINTS AVAILABLE FOR QUESTION 8: (19_PTS) _____

TOTAL MAXIMUM POSSIBLE SCORE OF 99.

TOTAL RECLAMATION SCORE: _____

DATE RELEASED

INSPECTOR'S SIGNATURE

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 fifty (50) 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. 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.
8. 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.
9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

WW-6B
(9/13)

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

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

2) Operator's Well Number: 6H Well Pad Name: Hart

3) Farm Name/Surface Owner: John Hart Public Road Access: Campbells Run Rd - 38

4) Elevation, current ground: 1329' Elevation, proposed post-construction: 1322'

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Proposed Target: Marcellus Shale; TVD: 6534'; anticipated thickness: 47'; associated pressure: 4,247 psi

8) Proposed Total Vertical Depth: 6565'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14,761'

11) Proposed Horizontal Leg Length: 7,609'

12) Approximate Fresh Water Strata Depths: 247' below final pad grade elevation

13) Method to Determine Fresh Water Depths: offset well data, Hart #1H (P&A) driller's log, USGS local stream base level

14) Approximate Saltwater Depths: 1994' based on offset well data

15) Approximate Coal Seam Depths: 829' from proposed pad elevation

16) Approximate Depth to Possible Void (coal mine, karst, other): 829' mine void possible in Pittsburgh Coal Seam

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: Alexander Mine - Closed & Abandoned
JN 5/28/14 Depth: 829' from proposed pad elevation
Seam: Pittsburgh No. 8 Coal Seam
Owner: Reserve Coal Properties, LLC

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18) CASING AND TUBING PROGRAM

<u>TYPE</u>	<u>Size</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling</u>	<u>INTERVALS: Left in Well</u>	<u>CEMENT: Fill-up (Cu. Ft.)</u>
Conductor	30"	New			40'	40'	141.8 CTS
Fresh Water	20"	New	J-55	94.5#	354'	354'	810.0 CTS
Coal	13-3/8"	New	J-55	54.5#	941'	941'	950.0 CTS
Intermediate	9-5/8"	New	N-80	40#	2,166'	2,166'	840.0 CTS
Production	5-1/2"	New	P-110	20#	14,761'	14,761'	3745.0 CTS
Tubing							
Liners							

JN 5/28/14

<u>TYPE</u>	<u>Size</u>	<u>Wellbore Diameter</u>	<u>Wall Thickness</u>	<u>Burst Pressure</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	30"	36"	0.375			
Fresh Water	20"	26"	0.438"	2,110 psi	Class A	1.18
Coal	13-3/8"	17.5"	0.458"	2,730 psi	Class A	1.18
Intermediate	9-5/8"	12.25"	0.395"	5,750 psi	Class A	1.29
Production	5-1/2"	8.5"	0.361"	12,640 psi	Class A	2.2
Tubing						
Liners						

PACKERS

Kind:	None			
Sizes:				
Depths Set:				

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(9/13)

JN 5/28/14

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

Drill 26" hole to 354' MD then set and cement 20" casing to surface covering the fresh water. Drill 17.5" hole to 941' MD then set and cement to surface 13-3/8" casing covering Pittsburgh coal. Drilling of the 17.5" hole will stop and 13 3/8" casing will be set no more than 100' past the void. A basket will be run with the 13 3/8" casing to place 20' above the mine void. Cement will be backfilled to surface using volume necessary to get cement to surface. Drill 12.25" hole to 2,166' MD then set and cement to surface 9-5/8" casing, covering the Burgoon (50' below Big Injun). Drill 8-1/2" hole to KOP. Drill 8-1/2" hole curve and lateral to 14,761' MD/ 6,565' TVD. Set 5-1/2" production casing and cement back to surface.

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

Complete each stage of the well with #50,000's of 100 mesh and #300,000's of 40/70 along with 300,000 gallons of fresh water. The stages in these wells will be fractured at 90 bpm at an anticipated psi of 8,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 11.1 acres

22) Area to be disturbed for well pad only, less access road (acres): 2.27 acres

23) Describe centralizer placement for each casing string:

There will be a bow spring centralizer every two jts on the Water string, Coal string and intermediate. The production string will have two centralizer every jt in the lateral and curve, then one every two jts from KOP to surface.

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

For the Water String and Coal 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 cement, KCl, dispersant, suspension agent, and retarder. The tail will contain class A cement, Calcium Carbonate, KCl, dispersant, de-foamer, suspension agent, and friction reducer.

25) Proposed borehole conditioning procedures:

Well will be circulated a minimum of 3 bottoms up once casing point has been reached on all hole sections and until uniform mud properties are achieved.

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*Note: Attach additional sheets as needed.

Cement Additives: Hart Unit 2H, 3H, 4H, 5H, 6H, 7H, 8H, 9H

For the Water String and Coal 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 cement, KCl, dispersant, suspension agent, and retarder.

The tail will contain class A cement, Calcium Carbonate, KCl, dispersant, de-foamer, suspension agent, and friction reducer.

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WV Department of Environmental Protection

SI-01752

Hart 6H

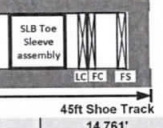
Marshall Co. WV
March 26, 2014

Casing & Cementing Details

Ground Level Elevation: 1260
Depths are measured from KB 15 ft above GL

AZM	Casing Formation	DEPTH		Inclination	HOLE SIZE	CASING SPECS	CEMENT INFO	GENERAL INFO
		MD	TVD					
	30.0" Conductor	55'			36"	Conductor	grout to surface Minimum 40 ft from GL or at least 10 ft into bedrock	
	Bow Spring: 1-shoe jt, 1-every 2nd jt 1 on ea 2-3 jts across previous shoe. Rigid: 2-within 100 ft of surface					Fresh Water Casing 20" 94.5# J-55 BTC 0.438" wall	Cement to surface Class A w/ 3% CaCl ₂ , Salt & Flake Yield = 1.18 cf/sk Weight = 15.6 ppg	30% excess
	Deepest Aquifer	254'				Capacity = 0.3553 bbl/ft Annulus = 0.2681 bbl/ft (+ 15.6 bbl for shoe track) Burst = 2110 psi	144 bbl 686 sks 126 bbl capacity to shoe	
	20" Casing	354'			26"		72,095 lbs air wt with water Minimum 50 ft past deepest known fresh water	
	Bow Spring: 1-shoe jt, 1-every 2nd jt 1 on ea 2-3 jts across previous shoe. Rigid: 2-within 100 ft of surface					Coal Casing 13-3/8" 54.5# J-55 BTC 0.458" wall	Cement to surface Class A w/ 3% CaCl ₂ , Salt & Flake Yield = 1.18 cf/sk Weight = 15.6 ppg	shoe 100% excess to basket 30% excess
	Basket Top Coal Deepest Coal	821' 841' 851'				Capacity = 0.1508 bbl/ft Annulus = 0.1237 bbl/ft (+ 6 bbl for shoe track) Burst = 2730 psi	29 bbl 138 sks 142 bbl capacity to shoe 140 bbl 667 sks	
	13 3/8" Casing	941'			17 1/2"		98,542 lbs air wt with water Minimum 35 ft, Optimum 50 ft, Maximum 100 ft below the bottom of void	
	RED BED	1000' - 1280'				Intermediate Casing 9-5/8" 40# N-80 BTC 8.835" ID - 8.679" DD	Cement to surface Class A w/ 10% CaCl ₂ , Salt & Flake Yield = 1.29 cf/sk Weight = 15.6 ppg	30% excess
	Bow Spring: 1-shoe jt, 1-every 2nd jt 1 on ea 2-3 jts across previous shoe. Rigid: 2-within 100 ft of surface					Capacity = 0.0758 bbl/ft Annulus = 0.0558 bbl/ft (+ 3.1 bbl for shoe track) Burst = 5750 psi Collapse = 3090 psi	149.5 bbl 650 sks 161 bbl cap to shoe	
	RED BED	1330' - 1520'						
	RED BED	1720' - 2490'						
	Buraoon (Bia Iniu)	1,891'					1,077 psi lift pressure	
1203	psi test	9 5/8" Casing	2,166'		12 1/4"			
	BOPE Class for section 13-5/8" 10K Class III BOPE	Berea	2,481'				Class A: 1) LEAD SLURRY 297.4 bbls 1265.0 sacks 15.2 ppg 1.32 cf/sk TOC Lead = 0 ft MD	Lead Length: 6,551' (Surface to 200' above Upper Marcellus plus 10% in open hole)
		Planned WBM TD	5,000'	5,000'		Prod. Casing 5-1/2", 20# P-110, New Vam Capacity = 0.0221 bbl/ft (+1 bbl for shoe track) Burst = 12,640 psi Collapse = 11,080 psi ID = 4.778" Drift = 4.653"	Class A: 2) TAIL SLURRY 369.5 bbls 1288.4 sacks 15.2 ppg 1.61 cf/sk TOC Tail = 8,551 ft MD	Tail Length: 8,210' (200' above Upper Marcellus to Shoe plus 10% in open hole)
		Middlesex	6,522'	6,312'	51.01°			
		Burkett Sh. Tully Lm.	6,647' 6,669'	6,398' 6,412'	56.30°			
		S5 (Hamilton Sh.)	6,717'	6,440'	73.28°			
		S4 (Upper Marcellus)	6,939'	6,534'	78.77°			
		Stafford (Cherry Valley) S2b (L. Marcellus)	6,999' 7,009'	6,549' 6,551'	88.65°			
	Centralization * 2 Torq glider per jt from shoe to KOP * 1 single bow per 2 jt from KOP to surface	Horizontal Landing Point	7,152'	6,585'	90.0°		Displacement 326.4 bbls	
		S1b (Basal Marcellus)		6,581'				
		Onondaga		6,585'				
					8 1/2"	5 1/2" Casing	Lateral length = 7,609'	45ft Shoe Track 14,761'

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WW-9
(9/13)

API Number 47 - 51 - 01752
Operator's Well No. Hart 6H

**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 4944935

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

Elevation 1329.31' County Marshall District Washington

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: N/A

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)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain)

Will closed loop system be used? If so, describe: Collect and treat drill cuttings at rigsite, then transport in boxes to approved disposal/ land fill location

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical on air, Horizontal on oil based

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

Additives to be used in drilling medium? Fluid loss control, emulsifier, shale stabilizer

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

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

-Landfill or offsite name/permit number? Drill cuttings will be disposed off-site at Waste Management's Arden landfill located in Washington, PA. Permit # PADEP 100172

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 *Branden Weimer*

Company Official (Typed Name) Branden Weimer

Company Official Title Construction Permitting Team Lead

Subscribed and sworn before me this 25 day of February, 2014

Thomas Basinger Notary Public

My commission expires 9/24/2017

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WV Department of
Environmental Protection

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
THOMAS BASINGER
Notary Public
CONNELLSVILLE CITY, FAYETTE CNTY
My Commission Expires Sep 24, 2017

COMMUNITY OF INTEREST

STATE OF CALIFORNIA

OFFICE OF THE ATTORNEY GENERAL

STATE BAR OF CALIFORNIA

My Comm. Expires 06/30/2011
COMMUNITY OF INTEREST ONLY

SI-01752

Form WW-9

Operator's Well No. Hart 6H

Chevron Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 13.6 Prevegetation pH 7

Lime 2 Tons/acre or to correct to pH 5.5-7

Fertilizer type Mixed grasses and legumes, legume stands only, grass stands only

Fertilizer amount 1000 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

Annual Ryegrass See Pg ES104

Kentucky 31 Fescue See Pg ES104

Barley or Oats See Pg ES104

Red Fescue See Pg ES104

Millet See Pg ES104

Crownvetch See Pg ES104

Cereal Rye or Cereal Wheat See Pg ES104, Hard Fescue See Pg ES 104, Annual Ryegrass See Pg ES104

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: James Whitehouse - Mary J. Kuntz

Comments: DEP Waiver & Permit Conditions required for the following well restrictions: Distance to nearest occupied dwelling < 625' from center of pad. and < 100' from LOD to wetlands.

Waiver

-LKC

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Office of Oil and Gas

pre-GA pad

MAR 26 2014

WV Department of Environmental Protection

Title: Oil & Gas Inspector

Date: 3/4/14

Field Reviewed? Yes

No

CHEVRON
APPALACHIA, LLC

Full copy of Site Safety Plan stored
on OOG network drive:

Q://OIL GAS/Permit Scanned Copies



West Virginia Well Site Safety Plan

Hart Well Site
Hart #6H
Marshall County, West Virginia

Handwritten:
JW 3/4/14
MDK 3/4/2014

Prepared in Conformance with:

*West Virginia's Code §22-6A and Legislative Rule §35-8-5.7
and*

*West Virginia Department of Environmental Protection's, Office of Oil and Gas documents:
"Well Site Safety Plan Standards" (issued August 25, 2011), and
"Deep Well Drilling Procedures and Site Safety Plan Requirements" (issued October 22, 2012)*

Revision 1

Original: September 2012

Revised: June 2013

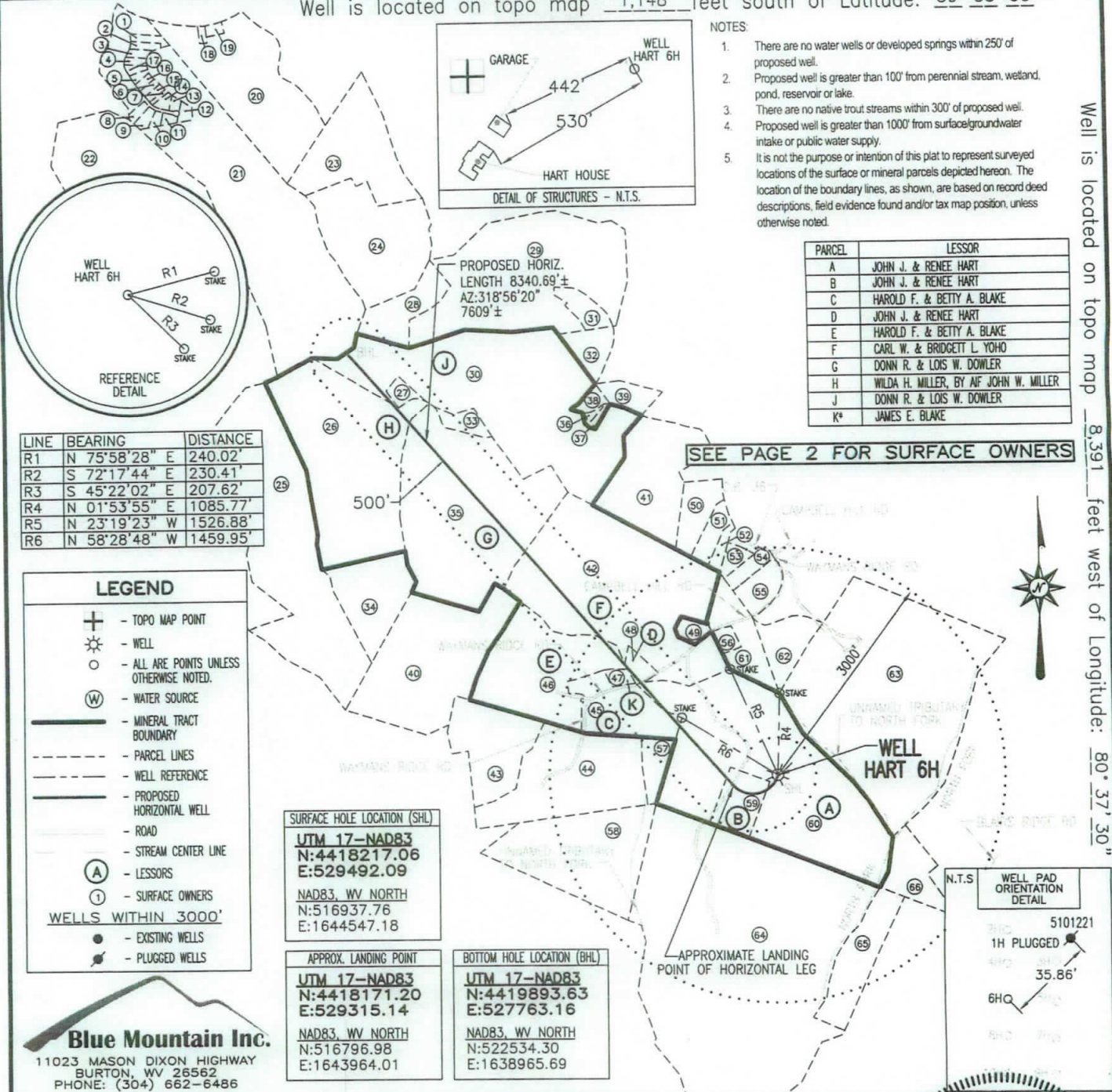
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WV Department of
Environmental Protection

Well is located on topo map 1,148 feet south of Latitude: 39° 55' 00"

Well is located on topo map 8,391 feet west of Longitude: 80° 37' 30"



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

PARCEL	LESSOR
A	JOHN J. & RENEE HART
B	JOHN J. & RENEE HART
C	HAROLD F. & BETTY A. BLAKE
D	JOHN J. & RENEE HART
E	HAROLD F. & BETTY A. BLAKE
F	CARL W. & BRIDGETT L. YOHO
G	DONN R. & LOIS W. DOWLER
H	WILDA H. MILLER, BY AF JOHN W. MILLER
J	DONN R. & LOIS W. DOWLER
K*	JAMES E. BLAKE

LINE	BEARING	DISTANCE
R1	N 75°58'28" E	240.02'
R2	S 72°17'44" E	230.41'
R3	S 45°22'02" E	207.62'
R4	N 01°53'55" E	1085.77'
R5	N 23°19'23" W	1526.88'
R6	N 58°28'48" W	1459.95'

LEGEND

- ⊕ - TOPO MAP POINT
- ☼ - WELL
- - ALL ARE POINTS UNLESS OTHERWISE NOTED.
- Ⓜ - WATER SOURCE
- - MINERAL TRACT BOUNDARY
- - - - - PARCEL LINES
- - - - - WELL REFERENCE
- - - - - PROPOSED HORIZONTAL WELL
- - - - - ROAD
- - - - - STREAM CENTER LINE
- Ⓐ - LESSORS
- ① - SURFACE OWNERS

WELLS WITHIN 3000'

- - EXISTING WELLS
- ⦿ - PLUGGED WELLS

SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83
 N:4418217.06
 E:529492.09
 NAD83, WV NORTH
 N:516937.76
 E:1644547.18

APPROX. LANDING POINT
 UTM 17-NAD83
 N:4418171.20
 E:529315.14
 NAD83, WV NORTH
 N:516796.98
 E:1643964.01

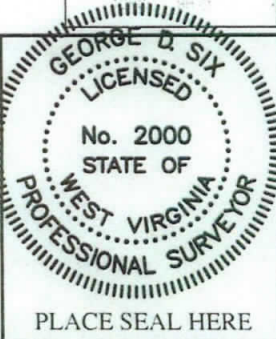
BOTTOM HOLE LOCATION (BHL)
 UTM 17-NAD83
 N:4419893.63
 E:527763.16
 NAD83, WV NORTH
 N:522534.30
 E:1638965.69

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

FILE #: HART 6H
 DRAWING #: HART 6H
 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

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

WATERSHED: MIDDLE GRAVE CREEK - GRAVE CREEK ELEVATION: 1329.18'
 COUNTY/DISTRICT: MARSHALL / WASHINGTON QUADRANGLE: MOUNDVILLE, WV 7.5'
 SURFACE OWNER: JOHN J. & RENEE HART ACREAGE: 108.550±
 OIL & GAS ROYALTY OWNER: JOHN J. & RENEE HART ACREAGE: 541.741±

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,565'± TMD: 14,761'±
 WELL OPERATOR CHEVRON APPALACHIA, LLC DESIGNATED AGENT KENNETH E. TAWNEY
 Address 800 MOUNTAIN VIEW DRIVE Address 500 LEE STREET, EAST SUITE 1600
 City SMITHFIELD State PA Zip Code 15478 City CHARLESTON State WV Zip Code 25301-3202

DATE: FEBRUARY 12, 2014
 OPERATOR'S WELL #: HART 6H
 API WELL #: 47 51 01752 HI
 STATE COUNTY PERMIT

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

HART

6H

	SURFACE OWNER	DIST-TM/PAR
1	KENNETH C. FAST ET UX	14-7A/29
2	KENNETH C. FAST ET UX	14-7A/28
3	STEVEN S. ANDERSON ET UX	14-7A/27
4	BETH A. MCCLELLAN	14-7A/26
5	DAVID A. HOSKINS ET UX	14-7A/24
6	TERRY R. REYNOLDS ET UX	14-7A/22
7	JANET D. S. TAN	14-7A/20
8	DANIEL G. MELCHIORI ET UX	14-7A/13
9	DANIEL G. MELCHIORI ET UX	14-7A/14
10	JANET D. S. TAN	14-7A/15
11	JANET D. S. TAN	14-7A/16
12	JANET D. S. TAN	14-7A/17
13	JANET D. S. TAN	14-7A/18
14	JANET D. S. TAN	14-7A/19
15	VERONICA KRAMPE - LIFE	14-7A/21
16	DAVID A. HOSKINS ET UX	14-7A/23
17	MARK A. KARL	14-7A/25
18	MARY L. HANLEY	14-7/38.2
19	RICHARD F. LAMBIE JR.	14-7/38.1
20	RICHARD F. LAMBIE JR.	14-7/38.3
21	WILLIAM H. III & LINDA BARDALL	14-7/41
22	WILLIAM H. III & LINDA BARDALL	14-7/42
23	JERRY E. SCHWING ET UX	14-7/39
24	MARSHALL COUNTY 4-H LEADERS	14-7/40
25	JOHN W. & MARY A. MILLER	14-10/3
26	JOHN W. & MARY A. MILLER	14-6/41
27	JEFFREY L. & JANET L. ALLEN	14-6/40
28	JOHN R. REGAN & CONNIE L. THOMAS	14-6/1
29	JOHN R. REGAN & CONNIE THOMAS	14-6/2
30	JEFFREY L. & JANET L. ALLEN	14-6/38
31	DANIEL R. WOOD - SHAWN ALLMAN	14-6/2.1
32	JOHN R. REGAN & CONNIE L. THOMAS	14-6/3.3
33	JEFFREY L. & JANET L. ALLEN	14-6/39
34	MARY LOU RUBINI	14-6/41.1
35	JEFFREY L. & JANET L. ALLEN	14-6/37
36	BERRIDGE L. ALLEN ET UX	14-6/38.1
37	BERRIDGE L. ALLEN ET UX	14-6/38.2
38	BERRIDGE L. ALLEN ET UX	14-6/38.3
39	MARC A. MOLOSKI ET UX	14-6/3.1
40	DENNIS BLAKE ET UX	14-10/10
41	GARY V. SINGER ET UX	14-6/34.7
42	CARL W. & BRIDGETT L. YOHO	14-6/35
43	DENNIS BLAKE ET UX	14-10/12
44	JAMES E. CURRY	14-10/13
45	JOHN J. II & JENNA E. HART	14-10/11
46	DENNIS & MICHELLE S. BLAKE	14-10/11.3
47	JAMES E. BLAKE	14-10/11.1
48	JOHN J. HART ET UX	14-6/36
49	CARL W. YOHO ET AL	14-6/35.1
50	GARY A. STROPE	14-6/34.10
51	JAMES D. & DONNA J. DRAKE	14-6/34
52	JENNIFER B. READ	14-6/34.5
53	JERRY S. WHORTON ET UX	14-6/29.1
54	RODNEY J. & CARRIE L. FONNER	14-6/29
55	MARTIN D. FONNER JR. ET UX	14-6/29.2
56	CARL W. & BRIDGETT L. YOHO	14-6/28.1
57	JOHN J. HART ET UX	14-10/14
58	JAMES E. CURRY	14-10/15
59	JOHN J. & RENEE HART	14-10/19
60	JOHN J. & RENEE HART	14-10/19.1
61	CARL W. & BRIDGETT L. YOHO	14-6/28
62	JEFFREY D. & DENISE A. CRAMER	14-6/27
63	JEFFREY D. & DENISE A. CRAMER	14-10/20
64	JOHN J. HART ET UX	14-10/18
65	JOHN A. BIERCE II ET UX	15-15/3
66	HEIKKI & TRISHA YEAGER	15-15/8.6

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

Date of Notice Certification: 2/19/14

API No. 47- 51 - 01752
Operator's Well No. ^{6H}
Well Pad Name: Hart Unit

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>529492.09</u>
County:	<u>Marshall</u>		Northing:	<u>4418217.06</u>
District:	<u>Washington</u>	Public Road Access:		<u>Campbells Run Rd-38</u>
Quadrangle:	<u>Moundsville, WV 7.5'</u>	Generally used farm name:		<u>Hart</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.

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

Required Attachments:

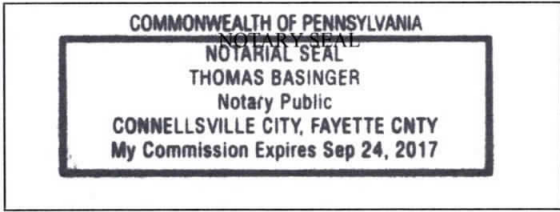
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

Office of Oil and Gas
RECEIVED
FEB 24 2014
OFFICE OF OIL AND GAS

Certification of Notice is hereby given:

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

Well Operator:	<u>Chevron Appalachia, LLC</u>	Address:	<u>800 Mountain View Drive</u>
By:	<u>Branden Weimer</u>		<u>Smithfield, PA 15478</u>
Its:	<u>Construction Permitting Team Lead</u>	Facsimile:	<u>724-564-3894</u>
Telephone:	<u>724-564-3700</u>	Email:	<u></u>



Subscribed and sworn before me this 25 day of March 2014.

Thomas Basinger Notary Public

My Commission Expires 9/24/2017

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.

RECEIVED
Office of Oil and Gas
MAR 26 2014
WV Department of
Environmental Protection

**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: Anna Shumaker
 Its: Permitting Coordinator

RECEIVED
 Office of Oil and Gas
 MAR 2 2014
 Environmental Protection

6th
Lateral

	Lessor	Lessee	Royalty	DB/PG	ASSIGNMENT 1	ASSIGNMENT 2	ASSIGNMENT 3
(A)(B)(D)	John J. & Renee Hart	TriEnergy, Inc.	12.5% minimum	DB741/PG41	BK19/PG138-- TriEnergy, Inc. to AB Resources, LLC	BK24/PG319-- AB Resources, LLC to Chief Exploration & Development LLC, et al.	BK25/1--Chief Exploration & Development LLC, et al. to Chevron U.S.A. Inc.
(C)(E)	Harold F. & Betty A. Blake	TriEnergy, Inc.	12.5% minimum	DB741/PG4	BK19/PG138-- TriEnergy, Inc. to AB Resources, LLC	BK24/PG319-- AB Resources, LLC to Chief Exploration & Development LLC, et al.	BK25/1--Chief Exploration & Development LLC, et al. to Chevron U.S.A. Inc.
(F)	Carl W. & Bridgett L. Yoho	Chevron U.S.A. Inc.	12.5% minimum	DB802/PG6	N/A	N/A	N/A
(G)(J)	Donn R. & Lois W. Dowler	TriEnergy, Inc.	12.5% minimum	DB651/PG600	BK19/PG138-- TriEnergy, Inc. to AB Resources, LLC	BK24/PG319-- AB Resources, LLC to Chief Exploration & Development LLC, et al.	BK25/1--Chief Exploration & Development LLC, et al. to Chevron U.S.A. Inc.
(H)	Wilda H. Miller, by AIF John W. Miller	TriEnergy, Inc.	12.5% minimum	DB651/PG595	BK19/PG138-- TriEnergy, Inc. to AB Resources, LLC	DB756/PG397--AB Resources LLC to Chevron U.S.A. Inc.	N/A
(K)*	James E. Blake	TriEnergy Holdings, LLC	12.5% minimum	DB695/PG244	BK23/PG74-- TriEnergy Holdings LLC to NPAR LLC	BK24/PG393--NPAR LLC, et al. to Chief Exploration & Development LLC, et al.	BK25/1--Chief Exploration & Development LLC, et al. to Chevron U.S.A. Inc.

*Although this parcel is not directly affected by a well bore, it is identified on this form due to its extremely close proximity to a well bore.

Lateral goes thru:
A, B, D, K, F, E, G, H, J -LKC

PARCEL	LESSOR
A	JOHN J. & RENEE HART
B	JOHN J. & RENEE HART
C	HAROLD F. & BETTY A. BLAKE
D	JOHN J. & RENEE HART
E	HAROLD F. & BETTY A. BLAKE
F	CARL W. & BRIDGETT L. YOHO
G	DONN R. & LOIS W. DOWLER
H	WILDA H. MILLER, BY AIF JOHN W. MILLER
J	DONN R. & LOIS W. DOWLER
K*	JAMES E. BLAKE

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

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

Date of Notice: 11/1/2013 **Date Permit Application Filed:** _____

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: John J. & Renee A. Hart ✓
 Address: 433 J&R Drive
 Moundsville, WV 26041
 Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: Consolidation Coal Company ✓
 Address: 1000 Consol Energy Dr.
 Canonsburg, PA 15317
 COAL OPERATOR
 Name: _____
 Address: _____

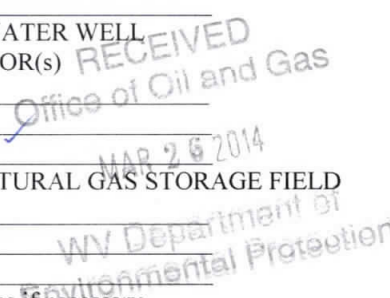
SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: John J. & Renee A. Hart ✓
 Address: 433 J & R Drive
 Moundsville, WV 26041
 Name: _____
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: John J. & Renee A. Hart ✓
 Address: 433 J & R Drive
 Moundsville, WV 26041

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

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

*Please attach additional forms if necessary



Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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MAR 10 2014
WV Department of
Environmental Protection

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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MAR 26 2014
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- 51 - _____
OPERATOR WELL NO. 6 _____
Well Pad Name: Hart Unit _____

Notice is hereby given by:

Well Operator: Chevron Appalachia, LLC _____
Telephone: 724-564-3700 _____
Email: katmc@chevron.com _____

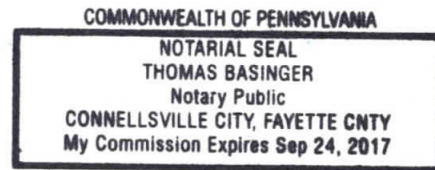
Address: 800 Mountain View Drive _____
Smithfield, PA 15478 _____
Facsimile: 724-564-3894 _____

Oil and Gas Privacy Notice:

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

Branden Weimer *Branden Weimer*
Construct Permitting Team Lead
800 Mountain View Drive
Smithfield, PA 15478
724-564-3745

Subscribed and sworn before me this 28 day of October, 2013.
Thomas Basinger Notary Public
My Commission Expires 9/24/2017



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MAR 26 2014
WV Department of
Environmental Protection

AMERICAN UNIVERSITY
WASHINGTON, D.C.
LIBRARY
SERIALS ACQUISITION
300 MICHIGAN AVENUE, N.E.
WASHINGTON, D.C. 20002

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: 2/19/14 **Date Permit Application Filed:** 4/27/14

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

- | | |
|--|-------------------------------|
| <input checked="" type="checkbox"/> CERTIFIED MAIL | <input type="checkbox"/> 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: <u>John J. & Renee A. Hart</u>	Name: _____
Address: <u>433 J & R Drive</u> <u>Moundsville, WV 26041</u>	Address: _____

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>529492.09</u>
County: <u>Marshall</u>	Northing: <u>4418217.06</u>
District: <u>Washington</u>	Public Road Access: <u>Campbells Run Rd- 38</u>
Quadrangle: <u>Moundsville, WV 7.5'</u>	Generally used farm name: <u>Hart</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: <u>Chevron Appalachia, LLC</u>	Address: <u>800 Mountain View Drive</u>
Telephone: <u>724-564-3700</u>	<u>Smithfield, PA 15478</u>
Email: <u>katmc@chevron.com</u>	Facsimile: <u>724-564-3894</u>

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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WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL LOCATION RESTRICTION WAIVER

The well operator, Chevron Appalachia, LLC is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

Well Location Restrictions

Pursuant to West Virginia Code § 22-6A-12(a), 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.

WAIVER

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

State: West Virginia UTM NAD 83 Basting: 529492.09
County: Marshall UTM NAD 83 Northing: 4418217.08
District: Washington Public Road Access: Campbells Run Rd. - 38
Quadrangle: Moundsville WV 7.5' Generally used farm name: Hart Unit
Watershed: Middle Grave Creek- Grave Creek

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 and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a).

WELL SITE RESTRICTIONS BEING WAIVED

*Please check all that apply

- EXISTING WATER WELLS
 - DEVELOPED SPRINGS
 - DWELLINGS
 - AGRICULTURAL BUILDINGS
- Jan Pest
MARSHALL County 01:05:38 PM
Instrument No 1357987
Date Recorded 03/26/2014
Document Type MIS
Pages Recorded 1
Book-Page 21-81
Recording Fee \$5.00
Additional \$6.00

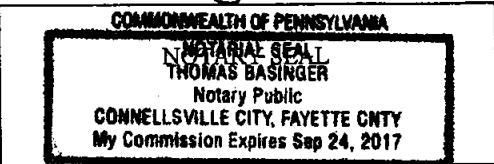
FOR EXECUTION BY A NATURAL PERSON

Signature: John J. Hart
Print Name: John J. & Renee A. Hart
Date: 3-5-14
FOR EXECUTION BY A CORPORATION, ETC.
Company: _____
By: _____
Its: _____
Signature: _____
Date: _____

Well Operator: Chevron Appalachia, LLC

By: Jeremy LITTE
Its: Permitting Team Lead

Signature: Renee Hart
Telephone: 724-564-3700



Subscribed and sworn before me this 17 day of February 2014
Thomas Basinger Notary Public
My Commission Expires 9/24/2017

Oil and Gas Privacy Notice:

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

CHEVRON
800 MOUNTAINVIEW DRIVE
SMITHVILLE, PA 15478

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Office of Oil and Gas

MAR 26 2014

Department of Environmental Protection

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, John J. & Renee A. Hart, 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>529492.09</u>
County:	<u>Marshall</u>		Northing:	<u>4418217.06</u>
District:	<u>Washington</u>	Public Road Access:	<u>Campbells Run Rd- 38</u>	
Quadrangle:	<u>Moundsville, WV 7.5'</u>	Generally used farm name:	<u>Hart</u>	
Watershed:	<u>Middle Grave Creek- Grave Creek</u>			

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

- *Please check the box that applies
- SURFACE OWNER
 - SURFACE OWNER (Road and/or Other Disturbance)
 - SURFACE OWNER (Impoundments/Pits)
 - COAL OWNER OR LESSEE
 - COAL OPERATOR
 - WATER PURVEYOR
 - OPERATOR OF ANY NATURAL GAS STORAGE FIELD

FOR EXECUTION BY A NATURAL PERSON

Signature: John J. & Renee A. Hart

Print Name: John J. & Renee A. Hart

Date: 2-22-14

FOR EXECUTION BY A CORPORATION, ETC.

Company: _____

By: _____

Its: _____

Signature: _____

Date: _____

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Office of Oil and Gas

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Oil and Gas Privacy Notice:

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

West Virginia 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

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

May 22, 2014

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 Hart Well Pad, Marshall County

Hart Unit 2H

Hart Unit 3H

Hart Unit 4H

Hart Unit 5H

Hart Unit 6H

Hart Unit 7H

Hart Unit 8H

Hart Unit 9H

Dear Mr. Martin,

The West Virginia Division of Highways has transferred Permit #06-2013-0047 for the subject site to Chevron Appalachia, LLC. for access to the State Road for the well site located off of Marshall County Route 38 SLS.

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

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Office of Oil and Gas

JUN 02 2014

WV Department of
Environmental Protection

Very Truly Yours,

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

Cc: Kathleen B. McIntyre
Chevron Appalachia, LLC
CH, OM, D-6
File



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Earl Ray Tomblin
Governor

Office of the District Engineer/Manager
District Six
1 DOT Drive * Moundsville, WV 26041 * 304-843-4000
August 22, 2013

Paul A. Mattox, Jr., P. E.
Secretary of Transportation /
Commissioner of Highways

CHEVRON APPALACHIA LLC
800 MOUNTAIN VIEW DRIVE
SMITHFIELD, PA 15478

Dear Applicant:

Your approved copy of Permit Number 06-2013-0047 for a DP - Drilling Permit permit type is enclosed. A description of the work is on the permit.

Please contact the District Six office:

Please notify the County Superintendent, Chuck Sheedy, at (304) 843-4056

at least 48 hours in advance of the date you plan to begin work so arrangements can be made to inspect the work authorized by the permit.

Failure to comply will result in cancellation of your permit.

A copy of this permit is to be available on the job at all times while the work is in progress for inspection by the West Virginia Division of Highways' personnel.

Sincerely,

[Signature]
District Engineer / District Manager
RECEIVED
Office of Surface Water Gas
MAR 26 2014

[Signature]
WV Department of
Environmental Protection
Permit Supervisor

Initials: RAK
Attachments: Yes
Enclosure: No

PERMIT TO ENTER UPON, UNDER, OVER OR ACROSS THE STATE ROADS OF THE STATE OF WEST VIRGINIA, AS PROVIDED FOR IN §§17-16-6, 17-16-9 and 17-4-8, WEST VIRGINIA CODE, 1931, AS AMENDED.

THIS PERMIT, Made this 22nd day of August 2013, between the WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, a statutory corporation hereinafter called DIVISION and
Name: CHEVRON APPALACHIA LLC
Address: 800 MOUNTAIN VIEW DRIVE
Address: SMITHFIELD, PA 15478 Phone No: (724) 564-3749
Email: AKERR@CHEVRON.COM hereinafter called APPLICANT.

WITNESSETH

In consideration of the hereinafter set out covenants and in accordance with §§17-16-6, 17-16-9 or 17-4-8, of the Official Code of West Virginia, 1931, as amended, and the rules and regulations promulgated thereunder, APPLICANT does hereby apply to enter:

Route Type & No.: SLS 38 DOH Project No.: _____ (if applicable);
at 0.39 miles west of the intersection with CR 34/1 Mile Post: 4.04
in 26 - Marshall County, for the purposes hereinafter set forth and in accordance with the plans and specifications which are attached hereto and made a part hereof:

To construct and maintain a 50' wide maximum (temporary) approach which will originate on the right-of-way of CR 38 as shown on the attached sketch and plans. All work must comply with the WVDOT DOH Specifications. Line # 4 TRAFFIC CONTROL CASE A-6 ATTACHED

APPLICANT further agrees to accept the conditions hereinafter set forth:

1. APPLICANT shall deposit with DIVISION the sum of \$ 1000000.00 in the form of an official, certified or cashier's check, or executed bond with surety satisfactory to DIVISION to cover any damage and inspection costs DIVISION may sustain by reason of the granting of this permit, including any expense incurred in restoring said highway to its original condition or the proper repair of any and all damages that may result within one (1) year from the date of the completion of said work.
2. APPLICANT agrees to reimburse DIVISION for inspection costs as follows:
 - A. For any inspection costs incurred under this permit.
 - B. At \$ _____ per linear foot for _____ feet of water line installed under this permit.
 - C. At \$ _____ per linear foot for _____ feet of sewer line installed under this permit.
3. APPLICANT shall notify DIVISION at least 48 hours in advance of the date the work will begin. Failure to comply will be cause for cancellation of this permit.
4. APPLICANT agrees to protect its employees, equipment and users of the highway at all times in accordance with the current Division of Highways manual "Traffic Control For Street and Highway Construction and Maintenance Operations".
5. APPLICANT agrees to comply with all applicable state and federal laws in the performance of work under this permit.
6. Supplementary conditions cited on the reverse side of this permit are understood and agreed to be part hereof.
7. The work authorized under this permit shall be completed on or before (Date); August 22, 2014

Applicant's signature on this permit affirms that all text herein is a verbatim reproduction of The West Virginia Division of Highways Encroachment Permit Form MM-109, revision date May 19, 2005. All attachments are inclusive to this permit.

RECOMMENDED:

APPLICANT:

Permit / Utility Supervisor

BOND REQUIREMENT:
BOND NO: 070010540 DATE: 12/12/2011

INSPECTION: Periodic - NoCost

AUTHORIZATION NO. _____

Signature and Title of Applicant

ORIGINAL SIGNED BY
APPROVED: **ACTING DISTRICT ENGINEER**
District Engineer / District Manager
West Virginia Division of Highways
MAR 26 2014
PERMIT NO. 06-2013-0047

WV Department of Environmental Protection

CHAPTER 17 WEST VIRGINIA CODE, 1931

§ 17-4-8. Use of roadbed by railroad, telephone company, etc.

No railroad or electric or other railway shall be constructed upon the roadbed of any state road, except to cross the same, nor shall any person, firm or corporation enter upon or construct any works in or upon such road, or lay or maintain thereon or thereunder any drainage, sewer or water pipes, gas pipes, electric conduits or other pipes, nor shall any telephone, telegraph or electric line or power pole, or any other structure whatsoever, be erected upon, in or over any portion of a state road, except under such restrictions, conditions and regulations as may be prescribed by the state road commissioner. Whenever any railroad or electric or other railway, heretofore or hereafter constructed, shall cross any state road, it shall be required to keep its own roadbed, and the bed of the road or highway at such crossing, in proper repair, or else to construct and maintain an overhead or undergrade crossing, subject to the approval of the state road commissioner; and the tracks of such railroad or railway at grade crossings shall be so constructed as to give a safe and easy approach to and across the same, and when the construction of such approaches is made necessary by a change in the railroad grade at the grade crossing, the cost shall be upon the railway company.

§ 17-16-6. Permit by commission or county court for openings in or structures on public roads; franchises and easements of oil, etc., transportation companies.

No opening shall be made in any state or county-district road or highway, nor shall any structure be placed therein or thereover, nor shall any structure, which has been so placed, be changed or removed, except in accordance with a permit from the state road commission or county court, as the case may be. No road or highway shall be dug up for laying or placing pipes, sewers, poles or wires, or for other purposes, and no trees shall be planted or removed or obstructions placed thereon, without the written permit of the commission or county court, or its duly authorized agent, and then only in accordance with the regulations of the commission or court. The work shall be done under the supervision and to the satisfaction of the commission or court; and the entire expense of replacing the highway in as good condition as before shall be paid by the persons to whom the permit was given, or by whom the work was done: Provided, however, That nothing herein contained shall be so construed as to prevent any oil or gas company or person having a proper permit or franchise from transporting oil or gasoline along any of the public highways of this State, nor to give such company a franchise without paying to the landowners through whose lands such road passes the usual and customary compensation paid or to be paid to the landowners for such right of way. Any grant or franchise when made shall be construed to give to such company or person only the right to use the easement in such public road.

A violation of any provision of this section shall be a misdemeanor, and the person or corporation violating the same shall, upon conviction thereof, be fined not less than twenty-five nor more than one hundred dollars for each offense.

§17-16-9. Private driveways or approaches to roads; obstruction of ditches.

The owner or tenant of land fronting on any state road shall construct and keep in repair all approaches or driveways to and from the same, under the direction of the state road commission, and, likewise, the owner or tenant of land fronting on any county-district road shall construct and keep in repair approaches or driveways to and from the same, under the direction of the county road engineer, and it shall be unlawful for such owner or tenant to fill up any ditch, or place any material of any kind or character in any ditch, so as in any manner to obstruct or interfere with the purposes for which it was made.

SUPPLEMENTARY CONDITIONS

- 1.The person, firm or corporation to whom a permit is issued agrees to hold the State of West Virginia and DIVISION harmless on account of any damages to persons or property which may arise during the process of the work authorized by this permit or by reason thereof.
- 2.Applications for permission to perform work within highway rights of way shall be made on DIVISION'S standard permit form and shall be signed by the authorized representative of the person, firm or corporation applying.
- 3.The APPLICANT shall give detailed information concerning the work to be performed and the application must include a sketch sufficient to show the nature of the work performed.
- 4.APPLICANT, his agents, successor, heirs or assigns, contractors or any other person, firm or corporation working under APPLICANT'S real or apparent authority, shall perform the work in a manner satisfactory to DIVISION. Damage to the road resulting at any time from work authorized under this permit shall be repaired by APPLICANT. Unsatisfactory repairs may be corrected by DIVISION or its authorized agent and the cost thereof paid by APPLICANT.
- 5.DIVISION assumes no liability for damage to the proposed work by reason of construction or maintenance work on the road.
- 6.This permit is granted subject to removal of the authorized installation by APPLICANT at no cost to DIVISION when required for improvement of the road, and subject to all regulations now or hereafter adopted by DIVISION.
- 7.Utility installation shall be in accordance with the current manual, "Accommodation of Utilities on Highway Right of Way".
- 8.Driveways shall be in accordance with the current manual, "Rules and Regulations for Constructing Driveways on State Highway Rights-of-Way."
- 9.DIVISION reserves the right to cancel this permit at any time, should APPLICANT fail to comply with the terms and conditions under which it is granted.
- 10.This permit is granted only insofar as the DIVISION has a right to do so.

Office of Oil and Gas
MAR 26 2014
WV Department of
Environmental Protection

Addendum to Permit

This addendum, made this 28th day of August 2013, between the West Virginia Department of Transportation, Division of Highways, a statutory company hereinafter called the Division and Chevron Appalachia LLC

Address: 800 Mountain View Drive, Smithfield, PA 15478 Phone: 724 564 3822

Hereinafter called APPLICANT.

The Applicant has filed with the DIVISION a written application for the following named routes and location:

Leaving US 250:
MCR 88/5, Campbell Hill Road, MP 5.31 to 4.04

Applicant shall properly repair and maintain any and all damages that may result to said bridges, highways, shoulders, and ditches from hauling activities of Applicant, its agents, contractors and employees, to as good a condition as when the permit was issued, as determined by the District Engineer of the DIVISION having jurisdiction over the work permitted, or pay damages therefore in the amount to sufficiently restore such bridges, roads, highways, shoulders, and ditches to original condition; and shall reimburse the DIVISION for all inspection costs incurred by it in connection with said work and repairs of such damages and faithfully comply with all terms and conditions of said permits and save harmless the DIVISION and the State of West Virginia from all losses resulting from the conduct of said work and repairs; then this Bond shall be released ; or otherwise will remain in full force and effect.

Bond Amount: \$1,000,000.00

Bond Number: 070010540 Date: 12/12/2011

PERMIT#6 2013 0 0 4 7

Hydraulic Fracturing Fluid Product Component Information Disclosure

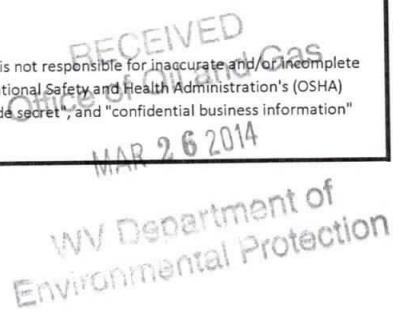
Fracture Date:	11/1/2015
State:	WV
County:	Marshall
API Number:	
Operator Name:	Chevron
Well Name and Number:	Hart 8H
Longitude:	
Latitude:	
Long/Lat Projection:	
Production Type:	
True Vertical Depth (TVD):	
Total Water Volume (gal)*:	13,000,000

Hydraulic Fracturing Fluid Additives:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Comments
Corrosion Inhibitor A264	Schlumberger	Corrosion Inhibitor	Methanol/Aliphatic Acids/Prop-2-yn-1-ol/Aliphatic Alcohols, ethoxylated #1	Mixture	
28% HCl Acid	Schlumberger	Used to open perms	Hydrochloric Acid	7647-01-0	
Breaker J134	Schlumberger	Gel Breaker	Hemicellulase Enzyme	9012-54-8	
Water Gelling Agent J580	Schlumberger	Water Viscosifier	Carbohydrate Polymer	Proprietary	
Friction Reducer J609	Schlumberger	Friction Reducer	Ammonium Sulfate	7783-20-2	
Iron Stabilizer L58	Schlumberger	Iron Stabilizer	Sodium Erythorbate	6381-77-7	
EC6116A	Nalco	Biocide	Dibromoacetonitrile/2,2-Dibromo-3-nitrilopropionamide/Polyethylene Glycol	Mixture	
EC6486A Scale Inhibitor	Nalco	Scale Inhibitor	Amine Triphosphate/Ethylene Glycol	Mixture	
NALCO EC6673W	Nalco	Iron Control	Ethylene Glycol	107-21-1	
S012-3050	Schlumberger	Proppant	Crystalline Silica	14808-60-7	
S012-4070	Schlumberger	Proppant	Crystalline Silica	14808-60-7	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.



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 WV Department of Environmental Protection
 MAR 26 2014