

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-069-00166 County Ohio District Triadelphia
Quad Valley Grove Pad Name G W Rentals LLC. Field/Pool Name _____
Farm name G W Rentals LLC OHI 8H Well Number 836464
Operator (as registered with the OOG) Chesapeake Appalachia, L.L.C.
Address P.O. Box 18496 City Oklahoma City State OK Zip 73154-0496

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4436087.2 Easting 537033.0
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4434176.8 Easting 538136.7

Elevation (ft) 1,246' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
SOBM

Date permit issued 5-22-2013 Date drilling commenced 10-17-2013 Date drilling ceased 10-27-2013
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 410' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 795' Void(s) encountered (Y/N) depths Y 610'
Coal depth(s) ft 610' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

API 47-069 - 00166 Farm name G W Rentals LLC OHI 8H Well number 836464

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	20"	122'	New	K-55 94#		Y
Surface	17 1/2"	13 3/8"	702'	New	J-55 54.5#		Y
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,154'	New	J-55 40#		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4" / 8 1/2"	5 1/2"	13,331'	New	P-110 20#		Y
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	A	311	15.60	1.20	373.20	Surface	8
Surface	A	592	15.60	1.21	716.32	Surface	8
Coal							
Intermediate 1	A	770	15.60	1.19	916.3	Surface	8
Intermediate 2							
Intermediate 3							
Production	H	1,057 / 1,660	15.60	1.18 / 1.18	3,206.06	Surface	8
Tubing							

Drillers TD (ft) 13,331' Loggers TD (ft) _____

Deepest formation penetrated _____ Plug back to (ft) _____

Plug back procedure _____

Kick off depth (ft) _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Surface / Coal - Run centralizers in the middle and top of the first joint, top of the third jt and every 4th joint to surface.
Production - Run 1st centralizer 3' from Shoe, 2nd at top of the first joint and then one every 3rd joint to TOC.

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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PRODUCING FORMATION(S)	DEPTHS	
Marcellus	6485	TVD 6784 MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ Oil _____ NGL _____ Water _____ GAS MEASURED BY
 mcfpd bpd bpd bpd Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	0		0		
LS/SILTSTONE	0	603	0	603	LIMESTONE & SILTSTONE
COAL	603	613	603	613	PITTSBURGH COAL
LS/SS	613	920	613	920	LIMESTONE & SANDSTONE
SS/SILTSTONE	920	1730	920	1730	SANDSTONE & MINOR SILTSTONE
BIG LIME	1730	1797	1730	1797	BIG LIME
BIG INJUN	1797	2014	1797	2014	BIG INJUN SANDSTONE
SHALE	2014	6319	2014	6404	GREY SHALE
GENESEO	6319	6330	6404	6420	GENESEO SHALE
TULLY	6330	6362	6420	6470	TULLY LIMESTONE
HAMILTON	6362	6485	6470	6784	HAMILTON SHALE
MARCELLUS	6485	TD	6784	TD	MARCELLUS SHALE
		TD@6545		TD@13331	

Please insert additional pages as applicable.

Drilling Contractor Nomac Drilling
 Address 171 Locust Ave Extension City Mt. Morris State PA Zip 15349

Logging Company Nomac Drilling
 Address 171 Locust Ave Extension City Mt. Morris State PA Zip 15349

Cementing Company Baker Hughes
 Address 37 Phillippi Pike City Clarksburg State WV Zip 26301

Stimulating Company _____
 Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Marlene Williams Telephone 405-935-4158
 Signature Marlene Williams Title Regulatory Analyst II Date 1-30-2014

Submission of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

WR-35
Rev (9-11)

Preliminary Report
State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 9-26-2013
API #: 47-069-00165

Farm name: Clarence Farmer OHI 3H Operator Well No.: 837453

LOCATION: Elevation: 1,330' Quadrangle: Bethany

District: Liberty County: Ohio
Latitude: 9.550' Feet South of 40 Deg. 10 Min. 00 Sec.
Longitude 7.140' Feet West of 80 Deg. 32 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496 Oklahoma City, OK 73154-0496	20"	122'	122'	365 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	723'	723'	780 Cu. Ft.
Inspector: Gayne J. Knitowski	9 5/8"	2,080'	2,080'	887 Cu. Ft.
Date Permit Issued: 5-6-2013	5 1/2"	12,860'	12,860'	3,095 Cu. Ft.
Date Well Work Commenced: 6-20-2013				
Date Well Work Completed: 7-3-2013(Rig release date)				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6,321'				
Total Measured Depth (ft): 12,860'				
Fresh Water Depth (ft.): 440'				
Salt Water Depth (ft.): 750'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 633'				
Void(s) encountered (N/Y) Depth(s) Y 633'				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) Completing*

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

*Estimated Frac 11/23/2013

*Estimated Flow 3/3/2014

Second producing formation _____ Pay zone depth (ft) _____

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ MCF/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests _____ Hours

Static rock Pressure _____ psig (surface pressure) after _____ Hours

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Office of Oil and Gas
11-7-2013
Marshall University

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the 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.

Marlene Williams
Signature

11-7-2013
Date

LATERAL WELLBORE (no vertical pilot hole associated with this well)

Maximum TVD of wellbore: 6248 ft TVD @ 12827 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)	FLUID/GAS TYPE
SILTSTONE W/ SHALE	0	0	633	633	NA
PITTSBURG COAL	633	633	643	643	20 gas units
SHALE W/ SILTSTONE	643	643	1000	1000	NA
SS W/ SHALE	1000	1000	1610	1610	NA
BIG LIME	1610	1610	1754	1753	NA
BIG INJUN (SS)	1754	1753	1962	1960	250 gas units
SHALE W/ SILTSTONE	1962	1960	6204	6155	NA
GENESEO (SH)	6204	6155	6224	6169	1200 gas units
TULLY (LS)	6224	6169	6294	6215	NA
HAMILTON (SH)	6294	6215	6529	6321	800 gas units
MARCELLUS (SH)	6529	6321			2400 gas units
TD OF LATERAL			12827	6248	

REC'D
Office of Oil and Gas
May 11, 2011
11:00 AM
REGISTRATION SECTION



Weatherford

Drilling Services

EOW Summary



CHESAPEAKE ENERGY

WELL: CLARENCE FARMER OHI 3H

OHIO COUNTY, WV

Prepared by: ADAM BORDELON

Submitted: AUGUST 18, 2013

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Department of Oil and Gas

AUG 23 2013

Department of
Energy and Environmental Protection



CHESAPEAKE
CLARENCE FARMER 3H
OHIO COUNTY, WV



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	9721.00	92.19	334.19	6299.68	3439.96	-1381.36	0.00	0.00	3704.29	
2	9778.00	92.19	334.19	6297.51	3491.24	-1406.16	0.00	0.00	3761.22	
3	10180.11	90.90	338.00	6286.66	3858.65	-1569.01	1.00	108.65	4163.10	
4	10230.11	90.90	338.00	6285.88	3905.00	-1587.74	0.00	0.00	4213.06	
5	10323.95	90.90	336.12	6284.40	3991.40	-1624.30	2.00	-89.94	4306.87	
6	12858.00	90.90	336.12	6244.53	6308.30	-2649.90	0.00	0.00	6840.60	3H PBHL P7

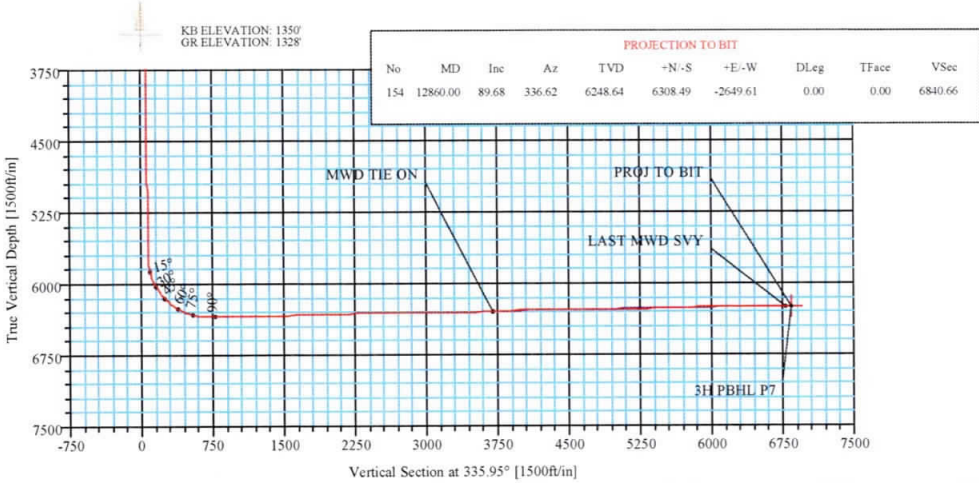
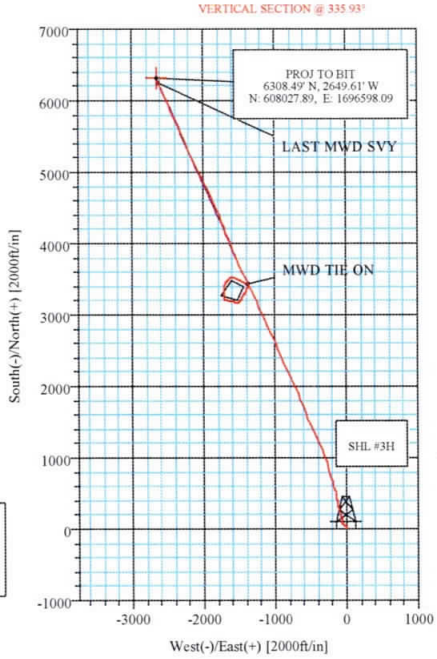
WELL DETAILS						
Name	+N-S	+E-W	Northing	Easting	Latitude	Longitude
3H	17.50	9.70	601719.40	1699247.70	40°08'49.472N	080°34'32.947W

TARGET DETAILS					
Name	TVD	+N-S	+E-W	Northing	Easting
3H PBHL P7	6244.53	6308.30	-2649.90	608027.70	1696597.80

FIELD DETAILS
OHIO COUNTY, WV (NAD 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: West Virginia, Northern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS
CLARENCE FARMER
Site Centre Northing: 601701.90
Easting: 1699238.00
Ground Level: 1330.00
Positional Uncertainty: 0.00
Convergence: -0.69

TARGET LINE: 6338° TVD @ 0° VS w 90.4 INC



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8 2013

Azimuths to Grid North:
True North: 0.69°
Magnetic North: -8.09°

Magnetic Field
Strength: 5284.5nT
Dip Angle: 67.55°
Date: 5/21/2013
Model: IGRF2010

TOTAL CORRECTION TO GRID NORTH: 8.09° WEST

Survey: WFT MWD (3H) HORIZONTAL