WR-35
Rev (9-11)

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

DATE: 4-23-2014
API #: 47-069-00107

FINAL

Farm name: Chad Glauser OHI 8H Operator Well No.: 834321

LOCATION: Elevation: 1250 Quadrangle: Valley Grove

District: Triadelphia County: Ohio
Latitude: 3940' Feet South of 40 Deg. 02 Min. 30 Sec.
Longitude 4290' Feet West of 80 Deg. 35 Min. 00 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496	20"	100'	100'	348 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	744'	744'	797 Cu. Ft.
Inspector: Bill Hendershot	9 5/8"	2203'	2203'	954 Cu. Ft.
Date Permit Issued: 2-6-2012	5 1/2"	13095'	13095'	3112 Cu. Ft.
Date Well Work Commenced: 6-28-2012				
Date Well Work Completed: 8-30-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 6493'				
Total Measured Depth (ft): 13103'				
Fresh Water Depth (ft.): 30',300'				
Salt Water Depth (ft.): 1135'				
Is coal being mined in area (N/Y)? Y				
Coal Depths (ft.): 678'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Marcellus Pay zone depth (ft) 6,950'-12,965'
Gas: Initial open flow 1,566* MCF/d Oil: Initial open flow 203 Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 96 Hours
Static rock Pressure 4,220* psig (surface pressure) after 96 Hours *Calculated

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

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.

Marlon Williams
Signature

4-23-2014
Date

05/23/2014

69-00107

Were core samples taken? Yes_____ No X_____ Were cuttings caught during drilling? Yes X_____ No_____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Triple Combo in Surface and Intermediate sections. MWD GR in curve and lateral sections.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

(See attached)

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: Top Depth / Bottom Depth

Surface:

(See attached)

05/23/2014

69-00107

PERFORATION RECORD ATTACHMENT

Well Number and Name: 834321 Chad Glauser OHI 8H

PERFORATION RECORD			STIMULATION RECORD							
	Interval Perforated					*Fluid*		*Propping Agent*		Average
Date	From	To	Date	Interval Treated		Type	Amount	Type	Amount	Injection
8/13/2012	12,539	12,965	8/23/2012	12,539	12,965	Slk wtr	10,294	Sand	604,480	79.9
8/23/2012	12,032	12,456	8/23/2012	12,032	12,456	Slk wtr	10,376	Sand	602,860	79.4
8/23/2012	11,524	11,948	8/24/2012	11,524	11,948	Slk wtr	10,309	Sand	605,420	78.5
8/24/2012	11,015	11,440	8/24/2012	11,015	11,440	Slk wtr	10,348	Sand	602,620	78.8
8/25/2012	10,507	10,932	8/25/2012	10,507	10,932	Slk wtr	10,308	Sand	597,500	79.6
8/25/2012	9,999	10,424	8/25/2012	9,999	10,424	Slk wtr	10,320	Sand	598,140	79.7
8/28/2012	9,491	9,916	8/28/2012	9,491	9,916	Slk wtr	10,347	Sand	597,280	79.7
8/29/2012	8,983	9,408	8/29/2012	8,983	9,408	Slk wtr	10,420	Sand	598,600	80.4
8/29/2012	8,475	8,900	8/29/2012	8,475	8,900	Slk wtr	10,303	Sand	603,960	79.7
8/30/2012	7,966	8,392	8/30/2012	7,966	8,392	Slk wtr	10,140	Sand	600,620	79.9
8/30/2012	7,458	7,883	8/30/2012	7,458	7,883	Slk wtr	10,337	Sand	597,820	79.7
8/31/2012	6,950	7,375	8/30/2012	6,950	7,375	Slk wtr	10,229	Sand	598,680	80

05/23/2014

69-00107

LATERAL WELLBORE

Maximum TVD of wellbore: 6493 ft TVD @ 13103 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SS	0	0	678	678
PITTSBURGH COAL	678	678	687	687
SS/SLTSTN	687	687	800	800
SHALE	800	800	1080	1080
SS/SHALE	1080	1080	1320	1320
SHALE	1320	1320	1440	1440
SS	1440	1440	1590	1590
SHALE	1590	1590	1694	1694
BIG LIME	1694	1694	1720	1720
BIG INJUN	1720	1720	1964	1964
SHALE	1964	1964	2280	2280
SS/SHALE	2280	2280	2340	2340
SHALE	2340	2340	3206	3206
SS/SHALE	3206	3206	3270	3270
SHALE/SS	3270	3270	3330	3330
SHALE	3330	3330	6378	6243
GENESEO	6378	6243	6406	6260
TULLY	6406	6260	6467	6294
HAMILTON	6467	6294	6777	6408
MARCELLUS	6777	6408	13103	6493
TD	13103	6493		0

05/23/2014

Hydraulic Fracturing Fluid Product Component Information Disclosure

47-0010 7

Fracture Date:	8/23/2012
State:	WEST VIRGINIA
County:	OHIO
API Number:	4706900107
Operator Name:	CHESAPEAKE APPALACHIA LLC
Well Name and Number:	CHAD GLAUSER OHI 8H
Longitude:	-80.597596
Latitude:	40.029827
Long/Lat Projection:	NAD27
Production Type:	GAS
True Vertical Depth (TVD):	6,495
Total Water Volume (gal)*:	5,308,422

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by Mass)**	Maximum Ingredient Concentration in HF Fluid (% by Mass)**	Comments
Fresh Water		Carrier/Base Fluid				76.84326%	
Recycled Produced Water		Carrier/Base Fluid				8.55151%	
Acid, Hydrochloric 15pct	SCHLUMBERGER	Acid	Water	007732-18-5	85.00%	0.64342%	
			Hydrogen Chloride	007647-01-0	15.00%	0.11354%	
A264	SCHLUMBERGER	Corrosion Inhibitor	Methanol (Methyl Alcohol)	000067-56-1	40.00%	0.00049%	
			Aliphatic acid	N/A	30.00%	0.00036%	
			Aliphatic alcohols, ethoxylated # 1	N/A	30.00%	0.00036%	
			Propargyl Alcohol (2-Propynol)	000107-19-7	10.00%	0.00012%	
L058	SCHLUMBERGER	Iron Control Agent	Sodium Erythorbate	006381-77-7	100.00%	0.00046%	
Northern White Sand		Proppant - Natural	Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7	100.00%	9.64150%	
100 Mesh Sand		Proppant - Natural	Crystalline Silica (Quartz Sand, Silicon Dioxide)	014808-60-7	100.00%	4.12134%	
EC6110A	NALCO	Anti-Bacterial Agent	Glutaraldehyde	000111-30-8	60.00%	0.01664%	
			Quaternary Ammonium Compounds	N/A	10.00%	0.00277%	
			Ethanol	000064-17-5	5.00%	0.00139%	

EC6629A	NALCO	Scale Inhibitor	No Hazardous Components	NONE		0.00000%	
B315	SCHLUMBERGER	Friction Reducer	Petroleum Distillate Hydrotreated Light	064742-47-8	30.00%	0.01419%	
			Aliphatic alcohol polyglycol ether	N/A	1.50%	0.00071%	
J580	SCHLUMBERGER	Gelling Agent	Carbohydrate polymer	N/A	100.00%	0.00296%	
J218	SCHLUMBERGER	Breaker	Ammonium Persulfate	007727-54-0	100.00%	0.00050%	

69-00107

05/23/2014

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

"Additional Ingredients Not Listed on MSDS" component information were obtained directly from the supplier. As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of this information should be directed to the supplier who provided it.