



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

PERMIT MODIFICATION APPROVAL

December 06, 2013

CHESAPEAKE APPALACHIA, L.L.C.
POST OFFICE BOX 6070
CHARLESTON, WV 25362

Re: Permit Modification Approval for API Number 5101584, Well #: FORK RIDGE MSH 6H 8:

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Gene Smith
Regulatory/Compliance Manager
Office of Oil and Gas



Regulatory Department

September 4, 2013

VIA UPS NEXT DAY AIR

Mr. Gene Smith
West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

Re: WR-35 Preliminary Report – Fork Ridge MSH 6H

Dear Mr. Smith:

Chesapeake Appalachia, L.L.C. submits the *Operator's Preliminary Report of Well Work* in duplicate for the above captioned well(s) located in Marshall County. If you have any questions or require additional information please feel free to contact me at (405)935-4158 or marlene.williams@chk.com.

Sincerely,

Chesapeake Appalachia, L.L.C

A handwritten signature in cursive script that reads "Marlene Williams".

Marlene Williams
Regulatory Analyst II

Enclosure(s)

cc: West Virginia Geological and Economic Survey

RECEIVED
Office of Oil & Gas
SEP 6 5 2013
WV Department of
Environmental Protection

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: 8-13-2013
API #: 47-051-01584

Farm name: Fork Ridge MSH 6H Operator Well No.: 836403

LOCATION: Elevation: 1,391' Quadrangle: Glen Easton

District: Cameron County: Marshall
Latitude: 3,135' Feet South of 39 Deg. 52 Min. 30 Sec.
Longitude 7,305' Feet West of 80 Deg. 37 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"	120'	120'	365 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	770'	770'	830 Cu. Ft.
Inspector: Derek Haught	9 5/8"	2,440'	2,440'	1,100 Cu. Ft.
Date Permit Issued: 11-16-2012	5 1/2"	12,756'	12,756'	2,924 Cu. Ft.
Date Well Work Commenced: 4-21-2013				
Date Well Work Completed: 7-30-2013(last frac date)				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6,850'				
Total Measured Depth (ft): 12,756'				
Fresh Water Depth (ft.): 661'				
Salt Water Depth (ft.): 1,047'				
Is coal being mined in area (N/Y)? Y				
Coal Depths (ft.): 961'				
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) ^{(7,200-12,660)'} *Completing
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow Not Tested 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

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.

Marlene Williams
Signature

9-4-2013
Date

Were core samples taken? Yes _____ No N

Were cuttings caught during drilling? Yes Y No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GRMWD 5,630' - 12,699'

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 attachment

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

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>/</u>	<u>Bottom Depth</u>
<u>Surface:</u>			

See attachment

PERFORATION RECORD ATTACHMENT

Well Number and Name: 836403 Fork Ridge MSH 6H

PERFORATION RECORD			STIMULATION RECORD							
Date	Interval Perforated		Date	Interval Treated		Fluid		Propping Agent		Average Injection
	From	To		Type	Amount	Type	Amount			
6/29/2013	12,319	12,596	7/29/2013	12,319	12,596	Slk wtr	8,863	Sand	408,868	94
7/30/2013	11,978	12,260	7/30/2013	11,978	12,260	Slk wtr	7,821	Sand	409,553	99
7/30/2013	11,636	11,919	7/30/2013	11,636	11,919	Slk wtr	7,818	Sand	406,408	98
7/30/2013	11,295	11,577	7/30/2013	11,295	11,577	Slk wtr	7,903	Sand	409,694	99
7/30/2013	10,954	11,236	7/31/2013	10,954	11,236	Slk wtr	7,827	Sand	407,782	100
7/31/2013	10,613	10,895	7/31/2013	10,613	10,895	Slk wtr	8,024	Sand	409,796	100
7/31/2013	10,271	10,551	7/31/2013	10,271	10,551	Slk wtr	7,830	Sand	411,158	100
7/31/2013	9,930	10,212	8/1/2013	9,930	10,212	Slk wtr	7,512	Sand	407,033	100
8/1/2013	9,589	9,871	8/1/2013	9,589	9,871	Slk wtr	7,847	Sand	411,663	100
8/1/2013	9,248	9,530	8/1/2013	9,248	9,530	Slk wtr	7,946	Sand	407,441	101
8/1/2013	8,906	9,189	8/1/2013	8,906	9,189	Slk wtr	7,653	Sand	408,240	100
8/1/2013	8,565	8,847	8/2/2013	8,565	8,847	Slk wtr	7,445	Sand	409,655	101
8/2/2013	8,224	8,506	8/2/2013	8,224	8,506	Slk wtr	8,198	Sand	405,287	98
8/2/2013	7,883	8,165	8/2/2013	7,883	8,165	Slk wtr	7,830	Sand	407,612	98.2
8/2/2013	7,541	7,824	8/2/2013	7,541	7,824	Slk wtr	7,513	Sand	405,731	99.2
8/2/2013	7,200	7,482	8/2/2013	7,200	7,482	Slk wtr	7,873	Sand	407,629	99

OFFICE
 SUPERVISOR
 8/2/2013

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

Maximum TVD of wellbore: 6850 ft TVD @ 12699 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SS W/SH & MINOR LS	0	0	942	942
PITTSBURG COAL	942	942	952	952
SS W/SH & SILTSTONE	952	952	2020	2020
BIG LIME	2020	2020	2103	2101
BIG INJUN (SS)	2103	2101	2325	2323
SHALE W/ SILTSTONE	2325	2323	3580	3580
SHALE	3580	3580	6728	6641
GENESEO (SH)	6728	6641	6758	6661
TULLY (LS)	6758	6661	6798	6686
HAMILTON (SH)	6798	6686	7050	6788
MARCELLUS (SH)	7050	6788		
TD OF LATERAL			12699	6850

Original
 11/20/2013
 11/20/2013

WR-35
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SS W/SH & SILTSTONE	952	952	2020	2020
BIG LIME	2020	2020	2103	2101
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SHALE W/ SILTSTONE	2325	2323	3580	3580
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GENESEO (SH)	6728	6641	6758	6661
TULLY (LS)	6758	6661	6798	6686
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TD OF LATERAL			12699	6850