

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

DATE: 6/27/2013
API #: 47-051-01535

Farm name: Shields Operator Well No.: 3H

LOCATION: Elevation: 1331' Quadrangle: Powhatan Point 7.5'

District: Franklin County: Marshall
Latitude: 11,580 Feet South of 39 Deg. 47 Min. 30 Sec.
Longitude 10,540 Feet West of 80 Deg. 45 Min. 00 Sec.

Company: Gastar Exploration USA, Inc

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
229 West Main St, Suite 301 Clarksburg, WV 26301	20"		110'	CTS
Agent: Michael McCown	13 3/8"		1147'	1021 ft^3
Inspector: Bill Hendershot	9 5/8"		2558'	1071 ft^3
Date Permit Issued: 3-26-2012	5 1/2"		9862'	2761 ft^3
Date Well Work Commenced: 4-27-2012	2 3/8"		6426'	
Date Well Work Completed: 4-11-2013				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 6519'				
Total Measured Depth (ft): 9890'				
Fresh Water Depth (ft.): 60'				
Salt Water Depth (ft.): 1600'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): Refer to page 2				
Void(s) encountered (N/Y) Depth(s) No				

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

Producing formation Marcellus Pay zone depth (ft) 6889' to 9,723'
Gas: Initial open flow 3360 MCF/d Oil: Initial open flow 101 Bbl/d
Final open flow 2880 MCF/d Final open flow 172 Bbl/d
Time of open flow between initial and final tests 96 Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

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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.

Dave Perkins 6-27-13 01/17/2014

Were core samples taken? Yes _____ No

Were cuttings caught during drilling? Yes _____ No

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list No

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 sheet:

Plug Back Details Including Plug Type and Depth(s): n/a

<u>Formations Encountered:</u> <u>Surface:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
Sewickley Coal	766 - 786	Geneseo 6355 - 6375
Pittsburgh Coal	907 - 917	Tully 6375 - 6412
Maxton	1885 - 1935	Hamilton 6412 - 6452
Big Lime	1958 - 1988	Marcellus 6452 - 6519
Big Injun	1988	
Base of Big Injun	2132	
Weir	2317 - 2487	
Berea	2505 - 2745	
Gordon	2840 - 2870	
Benson	3544 - 3554	
Java	5167 - 5487	
Rhinestreet	5839 - 5981	
Cashaqua	5981 - 6270	
Middlesex	6270 - 6284	
West River	6284 - 6355	

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Fluid & Sand Volume Summary - Shields #3H

Date	Stage	Perforated Interval		Fluid Type	Frac Fluid	Pump Down	100 mesh	40/70 M	Lite Prop	Total Sand
		From ft	To ft							
1/5/2013	1	9689	9723	slk wtr	1999	0	436			436
1/6/2013	2	9574	9664	slk wtr	4388	215	36125	78173	6000	120298
1/7/2013	3	9289	9539	slk wtr	6514	192	40429	69456	12000	121885
1/7/2013	4	8989	9239	slk wtr	7440	190	41010	89826	12000	142836
1/7/2013	5	8689	8939	slk wtr	8742	189	43021	76429	10000	129450
1/8/2013	6	8389	8639	slk wtr	6814	166	39206	66378	12000	117584
1/8/2013	7	8089	8339	slk wtr	7203	143	34714	91387	12000	138101
1/8/2013	8	7789	8039	slk wtr	7065	120	39495	74094	12000	125589
1/9/2013	9	7489	7739	slk wtr	7278	209	42157	72389	12000	126546
1/9/2013	10	7189	7439	slk wtr	7350	71	40288	53701	14000	107989
1/9/2013	11	6889	7104	slk wtr	7333	45	39003	82373	14000	135376
Totals					72126	1540	395884	754206	116000	1266090

Water to Recover

73666 bbls

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1/10/14
TJP