

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

DATE: 02/14/2013
API #: 47-041-04127 F

Farm name: Schock, Nason A. Operator Well No.: Schock 1

LOCATION: Elevation: 1267' GL Quadrangle: Walkersville 7.5'

District: Collins Settlement County: Lewis
Latitude: 13,480 Feet South of 38 Deg. 52 Min. 30 Sec.
Longitude 3,630 Feet West of 80 Deg. 25 Min. 00 Sec.

Company: PDC Mountaineer LLC

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Gencsis Boulevard Bridgeport, WV 26330	11 3/4"	21'	21'	Sanded In
Agent: <u>Bob Williamson</u>	8 5/8"	1014'	1014'	329
Inspector: <u>Bill Hatfield</u>	4 1/2"	4090'	4090'	757
Date Permit Issued: <u>04/30/2009</u>				
Date Well Work Commenced: <u>09/30/2009</u>				
Date Well Work Completed: <u>09/30/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>4120'</u>				
Total Measured Depth (ft): <u>4120'</u>				
Fresh Water Depth (ft.): <u>27'</u>				
Salt Water Depth (ft.): <u>None</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>224'-227'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

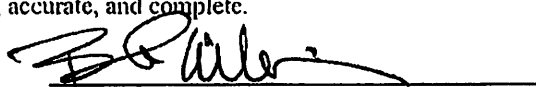
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OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Gantz Pay zone depth (ft) 1774
Gas: Initial open flow 189 MCF/d Oil: Initial open flow ----- Bbl/d
Final open flow NT MCF/d Final open flow ----- Bbl/d
Time of open flow between initial and final tests ----- Hours
Static rock Pressure NT psig (surface pressure) after ----- Hours

Second producing formation Bayard (commingled) Pay zone depth (ft) 2284
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.


Signature

2-14-2013
Date

03/08/2013

41-04127F

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Hotwell GR/CCL from 2400' - 1430'

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:

09/30/2009: MIRU BJ Services & Hotwell Wireline. Log with GR/CCL & set solid composite BP at 2310'. Perf the Bayard with 8 holes from 2284-2290. RU BJ & Stimulated well with 30 quality N2 assist. 20,090 lbs of 20/40 white sand and 58,000 scf N2 (ATP 1330 psig, MTP 1660 psig) (Avg Rates 18 bpm; 2600 scfm) Brokedown formation at 1390 psig. Pumped a pad of 68 bbl, 16,000 scf @ 18 bpm, 2600 scfm. Ramped sand concentrations from .5-4 ppa in 167 bbl, 51,000 scfm @ 18 bpm, 2600 scfm. Flushed with 5 bbl spacer, 12 bbl 15% HCl, & 20 bbl of treated H2O @ 18 bpm. ISIP 1045 psig

RU Hotwell & set a composite flow thru frac plug at 1820'. Perf the Ganz at 1773-1782. Stimulated the Ganz with 30 quality N2 assist, 30,087 lbs of 20/40 white sand and 145000 scf N2 (ATP 2217 psig, MTP 2309 psig) (Avg Rates 16 bpm; 5000 scfm). Brokedown formation at 2270 psig. Pumped a pad of 50 bbl, 21,000 scf @ 12 bpm, 5000 scfm. Ramped sand concentrations from .5-3 ppa in 209 bbl, 75,000 scfm @ 12 bpm, 5000 scfm. Held 3# sand concentration for 21 bbl, 6000 scf @ 12 bpm, 5000 scfm. Held 4# sand concentration for 34 bbl, 16,000 scf @ 12 bpm, 5000 scfm. Flushed with 30 bbl of H2O @ 13 bpm. ISIP 1607 psig

Plug Back Details Including Plug Type and Depth(s): Drilled out both plugs & cleaned to original TD.

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See original submitted Well Log for this well API# 47-041-04127.

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