₩R-35 Rev (8-10)

## State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE: 10/8/2011 API#: 47-502132

Well Operator's Report of Well Work

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Farm name: Berwin Winifrede	_ Operator Well No.: BW-51 (		<u>(F)</u>		
LOCATION: Elevation: 1041 FT	Quadrangle: Belle 7.5'		,	RECEIVED	
Digwigt Sherman	a Boo	ne		Office of Oil	& Gas
District: Sherman Latitude: 13,600 Feet South of 38 Deg.	County: Boo Min.	00 Sec		OCT 1 2 2	2011
Longitude 3580 Feet West of 81 Deg.	35 <sub>Min.</sub>	OO Sec			
Company:				NV Departr	
Address:	Casing &	Used in	Left in well	rement fill	Protection
900 Lee St. E Ste. 940 Charleston, WV	Tubing Conduct.	drilling 28'	28'	up Cu. Ft.	
Agent: James Abcouwer	9 5/8"	565'	<del> </del>	250	
Inspector: Barry Stollings	7"	1809'	565' 1809'	258 366	
Date Permit Issued: 03/31/2008	4 1/2"	1003	5161'	498	
Date Well Work Commenced: 4/12/2008	T 1/2		3101	490	
Date Well Work Completed: 4/12/2008					
Verbal Plugging:					
Date Permission granted on:		<u> </u>			
Rotary Cable Rig					
Total Vertical Depth (ft): 5183'					
Total Measured Depth (ft): 5171'					
Fresh Water Depth (ft.): 296',362'		<del>^</del>			
Salt Water Depth (ft.): 1257', 1428'					
Is coal being mined in area (N/Y)? N					
Coal Depths (ft.): 385-388					
Void(s) encountered (N/Y) Depth(s) N					
			<u> </u>		
OPEN FLOW DATA (If more than two producing formation  Producing formation Pay 20	s please include	e additional da: 346	ta on separate she	et)	
Gas: Initial open flow 420 MCF/d Oil: Initial open flow					
Final open flow MCF/d Final open flow					
Time of open flow between initial and final tests 48  Static rock Pressure 380 psig (surface pressure) after	Hours				
poig (surface pressure) and	er 48 Hours				
Second producing formation Lime Pay zone	e depth (ft)204	6			
Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow	owBbl/d				
Final open flow MCF/d Final open flow Time of open flow between initial and final tests	Bbl/d Hours				
Static rock Pressurepsig (surface pressure) afte	riours Hours				
certify under penalty of law that I have personally examined an	· <del></del>		ation submitted or	this document a	nd all

Ι¢ 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.

Were core samples taken? Yes	No_X	Were cuttings caught during drilling? Ye	esNoX
Were $\underline{\frac{Y}{Y/N}}$ Electrical, $\underline{\frac{Y}{Y/N}}$ Mech	hanical, or Ge Y/N	cophysical logs recorded on this well?	
FRACTURING OR STIMULAT	ING, PHYSICAL ( CORD OF THE TO	FOLLOWING: 1). DETAILS OF PERFORAT CHANGE, ETC. 2). THE WELL LOG WHICH I DPS AND BOTTOMS OF ALL FORMATIONS, IN URFACE TO TOTAL DEPTH.	IC A CVCTTPMATE
Perforated Intervals, Fracturing, or S	Stimulating:		
2 fracture zones performed o	on the well Univ	versal Well Services Tested lines to 4	1200 psi
1st- Huron Perf Intervals 31	11'-4346' Nitro	gen Fracture, 16 holes total Total Nitrog	en = 1.55 mil S0
200 gal. 15% HCL in Hole. B	roke and dislpla	aced treated water with 75 Mscf N2 drop	pped 15 pref ba
2nd- Big Lime Perf Intervals	1902'-2046' NC	2 Fracture, 8 holes total, Total Nitrogen	_ 169,000,000
2750 gal. 15% HCL in Hole. I	Broke and dislo	laced treated water with 75 Mscf N2 dro	= 100,000 SCF
		account cated water with 7.5 Misch 142 and	opped o prei ba
			<del></del>
Formations Encountered:		Top Depth / Bot	ttom Depth
Surface:		,	•
Sub Base		0'	10'
Fill	The second secon	10'	21'
Sand and Shale		21'	935'
Upper Maxon		1011'	1129'
Lower Maxon		1496'	1625'
Little Lime		1771'	1822'
Big Lime	-	1828'	2052'
Big Injun		2063'	2107'
Middle Weir	2	2183'	2199'
_ower Weir	2	2248'	2284'
3erea	2	2514'	2524'
Middle Huron	3	3715'	3922'
ower Huron		003'	4348'
Marcellus Shale		5131'	5162'
			5102