11/16/2011 47-103-02665

State of West Virginia **Division of Environmental Protection** Section of Oil and Gas Well Operator's Report of Well Work

Farm	name	•

GIFFORD, THOMAS L.

Operator Well No.: ARA LONG 280

LOCATION:

Elevation:

1,299'

Quadrangle:

PINE GROVE 7.5'

District:

GRANT

County:

WETZEL

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Latitude:

14,080 Feet south of

39 Deg 37 Min

30 Sec. Sec. 0

Longitude:

1,870 Feet west of

80 Deg 40 Min

WV GEOLOGICAL SURVEY MORGANTOWN, WV

Company Address:	HG Energy PO Box 551 Vienna, WV		Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector: Derek Haught						
Date Permit Issued: 07/05/2011						
Date Well Wo	ork Commenced:	08/23/2011				
Date Well Wo	ork Completed:	09/07/2011				
Verbal Pluggi	ng:	·				
Date Permission	on Granted On:					
Rotary X	Cable R	ig	7"	1288'	1288'	285 sks
Total vertical	Depth (ft):	3290'				
Total Measure	ed Depth (ft):	3290'			:	
Fresh Water D	epth (ft):	140'	4 ½"	3253.2'	3253.2'	150 sks
Salt Water De	pth (ft):	None				
Is Coal being	mined in ares (Y/N)?	No				
Coal Depths (1	ft): x 11	45'-1155'				
Void(s) encou	ntered (Y/N) depth(s) NONE					

OPEN FLOW DATA

* Waterflood Producer

3150.5'-3151.5'

Producing formation		ay zone depth (ft) 3162'-3166'
Gas: Initial open flow	* MCF/d Oil: Initial	open flow * Bbl/d
Final open flow	* MCF/d Final c	pen flow * Bbl/d
Time of open flow between	n initial and final tests	* Hours
Static rock pressure	* psig (surface pressu	re) after * Hours
Second producing formation		ay zone depth (ft)
Gas: Initial open flow	MCF/d Oil: Initial	open flow Bbl/d
Final open flow	MCF/d Final c	pen flow Bbl/d
Time of open flow between	n initial and final tests	Hours
Static rock pressure	nsig (surface pressu	re) 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.

PROLL

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.

Treatment: Treated perfs. 3150.5'-3151.5', 3153'-3160', and 3162'-3166' w/ 300 gals 15 % HCL, 331 bbls Cross linked gel, and 20,400# 20/40 sand.

Well Log: All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	1145
Coal	1145	-	1155
Shale	1155	-	1548
Sand	1548		1588
shale	1588	-	1656
sand	1656	-	1744
shale	1744	_	1877
sand	1877	-	1889
shale	1889	-	1902.
sand	1902	-	1980
shale	1980	-	2038
sand	2038	-	2054
shale	2054	-	2208
sand	2208	-	2230
shale	2230	-	2244
Big Lime	2244	-	2324
Big Injun	2324	-	2548
shale	2548	-	3114
Gordon Stray	3114	-	3138
shale	3138	-	3149
Gordon	3149	-	3166
shale	3166	-	3290
TD	3290		
T.DLogger	3290	KB	
T.DDriller	3290	KB	