

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

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Office of Oil & Gas

Farm name: GIFFORD, THOMAS L. Operator Well No.: ARA LONG 280
 LOCATION: Elevation: 1,299' Quadrangle: PINE GROVE 7.5'
 District: GRANT County: WETZEL
 Latitude: 14,080 Feet south of 39 Deg 37 Min 30 Sec.
 Longitude: 1,870 Feet west of 80 Deg 40 Min 0 Sec.

WV Department of
Environmental Protection

Company Address:	HG Energy PO Box 5519 Vienna, WV 26105	Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derek Haught				
Date Permit Issued:	07/05/2011				
Date Well Work Commenced:	08/23/2011				
Date Well Work Completed:	09/07/2011				
Verbal Plugging:					
Date Permission Granted On:					
Rotary X Cable	Rig	7"	1288'	1288'	285 sks
Total vertical Depth (ft):	3290'				
Total Measured Depth (ft):	3290'				
Fresh Water Depth (ft):	140'	4 1/2"	3253.2'	3253.2'	150 sks
Salt Water Depth (ft):	None				
Is Coal being mined in ares (Y/N)?	No				
Coal Depths (ft): x	1145'-1155'				
Void(s) encountered (Y/N) depth(s):	NONE				

OPEN FLOW DATA * Waterflood Producer

Producing formation Gordon Pay zone depth (ft) 3150.5'-3151.5'
3162'-3166'
 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

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.

Signature

08/31/12
Date

08/31/2012

Were core samples taken? No

Were cuttings caught during drilling? No

Were Y Electrical, N Mechanical, N or Geophysical logs recorded on this well?
Y/N Y/N Y/N

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 perms. 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.D. -Logger	3290	KB	
T.D. -Driller	3290	KB	