

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operators Report of Well Work

geel
cb
cl

LOCATION

Farm Name: Ark Land Operators well name: AL-278
Elevation: 1327 Quadrangle: Mammoth District: Elk County: Kanawha
Latitude: 14050 Feet South of 38 Deg. 22 Min. 30 Sec.
Longitude: 2500 Feet West of 81 Deg. 20 Min. 00 Sec.

COMPANY

Reed Gas, Inc.
1314 Virginia Street East
Charleston, WV 25301
Operator #: 41350

Agent: James W. Reed Jr.
Inspector: Carlos Hively
Date Permit Issued: 8/22/08
Date Well Work Commenced: 11/13/08
Date Well Work Completed: 11/19/08
Total Depth (feet): 5740
Rotary Rig: Cable Rig:

Casing & Tubing	Used in Drilling	Left in Well	Cement Data	
			Skts	Cement Top
13 3/8"	20	20	Ft	To Surface
9 5/8"	336	336	Ft	To Surface
7"	1985	1985	Ft	To Surface
4 1/2"	5722	5722	Ft	290
Tubing			Ft	Type

Verbal Plugging
Date Permission Granted:

Fresh Water Depth (feet): *NA*
Salt Water Depth (feet):
Is coal being mined in area? No

OPEN FLOW DATA

Producing formation:	Formation Name	Pay zone depth (ft):	Initial Open Flow:	Final Open Flow:	Time of open flow between initial and final tests:	Static rock pressure:
1 st Producing formation:	Big Lime	2102 to 2130	Initial Open Flow: <input type="text"/> MCF/d Final Open Flow: <input type="text"/> MCF/d	Initial Open Flow: <input type="text"/> Bbl/d Final Open Flow: <input type="text"/> Bbl/d	<input type="text"/> hours after <input type="text"/> hours	<input type="text"/> after <input type="text"/> hours
2 nd Producing formation:	Upper Weir	2190 to 2218	Initial Open Flow: <input type="text"/> MCF/d Final Open Flow: <input type="text"/> MCF/d	Initial Open Flow: <input type="text"/> Bbl/d Final Open Flow: <input type="text"/> Bbl/d	<input type="text"/> hours after <input type="text"/> hours	<input type="text"/> after <input type="text"/> hours
3 rd Producing formation:	Lower Weir	2262 to 2310	Initial Open Flow: <input type="text"/> MCF/d Final Open Flow: <input type="text"/> MCF/d	Initial Open Flow: <input type="text"/> Bbl/d Final Open Flow: <input type="text"/> Bbl/d	<input type="text"/> hours after <input type="text"/> hours	<input type="text"/> after <input type="text"/> hours
4 th Producing formation:	Lower Huron	2505 to 4808	Initial Open Flow: <input type="text"/> MCF/d Final Open Flow: <input type="text"/> MCF/d	Initial Open Flow: <input type="text"/> Bbl/d Final Open Flow: <input type="text"/> Bbl/d	<input type="text"/> hours after <input type="text"/> hours	<input type="text"/> after <input type="text"/> hours
5 th Producing formation:	Rhinestreet	4862 to 5589	Initial Open Flow: <input type="text"/> MCF/d Final Open Flow: <input type="text"/> MCF/d	Initial Open Flow: <input type="text"/> Bbl/d Final Open Flow: <input type="text"/> Bbl/d	<input type="text"/> hours after <input type="text"/> hours	<input type="text"/> after <input type="text"/> hours
6 th Producing formation:	Marcellus	5676 to 5694	Initial Open Flow: <input type="text"/> MCF/d Final Open Flow: <input type="text"/> MCF/d	Initial Open Flow: <input type="text"/> Bbl/d Final Open Flow: <input type="text"/> Bbl/d	<input type="text"/> hours after <input type="text"/> hours	<input type="text"/> after <input type="text"/> hours

RECEIVED
Office of Oil & Gas
APR 14 2009

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGIC RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: *James W. Reed Jr.*
By: James W. Reed, Jr.
Date: 4-13-09

Reed Gas, Inc.
1314 Virginia Street East
Charleston, WV 25301

Farm Name: Ark Land
Well Name: AL-278

GEOLOGICAL RECORD

Formation	Top	Base	Formation	Top	Base
Sand & Shale	Surface	839	Greenbrier Ls.	1935	2133
Eagle Shale Sd.	839	848	Big Injun Sd.	2140	2153
Sand & Shale	848	980	Sand & Shale	2153	2185
Rosedale Sd.	980	1040	Weir Sd.	2185	2313
Sand & Shale	1040	1184	Sand & Shale	2313	2548
Salt Sand	1194	1635	Coffee Sh.	2548	2563
Sand & Shale	1635	1670	Devonian Sh.	2563	4200
Ravenclyff Sd.	1670	1720	Lower Huron Sh.	4200	4613
Sand & Shale	1720	1787	Sand & Shale	4613	5070
Maxon Sd.	1787	1840	Rhinestreet Sh.	5070	5500
Sand & Shale	1840	1887	Sand & Shale	5500	5655
Little Lime	1887	1928	Marcellus Sh.	5655	5701
Pencil Cave	1928	1935	Onondaga Ls.	5701	5721

COMPLETION RECORD

Stage 1

Date	02/02/09
Formation	Marcellus
Type	N2
Perf Count	36
Perf Interval	5676-5694
Breakdown psi	
Ave Treat psi	3500
Ave Rate scf/m	8.2
Ave Rate bpm	
Total Sand (lbs)	
Nitrogen (Mscf)	179

Stage 2

Date	02/02/09
Formation	Rhinestreet
Type	N2
Perf Count	60
Perf Interval	4862-5589
Breakdown psi	3490
Ave Treat psi	3703
Ave Rate scf/m	63.3
Ave Rate bpm	
Total Sand (lbs)	
Nitrogen (Mscf)	1000

Stage 3

Date	2/2/09
Formation	Lower Huron
Type	N2
Perf Count	80
Perf Interval	2505-4808
Breakdown psi	2536
Ave Treat psi	2615
Ave Rate scf/m	62.6
Ave Rate bpm	
Total Sand (lbs)	
Nitrogen (Mscf)	1200

Stage 4

Date	02/02/09
Formation	Lower Weir
Type	75Q Foam
Perf Count	44
Perf Interval	2262-2310
Breakdown psi	2075
Ave Treat psi	3473
Ave Rate scf/m	
Ave Rate bpm	36.1
Total Sand (lbs)	40000
Nitrogen (Mscf)	404

Stage 5

Date	02/02/09
Formation	Upper Weir
Type	75Q Foam
Perf Count	32
Perf Interval	2190-2216
Breakdown psi	3301
Ave Treat psi	3174
Ave Rate scf/m	
Ave Rate bpm	24.6
Total Sand (lbs)	35000
Nitrogen (Mscf)	379

Stage 6

Date	01/05/09
Formation	Big Lime
Type	60Q F Acid
Perf Count	29
Perf Interval	2102-2130
Breakdown psi	2872
Ave Treat psi	2665
Ave Rate bpm	12.3
Total Sand (lbs)	
15% Acid (gal)	2000
Nitrogen (Mscf)	94

Remarks

*Comingled
FOF: 480M/d
IRP: 250#
TIL: 02/11/09

