WR-35
Rev (5-01)

DATE: 1/20/12
API #: 39.06284F

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

Well Operator's Report of Well Work

Farm name: John Fleming
Operator Well No.: John Fleming #3

LOCATION: Elevation: 1097'
Quadrangle: Pocatalico

District: Union
County: Kanawha
Latitude: Feet South of 38 Deg. 27 Min. 30 Sec.
Longitude 3153 Feet West of Deg. Min. Sec.

Company: Larch Oil &Gas Corporation

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 5 Kimeric Lane Cross Lanes				
Agent: Jimmie Larch	13 3/8"	30'	30'	N/A
Inspector: Terry Urban	9 5/8"	336'	336'	170 cf
Date Permit Issued:	7"	2235'	2235'	440 cf
Date Well Work Commenced: 3/31/11 - 1/16/12	4.5"	5081'	5081	319 cf
Date Well Work Completed: 4/20/11				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Vertical Depth (feet): 5079'LTD				
Total Measured Depth: 5079'LTD				
Fresh Water Depth (ft.): 269'				
Salt Water Depth (ft.): 1453'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 120'- 123', 212'-216'				

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Office of Oil & Gas
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Environmental Protection

OPEN FLOW DATA

Producing formation Dev. Shale (Marcell., Rhine, Huron) Pay zone depth (ft) 4120' – 5060'
Gas: Initial open flow Odor MCF/d Oil: Initial open flow Bbl/d
Final open flow 350 MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests 48 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

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 GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed:
By: Gary Leach Vice President-Larch Oil & Gas
Date: 11/14/13

Formation: Top: Bottom:

11/22/2013

Soil/Sand/Shale	0	815
Sand/shale	815	990
Silt/Shale	990	1050
Silt/Sand/Shale	1050	1415
Salt Sands	1415	1765
Maxton Sands	1765	1830
Big Lime	1830	1950
Injun Sand	1950	2140
Shale	2140	2540
Berea Sand	2540	2550
Devonian Shale	2550	5065
Huron Section	3760	4330
Rhinestreet Section	4727	4916
Marcellus Section	5010	5065
Onandaga Lime	5065	5079

No Core Samples Taken
Cutting samples caught while drilling

On 4/20/11 MIRU Performance Wireline. Bond Log Production string and Perforate Marcellus Shale from 5010' – 5060' with 20 Shots.

On 1/16/12 MIRU Baker – Start pumping at half rate (30kscf/min) and work rate up as pressure allows. Work rate to 60kscf/min at treating pressure of 3900psi. Pump total of 1MMscf N2. Shut down. ISIP 2940psi.. Performance Wireline Perforate Rhinestreet Shale from 4846' – 4917' with 20s.f. shots. Start pumping 2bbls 15% HCL acid and drop 3.5" ball followed with 4bbl acid and N2 mist. Land ball At 20kscf/min, pressure started breaking over at 2769psi – drop 4 balls at 300kscf. Drop 4 balls at 570kscf. 600-700psi ball action during stage. Pump total of 1MMscf N2. Shut down. 1596psi ISIP.. Perforate Lower Huron Shale from 4245'-4325'. Load 3.75" ball on Gate. Start pumping 2 bbl 15% HCL Acid and drop ball – pump additional 4 bbls misted with N2 at 18kscf/min. Land ball and formation breakover at 1727psi. Up rate to 60kscf/min. Drop 5 balls at 300kscf (2656psi). drop 4 balls at 480k (3190psi). Pressure rose to 3868psi. Pump total of 800kscf. Shut down – ISIP- 1169psi . Perforate 2nd stage of Lower Huron from 4115'-4244' with 15 shots. Start Pumping 4 bbls 15% HCL acid with N2 at30kscf/min and 5perf balls, up rate to 60kscf/min – formation breakover at 2862psi. drop 5 perf balls at 300kscf (2663psi). Drop 5 balls at 450k (2690psi). drop 5 balls at 570k (2750psi) ball action to 3025psi. Pump total of 750kscf N2. ISIP – 1415psi. RDMO Baker.

	Marcellus	Rhinestreet	Lower Huron	Upper Huron
Max Press. psi	3985	3456	3869	3031
Avg Press. psi	3930	3066	3190	2730
Max Rate kscf/min	60.4	66.9	71.4	69.7
Avg Rate kscf/min	60.5	63.9	67.2	68.4
5min psi	2202	1362	1070	1350