

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

Well Operator's Report of Well Work

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Office of Oil & Gas
APR 13 2012
ENVIRONMENTAL
Department of
Protection

Farm name: MURREY, FRANK & ANN Operator Well No.: ENV 111
LOCATION: Elevation: 689' Quadrangle: SANDYVILLE
District: RAVENSWOOD County: JACKSON
Latitude: 15,200 Feet South of 38 Deg. 57 Min. 29.6 Sec.
Longitude 1200 Feet West of 31 Deg. 37 Min. 43.8 Sec.

Company: M & M DRILLING, INC

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: <u>PO BOX 179</u> <u>KENNA, WV 25248</u>			<u>13 3/8" 60'</u>	
Agent: <u>JEFF McLAUGHLIN</u>			<u>9 5/8" 256'</u>	<u>100 SKS TIRE 1</u>
Inspector: <u>JAMIE STEVENS</u>			<u>26 lb/ft</u>	<u>+ 290 CaCl2</u>
Date Permit Issued: <u>8/10/2007</u>				
Date Well Work Commenced: <u>8/10/2007</u>			<u>7" 2018'</u>	<u>250 SKS TIRE 1</u>
Date Well Work Completed: <u>8/20/2007</u>			<u>20 lb</u>	<u>290 CaCl2</u>
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig			<u>4 1/2" 950 lb</u>	<u>100 SKS</u>
Total Depth (feet): <u>ROUGHED BACK TO 4920'</u>			<u>10.5 lb</u>	<u>TUFFLITE</u>
Fresh Water Depth (ft.):				
Salt Water Depth (ft.):			<u>2 3/8" TUBING</u> <u>4862' OW</u>	
Is coal being mined in area (N/Y)? <u>NO</u>			<u>14 ANCHOR</u>	
Coal Depths (ft.): <u>N/A</u>				

OPEN FLOW DATA

Producing formation HURON & RHINESTREET Pay zone depth (ft) HURON 3906' - 4211'
RHINESTREET 4601' - 4858'
Gas: Initial open flow SHOW MCF/d Oil: Initial open flow SHOW Bbl/d
Final open flow 300 MCF/d Final open flow SHOW Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure 1120 psig (surface pressure) after 240 Hours

FRAC PLUG
SET @ 4225'

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: M & M DRILLING, INC
By: JEFF McLAUGHLIN
Date: 9/01/2007

Formations

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<u>FORMATION</u>	<u>DEPTH</u>		<u>THICKNESS</u>
	<u>(TOP)</u>	<u>(BASE)</u>	
Big Injun Sand	1,705'	2,055'	350'
Coffee Shale	2,385'	2,410'	25'
Berea Sand	2,410'	2,415'	5'
Devonian Shale	2,415'	4,725'	2,310'
Marcellus Shale	4,725'	4,905'	180'
Onondaga Lime	4,905'	5,025'	120'
Oriskany Sand	5,025'	5,085'	60'
Helderburg Lime	5,085'		
		<u>TD @ 5,085'</u>	

SPECIAL INSTRUCTIONS:

PLUGGED BACK TO 4920'
 TO BOTTOM OF MARCELLUS

Geologist:	Office:	Cell:
Engineer:	Office:	Cell:

M & M Drilling
C/O M & M Management Services
PO Box 11599, Charleston, WV 25339

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Daily Rig Report

Well Name & No. Murrey # 1
Permit No. 47-035-02677
Contractor & Rig No. Universal

District: Ravenswood
County: Jackson
State: WV

STIMULATION DETAIL

MIRU Universal & Performance: Perforate the Rhinestreet with 35 shots (SF) from 4601 - 4858' KB. Pump 350 gals 7 1/2 % Hcl acid . Establish injection rate 70,000 scf/min N2- Break down 3720 psi. Drop 5 Ea 7/8 X 1.3 SpGr @ 350 (no psi increase) & 550 (no psi increase) mcf. Pump 800 mcf N2. SD get ISDP 1961, 2 min 1928 min 1920 psi. Avg rate 74 mcf Avg psi 3800 psi

3. Set LMFP @ 4225' KB. Perforate Huron with 38 shots (SF) from 3906 - 4211' KB. Open valve - 1620 psi. Pump 350 gal 7 1/2 % Hcl acid (drop LMFP ball after 2 bbl acid). Start N2 @ 30,000 scf/min @ 150 gal mark of acid. Land ball on LMFP. Increase rate to 70,000 scf/min as soon as ball lands. Drop 10 Ea 7/8 X 1.3 SpGr @ 350 (10 psi) & 550 (0 psi) mcf. Pump a total of 800 mcf. SD. ISDP NA pressure dropped below opening psi. Avg rate 62.2 mcf/min. Avg psi 2650 psi.

FRAC. Plug Set @ 4225'