

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 10/16/2012
API #: 47-017-04105 W

Farm name: Hintz, Phyllis, Et Al Operator Well No.: Cox Heirs 3

LOCATION: Elevation: 1257' GL Quadrangle: New Milton 7.5

District: New Milton County: Doddridge
Latitude: 1,030 Feet South of 39 Deg. 10 Min. 00 Sec.
Longitude 4,830 Feet West of 80 Deg. 42 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u> <u>Bridgeport, WV 26330</u>	<u>11 3/4"</u>	<u>177'</u>	<u>177'</u>	<u>128</u>
Agent: <u>Bob Williamson</u>	<u>8 5/8"</u>	<u>1815'</u>	<u>1815'</u>	<u>615</u>
Inspector: <u>David Scranage</u>	<u>4 1/2"</u>	<u>5662'</u>	<u>5662'</u>	<u>902</u>
Date Permit Issued: <u>04/27/2009</u>				
Date Well Work Commenced: <u>07/28/2009</u>				
Date Well Work Completed: <u>08/07/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>5750'</u>				
Total Measured Depth (ft): <u>5750'</u>				
Fresh Water Depth (ft.): <u>40', 1784'</u>				
Salt Water Depth (ft.): <u>None Reported</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>None Reported</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Gordon Pay zone depth (ft) 2970'
Gas: Initial open flow 237 MCF/d Oil: Initial open flow 5 Bbl/d
Final open flow 103 MCF/d Final open flow 5 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure NT psig (surface pressure) after --- Hours

Second producing formation Weir (commingled) Pay zone depth (ft) 2624'
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

10/16/2012
Date

10/19/2012

Were core samples taken? Yes _____ No XX

Were cuttings caught during drilling? Yes _____ No XX

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Hotwell Wireline GR/CCL log from 3000' - 2400'

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.

Perforated Intervals, Fracturing, or Stimulating:

2009/08/07: MIRU Hotwell Service Wireline & Halliburton Frac Crew. Ran in hole and set composite bridge plug at 3,010'. Pressure tested lines to 4,500 psig. Filled hole with 12 bbl of acid and treated water. Pressure tested to 3,500 psig. Perforated and fractured Gordon

formation. Stimulated well with 30 quality N2 assist, 25004 lbs of 20/40 white sand and 65117 scf N2 (ATP 2352 psig, MTP 2587 psig) (Avg Rates 23.6 bpm; 4089 scfm). Broke down formation at 2587 psig

Pumped a pad of 27 bbl, 2,150 scf @ 17.9 bpm, 1,316 scfm. Ramped sand concentrations from .5-4 ppa in 287 bbl, 5,161 scf @ 28.3 bpm, 62,836 scf. Pumped 330 bbl of slurry. Flushed with 7 bbl spacer, 12 bbl 20% HCl

& 31 bbl of treated H2O @ 11 bpm. ISIP 1,827 psig, 2 min 1,483 psig, 5 min 1,373 psig, 10 min 1,333 psig, 15 min 1,313 psig. Hotwell set a flow through comp. plug at 2,683'. Perforated and fractured Weir formation.

Stimulated well with 30 quality N2 assist, 31,563 lbs of 20/40 white sand and 155,079 scf N2 (ATP 2,763 psig, MTP 3,644 psig) (Avg Rates 22.0 bpm; 5,305 scfm). Broke down formation at 3644 psig. Pumped a

Plug Back Details Including Plug Type and Depth(s): pad of 50 bbl, 6617 scf @ 17.1 bpm, 1995 scfm. Ramped sand concentrations from .5-3 ppa in 264 bbl, 92110 scf

@ 23 bpm, 5,704 scfm. Held 3# sand concentration for 62 bbl, 19,456 scf @ 24 bpm, 5,779 scfm. Held 4# sand concentration for 45 bbl, 20,722 scf @ 18.5 bpm, 5,783 scf. **

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth
Surface: _____

See Attached WR-35 & "Well Log" from original completion of this well (47-017-04105).

**Pumped 299 bbl of slurry in ramp. Pumped 107 bbls of slurry in 3 & 4# holds. Flushed with 32 bbl of H2O @ 11 bpm ISIP 2580 psig, 1 min 2183 psig, 2 min 2152 psig, 5 min 2097 psig, 10 min 2060 psig, 15 min 2034 psig.

COX HEIRS #3

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1st	Alexander	16 (5532' - 5535')	58	306	500	50
2nd	Benson	16 (5132' - 5135')	58	310	500	39

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	1/2" water @ 40'
sand, shale, RR	10	2112	
Maxton	2112	2228	
sand, shale	2228	2306	1" water @ 1784'
Big Lime	2306	2398	gas chk @ 2291' No Show
sand, shale	2398	2403	
Big Injun	2403	2452	gas chk @ 2387' No Show
sand, shale	2452	2595	
Weir	2595	2652	
sand, shale	2652	2764	
Berea	2764	2788	gas chk @ 2448' No Show
sand, shale	2788	2972	
Gordon	2972	2983	gas chk @ 2670' No Show
sand, shale	2983	3312	
Bayard	3312	3333	gas chk @ 2750' No Show
sand, shale	3333	3622	gas chk @ 2921' No Show
Warren	3622	3757	gas chk @ 3110' No Show
sand, shale	3757	3785	gas chk @ 3444' No Show
Speechley	3785	4154	gas chk @ 4333' No Show
sand, shale	4154	4204	gas chk @ 5119' No Show
Balltown	4204	4611	gas chk @ 5212' No Show
sand, shale	4611	4646	gas chk @ 5274' No Show
Bradford	4646	4817	
sand, shale	4817	5000	gas chk @ 5430' No Show
Riley	5000	5174	gas chk @ 5682' No Show
sand, shale	5174	5228	gas chk @ TD No Show
Benson	5228	5270	
sand, shale	5270	5344	
Leopold	5344	5455	
sand, shale	5455	5475	
Alexander	5475	5590	
sand, shale	5590	5750	
		5748	Drillers TD Logger TD

COX HEIRS #3