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: 3/21/2014
API: 47-017-06000

Farm Name: Kiley, Joseph & Jaqueline _____ Operator Well No: OXFD-1A-HS

LOCATION: Oxford 1 Elevation: 1,112.77 Quadrangle: OXFORD

District: West Union County: DODDRIDGE
Latitude: _____ Feet South of _____Deg._____Min._____Sec. 39.24259900
Longitude: _____ Feet South of _____Deg._____Min._____Sec. -80.82555700

Company: CNX Gas Company LLC		Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. Ft.
Address: 200 Evergreene Drive Waynesburg, PA 15370		20	60	60	Cemented In
Agent: Steven Green		13 3/8	673	673	560 sxs (124bbls) – 45 bbls return
Inspector: Bill Hendershot		9 5/8	2610	2610	1036 sxs (257bbls) – 10 bbls return
Date Permit Issued: 8/11/2011		5 ½	14028	14028	2297 sxs (595bbls)
Date Well Work Commenced:	6/29/2013				
Date Well Work Completed:	3/08/2014				
Verbal Plugging:					
Date Permission granted on:	~~6/29/2013~~				
Rotary Cable Rig X					
Total Vertical Depth (ft): Original Hole - 6,546.8					
Total Measured Depth (ft): 14,044.0					
Fresh Water Depth (ft): 30' & 580'					
Salt Water Depth (ft): None					
Is coal being mined in the area (N/Y)? N					
Coal Depths (ft.): None Present					
Void(s) encountered (N/Y) Depth(s): N/A					

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

Producing formation Marcellus _____ Pay zone depth (ft) 7242
Gas: Initial open flow NA MCF/d Oil: Initial open flow NA Bbl/d
Final open flow NA MCF/d Final open flow NA Bbl/d
Time of open flow between initial and final tests NA Hours
Static rock Pressure NA psig (surface pressure) after NA 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

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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 Date 6/3/14 6-3-14

06/13/2014

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Were core samples taken? Yes__ No_x_ Were cuttings caught during drilling? Yes_x_ No___

Were Electrical, Mechanical or Geophyisical logs recorded on this well? If yes, please list: Bond Log, Gamma Ray Log

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: Please See Attached

Plug Back Details Including Plug Type and Depth(s): Please See Attached

Surface:

Formations Encountered: Please See Attached

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Stimulation Summary

Date	Stage #	Formation	Frac Type	Top Perf	Bottom Perf	# of Perfs	BD Press (psi)	ATP (psi)	Avg Rate (bpm)	ISIP (psi)	Frac Gradient	Sand 100M & 40/70 (lbs)	Acid (gals)	Water (gals)
1/14/2014	1	Marcellus	slickwater	13,723	13,926	48	6,094	8245	81.8	4325	1.09	414,158	4,500	427,605
1/14/2014	2	Marcellus	slickwater	13,575	13,677	40	5,730	7,836	73.6	5,473	1.27	245,468	3,000	273,677
1/15/2014	3	Marcellus	slickwater	13,425	13,527	40	5,296	7,459	67.2	5,569	1.28	247,927	3,000	287,132
1/15/2014	4	Marcellus	slickwater	13,275	13,377	40	5,818	7,976	77.5	5,637	1.30	252,110	3,000	269,461
1/15/2014	5	Marcellus	slickwater	13,130	13,227	40	5,724	7,784	73.5	8,789	1.78	250,410	3,000	257,798
1/16/2014	5 inj test	Marcellus	slickwater				0	4,820	3.1	5,923	0.00	0	3,000	43,350
2/6/2014	5 inj test (2)	Marcellus	slickwater				0	8,287	3.9	0	0.00	0	3,000	43,254
2/7/2014	6	Marcellus	slickwater	12,975	13,077	40	6,170	8,286	70.9	4,917	1.19	205,085	6,000	380,755
2/8/2014	7	Marcellus	slickwater	12,825	12,927	40	5,709	8,076	80.2	4,595	1.14	250,353	3,000	309,141
2/8/2014	8	Marcellus	slickwater	12,680	12,777	40	5,797	7,917	85.7	4,906	1.18	246,944	3,000	286,118
2/8/2014	9	Marcellus	slickwater	12,525	12,627	40	5,590	8,086	87.3	4,696	1.15	247,687	3,000	260,891
2/9/2014	10	Marcellus	slickwater	12,375	12,477	40	5,926	8,301	82.4	5,438	1.26	251,560	3,000	324,059
2/9/2014	11	Marcellus	slickwater	12,225	12,327	40	5,352	8,090	88.3	3,917	1.03	249,300	6,000	363,481
2/10/2014	12	Marcellus	slickwater	12,075	12,177	40	5,642	8,176	83.9	4,504	1.12	251,377	3,000	271,744
2/10/2014	13 inj test	Marcellus	slickwater				0	6,829	24.9	5,329	1.25	0	0	34,137
2/12/2014	13	Marcellus	slickwater	11,925	12,027	40	5,100	8,117	84.4	4,290	1.09	247,582	3,000	385,813
2/12/2014	14	Marcellus	slickwater	11,775	11,877	40	5,398	7,605	79.8	3,943	1.04	246,710	3,000	272,522
2/13/2014	15	Marcellus	slickwater	11,625	11,727	40	6,286	8,040	78.2	4,771	1.16	250,130	3,000	266,749
2/13/2014	16	Marcellus	slickwater	11,475	11,577	40	5,421	8,284	78.8	4,375	1.10	247,891	3,000	342,428
2/13/2014	17	Marcellus	slickwater	11,325	11,427	40	5,630	8,206	84.0	4,912	1.18	233,557	3,000	307,254
2/13/2014	18	Marcellus	slickwater	11,175	11,277	40	5,457	8,526	59.1	3,768	1.01	244,521	6,000	482,320
2/14/2014	19	Marcellus	slickwater	11,025	11,127	40	5,485	7,640	78.5	3,778	1.01	253,393	3,000	267,367
2/14/2014	20	Marcellus	slickwater	10,875	10,977	40	5,654	7,235	75.1	5,027	1.20	247,549	3,000	260,511
2/14/2014	21	Marcellus	slickwater	10,725	10,827	40	6,228	8,052	82.6	5,446	1.26	251,010	3,000	270,057
2/15/2014	22	Marcellus	slickwater	10,575	10,677	40	5,855	7,926	81.9	4,752	1.16	246,830	3,000	269,027
2/15/2014	23	Marcellus	slickwater	10,425	10,527	40	5,197	7,540	75.3	4,996	1.20	254,589	3,000	262,685
2/15/2014	24	Marcellus	slickwater	10,275	10,377	40	5,754	8,006	81.3	5,064	1.21	248,718	3,000	309,799
2/16/2014	25	Marcellus	slickwater	10,125	10,227	40	6,296	7,855	82.1	4,875	1.18	230,780	3,000	252,924
2/16/2014	26	Marcellus	slickwater	9,975	10,077	40	6,296	7120	80.1	3826	1.02	247,691	3000	275,678
2/16/2014	27	Marcellus	slickwater	9,825	9,927	40	5,436	8052	66.9	4741	1.16	232,508	6000	370,581
2/17/2014	28	Marcellus	slickwater	9,675	9,777	40	5,745	7732	82.5	3944	1.03	252,434	3000	260,466
2/17/2014	29	Marcellus	slickwater	9,525	9,627	40	5,217	7460	82.7	5155	1.22	251,779	3000	276,659
2/17/2014	30	Marcellus	slickwater	9,375	9,477	40	5,595	8173	57	4299	1.09	215,027	6000	486,029
2/17/2014	31	Marcellus	slickwater	9,225	9,327	40	5,766	7,547	83	5,367	1.25	250,596	3000	261,378
2/18/2014	32	Marcellus	slickwater	9,075	9,177	40	5,171	8012	78.8	3925	1.03	248,103	3000	390,974
2/18/2014	33	Marcellus	slickwater	8,925	9,027	40	5,430	7844	85.1	3742	1	242,971	3000	350,768

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2/18/2014	34	Marcellus	slickwater	8,775	8,877	40	5,899	7832	84.7	5074	1.2	250,808	3000	261,326
2/19/2014	35	Marcellus	slickwater	8,625	8,727	40	5,419	7646	85.6	4630	1.14	246,214	3000	260,217
2/19/2014	36	Marcellus	slickwater	8,475	8,577	40	5,566	8028	80	4677	1.14	208,823	3000	254,447
2/19/2014	37	Marcellus	slickwater	8,325	8,427	40	5,858	7422	78.5	4816	1.16	248,781	3000	251,880
2/19/2014	38	Marcellus	slickwater	8,175	8,277	40	5,981	7547	79.5	4815	1.16	247,174	3000	248,786
2/19/2014	39	Marcellus	slickwater	8,025	8,127	40	6,457	7500	87.6	5491	1.26	247,692	3000	294,057
2/20/2014	40	Marcellus	slickwater	7,875	7,977	40	5,739	6907	81.6	4063	1.05	252,205	3000	249,518
2/20/2014	41	Marcellus	slickwater	7,725	7,827	40	5,771	7229	81.2	5371	1.25	250,057	3000	248,528
2/20/2014	42	Marcellus	slickwater	7,575	7,677	40	6,097	7376	82.4	4866	1.17	251,709	3000	250,226
2/20/2014	43	Marcellus	slickwater	7,425	7,527	40	5,958	7793	86.6	4711	1.15	213,579	3000	344,299

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Stage #	Plug Type	Plug Depth
1	No plug	No plug
2	Composite Frac Plug	13,700
3	Composite Frac Plug	13,550
4	Composite Frac Plug	13,400
5	Composite Frac Plug	13,244
6	Composite Frac Plug	13,100
7	Composite Frac Plug	12,950
8	Composite Frac Plug	12,796
9	Composite Frac Plug	12,650
10	Composite Frac Plug	12,495
11	Composite Frac Plug	12,350
12	Composite Frac Plug	12,200
13	Composite Frac Plug	12,060
14	Composite Frac Plug	11,900
15	Composite Frac Plug	11,750
16	Composite Frac Plug	11,600
17	Composite Frac Plug	11,450
18	Composite Frac Plug	11,300
19	Composite Frac Plug	11,150
20	Composite Frac Plug	11,000
21	Composite Frac Plug	10,850
22	Composite Frac Plug	10,700
23	Composite Frac Plug	10,550
24	Composite Frac Plug	10,400
25	Composite Frac Plug	10,250
26	Composite Frac Plug	10,100
27	Composite Frac Plug	9,950
28	Composite Frac Plug	9,800
29	Composite Frac Plug	9,650
30	Composite Frac Plug	9,500
31	Composite Frac Plug	9,350
32	Composite Frac Plug	9,200
33	Composite Frac Plug	9,050
34	Composite Frac Plug	8,900
35	Composite Frac Plug	8,750
36	Composite Frac Plug	8,595
37	Composite Frac Plug	8,450
38	Composite Frac Plug	8,300
39	Composite Frac Plug	8,150
40	Composite Frac Plug	8,000
41	Composite Frac Plug	7,850
42	Composite Frac Plug	7,700
43	Composite Frac Plug	7,550

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Formations	Top TVD	Base TVD	Top MD	Base MD	Fluid
Sandstone and Shale, Undif.	0	1937	0	1937	
Maxton	1937	1967	1937	1980	
Greenbrier Group	1980	2040	1980	2041	
Big Injun (Grnbr)	2040	2120	2041	2278	
Weir	2277	2308	2278	2516	
Berea Ss	2515	2520	2516	2691	
Fourth	2690	2714	2691	2946	
Bayard	2944	2985	2946	3353	
Speechley	3340	3398	3353	3984	
Balltown A	3904	3930	3984	4221	
Balltown B	4112	4185	4221	4573	
Riley	4422	4443	4573	5182	
Benson	4952	5000	5182	5463	
Alexander	5196	5280	5463	6711	
Cashaqua Sh	6278	6399	6711	6872	
Middlesex Sh	6399	6448	6872	6945	
West River	6448	6524	6945	7080	
Geneseo Sh	6524	6554	7080	7149	
Tully Ls	6554	6573	7149	7204	
Hamilton	6573	6581	7204	7232	
Marcellus	6581	6636	7232	7557	Gas
Cherry Valley	6618	6620	7557	not encountered	
Onondaga	6636	6647	not encountered	not encountered	
Huntersville	6647	not encountered	not encountered	not encountered	

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/14/2014
Job End Date:	2/20/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06000-00-00
Operator Name:	Noble Energy, Inc.
Well Name and Number:	OXF1 A
Longitude:	-80.82555700
Latitude:	39.24259900
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	6,546
Total Base Water Volume (gal):	13,101,354
Total Base Non Water Volume:	0

FracFocus Chemical Disclosure Registry

GROUNDWATER PROTECTION COUNCIL

Oil & Gas

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Fresh Water	Operator	Base Fluid					
			Fresh Water	7732-18-5	100.00000	89.94450	Density = 8.330
40/70 White	Halliburton	Proppant					
			Crystalline silica, quartz	14808-60-7	100.00000	7.06494	
100 MESH	Halliburton	Proppant					
			Crystalline silica, quartz	14808-60-7	100.00000	1.76963	
HYDROCHLORIC ACID 5-10%	Halliburton	Solvent					
			Hydrochloric acid	7647-01-0	10.00000	0.10701	
FR-66	Halliburton	Friction Reducer					
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02353	
FE-1A ACIDIZING COMPOSITION	Halliburton	Additive					
			Acetic anhydride	108-24-7	100.00000	0.00555	
			Acetic acid	64-19-7	60.00000	0.00333	
BE-9	Halliburton	Biocide					
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000	0.00388	
LP-65	Halliburton	Scale Inhibitor					
			Ammonium chloride	12125-02-9	10.00000	0.00235	

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LoSurf-300D	Halliburton	Non-ionic Surfactant					
			Ethanol	64-17-5	60.00000	0.00112	
			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00056	
			Naphthalene	91-20-3	5.00000	0.00009	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00009	
			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00002	
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
			Guar gum	9000-30-0	100.00000	0.00172	
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00055	
			Propargyl alcohol	107-19-7	10.00000	0.00009	
SP BREAKER	Halliburton	Breaker					
			Sodium persulfate	7775-27-1	100.00000	0.00004	
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
		Other Ingredient(s)					
			Water	7732-18-5		1.17005	
		Other Ingredient(s)					
			Polyacrylamide copolymer	Confidential		0.02353	
		Other Ingredient(s)					
			Organic phosphonate	Confidential		0.01412	
		Other Ingredient(s)					
			Alcohols, C12-16, ethoxylated	68551-12-2		0.00392	
		Other Ingredient(s)					
			Sodium chloride	7647-14-5		0.00392	
		Other Ingredient(s)					
			Fatty acid tall oil amide	Confidential		0.00392	
		Other Ingredient(s)					
			Ammonium chloride	12125-02-9		0.00392	
		Other Ingredient(s)					
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8		0.00078	
		Other Ingredient(s)					
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6		0.00078	
		Other Ingredient(s)					
			Oxyalkylated phenolic resin	Confidential		0.00056	
		Other Ingredient(s)					
			Fatty acids, tall oil	Confidential		0.00028	
		Other Ingredient(s)					
			Alcohols, C14-C15, ethoxylated	68951-67-7		0.00028	
		Other Ingredient(s)					

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			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1		0.00028	
		Other Ingredient(s)					
			Formaldehyde	50-00-0		0.00024	
		Other Ingredient(s)					
			Oxyalkylated phenolic resin	Confidential		0.00019	
		Other Ingredient(s)					
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4		0.00009	
		Other Ingredient(s)					
			Olefins	Confidential		0.00005	
		Other Ingredient(s)					
			Olefins	Confidential		0.00005	
		Other Ingredient(s)					
			Surfactant mixture	Confidential		0.00002	
		Other Ingredient(s)					
			Surfactant mixture	Confidential		0.00002	
		Other Ingredient(s)					
			Silica gel	112926-00-8		0.00002	
		Other Ingredient(s)					
			Olefins	Confidential		0.00001	
		Other Ingredient(s)					
			Olefins	Confidential		0.00001	
		Other Ingredient(s)					
			Crystalline Silica, Quartz	14808-60-7		0.00000	
		Other Ingredient(s)					
			Sodium sulfate	7757-82-6		0.00000	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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