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: 47-017-06004

Farm Name: Kiley, Joseph & Jacqueline _____ Operator Well No: OXFD-1E-HS

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

District: West Union County: DODDRIDGE
Latitude: _____ Feet South of Deg. Min. Sec. 39.24238700
Longitude: Feet South of Deg. Min. Sec. -80.82563800

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	654	654	633 sxs (139bbls) 50bbls return
Inspector: Bill Hendershot		9 5/8	2582	2582	870 sxs (206bbls) 53bbls return
Date Permit Issued: 5/26/2011		5 ½	14977.5	14977.5	2480 sxs (628bbls) - est TOC @ 1268'
Date Well Work Commenced:	6/19/2013				
Date Well Work Completed:	3/23/2014				
Verbal Plugging:					
Date Permission granted on:	6/19/2013				
Rotary Cable Rig X					
Total Vertical Depth (ft): Original Hole - 6,579.4					
Total Measured Depth (ft): 15,002.0					
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): NA					

OPEN FLOW DATA (If more than two producing formations please include

Producing formation Marcellus Pay zone depth (ft) 6804
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 6/19/2014 Date 6.16.14

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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 (lbs)	Acid (gals)	Water (gals)
12/15/2013	1A	Marcellus	Slickwater	14,625	14,837	48	5,577	7,397	53.2	4,342	1.09	25,788	6,000	279,038
12/16/2013	1B	Marcellus	Slickwater	14,645	14,739	32	6,226	8,729	62.2	4,718	1.15	13,138	3,000	238,737
12/17/2013	1C	Marcellus	Slickwater	14,323	14,577	40	6,401	8,137	67.1	5,688	1.30	236,914	9,000	456,780
12/18/2013	1D	Marcellus	Slickwater	14,344	14,520	40	7,277	7,879	58.8	4,890	1.18	123,465	3,000	311,079
12/18/2013	1E	Marcellus	Slickwater				6,505	7,921	66.5	5,116	1.21	347,716	3,000	300,347
12/19/2013	2	Marcellus	Slickwater	14,023	14,277	40	6,612	8,258	68.4	2,858	0.87	501,853	3,000	453,065
12/19/2013	3	Marcellus	Slickwater	13,723	13,977	40	5,952	7,895	70.5	2,974	0.89	501,081	3,000	463,462
12/21/2013	4	Marcellus	Slickwater	13,423	13,677	40	6,159	8,228	80.2	3,095	0.90	502,917	3,000	421,869
12/22/2013	5	Marcellus	Slickwater	13,123	13,377	40	6,295	8,283	79.4	4,362	1.10	407,374	3,000	394,451
12/22/2013	6	Marcellus	Slickwater	12,823	13,077	40	6,465	7,902	79.9	3,161	0.92	503,687	3,000	423,842
12/23/2013	7A	Marcellus	Slickwater	12,523	12,777	40	6,543	7,920	53.2	3,806	1.01	305,197	6,000	560,323
12/23/2013	7B	Marcellus	Slickwater	12,546	12,606	24	NA	8,077	76.9	4,751	1.16	218,857	3,000	279,206
12/27/2013	8	Marcellus	Slickwater	12,223	12,477	40	6,136	7,650	78.5	3,911	1.03	506,918	3,000	486,010
12/27/2013	9	Marcellus	Slickwater	11,923	12,177	40	5,397	7,487	83.1	3,468	0.96	499,653	3,000	471,385
12/28/2013	10	Marcellus	Slickwater	11,623	11,877	40	5,764	7,695	78.0	3,180	0.92	419,032	3,000	434,657
12/29/2013	11	Marcellus	Slickwater	11,323	11,577	40	5,085	7,852	80.1	3,686	1.00	504,011	3,000	448,621
12/29/2013	12	Marcellus	Slickwater	11,023	11,277	40	5,582	7,750	80.1	3,419	0.95	507,793	3,000	437,932
12/30/2013	13	Marcellus	Slickwater	10,723	10,977	40	5,678	8,147	77.6	3,217	0.92	501,639	3,000	436,728
1/2/2014	14	Marcellus	Slickwater	10,423	10,677	40	5,112	8,320	82.1	3,593	0.98	501,743	3,000	421,255
1/5/2014	15	Marcellus	Slickwater	10,123	10,377	40	5,249	8,077	79.4	4,078	1.05	503,322	3,000	537,065
1/5/2014	16	Marcellus	Slickwater	9,823	10,077	40	5,628	8,061	82.4	3,382	0.95	499,211	3,000	473,200
1/5/2014	17	Marcellus	Slickwater	9,523	9,777	40	6,059	7,843	78.4	3,561	0.97	503,980	6,000	565,926
1/6/2014	18	Marcellus	Slickwater	9,223	9,477	40	5,290	8,215	78.4	3,217	0.92	495,796	3,000	502,330
1/6/2014	19	Marcellus	Slickwater	8,923	9,177	40	5,172	7,856	87.6	3,121	0.91	502,170	3,000	512,713
1/10/2014	20	Marcellus	Slickwater	8,623	8,877	40	5,073	7,819	78.3	4,470	1.11	506,768	6,000	669,959
1/10/2014	21	Marcellus	Slickwater	8,323	8,577	40	6,202	7,369	88.9	4,529	1.12	498,369	3,000	436,505
1/11/2014	22	Marcellus	Slickwater	8,023	8,277	40	6,308	7,543	84.5	5,126	1.21	419,727	3,000	408,026
1/11/2014	23	Marcellus	Slickwater	7,775	7,977	40	5,724	7,462	87.4	3,355	0.94	501,155	3,000	479,711
1/12/2014	24	Marcellus	Slickwater	7,525	7,727	40	5,476	6,949	84.7	4,839	1.17	412,097	3,000	321,542
1/12/2014	25	Marcellus	Slickwater	7,223	7,477	40	5,450	7,046	86.5	4,355	1.09	502,932	3,000	389,985
1/13/2014	26	Marcellus	Slickwater	6,923	7,177	40	5,578	7,100	86.3	3,453	0.96	503,151	3,000	388,612

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Stage #	Plug Type	Plug Depth
1	No plug	No plug
2	Composite Frac Plug	14,300
3	Composite Frac Plug	14,000
4	Composite Frac Plug	13,700
5	Composite Frac Plug	13,400
6	Composite Frac Plug	13,100
7A/7B	Composite Frac Plug	12,800
8	Composite Frac Plug	12,500
9	Composite Frac Plug	12,200
10	Composite Frac Plug	11,900
11	Composite Frac Plug	11,600
12	Composite Frac Plug	11,300
13	Composite Frac Plug	11,000
14	Composite Frac Plug	10,700
15	Composite Frac Plug	10,400
16	Composite Frac Plug	10,100
17	Composite Frac Plug	9,800
18	Composite Frac Plug	9,500
19	Composite Frac Plug	9,175
20	Composite Frac Plug	8,900
21	Composite Frac Plug	8,600
22	Composite Frac Plug	8,300
23	Composite Frac Plug	8,000
24	Composite Frac Plug	7,750
25	Composite Frac Plug	7,500
26	Composite Frac Plug	7,200
	Bridge Plug	6,500

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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	2040	
Big Injun (Grnbr)	2040	2120	2040	2277	
Weir	2277	2308	2277	2516	
Berea Ss	2515	2520	2516	2691	
Fourth	2690	2714	2691	2945	
Bayard	2944	2985	2945	3344	
Speechley	3340	3398	3344	3917	
Balltown A	3904	3930	3917	4129	
Balltown B	4112	4185	4129	4443	
Riley	4422	4443	4443	4977	
Benson	4952	5000	4977	5221	
Alexander	5196	5280	5221	6342	
Cashaqua Sh	6278	6399	6342	6487	
Middlesex Sh	6399	6448	6487	6555	
West River	6448	6524	6555	6688	
Geneseo Sh	6524	6554	6688	6751	
Tully Ls	6554	6573	6751	6797	
Hamilton	6573	6581	6797	6820	
Marcellus	6581	6636	6820	6979	Gas
Cherry Valley	6618	6620	6979	not encountered	
Onondaga	6636	6647	not encountered	not encountered	
Huntersville	6647	not encountered	not encountered	not encountered	

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date	12/16/2013
Job End Date	1/13/2014
State	West Virginia
County	Doddridge
API Number	47-017-06004-00-00
Operator Name	Noble Energy, Inc
Well Name and Number	OXF1 E
Longitude	-80.82563800
Latitude	39.24238700
Datum	NAD27
Federal/Tribal Well	NO
True Vertical Depth	657
Total Base Water Volume (gal)	13,404,355
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	88.76027	Density = 8.340
SAND - PREMIUM WHITE	Halliburton	Proppant					
			Crystalline silica, quartz	14808-60-7	100.00000	8.08627	
SAND - COMMON WHITE	Halliburton	Proppant					
			Crystalline silica, quartz	14808-60-7	100.00000	2.16123	
HYDROCHLORIC ACID 5-10%	Halliburton	Solvent					
			Hydrochloric acid	7647-01-0	10.00000	0.07774	
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
			Guar gum	9000-30-0	100.00000	0.02187	
FDP-S1078-12	Halliburton	Friction Reducer					
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.00938	
			Alcohols, C12-16, ethoxylated	68551-12-2	10.00000	0.00313	
			Ammonium chloride	12125-02-9	10.00000	0.00313	
			9-Octadecenamide, n,n-bis-2 (hydroxy ethyl), (Z)	93-83-4	5.00000	0.00156	
CALCIUM CHLORIDE	Halliburton	Additive					

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			Calcium chloride	10043-52-4	100.00000	0.00943	
FR-66	Halliburton	Friction Reducer					
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.00436	
BE-9W	Halliburton	Biocide					
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000	0.00390	
FE-1A ACIDIZING COMPOSITION	Halliburton	Additive					
			Acetic anhydride	108-24-7	100.00000	0.00180	
			Acetic acid	64-19-7	60.00000	0.00108	
LP-65 MC	Halliburton	Scale Inhibitor					
			Ammonium chloride	12125-02-9	10.00000	0.00260	
SP BREAKER	Halliburton	Breaker					
			Sodium persulfate	7775-27-1	100.00000	0.00105	
LoSurf-300D	Halliburton	Non-ionic Surfactant					
			Ethanol	64-17-5	60.00000	0.00036	
			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00018	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00003	
			Naphthalene	91-20-3	5.00000	0.00003	
			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00001	
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00018	
			Propargyl alcohol	107-19-7	10.00000	0.00003	
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		0.90323	
		Other Ingredient(s)					
			Organic phosphonate	Confidential		0.01562	
		Other Ingredient(s)					
			Inorganic salt	Confidential		0.00938	
		Other Ingredient(s)					
			Polyacrylamide copolymer	Confidential		0.00436	
		Other Ingredient(s)					
			Fatty acid ester	Confidential		0.00156	
		Other Ingredient(s)					
			Bentonite, benzyl(hydrogenated tallow alkyl) dimethylammonium stearate complex	121888-68-4		0.00109	
		Other Ingredient(s)					
			Alcohols, C12-16, ethoxylated	68551-12-2		0.00073	
		Other Ingredient(s)					
			Sodium chloride	7647-14-5		0.00073	
		Other Ingredient(s)					

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			Ammonium chloride	12125-02-9		0.00073	
		Other Ingredient(s)					
			Fatty acid tall oil amide	Confidential		0.00073	
		Other Ingredient(s)					
			Formaldehyde	50-00-0		0.00026	
		Other Ingredient(s)					
			Surfactant mixture	Confidential		0.00022	
		Other Ingredient(s)					
			Silica gel	112926-00-8		0.00022	
		Other Ingredient(s)					
			Surfactant mixture	Confidential		0.00022	
		Other Ingredient(s)					
			Oxyalkylated phenolic resin	Confidential		0.00016	
		Other Ingredient(s)					
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8		0.00015	
		Other Ingredient(s)					
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6		0.00015	
		Other Ingredient(s)					
			Alcohols, C14-C15, ethoxylated	68951-67-7		0.00009	
		Other Ingredient(s)					
			Fatty acids, tall oil	Confidential		0.00009	
		Other Ingredient(s)					
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1		0.00009	
		Other Ingredient(s)					
			Oxyalkylated phenolic resin	Confidential		0.00006	
		Other Ingredient(s)					
			Crystalline Silica, Quartz	14808-60-7		0.00002	
		Other Ingredient(s)					
			Olefins	Confidential		0.00001	
		Other Ingredient(s)					
			Olefins	Confidential		0.00001	
		Other Ingredient(s)					
			Olefins	Confidential		0.00000	
		Other Ingredient(s)					
			Olefins	Confidential		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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