

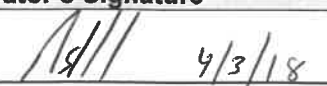


pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

COMPLETION REPORT
(Unconventional Operators only)

DEP USE ONLY	
Site ID	Primary Facility ID
Client ID	Sub Facility ID

Well Information											
Well Operator CNX GAS COMPANY LLC			DEP ID# 159257		US Well No. (API No.) 37-063-37522-00-00, 01-00			Farm Name Marchand		Well # 3MHSUT	
Address 1 Dominion Drive			Latitude (DD) 40.853167°			NAD 83		Project Number		Serial # PA0632256HSUT	
			Longitude (DD) -79.033311°								
City Jane Lew		State WV		Zip Code 26378		Municipality North Mahoning Twp.			County Indiana		
Phone (304) 641-0080		Fax		Email adamshutler@cnx.com			USGS 7.5 min. quadrangle map Marion Center			Section 3	
Well Development Impoundment:											
Check the appropriate submission: ☒ Original Completion Report ☐ Amended Completion Report											
STIMULATION BASE FLUID											
Water Source(s)				Water Management Plan ID				Volume (Gallons)			
1. Little Mahoning Creek (Source #29)				WMP-159257-5				7,495,362			
2. East Branch Mahoning Creek 2				WMP-159257-6				4,553,682			
3. Central Indiana County Water Authority (Source #32)				WMP-159257-5				796,530			
4. South Bend Water Services (Source #60)				WMP-159257-5				106,260			
5.											
6.											
				DEP Biologist Review/Date		Total Gallons of Water Used 15,368,514		Water 12,951,834		Recycled 2,416,680	
Other Base Fluid(s) Used								Quantity and /UOM			
1. HCL 7.5%								52,461 /GALS			
2. HCL 15%								25,777/GALS			
Total Quantity all Fluid(s)								15,446,752/GALS			
STIMULATION/PRODUCTION INFORMATION (WELL)											
Radioactive tracers used? ☐ Specify Tracer N/A		24 Hr. Open-Flow (MCF/Day) / Date 11,000 MCF / 3/20/2018				24 Hr. Shut-in Pressure: / Date 7,105 PSI / 3/22/2018				Completion Date: 3/05/2018	
Well Products:		☒ Gas Btu 1,007		☐ Oil API G		☐ Condensate API G		☐ Other		☐ GOR	
WELL SERVICE COMPANIES											
Perforation Company			Frac Company			Plug Drill Out/Flow Back Company					
Name Allied Horizontal			Name Universal Pressure Pumping			Name Colter Energy Services					
Address 381 Colonial Manor Road			Address 2605 Nicholson Rd. Bldg 2 Suite 102			Address 200 Phoenix Drive					
City - State - Zip North Huntingdon, PA 15642			City - State - Zip Sewickley, PA 15143			City - State - Zip Finleyville, PA 15332					
Phone 724-382-5012			Phone 724-759-7589			Phone 724-256-4083					
I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I do hereby certify that the area of review monitoring plan was conducted as outlined in the area of review summary report.											
Well Operator's Signature						DEP USE ONLY					
 Printed Name / Title: Adam Shutler / Superintendent Completions Date: 4/3/18						Reviewed by: _____ Date: _____					
						Comments: _____					

US Well No. (API No.) 37-063-37522-00-00, 01-00

PERFORATION RECORD					
Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
1	2/7/2018	19,871	20,014	40	Utica
2	2/7/2018	19,673	19,835	40	Utica
3	2/8/2018	19,473	19,635	40	Utica
4	2/8/2018	19,273	19,435	40	Utica
5	2/9/2018	19,073	19,235	40	Utica
6	2/9/2018	18,873	19,035	40	Utica
7	2/10/2018	18,673	18,835	40	Utica
8	2/10/2018	18,473	18,635	40	Utica
9	2/11/2018	18,273	18,435	40	Utica
10	2/11/2018	18,073	18,235	40	Utica
11	2/12/2018	17,873	18,035	40	Utica
12	2/12/2018	17,673	17,835	40	Utica
13	2/12/2018	17,473	17,635	40	Utica
14	2/13/2018	17,273	17,435	40	Utica
15	2/14/2018	17,073	17,235	40	Utica
16	2/14/2018	16,873	17,035	40	Utica
17	2/14/2018	16,673	16,835	40	Utica
18	2/15/2018	16,471	16,635	40	Utica
19	2/15/2018	16,273	16,435	40	Utica
20	2/16/2018	16,073	16,235	40	Utica
21	2/16/2018	15,873	16,035	40	Utica
22	2/16/2018	15,673	15,835	40	Utica
23	2/17/2018	15,473	15,635	40	Utica
24	2/17/2018	15,273	15,435	40	Utica
25	2/17/2018	15,073	15,235	40	Utica
26	2/18/2018	14,873	15,035	40	Utica
27	2/18/2018	14,673	14,835	40	Utica
28	2/18/2018	14,473	14,635	40	Utica
29	2/19/2018	14,273	14,435	40	Utica
30	2/19/2018	14,073	14,235	40	Utica
31	2/19/2018	13,873	14,035	40	Utica
32	2/20/2018	13,673	13,835	40	Utica
33	2/20/2018	13,473	13,635	40	Utica
34	2/21/2018	13,273	13,435	40	Utica
Please insert additional copies of this page if additional rows/stages are needed.					

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STIMULATION INFORMATION / STAGE

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	2/7/2018	64	12,407	12,916	9,502	Ceramic	40/70, 30/50, 35 Krypto
2	2/8/2018	71	12,681	13,254	9,595	Ceramic	40/70, 30/50, 35 Krypto
3	2/8/2018	74	12,853	13,855	9,661	Ceramic	40/70, 30/50, 35 Krypto
4	2/8/2018	71	12,605	13,029	9,651	Ceramic	40/70, 30/50, 35 Krypto
5	2/9/2018	68	12,546	13,799	9,570	Ceramic	40/70, 30/50, 35 Krypto
6	2/10/2018	70	12,565	13,078	9,433	Ceramic	40/70, 30/50, 35 Krypto
7	2/10/2018	68	12,861	13,450	9,539	Ceramic	40/70, 30/50, 35 Krypto
8	2/11/2018	69	12,535	12,856	9,411	Ceramic	40/70, 30/50, 35 Krypto
9	2/11/2018	76	12,873	13,284	9,448	Ceramic	40/70, 30/50, 35 Krypto
10	2/11/2018	78	12,790	13,755	9,480	Ceramic	40/70, 30/50, 35 Krypto
11	2/12/2018	75	12,763	13,109	9,545	Ceramic	40/70, 30/50, 35 Krypto
12	2/12/2018	78	12,921	13,437	9,385	Ceramic	40/70, 30/50, 35 Krypto
13	2/12/2018	83	12,872	13,377	9,354	Ceramic	40/70, 30/50, 35 Krypto
14	2/13/2018	82	12,678	13,383	9,312	Ceramic	40/70, 30/50, 35 Krypto
15	2/14/2018	83	12,967	13,329	9,580	Ceramic	40/70, 30/50, 35 Krypto
16	2/14/2018	85	13,031	13,268	9,420	Ceramic	40/70, 30/50, 35 Krypto
17	2/15/2018	85	12,896	13,257	9,745	Ceramic	40/70, 30/50, 35 Krypto
18	2/15/2018	87	13,077	14,012	9,366	Ceramic	40/70, 30/50, 35 Krypto
19	2/15/2018	86	12,971	14,058	9,697	Ceramic	40/70, 30/50, 35 Krypto
20	2/16/2018	89	12,917	13,432	9,623	Ceramic	40/70, 30/50, 35 Krypto
21	2/16/2018	89	12,765	13,363	9,396	Ceramic	40/70, 30/50, 35 Krypto
22	2/16/2018	88	12,785	13,241	9,698	Ceramic	40/70, 30/50, 35 Krypto
23	2/17/2018	90	12,950	13,473	9,225	Ceramic	40/70, 30/50, 35 Krypto
24	2/17/2018	88	12,479	13,074	9,411	Ceramic	40/70, 30/50, 35 Krypto
25	2/17/2018	89	12,375	12,890	9,568	Ceramic	40/70, 30/50, 35 Krypto
26	2/18/2018	89	12,455	13,865	9,733	Ceramic	40/70, 30/50, 35 Krypto
27	2/18/2018	90	12,455	12,982	9,404	Ceramic	40/70, 30/50, 35 Krypto

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28	2/19/2018	90	12,728	13,437	9,540	Ceramic	40/70, 30/50, 35 Krypto
29	2/19/2018	89	12,737	13,543	9,331	Ceramic	40/70, 30/50, 35 Krypto
30	2/19/2018	87	12,591	13,161	9,622	Ceramic	40/70, 30/50, 35 Krypto
31	2/20/2018	88	12,490	13,261	9,102	Ceramic	40/70, 30/50, 35 Krypto
32	2/20/2018	89	12,654	13,260	9,600	Ceramic	40/70, 30/50, 35 Krypto
33	2/20/2018	88	12,459	13,047	9,635	Ceramic	40/70, 30/50, 35 Krypto
34	2/21/2018	87	12,757	13,652	9,406	Ceramic	40/70, 30/50, 35 Krypto

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STIMULATION INFORMATION / STAGE

Complete a separate record for each stimulation stage. (Please insert additional lines for additional stages or additional pages as applicable).

Stg #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Proppant Type	Proppant Mesh Size(s)
1	2/7/2018	64	12,407	12,916	9,502	Ottowa	100
2	2/8/2018	71	12,681	13,254	9,595	Ottowa	100
3	2/8/2018	74	12,853	13,855	9,661	Ottowa	100
4	2/8/2018	71	12,605	13,029	9,651	Ottowa	100
5	2/9/2018	68	12,546	13,799	9,570	Ottowa	100
6	2/10/2018	70	12,565	13,078	9,433	Ottowa	100
7	2/10/2018	68	12,861	13,450	9,539	Ottowa	100
8	2/11/2018	69	12,535	12,856	9,411	Ottowa	100
9	2/11/2018	76	12,873	13,284	9,448	Ottowa	100
10	2/11/2018	78	12,790	13,755	9,480	Ottowa	100
11	2/12/2018	75	12,763	13,109	9,545	Ottowa	100
12	2/12/2018	78	12,921	13,437	9,385	Ottowa	100
13	2/12/2018	83	12,872	13,377	9,354	Ottowa	100
14	2/13/2018	82	12,678	13,383	9,312	Ottowa	100
15	2/14/2018	83	12,967	13,329	9,580	Ottowa	100
16	2/14/2018	85	13,031	13,268	9,420	Ottowa	100
17	2/15/2018	85	12,896	13,257	9,745	Ottowa	100
18	2/15/2018	87	13,077	14,012	9,366	Ottowa	100
19	2/15/2018	86	12,971	14,058	9,697	Ottowa	100
20	2/16/2018	89	12,917	13,432	9,623	Ottowa	100
21	2/16/2018	89	12,765	13,363	9,396	Ottowa	100
22	2/16/2018	88	12,785	13,241	9,698	Ottowa	100
23	2/17/2018	90	12,950	13,473	9,225	Ottowa	100
24	2/17/2018	88	12,479	13,074	9,411	Ottowa	100
25	2/17/2018	89	12,375	12,890	9,568	Ottowa	100
26	2/18/2018	89	12,455	13,865	9,733	Ottowa	100
27	2/18/2018	90	12,455	12,982	9,404	Ottowa	100
28	2/19/2018	90	12,728	13,437	9,540	Ottowa	100
29	2/19/2018	89	12,737	13,543	9,331	Ottowa	100
30	2/19/2018	87	12,591	13,161	9,622	Ottowa	100
31	2/20/2018	88	12,490	13,261	9,102	Ottowa	100
32	2/20/2018	89	12,654	13,260	9,600	Ottowa	100
33	2/20/2018	88	12,459	13,047	9,635	Ottowa	100
34	2/21/2018	87	12,757	13,652	9,406	Ottowa	100

STIMULATION FLUID ADDITIVES

Trade Name	Supplier	Purpose	Ingredients	CAS # of Chemical Component	Max. Component % Mass in Additive	Chemical Component % Mass used in Total Base Fluid (Pg 1)	Comment
Water	Consol	Carrier/Base Fluid	Water	7732-18-5	100.00%	22.98081%	
Sand	UPP	Proppant	Crystalline Silica in the form of Quartz	14808-60-7	99.90%	0.90888%	
HCL Acid (7.5%)	UPP	Acidizing	Hydrochloric Acid	7647-01-0	7.50%	0.00700%	
HCL Acid (15%)	UPP	Acidizing	Hydrochloric Acid	7647-01-0	15.00%	0.00687%	
Unihib G	UPP	Acid inhibitor	Butyl diglycol	112-34-5	75.00%	0.00011%	
			Alcohols, C10-16, ethoxylated	68002-97-1	50.00%	0.00007%	
			Methanol	67-56-1	5.00%	0.00001%	
			Formaldehyde	50-00-0	1.00%	0.00000%	
			Thiourea	62-56-6	1.00%	0.00000%	
Unislick ST50	UPP	Friction reducer	Petroleum distillates, hydrotreated light	64742-47-8	30.00%	0.00686%	
			Alcohols, ethoxylated	68439-50-9	5.00%	0.00114%	
			Alcohols, ethoxylated	68551-12-2	5.00%	0.00114%	
			Alcohols, ethoxylated	68002-97-1	5.00%	0.00114%	
			Ammonium acetate	631-61-8	13.00%	0.00297%	
Aquacar 714	UPP	Biocide	Glutaraldehyde	111-30-8	14.00%	0.00075%	
			Water	7732-18-5	83.00%	0.00446%	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	2.50%	0.00013%	
			Ethanol	64-17-5	0.30%	0.00002%	
Scale Inhibitor E	UPP	Scale Inhibitor	Copolymer of Maleic and Acrylic Acid	52255-49-9	20.00%	0.00062%	
			DETA phosphonate	15827-60-8	5.00%	0.00016%	
			Hexamethylene Triamine	34690-00-1	5.00%	0.00016%	
WGA-7	UPP	Viscosifier	Penta(Methylene Phosphonic Acid) Guar Gum	9000-30-0	55.00%	0.00478%	
			Distillates (petroleum), hydrotreated light	64742-47-8	55.00%	0.00478%	
HTL-200 Breaker	UPP	Breaker	Sodium chlorite	7758-19-2	20.00%	0.00004%	

AP Breaker	UPP	Breaker	Ammonium Persulfate	7727-54-0	100.00%	0.00121%	
Ceramic Proppant	Carbo Ceram-ics	Proppant	Ceramic materials and wares, chemicals	66402-68-4	100.00%	75.92866%	