



Emission Performance Test Report Ozone Season Monitoring  
R336.1818(4)(a)(ii)

ANR Pipeline Company

ANR Pipeline – Woolfolk Compressor Station (SRN: B7220)  
August 4, 2017

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## Emissions Test Report

**Units EUWL001 to EUWL005,**  
**Five Ingersoll Rand KVG-103 Gas Fired Internal**  
**Combustion Reciprocating Engines and Unit**  
**EUWL006, One Ingersoll Rand KVG-123 Gas**  
**Fired Internal Combustion Reciprocating Engine**

Permit No.: MI-ROP-B7220-2017

ANR Pipeline Company  
Woolfolk Compressor Station  
Big Rapids, Michigan

Date: August 4, 2017  
Prepared for: Michigan Department of Environmental  
Quality - Air Quality Division  
Prepared by: Roy S. Cannon  
Air Compliance Team (832) 320-5465

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**AUG 07 2017**

**AIR QUALITY DIVISION**

# Test Summary

## General Information

Company: TransCanada US Pipelines

Station: ANR Woolfolk

## Unit Information

Unit No.: 2001 to 2005

Manufacturer: INGERSOLL RAND

Model: KVG-103

Rated BHP: 1,000

Rated RPM: 330

General Data					
Unit	2001	2002	2003	2004	2005
Test Date	6/19/17	6/19/17	6/20/17	6/19/17	6/19/17
Operating Data					
Horsepower	955	963	960	922	959
Speed	330	331	329	330	330
% Load	95.5%	96.3%	96.0%	92.2%	95.9%
% Torque	95.4%	96.1%	96.2%	92.3%	95.8%
Fuel Use (scfh)	9,054	8,993	8,758	9,727	8,901
Emissions Data					
NOx Limit	20.5 g/bhp-hr				
NOx (ppm)	1375.4	1127.2	1977.7	988.2	2111.8
NOx (ppm@ 15% O <sub>2</sub> )	508.7	432.5	738.1	362.0	764.8
NOx (lb/hr)	17.7	14.9	24.8	13.5	26.1
NOx (g/bhp-hr)	8.4	7.0	11.7	6.7	12.4
NOx (TPY)	77.5	65.4	108.7	59.2	114.5
O <sub>2</sub> (%)	5.0	5.5	5.1	4.8	4.6

# Test Summary

## General Information

Company: TransCanada US Pipelines

Station: ANR Woolfolk

## Unit Information

Unit No.: 2006 to 2009

Manufacturer: INGERSOLL RAND

Model: KVG-123

Rated BHP: 1,320

Rated RPM: 330

### General Data

Unit	2006	2007	2008	2009
Test Date	6/19/17			

### Operating Data

Horsepower	1,255			
Speed	329			
% Load	95.0%			
% Torque	95.5%			
Fuel Use (scfh)	11,949			

### Emissions Data

NOx Limit	20.5 g/bhp-hr			
NOx (ppm)	1,126.4			
NO <sub>x</sub> (ppm@ 15% O <sub>2</sub> )	420.4			
NO <sub>x</sub> (lb/hr)	19.3			
NO <sub>x</sub> (g/bhp-hr)	7.0			
NO <sub>x</sub> (TPY)	84.5			
O <sub>2</sub> (%)	5.1			