

**Polk Power Partners, L.P.**  
Mulberry Cogeneration Facility  
3600 Highway 555  
P.O. Box 824  
Bartow, FL 33831

**RECEIVED**

APR 08 2013

**DIVISION OF AIR  
RESOURCE MANAGEMENT**

April 05, 2013

Mr. Errin Pichard  
Department of Environmental Protection  
Bureau of Air Monitoring and Mobile Sources  
Twin Towers Office Building  
2600 Blair Stone Road – Mail Stop #5510  
Tallahassee, FL 32399-2400

Re: Polk Power Partners, L.P.  
Mulberry Cogeneration Facility  
Permit Number: 1050217-007-AV

Dear Mr. Pichard:

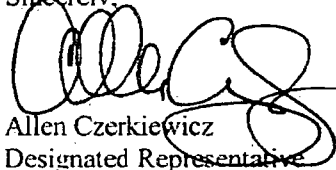
In compliance with the above referenced permit, please find enclosed one (1) copy each of the Source Test and RATA Reports performed concurrently and prepared as a result of our annual emission compliance testing performed on February 20, 2013. A copy of this report is also being submitted to the appropriate District office in Tampa.

#### **CERTIFICATION STATEMENT**

I, the undersigned, am the alternate designated representative for the Title V source for which this document is being submitted. I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

If you have any questions or require additional information, Kristen Albritton may be contacted at 863-533-9073, ext. 1209.

Sincerely,



Allen Czerkiewicz  
Designated Representative

Enclosure  
cc: Erin DiBacco – FDEP Tampa

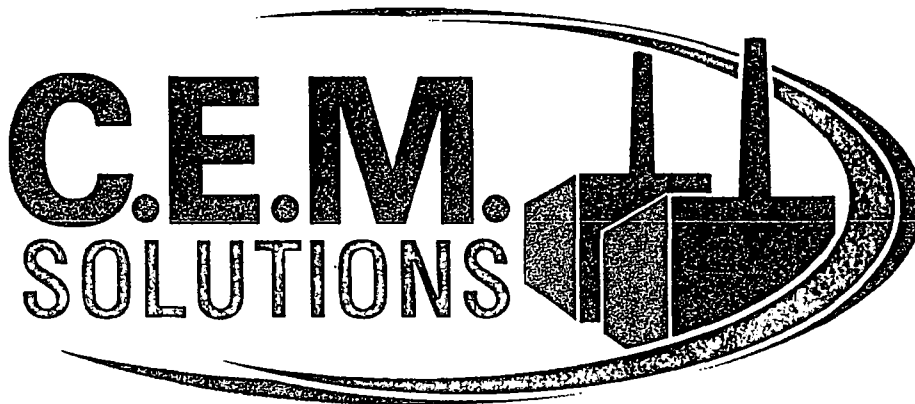
# ***Air Emissions Compliance Test and RATA Report***

*Completed for:*

***Mulberry Cogeneration Facility  
Combustion Turbine  
Unit 1 (EU -001)***

**Test Report Number: 20-6006-01-001**

**Test Completed: February 20, 2013**



**Air Emissions Compliance Test and RATA Report**

***Mulberry Cogeneration Facility  
Combustion Turbine  
Unit 1 (EU -001)  
Bartow, Florida***

**C.E.M. Solutions Project No. 6006**

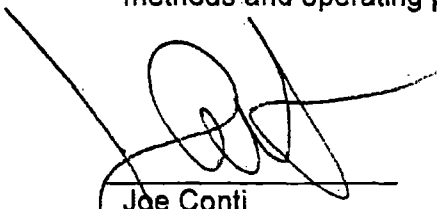
**Testing Completed: February 20, 2013**

**C.E.M. Solutions, Inc Report Number: 20-6006-01-001**

**C.E.M. Solutions, Inc.  
1183 E. Overdrive Circle  
Hernando, Florida 34442  
Phone: 352-489-4337**

**Declaration of Conformance to ASTM D 7036-04:  
Standard Practice for Competence of Air Emission  
Testing Bodies**

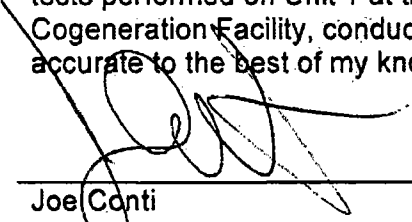
C.E.M. Solutions operates in conformance with the requirements of ASTM D 7036-04: Standard Practice for Competence of Air Emission Testing Bodies through the use of a quality system which incorporates a quality manual, internal audit system, systematic training of personnel and rigorous review of test methods and operating procedures.



Joe Conti  
Quality Assurance Manager  
C.E.M. Solutions

## Statement of Validity

I hereby certify the information and data provided in this emissions test report for tests performed on Unit 1 at the Polk Power Partners L.P., Mulberry Cogeneration Facility, conducted on February 20, 2013 are complete and accurate to the best of my knowledge.



---

Joe Conti  
Quality Assurance Manager,  
C.E.M. Solutions, Inc.

## Project Background

Name of Source Owner: Polk Power Partners L.P.

Address of Owner: 3600 County Road 555  
Bartow FL 33831

Source Identification: Facility ID: 1050217  
Emissions Unit: 1 (EU -001)

Location of Source: Polk County, Florida

Type of Operation: SIC Code: 4911

Tests Performed: Method 3A – Determination of Oxygen and Carbon Dioxide  
Method 7E – Determination of Nitrogen Oxides  
Method 9 – Visual Determination of Visible emissions  
Method 10 – Determination of Carbon Monoxide  
Method 19 – Determination of Nitrogen Oxide Emissions Rates

Test Supervisor  
(QSTI certified): Matt Savin

Test Technicians: Derek Kopera  
Peter Watson

Date(s) Tests Conducted: February 20, 2013: RATA and V.E. on Unit 1

Site Test Coordinator: Kristen Albritton

State Regulatory Observers: No Observers Present

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## 1.0 Introduction

Polk Power Partners L.P. retained C.E.M. Solutions, Inc. to perform compliance source emissions testing and a Relative Accuracy Test Audit (RATA) on the Unit 1 (EU -001) stationary combustion turbine (CT) located at its Mulberry Cogeneration Facility in Bartow, Florida.

A Relative Accuracy Test Audit (RATA) was conducted on the NO<sub>x</sub> lb/mmBtu CEMS analyzers in order to evaluate the accuracy of the CT CEMS in accordance with the United States Environmental Protection Agency (USEPA) requirements in the Code of Federal Regulations, Title 40, Part 75, Appendix B, and Section 2.3.1. Furthermore, a Part 60 RATA was conducted in order to evaluate compliance status of the Unit 1 NO<sub>x</sub> ppm @ 15% O<sub>2</sub>. CO compliance was conducted concurrently with the RATA, while firing pipeline natural gas, in respect to the Florida Department of Environmental Protection's (FDEP's) permit number 1050217-009-AV. A visible emission test was conducted on Unit 1 as part of the compliance test as well. The test program and methods are presented and discussed in this report. The following sections summarize the pollutant tested, units measured and permitted limits.

Matthew Savin was the QSTI certified project manager for C.E.M. Solutions, Inc. Kristen Albritton of the Polk Power Partners L.P. Mulberry Cogeneration Facility coordinated plant operations throughout the test program. All testing was conducted in accordance with test methods promulgated by the USEPA.

Unit 1 of the Mulberry Cogeneration Facility was found to be in compliance with permit number 1050217-009-AV. Table 1 summarizes the results of the RATA and compliance tests conducted on Unit 1.

**Table 1: Summary of RATA and Compliance Test  
Polk Power Partners L.P.  
Mulberry Cogeneration Facility  
Unit 1**

<b>Pollutant</b>	<b>Applicable CFR Part</b>	<b>RA or Result</b>	<b>Performance Specification</b>	<b>Pass/ Fail</b>	<b>Bias Adjustment Factor</b>
NO <sub>x</sub> ppm @ 15%O <sub>2</sub>	60	0.8 %	≤ 20%	Pass	N/A
NO <sub>x</sub> lb/mmBtu	75	1.1 %	≤ 10%	Pass	1.000
CO	permit	0.6	25 ppmvd @ 15% O <sub>2</sub>	Pass	N/A
O <sub>2</sub> %	60	0.2	≤ 1.0%	Pass	N/A
V.E.	permit	0.0	≤ 10%	Pass	N/A



## 2.0 Facility Description

The Mulberry Cogeneration Facility operates a General Electric Model PG7111EA Combustion Turbine (Unit 1) having a nominal generating capacity of 82 MW. Primary fuel is natural gas.

### 2.1 Process Equipment

Unit 1 has a maximum heat input rating that shall not exceed 970.0 million Btu per hour (mmBtu/hr) when firing natural gas. Heat input is based on the Low Heating Value (LHV) of the fuel.

Control measures and equipment on Unit 1 consists of dry low NO<sub>x</sub> burners. The combustion turbine incorporates an unfired heat recovery steam generator. Emissions are exhausted through a 125 ft. stack, having an exit diameter of 15 ft.

### 2.2 Regulatory Requirements

The facility is required to conduct annual emissions tests for the following pollutants while operating at 90-100 percent of the heat input curve. Emission testing was conducted to determine the compliance status of the following pollutants:

- NO<sub>x</sub> RATA in lb/MMBtu and ppm @ 15% O<sub>2</sub>
- CO in ppmvd @ 15% O<sub>2</sub>
- O<sub>2</sub> in percent
- Visible emissions in percent

In accordance with permit condition A.13, ongoing NO<sub>x</sub> compliance is determined by the Continuous Emissions Monitoring System (CEMS) located on the CT stack. The CEMS was also evaluated during the test program to determine monitoring accuracy.

Table 2 summarizes the applicable emissions and CEMS accuracy limits for Unit 1.

**Table 2: Summary of Emissions and CEMS Accuracy Limits  
Polk Power Partners L.P.  
Mulberry Cogeneration Facility  
Unit 1**

<b>Pollutant</b>	<b>Control Technology</b>	<b>Emission Limit/Performance Specification</b>	<b>Permit Condition</b>
NO <sub>x</sub>	Dry Low NO <sub>x</sub> Burners	RA ≤ 10.0% or ± 0.020 lb/mmBtu <sup>1</sup>	A.7.a
CO	Good Combustion	25 ppmvd @ 15% O <sub>2</sub>	A.13
Visual Emission	Good Combustion	≤10% for gas <sup>2</sup>	A11

1 0.020 lb/mmBtu applies to low emitters  
2 Highest 6 minute block average

### 3.0 Test Program/Operating Conditions

Emissions tests were completed at the Mulberry Cogeneration Facility to determine the compliance status of Unit 1 on February 20, 2013.

Unit 1 was tested on February 20, 2013. Visible emission testing and NO<sub>x</sub> 40CFR, Part 75 Relative Accuracy Test Audits were conducted concurrently with a NO<sub>x</sub> and O<sub>2</sub> Part 60 RATA and CO compliance test while the unit was at base load, firing natural gas.

Turbine operating data was collected and provided by facility personnel during the entire test program. Data provided include, but was not limited to:

- Unit Generation (MW)
- Combustor inlet air temperature
- Fuel flow rate

Table 3 presents the percentage of the maximum heat input, for Unit 1, during the compliance test.

**Table 3: Heat Input During Test Program  
Polk Power Partners L.P.  
Mulberry Cogeneration Facility  
Unit 1**

<b>Unit</b>	<b>Calculated Heat Input mmBtu/hr</b>	<b>Maximum Heat Input mmBtu/hr</b>	<b>Percent of Heat Input %</b>
Unit 1	863	970	89%

Unit operating data and heat input curve can be viewed in Appendix A.

## 4.0 Test Methods

All testing was performed in accordance with methods approved by the USEPA and FDEP. The following discusses the methods, as well as quality assurance and sample handling procedures.

### 4.1 Instrument Analyzer Procedures

NO<sub>x</sub> and CO reference method (RM) data were determined using instrument analyzer procedures. In addition, diluent gas concentrations of oxygen (O<sub>2</sub>) were also measured via instrumental methods. O<sub>2</sub> was used to calculate NO<sub>x</sub> and CO in lbs/MMBtu and ppm @ 15% O<sub>2</sub>.

Mathematical equations used to determine calculated emissions standards are located in Appendix B.

Table 4 summarizes the EPA methods and instrumentation:

**Table 4: Summary of EPA Instrument Reference Methods  
Polk Power Partners L.P.  
Mulberry Cogeneration Facility  
Unit 1**

<b>Pollutant</b>	<b>EPA Method</b>	<b>Instrument</b>	<b>Serial Number</b>
Unit 1, NO <sub>x</sub>	7E	TEI Model 42i	1200951381
Unit 1, O <sub>2</sub>	3A	Servomex 1420	1420D/3379
Unit 1, CO	10	TEI Model 48C	48C-74094-375

All reference method analyzers used meet or exceed applicable performance specifications detailed in the appropriate method.

Gas samples were continuously extracted from the stack by a gas sample probe. Samples were then transported to a gas sample conditioner via a heated sample line operating at 250°F or above. The gas sample conditioner lowers the dew point of the sample gas to approximately 5°C through minimum interference heat exchangers. The dry, cool sample is then sent to the gas analyzers, located in the environmentally controlled test trailer for analysis by the reference method analyzers.

Instrument outputs were recorded continuously with a Windows compatible personal computer, compiled into 15 second averages, and stored in a database for future reference.

Instrument ranges and calibration gases were chosen in accordance with each pollutant's applicable EPA method. Instrument ranges and calibration gases used are shown in Table 5:

**Table 5: Reference Method Calibration Span and Calibration Gases  
Polk Power Partners L.P.  
Mulberry Cogeneration Facility  
Unit 1**

<b>Pollutant</b>	<b>Test Location</b>	<b>Calibration Span</b>	<b>Calibration Gases<sup>a</sup></b>
NO <sub>x</sub>	Unit 1	19.63 ppm	0.0 ppm NO 9.45 ppm NO 19.63 ppm NO
CO	Unit 1	45.69 ppm	0.0 ppm NO 20.09 ppm NO 45.69 ppm NO
O <sub>2</sub>	Unit 1	20.48 %	0.0 % O <sub>2</sub> 9.93 % O <sub>2</sub> 20.48 % O <sub>2</sub>

<sup>a</sup> Concentrations of NO, CO and O<sub>2</sub> are in a balance of purified nitrogen (N<sub>2</sub>). All analyzers were zeroed with ultra high purity N<sub>2</sub>. All calibration gases have been certified to NIST traceable standards.

Calibration gas Certificates of Analysis can be found in Appendix C.

#### **4.1.1 Sampling Location/Traverse Points/Test Run Duration**

Unit 1 exhaust stack inner diameter, at the sample location, is 16 feet (192"). The emissions sampling location is 31 feet downstream from the nearest flow disturbance, and 28 feet upstream from the stack exhaust. A diagram of the sample location can be viewed in Appendix D.

Gas sample traverse points were located in accordance with 40CFR, Part 60, Appendix A, Section 8.1.3.2 at 0.4 meters, 1.2 meters, and 2.0 meters from the inner wall of the stack. Each point was sampled for seven minutes, equaling a total of 21 minutes per test run. Each compliance test run, compiled from three consecutive RATA runs, is 63 minutes in duration. Nine 21-minute test runs were completed.

#### **4.1.2 Quality Assurance/Quality Control Procedures**

All sampling, analytical, and Quality Assurance/Quality Control (QA/QC) procedures outlined in the EPA methods were followed. All test equipment was calibrated before or during use in the field. Interference checks, response time

checks, and NO<sub>2</sub> to NO converter checks were performed on each instrumental analyzer, as applicable, before field use. In the field, each analyzer and the entire instrument measurement system was checked for system bias before and following each test run using the calibration gases listed in Table 5.

Appendix E contains the QA/QC checks.

## **4.2 Determination of Visible Emissions**

USEPA Method 9 was utilized to determine visible emissions.

Visible emissions observations were performed by a FDEP certified visible emissions reader. Readings were taken at 15 second intervals and reduced into six minute averages as required by the applicable EPA standard. One-sixty minute visible emission run was performed while each source was operating at maximum capacity.

## **5.0 Test Results**

Summaries of the test results for the RATAs and Compliance are discussed below. Tables 6 through 9 summarize the results of the conducted tests. Supporting RM field data, fuel analysis reports, and calculated values are presented in Appendix F. CEMS RATA Data is located in Appendix A.

### **5.1 Nitrogen Oxides (NO<sub>x</sub>)**

The relative accuracy of the NO<sub>x</sub> lb/mmBtu CEMS, over the nine test runs, was 1.1%, passing the annual performance specification of 7.5%. The NO<sub>x</sub>@15% O<sub>2</sub> relative accuracy was 0.8% passing the performance specification of 20.0%.

The Unit 1 NO<sub>x</sub>-diluent CEMS passed the BAF test. A BAF of 1.000 has been assigned to the Unit 1 NO<sub>x</sub> CEMS.

### **5.2 Carbon Monoxide (CO)**

CO emissions for the three test runs averaged 0.6 ppmvd @ 15% O<sub>2</sub>, passing the emission limitation of 25 ppm @ 15% O<sub>2</sub>.

### **5.3 Oxygen (O<sub>2</sub>)**

The O<sub>2</sub> CEMS had a difference of 0.2% from the reference method, over the nine run test period, passing the Part 60 performance specification of ≤1.0%.

### **5.4 Visible Emissions (VE)**

The highest visible emissions observed in any six-minute average on Unit 1 during the one hour test runs was 0.0%, passing the 10% emission limitation.





**Table 7: Unit 1 NO<sub>x</sub> Part 75 RATA Summary  
 Polk Power Partners L.P.  
 Mulberry Cogeneration Facility  
 Unit 1**

**Relative Accuracy Determination**

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL

Run Number	Date of Run	Start Time	Stop Time	Unit Load MW	NO <sub>x</sub> RM lbs/mmBtu	CEM lbs/mmBtu	Difference Like lbs/mmBtu
Run 1	20-Feb	14:20:00	14:41:00	77	0.036	0.036	0.000
Run 2	20-Feb	14:55:00	15:16:00	76	0.037	0.037	0.000
Run 3	20-Feb	15:29:00	15:50:00	76	0.037	0.037	0.000
Run 4	20-Feb	16:04:00	16:25:00	76	0.036	0.036	0.000
Run 5	20-Feb	16:42:00	17:03:00	76	0.037	0.036	0.001
Run 6	20-Feb	17:16:00	17:37:00	76	0.037	0.036	0.001
Run 7	20-Feb	17:51:00	18:12:00	76	0.036	0.036	0.000
Run 8	20-Feb	18:25:00	18:46:00	77	0.036	0.036	0.000
Run 9	20-Feb	19:01:00	19:22:00	78	0.036	0.036	0.000
<b>Average:</b>				76	0.036	0.036	0.000 lbs/mmBtu

**Bias Test (pass/fail): Passed**  
**Bias Adjustment Factor: 1.000**  
**Method of RA Determination: Part 75, Standard Emitter**

Standard Deviation: 0.0004  
 Confidence Coefficient: 0.0003  
 T-Factor: 2.306  
 Number of runs Reported: 9

Note:  
 All ppm values are corrected to lbs/mmBtu NO<sub>x</sub>  
 using RM O2 and CEM O2 as diluents

**Relative Accuracy: 1.1**  
**Maximum RA 10.0**  
**RA Status Passed**

**Table 8: Unit 1 O<sub>2</sub> RATA Summary  
Polk Power Partners L.P.  
Mulberry Cogeneration Facility  
Unit 1**

**Relative Accuracy Determination**

Test Performed For:  
Polk Power Partners  
Mulberry Cogen  
Unit 1  
Date:2/20/13

Test Performed By:  
C.E.M. Solutions Inc.  
1183 E. Overdrive Circle.  
Hernando, FL

Run Number	Date of Run	Start Time	Stop Time	Unit Load MW	O <sub>2</sub> RM DRY % V/V	O <sub>2</sub> CEM DRY % V/V	O <sub>2</sub> Difference Like % V/V
Run 1	20-Feb	14:20:00	14:41:00	77	14.9	14.7	0.2
Run 2	20-Feb	14:55:00	15:16:00	76	14.9	14.7	0.2
Run 3	20-Feb	15:29:00	15:50:00	76	14.9	14.7	0.2
Run 4	20-Feb	16:04:00	16:25:00	76	14.8	14.7	0.1
Run 5	20-Feb	16:42:00	17:03:00	76	14.9	14.7	0.2
Run 6	20-Feb	17:16:00	17:37:00	76	14.9	14.7	0.2
Run 7	20-Feb	17:51:00	18:12:00	76	14.9	14.7	0.2
Run 8	20-Feb	18:25:00	18:46:00	77	14.9	14.7	0.2
Run 9	20-Feb	19:01:00	19:22:00	78	14.8	14.7	0.1

Average:                                      77                      14.9 %                      14.7 %                      0.2 %

**Method of RA Determination: Part 75, 1% Volume Difference**

Standard Deviation:	0.0430
Confidence Coefficient:	0.0331
T-Factor:	2.306
Number of runs Reported:	9
<b>Relative Accuracy:</b>	<b>0.2</b>
Maximum RA	1.0
<b>RA Status</b>	<b>Passed</b>

**Table 9: Unit 1 CO and VE Compliance Summary  
Polk Power Partners L.P.  
Mulberry Cogeneration Facility  
Unit 1**

Test Performed For:  
Polk Power Partners  
Mulberry Cogen  
Unit 1  
Date: 2/20/13

Test Performed By:  
C.E.M. Solutions Inc.  
1183 E. Overdrive Circle  
Hemando, FL

Run Number	Units	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Run 9	Average	Standard
Date of Run	2013	20-Feb	20-Feb	20-Feb	20-Feb	20-Feb	20-Feb	20-Feb	20-Feb	20-Feb		
Start Time		14:20:00	14:55:00	15:29:00	16:04:00	16:42:00	17:16:00	17:51:00	18:25:00	19:01:00		
Stop Time		14:41:00	15:16:00	15:50:00	16:25:00	17:03:00	17:37:00	18:12:00	18:46:00	19:22:00		
Unit Load	MW	76.9	76.3	76.1	76.2	76.2	76.1	76.2	77.0	77.6		
Heat Input	mmbtu/hr	871	779	870	873	873	872	874	874	877	863	
NO <sub>x</sub> / O <sub>2</sub>	Lbs/mmBtu	0.036	0.037	0.037	0.036	0.037	0.037	0.036	0.036	0.036	0.037	
NO <sub>x</sub> / O <sub>2</sub>	ppm@15% O <sub>2</sub>	9.8	9.9	9.9	9.9	9.9	9.9	9.8	9.8	9.7	9.9	
CO / O <sub>2</sub>	Lbs/mmBtu	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.002	0.001	
CO / O <sub>2</sub>	ppm@15% O <sub>2</sub>	0.5	0.4	0.4	0.4	0.6	0.7	0.6	0.7	1.0	0.5	
Compliance Runs			<u>Run 1</u>			<u>Run 2</u>			<u>Run 3</u>			
CO / O <sub>2</sub>	ppm@15% O <sub>2</sub>		0.4			0.6			0.8		0.6	25.0
Visible Emissions												
Start Time			14:30									
Stop Time			15:30									
V.E.	%		0.0								0.0	10.0

**Appendix A: Facility Operating Data**

Conversion of HHV to LHV

C.E.M. Solutions

Run	Unit 1 ISO Corrected Heat Input HHV	Unit 1 ISO Corrected Heat Input LHV
1	958.5	871
2	856.8	779
3	956.8	870
4	960.8	873
5	960.8	873
6	959.0	872
7	961.0	874
8	961.0	874
9	964.2	877

Average 863

$$\text{LHV} = \text{HHV}/1.10$$

**Mulberry Cogeneration Facility**  
 Bartow, Florida 33830  
**Daily Heat Input Report**  
 February 20, 2013

Hour	Heat Input	ISO Corrected Heat Input mmBtu	Boiler Heat Input mmBtu	Boiler ISO Corrected Heat Input mmBtu	ISO Corrected Factor	Ambient Temp °F	Barometric Pressure PSIA	Relative Humidity %
00	Down	Down	Down	Down	1.00934	61.38	14.70	80.37
01	Down	Down	Down	Down	1.00816	60.68	14.70	83.15
02	Down	Down	Down	Down	1.00862	60.70	14.70	85.49
03	Down	Down	Down	Down	1.00879	60.66	14.70	86.98
04	Down	Down	Down	Down	1.00958	60.64	14.69	87.92
05	Down	Down	Down	Down	1.00952	60.91	14.70	87.65
06	Down	Down	Down	Down	1.00948	61.17	14.71	87.58
07	499.9	503.9	Down	Down	1.00793	60.30	14.71	90.87
08	957.8	968.7	Down	Down	1.01134	61.64	14.72	95.02
09	955.4	970.1	Down	Down	1.01542	63.43	14.72	92.74
10	950.0	968.1	Down	Down	1.01902	65.38	14.72	86.20
11	935.2	962.4	Down	Down	1.02909	70.37	14.71	72.43
12	927.3	960.8	Down	Down	1.03587	73.42	14.69	64.05
13	921.1	958.9	Down	Down	1.04103	76.37	14.68	54.53
14	918.6	958.5	Down	Down	1.04346	77.42	14.67	51.92
15	914.8	956.8	Down	Down	1.04593	78.40	14.66	50.05
16	918.4	960.8	Down	Down	1.04612	78.32	14.66	51.18
17	916.8	959.0	Down	Down	1.04603	78.62	14.68	52.80
18	924.3	961.0	Down	Down	1.03989	75.29	14.68	58.83
19	931.7	964.2	Down	Down	1.03487	72.96	14.68	62.15
20	934.8	960.1	Down	Down	1.02707	69.81	14.70	67.27
21	948.4	967.3	Down	Down	1.01994	66.28	14.70	73.85
22	123.9	126.0	Down	Down	1.01658	64.61	14.70	77.29
23	Down	Down	Down	Down	1.01342	63.35	14.70	76.79
Average Total	13678.4	14106.4	Down	Down		67.59	14.69	74.05

R1

**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 2:20 PM thru 2/20/2013 2:41 PM

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 14:20	0.5831 <26>	10.38	9.83	0.0362	14.67	934.7
2/20 14:21	0.5831 <26>	10.32	9.76	0.0359	14.66	930.7
2/20 14:22	0.5831 <26>	10.35	9.79	0.0361	14.66	934.7
2/20 14:23	0.5831 <26>	10.43	9.86	0.0363	14.66	931.5
2/20 14:24	0.5831 <26>	10.48	9.91	0.0365	14.66	928.3
2/20 14:25	0.5831 <26>	10.47	9.92	0.0365	14.67	930.7
2/20 14:26	0.5831 <26>	10.41	9.86	0.0363	14.67	932.3
2/20 14:27	0.5831 <26>	10.50	9.96	0.0367	14.68	928.3
2/20 14:28	0.5831 <26>	10.41	9.86	0.0363	14.67	927.4
2/20 14:29	0.5831 <26>	10.46	9.92	0.0366	14.68	933.1
2/20 14:30	0.5831 <26>	10.50	9.94	0.0366	14.67	931.5
2/20 14:31	0.5831 <26>	10.41	9.86	0.0363	14.67	931.5
2/20 14:32	0.5831 <26>	10.30	9.74	0.0359	14.66	931.5
2/20 14:33	0.5831 <26>	10.39	9.84	0.0362	14.67	929.9
2/20 14:34	0.5831 <26>	10.34	9.79	0.0361	14.67	929.9
2/20 14:35	0.5831 <26>	10.41	9.86	0.0363	14.67	931.5
2/20 14:36	0.5831 <26>	10.33	9.77	0.0360	14.66	933.1
2/20 14:37	0.5831 <26>	10.33	9.78	0.0360	14.67	931.5
2/20 14:38	0.5831 <26>	10.37	9.82	0.0362	14.67	932.3
2/20 14:39	0.5831 <26>	10.35	9.80	0.0361	14.67	929.9
2/20 14:40	0.5831 <26>	10.38	9.83	0.0362	14.67	930.7
2/20 14:41	0.5831 <26>	10.43	9.89	0.0364	14.68	928.3
Average (all)	0.5831	10.40	9.85	0.0363	14.67	931.1
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	10.30	9.74	0.0359	14.66	927.4
Maximum (all)	0.5831	10.50	9.96	0.0367	14.68	934.7
Average (valid values only)	0.5831	10.40	9.85	0.0363	14.67	931.1
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	22	22	22	22	22	22

<26> = Substituted Data.

# CeDAR 1-Minute Data

Mulberry Cogeneration Facility  
Data for 2/20/2013 2:20 PM thru 2/20/2013 2:41 PM

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Timestamp	(Turbine) CT Megawatts 1-Min
2/20 14:20	76.9
2/20 14:21	76.9
2/20 14:22	76.9
2/20 14:23	76.9
2/20 14:24	76.9
2/20 14:25	76.9
2/20 14:26	76.9
2/20 14:27	76.9
2/20 14:28	76.8
2/20 14:29	76.9
2/20 14:30	76.9
2/20 14:31	76.9
2/20 14:32	76.9
2/20 14:33	76.9
2/20 14:34	76.9
2/20 14:35	76.9
2/20 14:36	76.9
2/20 14:37	76.9
2/20 14:38	76.9
2/20 14:39	76.9
2/20 14:40	76.9
2/20 14:41	76.9

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Average (all)	76.9
Total (all)	--
Minimum (all)	76.8
Maximum (all)	76.9
Average (valid values only)	76.9
Total (valid values only)	--
Count (valid values only)	22

<26> = Substituted Data



R2

# CeDAR 1-Minute Data

Mulberry Cogeneration Facility

Data for 2/20/2013 2:55 PM thru 2/20/2013 3:16 PM

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 14:55	0.5831 <26>	10.51	9.95	0.0367	14.67	930.7
2/20 14:56	0.5831 <26>	10.50	9.94	0.0366	14.67	929.1
2/20 14:57	0.5831 <26>	10.63	10.08	0.0371	14.68	926.6
2/20 14:58	0.5831 <26>	10.67	10.10	0.0372	14.67	927.4
2/20 14:59	0.5831 <26>	10.60	10.05	0.0370	14.68	924.2
2/20 15:00	0.5831 <26>	10.59	10.05	0.0370	14.68	927.4
2/20 15:01	0.5831 <26>	10.58	10.04	0.0370	14.68	925.8
2/20 15:02	0.5831 <26>	10.64	10.09	0.0372	14.68	925.0
2/20 15:03	0.5831 <26>	10.55	9.99	0.0368	14.67	924.2
2/20 15:04	0.5831 <26>	10.51	9.95	0.0367	14.67	922.6
2/20 15:05	0.5831 <26>	10.50	9.94	0.0366	14.67	926.6
2/20 15:06	0.5831 <26>	10.50	9.94	0.0366	14.67	928.3
2/20 15:07	0.5831 <26>	10.47	9.93	0.0366	14.68	925.0
2/20 15:08	0.5831 <26>	10.51	9.97	0.0367	14.68	925.8
2/20 15:09	0.5831 <26>	10.51	9.97	0.0367	14.68	926.6
2/20 15:10	0.5831 <26>	10.59	10.03	0.0369	14.67	926.6
2/20 15:11	0.5831 <26>	10.61	10.06	0.0371	14.68	928.3
2/20 15:12	0.5831 <26>	10.59	10.05	0.0370	14.68	924.2
2/20 15:13	0.5831 <26>	10.50	9.94	0.0366	14.67	923.4
2/20 15:14	0.5831 <26>	10.61	10.06	0.0371	14.68	925.0
2/20 15:15	0.5831 <26>	10.57	10.03	0.0369	14.68	927.4
2/20 15:16	0.5831 <26>	10.63	10.08	0.0371	14.68	927.4
Average (all)	0.5831	10.56	10.01	0.0369	14.68	926.3
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	10.47	9.93	0.0366	14.67	922.6
Maximum (all)	0.5831	10.67	10.10	0.0372	14.68	930.7
Average (valid values only)	0.5831	10.56	10.01	0.0369	14.68	926.3
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	22	22	22	22	22	22

<26> = Substituted Data

# CeDAR 1-Minute Data

Mulberry Cogeneration Facility

Data for 2/20/2013 2:55 PM thru 2/20/2013 3:16 PM

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Timestamp	(Turbine) CT Megawatts 1-Min
2/20 14:55	76.9
2/20 14:56	76.3
2/20 14:57	76.3
2/20 14:58	76.5
2/20 14:59	76.6
2/20 15:00	76.1
2/20 15:01	76.4
2/20 15:02	76.1
2/20 15:03	76.3
2/20 15:04	76.3
2/20 15:05	76.2
2/20 15:06	76.3
2/20 15:07	76.3
2/20 15:08	76.3
2/20 15:09	76.6
2/20 15:10	76.1
2/20 15:11	76.1
2/20 15:12	76.1
2/20 15:13	76.1
2/20 15:14	76.2
2/20 15:15	76.2
2/20 15:16	76.2
Average (all)	76.3
Total (all)	--
Minimum (all)	76.1
Maximum (all)	76.9
Average (valid values only)	76.3
Total (valid values only)	--
Count (valid values only)	22

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<26> = Substituted Data

# CeDAR 1-Minute Data

R3

Mulberry Cogeneration Facility  
Data for 2/20/2013 3:29 PM thru 2/20/2013 3:50 PM

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 15:29	0.5831 <26>	10.49	9.93	0.0366	14.67	921.0
2/20 15:30	0.5831 <26>	10.48	9.92	0.0366	14.67	925.8
2/20 15:31	0.5831 <26>	10.48	9.92	0.0366	14.67	926.6
2/20 15:32	0.5831 <26>	10.49	9.93	0.0366	14.67	925.0
2/20 15:33	0.5831 <26>	10.57	10.03	0.0369	14.68	925.0
2/20 15:34	0.5831 <26>	10.64	10.09	0.0372	14.68	925.8
2/20 15:35	0.5831 <26>	10.52	9.96	0.0367	14.67	925.8
2/20 15:36	0.5831 <26>	10.53	9.97	0.0367	14.67	923.4
2/20 15:37	0.5831 <26>	10.42	9.87	0.0364	14.67	928.3
2/20 15:38	0.5831 <26>	10.55	9.99	0.0368	14.67	925.0
2/20 15:39	0.5831 <26>	10.57	10.01	0.0369	14.67	924.2
2/20 15:40	0.5831 <26>	10.41	9.86	0.0363	14.67	924.2
2/20 15:41	0.5831 <26>	10.50	9.94	0.0366	14.67	927.4
2/20 15:42	0.5831 <26>	10.44	9.90	0.0365	14.68	926.6
2/20 15:43	0.5831 <26>	10.50	9.94	0.0366	14.67	924.2
2/20 15:44	0.5831 <26>	10.47	9.92	0.0365	14.67	927.4
2/20 15:45	0.5831 <26>	10.45	9.88	0.0364	14.66	924.2
2/20 15:46	0.5831 <26>	10.48	9.91	0.0365	14.66	925.0
2/20 15:47	0.5831 <26>	10.53	9.96	0.0367	14.66	925.8
2/20 15:48	0.5831 <26>	10.49	9.92	0.0365	14.66	927.4
2/20 15:49	0.5831 <26>	10.64	10.08	0.0371	14.67	925.0
2/20 15:50	-- <18>	-- <18>	-- <18>	-- <18>	-- <18>	-- <18>
Average (all)	0.5831	10.51	9.95	0.0367	14.67	925.4
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	10.41	9.86	0.0363	14.66	921.0
Maximum (all)	0.5831	10.64	10.09	0.0372	14.68	928.3
Average (valid values only)	0.5831	10.51	9.95	0.0367	14.67	925.4
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	21	21	21	21	21	21

<18> = Data Handling System Malfunction  
<26> = Substituted Data

**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 3:29 PM thru 2/20/2013 3:50 PM

Timestamp	(Turbine) CT Megawatts 1-Min
2/20 15:29	76.2
2/20 15:30	76.1
2/20 15:31	76.2
2/20 15:32	76.1
2/20 15:33	76.1
2/20 15:34	76.1
2/20 15:35	76.2
2/20 15:36	76.1
2/20 15:37	76.1
2/20 15:38	76.1
2/20 15:39	76.1
2/20 15:40	76.2
2/20 15:41	76.1
2/20 15:42	76.1
2/20 15:43	76.1
2/20 15:44	76.1
2/20 15:45	76.1
2/20 15:46	76.2
2/20 15:47	76.2
2/20 15:48	76.3
2/20 15:49	76.2
2/20 15:50	-- <18>
Average (all)	76.1
Total (all)	--
Minimum (all)	76.1
Maximum (all)	76.3
Average (valid values only)	76.1
Total (valid values only)	--
Count (valid values only)	21

<18> = Data Handling System Malfunction  
 <26> = Substituted Data

R4

**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 4:04 PM thru 2/20/2013 4:25 PM

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 16:04	0.5831 <26>	10.40	9.83	0.0362	14.66	925.8
2/20 16:05	0.5831 <26>	10.17	9.63	0.0355	14.67	928.3
2/20 16:06	0.5831 <26>	9.95	9.42	0.0347	14.67	927.4
2/20 16:07	0.5831 <26>	10.10	9.58	0.0353	14.68	926.6
2/20 16:08	0.5831 <26>	9.58	9.09	0.0335	14.68	925.8
2/20 16:09	0.5831 <26>	10.39	9.86	0.0363	14.68	924.2
2/20 16:10	0.5831 <26>	10.55	9.99	0.0368	14.67	929.1
2/20 16:11	0.5831 <26>	10.54	9.98	0.0368	14.67	928.3
2/20 16:12	0.5831 <26>	10.50	9.94	0.0366	14.67	928.3
2/20 16:13	0.5831 <26>	10.34	9.81	0.0361	14.68	928.3
2/20 16:14	0.5831 <26>	10.42	9.87	0.0364	14.67	927.4
2/20 16:15	0.5831 <26>	10.27	9.73	0.0358	14.67	926.6
2/20 16:16	0.5831 <26>	10.04	9.49	0.0350	14.66	930.7
2/20 16:17	0.5831 <26>	10.45	9.88	0.0364	14.66	929.9
2/20 16:18	0.5831 <26>	10.45	9.90	0.0365	14.67	925.8
2/20 16:19	0.5831 <26>	10.44	9.89	0.0364	14.67	925.0
2/20 16:20	0.5831 <26>	10.42	9.85	0.0363	14.66	926.6
2/20 16:21	0.5831 <26>	10.44	9.87	0.0364	14.66	925.0
2/20 16:22	0.5831 <26>	10.43	9.88	0.0364	14.67	929.1
2/20 16:23	0.5831 <26>	10.41	9.86	0.0363	14.67	927.4
2/20 16:24	0.5831 <26>	10.45	9.90	0.0365	14.67	926.6
2/20 16:25	0.5831 <26>	10.58	10.02	0.0369	14.67	927.4
Average (all)	0.5831	10.33	9.79	0.0361	14.67	927.3
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	9.58	9.09	0.0335	14.66	924.2
Maximum (all)	0.5831	10.58	10.02	0.0369	14.68	930.7
Average (valid values only)	0.5831	10.33	9.79	0.0361	14.67	927.3
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	22	22	22	22	22	22

<26> = Substituted Data

## CeDAR 1-Minute Data

Mulberry Cogeneration Facility  
Data for 2/20/2013 4:04 PM thru 2/20/2013 4:25 PM

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Timestamp	(Turbine) CT Megawatts 1-Min
2/20 16:04	76.2
2/20 16:05	76.1
2/20 16:06	76.1
2/20 16:07	76.1
2/20 16:08	76.2
2/20 16:09	76.2
2/20 16:10	76.3
2/20 16:11	76.2
2/20 16:12	76.2
2/20 16:13	76.2
2/20 16:14	76.5
2/20 16:15	76.3
2/20 16:16	76.3
2/20 16:17	76.2
2/20 16:18	76.2
2/20 16:19	76.2
2/20 16:20	76.1
2/20 16:21	76.3
2/20 16:22	76.3
2/20 16:23	76.1
2/20 16:24	76.2
2/20 16:25	76.4

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Average (all)	76.2
Total (all)	--
Minimum (all)	76.1
Maximum (all)	76.5
Average (valid values only)	76.2
Total (valid values only)	--
Count (valid values only)	22

<26> = Substituted Data

RS

**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 4:42 PM thru 2/20/2013 5:03 PM

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 16:42	0.5831 <26>	10.30	9.74	0.0359	14.66	928.3
2/20 16:43	0.5831 <26>	10.17	9.63	0.0355	14.67	928.3
2/20 16:44	0.5831 <26>	10.36	9.81	0.0361	14.67	930.7
2/20 16:45	0.5831 <26>	10.41	9.86	0.0363	14.67	929.9
2/20 16:46	0.5831 <26>	10.46	9.92	0.0366	14.68	927.4
2/20 16:47	0.5831 <26>	10.38	9.85	0.0363	14.68	928.3
2/20 16:48	0.5831 <26>	10.38	9.85	0.0363	14.68	926.6
2/20 16:49	0.5831 <26>	10.43	9.88	0.0364	14.67	929.1
2/20 16:50	0.5831 <26>	10.55	9.99	0.0368	14.67	926.6
2/20 16:51	0.5831 <26>	10.58	10.02	0.0369	14.67	928.3
2/20 16:52	0.5831 <26>	10.43	9.86	0.0363	14.66	928.3
2/20 16:53	0.5831 <26>	10.50	9.94	0.0366	14.67	927.4
2/20 16:54	0.5831 <26>	10.50	9.93	0.0366	14.66	928.3
2/20 16:55	0.5831 <26>	10.46	9.91	0.0365	14.67	925.8
2/20 16:56	0.5831 <26>	10.49	9.93	0.0366	14.67	925.8
2/20 16:57	0.5831 <26>	10.47	9.92	0.0365	14.67	925.0
2/20 16:58	0.5831 <26>	10.56	10.00	0.0368	14.67	925.0
2/20 16:59	0.5831 <26>	10.46	9.91	0.0365	14.67	923.4
2/20 17:00	0.5831 <26>	10.44	9.89	0.0364	14.67	925.0
2/20 17:01	0.5831 <26>	10.46	9.89	0.0364	14.66	927.4
2/20 17:02	0.5831 <26>	10.43	9.86	0.0363	14.66	925.8
2/20 17:03	0.5831 <26>	10.47	9.92	0.0365	14.67	923.4
Average (all)	0.5831	10.44	9.89	0.0364	14.67	927.0
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	10.17	9.63	0.0355	14.66	923.4
Maximum (all)	0.5831	10.58	10.02	0.0369	14.68	930.7
Average (valid values only)	0.5831	10.44	9.89	0.0364	14.67	927.0
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	22	22	22	22	22	22

<26> = Substituted Data

**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 4:42 PM thru 2/20/2013 5:03 PM

Timestamp	(Turbine) CT Megawatts 1-Min
2/20 16:42	76.1
2/20 16:43	76.2
2/20 16:44	76.1
2/20 16:45	76.3
2/20 16:46	76.2
2/20 16:47	76.2
2/20 16:48	76.3
2/20 16:49	76.2
2/20 16:50	76.3
2/20 16:51	76.1
2/20 16:52	76.2
2/20 16:53	76.1
2/20 16:54	76.2
2/20 16:55	76.2
2/20 16:56	76.2
2/20 16:57	76.2
2/20 16:58	76.2
2/20 16:59	76.2
2/20 17:00	76.1
2/20 17:01	76.2
2/20 17:02	76.2
2/20 17:03	76.2
<hr/>	
Average (all)	76.2
Total (all)	--
Minimum (all)	76.1
Maximum (all)	76.3
Average (valid values only)	76.2
Total (valid values only)	--
Count (valid values only)	22

<26> = Substituted Data



**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 5:16 PM thru 2/20/2013 5:37 PM

RG

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 17:16	0.5831 <26>	10.45	9.88	0.0364	14.66	921.8
2/20 17:17	0.5831 <26>	10.38	9.83	0.0362	14.67	925.0
2/20 17:18	0.5831 <26>	10.33	9.77	0.0360	14.66	925.8
2/20 17:19	0.5831 <26>	10.29	9.74	0.0359	14.67	925.0
2/20 17:20	0.5831 <26>	10.48	9.92	0.0366	14.67	927.4
2/20 17:21	0.5831 <26>	10.48	9.92	0.0366	14.67	925.8
2/20 17:22	0.5831 <26>	10.47	9.92	0.0365	14.67	925.0
2/20 17:23	0.5831 <26>	10.47	9.92	0.0365	14.67	925.8
2/20 17:24	0.5831 <26>	10.35	9.80	0.0361	14.67	927.4
2/20 17:25	0.5831 <26>	10.36	9.80	0.0361	14.66	925.8
2/20 17:26	0.5831 <26>	10.31	9.75	0.0359	14.66	927.4
2/20 17:27	0.5831 <26>	10.38	9.81	0.0362	14.66	929.1
2/20 17:28	0.5831 <26>	10.36	9.80	0.0361	14.66	928.3
2/20 17:29	0.5831 <26>	10.30	9.74	0.0359	14.66	925.0
2/20 17:30	0.5831 <26>	10.33	9.78	0.0360	14.67	927.4
2/20 17:31	0.5831 <26>	10.41	9.84	0.0363	14.66	925.0
2/20 17:32	0.5831 <26>	10.41	9.84	0.0363	14.66	927.4
2/20 17:33	0.5831 <26>	10.40	9.83	0.0362	14.66	925.8
2/20 17:34	0.5831 <26>	10.44	9.87	0.0364	14.66	925.8
2/20 17:35	0.5831 <26>	10.28	9.72	0.0358	14.66	927.4
2/20 17:36	0.5831 <26>	10.41	9.84	0.0363	14.66	921.8
2/20 17:37	0.5831 <26>	10.44	9.89	0.0364	14.67	923.4
Average (all)	0.5831	10.39	9.83	0.0362	14.66	925.8
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	10.28	9.72	0.0358	14.66	921.8
Maximum (all)	0.5831	10.48	9.92	0.0366	14.67	929.1
Average (valid values only)	0.5831	10.39	9.83	0.0362	14.66	925.8
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	22	22	22	22	22	22

<26> = Substituted Data

# CeDAR 1-Minute Data

Mulberry Cogeneration Facility  
Data for 2/20/2013 5:16 PM thru 2/20/2013 5:37 PM

---

Timestamp	(Turbine) CT Megawatts 1-Min
2/20 17:16	76.2
2/20 17:17	76.1
2/20 17:18	76.1
2/20 17:19	76.1
2/20 17:20	76.1
2/20 17:21	76.1
2/20 17:22	76.2
2/20 17:23	76.2
2/20 17:24	76.1
2/20 17:25	76.2
2/20 17:26	76.2
2/20 17:27	76.2
2/20 17:28	76.1
2/20 17:29	76.1
2/20 17:30	76.2
2/20 17:31	76.1
2/20 17:32	76.2
2/20 17:33	76.1
2/20 17:34	76.2
2/20 17:35	76.1
2/20 17:36	76.1
2/20 17:37	76.2

---

Average (all)	76.1
Total (all)	--
Minimum (all)	76.1
Maximum (all)	76.2
Average (valid values only)	76.1
Total (valid values only)	--
Count (valid values only)	22

<26> = Substituted Data

Run 7

**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 5:51 PM thru 2/20/2013 6:12 PM

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 17:51	0.5831 <26>	10.18	9.63	0.0355	14.66	925.8
2/20 17:52	0.5831 <26>	10.36	9.80	0.0361	14.66	926.6
2/20 17:53	0.5831 <26>	10.45	9.90	0.0365	14.67	927.4
2/20 17:54	0.5831 <26>	10.34	9.78	0.0360	14.66	929.9
2/20 17:55	0.5831 <26>	10.28	9.74	0.0359	14.67	926.6
2/20 17:56	0.5831 <26>	10.57	10.01	0.0369	14.67	927.4
2/20 17:57	0.5831 <26>	10.43	9.88	0.0364	14.67	928.3
2/20 17:58	0.5831 <26>	10.44	9.90	0.0365	14.68	928.3
2/20 17:59	0.5831 <26>	10.40	9.86	0.0363	14.68	929.9
2/20 18:00	0.5831 <26>	10.44	9.89	0.0364	14.67	931.5
2/20 18:01	0.5831 <26>	10.51	9.95	0.0367	14.67	926.6
2/20 18:02	0.5831 <26>	10.45	9.90	0.0365	14.67	929.1
2/20 18:03	0.5831 <26>	10.49	9.92	0.0365	14.66	929.9
2/20 18:04	0.5831 <26>	10.40	9.83	0.0362	14.66	929.9
2/20 18:05	0.5831 <26>	10.46	9.91	0.0365	14.67	932.3
2/20 18:06	0.5831 <26>	10.44	9.89	0.0364	14.67	931.5
2/20 18:07	0.5831 <26>	10.45	9.88	0.0364	14.66	929.1
2/20 18:08	0.5831 <26>	10.41	9.84	0.0363	14.66	928.3
2/20 18:09	0.5831 <26>	10.48	9.91	0.0365	14.66	927.4
2/20 18:10	0.5831 <26>	10.44	9.87	0.0364	14.66	931.5
2/20 18:11	0.5831 <26>	10.51	9.95	0.0367	14.67	929.1
2/20 18:12	-- <18>	-- <18>	-- <18>	-- <18>	-- <18>	-- <18>
Average (all)	0.5831	10.43	9.87	0.0364	14.67	928.9
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	10.18	9.63	0.0355	14.66	925.8
Maximum (all)	0.5831	10.57	10.01	0.0369	14.68	932.3
Average (valid values only)	0.5831	10.43	9.87	0.0364	14.67	928.9
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	21	21	21	21	21	21

<18> = Data Handling System Malfunction  
 <26> = Substituted Data

**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 5:51 PM thru 2/20/2013 6:12 PM

Timestamp	(Turbine) CT Megawatts 1-Min
2/20 17:51	76.2
2/20 17:52	76.2
2/20 17:53	76.2
2/20 17:54	76.2
2/20 17:55	76.1
2/20 17:56	76.1
2/20 17:57	76.2
2/20 17:58	76.2
2/20 17:59	76.2
2/20 18:00	76.3
2/20 18:01	76.3
2/20 18:02	76.2
2/20 18:03	76.3
2/20 18:04	76.3
2/20 18:05	76.3
2/20 18:06	76.1
2/20 18:07	76.3
2/20 18:08	76.1
2/20 18:09	76.1
2/20 18:10	76.3
2/20 18:11	76.9
2/20 18:12	-- <18>
Average (all)	76.2
Total (all)	--
Minimum (all)	76.1
Maximum (all)	76.9
Average (valid values only)	76.2
Total (valid values only)	--
Count (valid values only)	21

<18> = Data Handling System Malfunction  
 <26> = Substituted Data

# CeDAR 1-Minute Data

AG

Mulberry Cogeneration Facility  
Data for 2/20/2013 6:25 PM thru 2/20/2013 6:46 PM

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 18:25	0.5831 <26>	10.24	9.68	0.0357	14.66	933.1
2/20 18:26	0.5831 <26>	10.29	9.73	0.0358	14.66	929.1
2/20 18:27	0.5831 <26>	10.29	9.73	0.0358	14.66	933.1
2/20 18:28	0.5831 <26>	10.29	9.71	0.0358	14.65	931.5
2/20 18:29	0.5831 <26>	10.28	9.72	0.0358	14.66	933.1
2/20 18:30	0.5831 <26>	9.99	9.45	0.0348	14.66	933.9
2/20 18:31	0.5831 <26>	10.55	9.98	0.0367	14.66	933.1
2/20 18:32	0.5831 <26>	10.54	9.97	0.0367	14.66	933.1
2/20 18:33	0.5831 <26>	10.49	9.92	0.0365	14.66	933.9
2/20 18:34	0.5831 <26>	10.39	9.82	0.0362	14.66	932.3
2/20 18:35	0.5831 <26>	10.42	9.85	0.0363	14.66	933.9
2/20 18:36	0.5831 <26>	10.43	9.86	0.0363	14.66	935.5
2/20 18:37	0.5831 <26>	10.46	9.89	0.0364	14.66	937.9
2/20 18:38	0.5831 <26>	10.59	10.01	0.0369	14.66	936.3
2/20 18:39	0.5831 <26>	10.46	9.89	0.0364	14.66	932.3
2/20 18:40	0.5831 <26>	10.45	9.88	0.0364	14.66	937.1
2/20 18:41	0.5831 <26>	10.40	9.83	0.0362	14.66	936.3
2/20 18:42	0.5831 <26>	10.26	9.69	0.0357	14.65	939.6
2/20 18:43	0.5831 <26>	10.35	9.79	0.0361	14.66	937.9
2/20 18:44	0.5831 <26>	10.40	9.83	0.0362	14.66	939.6
2/20 18:45	0.5831 <26>	10.35	9.79	0.0361	14.66	937.1
2/20 18:46	0.5831 <26>	10.40	9.82	0.0362	14.65	936.3
Average (all)	0.5831	10.38	9.81	0.0361	14.66	934.8
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	9.99	9.45	0.0348	14.65	929.1
Maximum (all)	0.5831	10.59	10.01	0.0369	14.66	939.6
Average (valid values only)	0.5831	10.38	9.81	0.0361	14.66	934.8
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	22	22	22	22	22	22

<26> = Substituted Data

# CeDAR 1-Minute Data

Mulberry Cogeneration Facility  
Data for 2/20/2013 6:25 PM thru 2/20/2013 6:46 PM

---

Timestamp	(Turbine) C.T Megawatts 1-Min
2/20 18:25	76.9
2/20 18:26	76.9
2/20 18:27	76.9
2/20 18:28	76.9
2/20 18:29	76.9
2/20 18:30	76.9
2/20 18:31	76.8
2/20 18:32	76.9
2/20 18:33	76.9
2/20 18:34	76.9
2/20 18:35	76.9
2/20 18:36	76.9
2/20 18:37	76.9
2/20 18:38	76.9
2/20 18:39	77.3
2/20 18:40	77.1
2/20 18:41	77.0
2/20 18:42	77.4
2/20 18:43	77.3
2/20 18:44	77.3
2/20 18:45	77.2
2/20 18:46	77.3

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Average (all)	77.0
Total (all)	--
Minimum (all)	76.8
Maximum (all)	77.4
Average (valid values only)	77.0
Total (valid values only)	--
Count (valid values only)	22

<26> = Substituted Data

Rvn 9

**CeDAR 1-Minute Data**  
 Mulberry Cogeneration Facility  
 Data for 2/20/2013 7:01 PM thru 2/20/2013 7:22 PM

Timestamp	Gas Density 1-Min	(Turbine) 75-NOx ppm 1-Min	(Turbine) NOx ppm @15% O2 1-Min	(Turbine) 75-NOx lb/mmBtu 1-Min	(Turbine) 75-O2% 1-Min	(Turbine) CT Gas Flow kscf/hr 1-Min
2/20 19:01	0.5831 <26>	10.39	9.82	0.0362	14.66	934.7
2/20 19:02	0.5831 <26>	10.33	9.77	0.0360	14.66	939.6
2/20 19:03	0.5831 <26>	10.33	9.75	0.0359	14.65	936.3
2/20 19:04	0.5831 <26>	10.28	9.72	0.0358	14.66	936.3
2/20 19:05	0.5831 <26>	10.35	9.79	0.0361	14.66	936.3
2/20 19:06	0.5831 <26>	10.35	9.79	0.0361	14.66	937.9
2/20 19:07	0.5831 <26>	10.37	9.79	0.0361	14.65	934.7
2/20 19:08	0.5831 <26>	10.39	9.82	0.0362	14.66	938.7
2/20 19:09	0.5831 <26>	10.37	9.79	0.0361	14.65	939.6
2/20 19:10	0.5831 <26>	10.34	9.78	0.0360	14.66	941.2
2/20 19:11	0.5831 <26>	10.43	9.88	0.0364	14.67	939.6
2/20 19:12	0.5831 <26>	10.39	9.82	0.0362	14.66	939.6
2/20 19:13	0.5831 <26>	10.45	9.88	0.0364	14.66	938.7
2/20 19:14	0.5831 <26>	10.38	9.81	0.0362	14.66	941.2
2/20 19:15	0.5831 <26>	10.39	9.82	0.0362	14.66	939.6
2/20 19:16	0.5831 <26>	10.30	9.74	0.0359	14.66	942.0
2/20 19:17	0.5831 <26>	10.29	9.71	0.0358	14.65	938.7
2/20 19:18	0.5831 <26>	10.27	9.69	0.0357	14.65	942.0
2/20 19:19	0.5831 <26>	10.33	9.75	0.0359	14.65	941.2
2/20 19:20	0.5831 <26>	10.30	9.72	0.0358	14.65	942.0
2/20 19:21	0.5831 <26>	10.21	9.64	0.0355	14.65	941.2
2/20 19:22	-- <18>	-- <18>	-- <18>	-- <18>	-- <18>	-- <18>
Average (all)	0.5831	10.34	9.78	0.0360	14.66	939.1
Total (all)	--	--	--	--	--	--
Minimum (all)	0.5831	10.21	9.64	0.0355	14.65	934.7
Maximum (all)	0.5831	10.45	9.88	0.0364	14.67	942.0
Average (valid values only)	0.5831	10.34	9.78	0.0360	14.66	939.1
Total (valid values only)	--	--	--	--	--	--
Count (valid values only)	21	21	21	21	21	21

<18> = Data Handling System Malfunction  
 <26> = Substituted Data

# CeDAR 1-Minute Data

Mulberry Cogeneration Facility  
Data for 2/20/2013 7:01 PM thru 2/20/2013 7:22 PM

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Timestamp	(Turbine) CT Megawatts 1-Min
2/20 19:01	77.4
2/20 19:02	77.1
2/20 19:03	77.4
2/20 19:04	77.4
2/20 19:05	77.5
2/20 19:06	77.5
2/20 19:07	77.5
2/20 19:08	77.4
2/20 19:09	77.6
2/20 19:10	77.7
2/20 19:11	77.6
2/20 19:12	77.7
2/20 19:13	77.7
2/20 19:14	77.6
2/20 19:15	77.6
2/20 19:16	77.7
2/20 19:17	77.6
2/20 19:18	77.6
2/20 19:19	77.6
2/20 19:20	77.6
2/20 19:21	77.8
2/20 19:22	-- <18>

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Average (all)	77.6
Total (all)	--
Minimum (all)	77.1
Maximum (all)	77.8
Average (valid values only)	77.6
Total (valid values only)	--
Count (valid values only)	21

<18> = Data Handling System Malfunction  
<26> = Substituted Data



**Appendix B: Mathematical Equations**

## Relative Accuracy Calculations

### Average

The average is referred to in 40 CFR 60, Subpart A, Sect 60.8, subsection f as the arithmetic mean of the results of the runs. The algebraic expression used to return this result is found in 40 CFR 60, App B, Spec 2, Section 8.1 and is represented below.

$$\bar{d} = \frac{1}{n} \sum_{i=1}^n d_i \quad (\text{Eq. 2-1})$$

Where:

$\bar{d}$  = The arithmetic mean

$n$  = The number of data points

$\sum_{i=1}^n d_i$  = The algebraic sum of the individual differences  $d_i$ .

### Standard Deviation

As given in 40 CFR 60, performance specification 2, section 8.2, the standard deviation is calculated as follows:

$$S_d = \left[ \frac{\sum_{i=1}^n d_i^2 - \frac{\left( \sum_{i=1}^n d_i \right)^2}{n}}{n-1} \right] \quad \text{Eq. 2-2}$$

Where:

$d_i$  = The individual differences

$n$  = The number of data points

$\sum_{i=1}^n d_i$  = The algebraic sum of the individual differences  $d_i$ .

## Relative Accuracy Calculations, continued

### Confidence Coefficient

As given in 40CFR 60, Performance Specification 2, Section 8.3, the Confidence Coefficient is calculated as follows:

$$CC = t_{0.975} \frac{S_d}{\sqrt{n}}$$

Where:

$t_{0.975}$  = t-value (see Table 2-1)

Table 2-1 (t-values)

$n^a$	$t_{0.975}$	$n^a$	$t_{0.975}$	$n^a$	$t_{0.975}$
2	12.706	7	2.447	12	2.201
3	4.303	8	2.365	13	2.179
4	3.182	9	2.306	14	2.160
5	2.776	10	2.262	15	2.145
6	2.571	11	2.228	16	2.131

<sup>a</sup> The values in this table are already corrected for n-1 degrees of freedom. Use n equal to the number of individual values.

### Relative Accuracy

As given in 40CFR 60, Performance Specification 2, Section 8.4, the Relative Accuracy is calculated as follows:

$$RA = \frac{|\bar{d}| + |CC|}{\overline{RM}} \times 100$$

Where:

$|\bar{d}|$  = Absolute Value of the mean differences

$|CC|$  = Absolute value of the confidence coefficient

$\overline{RM}$  = Average RM value or applicable standard

## Relative Accuracy Calculations, continued

### Bias Test

If the mean difference,  $|\bar{d}|$ , is less than or equal to the absolute value of the confidence coefficient,  $|CC|$ , the monitor or monitoring system has passed the bias test.

When the monitor or monitoring system has failed the bias test, then the bias adjustment factor (BAF) is determined utilizing equation A-12 of 40CFR75, Appendix A:

$$BAF = 1 + \frac{|\bar{d}|}{CEM_{avg}} \quad \text{Eq. A-12}$$

Where:

- BAF = Bias adjustment factor, rounded to the nearest thousandth
- $|\bar{d}|$  = Absolute Value of the mean differences
- $CEM_{avg}$  = Mean of the data values provided by the monitor during the failed bias test

## Calibrations

### Analyzer Calibration Error

The analyzer calibration error (ACE) is calculated in accordance with 40 CFR 60, App. B, Meth. 7E, Sect 12.2. The algebraic expression used to return this result is:

$$ACE = \frac{C_{Dir} - C_v}{CS} \times 100 \quad \text{Eq. 7E-1}$$

Where:

- ACE = Analyzer Calibration Error, percent of calibration span  
 $C_{Dir}$  = Measured concentration of a calibration gas (low, mid, or high) when introduced in direct calibration mode, ppmv  
 $C_v$  = Manufacturer certified concentration of a calibration gas (low, mid, or high), ppmv  
CS = Calibration span, ppmv

### System Bias

The System Bias is calculated in accordance with 40 CFR 60, App. B, Meth. 7E, Sect 12. The algebraic expression used to return this result is:

$$SB = \frac{C_s - C_{Dir}}{CS} \times 100 \quad \text{Eq. 7E-2}$$

Where:

- SB = System bias, percent of calibration span.  
 $C_s$  = Measured concentration of a calibration gas (low, mid, or high) when introduced in system calibration mode, ppmv  
 $C_{Dir}$  = Measured concentration of a calibration gas (low, mid, or high) when introduced in direct calibration mode, ppmv  
CS = Calibration span, ppmv

## Drift Assessment

The low level and upscale drift over each test run is calculated in accordance with 40 CFR 60, App. B, Meth. 7E, Sect 12.5. The algebraic expression used to return this result is:

$$D = |SB_{final} - SB_i| \quad \text{Eq. 7E-4}$$

Where:

- D = Drift assessment, percent of calibration span  
SB<sub>final</sub> = Post-run system bias, percent of calibration span  
SB<sub>i</sub> = Pre-run system bias, percent of calibration span

## Effluent Gas Concentration

The average calibration results are calculated in accordance with 40 CFR 60, App. B, Meth. 7E, Sect 12.6. The algebraic expression used to return this result is:

$$C_{Gas} = (C_{avg} - C_O) \frac{C_{MA}}{C_M - C_O} \quad \text{Eq. 7E-5}$$

Where:

- C<sub>Gas</sub> = Average effluent gas concentration adjusted for bias, ppmv  
C<sub>Avg</sub> = Average unadjusted gas concentration indicated by data recorder for the test run, ppmv  
C<sub>O</sub> = Average of the initial and final system calibration bias (or 2-point calibration error) check responses from the low-level (or zero) calibration gas, ppmv  
C<sub>MA</sub> = Actual concentration of the upscale calibration gas, ppmv  
C<sub>M</sub> = Average of initial and final system calibration bias (or 2-point calibration error) check responses for the upscale calibration gas, ppmv

## Emissions Rates in lbs/mmBtu

When reference method readings for pollutant and oxygen are on a dry basis, equation 19-1 of Method 19 is utilized.

$$E = C_d * F_d * \frac{20.9}{(20.9 - \%O_{2d})} \quad \text{Eq. 19-1}$$

Where:

$C_d$  = Pollutant concentration, dry basis, in lb/scf (to convert ppm to lb/scf refer to Table 19-1).

$F_d$  = Volume of combustion components per unit of heat input, dry basis, dscf/mmBtu.(from Method 19, Table 19-2)

$\%O_{2d}$  = Oxygen, dry basis, percent

**Table 19-1: Conversion Factors For Concentrations.**

From	To	Multiply by
ppm SO <sub>2</sub>	lb/scf	1.660 x 10 <sup>-7</sup>
ppm NO <sub>x</sub>	lb/scf	1.194 x 10 <sup>-7</sup>
ppm CO	lb/scf	2.5955 x 10 <sup>-9</sup> x 28.01
g/scm	ng/scm	10 <sup>9</sup>
mg/scm	ng/scm	10 <sup>6</sup>
lb/scf	ng/scm	1.602 x 10 <sup>13</sup>

### Emissions Rates in ppm @ 15% O<sub>2</sub>

When reference method readings are corrected to 15% O<sub>2</sub>, equation 20-4 of Method 20 is utilized.

$$C_{adj} = C_d * \left( \frac{20.9 - 15.0}{20.9 - \%O_2} \right) \quad \text{Eq. 20-4}$$

Where:

$C_{adj}$  = Pollutant concentration corrected to 15 percent O<sub>2</sub>, ppm

$C_d$  = Pollutant concentration, dry basis, ppm

$\%O_2$  = Measured O<sub>2</sub> concentration, dry basis, percent



**Appendix C: Reference Method Calibration Gas  
Certificates of Analysis**



**CERTIFICATE OF BATCH ANALYSIS**  
**NITROGEN - CEM-CAL ZERO**

**Airgas USA, LLC**  
 1820 Tampa East Blvd  
 Tampa, FL 33619  
 Office: (813) 626-2905 Fax: (813) 620-0150  
 www.airgas.com

Part Number:	NI CZ15A	Reference Number:	21-400103956-1
Cylinder Analyzed:	CC320187	Cylinder Volume:	142 Cubic Feet
Laboratory:	ASO - Tampa Plant - FL	Cylinder Pressure:	2000 PSIG
Analysis Date:	Oct 11, 2012	Valve Outlet:	580
Lot #:	21-400103956-1		

**Expiration Date: Oct 11, 2017**

**ANALYTICAL RESULTS**

Component	Requested Purity	Certified Concentration
NitrogenCEM	99.9995%	99.9995%
CARBON DIOXIDE	< 1.0 PPM	0.08 PPM
Moisture	< 1.0 PPM	0.20 PPM
NOx	< 0.1 PPM	<LDL 0.01 PPM
SO2	< 0.1 PPM	<LDL 0.01 PPM
THC	< 0.1 PPM	0.04 PPM
CARBON MONOXIDE	< 0.5 PPM	0.08 PPM
Oxygen	< 0.5 PPM	0.46 PPM

**Cylinders in Batch:**

CC-318890, CC149514, CC183268, CC185658, CC191008, CC232975, CC273626, CC278130, CC288541, CC288593, CC307957, CC307958, CC307964, CC308218, CC318738, CC318830, CC318831, CC318839, CC319238, CC320187, CC75029, CC7594, CC83162, CC96424, SG9102217BAL

**Permanent Notes:**

Airgas certifies that the contents of this cylinder meet the requirements of 40 CFR 72.2

Impurities verified against analytical standards traceable to NIST by weight and/or analysis.

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**Approved for Release**

## CERTIFICATE OF ANALYSIS

### Grade of Product: EPA Protocol

Part Number: E03NI80E15A2872 Reference Number: 122-124338877-1  
Cylinder Number: CC417218 Cylinder Volume: 151 Cu.Ft.  
Laboratory: ASG - Durham - NC Cylinder Pressure: 2015 PSIG  
PGVP Number: B22012 Valve Outlet: 590  
Gas Code: OC2 Analysis Date: Oct 01, 2012

Expiration Date: Oct 01, 2020

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.


ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
CARBON DIOXIDE	9.500 %	9.538 %	G1	+/- 1% NIST Traceable
OXYGEN	10.00 %	9.928 %	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
090606	090606	CC262103	9.921% CARBON DIOXIDE/NITROGEN	Apr 10, 2013
NTRM	82658	SG9163064BAL	9.507% OXYGEN/NITROGEN	Dec 01, 2015

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba VIA510 CO2 J007MEB	Nondispersive Infrared (NDIR)	Sep 28, 2012
Horiba MPA510 O2 41499150042	Paramagnetic	Sep 21, 2012

Triad Data Available Upon Request

Notes:

  
Approved for Release

## CERTIFICATE OF ANALYSIS

### Grade of Product: EPA Protocol

Part Number: E03NI60E15A03W3	Reference Number: 122-124294448-1
Cylinder Number: XC035605B	Cylinder Volume: 159 Cu.Ft.
Laboratory: ASG - Durham - NC	Cylinder Pressure: 2015 PSIG
PGVP Number: B22011	Valve Outlet: 590
	Analysis Date: Dec 15, 2011

**Expiration Date: Dec 15, 2014**

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.  
 Do Not Use This Cylinder below 150 psig, i.e. 1 Mega Pascal

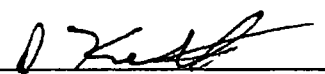
ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
CARBON DIOXIDE	19.00 %	18.99 %	G1	+/- 1% NIST Traceable
OXYGEN	20.50 %	20.48 %	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	060608	CC207968	22.51% OXYGEN/NITROGEN	May 01, 2016
NTRM	080613	CC254469	20.09% CARBON DIOXIDE/NITROGEN	Jul 15, 2012

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba VIA-510 CO2	Infrared	Nov 30, 2011
Horiba MPA-510 O2 (0-25%)	Paramagnetic	Nov 30, 2011

Triad Data Available Upon Request

Notes:



Approved for Release

## CERTIFICATE OF ANALYSIS

### Grade of Product: EPA Protocol

Part Number:	E02NI99E15AC204	Reference Number:	83-124275199-1
Cylinder Number:	XC035717B	Cylinder Volume:	144.3 CF
Laboratory:	ASG - Port Allen - LA	Cylinder Pressure:	2015 PSIG
PGVP Number:	B42011	Valve Outlet:	660
Gas Code:	NO	Analysis Date:	Aug 03, 2011

**Expiration Date: Aug 03, 2014**

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NOx	9.500 PPM	9.447 PPM	G1	+/- 1% NIST Traceable
NITRIC OXIDE	9.500 PPM	9.413 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	07060301	CC207738	10.08 PPM NITRIC OXIDE/NITROGEN	Sep 01, 2011
NTRM	07060301NOX	CC207738	10.08 PPM NOx/NITROGEN	Sep 01, 2011

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
DCNO	Chemiluminescence	Jul 25, 2011
DCNOX	Chemiluminescence	Jul 25, 2011

Triad Data Available Upon Request

Notes:

*Cheryl Baker*

Approved for Release

## CERTIFICATE OF ANALYSIS

### Grade of Product: EPA Protocol

Part Number: E02NI99E15AC1E5	Reference Number: 122-124324295-1
Cylinder Number: CC410976	Cylinder Volume: 144 Cu.Ft.
Laboratory: ASG - Durham - NC	Cylinder Pressure: 2015 PSIG
PGVP Number: B22012	Valve Outlet: 660
Gas Code: NO	Analysis Date: Jul 13, 2012

**Expiration Date: Jul 13, 2014**

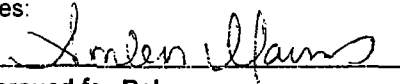
Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.  
 Do Not Use This Cylinder below 150 psig, i.e. 1 Mega Pascal

ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NOX	19.50 PPM	19.63 PPM	G1	+/- 1% NIST Traceable
NITRIC OXIDE	19.50 PPM	19.63 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	100603	CC281073	20.34PPM NITRIC OXIDE/NITROGEN	Feb 01, 2013
NTRM	100603	CC281073 NOX	20.34PPM NOX/NITROGEN	Feb 01, 2013

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
TECO NO 42C-71463-368	Chemiluminescence	Jun 14, 2012
TECO NOX 42C-71463-368	Chemiluminescence	Jun 14, 2012

Triad Data Available Upon Request

Notes: 

Approved for Release

## CERTIFICATE OF ANALYSIS

### Grade of Product: EPA Protocol

Part Number: E02NI99E15A0094	Reference Number: 122-124338880-1
Cylinder Number: CC35815	Cylinder Volume: 144 Cu.Ft.
Laboratory: ASG - Durham - NC	Cylinder Pressure: 2015 PSIG
PGVP Number: B22012	Valve Outlet: 350
Gas Code: APPVD	Analysis Date: Oct 05, 2012

**Expiration Date: Oct 05, 2020**

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.  
 Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

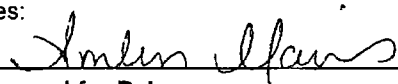
ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
CARBON MONOXIDE	20.00 PPM	20.09 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
090618	090618	CC282654	24.35PPM CARBON MONOXIDE/NITROGEN	Oct 02, 2013

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba APMA360 CO 42361580052	Nondispersive Infrared (NDIR)	Sep 07, 2012

Triad Data Available Upon Request

Notes:



Approved for Release

## CERTIFICATE OF ANALYSIS

### Grade of Product: EPA Protocol

Part Number:	E02NI99E15AC1N1	Reference Number:	122-124297804-1
Cylinder Number:	CC5726	Cylinder Volume:	144 Cu.Ft.
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22012	Valve Outlet:	350
Gas Code:	APPVD	Analysis Date:	Jan 18, 2012

**Expiration Date: Jan 18, 2015**

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.  
 Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
CARBON MONOXIDE	46.00 PPM	45.69 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	090605	CC255812	51.26PPM CARBON MONOXIDE/NITROGEN	Jan 15, 2012
NTRM	090605	CC280450	98.88PPM CARBON MONOXIDE/NITROGEN	Feb 11, 2013

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801333 CO	FTIR	Jan 05, 2012

Triad Data Available Upon Request

Notes:

Approved for Release



## CERTIFICATE OF ANALYSIS

### Grade of Product: EPA Protocol

**Airgas Specialty Gases**  
 630 United Drive  
 Durham, NC 27713  
 (919) 544-3773 Fax: (919) 544-3774  
 www.airgas.com

Part Number: E02AI99E15A1704	Reference Number: 122-124312822-4
Cylinder Number: CC337489	Cylinder Volume: 127 Cu.Ft.
Laboratory: ASG - Durham - NC	Cylinder Pressure: 1750 PSIG
PGVP Number: B22012	Valve Outlet: 660
Gas Code: NO2	Analysis Date: Apr 12, 2012

**Expiration Date: Apr 12, 2014**

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.  
 Do Not Use This Cylinder below 150 psig.i.e. 1 Mega Pascal

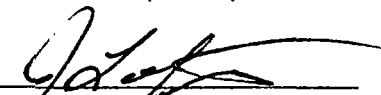
ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NITROGEN DIOXIDE	50.00 PPM	49.39 PPM	G1	+/- 2%
Air	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
GMIS	GMIS	CC343811	61.25PPM NITROGEN DIOXIDE/NITROGEN	Dec 28, 2013

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
TECO 42CHL NOX (1-5000ppm)	Chemiluminescence	Mar 30, 2012

Triad Data Available Upon Request

Notes:

  
 \_\_\_\_\_  
 Approved for Release

**Appendix D: Sample Location Diagram and Traverse  
Points**

**CEM Solutions, Inc.**  
**METHOD 1: Determining Number of Particulate and Velocity Traverse Points  
 for a Stack or Duct**

<b>Company:</b>	Northstar	<b>Date:</b>	02/24/2011
<b>Facility:</b>	Mulberry	<b>Project:</b>	
<b>Unit Number:</b>	1	<b>Operator:</b>	C. Horton
<b>Sample Location:</b>	Stack		

<b>Stack Measurements</b>			
<b>Shape of Stack:</b>	Circular	<b>Stack Diameter:</b>	192.00 Inches
<b># of Test Ports:</b>	2	<b>Stack Area:</b>	201.0619 ft <sup>2</sup>
<b>Port Depth:</b>	Inches		

<b>Distance from Test Ports to Disturbances</b>					
<b>Distance Upstream:</b>	336.00	Inches (A)	<b>Distance Downstream:</b>	372.00	Inches (B)
<b>Diameters Upstream:</b>	1.75	(A <sub>D</sub> )	<b>Diameters Downstream:</b>	1.94	(B <sub>D</sub> )

<b>Minimum # of Velocity Traverse Points</b>		
<b>From Upstream:</b>	16	
<b>From Downstream:</b>	16	
<b>12-24in Diameter?</b>	False	
<b>Points to be used:</b>	16	0

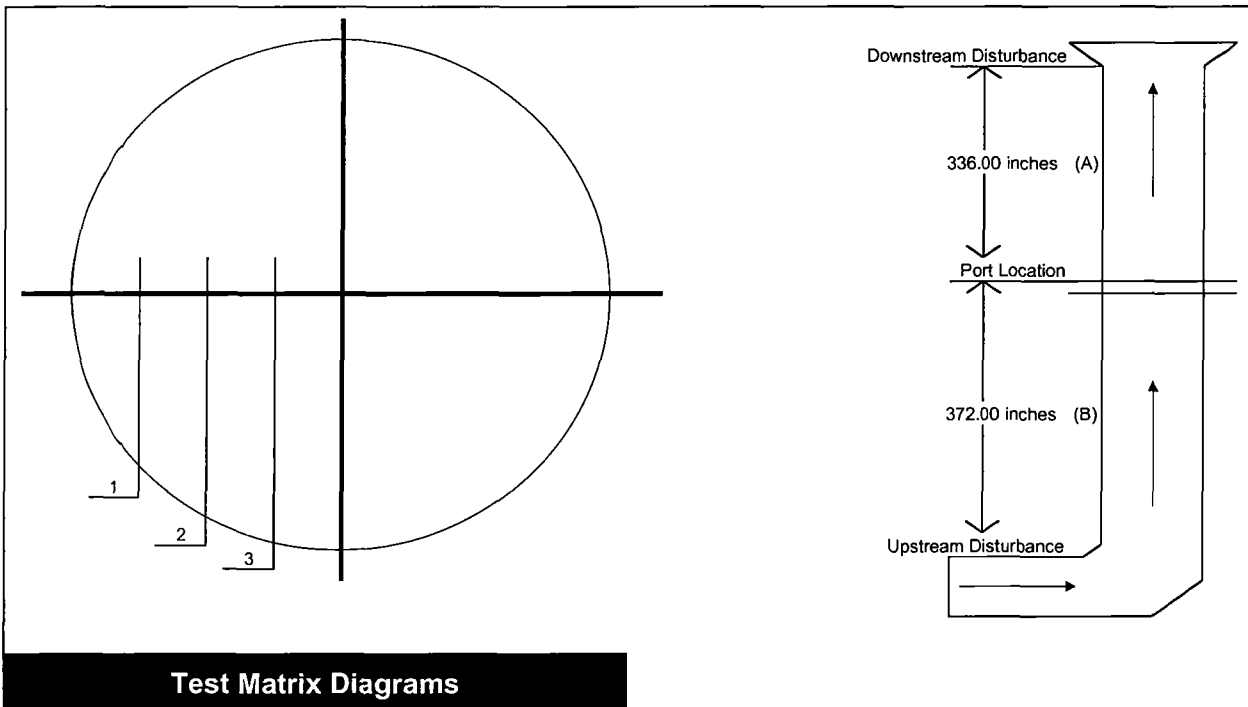
<b>Minimum # of Particulate Traverse Points</b>		
<b>From Upstream:</b>	16	
<b>From Downstream:</b>	24	
<b>12-24in Diameter?</b>	False	
<b>Points to be used:</b>	24	

**C.E.M. Solutions, INC.**  
Method 1 Determination

**40CFR60 Short Line**

Determined according to 40CFR60 Appendix A, Performance Specification 2, Section 8.1.3.2.  
Sample taken from the following points:

Traverse Point	Distance	Distance from stack wall (Inches)	Distance including port depth (Inches)
1	0.4 Meters	15.75	15.75
2	1.2 Meters	47.24	47.24
3	2.0 Meters	78.74	78.74



**Test Matrix Diagrams**

**Appendix E: Reference Method Quality  
Assurance/Quality Control Checks**

Calibration Error Tests  
Bias and Drift Tests  
NO<sub>2</sub> to NO Converter Efficiency Test  
Instrument Analyzer Response Time Tests

**Unit 1**  
Calibration Error Tests  
Bias and Drift Tests

# Analyzer Calibration Error

Test Performed For:  
Polk Power Partners  
Mulberry Cogen  
Unit 1  
Date:2/20/13

Test Performed By:  
C.E.M. Solutions Inc.  
1183 E. Overdrive Circle.  
Hernando, FL  
Run 1

## Oxygen Monitor

Full Scale: 25.00 %

## Method 3A

Serial Number: 1420D/3379

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference	Calibration Error (%)
CC96424/cg1	0.00 %	0.06 %	0.06 %	0.29 %
CC417218/cg2	9.93 %	9.90 %	-0.03 %	-0.14 %
XC035605B/cg3	20.48 %	20.46 %	-0.02 %	-0.10 %

## Nitrogen Oxides Monitor

Full Scale: 20.0 ppm

## Method 7E

Serial Number: 1200951381

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference	Calibration Error (%)
CC96424/cg1	0.0 ppm	0.0 ppm	0.0 ppm	0.00 %
XC035717B/cg6	9.45 ppm	9.5 ppm	0.1 ppm	0.27 %
CC410976/cg4	19.63 ppm	19.7 ppm	0.1 ppm	0.36 %

## Carbon Monoxide Monitor

Full Scale: 50.0 ppm

## Method 10

Serial Number: 48C-74094-375

Cylinder Number	Reference Gas Concentration	Analyzer Response	Difference	Calibration Error (%)
CC96424/cg1	0.0 ppm	0.1 ppm	0.1 ppm	0.22 %
CC35815/cg7	20.09 ppm	20.6 ppm	0.5 ppm	1.12 %
CC5726/cg8	45.69 ppm	45.8 ppm	0.1 ppm	0.24 %

# Sampling System Bias and Drift

Test Performed For:  
Polk Power Partners  
Mulberry Cogen  
Unit 1  
Date:2/20/13

Test Performed By:  
C.E.M. Solutions Inc.  
1183 E. Overdrive Circle.  
Hernando, FL  
Run 1

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.15 %	0.44 %	0.13 %	0.34 %	-0.10 %
O <sub>2</sub>	9.90 %	9.86 %	-0.20 %	9.82 %	-0.39 %	-0.20 %
NO <sub>x</sub>	0.0 ppm	0.3 ppm	1.53 %	0.2 ppm	1.02 %	-0.51 %
NO <sub>x</sub>	9.5 ppm	9.2 ppm	-1.53 %	9.2 ppm	-1.53 %	0.00 %
CO	0.1 ppm	0.2 ppm	0.22 %	0.2 ppm	0.22 %	0.00 %
CO	20.6 ppm	20.4 ppm	-0.44 %	20.5 ppm	-0.22 %	0.22 %



# Sampling System Bias and Drift

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 2

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.13 %	0.34 %	0.07 %	0.05 %	-0.29 %
O <sub>2</sub>	9.90 %	9.82 %	-0.39 %	9.84 %	-0.29 %	0.10 %
NO <sub>x</sub>	0.0 ppm	0.2 ppm	1.02 %	0.2 ppm	1.02 %	0.00 %
NO <sub>x</sub>	9.5 ppm	9.2 ppm	-1.53 %	9.4 ppm	-0.51 %	1.02 %
CO	0.1 ppm	0.2 ppm	0.22 %	0.2 ppm	0.22 %	0.00 %
CO	20.6 ppm	20.5 ppm	-0.22 %	20.4 ppm	-0.44 %	-0.22 %

# Sampling System Bias and Drift

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 3

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.07 %	0.05 %	0.11 %	0.24 %	0.20 %
O <sub>2</sub>	9.90 %	9.84 %	-0.29 %	9.90 %	0.00 %	0.29 %
NO <sub>x</sub>	0.0 ppm	0.2 ppm	1.02 %	0.1 ppm	0.51 %	-0.51 %
NO <sub>x</sub>	9.5 ppm	9.4 ppm	-0.51 %	9.2 ppm	-1.53 %	-1.02 %
CO	0.1 ppm	0.2 ppm	0.22 %	0.2 ppm	0.22 %	0.00 %
CO	20.6 ppm	20.4 ppm	-0.44 %	20.5 ppm	-0.22 %	0.22 %

# Sampling System Bias and Drift

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 4

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.11 %	0.24 %	0.09 %	0.15 %	-0.10 %
O <sub>2</sub>	9.90 %	9.90 %	0.00 %	9.86 %	-0.20 %	-0.20 %
NO <sub>x</sub>	0.0 ppm	0.1 ppm	0.51 %	0.1 ppm	0.51 %	0.00 %
NO <sub>x</sub>	9.5 ppm	9.2 ppm	-1.53 %	9.2 ppm	-1.53 %	0.00 %
CO	0.1 ppm	0.2 ppm	0.22 %	0.2 ppm	0.22 %	0.00 %
CO	20.6 ppm	20.5 ppm	-0.22 %	20.5 ppm	-0.22 %	0.00 %

# Sampling System Bias and Drift

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 5

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.09 %	0.15 %	0.11 %	0.24 %	0.10 %
O <sub>2</sub>	9.90 %	9.86 %	-0.20 %	9.86 %	-0.20 %	0.00 %
NO <sub>x</sub>	0.0 ppm	0.1 ppm	0.51 %	0.1 ppm	0.51 %	0.00 %
NO <sub>x</sub>	9.5 ppm	9.2 ppm	-1.53 %	9.2 ppm	-1.53 %	0.00 %
CO	0.1 ppm	0.2 ppm	0.22 %	0.2 ppm	0.24 %	0.03 %
CO	20.6 ppm	20.5 ppm	-0.22 %	20.6 ppm	-0.04 %	0.18 %

# Sampling System Bias and Drift

Test Performed For:  
Polk Power Partners  
Mulberry Cogen  
Unit 1  
Date:2/20/13

Test Performed By:  
C.E.M. Solutions Inc.  
1183 E. Overdrive Circle.  
Hernando, FL  
Run 6

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.11 %	0.24 %	0.11 %	0.24 %	0.00 %
O <sub>2</sub>	9.90 %	9.86 %	-0.20 %	9.86 %	-0.20 %	0.00 %
NO <sub>x</sub>	0.0 ppm	0.1 ppm	0.51 %	0.1 ppm	0.51 %	0.00 %
NO <sub>x</sub>	9.5 ppm	9.2 ppm	-1.53 %	9.3 ppm	-1.02 %	0.51 %
CO	0.1 ppm	0.2 ppm	0.22 %	0.2 ppm	0.22 %	0.00 %
CO	20.6 ppm	20.6 ppm	0.00 %	20.7 ppm	0.22 %	0.22 %

# Sampling System Bias and Drift

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 7

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.11 %	0.24 %	0.06 %	0.00 %	-0.24 %
O <sub>2</sub>	9.90 %	9.86 %	-0.20 %	9.81 %	-0.44 %	-0.24 %
NO <sub>x</sub>	0.0 ppm	0.1 ppm	0.51 %	0.1 ppm	0.51 %	0.00 %
NO <sub>x</sub>	9.5 ppm	9.3 ppm	-1.02 %	9.4 ppm	-0.51 %	0.51 %
CO	0.1 ppm	0.2 ppm	0.22 %	0.3 ppm	0.44 %	0.22 %
CO	20.6 ppm	20.7 ppm	0.22 %	20.6 ppm	0.00 %	-0.22 %

# Sampling System Bias and Drift

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 8

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.06 %	0.00 %	0.09 %	0.15 %	0.15 %
O <sub>2</sub>	9.90 %	9.81 %	-0.44 %	9.86 %	-0.20 %	0.24 %
NO <sub>x</sub>	0.0 ppm	0.1 ppm	0.51 %	0.1 ppm	0.51 %	0.00 %
NO <sub>x</sub>	9.5 ppm	9.4 ppm	-0.51 %	9.4 ppm	-0.51 %	0.00 %
CO	0.1 ppm	0.3 ppm	0.44 %	0.3 ppm	0.44 %	0.00 %
CO	20.6 ppm	20.6 ppm	0.00 %	20.7 ppm	0.22 %	0.22 %

# Sampling System Bias and Drift

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 9

Monitor Type	Analyzer Cal Response	Initial Cal Value	Pre Run Bias (%)	Final Cal Value	Post Run Bias (%)	Total Run Drift (%)
O <sub>2</sub>	0.06 %	0.09 %	0.15 %	0.07 %	0.05 %	-0.10 %
O <sub>2</sub>	9.90 %	9.86 %	-0.20 %	9.93 %	0.15 %	0.34 %
NO <sub>x</sub>	0.0 ppm	0.1 ppm	0.51 %	0.1 ppm	0.51 %	0.00 %
NO <sub>x</sub>	9.5 ppm	9.4 ppm	-0.51 %	9.4 ppm	-0.51 %	0.00 %
CO	0.1 ppm	0.3 ppm	0.44 %	0.3 ppm	0.44 %	0.00 %
CO	20.6 ppm	20.7 ppm	0.22 %	20.7 ppm	0.22 %	0.00 %



**NO<sub>2</sub> to NO Converter Efficiency Tests**

**C.E.M. Solutions, Inc.**  
**NO<sub>2</sub> to NO Converter Efficiency Test**

1. Calibrate the analyzer to a concentration of NO greater than or equal to 50ppm.
2. Introduce NO<sub>2</sub> (40-60ppm) into the analyzer.
3. Record the following data:

Calibration Gas Value (C<sub>v</sub>) = 49.39      Eff NO<sub>2</sub> = 92.7%  
Analyzer Value (C<sub>dir</sub>) = 45.8

$$92.7\% = 45.8 / 49.39 * 100$$

Date: 2/20/2013  
Technician: Savin  
Analyzer S/N: 1200951381  
NO<sub>2</sub> Cylinder S/N: CC337489  
NO<sub>2</sub> Cylinder Expiration Date: 4/12/2014

NO<sub>2</sub> to NO Converter Efficiency must be greater than or equal to 90%

**Instrument Analyzer Response Time Tests**

**C.E.M. Solutions, Inc.**  
**Analyzer Response Time Test**

Date of test: 2/20/2013  
Plant: Northernstar-Mulberry Cogen  
Unit Number: Unit 1  
Fuel: Natural Gas  
Analyzer type: NOx  
Serial Number: 1200951381  
Up Scale Gas: 9.447  
Calibration Span: 19.63

**Upscale:**  
115 Seconds

**Downscale:**  
110 Seconds

System response time: 120  
Slower average time: 115

**C.E.M. Solutions, Inc.**  
**Analyzer Response Time Test**

Date of test: 2/20/2013  
Plant: Northernstar-Mulberry Cogen  
Unit Number: Unit 1  
Fuel: Natural Gas  
Analyzer type: CO  
Serial Number: 48C-74094-375  
Up Scale Gas: 20.09  
Calibration Span: 45.69

**Upscale:**  
110 Seconds

**Downscale:**  
110 Seconds

System response time: 120  
Slower average time: 110

**C.E.M. Solutions, Inc.**  
**Analyzer Response Time Test**

Date of test: 2/20/2013  
Plant: Northernstar-Mulberry Cogen  
Unit Number: Unit 1  
Fuel: Natural Gas  
Analyzer type: O2  
Serial Number: 01420D/3379  
Up Scale Gas: 9.928  
Calibration Span: 20.48

**Upscale:**  
120 Seconds

**Downscale:**  
120 Seconds

System response time: 120  
Slower average time: 120

## **Appendix F: Reference Method Data**

NO<sub>x</sub>, CO and O<sub>2</sub> Calculations of Average Emissions and Raw Data  
Method 9 VE Field Data and Observer's VE Certificate

**Unit 1**

NO<sub>x</sub>, CO and O<sub>2</sub> of Average Emissions and Raw Data



# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hemando, FL  
 Run 1

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.15 %	0.13 %	0.14
9.93 percent O <sub>2</sub>	9.86 %	9.82 %	9.84
0.0 ppm NO <sub>x</sub>	0.3 ppm	0.2 ppm	0.26
9.4 ppm NO <sub>x</sub>	9.2 ppm	9.2 ppm	9.20
0.0 ppm CO	0.2 ppm	0.2 ppm	0.16
20.1 ppm CO	20.4 ppm	20.5 ppm	20.47

**Mean Reference Values:**  
 14.73 percent O<sub>2</sub>  
 9.8 ppm NO<sub>x</sub>  
 0.5 ppm CO

**Corrected Results:**  
 14.90 percent O<sub>2</sub>  
 10.0 ppm NO<sub>x</sub>  
 0.5 ppm CO

**Basis:**  
 DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0360 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0010 CO Lbs/mmBtu from O<sub>2</sub>

9.8 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 0.5 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu

# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 2

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.13 %	0.07 %	0.10
9.93 percent O <sub>2</sub>	9.82 %	9.84 %	9.83
0.0 ppm NO <sub>x</sub>	0.2 ppm	0.2 ppm	0.22
9.4 ppm NO <sub>x</sub>	9.2 ppm	9.4 ppm	9.27
0.0 ppm CO	0.2 ppm	0.2 ppm	0.16
20.1 ppm CO	20.5 ppm	20.4 ppm	20.46

**Mean Reference Values:**  
 14.73 percent O<sub>2</sub>  
 9.9 ppm NO<sub>x</sub>  
 0.4 ppm CO

**Corrected Results:**  
 14.90 percent O<sub>2</sub>  
 10.1 ppm NO<sub>x</sub>  
 0.4 ppm CO

**Basis:**  
 DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0370 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0010 CO Lbs/mmBtu from O<sub>2</sub>

9.9 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 0.4 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu

# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 3

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.07 %	0.11 %	0.09
9.93 percent O <sub>2</sub>	9.84 %	9.90 %	9.87
0.0 ppm NO <sub>x</sub>	0.2 ppm	0.1 ppm	0.15
9.4 ppm NO <sub>x</sub>	9.4 ppm	9.2 ppm	9.28
0.0 ppm CO	0.2 ppm	0.2 ppm	0.16
20.1 ppm CO	20.4 ppm	20.5 ppm	20.48

**Mean Reference Values:**

14.73 percent O<sub>2</sub>  
 9.9 ppm NO<sub>x</sub>  
 0.4 ppm CO

**Corrected Results:**

14.90 percent O<sub>2</sub>  
 10.1 ppm NO<sub>x</sub>  
 0.4 ppm CO

**Basis:**

DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0370 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0010 CO Lbs/mmBtu from O<sub>2</sub>

9.9 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 0.4 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu

# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 4

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.11 %	0.09 %	0.10
9.93 percent O <sub>2</sub>	9.90 %	9.86 %	9.88
0.0 ppm NO <sub>x</sub>	0.1 ppm	0.1 ppm	0.11
9.4 ppm NO <sub>x</sub>	9.2 ppm	9.2 ppm	9.22
0.0 ppm CO	0.2 ppm	0.2 ppm	0.17
20.1 ppm CO	20.5 ppm	20.5 ppm	20.54

**Mean Reference Values:**

14.72 percent O<sub>2</sub>  
 9.9 ppm NO<sub>x</sub>  
 0.4 ppm CO

**Corrected Results:**

14.80 percent O<sub>2</sub>  
 10.2 ppm NO<sub>x</sub>  
 0.4 ppm CO

**Basis:**

DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0360 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0010 CO Lbs/mmBtu from O<sub>2</sub>

9.9 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 0.4 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu

# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 5

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.09 %	0.11 %	0.10
9.93 percent O <sub>2</sub>	9.86 %	9.86 %	9.86
0.0 ppm NO <sub>x</sub>	0.1 ppm	0.1 ppm	0.11
9.4 ppm NO <sub>x</sub>	9.2 ppm	9.2 ppm	9.22
0.0 ppm CO	0.2 ppm	0.2 ppm	0.20
20.1 ppm CO	20.5 ppm	20.6 ppm	20.57

**Mean Reference Values:**  
 14.74 percent O<sub>2</sub>  
 9.9 ppm NO<sub>x</sub>  
 0.6 ppm CO

**Corrected Results:**  
 14.90 percent O<sub>2</sub>  
 10.1 ppm NO<sub>x</sub>  
 0.6 ppm CO

**Basis:**  
 DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0370 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0010 CO Lbs/mmBtu from O<sub>2</sub>

9.9 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 0.6 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu

# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hemando, FL  
 Run 6

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.11 %	0.11 %	0.11
9.93 percent O <sub>2</sub>	9.86 %	9.86 %	9.86
0.0 ppm NO <sub>x</sub>	0.1 ppm	0.1 ppm	0.08
9.4 ppm NO <sub>x</sub>	9.2 ppm	9.3 ppm	9.24
0.0 ppm CO	0.2 ppm	0.2 ppm	0.22
20.1 ppm CO	20.6 ppm	20.7 ppm	20.62

**Mean Reference Values:**

14.73 percent O<sub>2</sub>  
 9.9 ppm NO<sub>x</sub>  
 0.7 ppm CO

**Corrected Results:**

14.90 percent O<sub>2</sub>  
 10.1 ppm NO<sub>x</sub>  
 0.7 ppm CO

**Basis:**

DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0370 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0020 CO Lbs/mmBtu from O<sub>2</sub>

9.9 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 0.7 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu

# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hemando, FL  
 Run 7

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.11 %	0.06 %	0.09
9.93 percent O <sub>2</sub>	9.86 %	9.81 %	9.84
0.0 ppm NO <sub>x</sub>	0.1 ppm	0.1 ppm	0.09
9.4 ppm NO <sub>x</sub>	9.3 ppm	9.4 ppm	9.35
0.0 ppm CO	0.2 ppm	0.3 ppm	0.25
20.1 ppm CO	20.7 ppm	20.6 ppm	20.63

**Mean Reference Values:**  
 14.74 percent O<sub>2</sub>  
 9.9 ppm NO<sub>x</sub>  
 0.6 ppm CO

**Corrected Results:**  
**14.90** percent O<sub>2</sub>  
**10.0** ppm NO<sub>x</sub>  
**0.6** ppm CO

**Basis:**  
 DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0360 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0010 CO Lbs/mmBtu from O<sub>2</sub>

9.8 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 0.6 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu

# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hemando, FL  
 Run 8

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.06 %	0.09 %	0.08
9.93 percent O <sub>2</sub>	9.81 %	9.86 %	9.84
0.0 ppm NO <sub>x</sub>	0.1 ppm	0.1 ppm	0.10
9.4 ppm NO <sub>x</sub>	9.4 ppm	9.4 ppm	9.40
0.0 ppm CO	0.3 ppm	0.3 ppm	0.28
20.1 ppm CO	20.6 ppm	20.7 ppm	20.65

**Mean Reference Values:**  
 14.74 percent O<sub>2</sub>  
 9.9 ppm NO<sub>x</sub>  
 0.7 ppm CO

**Corrected Results:**  
 14.90 percent O<sub>2</sub>  
 10.0 ppm NO<sub>x</sub>  
 0.7 ppm CO

**Basis:**  
 DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0360 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0020 CO Lbs/mmBtu from O<sub>2</sub>

9.8 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 0.7 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu



# Calculation of Average Emissions

Test Performed For:  
 Polk Power Partners  
 Mulberry Cogen  
 Unit 1  
 Date:2/20/13

Test Performed By:  
 C.E.M. Solutions Inc.  
 1183 E. Overdrive Circle.  
 Hernando, FL  
 Run 9

Calibration Gas Value	Initial Calibration	Final Calibration	Average
0.00 percent O <sub>2</sub>	0.09 %	0.07 %	0.08
9.93 percent O <sub>2</sub>	9.86 %	9.93 %	9.89
0.0 ppm NO <sub>x</sub>	0.1 ppm	0.1 ppm	0.11
9.4 ppm NO <sub>x</sub>	9.4 ppm	9.4 ppm	9.38
0.0 ppm CO	0.3 ppm	0.3 ppm	0.30
20.1 ppm CO	20.7 ppm	20.7 ppm	20.72

**Mean Reference Values:**

14.74 percent O<sub>2</sub>  
 10.0 ppm NO<sub>x</sub>  
 1.0 ppm CO

**Corrected Results:**

14.80 percent O<sub>2</sub>  
 10.0 ppm NO<sub>x</sub>  
 1.0 ppm CO

**Basis:**

DRY  
 DRY  
 DRY

**Emission Calculations:**

0.0360 NO<sub>x</sub> Lbs/mmBtu from O<sub>2</sub>  
 0.0020 CO Lbs/mmBtu from O<sub>2</sub>

9.7 NO<sub>x</sub> @ 15% O<sub>2</sub> from O<sub>2</sub>  
 1.0 CO @ 15% O<sub>2</sub> from O<sub>2</sub>

Fuel Factors:

8710 dscf/mmBtu

filename 2/20/2013 13:44:40  
 testby1 C.E.M. Solutions Inc.  
 testby2 1183 E. Overdrive Circle.  
 testby3 Hernando, FL  
 testby4  
 testfor1 Polk Power Partners  
 testfor2 Mulberry Cogen  
 testfor3 Unit 1  
 testfor4 RATA and Compliance

name	O2 A	NOx A	CO A						
sn	1420D/3379	1200951381	48C-74094-375						
offset	0	0	0						
fullscale	25	20	50						
train	1	1	1						
gastype	o2 3a	nox 7e	co 10						
dcp1	2/20/2013 13:45:15	0.52	0.0	0.3 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:45:30	4.20	0.1	0.2 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:45:45	4.01	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:46:00	0.22	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:46:15	0.04	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:46:30	0.03	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:46:45	0.03	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
o2zero1	2/20/2013 13:46:45	0.03	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
noxzero1	2/20/2013 13:46:45	0.03	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
cozero1	2/20/2013 13:46:45	0.03	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp3	2/20/2013 13:47:00	0.03	0.0	0.1 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:47:15	0.04	0.0	0.1 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:47:30	4.64	0.0	0.0 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:47:45	12.34	0.0	0.0 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:48:00	17.27	0.0	0.0 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:48:15	19.78	0.0	-3.3 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:48:30	20.39	0.0	-5.5 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:48:45	20.45	0.0	-5.5 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:49:00	20.46	0.0	-5.5 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp3	2/20/2013 13:49:00	20.46	0.0	-5.5 XC035605B/cg3	O2	20.48 CO2	18.99	0	0
dcp1	2/20/2013 13:49:15	20.46	0.0	-0.5 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:49:30	20.44	0.0	-0.4 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:49:45	15.72	0.0	-0.3 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:50:00	7.36	0.0	-0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:50:15	2.17	0.0	0.0 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:50:30	0.26	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:50:45	0.07	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp1	2/20/2013 13:51:00	0.06	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
o2zero1	2/20/2013 13:51:00	0.06	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
noxzero1	2/20/2013 13:51:00	0.06	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
cozero1	2/20/2013 13:51:00	0.06	0.0	0.1 CC96424/cg1	NOx	0 O2	0 CO	0	0
dcp4	2/20/2013 13:51:15	0.05	0.0	0.1 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 13:51:30	0.05	2.1	0.1 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 13:51:45	0.34	18.9	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 13:52:00	0.77	18.1	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 13:52:15	0.16	20.4	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 13:52:30	0.05	20.4	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 13:52:45	0.04	20.1	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 13:53:01	0.03	19.7	0.0 CC410976/cg4	NOx	19.63	0	0	0
noxhigh1	2/20/2013 13:53:01	0.09	19.7	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp6	2/20/2013 13:53:15	0.04	19.7	0.0 XC035717B/cg6	NOx	9.447	0	0	0
dcp6	2/20/2013 13:53:30	0.03	19.5	0.0 XC035717B/cg6	NOx	9.447	0	0	0
dcp6	2/20/2013 13:53:45	0.06	10.8	0.0 XC035717B/cg6	NOx	9.447	0	0	0
dcp6	2/20/2013 13:54:00	0.15	9.5	0.0 XC035717B/cg6	NOx	9.447	0	0	0
dcp6	2/20/2013 13:54:15	0.05	9.5	0.0 XC035717B/cg6	NOx	9.447	0	0	0
dcp6	2/20/2013 13:54:30	0.03	9.5	0.0 XC035717B/cg6	NOx	9.447	0	0	0
dcp6	2/20/2013 13:54:30	0.03	9.5	0.0 XC035717B/cg6	NOx	9.447	0	0	0
noxmid1	2/20/2013 13:54:45	0.02	9.4	0.0 CC5726/cg8	CO	45.69	0	0	0
dcp8	2/20/2013 13:55:00	0.02	9.0	11.3 CC5726/cg8	CO	45.69	0	0	0
dcp8	2/20/2013 13:55:15	0.04	0.7	33.5 CC5726/cg8	CO	45.69	0	0	0
dcp8	2/20/2013 13:55:30	0.05	0.1	44.9 CC5726/cg8	CO	45.69	0	0	0
dcp8	2/20/2013 13:55:45	0.03	0.1	46.5 CC5726/cg8	CO	45.69	0	0	0
dcp8	2/20/2013 13:56:00	0.02	0.0	46.6 CC5726/cg8	CO	45.69	0	0	0
dcp8	2/20/2013 13:56:15	0.01	0.0	46.6 CC5726/cg8	CO	45.69	0	0	0
dcp8	2/20/2013 13:56:30	0.02	0.0	45.8 CC5726/cg8	CO	45.69	0	0	0
cohigh1	2/20/2013 13:56:30	0.02	0.0	45.8 CC5726/cg8	CO	45.69	0	0	0
dcp7	2/20/2013 13:56:45	0.01	0.0	45.9 CC35815/cg7	CO	20.09	0	0	0
dcp7	2/20/2013 13:57:00	0.02	0.0	44.5 CC35815/cg7	CO	20.09	0	0	0
dcp7	2/20/2013 13:57:15	0.01	0.1	33.9 CC35815/cg7	CO	20.09	0	0	0
dcp7	2/20/2013 13:57:30	0.08	0.0	23.6 CC35815/cg7	CO	20.09	0	0	0
dcp7	2/20/2013 13:57:45	0.05	0.0	20.9 CC35815/cg7	CO	20.09	0	0	0
dcp7	2/20/2013 13:58:00	0.02	0.0	20.7 CC35815/cg7	CO	20.09	0	0	0
dcp7	2/20/2013 13:58:15	0.02	0.0	20.6 CC35815/cg7	CO	20.09	0	0	0
comid1	2/20/2013 13:58:15	0.02	0.0	20.6 CC35815/cg7	CO	20.09	0	0	0
dcp2	2/20/2013 13:58:30	0.02	0.0	20.6 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp2	2/20/2013 13:58:45	0.02	0.0	15.9 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp2	2/20/2013 13:59:00	1.36	0.0	6.7 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp2	2/20/2013 13:59:15	5.85	0.0	1.8 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp2	2/20/2013 13:59:30	8.80	0.0	0.2 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp2	2/20/2013 13:59:45	9.79	0.0	0.0 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp2	2/20/2013 14:00:00	9.89	0.0	0.0 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp2	2/20/2013 14:00:15	9.90	0.0	0.0 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp2	2/20/2013 14:00:30	9.90	0.0	0.0 CC417218/cg2	O2	9.928 CO2	9.538	0	0
o2mid1	2/20/2013 14:00:45	9.90	0.0	0.0 CC417218/cg2	O2	9.928 CO2	9.538	0	0
dcp4	2/20/2013 14:01:00	9.92	2.2	-0.1 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 14:01:15	11.12	18.8	-0.1 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 14:01:30	17.08	20.4	-0.1 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 14:01:45	20.54	20.4	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 14:02:00	20.92	20.4	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 14:02:15	20.94	20.4	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 14:02:30	20.97	20.4	0.0 CC410976/cg4	NOx	19.63	0	0	0
dcp4	2/20/2013 14:02:45	20.97	20.4	0.0 CC410976/cg4	NOx	19.63	0	0	0
scg1	2/20/2013 14:03:15	20.93	20.4	1.0 CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:03:30	20.75	13.6	1.9 CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:03:45	16.45	9.7	1.2 CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:04:00	14.61	9.7	1.0 CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:04:15	14.80	6.6	2.0 CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:04:30	12.88	1.2	1.4 CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:04:45	5.73	0.4	0.4 CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:05:00	1.00	0.3	0.2 CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:05:15	0.21	0.3	0.2 CC96424/cg1	NOx	0 O2	0 CO	0	0

name	O2 A		NOx A		CO A							
sn	1420D/3379		1200951381		48C-74094-375							
offset	0		0		0							
fullscale	25		20		50							
train	1		1		1							
gastype	o2 3a		nox 7e		co 10							
scg1	2/20/2013	14:05:30	0.15	0.3	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0	
o2zero1	2/20/2013	14:05:30	0.15	0.3	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0	
noxzero1	2/20/2013	14:05:30	0.15	0.3	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0	
cozero1	2/20/2013	14:05:30	0.15	0.3	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0	
scg2	2/20/2013	14:05:45	0.13	0.3	0.2	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:06:00	0.12	0.3	0.2	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:06:15	0.11	0.3	0.2	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:06:30	0.11	0.2	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:06:45	0.10	0.2	0.0	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:07:00	1.38	0.2	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:07:15	5.71	0.2	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:07:30	8.69	0.2	0.0	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:07:45	9.73	0.2	0.0	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg2	2/20/2013	14:08:00	9.86	0.2	0.0	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
o2span1	2/20/2013	14:08:00	9.86	0.2	0.0	CC417218/cg2	O2	9.928 CO2	9.538	0	0	
scg7	2/20/2013	14:08:30	9.88	0.2	0.0	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:08:45	9.88	0.2	0.0	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:09:00	9.88	0.1	0.0	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:09:15	9.89	0.4	1.1	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:09:30	9.33	2.7	8.2	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:09:45	5.34	0.5	16.1	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:10:00	1.58	0.2	19.8	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:10:15	0.25	0.2	20.4	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:10:30	0.11	0.1	20.4	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013	14:10:45	0.11	0.1	20.4	CC35815/cg7	CO	20.09	0	0	0	
cospan1	2/20/2013	14:10:30	0.11	0.1	20.4	CC35815/cg7	CO	20.09	0	0	0	
scg6	2/20/2013	14:10:45	0.10	0.1	20.5	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:11:00	0.10	0.1	20.5	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:11:15	0.09	0.1	20.5	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:11:30	0.08	0.1	20.5	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:11:45	0.08	0.1	18.2	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:12:00	0.08	5.1	9.3	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:12:15	0.08	9.0	2.3	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:12:30	0.08	9.2	3.3	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:12:45	0.07	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0	
scg6	2/20/2013	14:13:00	0.07	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0	
noxspan1	2/20/2013	14:13:00	0.07	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0	
run1	2/20/2013	14:19:00	14.73	9.7	0.4							
run1	2/20/2013	14:19:15	14.73	9.8	0.5							
run1	2/20/2013	14:19:30	14.73	9.8	0.4							
run1	2/20/2013	14:19:45	14.73	9.8	0.4							
run1	2/20/2013	14:20:00	14.73	9.8	0.4							
run1	2/20/2013	14:20:15	14.73	9.8	0.4							
run1	2/20/2013	14:20:30	14.73	9.8	0.4							
run1	2/20/2013	14:20:45	14.73	9.8	0.4							
run1	2/20/2013	14:21:00	14.73	9.8	0.4							
run1	2/20/2013	14:21:15	14.73	9.8	0.4							
run1	2/20/2013	14:21:30	14.73	9.8	0.5							
run1	2/20/2013	14:21:45	14.73	9.8	0.5							
run1	2/20/2013	14:22:00	14.72	9.8	0.4							
run1	2/20/2013	14:22:15	14.73	9.8	0.4							
run1	2/20/2013	14:22:30	14.73	9.8	0.4							
run1	2/20/2013	14:22:45	14.73	9.8	0.4							
run1	2/20/2013	14:23:00	14.73	9.8	0.4							
run1	2/20/2013	14:23:15	14.72	9.8	0.4							
run1	2/20/2013	14:23:30	14.72	9.8	0.4							
run1	2/20/2013	14:23:45	14.73	9.9	0.4							
run1	2/20/2013	14:24:00	14.73	9.8	0.4							
run1	2/20/2013	14:24:15	14.72	9.8	0.5							
run1	2/20/2013	14:24:30	14.72	9.8	0.7							
run1	2/20/2013	14:24:45	14.73	9.8	0.8							
run1	2/20/2013	14:25:00	14.72	9.8	0.7							
run1	2/20/2013	14:25:15	14.72	9.9	0.6							
run1	2/20/2013	14:25:30	14.72	9.9	0.5							
run1	2/20/2013	14:25:45	14.73	9.9	0.5							
run1	2/20/2013	14:26:00	14.73	9.9	0.5							
run1	2/20/2013	14:26:15	14.72	9.9	0.7							
run1	2/20/2013	14:26:30	14.73	9.9	0.8							
run1	2/20/2013	14:26:45	14.73	9.8	0.7							
run1	2/20/2013	14:27:00	14.73	9.8	0.6							
run1	2/20/2013	14:27:15	14.73	9.8	0.6							
run1	2/20/2013	14:27:30	14.73	9.8	0.5							
run1	2/20/2013	14:27:45	14.74	9.7	0.5							
run1	2/20/2013	14:28:00	14.73	9.7	0.4							
run1	2/20/2013	14:28:15	14.74	9.7	0.4							
run1	2/20/2013	14:28:30	14.74	9.7	0.4							
run1	2/20/2013	14:28:45	14.74	9.8	0.4							
run1	2/20/2013	14:29:00	14.74	9.8	0.4							
run1	2/20/2013	14:29:15	14.73	9.8	0.4							
run1	2/20/2013	14:29:30	14.74	9.7	0.4							
run1	2/20/2013	14:29:45	14.73	9.7	0.4							
run1	2/20/2013	14:30:00	14.74	9.8	0.4							
run1	2/20/2013	14:30:15	14.73	9.8	0.4							
run1	2/20/2013	14:30:30	14.74	9.8	0.4							
run1	2/20/2013	14:30:45	14.73	9.8	0.4							
run1	2/20/2013	14:31:00	14.74	9.8	0.4							
run1	2/20/2013	14:31:15	14.73	9.7	0.4							
run1	2/20/2013	14:31:30	14.74	9.8	0.5							
run1	2/20/2013	14:31:45	14.74	9.8	0.5							
run1	2/20/2013	14:32:00	14.74	9.8	0.5							
run1	2/20/2013	14:32:15	14.74	9.7	0.6							
run1	2/20/2013	14:32:30	14.74	9.7	0.6							
run1	2/20/2013	14:32:45	14.74	9.7	0.5							
run1	2/20/2013	14:33:00	14.73	9.8	0.4							
run1	2/20/2013	14:33:15	14.74	9.8	0.5							
run1	2/20/2013	14:33:30	14.74	9.7	0.5							
run1	2/20/2013	14:33:45	14.74	9.7	0.5							
run1	2/20/2013	14:34:00	14.74	9.7	0.5							
run1	2/20/2013	14:34:15	14.73	9.7	0.4							
run1	2/20/2013	14:34:30	14.74	9.8	0.5							
run1	2/20/2013	14:34:45	14.74	9.7	0.5							
run1	2/20/2013	14:35:00	14.73	9.7	0.4							

name	O2 A	NOx A	CO A							
sn	1420D/3379	1200951381	48C-74094-375							
offset	0	0	0							
fullscale	25	20	50							
train	1	1	1							
gasstype	o2 3e	nox 7e	co 10							
run1	2/20/2013 14:35:15	14.74	9.7	0.5						
run1	2/20/2013 14:35:30	14.74	9.7	0.5						
run1	2/20/2013 14:35:45	14.74	9.7	0.4						
run1	2/20/2013 14:36:00	14.73	9.7	0.4						
run1	2/20/2013 14:36:15	14.74	9.7	0.4						
run1	2/20/2013 14:36:30	14.74	9.7	0.4						
run1	2/20/2013 14:36:45	14.73	9.7	0.4						
run1	2/20/2013 14:37:00	14.74	9.7	0.5						
run1	2/20/2013 14:37:15	14.74	9.7	0.5						
run1	2/20/2013 14:37:30	14.74	9.7	0.4						
run1	2/20/2013 14:37:45	14.74	9.7	0.5						
run1	2/20/2013 14:38:00	14.73	9.7	0.4						
run1	2/20/2013 14:38:15	14.74	9.7	0.4						
run1	2/20/2013 14:38:30	14.74	9.7	0.4						
run1	2/20/2013 14:38:45	14.74	9.7	0.4						
run1	2/20/2013 14:39:00	14.73	9.7	0.4						
run1	2/20/2013 14:39:15	14.74	9.7	0.4						
run1	2/20/2013 14:39:30	14.74	9.7	0.4						
run1	2/20/2013 14:39:45	14.74	9.7	0.5						
run1	2/20/2013 14:40:00	14.74	9.7	0.5						
run1	2/20/2013 14:40:15	14.73	9.7	0.5						
run1	2/20/2013 14:40:30	14.74	9.8	0.5						
run1	2/20/2013 14:40:45	14.74	9.8	0.5						
run1	2/20/2013 14:41:00	14.73	9.8	0.5						
averrun1	2/20/2013 14:41:15	14.74	9.8	0.5						
scg1	2/20/2013 14:41:30	14.74	9.8	0.6	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:41:45	14.74	9.8	0.5	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:42:00	14.74	9.8	0.5	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:42:15	14.43	6.3	0.4	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:42:30	9.27	0.8	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:42:45	2.52	0.3	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:43:00	0.33	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013 14:43:15	0.13	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
o2zero1	2/20/2013 14:43:15	0.13	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
noxzero1	2/20/2013 14:43:15	0.13	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
cozero1	2/20/2013 14:43:15	0.13	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg7	2/20/2013 14:43:30	0.11	0.2	0.2	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013 14:43:45	0.10	0.2	0.2	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013 14:44:00	0.09	0.2	0.1	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013 14:44:15	0.09	0.2	0.2	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013 14:44:30	0.08	0.2	4.8	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013 14:44:45	0.07	0.2	13.8	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013 14:45:00	0.08	0.2	19.3	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013 14:45:15	0.07	0.1	20.4	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013 14:45:30	0.07	0.1	20.5	CC35815/cg7	CO	20.09	0	0	0
cospan1	2/20/2013 14:45:30	0.07	0.1	20.5	CC35815/cg7	CO	20.09	0	0	0
scg2	2/20/2013 14:45:45	0.07	0.1	20.5	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:46:00	0.07	0.1	20.5	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:46:15	0.07	0.1	20.5	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:46:30	0.06	0.1	20.4	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:46:45	0.06	0.1	15.0	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:47:00	1.34	0.1	6.5	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:47:15	5.69	0.1	1.8	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:47:30	8.71	0.1	0.3	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:47:45	9.70	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:48:00	9.82	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013 14:48:00	9.82	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0
o2span1	2/20/2013 14:48:30	9.84	0.1	0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:48:45	9.85	0.1	0.0	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:49:00	9.85	0.1	0.0	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:49:15	9.85	0.1	0.0	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:49:30	9.84	2.0	0.0	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:49:45	7.98	7.7	-0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:50:00	3.32	9.0	0.0	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:50:15	0.64	9.1	0.0	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:50:30	0.14	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013 14:50:45	0.10	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0
noxspan1	2/20/2013 14:50:45	0.10	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0
run2	2/20/2013 14:55:00	14.71	9.7	0.4						
run2	2/20/2013 14:55:15	14.72	9.8	0.4						
run2	2/20/2013 14:55:30	14.72	9.8	0.4						
run2	2/20/2013 14:55:45	14.73	9.8	0.4						
run2	2/20/2013 14:56:00	14.73	9.8	0.4						
run2	2/20/2013 14:56:15	14.73	9.8	0.4						
run2	2/20/2013 14:56:30	14.73	9.7	0.4						
run2	2/20/2013 14:56:45	14.73	9.8	0.4						
run2	2/20/2013 14:57:00	14.73	9.8	0.4						
run2	2/20/2013 14:57:15	14.73	9.9	0.4						
run2	2/20/2013 14:57:30	14.73	10.0	0.4						
run2	2/20/2013 14:57:45	14.73	9.9	0.4						
run2	2/20/2013 14:58:00	14.72	10.0	0.4						
run2	2/20/2013 14:58:15	14.73	10.0	0.4						
run2	2/20/2013 14:58:30	14.73	10.1	0.4						
run2	2/20/2013 14:58:45	14.72	10.1	0.4						
run2	2/20/2013 14:59:00	14.72	10.0	0.4						
run2	2/20/2013 14:59:15	14.73	10.0	0.4						
run2	2/20/2013 14:59:30	14.73	10.0	0.4						
run2	2/20/2013 14:59:45	14.73	10.0	0.4						
run2	2/20/2013 15:00:00	14.72	10.0	0.4						
run2	2/20/2013 15:00:15	14.73	10.0	0.5						
run2	2/20/2013 15:00:30	14.73	10.0	0.4						
run2	2/20/2013 15:00:45	14.73	10.0	0.4						
run2	2/20/2013 15:01:00	14.72	10.0	0.4						
run2	2/20/2013 15:01:15	14.73	10.0	0.4						
run2	2/20/2013 15:01:30	14.73	10.1	0.4						
run2	2/20/2013 15:01:45	14.73	10.1	0.4						
run2	2/20/2013 15:02:00	14.73	10.0	0.4						
run2	2/20/2013 15:02:15	14.73	10.0	0.4						
run2	2/20/2013 15:02:30	14.73	10.1	0.4						
run2	2/20/2013 15:02:45	14.73	10.1	0.4						
run2	2/20/2013 15:03:00	14.73	10.1	0.4						

name	O2 A	NOx A	CO A						
sn	1420D/3379	1200951381	48C-74094-375						
offset	0	0	0						
fullscale	25	20	50						
train	1	1	1						
gestype	o2 3a	nox 7e	co 10						
run2	2/20/2013 15:03:15	14.72	10.0	0.4					
run2	2/20/2013 15:03:30	14.72	10.0	0.4					
run2	2/20/2013 15:03:45	14.73	9.9	0.4					
run2	2/20/2013 15:04:00	14.73	9.9	0.4					
run2	2/20/2013 15:04:15	14.73	9.9	0.4					
run2	2/20/2013 15:04:30	14.73	9.9	0.4					
run2	2/20/2013 15:04:45	14.74	9.9	0.4					
run2	2/20/2013 15:05:00	14.74	9.9	0.4					
run2	2/20/2013 15:05:15	14.74	9.9	0.4					
run2	2/20/2013 15:05:30	14.74	9.8	0.4					
run2	2/20/2013 15:05:45	14.73	9.9	0.4					
run2	2/20/2013 15:06:00	14.74	9.9	0.5					
run2	2/20/2013 15:06:15	14.74	9.9	0.5					
run2	2/20/2013 15:06:30	14.74	9.9	0.4					
run2	2/20/2013 15:06:45	14.74	9.9	0.4					
run2	2/20/2013 15:07:00	14.74	9.9	0.4					
run2	2/20/2013 15:07:15	14.74	9.9	0.4					
run2	2/20/2013 15:07:30	14.74	9.9	0.4					
run2	2/20/2013 15:07:45	14.74	9.9	0.4					
run2	2/20/2013 15:08:00	14.74	9.9	0.5					
run2	2/20/2013 15:08:15	14.73	9.9	0.4					
run2	2/20/2013 15:08:30	14.74	9.9	0.4					
run2	2/20/2013 15:08:45	14.74	9.9	0.4					
run2	2/20/2013 15:09:00	14.74	9.9	0.4					
run2	2/20/2013 15:09:15	14.74	9.9	0.4					
run2	2/20/2013 15:09:30	14.74	9.9	0.4					
run2	2/20/2013 15:09:45	14.74	10.0	0.4					
run2	2/20/2013 15:10:00	14.74	9.9	0.4					
run2	2/20/2013 15:10:15	14.73	9.9	0.4					
run2	2/20/2013 15:10:30	14.74	9.9	0.4					
run2	2/20/2013 15:10:45	14.74	9.9	0.4					
run2	2/20/2013 15:11:00	14.73	9.9	0.4					
run2	2/20/2013 15:11:15	14.74	9.9	0.4					
run2	2/20/2013 15:11:30	14.74	9.9	0.4					
run2	2/20/2013 15:11:45	14.74	9.9	0.4					
run2	2/20/2013 15:12:00	14.74	9.9	0.4					
run2	2/20/2013 15:12:15	14.74	10.0	0.4					
run2	2/20/2013 15:12:30	14.74	9.9	0.5					
run2	2/20/2013 15:12:45	14.74	9.9	0.5					
run2	2/20/2013 15:13:00	14.75	9.9	0.4					
run2	2/20/2013 15:13:15	14.75	9.9	0.4					
run2	2/20/2013 15:13:30	14.74	9.9	0.4					
run2	2/20/2013 15:13:45	14.74	9.9	0.4					
run2	2/20/2013 15:14:00	14.75	9.9	0.4					
run2	2/20/2013 15:14:15	14.75	9.9	0.4					
run2	2/20/2013 15:14:30	14.75	10.0	0.4					
run2	2/20/2013 15:14:45	14.74	9.9	0.5					
run2	2/20/2013 15:15:00	14.74	9.9	0.4					
run2	2/20/2013 15:15:15	14.74	9.9	0.4					
run2	2/20/2013 15:15:30	14.74	9.9	0.4					
run2	2/20/2013 15:15:45	14.73	9.9	0.4					
run2	2/20/2013 15:16:00	14.74	9.9	0.4					
run2	2/20/2013 15:16:15	14.73	9.9	0.4					
scg6	2/20/2013 15:16:30	14.74	9.9	0.4	XC035717B/cg6	NOx	9.447	0	0
scg6	2/20/2013 15:16:45	14.74	9.9	0.4	XC035717B/cg6	NOx	9.447	0	0
scg6	2/20/2013 15:17:00	14.74	9.9	0.4	XC035717B/cg6	NOx	9.447	0	0
scg6	2/20/2013 15:17:15	14.74	9.9	0.5	XC035717B/cg6	NOx	9.447	0	0
scg6	2/20/2013 15:17:30	14.51	8.8	0.4	XC035717B/cg6	NOx	9.447	0	0
scg6	2/20/2013 15:17:45	9.50	9.2	0.2	XC035717B/cg6	NOx	9.447	0	0
scg6	2/20/2013 15:18:00	2.50	9.4	0.0	XC035717B/cg6	NOx	9.447	0	0
noxspan1	2/20/2013 15:18:00	2.50	9.4	0.0	XC035717B/cg6	NOx	9.447	0	0
scg1	2/20/2013 15:18:15	0.33	9.4	0.1	CC96424/cg1	NOx	0 O2	0 CO	0
scg1	2/20/2013 15:18:30	0.13	9.4	0.1	CC96424/cg1	NOx	0 O2	0 CO	0
scg1	2/20/2013 15:18:45	0.11	9.4	0.1	CC96424/cg1	NOx	0 O2	0 CO	0
scg1	2/20/2013 15:19:00	0.10	9.4	0.1	CC96424/cg1	NOx	0 O2	0 CO	0
scg1	2/20/2013 15:19:15	0.09	8.3	0.1	CC96424/cg1	NOx	0 O2	0 CO	0
scg1	2/20/2013 15:19:30	0.09	1.5	0.1	CC96424/cg1	NOx	0 O2	0 CO	0
scg1	2/20/2013 15:19:45	0.08	0.3	0.2	CC96424/cg1	NOx	0 O2	0 CO	0
scg1	2/20/2013 15:20:00	0.07	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0
o2zero1	2/20/2013 15:20:00	0.07	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0
noxzero1	2/20/2013 15:20:00	0.07	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0
cozero1	2/20/2013 15:20:00	0.07	0.2	0.2	CC96424/cg1	NOx	0 O2	0 CO	0
scg7	2/20/2013 15:20:15	0.07	0.2	0.2	CC35815/cg7	CO	20.09	0	0
scg7	2/20/2013 15:20:30	0.07	0.2	0.2	CC35815/cg7	CO	20.09	0	0
scg7	2/20/2013 15:20:45	0.06	0.2	0.2	CC35815/cg7	CO	20.09	0	0
scg7	2/20/2013 15:21:00	0.06	0.1	0.2	CC35815/cg7	CO	20.09	0	0
scg7	2/20/2013 15:21:15	0.06	0.2	4.1	CC35815/cg7	CO	20.09	0	0
scg7	2/20/2013 15:21:30	0.05	0.4	13.2	CC35815/cg7	CO	20.09	0	0
scg7	2/20/2013 15:21:45	0.06	0.1	19.2	CC35815/cg7	CO	20.09	0	0
scg7	2/20/2013 15:22:00	0.06	0.1	20.4	CC35815/cg7	CO	20.09	0	0
scg7	2/20/2013 15:22:15	0.06	0.1	20.4	CC35815/cg7	CO	20.09	0	0
scg2	2/20/2013 15:22:30	0.05	0.1	20.6	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:22:45	0.05	0.1	20.6	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:23:00	0.05	0.1	20.5	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:23:15	0.05	0.1	17.3	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:23:30	0.59	0.1	8.7	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:23:45	4.60	0.1	2.8	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:24:00	8.16	0.1	0.5	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:24:15	9.58	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:24:30	9.80	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:24:45	9.82	0.1	0.0	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:25:00	9.84	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0
scg2	2/20/2013 15:25:15	9.84	0.1	0.0	CC417218/cg2	O2	9.928 CO2	9.538	0
o2span1	2/20/2013 15:25:15	9.84	0.1	0.0	CC417218/cg2	O2	9.928 CO2	9.538	0
run3	2/20/2013 15:29:00	14.70	9.9	0.4					
run3	2/20/2013 15:29:15	14.70	9.9	0.4					
run3	2/20/2013 15:29:30	14.71	10.0	0.4					
run3	2/20/2013 15:29:45	14.70	10.0	0.4					
run3	2/20/2013 15:30:00	14.70	9.9	0.4					
run3	2/20/2013 15:30:15	14.71	9.9	0.4					

name	O2 A	NOx A	CO A								
sn	1420D/3379	1200951381	48C-74094-375								
offset	0	0	0								
fullscale	25	20	50								
train	1	1	1								
gaslype	o2 3a	nox 7e	co 10								
run3	2/20/2013 15:30:30	14.71	10.0	0.4							
run3	2/20/2013 15:30:45	14.72	10.0	0.4							
run3	2/20/2013 15:31:00	14.71	10.0	0.5							
run3	2/20/2013 15:31:15	14.71	9.9	0.5							
run3	2/20/2013 15:31:30	14.72	10.0	0.4							
run3	2/20/2013 15:31:45	14.72	9.9	0.4							
run3	2/20/2013 15:32:00	14.72	10.0	0.5							
run3	2/20/2013 15:32:15	14.72	10.0	0.5							
run3	2/20/2013 15:32:30	14.72	10.0	0.8							
run3	2/20/2013 15:32:45	14.71	10.0	0.6							
run3	2/20/2013 15:33:00	14.72	10.0	0.5							
run3	2/20/2013 15:33:15	14.72	10.0	0.6							
run3	2/20/2013 15:33:30	14.72	10.0	0.6							
run3	2/20/2013 15:33:45	14.72	9.9	0.5							
run3	2/20/2013 15:34:00	14.72	10.0	0.4							
run3	2/20/2013 15:34:15	14.72	10.0	0.4							
run3	2/20/2013 15:34:30	14.72	10.0	0.4							
run3	2/20/2013 15:34:45	14.72	10.0	0.4							
run3	2/20/2013 15:35:00	14.72	10.1	0.4							
run3	2/20/2013 15:35:15	14.72	10.1	0.4							
run3	2/20/2013 15:35:30	14.72	10.0	0.4							
run3	2/20/2013 15:35:45	14.72	9.9	0.4							
run3	2/20/2013 15:36:00	14.72	10.0	0.4							
run3	2/20/2013 15:36:15	14.72	10.0	0.4							
run3	2/20/2013 15:36:30	14.72	10.0	0.4							
run3	2/20/2013 15:36:45	14.71	10.0	0.5							
run3	2/20/2013 15:37:00	14.72	10.0	0.4							
run3	2/20/2013 15:37:15	14.72	10.0	0.4							
run3	2/20/2013 15:37:30	14.72	9.9	0.4							
run3	2/20/2013 15:37:45	14.73	9.9	0.4							
run3	2/20/2013 15:38:00	14.73	9.9	0.4							
run3	2/20/2013 15:38:15	14.73	9.9	0.4							
run3	2/20/2013 15:38:30	14.73	9.9	0.4							
run3	2/20/2013 15:38:45	14.73	9.9	0.4							
run3	2/20/2013 15:39:00	14.73	9.9	0.4							
run3	2/20/2013 15:39:15	14.73	9.9	0.4							
run3	2/20/2013 15:39:30	14.73	9.9	0.5							
run3	2/20/2013 15:39:45	14.73	9.9	0.4							
run3	2/20/2013 15:40:00	14.73	9.9	0.5							
run3	2/20/2013 15:40:15	14.73	9.9	0.5							
run3	2/20/2013 15:40:30	14.73	9.9	0.5							
run3	2/20/2013 15:40:45	14.73	9.9	0.5							
run3	2/20/2013 15:41:00	14.72	9.9	0.4							
run3	2/20/2013 15:41:15	14.73	9.9	0.4							
run3	2/20/2013 15:41:30	14.73	9.9	0.4							
run3	2/20/2013 15:41:45	14.73	9.9	0.4							
run3	2/20/2013 15:42:00	14.73	9.9	0.4							
run3	2/20/2013 15:42:15	14.73	9.8	0.4							
run3	2/20/2013 15:42:30	14.74	9.8	0.4							
run3	2/20/2013 15:42:45	14.74	9.9	0.4							
run3	2/20/2013 15:43:00	14.73	9.9	0.4							
run3	2/20/2013 15:43:15	14.74	9.9	0.4							
run3	2/20/2013 15:43:30	14.73	9.9	0.4							
run3	2/20/2013 15:43:45	14.73	9.9	0.4							
run3	2/20/2013 15:44:00	14.72	9.9	0.4							
run3	2/20/2013 15:44:15	14.73	9.9	0.4							
run3	2/20/2013 15:44:30	14.73	9.9	0.4							
run3	2/20/2013 15:44:45	14.73	9.9	0.4							
run3	2/20/2013 15:45:00	14.74	9.9	0.4							
run3	2/20/2013 15:45:15	14.74	9.9	0.4							
run3	2/20/2013 15:45:30	14.73	9.9	0.4							
run3	2/20/2013 15:45:45	14.73	9.9	0.4							
run3	2/20/2013 15:46:00	14.73	9.9	0.5							
run3	2/20/2013 15:46:15	14.73	9.9	0.5							
run3	2/20/2013 15:46:30	14.73	9.8	0.5							
run3	2/20/2013 15:46:45	14.73	9.8	0.5							
run3	2/20/2013 15:47:00	14.73	9.9	0.6							
run3	2/20/2013 15:47:15	14.73	9.9	0.6							
run3	2/20/2013 15:47:30	14.73	9.9	0.7							
run3	2/20/2013 15:47:45	14.73	9.9	0.7							
run3	2/20/2013 15:48:00	14.73	9.9	0.6							
run3	2/20/2013 15:48:15	14.72	9.8	0.5							
run3	2/20/2013 15:48:30	14.73	9.9	0.4							
run3	2/20/2013 15:48:45	14.73	9.8	0.4							
run3	2/20/2013 15:49:00	14.73	9.9	0.4							
run3	2/20/2013 15:49:15	14.73	9.9	0.4							
run3	2/20/2013 15:49:30	14.73	10.0	0.5							
run3	2/20/2013 15:49:45	14.73	9.9	0.4							
run3	2/20/2013 15:50:00	14.74	10.1	0.4							
averun3	2/20/2013 15:29:00	14.73	9.9	0.4							
scg2	2/20/2013 15:50:15	14.73	10.0	0.4	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:50:30	14.72	9.9	0.4	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:50:45	14.73	9.9	0.4	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:51:00	14.73	9.9	0.4	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:51:15	14.73	7.5	0.5	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:51:30	13.79	0.9	0.4	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:51:45	11.04	0.2	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:52:00	10.04	0.2	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:52:15	9.91	0.2	0.0	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 15:52:30	9.90	0.1	0.0	CC417218/cg2	O2	9.928	CO2	9.538	0	0
o2span1	2/20/2013 15:52:30	9.90	0.1	0.0	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg1	2/20/2013 15:53:00	9.89	0.1	0.0	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:53:15	9.88	0.1	0.0	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:53:30	9.89	0.1	0.0	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:53:45	9.88	0.1	0.0	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:54:00	9.87	0.1	0.0	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:54:15	7.86	0.1	0.0	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:54:30	3.18	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:54:45	0.61	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:55:00	0.16	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 15:55:15	0.12	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0

name	O2 A		NOx A		CO A						
sn	1420D/3379		1200951381		48C-74094-375						
offset	0		0		0						
fullscale	25		20		50						
lrain	1		1		1						
gestype	o2 3a		nox 7e		co 10						
scg1	2/20/2013	15:55:30	0.11	0.1	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0 0
o2zero1	2/20/2013	15:55:30	0.11	0.1	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0 0
noxzero1	2/20/2013	15:55:30	0.11	0.1	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0 0
cozero1	2/20/2013	15:55:30	0.11	0.1	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0 0
scg7	2/20/2013	15:55:45	0.10	0.1	0.1	0.2	CC35815/cg7	CO	20.09	0 0	0 0
scg7	2/20/2013	15:56:00	0.09	0.1	0.1	0.1	CC35815/cg7	CO	20.09	0 0	0 0
scg7	2/20/2013	15:56:15	0.09	0.1	0.1	0.2	CC35815/cg7	CO	20.09	0 0	0 0
scg7	2/20/2013	15:56:30	0.08	0.1	0.1	0.2	CC35815/cg7	CO	20.09	0 0	0 0
scg7	2/20/2013	15:56:45	0.08	0.1	0.1	4.9	CC35815/cg7	CO	20.09	0 0	0 0
scg7	2/20/2013	15:57:00	0.13	0.1	0.1	14.1	CC35815/cg7	CO	20.09	0 0	0 0
scg7	2/20/2013	15:57:15	0.20	0.1	0.1	19.4	CC35815/cg7	CO	20.09	0 0	0 0
scg7	2/20/2013	15:57:30	0.11	0.1	0.1	20.4	CC35815/cg7	CO	20.09	0 0	0 0
scg7	2/20/2013	15:57:45	0.07	0.1	0.1	20.5	CC35815/cg7	CO	20.09	0 0	0 0
cospan1	2/20/2013	15:57:45	0.07	0.1	0.1	20.5	CC35815/cg7	CO	20.09	0 0	0 0
scg6	2/20/2013	15:58:00	0.07	0.1	0.1	20.5	XC035717B/cg6	NOx	9.447	0 0	0 0
scg6	2/20/2013	15:58:15	0.07	0.1	0.1	20.5	XC035717B/cg6	NOx	9.447	0 0	0 0
scg6	2/20/2013	15:58:30	0.06	0.1	0.1	20.5	XC035717B/cg6	NOx	9.447	0 0	0 0
scg6	2/20/2013	15:58:45	0.06	0.1	0.1	20.4	XC035717B/cg6	NOx	9.447	0 0	0 0
scg6	2/20/2013	15:59:00	0.06	0.7	0.7	15.3	XC035717B/cg6	NOx	9.447	0 0	0 0
scg6	2/20/2013	15:59:15	0.05	7.2	7.2	6.2	XC035717B/cg6	NOx	9.447	0 0	0 0
scg6	2/20/2013	15:59:30	0.06	9.1	9.1	1.2	XC035717B/cg6	NOx	9.447	0 0	0 0
scg6	2/20/2013	15:59:45	0.06	9.2	9.2	0.2	XC035717B/cg6	NOx	9.447	0 0	0 0
scg6	2/20/2013	16:00:00	0.05	9.2	9.2	0.1	XC035717B/cg6	NOx	9.447	0 0	0 0
noxspan1	2/20/2013	16:00:00	0.05	9.2	9.2	0.1	XC035717B/cg6	NOx	9.447	0 0	0 0
run4	2/20/2013	16:04:00	14.69	9.9	9.9	0.5					
run4	2/20/2013	16:04:15	14.69	10.0	10.0	0.5					
run4	2/20/2013	16:04:30	14.70	10.0	10.0	0.4					
run4	2/20/2013	16:04:45	14.70	9.9	9.9	0.4					
run4	2/20/2013	16:05:00	14.70	9.9	9.9	0.4					
run4	2/20/2013	16:05:15	14.70	10.0	10.0	0.4					
run4	2/20/2013	16:05:30	14.70	10.0	10.0	0.4					
run4	2/20/2013	16:05:45	14.70	10.0	10.0	0.4					
run4	2/20/2013	16:06:00	14.71	10.0	10.0	0.4					
run4	2/20/2013	16:06:15	14.71	10.0	10.0	0.4					
run4	2/20/2013	16:06:30	14.71	10.0	10.0	0.4					
run4	2/20/2013	16:06:45	14.71	10.0	10.0	0.4					
run4	2/20/2013	16:07:00	14.70	9.9	9.9	0.4					
run4	2/20/2013	16:07:15	14.71	9.9	9.9	0.4					
run4	2/20/2013	16:07:30	14.70	10.0	10.0	0.4					
run4	2/20/2013	16:07:45	14.71	10.0	10.0	0.4					
run4	2/20/2013	16:08:00	14.71	10.0	10.0	0.4					
run4	2/20/2013	16:08:15	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:08:30	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:08:45	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:09:00	14.72	10.1	10.1	0.4					
run4	2/20/2013	16:09:15	14.72	10.1	10.1	0.4					
run4	2/20/2013	16:09:30	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:09:45	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:10:00	14.71	10.0	10.0	0.4					
run4	2/20/2013	16:10:15	14.72	10.1	10.1	0.4					
run4	2/20/2013	16:10:30	14.71	10.0	10.0	0.4					
run4	2/20/2013	16:10:45	14.72	10.1	10.1	0.4					
run4	2/20/2013	16:11:00	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:11:15	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:11:30	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:11:45	14.72	10.0	10.0	0.5					
run4	2/20/2013	16:12:00	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:12:15	14.72	10.0	10.0	0.4					
run4	2/20/2013	16:12:30	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:12:45	14.72	9.9	9.9	0.4					
run4	2/20/2013	16:13:00	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:13:15	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:13:30	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:13:45	14.74	9.9	9.9	0.4					
run4	2/20/2013	16:14:00	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:14:15	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:14:30	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:14:45	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:15:00	14.74	9.9	9.9	0.4					
run4	2/20/2013	16:15:15	14.74	9.9	9.9	0.4					
run4	2/20/2013	16:15:30	14.74	9.9	9.9	0.4					
run4	2/20/2013	16:15:45	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:16:00	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:16:15	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:16:30	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:16:45	14.72	9.9	9.9	0.4					
run4	2/20/2013	16:17:00	14.73	9.9	9.9	0.5					
run4	2/20/2013	16:17:15	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:17:30	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:17:45	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:18:00	14.73	9.8	9.8	0.4					
run4	2/20/2013	16:18:15	14.72	9.9	9.9	0.4					
run4	2/20/2013	16:18:30	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:18:45	14.72	9.9	9.9	0.4					
run4	2/20/2013	16:19:00	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:19:15	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:19:30	14.73	10.0	10.0	0.4					
run4	2/20/2013	16:19:45	14.72	9.9	9.9	0.4					
run4	2/20/2013	16:20:00	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:20:15	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:20:30	14.71	9.9	9.9	0.4					
run4	2/20/2013	16:20:45	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:21:00	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:21:15	14.73	9.9	9.9	0.5					
run4	2/20/2013	16:21:30	14.71	9.9	9.9	0.5					
run4	2/20/2013	16:21:45	14.73	9.9	9.9	0.5					
run4	2/20/2013	16:22:00	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:22:15	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:22:30	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:22:45	14.73	9.9	9.9	0.4					
run4	2/20/2013	16:23:00	14.73	9.9	9.9	0.4					

name	O2 A	N0x A	CO A				
sn	1420D/3379	1200951381	48C-74094-375				
offset	0	0	0				
fullscale	25	20	50				
train	1	1	1				
gaslype	o2 3a	nox 7e	co 10				
run4	2/20/2013 16:23:15	14.74	9.9	0.4			
run4	2/20/2013 16:23:30	14.74	9.9	0.4			
run4	2/20/2013 16:23:45	14.74	9.9	0.4			
run4	2/20/2013 16:24:00	14.74	9.9	0.4			
run4	2/20/2013 16:24:15	14.74	9.9	0.4			
run4	2/20/2013 16:24:30	14.74	9.9	0.5			
run4	2/20/2013 16:24:45	14.73	9.9	0.4			
averun4	2/20/2013 16:04:00	14.72	9.9	0.4			
scg1	2/20/2013 16:25:00	14.73	9.9	0.4	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:25:15	14.73	9.9	0.4	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:25:30	14.73	10.0	0.4	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:25:45	14.73	10.0	0.4	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:26:00	14.73	9.6	0.4	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:26:15	13.24	2.9	0.3	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:26:30	5.91	0.3	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:26:45	1.04	0.2	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:27:00	0.18	0.2	0.1	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:27:15	0.12	0.2	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:27:30	0.10	0.1	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:27:45	0.10	0.1	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg1	2/20/2013 16:28:00	0.09	0.1	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
o2zero1	2/20/2013 16:28:00	0.09	0.1	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
noxzero1	2/20/2013 16:28:00	0.09	0.1	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
cozero1	2/20/2013 16:28:00	0.09	0.1	0.2	CC96424/cg1	NOx	0 O2 0 CO 0 0
scg2	2/20/2013 16:28:30	0.07	0.1	0.2	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:28:45	0.07	0.1	0.2	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:29:00	0.07	0.1	0.2	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:29:15	0.07	0.1	0.1	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:29:30	0.25	0.1	0.1	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:29:45	3.55	0.1	0.1	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:30:00	7.47	0.1	0.0	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:30:15	9.41	0.1	0.0	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:30:30	9.80	0.1	0.0	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:30:45	9.84	0.1	0.0	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:31:00	9.85	0.1	0.0	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:31:15	9.85	0.1	0.0	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:31:30	9.85	0.1	0.0	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg2	2/20/2013 16:31:45	9.86	0.1	0.1	CC417218/cg2	O2	9.928 CO2 9.538 0 0
o2span1	2/20/2013 16:31:45	9.86	0.1	0.1	CC417218/cg2	O2	9.928 CO2 9.538 0 0
scg6	2/20/2013 16:32:00	9.86	0.1	0.1	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:32:15	9.86	0.1	0.1	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:32:30	9.86	0.1	0.0	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:32:45	9.86	0.1	0.0	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:33:00	9.87	0.3	0.0	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:33:15	9.36	5.5	-0.1	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:33:30	5.42	8.8	-0.1	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:33:45	1.58	9.1	0.0	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:34:00	0.24	9.2	0.1	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:34:15	0.11	9.2	0.1	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:34:30	0.10	9.2	0.0	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:34:45	0.09	9.2	0.1	XC035717B/cg6	NOx	9.447 0 0 0 0
scg6	2/20/2013 16:34:55	0.09	9.2	0.1	XC035717B/cg6	NOx	9.447 0 0 0 0
noxspan1	2/20/2013 16:35:00	0.07	9.2	0.1	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:35:15	0.08	9.2	0.1	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:35:30	0.08	9.3	0.1	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:35:45	0.07	9.3	0.1	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:36:00	0.07	9.2	2.1	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:36:15	0.08	4.1	11.0	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:36:30	0.18	0.3	18.2	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:36:45	0.12	0.2	20.3	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:37:00	0.07	0.1	20.6	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:37:15	0.06	0.1	20.5	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:37:30	0.06	0.1	20.5	CC35815/cg7	CO	20.09 0 0 0 0
scg7	2/20/2013 16:37:30	0.06	0.1	20.5	CC35815/cg7	CO	20.09 0 0 0 0
cospan1	2/20/2013 16:37:30	0.06	0.1	20.5	CC35815/cg7	CO	20.09 0 0 0 0
run5	2/20/2013 16:42:00	14.70	9.8	0.5			
run5	2/20/2013 16:42:15	14.71	9.9	0.5			
run5	2/20/2013 16:42:30	14.70	9.9	0.6			
run5	2/20/2013 16:42:45	14.71	9.9	0.5			
run5	2/20/2013 16:43:00	14.72	9.9	0.5			
run5	2/20/2013 16:43:15	14.72	9.9	0.5			
run5	2/20/2013 16:43:30	14.71	9.9	0.6			
run5	2/20/2013 16:43:45	14.72	9.9	0.6			
run5	2/20/2013 16:44:00	14.73	9.8	0.6			
run5	2/20/2013 16:44:15	14.73	9.8	0.6			
run5	2/20/2013 16:44:30	14.73	9.9	0.5			
run5	2/20/2013 16:44:45	14.73	9.9	0.4			
run5	2/20/2013 16:45:00	14.73	9.9	0.4			
run5	2/20/2013 16:45:15	14.73	9.9	0.4			
run5	2/20/2013 16:45:30	14.73	9.9	0.5			
run5	2/20/2013 16:45:45	14.73	9.9	0.4			
run5	2/20/2013 16:46:00	14.73	9.8	0.5			
run5	2/20/2013 16:46:15	14.74	9.8	0.5			
run5	2/20/2013 16:46:30	14.74	9.8	0.5			
run5	2/20/2013 16:46:45	14.74	9.8	0.5			
run5	2/20/2013 16:47:00	14.74	9.9	0.6			
run5	2/20/2013 16:47:15	14.73	9.9	0.6			
run5	2/20/2013 16:47:30	14.74	9.8	0.6			
run5	2/20/2013 16:47:45	14.74	9.8	0.5			
run5	2/20/2013 16:48:00	14.73	9.9	0.5			
run5	2/20/2013 16:48:15	14.74	9.9	0.4			
run5	2/20/2013 16:48:30	14.74	9.9	0.5			
run5	2/20/2013 16:48:45	14.74	9.9	0.4			
run5	2/20/2013 16:49:00	14.73	9.9	0.4			
run5	2/20/2013 16:49:15	14.74	9.9	0.4			
run5	2/20/2013 16:49:30	14.74	9.9	0.5			
run5	2/20/2013 16:49:45	14.74	9.9	0.5			
run5	2/20/2013 16:50:00	14.74	9.9	0.5			
run5	2/20/2013 16:50:15	14.74	9.9	0.5			
run5	2/20/2013 16:50:30	14.74	9.9	0.5			
run5	2/20/2013 16:50:45	14.74	9.9	0.5			
run5	2/20/2013 16:51:00	14.74	9.9	0.5			



name		O2 A	NOx A	CO A									
sin		1420D/3379	1200951381	48C-74094-375									
offset		0	0	0									
fullscale		25	20	50									
train		1	1	1									
gaslype		o2 3a	nox 7e	co 10									
run5	2/20/2013	16:51:15	14.74	9.9	0.5								
run5	2/20/2013	16:51:30	14.72	10.0	0.5								
run5	2/20/2013	16:51:45	14.74	9.9	0.5								
run5	2/20/2013	16:52:00	14.74	9.9	0.5								
run5	2/20/2013	16:52:15	14.74	9.8	0.5								
run5	2/20/2013	16:52:30	14.74	9.8	0.5								
run5	2/20/2013	16:52:45	14.74	9.8	0.6								
run5	2/20/2013	16:53:00	14.74	9.8	0.6								
run5	2/20/2013	16:53:15	14.74	9.8	0.6								
run5	2/20/2013	16:53:30	14.74	9.9	0.5								
run5	2/20/2013	16:53:45	14.74	9.9	0.6								
run5	2/20/2013	16:54:00	14.74	9.9	0.6								
run5	2/20/2013	16:54:15	14.74	9.8	0.5								
run5	2/20/2013	16:54:30	14.73	9.9	0.5								
run5	2/20/2013	16:54:45	14.74	9.9	0.5								
run5	2/20/2013	16:55:00	14.74	9.9	0.6								
run5	2/20/2013	16:55:15	14.74	9.9	0.6								
run5	2/20/2013	16:55:30	14.74	9.9	0.6								
run5	2/20/2013	16:55:45	14.74	9.9	0.6								
run5	2/20/2013	16:56:00	14.74	9.8	0.6								
run5	2/20/2013	16:56:15	14.74	9.8	0.7								
run5	2/20/2013	16:56:30	14.74	9.9	0.7								
run5	2/20/2013	16:56:45	14.74	9.9	0.6								
run5	2/20/2013	16:57:00	14.75	9.8	0.6								
run5	2/20/2013	16:57:15	14.75	9.8	0.5								
run5	2/20/2013	16:57:30	14.75	9.9	0.6								
run5	2/20/2013	16:57:45	14.75	9.8	0.7								
run5	2/20/2013	16:58:00	14.74	9.8	0.8								
run5	2/20/2013	16:58:15	14.75	9.9	0.9								
run5	2/20/2013	16:58:30	14.74	9.8	0.8								
run5	2/20/2013	16:58:45	14.75	9.9	0.7								
run5	2/20/2013	16:59:00	14.75	9.9	0.5								
run5	2/20/2013	16:59:15	14.75	9.9	0.5								
run5	2/20/2013	16:59:30	14.75	9.9	0.5								
run5	2/20/2013	16:59:45	14.75	9.8	0.6								
run5	2/20/2013	17:00:00	14.75	9.9	0.6								
run5	2/20/2013	17:00:15	14.75	9.9	0.7								
run5	2/20/2013	17:00:30	14.74	9.9	0.6								
run5	2/20/2013	17:00:45	14.75	9.9	0.6								
run5	2/20/2013	17:01:00	14.75	9.8	0.7								
run5	2/20/2013	17:01:15	14.75	9.8	0.8								
run5	2/20/2013	17:01:30	14.75	9.8	0.8								
run5	2/20/2013	17:01:45	14.75	9.8	0.8								
run5	2/20/2013	17:02:00	14.74	9.8	0.8								
run5	2/20/2013	17:02:15	14.75	9.8	0.8								
run5	2/20/2013	17:02:30	14.74	9.8	0.8								
run5	2/20/2013	17:02:45	14.75	9.8	0.8								
averun5	2/20/2013	16:42:00	14.74	9.9	0.6	21							
scg7	2/20/2013	17:03:15	14.75	9.8	0.8	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	17:03:30	14.75	9.8	0.9	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	17:03:45	14.75	9.9	1.0	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	17:04:00	14.75	9.8	2.7	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	17:04:15	14.63	5.4	10.1	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	17:04:30	10.23	0.6	17.4	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	17:04:45	3.02	0.2	20.2	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	17:05:00	0.42	0.2	20.6	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	17:05:00	0.42	0.2	20.6	CC35815/cg7	CO	20.09	0	0	0		
cospan1	2/20/2013	17:05:30	0.11	0.2	20.6	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:05:45	0.10	0.1	20.6	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:06:00	0.09	0.1	20.6	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:06:15	0.09	0.1	19.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:06:30	0.23	0.1	11.0	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:06:45	3.57	0.1	3.9	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:07:00	7.50	0.1	0.8	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:07:15	9.41	0.1	0.2	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:07:30	9.81	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:07:45	9.85	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:08:00	9.86	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	17:08:00	9.86	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
o2span1	2/20/2013	17:08:15	9.86	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:08:30	9.87	0.1	0.0	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:08:45	9.87	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:09:00	9.88	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:09:15	9.87	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:09:30	9.02	0.1	0.0	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:09:45	4.59	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:10:00	1.14	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:10:15	0.20	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:10:30	0.11	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	17:10:30	0.11	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
o2zero1	2/20/2013	17:10:30	0.11	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
noxzero1	2/20/2013	17:10:30	0.11	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
cozero1	2/20/2013	17:10:45	0.10	0.1	0.2	XC035717B/cg6	NOx	9.447	0	0	0	0	
scg6	2/20/2013	17:11:00	0.09	0.1	0.2	XC035717B/cg6	NOx	9.447	0	0	0	0	
scg6	2/20/2013	17:11:15	0.09	0.1	0.2	XC035717B/cg6	NOx	9.447	0	0	0	0	
scg6	2/20/2013	17:11:30	0.08	0.1	0.2	XC035717B/cg6	NOx	9.447	0	0	0	0	
scg6	2/20/2013	17:11:45	0.08	0.9	0.2	XC035717B/cg6	NOx	9.447	0	0	0	0	
scg6	2/20/2013	17:12:00	0.13	7.6	0.1	XC035717B/cg6	NOx	9.447	0	0	0	0	
scg6	2/20/2013	17:12:15	0.18	9.1	0.1	XC035717B/cg6	NOx	9.447	0	0	0	0	
scg6	2/20/2013	17:12:30	0.09	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0	0	
scg6	2/20/2013	17:12:30	0.09	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0	0	
noxspan1	2/20/2013	17:12:30	14.70	9.8	0.8								
run6	2/20/2013	17:16:00	14.70	9.8	0.8								
run6	2/20/2013	17:16:15	14.71	9.8	0.8								
run6	2/20/2013	17:16:30	14.71	9.8	0.8								
run6	2/20/2013	17:16:45	14.71	9.8	0.7								
run6	2/20/2013	17:17:00	14.71	9.8	0.7								
run6	2/20/2013	17:17:15	14.72	9.8	0.7								
run6	2/20/2013	17:17:30	14.72	9.8	0.7								
run6	2/20/2013	17:17:45	14.72	9.8	0.7								
run6	2/20/2013	17:18:00	14.73	9.8	0.7								
run6	2/20/2013	17:18:15	14.73	9.8	0.7								

name		O2 A	NOx A	CO A							
an		1420D/3379	1200951381	48C-74094-375							
offset		0	0	0							
fullscale		25	20	50							
train		1	1	1							
gaslype		o2 3a	nox 7e	co 10							
run6	2/20/2013 17:18:30	14.74	9.8	0.8							
run6	2/20/2013 17:18:45	14.73	9.8	1.0							
run6	2/20/2013 17:19:00	14.74	9.8	1.0							
run6	2/20/2013 17:19:15	14.74	9.8	1.0							
run6	2/20/2013 17:19:30	14.74	9.8	1.0							
run6	2/20/2013 17:19:45	14.73	9.8	0.9							
run6	2/20/2013 17:20:00	14.74	9.8	0.8							
run6	2/20/2013 17:20:15	14.73	9.7	0.9							
run6	2/20/2013 17:20:30	14.74	9.8	0.9							
run6	2/20/2013 17:20:45	14.74	9.8	0.9							
run6	2/20/2013 17:21:00	14.74	9.8	0.8							
run6	2/20/2013 17:21:15	14.74	9.8	0.8							
run6	2/20/2013 17:21:30	14.74	9.8	0.7							
run6	2/20/2013 17:21:45	14.74	9.8	0.7							
run6	2/20/2013 17:22:00	14.74	9.8	0.6							
run6	2/20/2013 17:22:15	14.74	9.8	0.6							
run6	2/20/2013 17:22:30	14.74	9.8	0.6							
run6	2/20/2013 17:22:45	14.74	9.8	0.6							
run6	2/20/2013 17:23:00	14.74	9.8	0.5							
run6	2/20/2013 17:23:15	14.74	9.8	0.6							
run6	2/20/2013 17:23:30	14.74	9.8	0.6							
run6	2/20/2013 17:23:45	14.74	9.8	0.6							
run6	2/20/2013 17:24:00	14.74	9.8	0.7							
run6	2/20/2013 17:24:15	14.73	9.8	0.8							
run6	2/20/2013 17:24:30	14.74	9.8	0.8							
run6	2/20/2013 17:24:45	14.73	9.8	0.7							
run6	2/20/2013 17:25:00	14.74	9.8	0.7							
run6	2/20/2013 17:25:15	14.73	9.8	0.7							
run6	2/20/2013 17:25:30	14.74	9.8	0.7							
run6	2/20/2013 17:25:45	14.73	9.9	0.7							
run6	2/20/2013 17:26:00	14.75	9.9	0.8							
run6	2/20/2013 17:26:15	14.75	9.8	0.7							
run6	2/20/2013 17:26:30	14.74	9.8	0.7							
run6	2/20/2013 17:26:45	14.74	9.8	0.8							
run6	2/20/2013 17:27:00	14.74	9.8	0.8							
run6	2/20/2013 17:27:15	14.74	9.9	0.8							
run6	2/20/2013 17:27:30	14.74	9.9	0.8							
run6	2/20/2013 17:27:45	14.74	9.9	0.8							
run6	2/20/2013 17:28:00	14.74	9.9	0.8							
run6	2/20/2013 17:28:15	14.74	9.8	0.7							
run6	2/20/2013 17:28:30	14.74	9.8	0.7							
run6	2/20/2013 17:28:45	14.74	9.9	0.7							
run6	2/20/2013 17:29:00	14.74	9.9	0.7							
run6	2/20/2013 17:29:15	14.74	9.8	0.6							
run6	2/20/2013 17:29:30	14.74	9.8	0.6							
run6	2/20/2013 17:29:45	14.74	9.8	0.5							
run6	2/20/2013 17:30:00	14.74	9.8	0.5							
run6	2/20/2013 17:30:15	14.74	9.8	0.5							
run6	2/20/2013 17:30:30	14.74	9.8	0.5							
run6	2/20/2013 17:30:45	14.75	9.8	0.5							
run6	2/20/2013 17:31:00	14.75	9.8	0.6							
run6	2/20/2013 17:31:15	14.74	9.8	0.6							
run6	2/20/2013 17:31:30	14.74	9.9	0.6							
run6	2/20/2013 17:31:45	14.74	10.0	0.6							
run6	2/20/2013 17:32:00	14.74	10.0	0.6							
run6	2/20/2013 17:32:15	14.74	10.0	0.5							
run6	2/20/2013 17:32:30	14.74	10.0	0.5							
run6	2/20/2013 17:32:45	14.73	10.0	0.5							
run6	2/20/2013 17:33:00	14.74	10.0	0.6							
run6	2/20/2013 17:33:15	14.74	10.0	0.6							
run6	2/20/2013 17:33:30	14.74	10.0	0.6							
run6	2/20/2013 17:33:45	14.74	10.0	0.6							
run6	2/20/2013 17:34:00	14.74	10.0	0.6							
run6	2/20/2013 17:34:15	14.74	10.0	0.6							
run6	2/20/2013 17:34:30	14.73	10.0	0.7							
run6	2/20/2013 17:34:45	14.74	10.0	0.7							
run6	2/20/2013 17:35:00	14.74	10.0	0.7							
run6	2/20/2013 17:35:15	14.73	9.9	0.7							
run6	2/20/2013 17:35:30	14.52	9.9	0.6							
run6	2/20/2013 17:35:45	14.53	9.9	0.6							
run6	2/20/2013 17:36:00	14.70	9.9	0.6							
run6	2/20/2013 17:36:15	14.73	9.9	0.6							
run6	2/20/2013 17:36:30	14.74	9.9	0.6							
run6	2/20/2013 17:36:45	14.73	9.9	0.6							
run6	2/20/2013 17:37:00	14.74	9.9	0.6							
averun6	2/20/2013 17:16:00	14.73	9.9	0.7							
scg7	2/20/2013 17:37:30	14.74	10.0	0.6	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:37:45	14.73	9.9	0.5	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:38:00	14.74	9.9	0.5	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:38:15	14.74	9.9	2.1	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:38:30	14.19	5.1	10.0	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:38:45	8.20	0.5	17.4	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:39:00	1.91	0.2	20.3	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:39:15	0.26	0.2	20.6	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:39:30	0.13	0.2	20.6	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:39:45	0.11	0.2	20.7	CC35815/cg7	CO	20.09	0	0	0	
scg7	2/20/2013 17:39:45	0.11	0.2	20.7	CC35815/cg7	CO	20.09	0	0	0	
cospan1	2/20/2013 17:40:00	0.10	0.1	20.6	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:40:15	0.10	0.1	20.7	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:40:30	0.09	0.1	20.6	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:40:45	0.09	0.1	20.5	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:41:00	0.08	0.1	15.7	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:41:15	1.27	0.1	7.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:41:30	5.70	0.1	2.0	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:41:45	8.73	0.1	0.3	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:42:00	9.72	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:42:15	9.85	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:42:30	9.86	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0
scg2	2/20/2013 17:42:30	9.86	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0
o2span1	2/20/2013 17:42:30	9.86	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 17:42:45	9.87	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0
scg1	2/20/2013 17:43:00	9.87	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0

name	O2 A		NOx A		CO A						
sn	1420D/3379		1200951381		48C-74094-375						
offset	0		0		0						
fullscale	25		20		50						
train	1		1		1						
gestype	o2 3a		nox 7e		co 10						
scg1	2/20/2013	17:43:15	9.87	0.1	0.1	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	17:43:30	9.88	0.1	0.1	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	17:43:45	9.87	0.1	0.1	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	17:44:00	8.81	0.1	0.1	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	17:44:15	4.33	0.1	0.1	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	17:44:30	0.99	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	17:44:45	0.18	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	17:45:00	0.11	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
o2zero1	2/20/2013	17:45:00	0.11	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
noxzero1	2/20/2013	17:45:00	0.11	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
cozero1	2/20/2013	17:45:00	0.11	0.1	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg6	2/20/2013	17:45:15	0.10	0.1	0.2	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:45:30	0.09	0.1	0.2	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:45:45	0.08	0.1	0.2	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:46:00	0.08	0.1	0.2	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:46:15	0.07	0.9	0.3	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:46:30	0.11	7.5	0.2	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:46:45	0.15	9.1	0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:47:00	0.08	9.2	0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:47:15	0.06	9.3	0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:47:30	0.07	9.3	0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	17:47:30	0.07	9.3	0.1	XC035717B/cg6	NOx	9.447	0	0	0
noxspan1	2/20/2013	17:51:00	14.70	9.9	0.6						
run7	2/20/2013	17:51:15	14.71	9.9	0.6						
run7	2/20/2013	17:51:30	14.71	9.9	0.6						
run7	2/20/2013	17:51:45	14.72	9.9	0.6						
run7	2/20/2013	17:52:00	14.72	9.9	0.6						
run7	2/20/2013	17:52:15	14.72	9.9	0.6						
run7	2/20/2013	17:52:30	14.72	9.9	0.6						
run7	2/20/2013	17:52:45	14.72	10.0	0.6						
run7	2/20/2013	17:53:00	14.72	10.0	0.5						
run7	2/20/2013	17:53:15	14.73	10.0	0.5						
run7	2/20/2013	17:53:30	14.73	10.1	0.5						
run7	2/20/2013	17:53:45	14.73	10.1	0.5						
run7	2/20/2013	17:54:00	14.73	10.0	0.5						
run7	2/20/2013	17:54:15	14.73	9.9	0.5						
run7	2/20/2013	17:54:30	14.73	10.0	0.5						
run7	2/20/2013	17:54:45	14.72	10.0	0.5						
run7	2/20/2013	17:55:00	14.73	10.0	0.5						
run7	2/20/2013	17:55:15	14.73	10.0	0.6						
run7	2/20/2013	17:55:30	14.72	10.0	0.6						
run7	2/20/2013	17:55:45	14.73	10.0	0.5						
run7	2/20/2013	17:56:00	14.73	10.0	0.5						
run7	2/20/2013	17:56:15	14.73	10.0	0.5						
run7	2/20/2013	17:56:30	14.73	10.0	0.5						
run7	2/20/2013	17:56:45	14.73	10.1	0.6						
run7	2/20/2013	17:57:00	14.73	10.0	0.6						
run7	2/20/2013	17:57:15	14.73	10.0	0.6						
run7	2/20/2013	17:57:30	14.74	10.0	0.7						
run7	2/20/2013	17:57:45	14.73	10.0	0.7						
run7	2/20/2013	17:58:00	14.74	10.0	0.6						
run7	2/20/2013	17:58:15	14.74	10.0	0.6						
run7	2/20/2013	17:58:30	14.74	9.9	0.6						
run7	2/20/2013	17:58:45	14.73	9.9	0.6						
run7	2/20/2013	17:59:00	14.74	9.9	0.6						
run7	2/20/2013	17:59:15	14.73	9.8	0.6						
run7	2/20/2013	17:59:30	14.74	9.9	0.6						
run7	2/20/2013	17:59:45	14.75	9.9	0.5						
run7	2/20/2013	18:00:00	14.75	9.9	0.5						
run7	2/20/2013	18:00:15	14.75	9.9	0.5						
run7	2/20/2013	18:00:30	14.75	9.9	0.5						
run7	2/20/2013	18:00:45	14.75	9.8	0.5						
run7	2/20/2013	18:01:00	14.75	9.9	0.5						
run7	2/20/2013	18:01:15	14.74	10.0	0.5						
run7	2/20/2013	18:01:30	14.75	10.0	0.6						
run7	2/20/2013	18:01:45	14.75	9.9	0.6						
run7	2/20/2013	18:02:00	14.75	9.9	0.5						
run7	2/20/2013	18:02:15	14.75	9.9	0.5						
run7	2/20/2013	18:02:30	14.75	9.9	0.5						
run7	2/20/2013	18:02:45	14.75	10.0	0.6						
run7	2/20/2013	18:03:00	14.75	10.0	0.6						
run7	2/20/2013	18:03:15	14.75	9.9	0.5						
run7	2/20/2013	18:03:30	14.75	10.0	0.5						
run7	2/20/2013	18:03:45	14.75	10.0	0.6						
run7	2/20/2013	18:04:00	14.75	10.0	0.6						
run7	2/20/2013	18:04:15	14.75	9.9	0.5						
run7	2/20/2013	18:04:30	14.74	9.9	0.5						
run7	2/20/2013	18:04:45	14.75	9.9	0.5						
run7	2/20/2013	18:05:00	14.75	10.0	0.5						
run7	2/20/2013	18:05:15	14.75	9.9	0.5						
run7	2/20/2013	18:05:30	14.75	9.9	0.5						
run7	2/20/2013	18:05:45	14.75	9.9	0.5						
run7	2/20/2013	18:06:00	14.75	9.9	0.6						
run7	2/20/2013	18:06:15	14.75	9.9	0.6						
run7	2/20/2013	18:06:30	14.75	9.9	0.6						
run7	2/20/2013	18:06:45	14.76	9.8	0.6						
run7	2/20/2013	18:07:00	14.76	9.9	0.5						
run7	2/20/2013	18:07:15	14.76	9.9	0.5						
run7	2/20/2013	18:07:30	14.76	9.9	0.5						
run7	2/20/2013	18:07:45	14.76	9.9	0.5						
run7	2/20/2013	18:08:00	14.75	9.9	0.7						
run7	2/20/2013	18:08:15	14.76	9.8	0.7						
run7	2/20/2013	18:08:30	14.75	9.8	0.7						
run7	2/20/2013	18:08:45	14.75	9.9	0.7						
run7	2/20/2013	18:09:00	14.75	9.9	0.6						
run7	2/20/2013	18:09:15	14.75	9.9	0.6						
run7	2/20/2013	18:09:30	14.75	9.9	0.6						
run7	2/20/2013	18:09:45	14.75	9.9	0.6						
run7	2/20/2013	18:10:00	14.75	9.9	0.6						
run7	2/20/2013	18:10:15	14.74	9.9	0.5						
run7	2/20/2013	18:10:30	14.76	9.9	0.5						

name	O2 A		NOx A		CO A						
sn	1420D/3379		1200951381		48C-74094-375						
offset	0		0		0						
fullscale	25		20		50						
train	1		1		1						
gstype	o2 3a		nox 7e		co 10						
run7	2/20/2013	18:10:45	14.76	9.9	0.5						
run7	2/20/2013	18:11:00	14.76	9.9	0.6						
run7	2/20/2013	18:11:15	14.76	9.9	0.5						
run7	2/20/2013	18:11:30	14.76	9.9	0.5						
run7	2/20/2013	18:11:45	14.76	9.9	0.5						
averun7	2/20/2013	17:51:00	14.74	9.9	0.6	21					
scg6	2/20/2013	18:12:00	14.76	9.9	0.6	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	18:12:15	14.75	9.9	0.6	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	18:12:30	14.75	9.9	0.6	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	18:12:45	14.75	9.9	0.6	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	18:13:00	14.75	9.9	0.7	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	18:13:15	13.87	8.8	0.5	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	18:13:30	7.10	9.3	0.3	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	18:13:45	1.43	9.4	0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg6	2/20/2013	18:14:00	0.23	9.4	0.1	XC035717B/cg6	NOx	9.447	0	0	0
noxspan1	2/20/2013	18:14:00	0.23	9.4	0.1	XC035717B/cg6	NOx	9.447	0	0	0
scg7	2/20/2013	18:14:15	0.13	9.4	0.1	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013	18:14:30	0.11	9.4	0.1	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013	18:14:45	0.10	9.4	0.1	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013	18:15:00	0.10	9.4	0.1	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013	18:15:15	0.09	9.4	2.4	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013	18:15:30	0.09	4.4	11.2	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013	18:15:45	0.09	0.4	18.4	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013	18:16:00	0.08	0.2	20.4	CC35815/cg7	CO	20.09	0	0	0
scg7	2/20/2013	18:16:15	0.08	0.2	20.6	CC35815/cg7	CO	20.09	0	0	0
cospan1	2/20/2013	18:16:15	0.08	0.2	20.6	CC35815/cg7	CO	20.09	0	0	0
scg1	2/20/2013	18:16:45	0.07	0.1	20.7	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	18:17:00	0.07	0.1	20.6	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	18:17:15	0.07	0.1	20.7	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	18:17:30	0.07	0.1	19.6	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	18:17:45	0.07	0.4	12.0	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	18:18:00	0.07	0.2	3.7	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	18:18:15	0.06	0.1	0.7	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	18:18:30	0.06	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	18:18:45	0.06	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
o2zero1	2/20/2013	18:18:45	0.06	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
noxzero1	2/20/2013	18:18:45	0.06	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
cozero1	2/20/2013	18:18:45	0.06	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg2	2/20/2013	18:19:00	0.06	0.1	0.3	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:19:15	0.06	0.1	0.3	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:19:30	0.05	0.1	0.3	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:19:45	0.06	0.1	0.3	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:20:00	0.06	0.1	0.2	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:20:15	0.33	0.1	0.2	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:20:30	3.93	0.1	0.2	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:20:45	7.89	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:21:00	9.52	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0
scg2	2/20/2013	18:21:15	9.81	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0
o2span1	2/20/2013	18:21:15	9.81	0.1	0.1	CC417218/cg2	O2	9.928 CO2	9.538	0	0
run8	2/20/2013	18:25:00	14.73	9.8	0.6						
run8	2/20/2013	18:25:15	14.73	9.8	0.6						
run8	2/20/2013	18:25:30	14.73	9.9	0.6						
run8	2/20/2013	18:25:45	14.73	9.8	0.6						
run8	2/20/2013	18:26:00	14.74	9.8	0.6						
run8	2/20/2013	18:26:15	14.74	9.8	0.6						
run8	2/20/2013	18:26:30	14.74	9.8	0.6						
run8	2/20/2013	18:26:45	14.74	9.8	0.6						
run8	2/20/2013	18:27:00	14.74	9.9	0.6						
run8	2/20/2013	18:27:15	14.74	9.8	0.7						
run8	2/20/2013	18:27:30	14.74	9.8	0.6						
run8	2/20/2013	18:27:45	14.74	9.8	0.6						
run8	2/20/2013	18:28:00	14.74	9.9	0.6						
run8	2/20/2013	18:28:15	14.74	9.9	0.7						
run8	2/20/2013	18:28:30	14.74	9.9	0.7						
run8	2/20/2013	18:28:45	14.74	9.9	0.7						
run8	2/20/2013	18:29:00	14.74	9.8	0.6						
run8	2/20/2013	18:29:15	14.74	9.8	0.6						
run8	2/20/2013	18:29:30	14.74	9.9	0.7						
run8	2/20/2013	18:29:45	14.75	9.9	0.7						
run8	2/20/2013	18:30:00	14.74	9.9	0.6						
run8	2/20/2013	18:30:15	14.75	9.8	0.6						
run8	2/20/2013	18:30:30	14.75	9.9	0.7						
run8	2/20/2013	18:30:45	14.75	9.9	0.7						
run8	2/20/2013	18:31:00	14.75	9.9	0.7						
run8	2/20/2013	18:31:15	14.74	9.9	0.7						
run8	2/20/2013	18:31:30	14.75	9.9	0.7						
run8	2/20/2013	18:31:45	14.75	9.9	0.8						
run8	2/20/2013	18:32:00	14.75	9.9	0.8						
run8	2/20/2013	18:32:15	14.75	9.9	0.8						
run8	2/20/2013	18:32:30	14.75	9.9	0.8						
run8	2/20/2013	18:32:45	14.74	9.9	0.8						
run8	2/20/2013	18:33:00	14.75	9.9	0.7						
run8	2/20/2013	18:33:15	14.74	9.9	0.7						
run8	2/20/2013	18:33:30	14.74	9.9	0.7						
run8	2/20/2013	18:33:45	14.75	9.9	0.7						
run8	2/20/2013	18:34:00	14.74	9.9	0.6						
run8	2/20/2013	18:34:15	14.75	9.9	0.6						
run8	2/20/2013	18:34:30	14.75	10.0	0.6						
run8	2/20/2013	18:34:45	14.75	9.9	0.6						
run8	2/20/2013	18:35:00	14.75	9.9	0.6						
run8	2/20/2013	18:35:15	14.75	9.9	0.6						
run8	2/20/2013	18:35:30	14.75	9.9	0.6						
run8	2/20/2013	18:35:45	14.74	9.9	0.6						
run8	2/20/2013	18:36:00	14.75	9.9	0.6						
run8	2/20/2013	18:36:15	14.74	9.9	0.6						
run8	2/20/2013	18:36:30	14.75	9.9	0.6						
run8	2/20/2013	18:36:45	14.75	9.9	0.6						
run8	2/20/2013	18:37:00	14.75	9.9	0.6						
run8	2/20/2013	18:37:15	14.75	9.9	0.6						
run8	2/20/2013	18:37:30	14.75	10.0	0.6						
run8	2/20/2013	18:37:45	14.75	9.9	0.6						

name	O2 A		NOx A		CO A								
sn	1420D/3379		1200951381		48C-74094-375								
offset	0		0		0								
fullscale	25		20		50								
train	1		1		1								
gastype	o2 3a		nox 7e		co 10								
run8	2/20/2013	18:38:00	14.75	9.9	0.6								
run8	2/20/2013	18:38:15	14.74	10.0	0.6								
run8	2/20/2013	18:38:30	14.75	10.0	0.6								
run8	2/20/2013	18:38:45	14.75	10.0	0.6								
run8	2/20/2013	18:39:00	14.75	10.0	0.6								
run8	2/20/2013	18:39:15	14.75	10.0	0.6								
run8	2/20/2013	18:39:30	14.75	10.0	0.6								
run8	2/20/2013	18:39:45	14.75	9.9	0.7								
run8	2/20/2013	18:40:00	14.74	10.0	0.7								
run8	2/20/2013	18:40:15	14.75	10.0	0.8								
run8	2/20/2013	18:40:30	14.75	10.0	0.8								
run8	2/20/2013	18:40:45	14.75	10.0	0.9								
run8	2/20/2013	18:41:00	14.75	10.0	1.0								
run8	2/20/2013	18:41:15	14.75	10.0	0.9								
run8	2/20/2013	18:41:30	14.75	10.0	0.8								
run8	2/20/2013	18:41:45	14.75	10.1	0.8								
run8	2/20/2013	18:42:00	14.74	10.0	0.9								
run8	2/20/2013	18:42:15	14.74	10.0	1.0								
run8	2/20/2013	18:42:30	14.74	10.0	0.9								
run8	2/20/2013	18:42:45	14.74	10.0	0.8								
run8	2/20/2013	18:43:00	14.74	10.0	0.8								
run8	2/20/2013	18:43:15	14.74	10.0	0.7								
run8	2/20/2013	18:43:30	14.74	10.0	0.6								
run8	2/20/2013	18:43:45	14.74	10.1	0.6								
run8	2/20/2013	18:44:00	14.74	10.0	0.6								
run8	2/20/2013	18:44:15	14.74	10.1	0.6								
run8	2/20/2013	18:44:30	14.74	10.1	0.6								
run8	2/20/2013	18:44:45	14.74	10.1	0.6								
run8	2/20/2013	18:45:00	14.74	10.1	0.6								
run8	2/20/2013	18:45:15	14.74	10.1	0.6								
run8	2/20/2013	18:45:30	14.73	10.0	0.6								
run8	2/20/2013	18:45:45	14.74	10.0	0.7								
averun8	2/20/2013	18:25:00	14.74	9.9	0.7	21							
scg7	2/20/2013	18:46:00	14.74	10.1	0.7	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	18:46:15	14.74	10.1	0.7	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	18:46:30	14.74	10.1	0.7	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	18:46:45	14.74	10.1	0.7	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	18:47:00	14.74	8.7	3.9	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	18:47:15	14.02	1.5	12.2	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	18:47:30	7.39	0.3	18.5	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	18:47:45	1.66	0.2	20.5	CC35815/cg7	CO	20.09	0	0	0		
scg7	2/20/2013	18:48:00	0.27	0.2	20.7	CC35815/cg7	CO	20.09	0	0	0		
cospan1	2/20/2013	18:48:00	0.27	0.2	20.7	CC35815/cg7	CO	20.09	0	0	0		
scg6	2/20/2013	18:48:15	0.14	0.2	20.7	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:48:30	0.12	0.2	20.7	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:48:45	0.11	0.1	20.7	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:49:00	0.10	0.1	20.6	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:49:15	0.10	0.5	17.8	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:49:30	0.40	5.0	9.3	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:49:45	0.80	9.1	2.4	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:50:00	0.26	9.4	0.4	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:50:15	0.09	9.4	0.2	XC035717B/cg6	NOx	9.447	0	0	0		
scg6	2/20/2013	18:50:30	0.09	9.4	0.2	XC035717B/cg6	NOx	9.447	0	0	0		
noxspan1	2/20/2013	18:50:30	0.08	9.4	0.2	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	18:50:45	0.08	9.4	0.2	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	18:51:00	0.08	9.4	0.2	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	18:51:15	0.08	9.4	0.2	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg2	2/20/2013	18:51:30	0.07	7.9	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	
scg1	2/20/2013	18:51:45	1.91	1.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:52:00	6.38	0.2	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:52:15	9.00	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:52:30	9.77	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:52:45	9.84	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:53:00	7.96	0.1	0.1	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:53:15	3.35	0.1	0.2	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:53:30	0.63	0.1	0.3	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:53:45	0.14	0.1	0.3	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg1	2/20/2013	18:54:00	0.09	0.1	0.3	CC96424/cg1	NOx	0	O2	0	CO	0	0
o2zero1	2/20/2013	18:54:00	0.09	0.1	0.3	CC96424/cg1	NOx	0	O2	0	CO	0	0
noxzero1	2/20/2013	18:54:00	0.09	0.1	0.3	CC96424/cg1	NOx	0	O2	0	CO	0	0
cozero1	2/20/2013	18:54:00	0.09	0.1	0.3	CC96424/cg1	NOx	0	O2	0	CO	0	0
scg2	2/20/2013	18:54:15	0.08	0.1	0.3	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:54:30	0.08	0.1	0.3	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:54:45	0.08	0.1	0.3	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:55:00	0.07	0.1	0.3	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:55:15	0.07	0.1	0.2	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:55:30	0.74	0.1	0.2	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:55:45	4.94	0.1	0.2	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:56:00	8.32	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:56:15	9.83	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:56:30	9.84	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:56:45	9.86	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
scg2	2/20/2013	18:56:45	9.86	0.1	0.1	CC417218/cg2	O2	9.928	CO2	9.538	0	0	0
o2span1	2/20/2013	19:01:00	14.73	10.0	0.8								
run9	2/20/2013	19:01:15	14.72	9.8	0.8								
run9	2/20/2013	19:01:30	14.73	10.0	0.9								
run9	2/20/2013	19:01:45	14.73	10.0	0.9								
run9	2/20/2013	19:02:00	14.72	10.0	0.9								
run9	2/20/2013	19:02:15	14.73	10.0	0.9								
run9	2/20/2013	19:02:30	14.73	10.0	0.8								
run9	2/20/2013	19:02:45	14.73	10.0	0.8								
run9	2/20/2013	19:03:00	14.74	10.0	0.8								
run9	2/20/2013	19:03:15	14.74	10.0	0.8								
run9	2/20/2013	19:03:30	14.74	9.9	0.9								
run9	2/20/2013	19:03:45	14.74	10.0	0.9								
run9	2/20/2013	19:04:00	14.74	10.0	1.0								
run9	2/20/2013	19:04:15	14.74	10.1	1.0								
run9	2/20/2013	19:04:30	14.74	10.0	0.9								
run9	2/20/2013	19:04:45	14.74	10.1	0.9								
run9	2/20/2013	19:05:00	14.74	10.1	0.9								
run9	2/20/2013	19:05:15	14.74	10.0	0.9								

name	O2 A		NOx A		CO A	
sn	1420D/3379		1200951381		48C-74094-375	
offset	0		0		0	
fullscale	25		20		50	
train	1		1		1	
gestype	o2 3a		nox 7e		co 10	
run9	2/20/2013	19:05:30	14.74	10.1	0.9	
run9	2/20/2013	19:05:45	14.74	10.1	0.9	
run9	2/20/2013	19:06:00	14.74	10.0	1.0	
run9	2/20/2013	19:06:15	14.74	10.0	1.0	
run9	2/20/2013	19:06:30	14.73	10.1	0.9	
run9	2/20/2013	19:06:45	14.74	10.1	0.9	
run9	2/20/2013	19:07:00	14.73	10.0	0.9	
run9	2/20/2013	19:07:15	14.74	10.1	0.9	
run9	2/20/2013	19:07:30	14.74	10.1	0.9	
run9	2/20/2013	19:07:45	14.73	10.1	1.0	
run9	2/20/2013	19:08:00	14.74	10.1	1.0	
run9	2/20/2013	19:08:15	14.74	10.1	0.9	
run9	2/20/2013	19:08:30	14.74	10.1	1.0	
run9	2/20/2013	19:08:45	14.74	10.1	1.0	
run9	2/20/2013	19:09:00	14.73	10.1	0.9	
run9	2/20/2013	19:09:15	14.74	10.1	0.9	
run9	2/20/2013	19:09:30	14.74	10.0	0.9	
run9	2/20/2013	19:09:45	14.74	9.9	1.0	
run9	2/20/2013	19:10:00	14.75	10.0	1.0	
run9	2/20/2013	19:10:15	14.75	9.9	1.0	
run9	2/20/2013	19:10:30	14.75	9.9	1.0	
run9	2/20/2013	19:10:45	14.75	9.9	1.1	
run9	2/20/2013	19:11:00	14.75	9.9	1.0	
run9	2/20/2013	19:11:15	14.75	9.9	1.0	
run9	2/20/2013	19:11:30	14.76	10.0	1.0	
run9	2/20/2013	19:11:45	14.75	9.9	0.9	
run9	2/20/2013	19:12:00	14.75	9.9	0.9	
run9	2/20/2013	19:12:15	14.76	9.9	0.9	
run9	2/20/2013	19:12:30	14.76	9.9	1.0	
run9	2/20/2013	19:12:45	14.75	9.9	1.0	
run9	2/20/2013	19:13:00	14.75	9.9	1.0	
run9	2/20/2013	19:13:15	14.75	9.9	1.0	
run9	2/20/2013	19:13:30	14.75	9.9	0.9	
run9	2/20/2013	19:13:45	14.75	10.0	0.9	
run9	2/20/2013	19:14:00	14.75	10.0	0.9	
run9	2/20/2013	19:14:15	14.75	10.0	0.9	
run9	2/20/2013	19:14:30	14.75	10.0	0.9	
run9	2/20/2013	19:14:45	14.75	9.9	0.9	
run9	2/20/2013	19:15:00	14.75	9.9	1.0	
run9	2/20/2013	19:15:15	14.75	10.0	0.9	
run9	2/20/2013	19:15:30	14.75	9.9	0.9	
run9	2/20/2013	19:15:45	14.75	9.9	1.0	
run9	2/20/2013	19:16:00	14.75	9.9	1.0	
run9	2/20/2013	19:16:15	14.74	9.9	1.0	
run9	2/20/2013	19:16:30	14.75	9.9	1.0	
run9	2/20/2013	19:16:45	14.76	9.9	1.1	
run9	2/20/2013	19:17:00	14.75	9.9	1.1	
run9	2/20/2013	19:17:15	14.75	9.9	1.0	
run9	2/20/2013	19:17:30	14.75	9.9	1.0	
run9	2/20/2013	19:17:45	14.75	9.9	1.0	
run9	2/20/2013	19:18:00	14.75	9.9	1.0	
run9	2/20/2013	19:18:15	14.76	9.9	1.0	
run9	2/20/2013	19:18:30	14.76	9.9	1.0	
run9	2/20/2013	19:18:45	14.75	9.9	1.0	
run9	2/20/2013	19:19:00	14.75	9.9	1.0	
run9	2/20/2013	19:19:15	14.75	9.9	1.0	
run9	2/20/2013	19:19:30	14.75	9.9	1.0	
run9	2/20/2013	19:19:45	14.75	9.9	1.0	
run9	2/20/2013	19:20:00	14.75	9.9	1.0	
run9	2/20/2013	19:20:15	14.75	9.9	1.0	
run9	2/20/2013	19:20:30	14.75	9.9	1.0	
run9	2/20/2013	19:20:45	14.75	9.9	1.0	
run9	2/20/2013	19:21:00	14.75	10.0	1.1	
run9	2/20/2013	19:21:15	14.75	10.0	1.1	
run9	2/20/2013	19:21:30	14.75	9.9	1.1	
run9	2/20/2013	19:21:45	14.75	9.9	1.1	
averun9	2/20/2013	19:01:00	14.74	10.0	1.0	
scg2	2/20/2013	19:22:00	14.75	9.9	1.0	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:22:15	14.76	9.9	1.0	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:22:30	14.76	9.9	0.9	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:22:45	14.76	10.0	0.9	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:23:00	14.75	6.3	0.8	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:23:15	13.46	0.7	0.4	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:23:30	10.85	0.2	0.2	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:23:45	10.04	0.2	0.2	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:24:00	9.95	0.1	0.1	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg2	2/20/2013	19:24:15	9.93	0.1	0.2	CC417218/cg2 O2 9.928 CO2 9.538 0 0
o2span1	2/20/2013	19:24:30	9.93	0.1	0.2	CC417218/cg2 O2 9.928 CO2 9.538 0 0
scg7	2/20/2013	19:24:45	9.93	0.1	0.1	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:25:00	9.91	0.1	0.1	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:25:15	9.93	0.1	0.2	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:25:30	9.92	0.1	2.9	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:25:45	9.60	0.1	11.3	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:26:00	5.96	0.1	17.8	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:26:15	1.86	0.1	20.3	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:26:30	0.29	0.1	20.7	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:26:45	0.14	0.1	20.7	CC35815/cg7 CO 20.09 0 0 0
scg7	2/20/2013	19:26:50	0.14	0.1	20.7	CC35815/cg7 CO 20.09 0 0 0
scg6	2/20/2013	19:26:15	0.09	0.1	18.4	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:26:30	0.11	0.1	9.6	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:26:45	0.09	0.1	2.4	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:26:50	0.11	0.1	0.4	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:27:00	0.09	0.1	0.3	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:27:15	0.11	0.1	0.3	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:27:30	0.10	0.1	0.2	CC96424/cg1 NOx 0 O2 0 CO 0
scg6	2/20/2013	19:27:45	0.10	0.1	0.2	CC96424/cg1 NOx 0 O2 0 CO 0
scg6	2/20/2013	19:28:00	0.09	0.1	0.2	CC96424/cg1 NOx 0 O2 0 CO 0
scg6	2/20/2013	19:28:15	0.09	4.8	0.6	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:28:30	0.11	9.1	2.4	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:28:45	0.09	9.3	0.4	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:29:00	0.09	9.4	0.3	XC035717B/cg6 NOx 9.447 0 0 0
scg6	2/20/2013	19:29:15	0.09	9.4	0.3	XC035717B/cg6 NOx 9.447 0 0 0
noxspan1	2/20/2013	19:29:00	0.09	9.4	0.3	XC035717B/cg6 NOx 9.447 0 0 0
scg1	2/20/2013	19:29:15	0.08	9.4	0.2	CC96424/cg1 NOx 0 O2 0 CO 0
scg1	2/20/2013	19:29:30	0.08	9.4	0.2	CC96424/cg1 NOx 0 O2 0 CO 0

name	O2 A		NOx A		CO A						
sn	1420D/3379		1200951381		48C-74094-375						
offset	0		0		0						
fullscale	25		20		50						
train	1		1		1						
gaslype	o2 3a		nox 7e		co 10						
scg1	2/20/2013	19:29:45	0.07	9.4	0.2	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	19:30:00	0.07	9.4	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	19:30:15	0.07	7.4	0.4	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	19:30:30	0.11	0.9	0.4	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	19:30:45	0.12	0.2	0.4	CC96424/cg1	NOx	0 O2	0 CO	0	0
scg1	2/20/2013	19:31:00	0.07	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
o2zero1	2/20/2013	19:31:00	0.07	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
noxzero1	2/20/2013	19:31:00	0.07	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
cozero1	2/20/2013	19:31:00	0.07	0.1	0.3	CC96424/cg1	NOx	0 O2	0 CO	0	0
so2zero											
so2span											
noxzero											
noxspan											
co2zero											
co2span											
o2zero											
o2span											
thczero											
thcspan											
cozero											
cospan											
so2zero			Parameter Not Found								
so2mid			Parameter Not Found								
so2high			Parameter Not Found								
noxzero			Parameter Not Found								
noxlow			Parameter Not Found								
noxmid			Parameter Not Found								
noxhigh			Parameter Not Found								
co2zero			Parameter Not Found								
co2mid			Parameter Not Found								
co2high			Parameter Not Found								
o2zero			Parameter Not Found								
o2mid			Parameter Not Found								
o2high			Parameter Not Found								
thczero			Parameter Not Found								
thclow			Parameter Not Found								
thcmid			Parameter Not Found								
thchigh			Parameter Not Found								
cozero			Parameter Not Found								
colow			Parameter Not Found								
comid			Parameter Not Found								
cohigh			Parameter Not Found								
End											

**Unit 1**  
Method 9 VE Field Data



RECORD OF VISUAL DETERMINATION OF OPACITY

SOURCE/PROCESS INFORMATION				OBSERVATION RECORD										
FACILITY NAME <i>Mulberry Cogen</i>		PERMIT NUMBER <i>1050217-007-AV</i>		DATE <i>2/20/13</i>	STACK A				STACK B					
SOURCE NAME <i>Unit 1</i>	LOCATION ADDRESS <i>3600 County Road 555</i>			HOUR	MINUTE	0	15	30	45	0	15	30	45	
CITY <i>Bartow</i>	STATE <i>FL</i>	ZIP <i>33831</i>		<i>1430</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
WIND ROAD <i>Base</i>	HEAT INPUT <i>66d</i>			<i>1431</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
CONTROL EQUIPMENT <i>-</i>		OPERATING MODE <i>Normal</i>		<i>1432</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
FUEL TYPE/RATE <i>PURG</i>	PERMITTED RATE <i>970 mmbtu/hr</i>			<i>1433</i>	<i>3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
DESCRIBE EMISSION POINT <i>Circular grey stack</i>				<i>1434</i>	<i>4</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
HEIGHT ABOVE GROUND LEVEL <i>100 125</i>		HEIGHT OF OBSERVATION POINT <i>0</i>		<i>1435</i>	<i>5</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
EMISSIONS DESCRIPTION														
DESCRIBE EMISSIONS START <i>Clear smoke</i> END <i>Clear smoke</i>				<i>1440</i>	<i>10</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
PLUME COLOR <i>Clear</i>														
WATER DROPLETS PRESENT <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No														
PLUME TYPE <i>Coning</i>														
IF YES, IS PLUME <input checked="" type="checkbox"/> Attached <input type="checkbox"/> Detached														
METEOROLOGICAL INFORMATION														
BACKGROUND START <i>sky</i> END <i>sky</i> START <i>blue</i> END <i>blue</i>														
SKY CONDITIONS - CLOUD COVER START <i>cloudy</i> END <i>cloudy</i> START <i>75</i> END <i>77</i>				<i>1450</i>	<i>20</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
WIND SPEED START <i>0-5</i> END <i>0-5</i> START <i>NW</i> END <i>SE</i>														
WIND DIRECTION														
OBSERVATION DATA: SITE DIAGRAM														
SUMMARY OF AVERAGE OPACITY														
SET NUMBER	TIME		OPACITY											
	START	END	SUM	AVERAGE										
					<i>1510</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
						<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
						<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
COMPLIANCE INFORMATION														
RANGE OF OPACITY READINGS MAXIMUM <i>0</i> MINIMUM <i>0</i>				<i>1515</i>	<i>45</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
HIGHEST 5 MINUTE AVERAGE <i>0.0</i>														
COMMENTS														
OBSERVER <i>Deborah K. Perry</i>				<i>1525</i>	<i>55</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
DATE <i>2/20/13</i>				<i>1526</i>	<i>56</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
OBSERVER SIGNATURE <i>[Signature]</i>				<i>1527</i>	<i>57</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
OBSERVER IDENTIFICATION NUMBER <i>4100416</i>				<i>1528</i>	<i>58</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					
EXPIRATION DATE <i>8/15/13</i>				<i>1529</i>	<i>59</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>					

**Observer's VE Certificate**



# VISIBLE EMISSIONS EVALUATOR

**Derek Kopera**

This is to certify that the above named observer has met the specifications of Federal Reference Method 9 and is qualified as a visible emissions evaluator. Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates, Inc. of Raleigh, N.C.

This certificate is valid for six months from date of issue.

**410046**

Certificate Number

**KOP804755**

Student ID Number

**2/13/2013**

Date of Certification

**Tampa, FL**

Location

**8/15/2013**

Certification Expiration Date

**TMPF11**

Last Lecture

*Marty Hughes*  
Director of Training

**Appendix G: Accreditations and Certifications**

# SOURCE EVALUATION SOCIETY



## Qualified Source Testing Individual

LET IT BE KNOWN THAT

### MATTHEW J. SAVIN

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED  
EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES  
ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

### **MANUAL GAS VOLUME MEASUREMENTS AND ISOKINETIC PARTICULATE SAMPLING METHODS**

ISSUED THIS 24<sup>TH</sup> DAY OF AUGUST 2011 AND EFFECTIVE UNTIL AUGUST 23<sup>RD</sup> , 2016

Peter R. Westlin, QSTI/QSTO Review Board

C. David Bagwell, QSTI/QSTO Review Board

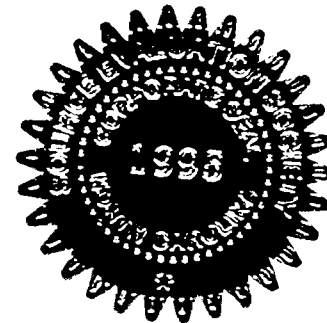
APPLICATION  
NO.  
2011-543

Peter S. Pakalnis, QSTI/QSTO Review Board

Karen D. Kajlya-Mills, QSTI/QSTO Review Board

LeRoy Owens, QSTI/QSTO Review Board

Glenn C. England, QSTI/QSTO Review Board



# SOURCE EVALUATION SOCIETY



## Qualified Source Testing Individual

LET IT BE KNOWN THAT

**MATTHEW J. SAVIN**

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED  
EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES  
ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

**MANUAL GASEOUS POLLUTANTS SOURCE SAMPLING METHODS**

ISSUED THIS 24<sup>TH</sup> DAY OF AUGUST 2011 AND EFFECTIVE UNTIL AUGUST 23<sup>RD</sup> , 2016

Peter R. Westlin, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

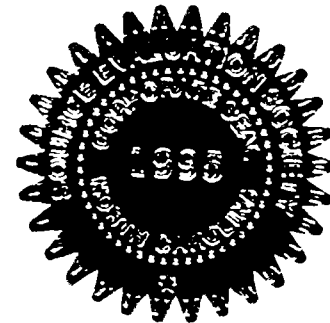
Jerry I. Owens, QSTI/QSTO Review Board

C. David Bagwell, QSTI/QSTO Review Board

Karen D. Kajlya-Mills, QSTI/QSTO Review Board

Glenn C. England, QSTI/QSTO Review Board

APPLICATION  
NO.  
2011-543



# SOURCE EVALUATION SOCIETY



## Qualified Source Testing Individual

LET IT BE KNOWN THAT

**MATTHEW J. SAVIN**

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED  
EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES  
ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

**GASEOUS POLLUTANTS INSTRUMENTAL SAMPLING METHODS**

ISSUED THIS 24<sup>TH</sup> DAY OF AUGUST 2011 AND EFFECTIVE UNTIL AUGUST 23<sup>RD</sup> , 2016

Peter R. Westlin, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

LeRoy Owens, QSTI/QSTO Review Board

C. David Bagweff, QSTI/QSTO Review Board

Karen D. Kajlya-Mills, QSTI/QSTO Review Board

Glenn C. England, QSTI/QSTO Review Board

APPLICATION  
NO.  
2011-543

