APPENDIX E.

AIRNOVA, INC. – EMISSION EVALUATION TEST REPORT

DECEMBER 2006

Project No. 2982

Tetra Tech EM, Inc. @ The Phase II Cement Lock Technology
Demonstration on Passaic River Sediments
Fabric Filter Baghouse Outlet and
Activated Carbon Bed Outlet
Bayonne, New Jersey

Emission Evaluation Test Report

Prepared for:

Mr. Ken Partymiller, Ph.D.
Environmental Chemist
Tetra Tech EM, Inc.
5326 Paris Pike
Georgetown, Kentucky 40324

Issued: April 2007

Table of Contents

Page

1.0 Introduction 1

2.0 Source Description 3
2.1 Sampling Port Locations 3

3.0 Summary of Test Results 6

4.0 Test Methodologies 20
4.1 Cyclonic Flow 20
4.2 Stack Gas Velocity and Volumetric Flow Determination . . . 21
4.3 Moisture Content 21
4.4 Gaseous Emissions Sampling System 21
4.4.1 Carbon Dioxide and Oxygen 22
4.4.2 Nitrogen Oxides 23
4.4.3 Carbon Monoxide 24
4.4.4 Volatile Organic Compounds 24
4.4.5 Sulfur Dioxide 25
4.5 Toxic Metals 26
4.6 Specific Volatile Organic Compounds 27
4.7 Dioxins, Furans, and PCBs 28
4.8 Hydrogen Chloride and Chlorine 30
4.9 Process Operating Data 32

5.0 Quality Assurance/Quality Control Procedures 33
5.1 S-Type Pitot Tubes 33
5.2 Dry Gas and Orifice Meters 33
5.3 Nozzles 34
5.4 Thermocouples 34
5.5 Labels 35
5.6 Chain-of-Custody Documentation 35
5.7 Calibration Gases 35

Appendix A - Field Data Sheets
Appendix B - Emission Calculations
Appendix C - Laboratory Data
Appendix D - Calibration Data

1.0 Introduction

AirNova, Inc. conducted an emission evaluation test program on December 6-7, 2006 at the Cement Lock Technology Demonstration Site located in Bayonne, New Jersey. Emission sampling was conducted at the Fabric Filter Baghouse Outlet (also identified as the Activated Carbon Bed Inlet) and the Activated Carbon Bed Outlet to evaluate air emissions associated with the Cement Lock process for the following emission parameters:

- Nitrogen Oxides (NO_X)*
- Carbon Monoxide (CO)*
- Volatile Organic Compounds (VOCs)*
- Sulfur Dioxide (SO_2)*
- Dioxins and Furans
- Toxic Metals
- Polychlorinated Biphenyls (PCBs)
- Hydrogen Chloride (HCl) and Chlorine (Cl_2)*
- Polycyclic Aromatic Hydrocarbons (PAHs) or Semivolatile Organic Compounds (SVOCs)

* These emissions were determined at the Carbon Bed Outlet only.

Emission sampling was also conducted to determine the carbon bed capture efficiency for the above emission parameters that were conducted at both the Carbon Bed Inlet and Carbon Bed Outlet.

AirNova, Inc. was responsible for the performance of the on-site sampling and sample analysis as well as preparation of this final test report presenting the test results and discussions of all sampling and analytical methods utilized.

This report contains a description of the emission sources, the test locations, and the test methodologies that were utilized in the performance of this program. Questions or comments concerning this report may be directed to:

Mr. Ken Partymiller, Ph.D.
Environmental Chemist
Tetra Tech EM, Inc.
5326 Paris Pike
Georgetown, Kentucky 40324
Telephone: (502) 867-1397
Telefax: (502) 867-0423
E-mail: partykm@aol.com

2.0 Source Description

The Cement Lock Technology at the Cement Lock Demonstration Site was developed by Gas Technology Institute (GTI) and Unitel Technologies and is licensed by Endesco Clean Harbors (ECH). The technology is a thermo-chemical environmental remediation process that generates a by-product that can be incorporated into construction-grade cement. A generalized schematic of the Cement Lock process is provided in Figure 2-1 on page 5. According to GTI, feed stock for the manufacturing process can be hazardous or nonhazardous wastes such as dredged sediments, soils, sludges, municipal solid wastes, debris from Brownfields projects, chemical wastes, and incinerator ash and residues. The manufacturing process creates a calcium-alumino-silicate glass termed Ecomelt, which is expected to have characteristics suitable for incorporation into cement. The process of creating Ecomelt is claimed to destroy organic contaminants and to immobilize inorganic contaminants within the Ecomelt.

2.1 Sampling Port Locations

Emission sampling was conducted at the Activated Carbon Bed Inlet in a round, vertical section of exhaust duct which has an outer diameter (O.D.) of 42 inches and an inner diameter (I.D.) of 36 inches. Two (2) sampling ports located 2.3 duct diameters downstream and 0.8 duct diameters upstream from the nearest flow disturbances were utilized for all emissions sampling. A total of twenty-four (24) traverse points were utilized for all volumetric flow rate determinations and isokinetic sampling. The traverse points were located as follows:

Table 2-1
Cement Lock Demonstration Site
Activated Carbon Bed Inlet
Emission Evaluation Test Program
Traverse Point Locations

Traverse Point	% Stack Diameter	Location (Inches)
1	2.1	0.8
2	6.7	2.4
3	11.8	4.2
4	17.7	6.4

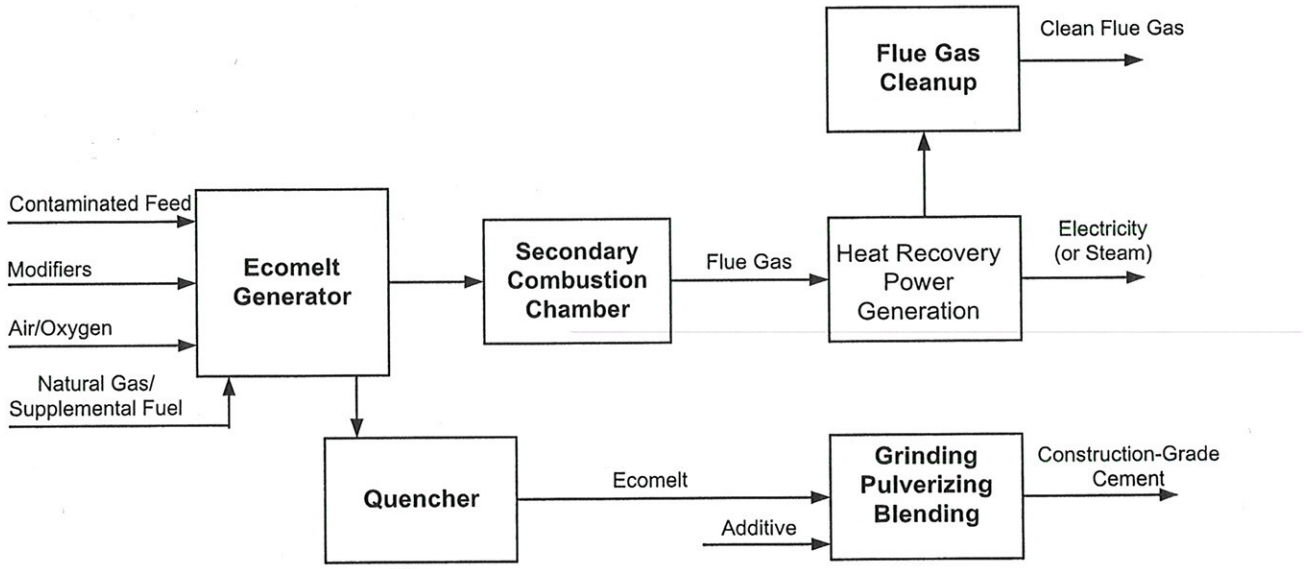
5	25.0	9.0
6	35.6	12.8
7	64.4	23.2
8	75.0	27.0
9	82.3	29.6
10	88.2	31.8
11	93.3	33.6
12	97.9	35.2

Emission sampling was also conducted at the Activated Carbon Bed Outlet in a round, vertical section of exhaust duct which is 35.5 inches in diameter. Two (2) sampling ports located 6.3 duct diameters downstream and 3.5 duct diameters upstream from the nearest flow disturbances were utilized for all emissions sampling. A total of sixteen (16) traverse points were utilized for all volumetric flow rate determinations and isokinetic sampling. The traverse points were located as follows:

Table 2-2
Cement Lock Demonstration Site
Granular Activated Carbon Bed Outlet
Emission Evaluation Test Program
Traverse Point Locations

Traverse Point	% Stack Diameter	Location (Inches)
1	3.2	1.1
2	10.5	3.7
3	19.4	6.9
4	32.3	11.5
5	67.7	24.0
6	80.6	28.6
7	89.5	31.8
8	96.8	34.4

Figure 2-1
Cement Lock Demonstration Site
Cement Lock Technology
Generalized Process Flow Diagram



3.0 Summary of Test Results

A complete summary of the test results conducted at the Cement Lock Demonstration Site at the Activated Carbon Bed Inlet and the Activated Carbon Bed Outlet is provided in tabular format. Emission sampling was conducted on December 6-7, 2006 to evaluate air emissions associated with the Cement Lock process. The list of tables which follows indicates the order in which the summary tables have been provided.

Cement Lock Demonstration Site
Emission Evaluation Test Program
Summary of Test Results Tables

Table No.	Description	Page No.
3-1	Carbon Bed Outlet - SO_2, NO_x, CO, and VOCs - Test Results Summary	7
3-2	Carbon Bed Outlet - HCl and Cl_2 - Test Results Summary	9
3-3	Carbon Bed Inlet - Toxic Metals - Test Results Summary	10
3-4	Carbon Bed Outlet - Toxic Metals - Test Results Summary	11
3-5	Carbon Bed Inlet - Dioxins, Furans, and PCBs - Test Results Summary	12
3-6	Carbon Bed Outlet - Dioxins, Furans, and PCBs - Test Results Summary	13
3-7	Carbon Bed Inlet - SVOCs - Test Results Summary	14
3-8	Carbon Bed Outlet - SVOCs - Test Results Summary	15
3-9	Carbon Bed Capture Efficiency of Toxic Metals - Test Results Summary	16
3-10	Carbon Bed Capture Efficiency of Dioxins and Furans - Test Results Summary	17
3-11	Carbon Bed Capture Efficiency of PCBs - Test Results Summary	18
3-12	Carbon Bed Capture Efficiency of SVOCs - Test Results Summary	19

Table 3-1
Cement Lock Demonstration Site
Carbon Bed Outlet
SO_2, NO_x, CO, and VOCs
Test Results Summary

Run No.	**1**	**2**	**3**	**Average**
Date	12/06/06	12/06/06	12/07/06	
Time Period	1625-1725	1812-1912	0934-1034	
Exhaust Gas Characteristics				
Oxygen (%-dry)	3.99	5.13	6.19	5.10
Carbon Dioxide (%-dry)	9.83	10.47	9.41	9.90
Temperature (° F)	287	286	304	292
Moisture (%)	51.1	54.4	53.1	52.9
Velocity (fps)	36.4	36.4	35.9	36.2
Flow Rate (ACFM)	14,983	15,002	14,795	14,927
Flow Rate (DSCFM)	5,230	4,898	4,830	4,986
Carbon Monoxide*				
Concentration (ppmVd)	> 100	17.3	4.2	> 40.5
Concentration (ppmVd @ 7% O_2)	> 82.2	15.2	4.0	> 33.8
Emission Rate (lb/hr)	> 2.27	0.37	0.09	> 0.91
Volatile Organic Compounds				
Concentration (ppmVd)	4.7	4.6	0.9	3.4
Concentration (ppmVd @ 7% O_2)	3.9	4.1	0.8	2.9
Emission Rate (lb/hr)	0.06	0.06	0.01	0.04
Nitrogen Oxides (as NO_2)				
Concentration (ppmVd)	94.0	134	149	126
Concentration (ppmVd @ 7% O_2)	77.3	118	141	112
Emission Rate (lb/hr)	3.51	4.69	5.13	4.44
Sulfur Dioxide				
Concentration (ppmVd)	42.2	16.5	8.8	22.5
Concentration (ppmVd @ 7% O_2)	34.7	14.5	8.3	19.2
Emission Rate (lb/hr)	2.19	0.80	0.42	1.14

Standard Conditions: 70°F, 29.92 inches Hg

* CO emissions during Run No. 1 were out of the calibration range of the analyzer which was operated in the 0-100 ppmV range. Therefore, CO emissions could not be quantified for this test run, and were reported as greater than the detectable quantity of 100 ppmV.

Table 3-2
Cement Lock Demonstration Site
Carbon Bed Outlet
HCl and Cl_2
Test Results Summary

Run No.	**1**	**2**	**Average**
Date	12/06/06	12/07/06	
Time Period	1700-1832	0959-1110	
Exhaust Gas Characteristics			
Oxygen (%-dry)	5.1	6.3	5.7
Carbon Dioxide (%-dry)	10.5	9.2	9.9
Temperature (° F)	286	307	297
Moisture (%)	54.3	52.6	53.5
Velocity (fps)	36.4	35.8	36.1
Flow Rate (ACFM)	15,001	14,761	14,881
Flow Rate (DSCFM)	4,901	4,843	4,872
Hydrogen Chloride			
Concentration (ppmV)	59.3	51.2	55.3
Emission Rate (lb/hr)	1.64	1.40	1.52

Standard Conditions: 70°F, 29.92 inches Hg

Note: Cl_2 emissions were determined to be non-detectable for both test runs. A detailed analysis of Cl_2 quantities can be found in Appendix C of this test report.

Table 3-3
Cement Lock Demonstration Site
Carbon Bed Inlet
Toxic Metals
Test Results Summary

Run No.	**1**	**2**	**Average**
Date	12/06/06	12/07/06	
Test Period	1625-1901	0930-1148	
Stack Gas Characteristics			
Oxygen (%-dry)	3.99	6.19	5.09
Carbon Dioxide (%-dry)	9.83	9.41	9.62
Temperature (° F)	337	341	339
Moisture (%)	52.8	54.6	53.7
Velocity (fps)	38.7	37.2	38.0
Flow Rate (ACFM)	16,421	15,784	16,103
Flow Rate (DSCFM)	5,101	4,672	4,887
Toxic Metals (Emission Rate - lb/hr)			
Arsenic	8.0e-05	2.0e-05	5.0e-05
Barium	5.1e-05	4.2e-05	4.7e-05
Cadmium	4.0e-05	3.1e-05	3.6e-05
Chromium	4.0e-04	3.7e-04	3.9e-04
Cobalt	1.4e-05	5.5e-06	9.8e-06
Copper	1.9e-04	1.1e-04	1.5e-04
Lead	4.5e-04	2.5e-04	3.5e-04
Manganese	9.8e-03	2.7e-04	5.0e-03
Nickel	3.4e-04	2.9e-04	3.2e-04
Selenium	1.1e-04	2.3e-05	6.7e-05
Silver	2.4e-05	1.5e-05	2.0e-05
Zinc	1.3e-03	7.9e-04	1.0e-03
Mercury	3.0e-03	2.3e-03	2.7e-03
Total Toxic Metals	**1.6e-02**	**4.5e-03**	**1.0e-02**

Standard Conditions: 70°F, 29.92 inches Hg

Table 3-4
Cement Lock Demonstration Site
Carbon Bed Outlet
Toxic Metals
Test Results Summary

Run No.	**1**	**2**	**Average**
Date	12/06/06	12/07/06	
Test Period	1625-1915	0930-1148	
Stack Gas Characteristics			
Oxygen (%-dry)	3.99	6.19	5.09
Carbon Dioxide (%-dry)	9.83	9.41	9.62
Temperature (° F)	287	304	296
Moisture (%)	51.1	53.1	52.1
Velocity (fps)	36.4	35.9	36.2
Flow Rate (ACFM)	14,983	14,795	14,889
Flow Rate (DSCFM)	5,230	4,830	5,030
Toxic Metals (Emission Rate - lb/hr)			
Arsenic	3.5e-05	4.6e-05	4.1e-05
Barium	4.5e-05	3.5e-05	4.0e-05
Cadmium	1.6e-05	1.1e-05	1.4e-05
Chromium	6.4e-04	2.6e-04	4.5e-04
Cobalt	5.9e-06	6.1e-06	6.0e-06
Copper	1.9e-04	1.3e-04	1.6e-04
Lead	4.3e-04	2.0e-04	3.2e-04
Manganese	1.1e-03	7.4e-04	9.2e-04
Nickel	1.6e-04	9.9e-05	1.3e-04
Selenium	3.1e-05	7.5e-06	1.9e-05
Silver	5.0e-05	6.8e-06	2.8e-05
Zinc	7.1e-04	3.7e-04	5.4e-04
Mercury	< 2.6e-05	5.9e-04	< 3.1e-04
Total Toxic Metals	**3.4e-03**	**2.5e-03**	**3.0e-03**

Standard Conditions: 70°F, 29.92 inches Hg

Table 3-5
Cement Lock Demonstration Site
Carbon Bed Inlet
Dioxins, Furans, and PCBs
Test Results Summary

Run No.	**1**	**2**	**Average**
Date	12/07/06	12/07-08/06	
Time Period	1406-1754	2026-0016	
Exhaust Gas Characteristics			
Oxygen (%-dry)	6.3	10.6	8.5
Carbon Dioxide (%-dry)	9.2	5.3	7.3
Temperature (° F)	345	342	344
Moisture (%)	49.3	48.1	48.7
Velocity (fps)	36.7	37.5	37.1
Flow Rate (ACFM)	15,551	15,890	15,721
Flow Rate (DSCFM)	5,117	5,368	5,243
Dioxins and Furans			
CDD Total Emission Rate (lb/hr)	1.6e-10	5.7e-11	1.1e-10
CDF Total Emission Rate (lb/hr)	6.7e-11	5.6e-11	6.2e-11
PCB Total Emission Rate (lb/hr)*	1.2e-09	ND	1.2e-09
Dioxins Total Emission Rate (lb/hr)	1.5e-09	1.1e-10	8.1e-10
Dioxins Total Emission Rate (ng TEQ/hr)	670.0	51.41	360.7
PCBs			
Total Emission Rate (lb/hr)	1.9e-03	1.3e-03	1.6e-03

ND = Not Detected

* Non-ortho and Mono-ortho substituted PCBs are considered dioxin-like compounds and were included with dioxin and furan compounds to calculate total dioxin emission rates in lb/hr and ng TEQ/hr.

Note: An individualized breakdown of the emission calculations for Dioxins, Furans, and PCBs can be found in Appendix B of this test report.

Standard Conditions: 70°F, 29.92 inches Hg

Table 3-6
Cement Lock Demonstration Site
Carbon Bed Outlet
Dioxins, Furans, and PCBs
Test Results Summary

Run No.	**1**	**2**	**Average**
Date	12/07/06	12/07-08/06	
Time Period	1406-1748	2026-0016	
Exhaust Gas Characteristics			
Oxygen (%-dry)	6.3	10.6	8.5
Carbon Dioxide (%-dry)	9.2	5.3	7.3
Temperature (° F)	290	289	290
Moisture (%)	49.5	49.6	49.6
Velocity (fps)	35.6	36.2	35.9
Flow Rate (ACFM)	14,684	14,922	14,803
Flow Rate (DSCFM)	5,252	5,336	5,294
Dioxins and Furans			
CDD Total Emission Rate (lb/hr)	ND	1.7e-13	1.7e-13
CDF Total Emissoin Rate (lb/hr)	4.8e-11	ND	4.8e-11
PCB Total Emission Rate (lb/hr)*	2.1e-10	ND	2.1e-10
Dioxins Total Emission Rate (lb/hr)	2.6e-10	1.7e-13	1.3e-10
Dioxins Total Emission Rate (ng TEQ/hr)	117.5	0.08	58.79
PCBs			
Total Emission Rate (lb/hr)	1.9e-04	4.4e-05	1.2e-04

ND = Not Detected

* Non-ortho and Mono-ortho substituted PCBs are considered dioxin-like compounds and were included with dioxin and furan compounds to calculate total dioxin emission rates in lb/hr and ng TEQ/hr.

Note: An individualized breakdown of the emission calculations for Dioxins, Furans, and PCBs can be found in Appendix B of this test report.

Standard Conditions: 70°F, 29.92 inches Hg

Table 3-7
Cement Lock Demonstration Site
Carbon Bed Inlet
SVOCs
Test Results Summary

Run No.	**1**	**2**	**Average**
Date	12/07/06	12/07-08/06	
Test Period	1406-1754	2025-0016	
Stack Gas Characteristics			
Oxygen (%-dry)	6.3	10.6	8.45
Carbon Dioxide (%-dry)	9.2	5.3	7.25
Temperature (° F)	346	342	344
Moisture (%)	49.9	48.3	49.1
Velocity (fps)	37.2	37.3	37.3
Flow Rate (ACFM)	15,783	15,800	15,792
Flow Rate (DSCFM)	5,127	5,321	5,224
SVOCs (Emission Rate - lb/hr)			
Benzo(a)pyrene	5.0e-10	ND	< 5.0e-10
1-Methylnaphthalene	1.3e-08	1.9e-09	7.5e-09
2-Methylnaphthalene	1.6e-09	ND	< 1.6e-09
Naphthalene	1.3e-08	8.0e-09	1.1e-08
Phenanthrene	ND	1.0e-09	< 1.0e-09
Total SVOCs	**2.8e-08**	**1.1e-08**	**2.0e-08**

ND = Not Detected

Standard Conditions: 70°F, 29.92 inches Hg

Table 3-8
Cement Lock Demonstration Site
Carbon Bed Outlet
SVOCs
Test Results Summary

Run No.	**1**	**2**	**Average**
Date	12/07/06	12/07-08/06	
Test Period	1406-1748	2016-0018	
Stack Gas Characteristics			
Oxygen (%-dry)	6.3	10.6	8.45
Carbon Dioxide (%-dry)	9.2	5.3	7.25
Temperature (° F)	288	285	287
Moisture (%)	50.2	50.6	50.4
Velocity (fps)	35.4	35.0	35.2
Flow Rate (ACFM)	14,611	14,416	14,514
Flow Rate (DSCFM)	5,167	5,077	5,122
SVOCs (Emission Rate - lb/hr)			
Benzo(a)pyrene	ND	ND	ND
1-Methylnaphthalene	1.2e-08	ND	< 1.2e-08
2-Methylnaphthalene	ND	ND	ND
Naphthalene	4.5e-09	4.7e-09	4.6e-09
Phenanthrene	ND	ND	ND
Total SVOCs	**1.7e-08**	**4.7e-09**	**1.1e-08**

ND = Not Detected

Standard Conditions: 70°F, 29.92 inches Hg

Table 3-9
Cement Lock Demonstration Site
Carbon Bed Capture Efficiency of Toxic Metals
Test Results Summary

Run No.	Inlet (lb/hr)	Outlet (lb/hr)	DRE (% wt)
1	1.6e-02	3.4e-03	78.8
2	4.5e-03	2.5e-03	44.4
		Average	**61.6**

$$\text{Capture Efficiency (\%)} = \frac{[\text{(lb/hr) Toxic Metal}_{in} - \text{(lb/hr) Toxic Metal}_{out}\}}{\text{(lb/hr) Toxic Metal}_{in}} \times 100\%$$

Table 3-10
Cement Lock Demonstration Site
Carbon Bed Capture Efficiency of Dioxins and Furans
Test Results Summary

Run No.	Inlet (lb/hr)	Outlet (lb/hr)	DRE (% wt)
1	1.5e-09	2.6e-10	82.7
2	1.1e-10	1.7e-13	99.8
		Average	**91.3**

$$\text{Capture Efficiency (\%)} = \frac{[(\text{lb/hr}) \text{ Dioxin}_{in} - (\text{lb/hr}) \text{ Dioxin}_{out}\}}{(\text{lb/hr}) \text{ Dioxin}_{in}} \times 100\%$$

Table 3-11
Cement Lock Demonstration Site
Carbon Bed Capture Efficiency of PCBs
Test Results Summary

Run No.	Inlet (lb/hr)	Outlet (lb/hr)	DRE (% wt)
1	1.9e-03	1.9e-04	90.0
2	1.3e-03	4.4e-05	96.6
		Average	**93.3**

$$\text{Capture Efficiency (\%)} = \frac{[(\text{lb/hr}) \text{ PCBs}_{n} - (\text{lb/hr}) \text{ PCBs}_{out}\}}{(\text{lb/hr}) \text{ PCBs}_{in}} \times 100\%$$

Table 3-12
Cement Lock Demonstration Site
Carbon Bed Capture Efficiency of SVOCs
Test Results Summary

Run No.	Inlet (lb/hr)	Outlet (lb/hr)	DRE (% wt)
1	2.8e-08	1.7e-08	39.3
2	1.1e-08	4.7e-09	57.3
		Average	**48.3**

$$\text{Capture Efficiency (\%)} = \frac{[(\text{lb/hr}) \text{ SVOCs}_{in} - (\text{lb/hr}) \text{ SVOCs}_{out}\}}{(\text{lb/hr}) \text{ SVOCs}_{in}} \times 100\%$$

4.0 Test Methodologies

The emission evaluation test program was conducted in determination of the following emission parameters utilizing the specified methodologies.

Table 4-1
Cement Lock Demonstration Site
Emission Evaluation Test Program
Test Methodology Summary

Emission Parameter	No. of Test Runs	Test Location	Sampling and Analytical Methodology
Traverse Point Location	*	Inlet/Outlet	EPA Reference Method 1
Volumetric Flow Rate	*	Inlet/Outlet	EPA Reference Method 2
Oxygen, Carbon Dioxide	*	Inlet/Outlet	EPA Reference Method 3 and 3A
Moisture Content	*	Inlet/Outlet	EPA Reference Method 4
Sulfur Dioxide	3	Outlet	EPA Reference Method 6C
Nitrogen Oxides	3	Outlet	EPA Reference Method 7E
Carbon Monoxide	3	Outlet	EPA Reference Method 10
Volatile Organic Compounds	3	Outlet	EPA Reference Method 25A
Specific Volatile Organic Compounds	2	Inlet/Outlet	Modified EPA Reference Method 5
Dioxins and Furans	2	Inlet/Outlet	EPA Reference Method 23
Polychlorinated Biphenyls	2	Inlet/Outlet	EPA Reference Method 23
Hydrogen Chloride and Chlorine	2	Outlet	EPA Reference Method 26A
Toxic Metals	2	Inlet/Outlet	EPA Reference Method 29

* These parameters were determined concurrently with all other emission parameters.

A description of the above referenced test methodologies is provided below.

4.1 Cyclonic Flow

The absence of cyclonic flow was demonstrated at each sampling location according to Section 11.4 of EPA Reference Method 1. An S-type pitot was connected to a manometer. The pitot tube was placed in such a position that the openings of the pitot tube were perpendicular to the stack gas flow. An angle finder

was placed on the pitot tube which was rotated until a reading of zero (0) is obtained. The 'yaw' angle was then recorded. The cyclonic flow traverse was performed at the traverse point locations specified in Tables 2-1 and 2-2.

4.2 Stack Gas Velocity and Volumetric Flow Rate Determination

The determination of stack gas velocity and volumetric flow rate was performed in accordance with EPA Reference Method 2. Velocity traverses across the stack diameter at each test location were performed using an S-type pitot tube and type-K thermocouple. The S-type pitot tube was connected to an inclined vertical manometer via leak-free connections. The type-K thermocouple was connected to a digital temperature indicator for signal output. These readings were observed and recorded at each traverse point for each test run.

A post-test leak check of the S-type pitot tube, the manometer and the interconnecting tubing was performed in accordance with the procedure described in EPA Reference Method 2, "Determination of Stack Gas Velocity and Volumetric Flow Rate (Pitot Tube)."

4.3 Moisture Content

All moisture content determinations followed EPA Reference Method 4, Section 2.2.2 as necessary. Determinations conducted by EPA Method 4 utilized large capacity impingers and collected a minimum volume of 30 DSCF.

4.4 Gaseous Emissions Sampling System

An extractive sampling system was used to continuously determine O_2, CO_2, CO, NO_X, SO_2, and VOC concentrations. A representative sample of the flue gas was extracted through a heated (225°F) stainless steel probe and filter assembly, and transported via a heat-traced Teflon sample line through a heated glass fiber filter and a Teflon lined diaphragm sample pump to a condensation removal trap located in a mobile laboratory. VOC samples bypassed the condensation trap. A heated out-of-stack filter assembly was maintained at a sufficient temperature to prevent water condensation. A three-way valve was utilized to block sample gas flow and introduce calibration gases to the measurement system at the outlet of the

sampling probe during system calibrations. The condensation trap was cooled to approximately 40°F. The sample was exhausted from the trap free of moisture and particulate matter. The sample was introduced into a constant-pressure manifold constructed of stainless steel and Teflon for metered distribution to the respective analyzers.

Output signals from all instrumental analyzers were stored on strip chart recorders as well as a personal computer (PC) based data acquisition system (DAS). All reference method (RM) data was reported from the DAS. The strip chart recorders were used for a backup record. All continuous analyzers utilized for the RM testing provided a linear response to the DAS over the calibrated range. This was verified by the pre-test calibration results.

4.4.1 Oxygen and Carbon Dioxide

Oxygen and carbon dioxide concentrations of the stack gases were determined by EPA Reference Method 3A. The sampling system was as described above. Oxygen concentrations were determined using a paramagnetic oxygen analyzer. The oxygen analyzer was operated in the 0-22.05% range. Carbon dioxide concentrations were determined using a non-dispersive infared analyzer which was operated in a range of 0-12.36%. Calibration gases were 0-20% (zero gas), 45-55% and 80-100% of the calibration span, which is defined as the range from zero to the actual high span gas cylinder concentration. All calibration gases were NIST-traceable Protocol 1 grade (± 1%). A sampling system bias check was performed prior to the first test run by introducing the zero gas and the mid-level span gas at the sample probe/sample line interface. The sampling system bias check was repeated after each test run to determine the instrument zero and calibration drift. Oxygen and carbon dioxide concentrations were determined simultaneously with all sampling events.

In addition, oxygen and carbon dioxide concentrations were determined by EPA Reference Method 3. The sampling train consisted of a stainless steel probe with a glass fiber filter for particulate filtration. The sampling probe was attached to a water cooled condenser used to remove excess moisture from the sample stream. The condenser was attached to a leak-free diaphragm pump with an in-line needle

valve to adjust the sample flow rate. The sampling train was leak-checked in accordance with the procedure described in EPA Reference Method 3, presampling run. The sample stream then passed through a surge tank (eliminating the pulsation effects of the pump) and a rotameter, which measures the sampling flow rate to within ±2% of the selected flow rate for the test, into a leak-free Tedlar bag.

Determination of percent CO_2 and O_2 was performed using a Fisher Type B No. 10-605 ORSAT gas analyzer which uses the principle of gas absorption in specific absorbing solutions. All Tedlar bags utilized for this sampling underwent the leak check procedure specified in EPA Method 10.

4.4.2 Nitrogen Oxides

Nitrogen oxides concentrations were determined by EPA Reference Method 7E. The principle of this method is to continuously extract a gaseous sample of flue gas and introduce a portion of this sample into a chemiluminescent analyzer for the determination of concentration. The principle of the analyzer is based on the following reaction:

$$NO + O_3 \; 6 \; NO_2 + O_2 + \text{a photon}$$

The photons emitted by the reaction are measured by a photomultiplier tube. The photomultiplier signal is proportional to the number of NO molecules; therefore, the photomultiplier signal is recorded as the concentration for NO_x. The sample flowrate is carefully controlled. NO_x is comprised of NO and NO_2. NO_2 present in the sample gas is converted into NO prior to entering the reaction chamber by a NO_2 to NO converter. The NO_2 to NO converter breaks one [1] of the two [2] nitrogen-oxygen bonds by passing the sample gas through capillary tubing into an electronically controlled, heated catalytic converter. Calibration gases were 0-20% (zero gas), 45-55% and 80-100% of the calibration span. All calibration gases were NIST traceable Protocol 1. A zero and midpoint bias calibration was performed from the sample probe both before and after each test run. Output signals were stored and processed by a PC based DAS system as well as a strip chart recorder. The analyzer was operated in the 0-448.1 ppmV range. A NO_X converter calibration was performed immediately prior to the start of sampling.

4.4.3 Carbon Monoxide

Carbon monoxide concentrations were determined by gas filter correlation spectroscopy. A representative sample of stack gas is directed to the analyzer via the sample transport system described above. The sample enters the analyzer and is passed through the sample cell. Radiation from an infrared source is chopped then passed through a gas filter which alternates between CO and N_2 due to the rotation of the filter wheel. The radiation then passes through a narrow band pass interference filter and enters a multiple optical cell where absorption by the sample gas occurs. The IR radiation then exits the sample cell and is focused on the detector. The CO gas filter acts to produce a reference beam which cannot be further attenuated by CO in the sample cell. The N_2 side of the gas filter is transparent to the IR radiation. This beam is absorbed by CO present in the sample. Absorption of the IR beam by CO in the sample causes a proportional difference in the signals from the sample and reference cell beams. This difference is converted electronically into an output signal that is linearly proportional to the concentration of CO in the sample. Before and after each sample run, the analyzer was calibrated with NIST-traceable Protocol 1 Grade (± 1%) calibration gases. Calibration gases were 0-20% (zero gas), 45-55% and 80-100% of the calibration span. The analyzer was operated in the 0-89.6 ppmV range. A zero and midpoint bias calibration was performed from the sample probe both before and after each test run. Output signals were stored and processed by a PC based DAS system as well as a strip chart recorder.

4.4.4 Volatile Organic Compounds

Volatile organic compound emissions were determined by directing a portion of the sample into a total hydrocarbon analyzer equipped with a flame ionization detector (FID). With the total hydrocarbon analyzer, sample gas is transported to the FID via a heated sample train. All hydrocarbon species present are ionized simultaneously to produce the signal output. The THC-FID was calibrated with NIST traceable Protocol 1 grade methane calibration gases. Three (3) calibration gases of 20-30%, 45-55% and 80-90% of span were utilized. A zero and midpoint bias calibration was performed for the continuous FID both before and after each test run. The THC-FID was operated in the 0-100 ppmV range.

Output signals from the THC-FID were stored and processed by a PC based DAS system and strip chart recorder.

4.4.5 Sulfur Dioxide

Sulfur dioxide concentrations were determined in accordance with EPA Reference Method 6C utilizing a UV photometric analyzer. The analyzer is comprised of a single ultraviolet source, a chopper wheel containing two interference filters, a beam splitter, one measuring cell, one reference cell and two matched photodetectors. During SO_2 measurement, two wavelengths are used - one which is absorbed by SO_2 is used for the measuring wavelength (285 nm) and one which is not absorbed by SO_2 or other components normally in the gas sample stream is used as a reference wavelength (585nm). The sample flows through the measuring cell while the reference cell contains only non-absorbing gases. As the chopper wheel rotates, a flash of radiation passes through the measuring filter to the beam splitter. After a brief period, a flash of radiation passes through the reference filter to reference filter to the beam splitter. These flashes of measuring and reference radiation continue at a nominal frequency of 52 times per second per filter. The beam splitter directs half the radiation through the measuring cell and half through the reference cell to the two detectors which develop electrical signals proportional to the amount of radiation that impinged on the detectors. The detector signals are demultiplexed into two measuring signals and two reference signals. The reference signals are used to automatically control the gain of each detector to independently compensate each path for optical contamination. The detector signal developed from the measuring wavelength radiation that passes through the reference cell is used to control the current to the ultraviolet source. The two detector signals developed from the reference wavelength radiation that pass through the measuring and reference cell are used to produce an analyzer output signal that is proportional to the SO_2 concentration in the measuring cell.

The SO_2 analyzer was calibrated prior to the start of sampling with NIST traceable, Protocol grade calibration gases. The analyzer was operated in the 0-500 ppmV range. A sampling system bias check was performed prior to the first test run by introducing the zero gas and the mid-level span gas at

the sample probe/sample line interface. The sampling system bias check was repeated after each test run to determine the instrument zero and calibration drift.

4.5 Toxic Metals

Metals in the exhaust gases were determined isokinetically using EPA Reference Method 29 "Methodology for the Determination of Metal Emissions in Exhaust Gases from Hazardous Waste Incinerator Processes".

Metals sampling occurred during 2-hour sampling events. Triplicate test runs were performed with each collecting a minimum volume of 60 DSCF. The sampling train consisted of the following components:

- Quartz glass sample nozzle and probe
- Heated glass fiber filter
- A modified Greenburg Smith impinger containing 100 ml of a 5% HNO_3/10% H_2O_2
- A Greenburg-Smith impinger containing 100 ml 5% HNO_3/10% H_2O_2
- Modified Greenburg-Smith impinger initially empty
- Two (2) modified Greenburg-Smith impingers containing 100 ml 4% $KMnO_4$/10% H_2SO_4 solution
- An impinger containing approximately 225 g of silica gel desiccant
- Dry gas meter equipped with inlet and outlet thermocouples

The sample was extracted from the exhaust stream using a vane-type vacuum pump. Isokinetic sampling conditions were maintained through the use of a type "S" pitot tube to monitor the exhaust gas stream pressure differentials. A type "K" thermocouple was utilized to determine the exhaust gas temperature.

At the completion of sampling, the probe liner, nozzle, and front half of the filter housing were rinsed and brushed with 100 ml of a 0.1N nitric acid reagent and the washings were placed in a glass amber container retained for analysis. The filter was removed from the filter holder and placed in a petri dish and sealed. The contents of impingers 1 and 2 were measured for volume increase and placed in a second glass amber container. Impingers 1 and 2 and the back half of the filter housing were then rinsed with a total of 100 ml 0.1N nitric acid and the washings were placed in a third glass amber container. The contents of impinger 3 were measured for volume increase and placed in a fourth glass amber container

along with a total of 100 ml 0.1N nitric acid washings. Impingers 4 and 5 were measured for volume increase and placed in a fifth glass amber container along with a total of 100 ml each of the fresh permanganate and distilled water rinses of all sample exposed areas for the two (2) impingers. Impingers 4 and 5 were then rinsed with a total of 25 ml of 8N HCl which was placed in a sixth glass amber container. The silica gel was recovered from the last impinger and placed in a sealed container for weight gain determination.

Prior to analysis, the collected front and back half liquid sample volumes were reduced. The filter was acid digested in accordance with the method prior to being combined with the probe rinse for analysis. Arsenic, barium, cadmium, chromium, copper, nickel, lead, selenium, silver, and zinc were determined by graphite furnace atomic absorption spectrophotometry (GFAA). Mercury was determined by cold vapor atomic absorption spectrophotometry (CVAA). Cobalt and manganese were analyzed by inductively coupled plasma-optical emission spectroscopy (ICP).

4.6 Specific Volatile Organic Compounds

SVOCs were determined utilizing a modified EPA Reference Method 5/Solid Waste Method 0010 sampling train. The sampling train consisted of the following apparatus connected in series:

- Quartz glass probe and stainless steel nozzle
- Glass fiber filter contained within a heated filter holder
- Glass coil type condenser (water jacketed)
- Glass adsorbent trap containing 30 grams of XAD-2 adsorbent resin (water jacketed)
- A water-knockout impinger
- A modified Greenburg-Smith impinger containing 100 ml of distilled water
- A Greenburg-Smith impinger containing 100 ml of distilled water
- A modified Greenburg-Smith impinger-empty
- A modified Greenburg-Smith impinger containing 250 g of silica gel desiccant

All glassware utilized in the sampling was pre-cleaned as described in Section 3A of the "Manual of Analytical Methods for the Analysis of Pesticides in Human and Environmental Samples".

Sampling was conducted in duplicate 3-hour sampling events with each collecting a minimum sample volume of 105 DSCF. Prior to the start of sampling, a leak check was conducted at 15 in. Hg vacuum to ensure that all connections were leak free. The following information was recorded at each

traverse point:

- Stack temperature
- Dry gas meter temperature
- Stack gas pressure differential
- Differential pressure across the orifice meter

At the completion of sampling, a post run leak check was conducted followed by sample recovery. The nozzle and probe were removed from the sampling train and both ends were capped. The filter was removed from the filter holder and placed in an identified container. The adsorbent module was capped and covered with foil. The nozzle, probe, front half of the filter holder, back half of the filter holder and the condenser were brushed and rinsed with acetone three (3) times, followed by three (3) rinses with methylene chloride. Both rinses were collected and stored in an amber glass jar with a Teflon lined lid. All rinses were combined later during analysis. The volume of the first four (4) impingers was determined and each were then rinsed three (3) times with deionized water. The contents were retained for analysis along with the deionized water rinses and the front half acetone and methylene chloride rinses. The silica gel was recovered from the fifth impinger and placed in a sealed polyethylene container.

Analysis of the samples occured by Soxhlet extraction and concentration of the aqueous matrices, followed by high resolution gas chromatography/mass spectrometry [GC/MS] analysis.

4.7 Dioxins, Furans, and Polychlorinated Biphenyls

Dioxins, furans, and PCBs from each test location were determined according to the procedures detailed in EPA Reference Method 23. The sampling train consisted of the following apparatus connected in series:

- Quartz glass probe and stainless steel nozzle
- Glass fiber filter contained within a heated filter holder
- Glass coil type condenser (water jacketed)
- Glass adsorbent trap containing 30 grams of XAD-2 adsorbent resin (water jacketed)
- A water-knockout impinger
- A modified Greenburg-Smith impinger containing 100 ml of distilled water
- A Greenburg-Smith impinger containing 100 ml of distilled water
- A modified Greenburg-Smith impinger-empty
- A modified Greenburg-Smith impinger containing 250 g of silica gel desiccant

All glassware utilized in the sampling was pre-cleaned as described in Section 3A of the "Manual of Analytical Methods for the Analysis of Pesticides in Human and Environmental Samples".

Sampling was conducted in duplicate 3-hour sampling events with each event collecting a minimum sample volume of 105 DSCF. Prior to the start of sampling, a leak check was conducted at 15 in. Hg vacuum to ensure that all connections were leak free. The following information was recorded at each traverse point:

- Stack temperature
- Dry gas meter temperature
- Stack gas pressure differential
- Differential pressure across the orifice meter
- Sample box temperature
- Impinger temperature
- Condenser exit temperature

At the completion of sampling, a post run leak check was conducted followed by sample recovery. The nozzle and probe was removed from the sampling train and both ends were capped. The filter was removed from the filter holder and placed in an identified container. The adsorbent module was capped and covered with foil. The nozzle, probe, front half of the filter holder, back half of the filter holder and the condenser were brushed and rinsed with acetone three (3) times and were collected and stored in an amber glass jar with a Teflon lined lid. The glassware was then rinsed with toluene and stored in a separate amber glass jar with a Teflon lid. All rinses were combined later during analysis. The volume of impingers 1, 2, 3, and 4 was determined for moisture gain and the contents placed in an amber glass jar with a Teflon lined lid. The pH was measured of the impinger solution, and was found to be greater than 4.5. Therefore, the impinger solution was not neutralized with 0.1N NaOH. The four impingers were rinsed three (3) times each with deionized water and were collected and stored in an amber glass jar with a Teflon lined lid. The silica gel was recovered from the fifth impinger and placed in a sealed polyethylene container.

Analysis of the samples for dioxins, furans, and PCBs involved Soxhlet extraction and concentration of the aqueous matrices, followed by high resolution gas chromatography/mass spectrometry [GC/MS] analysis.

Emissions calculations for dioxins, furans, and PCBs can be found in Appendix B of this test report. A full list of each PCB compound can also be found in Appendix B directly before the dioxins, furans, and PCBs emission calculation spreadsheets.

4.8 Hydrogen Chloride and Chlorine

Emissions of hydrogen chloride and chlorine were determined using an EPA Reference Method 26A sampling train. The samples were collected isokinetically. The sample train consisted of the following apparatus connected in series:

- Quartz probe and nozzle
- A desiccated, tared quartz filter within a heated borosilicate glass filter holder with a Teflon frit
- A modified Greenburg-Smith impinger containing 100 ml of 0.1 N H_2SO_4
- A Greenburg-Smith impinger containing 100 ml of 0.1 N H_2SO_4
- A Greenburg-Smith impinger containing 100 ml of 0.1 NaOH
- A modified Greenburg-Smith impinger containing 100 ml of 0.1 NaOH
- A modified Greenburg-Smith impinger containing approximately 250 g of silica gel desiccant
- Vane type pump
- Dry gas meter equipped with thermocouples

An S-type pitot tube was attached to the sample probe to monitor exhaust gas stream pressure differentials in order to maintain isokinetic sampling conditions and determine the volumetric flow rate. A type-K thermocouple was also attached to measure the exhaust gas temperature. The glass fiber filter was maintained at a temperature greater than 248 °F.

Two (2) 1-hour test runs were conducted with each event collecting a minimum of 30 DSCF. Prior to the start of sampling, a leak check was conducted at 15 in. Hg vacuum to insure that all connections were leak free. The following information was recorded at each traverse point:

- Dry gas meter volume
- Stack Temperature
- Dry gas meter temperature (inlet and outlet)
- Stack gas pressure differentials
- Differential pressure across the orifice meter
- Filter temperature in heated compartment
- Gas temperature exiting the fourth impinger (silica gel desiccant)

At the completion of sampling, the sampling train was post run leak checked at the maximum vacuum encountered during the test run and then disassembled and the sample fractions recovered. The

quartz filter was removed and placed in a polyethylene container. All sample exposed areas of the front half of the sampling train (nozzle, probe and front half of the filter holder) were brushed and rinsed three (3) times with acetone and placed in a polyethylene container. The volume of impingers 1 and 2 was measured with a graduated cylinder and the contents were placed in a polyethylene container. The volume of impingers 3 and 4 was measured with a graduated cylinder and the contents were placed in a separate polyethylene container. The back half of the filter holder, impinger 1, and impinger 2 were washed with distilled/deionized water and placed in the same polyethylene container as the original contents of impingers 1 and 2. Impingers 3 and 4 were washed with distilled/deionized water and placed in the same polyethylene container as the original contents of impingers 3 and 4. The silica gel desiccant was removed from the last impinger and placed in its original tared polyethylene container. The samples were then transported to the AirNova, Inc. laboratory facility for subsequent analysis.

Analysis of the HCl samples was performed using a Bacharach TriDet HPLC equipped with a nonsuppressed conductivity detector. An Alltech Anion/R 10 um, 250 x 4.1 mx (or equivalent) column was used for separation of ionic species. A 4.0 g/l p-HBA (2.5% MeOH) buffer solution adjusted to a pH of 4.0 - 4.4 with LiOH was used as the eluent.

Prior to calibration and sample analysis, a stable baseline was established. The calibration curve was generated using four (4) concentrations of Cl plus a zero standard. The standards were prepared using IC high quality standards.

During the analysis of the HCl, the four (4) calibration standards were prepared for each contaminant in concentrations that were within the linear range of the field samples. The calibration standards, starting at the lowest first, were injected both before and after injection of the quality control check sample, reagent blanks, and field samples.

Chlorine was determined to be non-detectable after analysis of the samples.

4.9 Process Operating Data

The process operating conditions were documented by the plant control room personnel. The data included information such as: production rate, fuel use and any other applicable process data.

During the testing period on December 7, 2006, the following abnormal process operations had occurred:

- For a few hours after 14:45, no sediment material was fed into the unit for processing.
- At 22:45, there was a flame out on the burner. The burner was reignited several hours later, however, overnight the feed system froze and needed to be thawed before operation could continue. The system was finally ready for feeding at 14:00 on December 8th. Feeding was continued until about 19:00.

5.0 Quality Assurance/Quality Control Procedures

All of the source sampling and analytical procedures were performed in accordance with the US EPA's 'Good Laboratory Practice' guidelines. AirNova, Inc. followed the requirements of the individual test methods to ensure the precision and accuracy of the source testing procedures. In addition, AirNova, Inc. followed the procedures provided in the 'Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III, Stationary Sources'. Sampling equipment that was utilized in the test program was calibrated prior to the test performance. The following procedures were utilized.

5.1 S-Type Pitot Tubes

The S-type pitot tubes were visually inspected to verify dimension requirements. Pitot tubes meeting requirements were assigned a pitot tube coefficient of 0.84. Pitot tubes which did not meet the requirements were not utilized.

5.2 Dry Gas Meters and Orifice Meters

All dry gas meters used in the field were calibrated against a transfer standard dry gas meter that is maintained in AirNova's calibration data. The transfer standard gas meter is calibrated annually and certified against an NIST traceable Bell-type Prover which operates by liquid displacement.

Field dry gas meters and orifice meters are calibrated at two month intervals at the following orifice meter settings:

- 0.5 in. H_2O
- 1.0 in. H_2O
- 2.0 in. H_2O
- 3.0 in. H_2O
- 4.0 in. H_2O
- 5.0 in. H_2O

The initial and final volume readings and temperature readings were recorded for the dry gas meter and the secondary standard test meter at each orifice meter setting. A dry gas meter correction factor (DGMCF) was calculated for each setting and the average DGMCF was recorded.

All calibration documentation is stored in a designated filing cabinet for future reference. All repair

and maintenance documentation for each meter is stored in files that provide a history of each meter and aid in our preventative maintenance program.

AirNova, Inc. also participates in the EPA Method 5 Dry Gas Meter Audit Program.

5.3 Nozzles

Probe nozzles selected for isokinetic sampling were calibrated according to section 3.4.2 of the "Quality Assurance Handbook for Air Pollution Measurement Systems: Volume III" Upon receipt, the inner diameter of each nozzle is measured across three (3) distinct diameters with a micrometer caliper. The calibrated nozzle diameter is the average of these measurements. Each nozzle is identified uniquely and its calibrated diameter is checked prior to use.

5.4 Thermocouples

Thermocouples and thermometers utilized in the sampling program were calibrated according to section 3.4.2 of the "Quality Assurance for Air Pollution Measurement Systems: Volume III" every two months. The calibration method includes comparing each field thermometer and thermocouple at different temperatures to an ASTM certified mercury-in-glass thermometer. The temperatures must agree within the tolerances mentioned for the type of sampling equipment being calibrated. All the calibration data is stored in a designated filing cabinet for future reference.

1. Stack Gas and Filter Housing Thermocouples and Thermometers
   Three temperatures are measured and extrapolated over the range of temperatures encountered in field operations. The three temperatures used for calibration are:
   1. Ice bath
   2. Boiling point of water
   3. Boiling point of cooking oil (or equivalent in solid salt bath)

2. Impinger Thermometers and Thermocouples
   Two temperatures are required to calibrate:
   1. Ice bath
   2. Stabilized room temperature

3. Dry Gas Thermometers
   Two temperatures are required to calibrate:
   1. Stabilized hot water bath at approximately 104° - 122°F (40° - 50°C)
   2. Stabilized room temperature

5.5 Labels

All samples collected as part of the sampling program (silica gel desiccant samples) were affixed with labels which identify the following: 1) Project No., 2) Date, 3) Type of sample, 4) Run No., 5) Sample location, and 6) Sample fraction.

5.6 Chain-of-Custody Documentation

Chain-of-custody documentation for all samples was implemented at the completion of sampling and sample clean-up and was documented until the samples were received by the laboratory for analysis.

5.7 Calibration Gases

- NIST Traceable Protocol 1 grade (±1%) gas standards were utilized for calibration of the NO_x, O_2, CO_2, CO, SO_2 and THC analyzers.

Appendix A

Field Data Sheets

* STOP @ 110 MIN. LEAK CHECK POST = 0.004 @ 12" Hg
PRE = 0.005 @ 15" Hg

30.16

.425

K = 6.56

AirNova, Inc.

5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-8896 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

Date 12/6/06 Project No. 2982
Location CARBON BED INLET
Facility TETRA TECH
Sample Type EPA 29
Run Number ONE Operators WMD LDK RZ
P bar (" Hg) ~~30.15~~ 30.13 Static Pressure(" H_2O) -7.0
Silica Gel Number —
H_2O Pickup(ml) + 2081 + 53.0 = 2134.0
Leak Check Pre-test 0.003 @ 15" Hg Post-test 0.001 @ 15"

Probe Number 5' Type GLASS
Nozzle Number GLASS I.D. 0.425
Meter Box Number 9 ΔH@ 1.65 Y = 1.02
Sample Box Number —
Assumed Moisture(%) 50
Assumed Meter Temp.(°F) 65
CO_2 — (%) O_2 - 3.99
O_2 — (%) CO_2 - 9.83
CO — (%)

MID PT LEAK CHECK POST - 0.005 @ 15" Hg PRE 0.004 @ 15" Hg

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	00	1625	267.555	0.16	1.05	1.05	322	5	7	5.0	263	54	
2	05		270.500	0.17	1.12	1.12	332	6	0	5.0	260	60	
3	10		273.690	0.22	1.44	1.44	347	6	1	6.0	261	57	
4	15		276.995	0.19	1.25	1.25	346	6	2	6.0	260	56	
5	20		280.210	0.20	1.32	1.32	357	6	2	6.0	259	56	
6	25		283.440	0.21	1.38	1.38	364	6	3	6.0	262	57	
7	30		287.030	0.34	2.23	2.23	342	6	3	9.0	263	53	
8	35	*	290.797	0.40	2.62	2.62	347	6	0	10.0	260	57	
9	40		295.050	0.37	2.43	2.43	342	6	3	10.0	262	55	
10	45		299.450	0.37	2.43	2.43	330	6	4	10.0	263	57	
11	50		303.920	0.35	2.30	2.30	329	6	4	10.0	259	58	
12	55		308.010	0.33	2.17	2.17	325	6	3	10.0	261	59	
	60		312.016										
13	60	1801	338.589	0.19	1.25	1.25	339	8	4	6.0	258	59	
14	65		341.685	0.17	1.12	1.12	344	6	4	7.0	260	60	
15	70		344.590	0.14	0.92	0.92	341	6	4	6.0	262	59	
16	75		347.360	0.14	0.92	0.92	340	6	4	6.0	261	59	
17	80		350.075	0.17	1.12	1.12	339	6	3	6.0	263	62	
18	85		353.130	0.21	1.38	1.38	339	6	4	7.0	268	64	
19	90		356.520	0.34	2.23	2.23	335	6	4	11.0	264	60	
20	95		360.999	0.28	1.84	1.84	329	6	3	10.0	262	61	
21	100		364.590	0.33	2.17	2.17	327	6	2	12.0	264	62	
22	105		368.—	0.35	2.30	2.30	325	6	1	12.0	265	63	
23	110		~~372.521~~ 372.910	0.35	2.30	2.30	321	6	1	12.0	264	64	
24	115		376.900	0.30	1.97	1.97	320	6	0	12.0	263	64	
	120	1901	380.810										
			86.095										

MIN

LEAK CHECK POST: 0.0022 @ 8" Hg * = shutdown @ 35 MIN - change out moisture imps
PRE: 0.005 @ 15" Hg * RESTART 17:07 — DGM READING 290.995

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

K = 5.88

ISOKINETIC SAMPLING DATA SHEET

Date 12/07/06 Project No. 2982
Location CARBON BED INLET
Facility TETRA TECH
Sample Type EPA 29
Run Number TWO Operators WMO LDK KZ
P bar (" Hg) 30.00 Static Pressure(" H_2O) -7.0
Silica Gel Number —
H_2O Pickup(ml) +2025 + 19.8 = 2044.8
Leak Check Pre-test 0.009 @ 15" Hg Post-test 0.006/10 Hg

Probe Number 5' Type GLASS
Nozzle Number GLASS I.D. 0.425
Meter Box Number 9 ΔH@ 1.65
Sample Box Number —
Assumed Moisture(%) 50
Assumed Meter Temp.(°F) 65
CO_2 — (%)
O_2 — (%)
CO — (%)

O_2 - 6.19
CO_2 - 9.41

Pre leak ✓

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. H_g)	Sample Box Temp (°F)	Impinger Temp (°F)
1	00	0930	381.139	.13	.76	.76	337	55	[illegible]	4.0	250	60
2	05		383.570	.15	0.88	0.88	343	5	5	4.0	261	55
3	10		386.170	.15	0.88	0.88	348	5	7	5.0	264	54
4	15		388.801	.15	0.88	0.88	349	5	9	6.0	265	52
5	20		391.467	.17	1.0	1.0	351	6	0	6.0	255	52
6	25		394.270	.20	1.17	1.17	353	6	1	6.0	258	53
7	30		397.165	.33	1.94	1.94	349	6	2	8.0	265	55
8	35		400.916	.34	2.00	2.00	345	6	3	9.0	269	56
9	40		404.740	.31	1.82	1.82	334	6	4	9.0	263	59
10	45		408.511	.34	2.00	2.00	351	6	0	9.0	268	63
11	50		412.576	.36	2.11	2.11	339	6	2	10.0	263	62
12	55		416.480	.36	2.11	2.11	327	6	4	10.0	264	61
	60		420.489	—	—	—	—	—	—	—	—	—
13	60	1047	420.489	.13	.76	.76	332	6	0	4.0	257	60
14	65		422.949	.15	0.88	0.88	343	6	2	4.0	259	57
15	70		425.575	.15	0.88	0.88	341	6	3	4.0	267	57
16	75		428.267	.17	1.0	1.0	341	6	5	6.0	265	58
17	80		431.048	.17	1.0	1.0	339	6	6	6.0	257	61
18	85		433.880	.24	1.41	1.41	342	6	7	8.0	269	60
19	90		437.190	.28	1.64	1.64	336	6	8	8.0	261	58
20	95		440.580	.29	1.70	1.70	340	6	9	9.0	266	58
21	100		444.162	.34	2.00	2.00	330	6	9	10.0	265	60
22	105		447.963	.36	2.11	2.11	339	6	9	10.0	257	59
23	110		451.940	.29	1.70	1.70	343	6	9	9.0	258	57
24	115		455.650	0.17	1.00	1.00	331	6	9	9.0	258	58
	120	1148	458.426	—	—		—	—	—	—	—	—
			77.287									

A
Pre 0.004/9 Hg - 0.007/15 Hg
OP 115 28
B

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-8895 • www.airnova.com

K = 6.98

ISOKINETIC SAMPLING DATA SHEET

Date 12/6/06 Project No. 2982
Location ~~Baghouse~~ ~~outlet~~ Carbon Bed Outlet
Facility Terra tech
Sample Type EPA 29A
Run Number ~~ONE~~
Operators KZ, WMD, LK
P bar (" Hg) 30.13 Static Pressure (" H_2O) +0.08
Silica Gel Number V2985 D0482
H_2O Pickup (ml) +1990 +27.9 z +2019.9
Leak Check Pre-test 0.007/15Hg Post-test 0.006/8Hg

Probe Number AN 5' Type Glass
Nozzle Number GLASS I.D. 0.422
Meter Box Number 10 ΔH@ 1.86
Sample Box Number —
Assumed Moisture (%) 50
Assumed Meter Temp. (°F) 60
CO_2 — (%)
O_2 — (%)
CO — (%)

O_2 - 3.99 THC - 2.29
CO_2 - 9.83 NO_x - 94.0
CO - >100 (OS) SO_2 - 42.2

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	00	1675	430.195	.26	1.81	1.81	290	56	55	5.0	250	56	
2	7.5		435.308	.26	1.81	1.81	287	56	55	5.0	247	47	
3	15		440.840	.28	1.95	1.95	290	57	56	8.0	245	45	
4	22.5		446.526	.26	1.81	1.81	286	58	56	8.0	246	46	
5	30		452.198	.28	1.95	1.95	290	60	57	8.0	247	48	
6	37.5		457.860	.26	1.81	1.81	293	60	58	8.0	250	50	
7	45		463.540	.24	1.67	1.67	290	59	58	8.0	246	55	
8	52.5		468.966	.20	1.39	1.39	282	58	58	8.0	250	56	
	60	1740	473.775	—	—	—	—	—	—	—	—	—	—
9	60	1745	473.775	.22	1.53	1.53	290	60	59	8.0	243	61	
10	67.5		478.816	.24	1.67	1.67	289	58	58	8.0	246	63	
11	75		483.980	.27	1.88	1.88	286	58	57	8.0	248	64	
12	82.5		488.650	.27	1.88	1.88	288	57	57	8.0	250	57	
13	90		495.398	.26	1.81	1.81	286	56	55	8.0	255	54	
14	97.5		501.123	.24	1.67	1.67	286	56	55	8.0	250	56	
15	105		508.213	.21	1.46	1.46	282	56	54	8.0	249	57	
16	112.5		513.326	.19	1.32	1.32	279	56	54	8.0	249	57	
	120	1915	518.239	—	—	—	—	—	—	—	—	—	—
			88.044										

Leak Check 0.009/15Hg / Post 0.009/15Hg
Leak Check 0.010/15Hg / Post 0.006/15Hg

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

CAL # 18
m10 pt LK ✓ post = 0.001@5"Hg
PRE = 0.003@15"Hg

ISOKINETIC SAMPLING DATA SHEET

Date 12/07/06 Project No. 2982
Location outlet
Facility tesa tech
Sample Type EPA 29A
Run Number ~~ONE~~ TWO Operators KZ, VMP, LK
P bar (" Hg) 30.00 Static Pressure (" H_2O) +0.08
Silica Gel Number —
H_2O Pickup (ml) +1981 + 34.4 = 2015.4
Leak Check Pre-test 0.008 @ 15 Hg Post-test 0.001 @ 6" Hg

Probe Number AN5' Type Glass
Nozzle Number Glass I.D. .422
Meter Box Number 10 ΔH@ 1.86
Sample Box Number —
Assumed Moisture (%) 53
Assumed Meter Temp. (°F) —
CO_2 — (%)
O_2 — (%)
CO — (%)

R3 GASES
O_2 – 6.19
CO_2 – 9.41
CO – 4.2
THC 0.41
NO_x · 148.8
SO_2 - 8.8

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	00	0929	519.144	.23	1.58	1.58	295	58	59	3.0	299	53	
2	7.5		524.250	.26	1.78	1.78	295	58	59	4.0	288	54	
3	15		529.685	.24	1.64	1.64	297	59	59	5.0	290	65	
4	22.5		535.105	.26	1.78	1.78	300	66	60	5.0	300	60	
5	30		540.820	.24	1.64	1.64	300	66	60	4.0	301	62	
6	37.5		546.110	.23	1.58	1.58	301	68	62	4.0	292	63	
7	45		551.435	.26	1.78	1.78	301	64	56	5.0	286	65	
8	52.5		556.965	.22	1.51	1.51	302	64	58	5.0	291	66	
	60		562.003	—	—	—	—	—	—	—	—	—	
9	60		562.003	.20	1.37	1.37	310	66	64	3.0	299	56	
10	67.5		566.740	.20	1.37	1.37	309	66	64	3.0	298	50	
11	75		571.625	.24	1.64	1.64	310	67	71	3.0	296	55	
12	82.5		576.700	.24	1.64	1.64	309	68	72	3.0	295	58	
13	90		581.960	.23	1.58	1.58	310	68	72	4.0	288	62	
14	97.5		587.000	.23	1.58	1.58	310	68	72	4.0	287	64	
15	105		592.070	.22	1.51	1.51	310	68	64	4.0	288	66	
16	112.5		597.145	.20	1.37	1.37	309	68	64	4.0	291	66	
	120	1142	602.050	—	—	—	—	—	—	—	—	—	

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-8896 • www.airnova.com

CALC # 16 K= 5.80

ISOKINETIC SAMPLING DATA SHEET

Date 02/7/06 Project No. 2982
Location CARBON BED INLET
Facility TETRA TECH
Sample Type EPA 23 / DIOXIN
Run Number ONE Operators WMO KZ LDK KA
P bar (" Hg) 30.00 Static Pressure(" H_2O) -7.0
Silica Gel Number —
H_2O Pickup(ml) +2360 + 29.6 = 2389.6
Leak Check Pre-test 0.002@15"Hg Post-test 0.002@15"Hg

Probe Number 5' Type GLASS
Nozzle Number GLASS I.D. 0.421
Meter Box Number 6 ΔH@ 1.69 Y = 0.98
Sample Box Number —
Assumed Moisture(%) 53
Assumed Meter Temp.(°F) 75
CO_2 — (%)
O_2 — (%)
CO — (%)

O_2 - 6.3
CO_2 - 9.2

pre 0.002@10"Hg Post 0.002@15"Hg Imp Swap

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O) .33	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	00	1406	789.800	.19	1.91	1.91	339	6	0	10.0	269	54	57
2	7.5		795.316	.29	1.68	1.68	340	5	9	9.0	258	56	52
3	15		800.624	.30	1.74	1.74	346	6	0	9.0	261	57	54
4	22.5		805.950	.32	1.85	1.85	340	6	3	9.0	256	50	53
5	30		811.126	.29	1.68	1.68	344	6	5	9.0	260	51	53
6	37.5		816.124	.26	1.50	1.50	346	6	6	9.0	258	52	54
7	45		821.526	.20	1.16	1.16	352	7	2	8.0	263	54	56
8	52.5		826.610	.16	.92	.92	347	7	4	7.0	259	56	58
9	60		830.849	.15	.87	.87	350	8	0	6.0	260	58	52
10	67.5		834.956	.17	.98	.98	350	8	2	6.0	256	52	54
11	75		839.235	.15	.87	.87	346	8	1	6.0	251	54	56
12	82.5		843.374	.12	.69	.69	341	8	1	6.0	256	56	60
	90		847.279	—	—	—	—	—	—	—	—	—	
13	90		847.318	.26	1.50	1.50	340	7	4	9.0	249	60	60
14	97.5		852.720	.15	0.87	0.87	341	7	2	6.0	253	60	55
15	105		857.380	.18	1.04	1.04	346	7	2	7.0	256	54	55
16	112.5		861.980	.16	.93	.93	346	7	2	7.0	261	56	55
17	120		866.111	.21	1.21	1.21	344	7	1	10.0	256	56	55
18	127.5		870.630	.19	1.10	1.10	348	7	2	10.0	252	52	53
19	135		875.170	.26	1.50	1.50	342	7	2	11.0	250	49	50
20	142.5		880.278	.28	1.62	1.62	346	7	2	11.0	246	48	50
21	150		885.640	.29	1.68	1.68	344	7	2	11.0	257	48	49
22	157.5		891.175	.30	1.74	1.74	340	7	3	11.0	263	50	49
23	165		896.812	.33	1.91	1.91	346	7	3	11.0	266	50	48
24	172.5		902.470	.26	1.50	1.50	348	7	2	11.0	260	50	46
	180	1754	907.852	—	—	—	—	—	—	—	—	—	
			118.052										

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

K= 5.80

ISOKINETIC SAMPLING DATA SHEET

Dioxin

Date 12/7/06 Project No. 2982
Location C.B. Inlet
Facility tetra tech
Sample Type EPA 23 - Dioxin EPA 23
Run Number two Operators KZ, WMD
P bar (" Hg) 30.00 Static Pressure(" H_2O) +7.0
Silica Gel Number —
H_2O Pickup(ml) +2379 + 20.6 = 2399.6
Leak Check Pre-test 0.010/15 Hg Post-test 0.006/11 Hg

Probe Number AN 5' Type Glass
Nozzle Number glass I.D. .421
Meter Box Number 6 ΔH@ 1.69 y=0.98
Sample Box Number —
Assumed Moisture(%) 50%
Assumed Meter Temp.(°F) 60
CO_2 — (%)
O_2 — (%)
CO — (%)

967.266 - 967.660 O_2 - 10.6 CO_2 - 5.3

967.169 - 967.266
Pre 0.004/11 Hg Post 0.008/15 Hg

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. H_g)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	00	2026	908.079	.34	1.97	1.97	360	4	2	11.0	261	60	60
2	7.5		913.476	.33	1.91	1.91	356	4	3	11.0	258	36	38
3	15		918.955	.29	1.68	1.68	341	4	6	10.0	260	40	40
4	22.5		924.356	.35	2.03	2.03	346	4	6	11.0	257	42	41
5	30		929.781	.27	1.56	1.56	339	4	7	10.0	264	41	39
6	37.5		935.184	.24	1.39	1.39	342	5	0	10.0	269	43	39
7	45		940.406	.21	1.21	1.21	339	5	1	9.0	264	44	40
8	52.5		945.163	.18	1.04	1.04	343	5	2	9.0	259	45	42
9	60		949.724	.18	1.04	1.04	336	5	4	9.0	262	47	42
10	67.5		954.187	.19	1.10	1.10	340	5	6	9.0	270	50	44
11	75		958.584	.20	1.16	1.16	340	5	6	9.0	268	52	44
12	82.5		963.240	.13	.75	.75	336	5	8	8.0	264	53	45
	90		967.169	—	—	—	—	—	—	—	—	—	—
13	90		967.660	.20	1.16	1.16	342	6	0	9.0	257	40	45
14	97.5		972.—	.19	1.10	1.10	332	5	6	9.0	252	44	50
15	105		976.775	.16	.93	.93	339	5	8	9.0	260	47	52
16	112.5		981.042	.17	.98	.98	346	5	8	9.0	252	47	51
17	120		985.360	.23	1.33	1.33	340	5	9	10.0	256	49	53
18	127.5		990.280	.24	1.39	1.39	336	5	9	10.0	252	51	56
19	135		995.510	.26	1.50	1.50	339	6	0	10.0	254	52	58
20	142.5		000.720	.24	1.39	1.39	342	6	0	10.0	260	52	60
21	150		006.171	.28	1.62	1.62	346	6	1	10.0	260	54	60
22	157.5		011.350	.30	1.74	1.74	344	6	1	11.0	266	55	61
23	165		016.056	.32	1.85	1.85	344	6	1	11.0	270	55	62
24	172.5		022.790	.33	1.91	1.91	332	6	1	11.0	268	56	62
	180	0016	028.400	—	—	—	—	—	—	—	—	—	—
			120.321										

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

Date 12/7/06 Project No. 2982
Location CARBON BED OUTLET
Facility TCRA TECH
Sample Type EPA 23 DIOXON
Run Number ONE Operators KA, MDS
P bar (" Hg) 30.00 Static Pressure(" H_2O) +0.08
Silica Gel Number —
H_2O Pickup(ml) +2517 + 72.3 = 2589.3
Leak Check Pre-test 0.008@15"Hg Post-test 0.005@14"Hg
mid pt LKV post 0.002@10"Hg post 0.008@15"Hg

Probe Number 5' Type GLASS
Nozzle Number GLASS I.D. .419
Meter Box Number 7 ΔH@ 1.67
Sample Box Number —
Assumed Moisture(%) 53%
Assumed Meter Temp.(°F) —
CO_2 9 (%)
O_2 5 (%)
CO — (%)

O_2 - 6.3
CO_2 - 9.2
CAL # 14

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	Condenser outlet
1	00	1404	909.850	.24	1.43	1.43	300	58	52	6.0	295	44	55
2	11.5		919.900	.24	1.43	1.43	300	58	52	6.0	295	45	57
3	23		924.075	.25	1.49	1.49	302	58	52	6.0	303	48	59
4	34.5		931.315	.24	1.43	1.43	304	58	53	7.0	304	58	59
5	46		938.420	.26	1.55	1.55	303	58	54	7.0	305	58	61
6	57.5		945.425	.22	1.32	1.32	298	58	52	7.0	305	59	62
7	69		952.580	.22	1.32	1.32	299	58	53	8.0	303	60	57
8	80.5		959.345	.24	1.43	1.43	300	59	54	10.0	297	58	61
	92		967.621	—	—	—	—	—	—	—	—	—	—
9	92		967.621	.20	1.20	1.20	300	57	50	11.0	297	55	60
10	103.5		974.270	.22	1.32	1.32	300	58	52	11.0	295	58	62
11	115		982.725	.24	1.43	1.43	273	54	45	11.0	300	62	64
12	126.5		990.352	.24	1.43	1.43	274	56	47	11.0	300	65	67
13	138		995.620	.24	1.43	1.43	273	57	50	11.0	300	60	64
14	149.5		1002.510	.25	1.55	1.55	273	56	51	11.0	302	58	61
15	161		1009.155	.22	1.32	1.32	273	56	51	12.0	300	60	62
16	172.5		1015.900	.24	1.43	1.43	275	50	43	12.0	301	60	62
	184	1748	1027.702										
			117.852										

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

Date 12/7/06 Project No. 2982
Location outlet CARBON BED
Facility TETRA
Sample Type EPA 23 DIOXIN
Run Number TWO Operators ICA, MDS
P bar (" Hg) 30.00 Static Pressure(" H_2O) +0.04
Silica Gel Number —
H_2O Pickup(ml) +2584 + 29.2 = 2613.2
Leak Check Pre-test 0.0010@15"Hg Post-test 0.0050@10"Hg
Post 0.0066@10"Hg 0.0090@15"Hg

Probe Number 5' Type GLASS
Nozzle Number GLASS I.D. .419
Meter Box Number 7 ΔH@ 1.69 Y = 1.02
Sample Box Number —
Assumed Moisture(%) 53
Assumed Meter Temp.(°F) 45
CO_2 9 (%)
O_2 7 (%)
CO — (%)
O_2 - 10.6
CO_2 - 5.3

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
		2016											
1	00		25.400	.22	1.28	1.28	285	41	32	4.0	255	35	38
2	11.5		31.500	.22	1.28	1.28	285	41	31	4.0	245	38	39
3	23		37.625	.24	1.39	1.39	288	41	32	4.0	257	38	42
4	34.5		43.155	.24	1.39	1.39	295	38	31	8.0	261	39	44
5	46		50.150	.24	1.39	1.39	294	36	28	8.0	258	44	44
6	57.5		56.400	.25	1.45	1.45	284	36	28	8.0	262	48	56
7	69		63.050	.25	1.45	1.45	284	36	28	8.0	260	52	58
8	80.5		69.475	.20	1.16	1.16	278	36	28	8.0	255	56	58
	92		74.235	—	—	—	—	—	29	—	—	—	
9	92		74.550	.25	1.45	1.45	294	36	31	9.0	241	48	53
10	103.5		80.950	.26	1.51	1.51	288	34	31	9.0	264	50	52
11	115		88.170	.26	1.51	1.51	291	36	31	9.0	260	50	52
12	126.5		94.680	.24	1.39	1.39	293	33	30	9.0	261	53	58
13	138		101.365	.26	1.51	1.51	288	31	28	9.0	263	55	62
14	149.5		109.550	.23	1.33	1.33	292	32	29	9.0	264	57	62
15	161		118.035	.25	1.45	1.45	294	27	25	9.0	264	57	64
16	172.5		126.040	.25	1.45	1.45	294	29	25	9.0	264	60	65
	184	0018	139.055										
			113.655										

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

10 CALC.

ISOKINETIC SAMPLING DATA SHEET

Date 12/7/06 Project No. 2982
Location C.B. Inlet
Facility tera tech
Sample Type EPA 23 - SVOC - EPA mm 3
Run Number ONE Operators KZ, WMD
P bar (" Hg) 30.00 Static Pressure(" H_2O) -7.0
Silica Gel Number —
H_2O Pickup(ml) +2530 + 17.7 = 2547.7
Leak Check Pre-test 0.009/15 Hg Post-test 0.001/12 Hg

Probe Number AN 5' Type Glass
Nozzle Number Glass I.D. 0.425
Meter Box Number 9 ΔH@ 1.65
Sample Box Number —
Assumed Moisture(%) 50
Assumed Meter Temp.(°F) 75
CO_2 — (%) O_2 - 6.3
O_2 — (%) CO_2 - 9.2
CO — (%)

Preleak 0.007/9 Hg Post 0.007 @ 15 Hg

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	CONDENSER TEMP. (°F)
1	0	1406	459.462	.14	.84	.84	340	6	1	4.0	261	60	61
2	7.5		463.179	.15	.90	.90	349	6	0	4.0	257	55	61
3	15		467.376	.16	.96	.96	350	6	1	6.0	263	52	58
4	22.5		471.458	.15	.90	.90	346	6	3	4.0	260	54	60
5	30		475.580	.18	1.08	1.08	346	6	2	6.0	258	56	61
6	37.5		479.910	.21	1.26	1.26	344	6	4	6.0	263	51	57
7	45		484.539	.28	1.68	1.68	350	6	7	8.0	266	53	58
8	52.5		489.659	.34	2.04	2.04	346	6	7	9.0	256	50	53
9	60		494.800	.29	1.74	1.74	343	6	5	8.0	263	50	53
10	67.5		499.935	.26	1.56	1.56	350	6	2	8.0	259	52	54
11	75		505.070	.30	1.80	1.80	347	6	0	9.0	256	54	56
12	82.5		510.175	.04	1.44	1.44	340	6	2	8.0	249	56	60
	90		515.269	—	—	—	—	—	—	—	—	—	
13	90		515.523	.23	1.38	1.38	340	5	6	8.0	250	60	60
14	97.5		521.—	.29	1.71	1.71	339	6	1	8.0	253	55	59
15	105		525.556	.29	1.71	1.71	341	6	1	8.0	260	54	55
16	112.5		530.300	.30	1.76	1.76	348	6	3	9.0	257	55	52
17	120		535.995	.31	1.82	1.82	341	6	3	10.0	252	56	54
18	127.5		541.532	.30	1.76	1.76	350	6	4	10.0	251	50	51
19	135		547.140	.34	2.0	2.0	348	6	3	12.0	261	51	51
20	142.5		552.820	.26	1.53	1.53	346	6	3	9.0	258	52	50
21	150		558.190	.20	1.17	1.17	348	6	3	8.0	264	53	52
22	152.5		563.—	.19	1.11	1.11	343	6	2	7.0	259	54	51
23	165		567.806	.16	.94	.94	349	6	2	6.0	263	52	50
24	172.5		571.940	.13	.76	.76	351	6	2	4.0	268	52	49
	180	1754	575.700	—	—	—	—	—	—	—	—	—	
			116.238										

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

SVOC

Date 12/7/06 Project No. 2982
Location C.B. Inlet
Facility tetra tech
Sample Type EPA 23 SVOC
Run Number TWO Operators KZ WMD
P bar (" Hg) 30.00 Static Pressure (" H_2O) -7.0
Silica Gel Number —
H_2O Pickup (ml) +2465 + 22.1 = 2487.1
Leak Check Pre-test 0.003/15 Hg Post-test 0.007/15 Hg

Probe Number AN 5' Type Glass
Nozzle Number 9/Glass I.D. .425
Meter Box Number 9 ΔH@ 1.65
Sample Box Number —
Assumed Moisture (%) 30%
Assumed Meter Temp. (°F) 75
CO_2 — (%)
O_2 — (%)
CO — (%)

O_2 - 10.6
CO_2 - 5.3

633.911 = 634.049 - 634.641
Pre ✓ 0.001/10 Hg
Post 0.007/15 Hg

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	00	2025	576.545	.24	1.41	1.41	356	4	5	8.0	263	60	60
2	7.5		581.312	.17	1.00	1.00	342	4	6	6.0	257	33	36
3	15		586	.13	.76	.76	346	4	7	6.0	260	34	36
4	22.5		589.690	.14	.82	.82	342	4	7	6.0	256	40	38
5	30		593.670	.21	1.23	1.23	346	4	7	7.0	261	45	40
6	37.5		598.240	.19	1.11	1.11	339	4	6	7.0	267	44	40
7	45		602.776	.24	1.41	1.41	341	4	5	8.0	270	44	40
8	52.5		607.673	.27	1.58	1.58	342	4	5	9.0	262	45	42
9	60		612.825	.30	1.76	1.76	337	4	6	10.0	269	47	44
10	67.5		618.142	.30	1.76	1.76	346	4	6	10.0	273	48	45
11	75		623.366	.33	1.94	1.94	342	4	7	10.0	263	48	44
12	82.5		628.530	.33	1.94	1.94	346	4	7	10.0	262	50	45
	90		633.911	—	—	—	—	—	—	—	—	—	—
13	90		634.641	.18	1.00	1.00	336	4	6	7.0	256	36	47
14	97.5		638.876	.18	1.06	1.06	340	4	7	7.0	260	37	49
15	105		643.196	.19	1.11	1.11	342	4	7	7.0	264	38	49
16	112.5		647.814	.20	1.12	1.12	342	4	8	8.0	259	40	49
17	120		652.555	.22	1.23	1.23	336	4	9	8.0	254	40	52
18	127.5		657.421	.21	1.17	1.17	334	5	0	9.0	260	42	53
19	135		662.200	.24	1.34	1.34	346	5	0	9.0	263	42	55
20	142.5		666	.23	1.29	1.29	346	5	1	9.0	259	44	58
	150		671.950	.28	1.57	1.57	342	4	8	10.0	266	46	60
	157.5		677.203	.32	1.79	1.79	340	4	8	10.0	260	56	61
	165		682.712	.33	1.85	1.85	336	4	6	10.0	260	50	58
	172.5		688.290	.33	1.85	1.85	339	4	4	10.0	258	51	60
	180	0016	693.841	—	—	—	—	—	—	—	—	—	—
			117.296										

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-8896 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

Date 12/7/06 Project No. 2982
Location CARBON BED OUTLET
Facility TERA TECH
Sample Type EPA 23 SVOC
Run Number ONE Operators KA, MS, KZ
P bar (" Hg) 30.00 Static Pressure(" H_2O) +0.08
Silica Gel Number —
H_2O Pickup(ml) +2577 +26.62 2603.6
Leak Check Pre-test 0.009@15"Hg Post-test 0.005@12"Hg
min pt LKC post 0.003@10"Hg post 0.005@12"Hg

Probe Number 5' Type GLASS
Nozzle Number GLASS I.D. .422
Meter Box Number 10 ΔH@ 1.86
Sample Box Number —
Assumed Moisture(%) 53
Assumed Meter Temp.(°F) 65
CO_2 9 (%)
O_2 5 (%)
CO — (%)

O_2 - 6.3
CO_2 - 9.2
CAL#18

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	00	1406	602.362	.29	1.85	1.85	300	58	57	8.0	260	60	58
2	11.5		609.505	.23	1.58	1.58	299	56	57	8.0	254	60	58
3	23		616.620	.23	1.58	1.58	302	60	63	8.0	259	62	62
4	34.5		623.450	.24	1.64	1.64	305	61	60	10.0	275	64	62
5	46		630.215	.24	1.64	1.64	303	61	60	10.0	276	64	63
6	57.5		637.425	.20	1.37	1.37	298	62	61	10.0	270	63	64
7	69		643.620	.20	1.37	1.37	296	62	62	12.0	273	58	61
8	80.5		650.485	.24	1.64	1.64	299	62	60	12.0	276	59	62
	92		658.003	—	—	—	—	—	—	—	—	—	—
9	92		658.003	.22	1.51	1.51	300	64	61	12.0	282	62	66
10	103.5		664.865	.24	1.64	1.64	275	58	59	12.0	288	64	66
11	115		671.680	.24	1.64	1.64	272	58	59	12.0	289	64	66
12	126.5		679.030	.25	1.71	1.71	274	55	56	12.0	281	64	66
13	138		683.855	.24	1.64	1.64	271	56	56	12.0	283	64	66
14	149.5		690.730	.23	1.58	1.58	273	54	55	12.0	263	57	55
15	161		697.535	.24	1.64	1.64	273	53	54	13.0	266	59	63
16	172.5		704.235	.22	1.51	1.51	275	52	52	13.0	269	61	64
	184	1748	710.952										
			118.59										

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

Date 12/7/06 Project No. 2982
Location CARBON BED OUTLET
Facility TETRA
Sample Type EPA 29 SVOC
Run Number 01W10 Operators KA, MS
P bar (" Hg) 30.00 Static Pressure(" H_2O) +0.08
Silica Gel Number —
H_2O Pickup(ml) +2594 + 21.7 = 2615.7
Leak Check Pre-test 0.00020@15"Hg Post-test 0.00020@10"Hg
Post 0.00020@3"Hg 0.0009@15"Hg

Probe Number 5' Type GLASS
Nozzle Number GLASS I.D. .422
Meter Box Number 10 ΔH@ 1.86
Sample Box Number —
Assumed Moisture(%) 53
Assumed Meter Temp.(°F) 45
CO_2 9 (%) O_2 - 10.6
O_2 7 (%)
CO — (%) CO_2 - 5.3

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	0.0	2016	711.290	.25	1.71	1.71	285	42	42	5.0	250	39	42
2	11.5		718.490	.23	1.53	1.53	288	42	42	7.0	260	39	42
3	23		725.725	.24	1.60	1.60	287	42	42	7.0	260	40	42
4	34.5		733.025	.24	1.60	1.60	293	43	41	7.0	260	52	57
5	46		741.000	.26	1.73	1.73	275	46	38	7.0	264	57	60
6	57.3		749.060	.22	1.53	1.53	277	46	38	7.0	266	59	60
7	69		756.845	.22	1.53	1.53	275	46	38	7.0	267	59	61
8	80.5		764.055	.20	1.33	1.33	275	46	39	7.0	265	59	61
	92		772.000	~~.20~~	~~1.33~~	~~1.33~~	~~275~~	~~46~~	~~39~~	~~7.0~~	~~265~~	~~59~~	~~61~~
9	92		772.225	.22	1.53	1.53	277	46	36	7.0	264	42	53
10	103.5		779.515	.24	1.60	1.60	290	38	34	8.0	256	48	55
11	115		786.000	.24	1.60	1.60	284	38	34	8.0	256	50	55
12	126.5		794.855	.23	1.53	1.53	291	38	36	8.0	254	56	59
13	138		803.005	.22	1.47	1.47	293	36	36	8.0	251	54	60
14	149.5		810.420	.23	1.53	1.53	292	38	34	8.0	253	55	61
15	161		817.855	.20	1.33	1.33	287	38	33	8.0	254	53	61
16	172.5		824.135	.20	1.33	1.33	290	36	31	8.0	257	55	61
	184	0018											
			112.845										

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-8895 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

Date 12/06/06 Project No. 2982
Location ~~B. House Outlet~~ Carbon Bed Outlet
Facility Tera Tech
Sample Type HCL EPA 23A
Run Number One Operators RZ, WMP, LK
P bar (" Hg) 30.13 Static Pressure (" H_2O) +0.08
Silica Gel Number —
H_2O Pickup (ml) +1138 + 17.4 = 1155.4
Leak Check Pre-test 0.009 / 15 Post-test 0.010 / 12

Probe Number AN 5 Type Glass
Nozzle Number Glass I.D. .419
Meter Box Number 7 ΔH@ 1.67
Sample Box Number —
Assumed Moisture (%) 50
Assumed Meter Temp. (°F) 60
CO_2 — (%)
O_2 — (%)
CO — (%)

RZ - GASES
O_2 - 5.13 THC - 2.11
CO_2 - 10.47 NO_x - 134.1
CO - 17.3 SO_2 - 16.5

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	0	1700	824.031	.28	1.46	1.46	290	57	56	5.0	250	52	
2	4		826.620	.26	1.73	1.73	284	57	57	5.0	253	50	
3	8		829.476	.28	1.86	1.86	288	58	57	9.0	256	53	
4	12		832.396	.27	1.80	1.80	290	58	58	9.0	254	55	
5	16		835.336	.25	1.66	1.66	288	59	58	9.0	256	56	
6	20		838.116	.22	1.46	1.46	286	58	58	9.0	255	58	
7	24		840.798	.20	1.33	1.33	286	58	57	9.0	253	58	
8	28		843.413	.20	1.33	1.33	280	57	57	9.0	254	60	
	32	1732	845.953	—	—	—	—	—	—	—	—	—	—
9	32	1800	845.953	.26	1.73	1.73	288	58	57	9.0	253	63	
10	36		848.780	.20	1.73	1.73	290	58	57	9.0	256	54	
11	40		851.635	.28	1.86	1.86	288	58	57	10.0	260	52	
12	44		853.666	.26	1.73	1.73	286	57	57	10.0	262	52	
13	48		856.500	.26	1.73	1.73	286	57	56	10.0	260	53	
14	52		859.356	.25	1.66	1.66	289	56	56	10.0	258	55	
15	56		862.148	.23	1.53	1.53	289	56	56	12.0	256	56	
16	60		864.856	.20	1.33	1.33	280	57	56	12.0	256	56	
	64	1832	867.450	—	—	—	—	—	—	—	—	—	

43.419

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

Date 12/07/06 Project No. 2982
Location ~~Baghouse~~ Outlet
Facility Tera tech
Sample Type HCL
Run Number #4 Operators KZ, WMD, LK
P bar (" Hg) 30.00 Static Pressure (" H_2O) +0.08
Silica Gel Number —
H_2O Pickup (ml) +984 + 13.9 = +997.9
Leak Check Pre-test 0.010 @ 15 Hg Post-test 0.001 @ 6" Hg

Probe Number AN5' Type Glass
Nozzle Number Glass I.D. .419
Meter Box Number 7 ΔH@ 1.67
Sample Box Number —
Assumed Moisture (%) 50%
Assumed Meter Temp. (°F) —
CO_2 1.6 (%)
O_2 7.2 (%)
CO — (%)

O_2 - 6.3
CO_2 - 9.2

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. Hg)	Sample Box Temp (°F)	Impinger Temp (°F)	
1	00	0959	868.900	.20	1.20	1.20	300	64	52	3.0	275	64	
2	4		871.305	.22	1.32	1.32	302	64	53	3.0	277	66	
3	8		873.640	.24	1.43	1.43	302	64	55	3.0	279	56	
4	12		875.970	.24	1.43	1.43	305	64	55	4.0	288	60	
5	16		878.665	.24	1.43	1.43	306	64	56	4.0	282	54	
6	20		881.345	.23	1.37	1.37	306	64	58	4.0	287	56	
7	24		883.970	.20	1.20	1.20	309	65	58	4.0	285	58	
8	28		886.420	.22	1.32	1.32	309	65	60	4.0	288	61	
	32		888.921	—	—	—	—	—	—	—	—	—	
9	32		888.921	.23	1.37	1.37	311	65	55	4.0	291	58	
10	36		891.625	.25	1.49	1.49	310	65	56	4.0	292	56	
11	40		894.065	.25	1.49	1.49	309	66	56	4.0	292	58	
12	44		896.645	.24	1.43	1.43	309	66	56	4.0	294	61	
13	48		899.230	.23	1.37	1.37	307	66	57	4.0	291	60	
14	52		901.825	.25	1.49	1.49	311	66	57	4.0	288	62	
15	56		904.470	.23	1.37	1.37	308	67	56	4.0	289	66	
16	60		907.070	.20	1.20	1.20	309	67	56	4.0	291	65	
	64	1110	909.493	—	—	—	—	—	—	—	—	—	
			40.593										

AirNova, Inc.

Method 2 Gas Velocity and Volume Data Sheet

Plant Tera Tech
Date 12/6/06
Run No. Prelim Flow
Stack Diameter (in.) 35.5"
Barometric Pressure (°Hg) 30.13
Static Pressure in Stack (Ps) (°Hg) .08
Operators KZ, WMP
Cp 0.84

~~BAGHOUSE~~ Carbon Bed Outlet
Dia 35.5
Nip 7.5
Upstream 22.1'
Downstream 12.8'

Schematic of Stack Cross Section

FIELD DATA					
Traverse Point Number	Position (inches)	Velocity Head (Δ Ps) (°H_2O)	Stack Temp. (°F)	Cyclonic Flow Determination Angle ( ) which yields a null Δ P	Sq. rt. of Δ P
V1	8.6	.23	270		
2	11.2	.25	274		
3	14.4	.25	278		
4	19.0	.26	281		
5	31.5	.26	284		
6	36.1	.26	286		
7	39.2	.25	286		
8	41.8	.25	284		
9		.19	273		
10		.21	274		
11		.22	282		
12		.23	283		
13		.24	285		
14		.22	285		
15		.21	286		
16		.19	284		
		$\overline{\Delta P}$ =	0.23		
		$\sqrt{\ }$ =	0.48		
			NOZ = 0.432		

Average Angle ( ):

rev. 10/95

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-8896 • www.airnova.com

ISOKINETIC SAMPLING DATA SHEET

Date 12/6/06 Project No. 2982
Location ~~B~~ CB Outlet
Facility terg tech
Sample Type EpA 4
Run Number Prelim Operators KZ WMP
P bar (" Hg) 29.92 Static Pressure(" H_2O) —
Silica Gel Number —
H_2O Pickup(ml) + 218 + Ass. 25ml
Leak Check Pre-test 0.002/15Hg Post-test 0.00[illegible]/8 Hg

Probe Number — Type S/S
Nozzle Number — I.D. —
Meter Box Number 10 ΔH@ 1.86
Sample Box Number —
Assumed Moisture(%) —
Assumed Meter Temp.(°F) 60
CO_2 11.0 (%)
O_2 27 (%)
CO — (%)

Traverse Point Number	Sample Time (min.)	Start Clock Time	Gas Meter Reading ft³	Velocity Head (in. H_2O)	Orifice Pressure (in. H_2O) desired	Orifice Pressure (in. H_2O) actual	Stack Temp (°F)	Meter Temp. Inlet (°F)	Meter Temp. Outlet (°F)	Pump Vacuum (in. H_g)	Sample Box Temp (°F)	Impinger Temp (°F)	
	00		418.745	—	1.86	1.86	—	54	53	3.0	—	51	
	05		422.354	—	1.86	1.86	—	55	54	3.0	—	51	
	10		426.144	—	1.86	1.86	—	55	54	8.0	—	52	
	15		429.978	—	—	—	—	—	—	—	—	—	
								54.17					
			11.233										
			50% H_2O										

Tetra Tech @ Indesco Site Dec 6th 2006

Carbon Bed Outlet

Run # 1

Wed	12/06/06	16:25:47	O2	5.88	%	CO2	8.94	%	CO	4.39	ppm	CH4-Out	2.39	ppm	NOx-Out	154.54	ppm	SO2	31.7	ppm
Wed	12/06/06	16:25:56	O2	5.87	%	CO2	9.01	%	CO	4.88	ppm	CH4-Out	2.39	ppm	NOx-Out	153.08	ppm	SO2	34.2	ppm
Wed	12/06/06	16:26:06	O2	5.86	%	CO2	9.01	%	CO	4.39	ppm	CH4-Out	2.44	ppm	NOx-Out	152.59	ppm	SO2	34.2	ppm
Wed	12/06/06	16:26:16	O2	5.82	%	CO2	9.01	%	CO	4.39	ppm	CH4-Out	2.54	ppm	NOx-Out	152.34	ppm	SO2	36.6	ppm
Wed	12/06/06	16:26:26	O2	5.74	%	CO2	9.01	%	CO	4.39	ppm	CH4-Out	2.73	ppm	NOx-Out	151.61	ppm	SO2	39.1	ppm
Wed	12/06/06	16:26:36	O2	5.90	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	2.69	ppm	NOx-Out	150.63	ppm	SO2	41.5	ppm
Wed	12/06/06	16:26:46	O2	5.68	%	CO2	9.23	%	CO	4.88	ppm	CH4-Out	2.78	ppm	NOx-Out	149.41	ppm	SO2	41.5	ppm
Wed	12/06/06	16:26:56	O2	5.65	%	CO2	9.23	%	CO	4.88	ppm	CH4-Out	2.69	ppm	NOx-Out	150.39	ppm	SO2	44.0	ppm
Wed	12/06/06	16:27:06	O2	5.65	%	CO2	9.30	%	CO	4.88	ppm	CH4-Out	2.44	ppm	NOx-Out	150.88	ppm	SO2	44.0	ppm
Wed	12/06/06	16:27:16	O2	5.58	%	CO2	9.23	%	CO	4.39	ppm	CH4-Out	2.49	ppm	NOx-Out	150.88	ppm	SO2	46.4	ppm
Wed	12/06/06	16:27:26	O2	5.51	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	2.69	ppm	NOx-Out	150.15	ppm	SO2	46.4	ppm
Wed	12/06/06	16:27:36	O2	5.51	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	2.83	ppm	NOx-Out	148.44	ppm	SO2	44.0	ppm
Wed	12/06/06	16:27:46	O2	5.52	%	CO2	9.23	%	CO	4.39	ppm	CH4-Out	2.83	ppm	NOx-Out	147.95	ppm	SO2	44.0	ppm
Wed	12/06/06	16:27:56	O2	5.54	%	CO2	9.16	%	CO	4.39	ppm	CH4-Out	2.88	ppm	NOx-Out	146.73	ppm	SO2	44.0	ppm
Wed	12/06/06	16:28:06	O2	5.49	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	2.88	ppm	NOx-Out	146.24	ppm	SO2	44.0	ppm
Wed	12/06/06	16:28:16	O2	5.37	%	CO2	9.37	%	CO	4.39	ppm	CH4-Out	2.83	ppm	NOx-Out	144.78	ppm	SO2	46.4	ppm
Wed	12/06/06	16:28:26	O2	5.26	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	2.83	ppm	NOx-Out	144.04	ppm	SO2	46.4	ppm
Wed	12/06/06	16:28:36	O2	5.19	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	2.93	ppm	NOx-Out	142.33	ppm	SO2	46.4	ppm
Wed	12/06/06	16:28:46	O2	5.18	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	2.98	ppm	NOx-Out	141.85	ppm	SO2	46.4	ppm
Wed	12/06/06	16:28:56	O2	5.10	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	2.78	ppm	NOx-Out	141.85	ppm	SO2	46.4	ppm
Wed	12/06/06	16:29:06	O2	5.09	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	2.78	ppm	NOx-Out	141.36	ppm	SO2	48.8	ppm
Wed	12/06/06	16:29:16	O2	5.08	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	2.83	ppm	NOx-Out	141.36	ppm	SO2	48.8	ppm
Wed	12/06/06	16:29:26	O2	5.10	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	2.73	ppm	NOx-Out	141.11	ppm	SO2	48.8	ppm
Wed	12/06/06	16:29:36	O2	5.03	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	2.64	ppm	NOx-Out	140.87	ppm	SO2	48.8	ppm
Wed	12/06/06	16:29:46	O2	5.02	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	2.73	ppm	NOx-Out	138.67	ppm	SO2	46.4	ppm
Wed	12/06/06	16:29:56	O2	4.93	%	CO2	9.81	%	CO	4.39	ppm	CH4-Out	2.83	ppm	NOx-Out	137.21	ppm	SO2	48.8	ppm
Wed	12/06/06	16:30:06	O2	4.83	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	2.93	ppm	NOx-Out	135.99	ppm	SO2	48.8	ppm
Wed	12/06/06	16:30:16	O2	4.77	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	2.88	ppm	NOx-Out	134.28	ppm	SO2	48.8	ppm
Wed	12/06/06	16:30:26	O2	4.76	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	2.78	ppm	NOx-Out	133.54	ppm	SO2	48.8	ppm
Wed	12/06/06	16:30:36	O2	4.87	%	CO2	10.03	%	CO	4.39	ppm	CH4-Out	2.93	ppm	NOx-Out	133.30	ppm	SO2	46.4	ppm
Wed	12/06/06	16:30:46	O2	5.04	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	2.98	ppm	NOx-Out	135.25	ppm	SO2	48.8	ppm
Wed	12/06/06	16:30:56	O2	5.14	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	3.03	ppm	NOx-Out	136.72	ppm	SO2	46.4	ppm
Wed	12/06/06	16:31:06	O2	5.11	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	3.08	ppm	NOx-Out	139.16	ppm	SO2	48.8	ppm
Wed	12/06/06	16:31:16	O2	5.15	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	3.03	ppm	NOx-Out	139.16	ppm	SO2	48.8	ppm
Wed	12/06/06	16:31:26	O2	5.15	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	3.17	ppm	NOx-Out	138.18	ppm	SO2	48.8	ppm
Wed	12/06/06	16:31:36	O2	5.04	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	3.47	ppm	NOx-Out	137.21	ppm	SO2	46.4	ppm
Wed	12/06/06	16:31:46	O2	4.92	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	3.52	ppm	NOx-Out	134.77	ppm	SO2	48.8	ppm
Wed	12/06/06	16:31:56	O2	4.87	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	3.52	ppm	NOx-Out	132.81	ppm	SO2	48.8	ppm
Wed	12/06/06	16:32:06	O2	4.82	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	3.52	ppm	NOx-Out	130.62	ppm	SO2	48.8	ppm
Wed	12/06/06	16:32:16	O2	4.77	%	CO2	9.81	%	CO	4.39	ppm	CH4-Out	3.66	ppm	NOx-Out	131.10	ppm	SO2	48.8	ppm
Wed	12/06/06	16:32:26	O2	4.65	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	3.61	ppm	NOx-Out	130.37	ppm	SO2	48.8	ppm
Wed	12/06/06	16:32:36	O2	4.65	%	CO2	10.03	%	CO	4.39	ppm	CH4-Out	3.47	ppm	NOx-Out	130.86	ppm	SO2	48.8	ppm
Wed	12/06/06	16:32:46	O2	4.71	%	CO2	10.03	%	CO	4.39	ppm	CH4-Out	3.32	ppm	NOx-Out	130.37	ppm	SO2	48.8	ppm
Wed	12/06/06	16:32:56	O2	4.72	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	3.27	ppm	NOx-Out	129.88	ppm	SO2	46.4	ppm
Wed	12/06/06	16:33:06	O2	4.72	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	3.37	ppm	NOx-Out	130.62	ppm	SO2	46.4	ppm
Wed	12/06/06	16:33:16	O2	4.70	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	3.37	ppm	NOx-Out	130.62	ppm	SO2	48.8	ppm
Wed	12/06/06	16:33:26	O2	4.72	%	CO2	9.89	%	CO	4.39	ppm	CH4-Out	3.32	ppm	NOx-Out	130.13	ppm	SO2	48.8	ppm
Wed	12/06/06	16:33:36	O2	4.71	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	3.27	ppm	NOx-Out	127.69	ppm	SO2	48.8	ppm
Wed	12/06/06	16:33:46	O2	4.63	%	CO2	10.11	%	CO	4.39	ppm	CH4-Out	3.27	ppm	NOx-Out	127.20	ppm	SO2	48.8	ppm

Wed	12/06/06	16:33:56	O2	4.60	%	CO2	9.89	%	CO	4.39	ppm	CH4-Out	3.22	ppm	NOx-Out	125.73	ppm	SO2	48.8	ppm
Wed	12/06/06	16:34:06	O2	4.53	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.17	ppm	NOx-Out	124.27	ppm	SO2	48.8	ppm
Wed	12/06/06	16:34:16	O2	4.59	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.08	ppm	NOx-Out	123.29	ppm	SO2	48.8	ppm
Wed	12/06/06	16:34:26	O2	4.71	%	CO2	10.18	%	CO	3.91	ppm	CH4-Out	3.22	ppm	NOx-Out	123.05	ppm	SO2	48.8	ppm
Wed	12/06/06	16:34:36	O2	4.80	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.22	ppm	NOx-Out	122.80	ppm	SO2	48.8	ppm
Wed	12/06/06	16:34:46	O2	4.86	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.17	ppm	NOx-Out	122.07	ppm	SO2	48.8	ppm
Wed	12/06/06	16:34:56	O2	4.97	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	3.08	ppm	NOx-Out	122.31	ppm	SO2	48.8	ppm
Wed	12/06/06	16:35:06	O2	4.97	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	3.08	ppm	NOx-Out	121.34	ppm	SO2	48.8	ppm
Wed	12/06/06	16:35:16	O2	4.91	%	CO2	9.96	%	CO	3.42	ppm	CH4-Out	2.93	ppm	NOx-Out	124.02	ppm	SO2	48.8	ppm
Wed	12/06/06	16:35:26	O2	4.85	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	3.12	ppm	NOx-Out	125.49	ppm	SO2	48.8	ppm
Wed	12/06/06	16:35:36	O2	4.81	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	3.22	ppm	NOx-Out	124.02	ppm	SO2	48.8	ppm
Wed	12/06/06	16:35:46	O2	4.77	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.17	ppm	NOx-Out	122.80	ppm	SO2	48.8	ppm
Wed	12/06/06	16:35:56	O2	4.82	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.22	ppm	NOx-Out	120.12	ppm	SO2	48.8	ppm
Wed	12/06/06	16:36:06	O2	4.83	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.37	ppm	NOx-Out	119.87	ppm	SO2	48.8	ppm
Wed	12/06/06	16:36:16	O2	4.75	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	3.37	ppm	NOx-Out	120.12	ppm	SO2	48.8	ppm
Wed	12/06/06	16:36:26	O2	4.63	%	CO2	10.11	%	CO	3.42	ppm	CH4-Out	3.47	ppm	NOx-Out	119.38	ppm	SO2	48.8	ppm
Wed	12/06/06	16:36:36	O2	4.57	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	3.42	ppm	NOx-Out	117.19	ppm	SO2	48.8	ppm
Wed	12/06/06	16:36:46	O2	4.57	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	3.27	ppm	NOx-Out	115.23	ppm	SO2	48.8	ppm
Wed	12/06/06	16:36:56	O2	4.58	%	CO2	10.25	%	CO	3.91	ppm	CH4-Out	3.22	ppm	NOx-Out	114.26	ppm	SO2	48.8	ppm
Wed	12/06/06	16:37:06	O2	4.64	%	CO2	10.25	%	CO	3.91	ppm	CH4-Out	3.17	ppm	NOx-Out	114.50	ppm	SO2	51.3	ppm
Wed	12/06/06	16:37:16	O2	4.65	%	CO2	10.25	%	CO	3.91	ppm	CH4-Out	3.22	ppm	NOx-Out	116.21	ppm	SO2	51.3	ppm
Wed	12/06/06	16:37:26	O2	4.64	%	CO2	10.18	%	CO	3.91	ppm	CH4-Out	3.17	ppm	NOx-Out	118.16	ppm	SO2	51.3	ppm
Wed	12/06/06	16:37:36	O2	4.53	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	2.98	ppm	NOx-Out	119.87	ppm	SO2	51.3	ppm
Wed	12/06/06	16:37:46	O2	4.43	%	CO2	10.18	%	CO	3.91	ppm	CH4-Out	2.98	ppm	NOx-Out	117.92	ppm	SO2	51.3	ppm
Wed	12/06/06	16:37:56	O2	4.38	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	2.98	ppm	NOx-Out	116.46	ppm	SO2	51.3	ppm
Wed	12/06/06	16:38:06	O2	4.35	%	CO2	10.03	%	CO	3.42	ppm	CH4-Out	2.78	ppm	NOx-Out	113.28	ppm	SO2	51.3	ppm
Wed	12/06/06	16:38:16	O2	4.35	%	CO2	10.18	%	CO	3.91	ppm	CH4-Out	2.73	ppm	NOx-Out	111.08	ppm	SO2	51.3	ppm
Wed	12/06/06	16:38:26	O2	4.28	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	2.83	ppm	NOx-Out	109.37	ppm	SO2	51.3	ppm
Wed	12/06/06	16:38:36	O2	4.26	%	CO2	10.47	%	CO	3.91	ppm	CH4-Out	2.88	ppm	NOx-Out	107.67	ppm	SO2	51.3	ppm
Wed	12/06/06	16:38:46	O2	4.22	%	CO2	10.40	%	CO	3.42	ppm	CH4-Out	2.83	ppm	NOx-Out	106.93	ppm	SO2	51.3	ppm
Wed	12/06/06	16:38:56	O2	4.19	%	CO2	10.62	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	106.45	ppm	SO2	51.3	ppm
Wed	12/06/06	16:39:06	O2	4.05	%	CO2	10.62	%	CO	3.91	ppm	CH4-Out	2.73	ppm	NOx-Out	104.00	ppm	SO2	51.3	ppm
Wed	12/06/06	16:39:16	O2	4.02	%	CO2	10.62	%	CO	3.91	ppm	CH4-Out	2.93	ppm	NOx-Out	102.05	ppm	SO2	51.3	ppm
Wed	12/06/06	16:39:26	O2	4.04	%	CO2	10.62	%	CO	4.39	ppm	CH4-Out	3.03	ppm	NOx-Out	101.56	ppm	SO2	51.3	ppm
Wed	12/06/06	16:39:36	O2	4.02	%	CO2	10.55	%	CO	3.91	ppm	CH4-Out	3.08	ppm	NOx-Out	102.78	ppm	SO2	51.3	ppm
Wed	12/06/06	16:39:46	O2	3.99	%	CO2	10.55	%	CO	3.42	ppm	CH4-Out	3.03	ppm	NOx-Out	102.29	ppm	SO2	51.3	ppm
Wed	12/06/06	16:39:56	O2	3.97	%	CO2	10.55	%	CO	3.91	ppm	CH4-Out	3.08	ppm	NOx-Out	102.05	ppm	SO2	51.3	ppm
Wed	12/06/06	16:40:06	O2	3.93	%	CO2	10.62	%	CO	4.39	ppm	CH4-Out	3.22	ppm	NOx-Out	102.54	ppm	SO2	48.8	ppm
Wed	12/06/06	16:40:16	O2	3.86	%	CO2	10.47	%	CO	4.39	ppm	CH4-Out	3.08	ppm	NOx-Out	102.29	ppm	SO2	48.8	ppm
Wed	12/06/06	16:40:26	O2	3.78	%	CO2	10.62	%	CO	4.39	ppm	CH4-Out	3.12	ppm	NOx-Out	101.56	ppm	SO2	48.8	ppm
Wed	12/06/06	16:40:36	O2	3.76	%	CO2	10.47	%	CO	4.39	ppm	CH4-Out	3.03	ppm	NOx-Out	101.07	ppm	SO2	48.8	ppm
Wed	12/06/06	16:40:46	O2	3.66	%	CO2	10.47	%	CO	4.39	ppm	CH4-Out	3.27	ppm	NOx-Out	100.59	ppm	SO2	51.3	ppm
Wed	12/06/06	16:40:56	O2	3.47	%	CO2	10.77	%	CO	5.37	ppm	CH4-Out	3.47	ppm	NOx-Out	98.88	ppm	SO2	51.3	ppm
Wed	12/06/06	16:41:06	O2	3.32	%	CO2	10.99	%	CO	24.41	ppm	CH4-Out	3.37	ppm	NOx-Out	95.46	ppm	SO2	51.3	ppm
Wed	12/06/06	16:41:16	O2	3.20	%	CO2	11.06	%	CO	98.63	ppm	CH4-Out	3.42	ppm	NOx-Out	91.80	ppm	SO2	51.3	ppm
Wed	12/06/06	16:41:26	O2	3.10	%	CO2	11.06	%	CO	98.14	ppm	CH4-Out	3.47	ppm	NOx-Out	89.60	ppm	SO2	51.3	ppm
Wed	12/06/06	16:41:36	O2	3.12	%	CO2	11.06	%	CO	98.63	ppm	CH4-Out	3.52	ppm	NOx-Out	90.82	ppm	SO2	51.3	ppm
Wed	12/06/06	16:41:46	O2	3.19	%	CO2	11.13	%	CO	98.63	ppm	CH4-Out	3.42	ppm	NOx-Out	92.53	ppm	SO2	51.3	ppm
Wed	12/06/06	16:41:56	O2	3.25	%	CO2	10.91	%	CO	98.63	ppm	CH4-Out	3.32	ppm	NOx-Out	92.53	ppm	SO2	51.3	ppm
Wed	12/06/06	16:42:06	O2	3.27	%	CO2	10.91	%	CO	98.63	ppm	CH4-Out	3.32	ppm	NOx-Out	92.77	ppm	SO2	51.3	ppm
Wed	12/06/06	16:42:16	O2	3.23	%	CO2	10.91	%	CO	98.63	ppm	CH4-Out	3.27	ppm	NOx-Out	92.53	ppm	SO2	51.3	ppm
Wed	12/06/06	16:42:26	O2	3.22	%	CO2	10.99	%	CO	98.63	ppm	CH4-Out	3.08	ppm	NOx-Out	92.29	ppm	SO2	51.3	ppm
Wed	12/06/06	16:42:36	O2	3.22	%	CO2	10.99	%	CO	98.14	ppm	CH4-Out	3.08	ppm	NOx-Out	92.53	ppm	SO2	51.3	ppm
Wed	12/06/06	16:42:46	O2	3.19	%	CO2	11.06	%	CO	98.63	ppm	CH4-Out	3.27	ppm	NOx-Out	92.29	ppm	SO2	51.3	ppm
Wed	12/06/06	16:42:56	O2	3.10	%	CO2	11.13	%	CO	98.63	ppm	CH4-Out	3.37	ppm	NOx-Out	91.06	ppm	SO2	51.3	ppm

Wed	12/06/06	16:43:06	O2	3.00	%	CO2	11.21	%	CO	98.63	ppm	CH4-Out	3.91	ppm	NOx-Out	88.62	ppm	SO2	51.3	ppm
Wed	12/06/06	16:43:16	O2	2.93	%	CO2	11.35	%	CO	98.63	ppm	CH4-Out	3.81	ppm	NOx-Out	85.69	ppm	SO2	51.3	ppm
Wed	12/06/06	16:43:26	O2	2.94	%	CO2	11.21	%	CO	98.63	ppm	CH4-Out	3.66	ppm	NOx-Out	79.83	ppm	SO2	51.3	ppm
Wed	12/06/06	16:43:36	O2	3.08	%	CO2	10.99	%	CO	98.63	ppm	CH4-Out	3.37	ppm	NOx-Out	78.86	ppm	SO2	51.3	ppm
Wed	12/06/06	16:43:46	O2	3.31	%	CO2	10.77	%	CO	98.63	ppm	CH4-Out	3.37	ppm	NOx-Out	85.94	ppm	SO2	51.3	ppm
Wed	12/06/06	16:43:56	O2	3.69	%	CO2	10.69	%	CO	98.63	ppm	CH4-Out	3.71	ppm	NOx-Out	91.06	ppm	SO2	51.3	ppm
Wed	12/06/06	16:44:06	O2	3.44	%	CO2	10.84	%	CO	98.63	ppm	CH4-Out	3.42	ppm	NOx-Out	93.02	ppm	SO2	51.3	ppm
Wed	12/06/06	16:44:16	O2	3.41	%	CO2	10.69	%	CO	98.14	ppm	CH4-Out	3.56	ppm	NOx-Out	93.26	ppm	SO2	51.3	ppm
Wed	12/06/06	16:44:26	O2	3.52	%	CO2	10.77	%	CO	98.63	ppm	CH4-Out	3.37	ppm	NOx-Out	93.51	ppm	SO2	51.3	ppm
Wed	12/06/06	16:44:36	O2	3.69	%	CO2	10.69	%	CO	98.63	ppm	CH4-Out	3.27	ppm	NOx-Out	93.75	ppm	SO2	51.3	ppm
Wed	12/06/06	16:44:46	O2	3.76	%	CO2	10.62	%	CO	74.22	ppm	CH4-Out	3.37	ppm	NOx-Out	95.21	ppm	SO2	51.3	ppm
Wed	12/06/06	16:44:56	O2	3.53	%	CO2	10.55	%	CO	62.50	ppm	CH4-Out	3.27	ppm	NOx-Out	95.95	ppm	SO2	51.3	ppm
Wed	12/06/06	16:45:06	O2	3.36	%	CO2	10.91	%	CO	86.91	ppm	CH4-Out	3.27	ppm	NOx-Out	92.04	ppm	SO2	51.3	ppm
Wed	12/06/06	16:45:16	O2	3.26	%	CO2	10.84	%	CO	86.91	ppm	CH4-Out	3.12	ppm	NOx-Out	89.60	ppm	SO2	51.3	ppm
Wed	12/06/06	16:45:26	O2	3.20	%	CO2	10.91	%	CO	98.63	ppm	CH4-Out	3.12	ppm	NOx-Out	88.13	ppm	SO2	48.8	ppm
Wed	12/06/06	16:45:36	O2	3.20	%	CO2	10.99	%	CO	98.63	ppm	CH4-Out	3.17	ppm	NOx-Out	87.16	ppm	SO2	48.8	ppm
Wed	12/06/06	16:45:46	O2	3.25	%	CO2	10.91	%	CO	98.63	ppm	CH4-Out	3.32	ppm	NOx-Out	87.89	ppm	SO2	48.8	ppm
Wed	12/06/06	16:45:56	O2	3.26	%	CO2	10.84	%	CO	98.14	ppm	CH4-Out	3.12	ppm	NOx-Out	90.09	ppm	SO2	48.8	ppm
Wed	12/06/06	16:46:06	O2	3.26	%	CO2	10.84	%	CO	91.31	ppm	CH4-Out	3.22	ppm	NOx-Out	90.09	ppm	SO2	48.8	ppm
Wed	12/06/06	16:46:16	O2	3.23	%	CO2	10.84	%	CO	47.36	ppm	CH4-Out	3.27	ppm	NOx-Out	89.36	ppm	SO2	48.8	ppm
Wed	12/06/06	16:46:26	O2	3.17	%	CO2	10.91	%	CO	34.18	ppm	CH4-Out	3.27	ppm	NOx-Out	87.89	ppm	SO2	48.8	ppm
Wed	12/06/06	16:46:36	O2	3.10	%	CO2	10.91	%	CO	42.48	ppm	CH4-Out	3.32	ppm	NOx-Out	85.94	ppm	SO2	48.8	ppm
Wed	12/06/06	16:46:46	O2	3.26	%	CO2	11.06	%	CO	49.32	ppm	CH4-Out	3.17	ppm	NOx-Out	86.91	ppm	SO2	48.8	ppm
Wed	12/06/06	16:46:56	O2	3.47	%	CO2	10.77	%	CO	41.50	ppm	CH4-Out	3.32	ppm	NOx-Out	87.65	ppm	SO2	48.8	ppm
Wed	12/06/06	16:47:06	O2	3.49	%	CO2	10.69	%	CO	27.83	ppm	CH4-Out	3.56	ppm	NOx-Out	89.60	ppm	SO2	48.8	ppm
Wed	12/06/06	16:47:16	O2	3.37	%	CO2	10.69	%	CO	20.02	ppm	CH4-Out	3.42	ppm	NOx-Out	90.33	ppm	SO2	48.8	ppm
Wed	12/06/06	16:47:26	O2	3.21	%	CO2	10.84	%	CO	79.10	ppm	CH4-Out	3.91	ppm	NOx-Out	88.13	ppm	SO2	48.8	ppm
Wed	12/06/06	16:47:36	O2	3.10	%	CO2	10.77	%	CO	98.14	ppm	CH4-Out	3.27	ppm	NOx-Out	85.69	ppm	SO2	48.8	ppm
Wed	12/06/06	16:47:46	O2	4.03	%	CO2	10.69	%	CO	98.63	ppm	CH4-Out	3.22	ppm	NOx-Out	84.23	ppm	SO2	48.8	ppm
Wed	12/06/06	16:47:56	O2	3.32	%	CO2	10.40	%	CO	98.63	ppm	CH4-Out	3.27	ppm	NOx-Out	83.01	ppm	SO2	48.8	ppm
Wed	12/06/06	16:48:06	O2	3.05	%	CO2	10.77	%	CO	98.63	ppm	CH4-Out	3.37	ppm	NOx-Out	85.94	ppm	SO2	48.8	ppm
Wed	12/06/06	16:48:16	O2	2.95	%	CO2	10.99	%	CO	98.63	ppm	CH4-Out	3.27	ppm	NOx-Out	84.47	ppm	SO2	48.8	ppm
Wed	12/06/06	16:48:26	O2	2.89	%	CO2	10.99	%	CO	98.63	ppm	CH4-Out	3.22	ppm	NOx-Out	83.50	ppm	SO2	48.8	ppm
Wed	12/06/06	16:48:36	O2	2.86	%	CO2	10.77	%	CO	98.63	ppm	CH4-Out	3.03	ppm	NOx-Out	79.59	ppm	SO2	48.8	ppm
Wed	12/06/06	16:48:46	O2	2.84	%	CO2	10.55	%	CO	98.14	ppm	CH4-Out	2.88	ppm	NOx-Out	73.49	ppm	SO2	48.8	ppm
Wed	12/06/06	16:48:56	O2	2.81	%	CO2	10.55	%	CO	98.63	ppm	CH4-Out	3.08	ppm	NOx-Out	71.04	ppm	SO2	48.8	ppm
Wed	12/06/06	16:49:06	O2	2.76	%	CO2	10.33	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	67.63	ppm	SO2	48.8	ppm
Wed	12/06/06	16:49:16	O2	2.73	%	CO2	10.33	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	62.50	ppm	SO2	48.8	ppm
Wed	12/06/06	16:49:26	O2	2.73	%	CO2	10.18	%	CO	-0.98	ppm	CH4-Out	2.88	ppm	NOx-Out	56.15	ppm	SO2	48.8	ppm
Wed	12/06/06	16:49:36	O2	2.76	%	CO2	10.18	%	CO	-0.98	ppm	CH4-Out	2.83	ppm	NOx-Out	50.78	ppm	SO2	48.8	ppm
Wed	12/06/06	16:49:46	O2	2.78	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	47.61	ppm	SO2	51.3	ppm
Wed	12/06/06	16:49:56	O2	2.78	%	CO2	9.96	%	CO	-0.49	ppm	CH4-Out	2.88	ppm	NOx-Out	45.90	ppm	SO2	48.8	ppm
Wed	12/06/06	16:50:06	O2	2.76	%	CO2	10.11	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	46.14	ppm	SO2	48.8	ppm
Wed	12/06/06	16:50:16	O2	2.75	%	CO2	9.89	%	CO	-0.98	ppm	CH4-Out	3.03	ppm	NOx-Out	47.36	ppm	SO2	48.8	ppm
Wed	12/06/06	16:50:26	O2	2.73	%	CO2	9.81	%	CO	-0.98	ppm	CH4-Out	2.88	ppm	NOx-Out	48.83	ppm	SO2	48.8	ppm
Wed	12/06/06	16:50:36	O2	2.76	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	3.03	ppm	NOx-Out	51.03	ppm	SO2	48.8	ppm
Wed	12/06/06	16:50:46	O2	2.75	%	CO2	9.96	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	53.22	ppm	SO2	48.8	ppm
Wed	12/06/06	16:50:56	O2	2.72	%	CO2	10.11	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	54.20	ppm	SO2	48.8	ppm
Wed	12/06/06	16:51:06	O2	2.71	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	54.44	ppm	SO2	48.8	ppm
Wed	12/06/06	16:51:16	O2	2.73	%	CO2	9.96	%	CO	-0.98	ppm	CH4-Out	3.03	ppm	NOx-Out	52.98	ppm	SO2	48.8	ppm
Wed	12/06/06	16:51:26	O2	2.73	%	CO2	9.89	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	50.54	ppm	SO2	48.8	ppm
Wed	12/06/06	16:51:36	O2	2.73	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	48.83	ppm	SO2	48.8	ppm
Wed	12/06/06	16:51:46	O2	2.73	%	CO2	9.96	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	48.34	ppm	SO2	46.4	ppm
Wed	12/06/06	16:51:56	O2	2.76	%	CO2	9.96	%	CO	-1.46	ppm	CH4-Out	3.08	ppm	NOx-Out	48.58	ppm	SO2	46.4	ppm
Wed	12/06/06	16:52:06	O2	2.77	%	CO2	9.96	%	CO	-0.98	ppm	CH4-Out	3.03	ppm	NOx-Out	49.32	ppm	SO2	46.4	ppm

Wed	12/06/06	16:52:16	O2	2.77	%	CO2	9.81	%	CO	-0.98	ppm	CH4-Out	2.98	ppm	NOx-Out	50.78	ppm	SO2	46.4	ppm
Wed	12/06/06	16:52:26	O2	2.75	%	CO2	9.74	%	CO	-0.98	ppm	CH4-Out	2.78	ppm	NOx-Out	51.76	ppm	SO2	46.4	ppm
Wed	12/06/06	16:52:36	O2	2.75	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	53.22	ppm	SO2	46.4	ppm
Wed	12/06/06	16:52:46	O2	2.75	%	CO2	9.89	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	56.15	ppm	SO2	46.4	ppm
Wed	12/06/06	16:52:56	O2	2.75	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	57.86	ppm	SO2	46.4	ppm
Wed	12/06/06	16:53:06	O2	2.73	%	CO2	9.81	%	CO	-0.98	ppm	CH4-Out	3.17	ppm	NOx-Out	58.11	ppm	SO2	46.4	ppm
Wed	12/06/06	16:53:16	O2	2.75	%	CO2	9.59	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	58.35	ppm	SO2	46.4	ppm
Wed	12/06/06	16:53:26	O2	2.72	%	CO2	9.96	%	CO	-0.98	ppm	CH4-Out	2.59	ppm	NOx-Out	60.06	ppm	SO2	46.4	ppm
Wed	12/06/06	16:53:36	O2	2.72	%	CO2	10.11	%	CO	-0.98	ppm	CH4-Out	2.49	ppm	NOx-Out	61.77	ppm	SO2	46.4	ppm
Wed	12/06/06	16:53:46	O2	2.72	%	CO2	9.96	%	CO	-0.98	ppm	CH4-Out	2.59	ppm	NOx-Out	62.74	ppm	SO2	46.4	ppm
Wed	12/06/06	16:53:56	O2	2.75	%	CO2	9.89	%	CO	-0.98	ppm	CH4-Out	2.69	ppm	NOx-Out	61.28	ppm	SO2	44.0	ppm
Wed	12/06/06	16:54:06	O2	2.76	%	CO2	9.89	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	59.08	ppm	SO2	46.4	ppm
Wed	12/06/06	16:54:16	O2	2.76	%	CO2	9.89	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	61.04	ppm	SO2	46.4	ppm
Wed	12/06/06	16:54:26	O2	2.76	%	CO2	9.96	%	CO	-0.98	ppm	CH4-Out	2.78	ppm	NOx-Out	64.70	ppm	SO2	46.4	ppm
Wed	12/06/06	16:54:36	O2	2.77	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	2.93	ppm	NOx-Out	68.85	ppm	SO2	46.4	ppm
Wed	12/06/06	16:54:46	O2	2.76	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	2.83	ppm	NOx-Out	70.80	ppm	SO2	44.0	ppm
Wed	12/06/06	16:54:56	O2	2.77	%	CO2	10.11	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	71.04	ppm	SO2	46.4	ppm
Wed	12/06/06	16:55:06	O2	2.76	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.64	ppm	NOx-Out	73.49	ppm	SO2	46.4	ppm
Wed	12/06/06	16:55:16	O2	2.76	%	CO2	9.89	%	CO	98.63	ppm	CH4-Out	2.64	ppm	NOx-Out	75.44	ppm	SO2	46.4	ppm
Wed	12/06/06	16:55:26	O2	2.75	%	CO2	10.18	%	CO	-3.42	ppm	CH4-Out	2.49	ppm	NOx-Out	77.64	ppm	SO2	46.4	ppm
Wed	12/06/06	16:55:36	O2	3.47	%	CO2	9.81	%	CO	-3.91	ppm	CH4-Out	2.49	ppm	NOx-Out	77.64	ppm	SO2	46.4	ppm
Wed	12/06/06	16:55:46	O2	3.00	%	CO2	9.81	%	CO	-3.42	ppm	CH4-Out	2.64	ppm	NOx-Out	76.42	ppm	SO2	46.4	ppm
Wed	12/06/06	16:55:56	O2	2.94	%	CO2	9.89	%	CO	-3.91	ppm	CH4-Out	2.64	ppm	NOx-Out	73.97	ppm	SO2	46.4	ppm
Wed	12/06/06	16:56:06	O2	2.95	%	CO2	9.81	%	CO	-3.91	ppm	CH4-Out	2.83	ppm	NOx-Out	67.87	ppm	SO2	46.4	ppm
Wed	12/06/06	16:56:16	O2	2.94	%	CO2	9.67	%	CO	-0.98	ppm	CH4-Out	2.78	ppm	NOx-Out	64.70	ppm	SO2	46.4	ppm
Wed	12/06/06	16:56:26	O2	2.95	%	CO2	9.67	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	68.60	ppm	SO2	46.4	ppm
Wed	12/06/06	16:56:36	O2	2.93	%	CO2	9.81	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	74.46	ppm	SO2	46.4	ppm
Wed	12/06/06	16:56:46	O2	2.93	%	CO2	9.89	%	CO	-0.98	ppm	CH4-Out	2.83	ppm	NOx-Out	76.90	ppm	SO2	46.4	ppm
Wed	12/06/06	16:56:56	O2	2.93	%	CO2	9.67	%	CO	-3.42	ppm	CH4-Out	2.59	ppm	NOx-Out	77.39	ppm	SO2	46.4	ppm
Wed	12/06/06	16:57:06	O2	2.92	%	CO2	9.81	%	CO	98.63	ppm	CH4-Out	2.54	ppm	NOx-Out	77.15	ppm	SO2	46.4	ppm
Wed	12/06/06	16:57:16	O2	2.91	%	CO2	9.59	%	CO	98.63	ppm	CH4-Out	2.54	ppm	NOx-Out	77.88	ppm	SO2	46.4	ppm
Wed	12/06/06	16:57:26	O2	2.91	%	CO2	9.89	%	CO	98.63	ppm	CH4-Out	2.59	ppm	NOx-Out	78.12	ppm	SO2	46.4	ppm
Wed	12/06/06	16:57:36	O2	2.92	%	CO2	9.89	%	CO	-0.98	ppm	CH4-Out	2.69	ppm	NOx-Out	77.64	ppm	SO2	46.4	ppm
Wed	12/06/06	16:57:46	O2	2.88	%	CO2	9.81	%	CO	-3.42	ppm	CH4-Out	2.64	ppm	NOx-Out	75.20	ppm	SO2	46.4	ppm
Wed	12/06/06	16:57:56	O2	2.89	%	CO2	9.89	%	CO	98.63	ppm	CH4-Out	2.59	ppm	NOx-Out	71.78	ppm	SO2	44.0	ppm
Wed	12/06/06	16:58:06	O2	2.93	%	CO2	9.74	%	CO	-0.98	ppm	CH4-Out	2.54	ppm	NOx-Out	66.89	ppm	SO2	41.5	ppm
Wed	12/06/06	16:58:16	O2	2.95	%	CO2	9.52	%	CO	-0.98	ppm	CH4-Out	2.69	ppm	NOx-Out	63.48	ppm	SO2	36.6	ppm
Wed	12/06/06	16:58:26	O2	2.94	%	CO2	9.52	%	CO	-0.98	ppm	CH4-Out	2.59	ppm	NOx-Out	63.48	ppm	SO2	34.2	ppm
Wed	12/06/06	16:58:36	O2	2.91	%	CO2	9.59	%	CO	-0.49	ppm	CH4-Out	2.59	ppm	NOx-Out	66.41	ppm	SO2	34.2	ppm
Wed	12/06/06	16:58:46	O2	2.91	%	CO2	9.67	%	CO	-0.98	ppm	CH4-Out	2.59	ppm	NOx-Out	68.60	ppm	SO2	34.2	ppm
Wed	12/06/06	16:58:56	O2	2.91	%	CO2	9.59	%	CO	-0.98	ppm	CH4-Out	2.64	ppm	NOx-Out	67.63	ppm	SO2	34.2	ppm
Wed	12/06/06	16:59:06	O2	2.88	%	CO2	9.67	%	CO	-1.46	ppm	CH4-Out	2.64	ppm	NOx-Out	66.41	ppm	SO2	36.6	ppm
Wed	12/06/06	16:59:16	O2	2.91	%	CO2	9.67	%	CO	-0.98	ppm	CH4-Out	2.69	ppm	NOx-Out	64.45	ppm	SO2	36.6	ppm
Wed	12/06/06	16:59:26	O2	2.91	%	CO2	9.74	%	CO	-0.98	ppm	CH4-Out	2.64	ppm	NOx-Out	63.96	ppm	SO2	36.6	ppm
Wed	12/06/06	16:59:36	O2	2.88	%	CO2	9.74	%	CO	-0.98	ppm	CH4-Out	2.83	ppm	NOx-Out	63.72	ppm	SO2	36.6	ppm
Wed	12/06/06	16:59:46	O2	2.86	%	CO2	9.74	%	CO	-0.98	ppm	CH4-Out	2.88	ppm	NOx-Out	63.48	ppm	SO2	36.6	ppm
Wed	12/06/06	16:59:56	O2	2.89	%	CO2	9.52	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	62.50	ppm	SO2	36.6	ppm
Wed	12/06/06	17:00:06	O2	2.94	%	CO2	9.67	%	CO	-0.98	ppm	CH4-Out	2.93	ppm	NOx-Out	61.04	ppm	SO2	36.6	ppm
Wed	12/06/06	17:00:16	O2	3.39	%	CO2	9.45	%	CO	-0.98	ppm	CH4-Out	2.78	ppm	NOx-Out	62.01	ppm	SO2	36.6	ppm
Wed	12/06/06	17:00:26	O2	2.92	%	CO2	9.59	%	CO	-0.98	ppm	CH4-Out	2.73	ppm	NOx-Out	64.94	ppm	SO2	39.1	ppm
Wed	12/06/06	17:00:36	O2	2.84	%	CO2	9.96	%	CO	-0.98	ppm	CH4-Out	2.78	ppm	NOx-Out	73.97	ppm	SO2	36.6	ppm
Wed	12/06/06	17:00:46	O2	2.87	%	CO2	10.03	%	CO	-0.98	ppm	CH4-Out	2.93	ppm	NOx-Out	80.08	ppm	SO2	36.6	ppm
Wed	12/06/06	17:00:56	O2	2.88	%	CO2	9.96	%	CO	98.63	ppm	CH4-Out	2.83	ppm	NOx-Out	83.98	ppm	SO2	36.6	ppm
Wed	12/06/06	17:01:06	O2	2.89	%	CO2	9.96	%	CO	-3.91	ppm	CH4-Out	2.83	ppm	NOx-Out	85.21	ppm	SO2	34.2	ppm
Wed	12/06/06	17:01:16	O2	2.91	%	CO2	10.25	%	CO	98.63	ppm	CH4-Out	2.69	ppm	NOx-Out	86.91	ppm	SO2	31.7	ppm

Wed	12/06/06	17:01:26	O2	4.32	%	CO2	9.96	%	CO	98.63	ppm	CH4-Out	2.69	ppm	NOx-Out	89.11	ppm	SO2	31.7	ppm
Wed	12/06/06	17:01:36	O2	5.38	%	CO2	9.01	%	CO	98.14	ppm	CH4-Out	2.73	ppm	NOx-Out	82.03	ppm	SO2	31.7	ppm
Wed	12/06/06	17:01:46	O2	3.70	%	CO2	9.23	%	CO	98.63	ppm	CH4-Out	2.73	ppm	NOx-Out	83.74	ppm	SO2	31.7	ppm
Wed	12/06/06	17:01:56	O2	3.05	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.69	ppm	NOx-Out	85.21	ppm	SO2	31.7	ppm
Wed	12/06/06	17:02:06	O2	3.05	%	CO2	10.18	%	CO	98.63	ppm	CH4-Out	2.64	ppm	NOx-Out	77.88	ppm	SO2	31.7	ppm
Wed	12/06/06	17:02:16	O2	3.09	%	CO2	9.89	%	CO	98.63	ppm	CH4-Out	2.54	ppm	NOx-Out	74.46	ppm	SO2	31.7	ppm
Wed	12/06/06	17:02:26	O2	3.12	%	CO2	9.89	%	CO	-3.91	ppm	CH4-Out	2.59	ppm	NOx-Out	76.90	ppm	SO2	31.7	ppm
Wed	12/06/06	17:02:36	O2	3.12	%	CO2	10.03	%	CO	-3.42	ppm	CH4-Out	2.54	ppm	NOx-Out	83.25	ppm	SO2	34.2	ppm
Wed	12/06/06	17:02:46	O2	3.12	%	CO2	9.96	%	CO	-3.91	ppm	CH4-Out	2.49	ppm	NOx-Out	88.38	ppm	SO2	34.2	ppm
Wed	12/06/06	17:02:56	O2	3.10	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.54	ppm	NOx-Out	88.87	ppm	SO2	34.2	ppm
Wed	12/06/06	17:03:06	O2	3.06	%	CO2	10.11	%	CO	98.14	ppm	CH4-Out	2.54	ppm	NOx-Out	88.62	ppm	SO2	34.2	ppm
Wed	12/06/06	17:03:16	O2	3.08	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.59	ppm	NOx-Out	87.65	ppm	SO2	34.2	ppm
Wed	12/06/06	17:03:26	O2	3.06	%	CO2	9.96	%	CO	98.63	ppm	CH4-Out	2.54	ppm	NOx-Out	84.72	ppm	SO2	34.2	ppm
Wed	12/06/06	17:03:36	O2	3.05	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.44	ppm	NOx-Out	85.45	ppm	SO2	36.6	ppm
Wed	12/06/06	17:03:46	O2	3.05	%	CO2	9.96	%	CO	98.63	ppm	CH4-Out	2.49	ppm	NOx-Out	85.21	ppm	SO2	36.6	ppm
Wed	12/06/06	17:03:56	O2	3.05	%	CO2	10.11	%	CO	98.63	ppm	CH4-Out	2.49	ppm	NOx-Out	85.45	ppm	SO2	36.6	ppm
Wed	12/06/06	17:04:06	O2	3.04	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.44	ppm	NOx-Out	85.94	ppm	SO2	34.2	ppm
Wed	12/06/06	17:04:16	O2	3.04	%	CO2	9.89	%	CO	98.63	ppm	CH4-Out	2.29	ppm	NOx-Out	84.96	ppm	SO2	29.3	ppm
Wed	12/06/06	17:04:26	O2	3.08	%	CO2	9.89	%	CO	98.63	ppm	CH4-Out	2.20	ppm	NOx-Out	80.81	ppm	SO2	29.3	ppm
Wed	12/06/06	17:04:36	O2	3.06	%	CO2	9.81	%	CO	-3.91	ppm	CH4-Out	2.39	ppm	NOx-Out	63.96	ppm	SO2	29.3	ppm
Wed	12/06/06	17:04:46	O2	3.06	%	CO2	9.89	%	CO	-4.39	ppm	CH4-Out	2.34	ppm	NOx-Out	56.88	ppm	SO2	29.3	ppm
Wed	12/06/06	17:04:56	O2	3.09	%	CO2	10.03	%	CO	-3.91	ppm	CH4-Out	2.34	ppm	NOx-Out	41.50	ppm	SO2	29.3	ppm
Wed	12/06/06	17:05:06	O2	3.09	%	CO2	10.11	%	CO	98.63	ppm	CH4-Out	2.25	ppm	NOx-Out	43.95	ppm	SO2	29.3	ppm
Wed	12/06/06	17:05:16	O2	3.08	%	CO2	9.89	%	CO	98.63	ppm	CH4-Out	2.34	ppm	NOx-Out	34.91	ppm	SO2	31.7	ppm
Wed	12/06/06	17:05:26	O2	3.06	%	CO2	9.96	%	CO	98.63	ppm	CH4-Out	2.29	ppm	NOx-Out	36.87	ppm	SO2	31.7	ppm
Wed	12/06/06	17:05:36	O2	3.10	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.29	ppm	NOx-Out	36.38	ppm	SO2	31.7	ppm
Wed	12/06/06	17:05:46	O2	3.15	%	CO2	10.11	%	CO	98.63	ppm	CH4-Out	2.34	ppm	NOx-Out	29.79	ppm	SO2	31.7	ppm
Wed	12/06/06	17:05:56	O2	3.14	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.34	ppm	NOx-Out	33.20	ppm	SO2	31.7	ppm
Wed	12/06/06	17:06:06	O2	3.15	%	CO2	10.18	%	CO	98.14	ppm	CH4-Out	2.29	ppm	NOx-Out	32.23	ppm	SO2	34.2	ppm
Wed	12/06/06	17:06:16	O2	3.15	%	CO2	10.11	%	CO	98.63	ppm	CH4-Out	2.39	ppm	NOx-Out	32.71	ppm	SO2	36.6	ppm
Wed	12/06/06	17:06:26	O2	3.15	%	CO2	9.96	%	CO	98.14	ppm	CH4-Out	2.44	ppm	NOx-Out	32.71	ppm	SO2	39.1	ppm
Wed	12/06/06	17:06:36	O2	3.22	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	2.34	ppm	NOx-Out	34.18	ppm	SO2	39.1	ppm
Wed	12/06/06	17:06:46	O2	3.39	%	CO2	10.18	%	CO	98.63	ppm	CH4-Out	2.29	ppm	NOx-Out	34.18	ppm	SO2	41.5	ppm
Wed	12/06/06	17:06:56	O2	3.58	%	CO2	9.89	%	CO	98.14	ppm	CH4-Out	2.10	ppm	NOx-Out	34.91	ppm	SO2	39.1	ppm
Wed	12/06/06	17:07:06	O2	3.78	%	CO2	9.81	%	CO	98.63	ppm	CH4-Out	1.95	ppm	NOx-Out	34.42	ppm	SO2	39.1	ppm
Wed	12/06/06	17:07:16	O2	5.51	%	CO2	9.08	%	CO	98.63	ppm	CH4-Out	1.95	ppm	NOx-Out	35.40	ppm	SO2	39.1	ppm
Wed	12/06/06	17:07:26	O2	5.80	%	CO2	8.50	%	CO	98.63	ppm	CH4-Out	2.00	ppm	NOx-Out	36.87	ppm	SO2	36.6	ppm
Wed	12/06/06	17:07:36	O2	5.41	%	CO2	8.42	%	CO	98.14	ppm	CH4-Out	1.90	ppm	NOx-Out	34.42	ppm	SO2	31.7	ppm
Wed	12/06/06	17:07:46	O2	3.61	%	CO2	9.23	%	CO	98.63	ppm	CH4-Out	1.95	ppm	NOx-Out	36.38	ppm	SO2	29.3	ppm
Wed	12/06/06	17:07:56	O2	3.19	%	CO2	9.89	%	CO	98.63	ppm	CH4-Out	1.90	ppm	NOx-Out	36.38	ppm	SO2	29.3	ppm
Wed	12/06/06	17:08:06	O2	3.45	%	CO2	10.03	%	CO	98.63	ppm	CH4-Out	1.90	ppm	NOx-Out	34.91	ppm	SO2	29.3	ppm
Wed	12/06/06	17:08:16	O2	3.75	%	CO2	9.74	%	CO	98.63	ppm	CH4-Out	1.81	ppm	NOx-Out	35.16	ppm	SO2	31.7	ppm
Wed	12/06/06	17:08:26	O2	3.82	%	CO2	9.74	%	CO	98.63	ppm	CH4-Out	1.86	ppm	NOx-Out	37.60	ppm	SO2	31.7	ppm
Wed	12/06/06	17:08:36	O2	3.82	%	CO2	9.89	%	CO	64.45	ppm	CH4-Out	1.86	ppm	NOx-Out	39.06	ppm	SO2	31.7	ppm
Wed	12/06/06	17:08:46	O2	3.97	%	CO2	9.74	%	CO	39.06	ppm	CH4-Out	1.86	ppm	NOx-Out	36.62	ppm	SO2	34.2	ppm
Wed	12/06/06	17:08:56	O2	4.19	%	CO2	9.67	%	CO	26.86	ppm	CH4-Out	1.86	ppm	NOx-Out	38.09	ppm	SO2	34.2	ppm
Wed	12/06/06	17:09:06	O2	4.32	%	CO2	9.45	%	CO	21.00	ppm	CH4-Out	1.81	ppm	NOx-Out	37.84	ppm	SO2	36.6	ppm
Wed	12/06/06	17:09:16	O2	4.32	%	CO2	9.52	%	CO	17.58	ppm	CH4-Out	1.81	ppm	NOx-Out	39.31	ppm	SO2	39.1	ppm
Wed	12/06/06	17:09:26	O2	4.30	%	CO2	9.37	%	CO	15.62	ppm	CH4-Out	1.95	ppm	NOx-Out	39.79	ppm	SO2	39.1	ppm
Wed	12/06/06	17:09:36	O2	4.25	%	CO2	9.37	%	CO	14.16	ppm	CH4-Out	1.86	ppm	NOx-Out	35.64	ppm	SO2	41.5	ppm
Wed	12/06/06	17:09:46	O2	4.25	%	CO2	9.37	%	CO	13.18	ppm	CH4-Out	1.86	ppm	NOx-Out	40.28	ppm	SO2	41.5	ppm
Wed	12/06/06	17:09:56	O2	4.35	%	CO2	9.37	%	CO	12.70	ppm	CH4-Out	1.90	ppm	NOx-Out	38.57	ppm	SO2	41.5	ppm
Wed	12/06/06	17:10:06	O2	4.43	%	CO2	9.37	%	CO	12.21	ppm	CH4-Out	1.86	ppm	NOx-Out	41.75	ppm	SO2	44.0	ppm
Wed	12/06/06	17:10:16	O2	4.37	%	CO2	9.30	%	CO	11.72	ppm	CH4-Out	2.00	ppm	NOx-Out	41.50	ppm	SO2	44.0	ppm
Wed	12/06/06	17:10:26	O2	4.25	%	CO2	9.37	%	CO	11.23	ppm	CH4-Out	1.95	ppm	NOx-Out	42.72	ppm	SO2	41.5	ppm

Wed	12/06/06	17:10:36	O2	4.11	%	CO2	9.30	%	CO	10.74	ppm	CH4-Out	2.25	ppm	NOx-Out	42.48	ppm	SO2	41.5	ppm
Wed	12/06/06	17:10:46	O2	4.04	%	CO2	9.45	%	CO	11.23	ppm	CH4-Out	2.00	ppm	NOx-Out	42.24	ppm	SO2	44.0	ppm
Wed	12/06/06	17:10:56	O2	4.17	%	CO2	9.30	%	CO	10.25	ppm	CH4-Out	1.76	ppm	NOx-Out	44.92	ppm	SO2	44.0	ppm
Wed	12/06/06	17:11:06	O2	4.41	%	CO2	9.45	%	CO	10.74	ppm	CH4-Out	1.90	ppm	NOx-Out	37.84	ppm	SO2	44.0	ppm
Wed	12/06/06	17:11:16	O2	4.53	%	CO2	9.37	%	CO	10.74	ppm	CH4-Out	2.05	ppm	NOx-Out	44.43	ppm	SO2	44.0	ppm
Wed	12/06/06	17:11:26	O2	4.58	%	CO2	9.23	%	CO	10.25	ppm	CH4-Out	1.86	ppm	NOx-Out	44.68	ppm	SO2	44.0	ppm
Wed	12/06/06	17:11:36	O2	4.55	%	CO2	9.30	%	CO	10.74	ppm	CH4-Out	1.90	ppm	NOx-Out	43.70	ppm	SO2	44.0	ppm
Wed	12/06/06	17:11:46	O2	4.54	%	CO2	9.45	%	CO	10.74	ppm	CH4-Out	1.81	ppm	NOx-Out	41.50	ppm	SO2	44.0	ppm
Wed	12/06/06	17:11:56	O2	4.58	%	CO2	9.30	%	CO	10.74	ppm	CH4-Out	1.76	ppm	NOx-Out	43.21	ppm	SO2	44.0	ppm
Wed	12/06/06	17:12:06	O2	5.08	%	CO2	9.01	%	CO	10.25	ppm	CH4-Out	1.86	ppm	NOx-Out	42.48	ppm	SO2	44.0	ppm
Wed	12/06/06	17:12:16	O2	4.82	%	CO2	9.16	%	CO	9.77	ppm	CH4-Out	1.81	ppm	NOx-Out	43.46	ppm	SO2	44.0	ppm
Wed	12/06/06	17:12:26	O2	4.68	%	CO2	9.30	%	CO	9.77	ppm	CH4-Out	1.90	ppm	NOx-Out	50.78	ppm	SO2	44.0	ppm
Wed	12/06/06	17:12:36	O2	4.55	%	CO2	9.08	%	CO	8.79	ppm	CH4-Out	1.81	ppm	NOx-Out	55.91	ppm	SO2	44.0	ppm
Wed	12/06/06	17:12:46	O2	4.43	%	CO2	9.23	%	CO	9.28	ppm	CH4-Out	1.86	ppm	NOx-Out	60.30	ppm	SO2	44.0	ppm
Wed	12/06/06	17:12:56	O2	4.42	%	CO2	9.52	%	CO	9.28	ppm	CH4-Out	1.95	ppm	NOx-Out	56.40	ppm	SO2	41.5	ppm
Wed	12/06/06	17:13:06	O2	4.66	%	CO2	9.30	%	CO	9.77	ppm	CH4-Out	2.00	ppm	NOx-Out	61.52	ppm	SO2	41.5	ppm
Wed	12/06/06	17:13:16	O2	4.93	%	CO2	9.16	%	CO	9.28	ppm	CH4-Out	2.00	ppm	NOx-Out	62.01	ppm	SO2	41.5	ppm
Wed	12/06/06	17:13:26	O2	5.07	%	CO2	9.23	%	CO	9.28	ppm	CH4-Out	2.00	ppm	NOx-Out	64.21	ppm	SO2	41.5	ppm
Wed	12/06/06	17:13:36	O2	5.05	%	CO2	9.37	%	CO	9.28	ppm	CH4-Out	1.90	ppm	NOx-Out	63.96	ppm	SO2	41.5	ppm
Wed	12/06/06	17:13:46	O2	4.99	%	CO2	9.30	%	CO	8.79	ppm	CH4-Out	1.81	ppm	NOx-Out	64.45	ppm	SO2	41.5	ppm
Wed	12/06/06	17:13:56	O2	4.96	%	CO2	9.30	%	CO	9.28	ppm	CH4-Out	1.86	ppm	NOx-Out	65.92	ppm	SO2	44.0	ppm
Wed	12/06/06	17:14:06	O2	4.93	%	CO2	9.01	%	CO	9.28	ppm	CH4-Out	1.95	ppm	NOx-Out	63.96	ppm	SO2	44.0	ppm
Wed	12/06/06	17:14:16	O2	4.91	%	CO2	9.01	%	CO	8.79	ppm	CH4-Out	2.00	ppm	NOx-Out	67.87	ppm	SO2	44.0	ppm
Wed	12/06/06	17:14:26	O2	4.91	%	CO2	9.01	%	CO	9.28	ppm	CH4-Out	2.05	ppm	NOx-Out	71.04	ppm	SO2	44.0	ppm
Wed	12/06/06	17:14:36	O2	4.90	%	CO2	9.01	%	CO	8.79	ppm	CH4-Out	2.15	ppm	NOx-Out	73.97	ppm	SO2	44.0	ppm
Wed	12/06/06	17:14:46	O2	4.81	%	CO2	9.01	%	CO	8.79	ppm	CH4-Out	2.34	ppm	NOx-Out	80.32	ppm	SO2	44.0	ppm
Wed	12/06/06	17:14:56	O2	4.76	%	CO2	8.94	%	CO	8.79	ppm	CH4-Out	2.20	ppm	NOx-Out	46.14	ppm	SO2	41.5	ppm
Wed	12/06/06	17:15:06	O2	4.81	%	CO2	9.01	%	CO	62.01	ppm	CH4-Out	2.29	ppm	NOx-Out	42.97	ppm	SO2	41.5	ppm
Wed	12/06/06	17:15:16	O2	4.79	%	CO2	9.16	%	CO	79.59	ppm	CH4-Out	2.15	ppm	NOx-Out	62.26	ppm	SO2	41.5	ppm
Wed	12/06/06	17:15:26	O2	4.96	%	CO2	8.94	%	CO	62.99	ppm	CH4-Out	2.00	ppm	NOx-Out	67.14	ppm	SO2	29.3	ppm
Wed	12/06/06	17:15:36	O2	4.99	%	CO2	8.94	%	CO	29.79	ppm	CH4-Out	2.15	ppm	NOx-Out	125.49	ppm	SO2	24.4	ppm
Wed	12/06/06	17:15:46	O2	5.03	%	CO2	8.94	%	CO	19.04	ppm	CH4-Out	2.25	ppm	NOx-Out	134.03	ppm	SO2	24.4	ppm
Wed	12/06/06	17:15:56	O2	5.07	%	CO2	8.94	%	CO	20.02	ppm	CH4-Out	2.34	ppm	NOx-Out	135.25	ppm	SO2	24.4	ppm
Wed	12/06/06	17:16:06	O2	5.07	%	CO2	8.94	%	CO	23.44	ppm	CH4-Out	2.39	ppm	NOx-Out	136.72	ppm	SO2	24.4	ppm
Wed	12/06/06	17:16:16	O2	5.07	%	CO2	8.86	%	CO	26.37	ppm	CH4-Out	2.39	ppm	NOx-Out	134.52	ppm	SO2	22.0	ppm
Wed	12/06/06	17:16:26	O2	5.08	%	CO2	9.01	%	CO	26.37	ppm	CH4-Out	2.34	ppm	NOx-Out	120.85	ppm	SO2	22.0	ppm
Wed	12/06/06	17:16:36	O2	5.13	%	CO2	8.94	%	CO	20.02	ppm	CH4-Out	2.10	ppm	NOx-Out	136.47	ppm	SO2	22.0	ppm
Wed	12/06/06	17:16:46	O2	5.08	%	CO2	8.86	%	CO	14.16	ppm	CH4-Out	2.10	ppm	NOx-Out	141.60	ppm	SO2	24.4	ppm
Wed	12/06/06	17:16:56	O2	5.03	%	CO2	8.94	%	CO	13.67	ppm	CH4-Out	2.15	ppm	NOx-Out	141.60	ppm	SO2	22.0	ppm
Wed	12/06/06	17:17:06	O2	4.93	%	CO2	9.01	%	CO	14.16	ppm	CH4-Out	2.25	ppm	NOx-Out	140.38	ppm	SO2	22.0	ppm
Wed	12/06/06	17:17:16	O2	4.94	%	CO2	8.79	%	CO	15.14	ppm	CH4-Out	2.44	ppm	NOx-Out	140.14	ppm	SO2	24.4	ppm
Wed	12/06/06	17:17:26	O2	4.94	%	CO2	8.86	%	CO	15.62	ppm	CH4-Out	2.25	ppm	NOx-Out	138.43	ppm	SO2	24.4	ppm
Wed	12/06/06	17:17:36	O2	4.96	%	CO2	8.94	%	CO	16.11	ppm	CH4-Out	2.05	ppm	NOx-Out	137.94	ppm	SO2	24.4	ppm
Wed	12/06/06	17:17:46	O2	4.97	%	CO2	9.01	%	CO	16.11	ppm	CH4-Out	1.90	ppm	NOx-Out	129.15	ppm	SO2	24.4	ppm
Wed	12/06/06	17:17:56	O2	5.03	%	CO2	8.94	%	CO	16.11	ppm	CH4-Out	1.81	ppm	NOx-Out	139.40	ppm	SO2	24.4	ppm
Wed	12/06/06	17:18:06	O2	5.37	%	CO2	8.72	%	CO	18.55	ppm	CH4-Out	1.76	ppm	NOx-Out	141.85	ppm	SO2	24.4	ppm
Wed	12/06/06	17:18:16	O2	5.37	%	CO2	8.64	%	CO	21.48	ppm	CH4-Out	1.95	ppm	NOx-Out	141.36	ppm	SO2	24.4	ppm
Wed	12/06/06	17:18:26	O2	5.38	%	CO2	8.64	%	CO	17.58	ppm	CH4-Out	2.20	ppm	NOx-Out	139.40	ppm	SO2	24.4	ppm
Wed	12/06/06	17:18:36	O2	5.40	%	CO2	8.64	%	CO	12.21	ppm	CH4-Out	2.15	ppm	NOx-Out	137.94	ppm	SO2	24.4	ppm
Wed	12/06/06	17:18:46	O2	5.53	%	CO2	8.79	%	CO	8.30	ppm	CH4-Out	2.00	ppm	NOx-Out	137.45	ppm	SO2	26.9	ppm
Wed	12/06/06	17:18:56	O2	5.64	%	CO2	8.57	%	CO	8.30	ppm	CH4-Out	1.90	ppm	NOx-Out	137.45	ppm	SO2	24.4	ppm
Wed	12/06/06	17:19:06	O2	5.65	%	CO2	8.57	%	CO	6.84	ppm	CH4-Out	1.81	ppm	NOx-Out	135.74	ppm	SO2	26.9	ppm
Wed	12/06/06	17:19:16	O2	5.65	%	CO2	8.72	%	CO	6.35	ppm	CH4-Out	1.81	ppm	NOx-Out	135.01	ppm	SO2	26.9	ppm
Wed	12/06/06	17:19:26	O2	5.57	%	CO2	8.72	%	CO	5.86	ppm	CH4-Out	2.05	ppm	NOx-Out	135.50	ppm	SO2	26.9	ppm
Wed	12/06/06	17:19:36	O2	5.44	%	CO2	8.79	%	CO	5.86	ppm	CH4-Out	1.95	ppm	NOx-Out	134.77	ppm	SO2	26.9	ppm

Wed	12/06/06	17:19:46	O2	5.41	%	CO2	8.72	%	CO	5.86	ppm	CH4-Out	1.95	ppm	NOx-Out	134.28	ppm	SO2	26.9	ppm
Wed	12/06/06	17:19:56	O2	5.44	%	CO2	8.64	%	CO	5.86	ppm	CH4-Out	1.95	ppm	NOx-Out	134.52	ppm	SO2	26.9	ppm
Wed	12/06/06	17:20:06	O2	5.46	%	CO2	8.57	%	CO	5.86	ppm	CH4-Out	1.81	ppm	NOx-Out	134.28	ppm	SO2	29.3	ppm
Wed	12/06/06	17:20:16	O2	5.37	%	CO2	8.72	%	CO	5.86	ppm	CH4-Out	1.90	ppm	NOx-Out	133.06	ppm	SO2	29.3	ppm
Wed	12/06/06	17:20:26	O2	5.33	%	CO2	8.86	%	CO	5.86	ppm	CH4-Out	1.95	ppm	NOx-Out	131.84	ppm	SO2	29.3	ppm
Wed	12/06/06	17:20:36	O2	5.32	%	CO2	8.79	%	CO	5.86	ppm	CH4-Out	1.90	ppm	NOx-Out	130.13	ppm	SO2	29.3	ppm
Wed	12/06/06	17:20:46	O2	5.33	%	CO2	8.79	%	CO	5.86	ppm	CH4-Out	1.81	ppm	NOx-Out	128.91	ppm	SO2	29.3	ppm
Wed	12/06/06	17:20:56	O2	5.33	%	CO2	8.79	%	CO	5.86	ppm	CH4-Out	1.90	ppm	NOx-Out	127.93	ppm	SO2	29.3	ppm
Wed	12/06/06	17:21:06	O2	5.79	%	CO2	8.79	%	CO	5.86	ppm	CH4-Out	1.81	ppm	NOx-Out	127.69	ppm	SO2	29.3	ppm
Wed	12/06/06	17:21:16	O2	5.38	%	CO2	8.64	%	CO	5.86	ppm	CH4-Out	1.86	ppm	NOx-Out	123.29	ppm	SO2	29.3	ppm
Wed	12/06/06	17:21:26	O2	5.09	%	CO2	9.16	%	CO	6.35	ppm	CH4-Out	1.86	ppm	NOx-Out	127.44	ppm	SO2	29.3	ppm
Wed	12/06/06	17:21:36	O2	5.07	%	CO2	8.86	%	CO	6.35	ppm	CH4-Out	1.95	ppm	NOx-Out	128.66	ppm	SO2	29.3	ppm
Wed	12/06/06	17:21:46	O2	5.08	%	CO2	9.08	%	CO	7.32	ppm	CH4-Out	1.95	ppm	NOx-Out	128.66	ppm	SO2	31.7	ppm
Wed	12/06/06	17:21:56	O2	5.05	%	CO2	9.16	%	CO	7.81	ppm	CH4-Out	1.95	ppm	NOx-Out	127.93	ppm	SO2	31.7	ppm
Wed	12/06/06	17:22:06	O2	4.99	%	CO2	9.01	%	CO	8.30	ppm	CH4-Out	2.20	ppm	NOx-Out	126.95	ppm	SO2	31.7	ppm
Wed	12/06/06	17:22:16	O2	4.96	%	CO2	9.16	%	CO	8.79	ppm	CH4-Out	2.10	ppm	NOx-Out	127.20	ppm	SO2	31.7	ppm
Wed	12/06/06	17:22:26	O2	4.90	%	CO2	9.23	%	CO	9.28	ppm	CH4-Out	2.15	ppm	NOx-Out	125.98	ppm	SO2	31.7	ppm
Wed	12/06/06	17:22:36	O2	4.81	%	CO2	9.16	%	CO	9.77	ppm	CH4-Out	2.20	ppm	NOx-Out	125.73	ppm	SO2	31.7	ppm
Wed	12/06/06	17:22:46	O2	4.80	%	CO2	9.23	%	CO	9.28	ppm	CH4-Out	2.34	ppm	NOx-Out	125.24	ppm	SO2	31.7	ppm
Wed	12/06/06	17:22:56	O2	4.80	%	CO2	9.23	%	CO	7.81	ppm	CH4-Out	2.25	ppm	NOx-Out	125.24	ppm	SO2	34.2	ppm
Wed	12/06/06	17:23:06	O2	4.76	%	CO2	9.37	%	CO	6.35	ppm	CH4-Out	2.15	ppm	NOx-Out	124.02	ppm	SO2	31.7	ppm
Wed	12/06/06	17:23:16	O2	4.76	%	CO2	9.45	%	CO	6.35	ppm	CH4-Out	2.20	ppm	NOx-Out	122.80	ppm	SO2	34.2	ppm
Wed	12/06/06	17:23:26	O2	4.76	%	CO2	9.16	%	CO	6.35	ppm	CH4-Out	2.15	ppm	NOx-Out	124.27	ppm	SO2	31.7	ppm
Wed	12/06/06	17:23:36	O2	4.77	%	CO2	9.37	%	CO	5.86	ppm	CH4-Out	2.10	ppm	NOx-Out	120.12	ppm	SO2	31.7	ppm
Wed	12/06/06	17:23:46	O2	4.82	%	CO2	9.30	%	CO	5.86	ppm	CH4-Out	2.10	ppm	NOx-Out	120.36	ppm	SO2	31.7	ppm
Wed	12/06/06	17:23:56	O2	4.82	%	CO2	9.45	%	CO	5.86	ppm	CH4-Out	2.15	ppm	NOx-Out	121.58	ppm	SO2	31.7	ppm
Wed	12/06/06	17:24:06	O2	4.77	%	CO2	9.45	%	CO	5.86	ppm	CH4-Out	2.15	ppm	NOx-Out	121.58	ppm	SO2	31.7	ppm
Wed	12/06/06	17:24:16	O2	4.66	%	CO2	9.59	%	CO	5.86	ppm	CH4-Out	2.25	ppm	NOx-Out	119.87	ppm	SO2	31.7	ppm
Wed	12/06/06	17:24:26	O2	4.60	%	CO2	9.67	%	CO	5.86	ppm	CH4-Out	2.34	ppm	NOx-Out	118.41	ppm	SO2	31.7	ppm
Wed	12/06/06	17:24:36	O2	4.55	%	CO2	9.59	%	CO	5.86	ppm	CH4-Out	2.34	ppm	NOx-Out	117.68	ppm	SO2	31.7	ppm
Wed	12/06/06	17:24:46	O2	4.50	%	CO2	9.59	%	CO	5.86	ppm	CH4-Out	2.34	ppm	NOx-Out	116.70	ppm	SO2	31.7	ppm
Wed	12/06/06	17:24:56	O2	4.50	%	CO2	9.59	%	CO	5.86	ppm	CH4-Out	2.29	ppm	NOx-Out	116.46	ppm	SO2	29.3	ppm
Wed	12/06/06	17:25:06	O2	4.53	%	CO2	9.74	%	CO	5.86	ppm	CH4-Out	2.39	ppm	NOx-Out	116.70	ppm	SO2	29.3	ppm
Wed	12/06/06	17:25:16	O2	4.48	%	CO2	9.59	%	CO	6.35	ppm	CH4-Out	2.39	ppm	NOx-Out	115.48	ppm	SO2	29.3	ppm
Wed	12/06/06	17:25:26	O2	4.43	%	CO2	9.74	%	CO	5.86	ppm	CH4-Out	2.39	ppm	NOx-Out	113.53	ppm	SO2	29.3	ppm
Wed	12/06/06	17:25:36	O2	4.36	%	CO2	9.74	%	CO	5.86	ppm	CH4-Out	2.34	ppm	NOx-Out	112.06	ppm	SO2	29.3	ppm
		AVG	O2	4.05	%	CO2	9.80	%	CO	28.30	ppm	CH4-Out	2.65	ppm	NOx-Out	92.34	ppm	SO2	41.6	ppm

Tetra Tech @ Indesco site Dec 6th 2006

Carbon bed outlet

Run # 2

Wed	12/06/06	18:12:07	O2	3.80	%	CO2	11.57	%	CO	98.63	ppm	CH4-Out	0.68	ppm	NOx-Out	77.39	ppm	SO2	17.1
Wed	12/06/06	18:12:16	O2	3.92	%	CO2	11.65	%	CO	98.63	ppm	CH4-Out	0.98	ppm	NOx-Out	78.12	ppm	SO2	17.1
Wed	12/06/06	18:12:26	O2	4.03	%	CO2	11.72	%	CO	98.63	ppm	CH4-Out	1.03	ppm	NOx-Out	79.83	ppm	SO2	17.1
Wed	12/06/06	18:12:36	O2	4.05	%	CO2	11.57	%	CO	98.63	ppm	CH4-Out	1.17	ppm	NOx-Out	82.52	ppm	SO2	17.1
Wed	12/06/06	18:12:46	O2	4.00	%	CO2	11.65	%	CO	87.89	ppm	CH4-Out	1.32	ppm	NOx-Out	85.69	ppm	SO2	17.1
Wed	12/06/06	18:12:56	O2	3.93	%	CO2	11.57	%	CO	47.36	ppm	CH4-Out	1.46	ppm	NOx-Out	87.40	ppm	SO2	17.1
Wed	12/06/06	18:13:06	O2	3.93	%	CO2	11.79	%	CO	27.34	ppm	CH4-Out	1.76	ppm	NOx-Out	86.91	ppm	SO2	17.1
Wed	12/06/06	18:13:16	O2	4.00	%	CO2	11.87	%	CO	16.11	ppm	CH4-Out	1.76	ppm	NOx-Out	86.18	ppm	SO2	17.1
Wed	12/06/06	18:13:26	O2	4.02	%	CO2	11.94	%	CO	11.23	ppm	CH4-Out	1.86	ppm	NOx-Out	86.67	ppm	SO2	17.1
Wed	12/06/06	18:13:36	O2	3.94	%	CO2	11.87	%	CO	8.79	ppm	CH4-Out	2.15	ppm	NOx-Out	88.13	ppm	SO2	17.1
Wed	12/06/06	18:13:46	O2	3.81	%	CO2	11.72	%	CO	14.65	ppm	CH4-Out	2.20	ppm	NOx-Out	87.40	ppm	SO2	17.1
Wed	12/06/06	18:13:56	O2	3.66	%	CO2	11.65	%	CO	62.50	ppm	CH4-Out	2.29	ppm	NOx-Out	86.43	ppm	SO2	17.1
Wed	12/06/06	18:14:06	O2	3.61	%	CO2	11.57	%	CO	98.63	ppm	CH4-Out	2.39	ppm	NOx-Out	84.96	ppm	SO2	17.1
Wed	12/06/06	18:14:16	O2	3.69	%	CO2	11.57	%	CO	98.63	ppm	CH4-Out	2.59	ppm	NOx-Out	83.98	ppm	SO2	17.1
Wed	12/06/06	18:14:26	O2	3.86	%	CO2	11.50	%	CO	98.63	ppm	CH4-Out	2.69	ppm	NOx-Out	83.98	ppm	SO2	17.1
Wed	12/06/06	18:14:36	O2	4.00	%	CO2	11.50	%	CO	98.63	ppm	CH4-Out	2.73	ppm	NOx-Out	87.89	ppm	SO2	17.1
Wed	12/06/06	18:14:46	O2	4.11	%	CO2	11.35	%	CO	98.63	ppm	CH4-Out	2.78	ppm	NOx-Out	94.24	ppm	SO2	17.1
Wed	12/06/06	18:14:56	O2	4.14	%	CO2	11.50	%	CO	98.63	ppm	CH4-Out	2.98	ppm	NOx-Out	99.61	ppm	SO2	17.1
Wed	12/06/06	18:15:06	O2	4.13	%	CO2	11.43	%	CO	98.63	ppm	CH4-Out	3.56	ppm	NOx-Out	102.54	ppm	SO2	17.1
Wed	12/06/06	18:15:16	O2	4.20	%	CO2	11.35	%	CO	50.29	ppm	CH4-Out	4.69	ppm	NOx-Out	104.25	ppm	SO2	17.1
Wed	12/06/06	18:15:26	O2	4.32	%	CO2	11.21	%	CO	27.34	ppm	CH4-Out	4.88	ppm	NOx-Out	104.49	ppm	SO2	17.1
Wed	12/06/06	18:15:36	O2	4.35	%	CO2	11.28	%	CO	15.62	ppm	CH4-Out	4.00	ppm	NOx-Out	105.96	ppm	SO2	17.1
Wed	12/06/06	18:15:46	O2	4.15	%	CO2	11.50	%	CO	9.77	ppm	CH4-Out	3.96	ppm	NOx-Out	107.42	ppm	SO2	17.1
Wed	12/06/06	18:15:56	O2	3.87	%	CO2	11.57	%	CO	10.74	ppm	CH4-Out	6.05	ppm	NOx-Out	107.42	ppm	SO2	17.1
Wed	12/06/06	18:16:06	O2	3.74	%	CO2	11.57	%	CO	55.18	ppm	CH4-Out	5.57	ppm	NOx-Out	104.49	ppm	SO2	17.1
Wed	12/06/06	18:16:16	O2	3.76	%	CO2	11.35	%	CO	98.63	ppm	CH4-Out	4.44	ppm	NOx-Out	99.85	ppm	SO2	17.1
Wed	12/06/06	18:16:26	O2	3.91	%	CO2	11.13	%	CO	98.63	ppm	CH4-Out	5.91	ppm	NOx-Out	97.41	ppm	SO2	17.1
Wed	12/06/06	18:16:36	O2	4.03	%	CO2	11.13	%	CO	98.63	ppm	CH4-Out	5.71	ppm	NOx-Out	98.88	ppm	SO2	17.1
Wed	12/06/06	18:16:46	O2	4.09	%	CO2	11.28	%	CO	98.63	ppm	CH4-Out	5.62	ppm	NOx-Out	103.52	ppm	SO2	17.1
Wed	12/06/06	18:16:56	O2	4.10	%	CO2	11.13	%	CO	98.63	ppm	CH4-Out	4.98	ppm	NOx-Out	107.67	ppm	SO2	17.1
Wed	12/06/06	18:17:06	O2	4.16	%	CO2	11.13	%	CO	69.34	ppm	CH4-Out	5.42	ppm	NOx-Out	111.57	ppm	SO2	17.1
Wed	12/06/06	18:17:16	O2	4.25	%	CO2	11.06	%	CO	35.16	ppm	CH4-Out	5.08	ppm	NOx-Out	114.01	ppm	SO2	17.1
Wed	12/06/06	18:17:26	O2	4.31	%	CO2	10.84	%	CO	19.53	ppm	CH4-Out	4.30	ppm	NOx-Out	115.97	ppm	SO2	17.1
Wed	12/06/06	18:17:36	O2	4.28	%	CO2	10.84	%	CO	11.72	ppm	CH4-Out	6.05	ppm	NOx-Out	117.92	ppm	SO2	17.1
Wed	12/06/06	18:17:46	O2	4.15	%	CO2	11.06	%	CO	8.30	ppm	CH4-Out	5.66	ppm	NOx-Out	120.85	ppm	SO2	17.1
Wed	12/06/06	18:17:56	O2	3.98	%	CO2	11.21	%	CO	7.81	ppm	CH4-Out	6.01	ppm	NOx-Out	120.12	ppm	SO2	17.1
Wed	12/06/06	18:18:06	O2	3.83	%	CO2	11.28	%	CO	41.99	ppm	CH4-Out	5.52	ppm	NOx-Out	118.16	ppm	SO2	17.1
Wed	12/06/06	18:18:16	O2	3.77	%	CO2	11.13	%	CO	98.63	ppm	CH4-Out	5.57	ppm	NOx-Out	113.28	ppm	SO2	17.1
Wed	12/06/06	18:18:26	O2	3.96	%	CO2	11.21	%	CO	98.63	ppm	CH4-Out	5.57	ppm	NOx-Out	105.96	ppm	SO2	17.1
Wed	12/06/06	18:18:36	O2	4.11	%	CO2	11.13	%	CO	98.63	ppm	CH4-Out	5.76	ppm	NOx-Out	105.47	ppm	SO2	17.1
Wed	12/06/06	18:18:46	O2	4.08	%	CO2	11.06	%	CO	98.63	ppm	CH4-Out	5.32	ppm	NOx-Out	110.84	ppm	SO2	17.1
Wed	12/06/06	18:18:56	O2	4.02	%	CO2	11.28	%	CO	98.63	ppm	CH4-Out	5.27	ppm	NOx-Out	115.23	ppm	SO2	17.1
Wed	12/06/06	18:19:06	O2	3.98	%	CO2	11.13	%	CO	98.63	ppm	CH4-Out	5.47	ppm	NOx-Out	113.53	ppm	SO2	17.1
Wed	12/06/06	18:19:16	O2	3.93	%	CO2	11.06	%	CO	60.06	ppm	CH4-Out	5.42	ppm	NOx-Out	111.82	ppm	SO2	17.1
Wed	12/06/06	18:19:26	O2	3.88	%	CO2	11.21	%	CO	32.23	ppm	CH4-Out	5.66	ppm	NOx-Out	109.13	ppm	SO2	17.1
Wed	12/06/06	18:19:36	O2	3.87	%	CO2	11.06	%	CO	18.55	ppm	CH4-Out	5.42	ppm	NOx-Out	107.18	ppm	SO2	17.1
Wed	12/06/06	18:19:46	O2	3.80	%	CO2	10.91	%	CO	21.48	ppm	CH4-Out	5.66	ppm	NOx-Out	106.69	ppm	SO2	17.1
Wed	12/06/06	18:19:56	O2	3.63	%	CO2	10.69	%	CO	94.24	ppm	CH4-Out	5.62	ppm	NOx-Out	105.22	ppm	SO2	17.1

Wed	12/06/06	18:20:06	O2	3.54	%	CO2	11.43	%	CO	98.63	ppm	CH4-Out	4.44	ppm	NOx-Out	101.56	ppm	SO2	17.1
Wed	12/06/06	18:20:16	O2	3.50	%	CO2	11.72	%	CO	98.63	ppm	CH4-Out	4.83	ppm	NOx-Out	96.68	ppm	SO2	17.1
Wed	12/06/06	18:20:26	O2	3.52	%	CO2	11.72	%	CO	98.63	ppm	CH4-Out	5.03	ppm	NOx-Out	91.55	ppm	SO2	17.1
Wed	12/06/06	18:20:36	O2	3.63	%	CO2	11.79	%	CO	98.63	ppm	CH4-Out	6.54	ppm	NOx-Out	89.11	ppm	SO2	17.1
Wed	12/06/06	18:20:46	O2	3.74	%	CO2	11.65	%	CO	98.63	ppm	CH4-Out	6.01	ppm	NOx-Out	92.29	ppm	SO2	17.1
Wed	12/06/06	18:20:56	O2	3.81	%	CO2	11.79	%	CO	98.63	ppm	CH4-Out	5.81	ppm	NOx-Out	96.68	ppm	SO2	17.1
Wed	12/06/06	18:21:06	O2	3.89	%	CO2	11.79	%	CO	98.63	ppm	CH4-Out	5.32	ppm	NOx-Out	99.12	ppm	SO2	17.1
Wed	12/06/06	18:21:16	O2	3.88	%	CO2	12.01	%	CO	98.63	ppm	CH4-Out	6.25	ppm	NOx-Out	102.05	ppm	SO2	17.1
Wed	12/06/06	18:21:26	O2	3.88	%	CO2	11.87	%	CO	98.63	ppm	CH4-Out	6.15	ppm	NOx-Out	104.74	ppm	SO2	17.1
Wed	12/06/06	18:21:36	O2	3.93	%	CO2	11.57	%	CO	98.63	ppm	CH4-Out	5.62	ppm	NOx-Out	105.96	ppm	SO2	17.1
Wed	12/06/06	18:21:46	O2	3.98	%	CO2	11.65	%	CO	75.20	ppm	CH4-Out	4.93	ppm	NOx-Out	105.47	ppm	SO2	17.1
Wed	12/06/06	18:21:56	O2	3.92	%	CO2	11.65	%	CO	40.04	ppm	CH4-Out	4.39	ppm	NOx-Out	105.47	ppm	SO2	17.1
Wed	12/06/06	18:22:06	O2	3.81	%	CO2	11.57	%	CO	23.44	ppm	CH4-Out	4.79	ppm	NOx-Out	104.98	ppm	SO2	17.1
Wed	12/06/06	18:22:16	O2	3.70	%	CO2	11.50	%	CO	20.02	ppm	CH4-Out	5.62	ppm	NOx-Out	103.27	ppm	SO2	17.1
Wed	12/06/06	18:22:26	O2	3.71	%	CO2	11.65	%	CO	39.55	ppm	CH4-Out	5.96	ppm	NOx-Out	101.56	ppm	SO2	17.1
Wed	12/06/06	18:22:36	O2	3.91	%	CO2	11.50	%	CO	73.24	ppm	CH4-Out	5.18	ppm	NOx-Out	99.61	ppm	SO2	17.1
Wed	12/06/06	18:22:46	O2	4.10	%	CO2	11.50	%	CO	85.45	ppm	CH4-Out	5.66	ppm	NOx-Out	101.32	ppm	SO2	17.1
Wed	12/06/06	18:22:56	O2	4.14	%	CO2	11.43	%	CO	69.34	ppm	CH4-Out	5.52	ppm	NOx-Out	107.18	ppm	SO2	17.1
Wed	12/06/06	18:23:06	O2	4.10	%	CO2	11.50	%	CO	43.95	ppm	CH4-Out	4.98	ppm	NOx-Out	111.57	ppm	SO2	17.1
Wed	12/06/06	18:23:16	O2	4.08	%	CO2	11.43	%	CO	26.37	ppm	CH4-Out	5.62	ppm	NOx-Out	112.55	ppm	SO2	17.1
Wed	12/06/06	18:23:26	O2	4.25	%	CO2	11.43	%	CO	16.11	ppm	CH4-Out	5.57	ppm	NOx-Out	110.84	ppm	SO2	17.1
Wed	12/06/06	18:23:36	O2	4.22	%	CO2	11.28	%	CO	11.23	ppm	CH4-Out	5.18	ppm	NOx-Out	111.33	ppm	SO2	17.1
Wed	12/06/06	18:23:46	O2	4.31	%	CO2	11.28	%	CO	8.30	ppm	CH4-Out	4.88	ppm	NOx-Out	112.06	ppm	SO2	17.1
Wed	12/06/06	18:23:56	O2	4.33	%	CO2	11.43	%	CO	6.84	ppm	CH4-Out	4.88	ppm	NOx-Out	113.77	ppm	SO2	17.1
Wed	12/06/06	18:24:06	O2	4.30	%	CO2	11.65	%	CO	6.35	ppm	CH4-Out	4.79	ppm	NOx-Out	114.26	ppm	SO2	17.1
Wed	12/06/06	18:24:16	O2	4.20	%	CO2	11.72	%	CO	5.37	ppm	CH4-Out	4.83	ppm	NOx-Out	113.53	ppm	SO2	17.1
Wed	12/06/06	18:24:26	O2	4.06	%	CO2	11.50	%	CO	5.37	ppm	CH4-Out	4.93	ppm	NOx-Out	111.57	ppm	SO2	17.1
Wed	12/06/06	18:24:36	O2	4.00	%	CO2	11.57	%	CO	5.86	ppm	CH4-Out	4.69	ppm	NOx-Out	110.11	ppm	SO2	17.1
Wed	12/06/06	18:24:46	O2	3.99	%	CO2	11.57	%	CO	6.35	ppm	CH4-Out	4.54	ppm	NOx-Out	108.40	ppm	SO2	17.1
Wed	12/06/06	18:24:56	O2	4.05	%	CO2	11.57	%	CO	6.35	ppm	CH4-Out	4.54	ppm	NOx-Out	106.93	ppm	SO2	17.1
Wed	12/06/06	18:25:06	O2	4.10	%	CO2	11.35	%	CO	6.84	ppm	CH4-Out	4.54	ppm	NOx-Out	107.42	ppm	SO2	17.1
Wed	12/06/06	18:25:16	O2	4.15	%	CO2	11.28	%	CO	6.35	ppm	CH4-Out	4.69	ppm	NOx-Out	110.35	ppm	SO2	14.7
Wed	12/06/06	18:25:26	O2	4.24	%	CO2	11.13	%	CO	5.86	ppm	CH4-Out	4.10	ppm	NOx-Out	111.08	ppm	SO2	17.1
Wed	12/06/06	18:25:36	O2	4.43	%	CO2	11.06	%	CO	5.37	ppm	CH4-Out	3.81	ppm	NOx-Out	110.84	ppm	SO2	17.1
Wed	12/06/06	18:25:46	O2	4.59	%	CO2	11.13	%	CO	5.37	ppm	CH4-Out	4.05	ppm	NOx-Out	112.06	ppm	SO2	17.1
Wed	12/06/06	18:25:56	O2	4.71	%	CO2	11.13	%	CO	4.88	ppm	CH4-Out	5.03	ppm	NOx-Out	114.50	ppm	SO2	17.1
Wed	12/06/06	18:26:06	O2	4.69	%	CO2	11.13	%	CO	4.88	ppm	CH4-Out	4.93	ppm	NOx-Out	117.19	ppm	SO2	17.1
Wed	12/06/06	18:26:16	O2	4.61	%	CO2	11.28	%	CO	4.88	ppm	CH4-Out	4.74	ppm	NOx-Out	119.14	ppm	SO2	17.1
Wed	12/06/06	18:26:26	O2	4.35	%	CO2	11.13	%	CO	4.88	ppm	CH4-Out	4.49	ppm	NOx-Out	118.16	ppm	SO2	17.1
Wed	12/06/06	18:26:36	O2	4.24	%	CO2	11.28	%	CO	4.88	ppm	CH4-Out	4.83	ppm	NOx-Out	116.70	ppm	SO2	17.1
Wed	12/06/06	18:26:46	O2	4.36	%	CO2	11.21	%	CO	5.37	ppm	CH4-Out	4.59	ppm	NOx-Out	113.53	ppm	SO2	17.1
Wed	12/06/06	18:26:56	O2	4.61	%	CO2	10.99	%	CO	5.37	ppm	CH4-Out	4.25	ppm	NOx-Out	112.55	ppm	SO2	17.1
Wed	12/06/06	18:27:06	O2	4.88	%	CO2	11.13	%	CO	5.37	ppm	CH4-Out	3.91	ppm	NOx-Out	115.97	ppm	SO2	17.1
Wed	12/06/06	18:27:16	O2	5.03	%	CO2	10.84	%	CO	4.39	ppm	CH4-Out	4.30	ppm	NOx-Out	123.05	ppm	SO2	17.1
Wed	12/06/06	18:27:26	O2	5.13	%	CO2	11.06	%	CO	4.39	ppm	CH4-Out	4.30	ppm	NOx-Out	130.13	ppm	SO2	17.1
Wed	12/06/06	18:27:36	O2	5.18	%	CO2	10.91	%	CO	4.39	ppm	CH4-Out	4.05	ppm	NOx-Out	135.01	ppm	SO2	17.1
Wed	12/06/06	18:27:46	O2	5.22	%	CO2	11.06	%	CO	4.39	ppm	CH4-Out	3.61	ppm	NOx-Out	137.21	ppm	SO2	17.1
Wed	12/06/06	18:27:56	O2	5.31	%	CO2	11.06	%	CO	3.91	ppm	CH4-Out	4.25	ppm	NOx-Out	137.94	ppm	SO2	17.1
Wed	12/06/06	18:28:06	O2	5.31	%	CO2	11.28	%	CO	3.91	ppm	CH4-Out	4.20	ppm	NOx-Out	137.94	ppm	SO2	17.1
Wed	12/06/06	18:28:16	O2	5.20	%	CO2	11.13	%	CO	4.39	ppm	CH4-Out	4.10	ppm	NOx-Out	137.45	ppm	SO2	17.1
Wed	12/06/06	18:28:26	O2	5.03	%	CO2	10.91	%	CO	4.39	ppm	CH4-Out	4.15	ppm	NOx-Out	135.99	ppm	SO2	17.1
Wed	12/06/06	18:28:36	O2	4.81	%	CO2	10.62	%	CO	4.39	ppm	CH4-Out	4.10	ppm	NOx-Out	133.54	ppm	SO2	17.1
Wed	12/06/06	18:28:46	O2	4.75	%	CO2	10.62	%	CO	4.39	ppm	CH4-Out	3.76	ppm	NOx-Out	129.64	ppm	SO2	17.1
Wed	12/06/06	18:28:56	O2	4.88	%	CO2	10.47	%	CO	3.91	ppm	CH4-Out	3.47	ppm	NOx-Out	126.22	ppm	SO2	17.1

Wed	12/06/06	18:29:06	O2	5.11	%	CO2	10.33	%	CO	4.39	ppm	CH4-Out	3.81	ppm	NOx-Out	125.98	ppm	SO2	17.1
Wed	12/06/06	18:29:16	O2	5.27	%	CO2	10.18	%	CO	4.39	ppm	CH4-Out	3.76	ppm	NOx-Out	130.13	ppm	SO2	17.1
Wed	12/06/06	18:29:26	O2	5.42	%	CO2	10.18	%	CO	4.39	ppm	CH4-Out	3.42	ppm	NOx-Out	135.25	ppm	SO2	17.1
Wed	12/06/06	18:29:36	O2	5.43	%	CO2	10.03	%	CO	4.39	ppm	CH4-Out	2.98	ppm	NOx-Out	139.89	ppm	SO2	17.1
Wed	12/06/06	18:29:46	O2	5.49	%	CO2	10.11	%	CO	4.39	ppm	CH4-Out	3.47	ppm	NOx-Out	146.00	ppm	SO2	17.1
Wed	12/06/06	18:29:56	O2	5.57	%	CO2	10.25	%	CO	4.39	ppm	CH4-Out	3.52	ppm	NOx-Out	147.71	ppm	SO2	17.1
Wed	12/06/06	18:30:06	O2	5.60	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	3.61	ppm	NOx-Out	148.68	ppm	SO2	17.1
Wed	12/06/06	18:30:16	O2	5.47	%	CO2	10.33	%	CO	3.91	ppm	CH4-Out	3.17	ppm	NOx-Out	148.93	ppm	SO2	17.1
Wed	12/06/06	18:30:26	O2	5.25	%	CO2	10.18	%	CO	3.91	ppm	CH4-Out	3.32	ppm	NOx-Out	148.93	ppm	SO2	17.1
Wed	12/06/06	18:30:36	O2	5.05	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	3.47	ppm	NOx-Out	144.53	ppm	SO2	17.1
Wed	12/06/06	18:30:46	O2	4.88	%	CO2	10.40	%	CO	4.39	ppm	CH4-Out	3.27	ppm	NOx-Out	141.60	ppm	SO2	17.1
Wed	12/06/06	18:30:56	O2	4.88	%	CO2	10.55	%	CO	4.39	ppm	CH4-Out	3.76	ppm	NOx-Out	138.43	ppm	SO2	17.1
Wed	12/06/06	18:31:06	O2	5.07	%	CO2	10.40	%	CO	4.39	ppm	CH4-Out	3.56	ppm	NOx-Out	136.23	ppm	SO2	17.1
Wed	12/06/06	18:31:16	O2	5.31	%	CO2	10.25	%	CO	4.39	ppm	CH4-Out	3.52	ppm	NOx-Out	137.70	ppm	SO2	17.1
Wed	12/06/06	18:31:26	O2	5.41	%	CO2	10.25	%	CO	3.91	ppm	CH4-Out	3.37	ppm	NOx-Out	140.87	ppm	SO2	17.1
Wed	12/06/06	18:31:36	O2	5.35	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	3.32	ppm	NOx-Out	145.02	ppm	SO2	17.1
Wed	12/06/06	18:31:46	O2	5.26	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.42	ppm	NOx-Out	145.75	ppm	SO2	17.1
Wed	12/06/06	18:31:56	O2	5.32	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	3.27	ppm	NOx-Out	144.29	ppm	SO2	17.1
Wed	12/06/06	18:32:06	O2	5.51	%	CO2	10.11	%	CO	4.39	ppm	CH4-Out	3.03	ppm	NOx-Out	144.29	ppm	SO2	17.1
Wed	12/06/06	18:32:16	O2	5.63	%	CO2	9.81	%	CO	4.39	ppm	CH4-Out	3.17	ppm	NOx-Out	144.53	ppm	SO2	17.1
Wed	12/06/06	18:32:26	O2	5.54	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	2.73	ppm	NOx-Out	144.53	ppm	SO2	17.1
Wed	12/06/06	18:32:36	O2	5.43	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	2.64	ppm	NOx-Out	144.04	ppm	SO2	17.1
Wed	12/06/06	18:32:46	O2	5.35	%	CO2	10.11	%	CO	4.39	ppm	CH4-Out	2.69	ppm	NOx-Out	144.29	ppm	SO2	17.1
Wed	12/06/06	18:32:56	O2	5.33	%	CO2	10.40	%	CO	4.39	ppm	CH4-Out	3.47	ppm	NOx-Out	143.07	ppm	SO2	17.1
Wed	12/06/06	18:33:06	O2	5.47	%	CO2	10.33	%	CO	4.39	ppm	CH4-Out	3.22	ppm	NOx-Out	144.29	ppm	SO2	17.1
Wed	12/06/06	18:33:16	O2	5.63	%	CO2	10.18	%	CO	4.39	ppm	CH4-Out	3.08	ppm	NOx-Out	146.73	ppm	SO2	17.1
Wed	12/06/06	18:33:26	O2	5.75	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	2.59	ppm	NOx-Out	152.10	ppm	SO2	17.1
Wed	12/06/06	18:33:36	O2	5.79	%	CO2	10.25	%	CO	3.91	ppm	CH4-Out	3.27	ppm	NOx-Out	157.23	ppm	SO2	17.1
Wed	12/06/06	18:33:46	O2	5.82	%	CO2	10.03	%	CO	3.42	ppm	CH4-Out	3.22	ppm	NOx-Out	159.91	ppm	SO2	17.1
Wed	12/06/06	18:33:56	O2	5.87	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	3.03	ppm	NOx-Out	161.13	ppm	SO2	17.1
Wed	12/06/06	18:34:06	O2	5.94	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	2.64	ppm	NOx-Out	162.60	ppm	SO2	17.1
Wed	12/06/06	18:34:16	O2	6.04	%	CO2	10.18	%	CO	3.91	ppm	CH4-Out	2.49	ppm	NOx-Out	163.82	ppm	SO2	17.1
Wed	12/06/06	18:34:26	O2	6.18	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	2.69	ppm	NOx-Out	163.09	ppm	SO2	17.1
Wed	12/06/06	18:34:36	O2	6.09	%	CO2	10.03	%	CO	4.39	ppm	CH4-Out	3.12	ppm	NOx-Out	167.24	ppm	SO2	17.1
Wed	12/06/06	18:34:46	O2	5.93	%	CO2	9.96	%	CO	3.91	ppm	CH4-Out	3.32	ppm	NOx-Out	167.24	ppm	SO2	17.1
Wed	12/06/06	18:34:56	O2	5.85	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	3.12	ppm	NOx-Out	166.26	ppm	SO2	17.1
Wed	12/06/06	18:35:06	O2	5.90	%	CO2	9.96	%	CO	3.42	ppm	CH4-Out	2.83	ppm	NOx-Out	164.79	ppm	SO2	17.1
Wed	12/06/06	18:35:16	O2	6.04	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	164.31	ppm	SO2	17.1
Wed	12/06/06	18:35:26	O2	6.20	%	CO2	9.96	%	CO	3.91	ppm	CH4-Out	2.54	ppm	NOx-Out	165.77	ppm	SO2	17.1
Wed	12/06/06	18:35:36	O2	6.32	%	CO2	10.03	%	CO	4.39	ppm	CH4-Out	2.34	ppm	NOx-Out	168.46	ppm	SO2	17.1
Wed	12/06/06	18:35:46	O2	6.38	%	CO2	10.18	%	CO	4.39	ppm	CH4-Out	2.39	ppm	NOx-Out	170.65	ppm	SO2	17.1
Wed	12/06/06	18:35:56	O2	6.35	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	2.59	ppm	NOx-Out	171.87	ppm	SO2	17.1
Wed	12/06/06	18:36:06	O2	6.30	%	CO2	9.96	%	CO	3.91	ppm	CH4-Out	2.83	ppm	NOx-Out	172.85	ppm	SO2	17.1
Wed	12/06/06	18:36:16	O2	6.21	%	CO2	9.96	%	CO	4.39	ppm	CH4-Out	2.98	ppm	NOx-Out	173.83	ppm	SO2	17.1
Wed	12/06/06	18:36:26	O2	6.18	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	2.98	ppm	NOx-Out	172.85	ppm	SO2	17.1
Wed	12/06/06	18:36:36	O2	6.25	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	2.83	ppm	NOx-Out	171.63	ppm	SO2	17.1
Wed	12/06/06	18:36:46	O2	6.34	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	2.93	ppm	NOx-Out	170.65	ppm	SO2	17.1
Wed	12/06/06	18:36:56	O2	6.40	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	170.65	ppm	SO2	17.1
Wed	12/06/06	18:37:06	O2	6.45	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	2.59	ppm	NOx-Out	169.92	ppm	SO2	17.1
Wed	12/06/06	18:37:16	O2	6.49	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	2.54	ppm	NOx-Out	169.92	ppm	SO2	17.1
Wed	12/06/06	18:37:26	O2	6.58	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	2.44	ppm	NOx-Out	168.21	ppm	SO2	17.1
Wed	12/06/06	18:37:36	O2	6.64	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	2.29	ppm	NOx-Out	168.21	ppm	SO2	17.1
Wed	12/06/06	18:37:46	O2	6.67	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	2.05	ppm	NOx-Out	168.21	ppm	SO2	17.1
Wed	12/06/06	18:37:56	O2	6.69	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	1.90	ppm	NOx-Out	167.48	ppm	SO2	17.1

Wed	12/06/06	18:38:06	O2	6.70	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	1.56	ppm	NOx-Out	165.04	ppm	SO2	17.1
Wed	12/06/06	18:38:16	O2	6.70	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	2.10	ppm	NOx-Out	161.62	ppm	SO2	17.1
Wed	12/06/06	18:38:26	O2	6.69	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	2.10	ppm	NOx-Out	160.89	ppm	SO2	17.1
Wed	12/06/06	18:38:36	O2	6.69	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	1.86	ppm	NOx-Out	159.18	ppm	SO2	17.1
Wed	12/06/06	18:38:46	O2	6.64	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	1.81	ppm	NOx-Out	157.47	ppm	SO2	17.1
Wed	12/06/06	18:38:56	O2	6.59	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	2.05	ppm	NOx-Out	155.76	ppm	SO2	17.1
Wed	12/06/06	18:39:06	O2	6.54	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	2.00	ppm	NOx-Out	154.54	ppm	SO2	17.1
Wed	12/06/06	18:39:16	O2	6.48	%	CO2	9.16	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	155.27	ppm	SO2	17.1
Wed	12/06/06	18:39:26	O2	6.53	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	155.76	ppm	SO2	17.1
Wed	12/06/06	18:39:36	O2	6.63	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	156.74	ppm	SO2	17.1
Wed	12/06/06	18:39:46	O2	6.71	%	CO2	9.23	%	CO	4.39	ppm	CH4-Out	1.76	ppm	NOx-Out	157.23	ppm	SO2	17.1
Wed	12/06/06	18:39:56	O2	6.75	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.51	ppm	NOx-Out	158.45	ppm	SO2	17.1
Wed	12/06/06	18:40:06	O2	6.75	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.46	ppm	NOx-Out	157.71	ppm	SO2	17.1
Wed	12/06/06	18:40:16	O2	6.73	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	1.51	ppm	NOx-Out	157.71	ppm	SO2	17.1
Wed	12/06/06	18:40:26	O2	6.65	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.56	ppm	NOx-Out	157.96	ppm	SO2	17.1
Wed	12/06/06	18:40:36	O2	6.65	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	157.47	ppm	SO2	17.1
Wed	12/06/06	18:40:46	O2	6.70	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	2.25	ppm	NOx-Out	157.23	ppm	SO2	17.1
Wed	12/06/06	18:40:56	O2	6.73	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	155.76	ppm	SO2	17.1
Wed	12/06/06	18:41:06	O2	6.65	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	1.86	ppm	NOx-Out	154.79	ppm	SO2	17.1
Wed	12/06/06	18:41:16	O2	6.59	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	153.32	ppm	SO2	17.1
Wed	12/06/06	18:41:26	O2	6.51	%	CO2	9.16	%	CO	3.91	ppm	CH4-Out	1.86	ppm	NOx-Out	152.59	ppm	SO2	17.1
Wed	12/06/06	18:41:36	O2	6.45	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	151.86	ppm	SO2	17.1
Wed	12/06/06	18:41:46	O2	6.42	%	CO2	9.23	%	CO	3.42	ppm	CH4-Out	1.66	ppm	NOx-Out	150.63	ppm	SO2	17.1
Wed	12/06/06	18:41:56	O2	6.41	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.51	ppm	NOx-Out	149.66	ppm	SO2	17.1
Wed	12/06/06	18:42:06	O2	6.42	%	CO2	8.94	%	CO	3.91	ppm	CH4-Out	1.61	ppm	NOx-Out	149.90	ppm	SO2	17.1
Wed	12/06/06	18:42:16	O2	6.42	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	2.10	ppm	NOx-Out	149.17	ppm	SO2	17.1
Wed	12/06/06	18:42:26	O2	6.54	%	CO2	8.94	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	147.46	ppm	SO2	17.1
Wed	12/06/06	18:42:36	O2	6.79	%	CO2	8.94	%	CO	3.91	ppm	CH4-Out	1.71	ppm	NOx-Out	146.97	ppm	SO2	17.1
Wed	12/06/06	18:42:46	O2	6.51	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	145.02	ppm	SO2	17.1
Wed	12/06/06	18:42:56	O2	6.37	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	140.38	ppm	SO2	17.1
Wed	12/06/06	18:43:06	O2	6.24	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	1.56	ppm	NOx-Out	143.07	ppm	SO2	17.1
Wed	12/06/06	18:43:16	O2	6.10	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	1.22	ppm	NOx-Out	142.82	ppm	SO2	17.1
Wed	12/06/06	18:43:26	O2	6.03	%	CO2	8.94	%	CO	3.91	ppm	CH4-Out	1.61	ppm	NOx-Out	140.87	ppm	SO2	17.1
Wed	12/06/06	18:43:36	O2	6.04	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.95	ppm	NOx-Out	139.16	ppm	SO2	17.1
Wed	12/06/06	18:43:46	O2	6.16	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	1.81	ppm	NOx-Out	138.92	ppm	SO2	17.1
Wed	12/06/06	18:43:56	O2	6.23	%	CO2	8.94	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	139.65	ppm	SO2	17.1
Wed	12/06/06	18:44:06	O2	6.25	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	141.85	ppm	SO2	17.1
Wed	12/06/06	18:44:16	O2	6.23	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	143.07	ppm	SO2	17.1
Wed	12/06/06	18:44:26	O2	6.23	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	144.04	ppm	SO2	17.1
Wed	12/06/06	18:44:36	O2	6.21	%	CO2	9.16	%	CO	3.91	ppm	CH4-Out	1.90	ppm	NOx-Out	144.29	ppm	SO2	17.1
Wed	12/06/06	18:44:46	O2	6.16	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	2.10	ppm	NOx-Out	144.29	ppm	SO2	17.1
Wed	12/06/06	18:44:56	O2	6.15	%	CO2	9.08	%	CO	3.42	ppm	CH4-Out	2.25	ppm	NOx-Out	142.82	ppm	SO2	17.1
Wed	12/06/06	18:45:06	O2	6.13	%	CO2	8.79	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	140.87	ppm	SO2	17.1
Wed	12/06/06	18:45:16	O2	6.05	%	CO2	8.86	%	CO	3.91	ppm	CH4-Out	2.25	ppm	NOx-Out	139.40	ppm	SO2	17.1
Wed	12/06/06	18:45:26	O2	5.99	%	CO2	9.16	%	CO	3.91	ppm	CH4-Out	2.20	ppm	NOx-Out	138.67	ppm	SO2	17.1
Wed	12/06/06	18:45:36	O2	5.92	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	2.00	ppm	NOx-Out	138.18	ppm	SO2	17.1
Wed	12/06/06	18:45:46	O2	5.93	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	137.45	ppm	SO2	17.1
Wed	12/06/06	18:45:56	O2	5.99	%	CO2	9.16	%	CO	3.91	ppm	CH4-Out	2.34	ppm	NOx-Out	137.45	ppm	SO2	17.1
Wed	12/06/06	18:46:06	O2	6.05	%	CO2	9.16	%	CO	4.39	ppm	CH4-Out	1.95	ppm	NOx-Out	138.18	ppm	SO2	17.1
Wed	12/06/06	18:46:16	O2	6.05	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	137.94	ppm	SO2	17.1
Wed	12/06/06	18:46:26	O2	6.07	%	CO2	9.08	%	CO	3.42	ppm	CH4-Out	1.56	ppm	NOx-Out	137.94	ppm	SO2	17.1
Wed	12/06/06	18:46:36	O2	6.13	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	1.95	ppm	NOx-Out	138.18	ppm	SO2	17.1
Wed	12/06/06	18:46:46	O2	6.24	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	139.40	ppm	SO2	17.1
Wed	12/06/06	18:46:56	O2	6.25	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.86	ppm	NOx-Out	139.89	ppm	SO2	17.1

Wed	12/06/06	18:47:06	O2	6.25	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	1.71	ppm	NOx-Out	140.38	ppm	SO2	17.1
Wed	12/06/06	18:47:16	O2	6.18	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	141.36	ppm	SO2	17.1
Wed	12/06/06	18:47:26	O2	6.08	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	1.95	ppm	NOx-Out	141.36	ppm	SO2	17.1
Wed	12/06/06	18:47:36	O2	5.97	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	1.95	ppm	NOx-Out	141.36	ppm	SO2	17.1
Wed	12/06/06	18:47:46	O2	5.88	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	1.90	ppm	NOx-Out	140.62	ppm	SO2	17.1
Wed	12/06/06	18:47:56	O2	5.82	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	1.95	ppm	NOx-Out	140.14	ppm	SO2	17.1
Wed	12/06/06	18:48:06	O2	5.83	%	CO2	9.52	%	CO	3.42	ppm	CH4-Out	2.20	ppm	NOx-Out	138.67	ppm	SO2	17.1
Wed	12/06/06	18:48:16	O2	5.83	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	2.05	ppm	NOx-Out	138.67	ppm	SO2	17.1
Wed	12/06/06	18:48:26	O2	5.81	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	138.18	ppm	SO2	17.1
Wed	12/06/06	18:48:36	O2	5.80	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	1.42	ppm	NOx-Out	138.67	ppm	SO2	17.1
Wed	12/06/06	18:48:46	O2	5.76	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	1.56	ppm	NOx-Out	137.94	ppm	SO2	17.1
Wed	12/06/06	18:48:56	O2	5.71	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	1.56	ppm	NOx-Out	136.96	ppm	SO2	17.1
Wed	12/06/06	18:49:06	O2	5.65	%	CO2	9.45	%	CO	3.42	ppm	CH4-Out	1.61	ppm	NOx-Out	136.72	ppm	SO2	17.1
Wed	12/06/06	18:49:16	O2	5.63	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	135.99	ppm	SO2	17.1
Wed	12/06/06	18:49:26	O2	5.62	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	2.44	ppm	NOx-Out	134.52	ppm	SO2	17.1
Wed	12/06/06	18:49:36	O2	5.59	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	2.34	ppm	NOx-Out	132.57	ppm	SO2	17.1
Wed	12/06/06	18:49:46	O2	5.53	%	CO2	9.52	%	CO	3.42	ppm	CH4-Out	2.05	ppm	NOx-Out	131.84	ppm	SO2	17.1
Wed	12/06/06	18:49:56	O2	5.49	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	1.86	ppm	NOx-Out	131.84	ppm	SO2	17.1
Wed	12/06/06	18:50:06	O2	5.52	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	1.86	ppm	NOx-Out	130.86	ppm	SO2	17.1
Wed	12/06/06	18:50:16	O2	5.60	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	2.10	ppm	NOx-Out	130.37	ppm	SO2	17.1
Wed	12/06/06	18:50:26	O2	5.62	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	2.05	ppm	NOx-Out	130.86	ppm	SO2	17.1
Wed	12/06/06	18:50:36	O2	5.62	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	1.95	ppm	NOx-Out	130.62	ppm	SO2	17.1
Wed	12/06/06	18:50:46	O2	5.63	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	131.10	ppm	SO2	17.1
Wed	12/06/06	18:50:56	O2	5.64	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	131.84	ppm	SO2	17.1
Wed	12/06/06	18:51:06	O2	5.64	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	131.10	ppm	SO2	17.1
Wed	12/06/06	18:51:16	O2	5.65	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	2.05	ppm	NOx-Out	131.10	ppm	SO2	17.1
Wed	12/06/06	18:51:26	O2	5.60	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	2.25	ppm	NOx-Out	130.37	ppm	SO2	17.1
Wed	12/06/06	18:51:36	O2	5.46	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	2.29	ppm	NOx-Out	129.64	ppm	SO2	17.1
Wed	12/06/06	18:51:46	O2	5.31	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	2.05	ppm	NOx-Out	130.13	ppm	SO2	17.1
Wed	12/06/06	18:51:56	O2	5.22	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	128.66	ppm	SO2	17.1
Wed	12/06/06	18:52:06	O2	5.22	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	127.69	ppm	SO2	17.1
Wed	12/06/06	18:52:16	O2	5.21	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	126.46	ppm	SO2	17.1
Wed	12/06/06	18:52:26	O2	5.16	%	CO2	9.96	%	CO	3.91	ppm	CH4-Out	2.39	ppm	NOx-Out	127.20	ppm	SO2	17.1
Wed	12/06/06	18:52:36	O2	5.14	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	127.93	ppm	SO2	17.1
Wed	12/06/06	18:52:46	O2	5.16	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	2.05	ppm	NOx-Out	127.20	ppm	SO2	17.1
Wed	12/06/06	18:52:56	O2	5.18	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	2.20	ppm	NOx-Out	126.22	ppm	SO2	17.1
Wed	12/06/06	18:53:06	O2	5.21	%	CO2	10.11	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	125.24	ppm	SO2	17.1
Wed	12/06/06	18:53:16	O2	5.27	%	CO2	10.03	%	CO	3.91	ppm	CH4-Out	2.10	ppm	NOx-Out	125.00	ppm	SO2	17.1
Wed	12/06/06	18:53:26	O2	5.31	%	CO2	10.18	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	125.00	ppm	SO2	17.1
Wed	12/06/06	18:53:36	O2	5.25	%	CO2	10.33	%	CO	3.91	ppm	CH4-Out	2.29	ppm	NOx-Out	123.78	ppm	SO2	17.1
Wed	12/06/06	18:53:46	O2	5.19	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	123.29	ppm	SO2	17.1
Wed	12/06/06	18:53:56	O2	5.09	%	CO2	10.25	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	122.80	ppm	SO2	17.1
Wed	12/06/06	18:54:06	O2	4.99	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	2.20	ppm	NOx-Out	122.07	ppm	SO2	17.1
Wed	12/06/06	18:54:16	O2	5.03	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	121.58	ppm	SO2	17.1
Wed	12/06/06	18:54:26	O2	5.13	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	121.34	ppm	SO2	17.1
Wed	12/06/06	18:54:36	O2	5.25	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	2.10	ppm	NOx-Out	120.85	ppm	SO2	17.1
Wed	12/06/06	18:54:46	O2	5.32	%	CO2	10.40	%	CO	3.91	ppm	CH4-Out	2.10	ppm	NOx-Out	122.56	ppm	SO2	17.1
Wed	12/06/06	18:54:56	O2	5.33	%	CO2	10.40	%	CO	3.42	ppm	CH4-Out	2.10	ppm	NOx-Out	123.29	ppm	SO2	17.1
Wed	12/06/06	18:55:06	O2	5.33	%	CO2	10.33	%	CO	3.91	ppm	CH4-Out	2.10	ppm	NOx-Out	125.24	ppm	SO2	17.1
Wed	12/06/06	18:55:16	O2	5.31	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	2.10	ppm	NOx-Out	125.24	ppm	SO2	17.1
Wed	12/06/06	18:55:26	O2	5.26	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	1.90	ppm	NOx-Out	125.49	ppm	SO2	17.1
Wed	12/06/06	18:55:36	O2	5.24	%	CO2	10.33	%	CO	3.42	ppm	CH4-Out	1.90	ppm	NOx-Out	125.00	ppm	SO2	17.1
Wed	12/06/06	18:55:46	O2	6.31	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	1.76	ppm	NOx-Out	124.27	ppm	SO2	17.1
Wed	12/06/06	18:55:56	O2	7.18	%	CO2	10.62	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	122.31	ppm	SO2	17.1

Wed	12/06/06	18:56:06	O2	7.18	%	CO2	10.62	%	CO	3.91	ppm	CH4-Out	1.61	ppm	NOx-Out	109.37	ppm	SO2	17.1
Wed	12/06/06	18:56:16	O2	6.31	%	CO2	10.77	%	CO	3.91	ppm	CH4-Out	1.76	ppm	NOx-Out	105.47	ppm	SO2	17.1
Wed	12/06/06	18:56:26	O2	4.69	%	CO2	10.84	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	105.22	ppm	SO2	17.1
Wed	12/06/06	18:56:36	O2	4.54	%	CO2	10.69	%	CO	3.91	ppm	CH4-Out	2.05	ppm	NOx-Out	116.94	ppm	SO2	17.1
Wed	12/06/06	18:56:46	O2	4.91	%	CO2	10.55	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	121.09	ppm	SO2	17.1
Wed	12/06/06	18:56:56	O2	5.26	%	CO2	10.55	%	CO	3.42	ppm	CH4-Out	1.95	ppm	NOx-Out	122.80	ppm	SO2	17.1
Wed	12/06/06	18:57:06	O2	5.43	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	1.66	ppm	NOx-Out	126.71	ppm	SO2	17.1
Wed	12/06/06	18:57:16	O2	5.48	%	CO2	10.40	%	CO	3.42	ppm	CH4-Out	1.37	ppm	NOx-Out	129.64	ppm	SO2	17.1
Wed	12/06/06	18:57:26	O2	5.54	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	1.46	ppm	NOx-Out	129.88	ppm	SO2	17.1
Wed	12/06/06	18:57:36	O2	5.55	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	1.56	ppm	NOx-Out	128.91	ppm	SO2	17.1
Wed	12/06/06	18:57:46	O2	5.47	%	CO2	10.33	%	CO	3.42	ppm	CH4-Out	1.86	ppm	NOx-Out	129.64	ppm	SO2	17.1
Wed	12/06/06	18:57:56	O2	5.38	%	CO2	9.96	%	CO	3.42	ppm	CH4-Out	2.20	ppm	NOx-Out	128.42	ppm	SO2	17.1
Wed	12/06/06	18:58:06	O2	5.26	%	CO2	9.52	%	CO	3.42	ppm	CH4-Out	2.05	ppm	NOx-Out	127.44	ppm	SO2	17.1
Wed	12/06/06	18:58:16	O2	5.69	%	CO2	9.23	%	CO	3.42	ppm	CH4-Out	1.71	ppm	NOx-Out	126.71	ppm	SO2	17.1
Wed	12/06/06	18:58:26	O2	7.35	%	CO2	9.37	%	CO	3.42	ppm	CH4-Out	1.51	ppm	NOx-Out	125.98	ppm	SO2	17.1
Wed	12/06/06	18:58:36	O2	7.73	%	CO2	10.11	%	CO	3.42	ppm	CH4-Out	1.37	ppm	NOx-Out	113.77	ppm	SO2	17.1
Wed	12/06/06	18:58:46	O2	7.58	%	CO2	10.40	%	CO	2.93	ppm	CH4-Out	1.51	ppm	NOx-Out	109.13	ppm	SO2	17.1
Wed	12/06/06	18:58:56	O2	6.02	%	CO2	10.84	%	CO	3.42	ppm	CH4-Out	1.56	ppm	NOx-Out	110.60	ppm	SO2	17.1
Wed	12/06/06	18:59:06	O2	5.25	%	CO2	10.69	%	CO	3.42	ppm	CH4-Out	1.61	ppm	NOx-Out	117.43	ppm	SO2	17.1
Wed	12/06/06	18:59:16	O2	5.35	%	CO2	10.69	%	CO	3.42	ppm	CH4-Out	1.37	ppm	NOx-Out	126.46	ppm	SO2	17.1
Wed	12/06/06	18:59:26	O2	5.69	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	1.32	ppm	NOx-Out	126.71	ppm	SO2	17.1
Wed	12/06/06	18:59:36	O2	5.88	%	CO2	10.47	%	CO	3.42	ppm	CH4-Out	1.66	ppm	NOx-Out	126.95	ppm	SO2	17.1
Wed	12/06/06	18:59:46	O2	5.91	%	CO2	10.40	%	CO	3.42	ppm	CH4-Out	1.51	ppm	NOx-Out	129.15	ppm	SO2	17.1
Wed	12/06/06	18:59:56	O2	5.85	%	CO2	10.40	%	CO	2.93	ppm	CH4-Out	1.61	ppm	NOx-Out	132.08	ppm	SO2	17.1
Wed	12/06/06	19:00:06	O2	5.76	%	CO2	10.47	%	CO	2.93	ppm	CH4-Out	1.42	ppm	NOx-Out	133.54	ppm	SO2	17.1
Wed	12/06/06	19:00:16	O2	5.68	%	CO2	10.40	%	CO	2.93	ppm	CH4-Out	1.42	ppm	NOx-Out	133.79	ppm	SO2	19.5
Wed	12/06/06	19:00:26	O2	5.69	%	CO2	10.25	%	CO	2.93	ppm	CH4-Out	1.32	ppm	NOx-Out	134.03	ppm	SO2	19.5
Wed	12/06/06	19:00:36	O2	5.69	%	CO2	9.81	%	CO	3.42	ppm	CH4-Out	1.17	ppm	NOx-Out	135.74	ppm	SO2	19.5
Wed	12/06/06	19:00:46	O2	5.65	%	CO2	9.30	%	CO	3.42	ppm	CH4-Out	1.27	ppm	NOx-Out	138.67	ppm	SO2	19.5
Wed	12/06/06	19:00:56	O2	5.54	%	CO2	9.30	%	CO	3.42	ppm	CH4-Out	1.32	ppm	NOx-Out	140.38	ppm	SO2	19.5
Wed	12/06/06	19:01:06	O2	5.41	%	CO2	9.81	%	CO	3.42	ppm	CH4-Out	1.22	ppm	NOx-Out	139.65	ppm	SO2	19.5
Wed	12/06/06	19:01:16	O2	5.35	%	CO2	9.96	%	CO	2.93	ppm	CH4-Out	1.37	ppm	NOx-Out	138.92	ppm	SO2	19.5
Wed	12/06/06	19:01:26	O2	5.31	%	CO2	9.96	%	CO	3.42	ppm	CH4-Out	1.46	ppm	NOx-Out	137.70	ppm	SO2	19.5
Wed	12/06/06	19:01:36	O2	5.26	%	CO2	9.89	%	CO	3.42	ppm	CH4-Out	1.32	ppm	NOx-Out	136.47	ppm	SO2	19.5
Wed	12/06/06	19:01:46	O2	5.20	%	CO2	9.81	%	CO	3.42	ppm	CH4-Out	1.32	ppm	NOx-Out	133.54	ppm	SO2	19.5
Wed	12/06/06	19:01:56	O2	5.13	%	CO2	9.89	%	CO	3.42	ppm	CH4-Out	1.27	ppm	NOx-Out	131.84	ppm	SO2	19.5
Wed	12/06/06	19:02:06	O2	5.08	%	CO2	9.89	%	CO	3.42	ppm	CH4-Out	1.27	ppm	NOx-Out	129.39	ppm	SO2	17.1
Wed	12/06/06	19:02:16	O2	4.99	%	CO2	9.89	%	CO	3.42	ppm	CH4-Out	1.32	ppm	NOx-Out	126.71	ppm	SO2	19.5
Wed	12/06/06	19:02:26	O2	4.94	%	CO2	9.96	%	CO	3.42	ppm	CH4-Out	1.37	ppm	NOx-Out	125.00	ppm	SO2	19.5
Wed	12/06/06	19:02:36	O2	5.02	%	CO2	9.89	%	CO	3.42	ppm	CH4-Out	1.37	ppm	NOx-Out	124.02	ppm	SO2	17.1
Wed	12/06/06	19:02:46	O2	5.15	%	CO2	9.81	%	CO	3.42	ppm	CH4-Out	1.37	ppm	NOx-Out	125.00	ppm	SO2	17.1
Wed	12/06/06	19:02:56	O2	5.26	%	CO2	9.89	%	CO	3.42	ppm	CH4-Out	1.22	ppm	NOx-Out	127.93	ppm	SO2	17.1
Wed	12/06/06	19:03:06	O2	5.29	%	CO2	9.89	%	CO	3.42	ppm	CH4-Out	1.32	ppm	NOx-Out	131.59	ppm	SO2	17.1
Wed	12/06/06	19:03:16	O2	5.30	%	CO2	10.11	%	CO	2.93	ppm	CH4-Out	1.22	ppm	NOx-Out	133.06	ppm	SO2	17.1
Wed	12/06/06	19:03:26	O2	5.31	%	CO2	10.11	%	CO	3.42	ppm	CH4-Out	1.17	ppm	NOx-Out	135.99	ppm	SO2	17.1
Wed	12/06/06	19:03:36	O2	5.33	%	CO2	10.03	%	CO	2.93	ppm	CH4-Out	1.07	ppm	NOx-Out	136.72	ppm	SO2	17.1
Wed	12/06/06	19:03:46	O2	5.26	%	CO2	9.74	%	CO	2.93	ppm	CH4-Out	1.07	ppm	NOx-Out	136.47	ppm	SO2	19.5
Wed	12/06/06	19:03:56	O2	5.14	%	CO2	9.96	%	CO	2.93	ppm	CH4-Out	1.22	ppm	NOx-Out	135.74	ppm	SO2	17.1
Wed	12/06/06	19:04:06	O2	4.97	%	CO2	9.81	%	CO	2.93	ppm	CH4-Out	1.22	ppm	NOx-Out	134.28	ppm	SO2	17.1
Wed	12/06/06	19:04:16	O2	4.87	%	CO2	10.18	%	CO	3.42	ppm	CH4-Out	1.37	ppm	NOx-Out	130.13	ppm	SO2	17.1
Wed	12/06/06	19:04:26	O2	4.85	%	CO2	10.11	%	CO	3.42	ppm	CH4-Out	1.22	ppm	NOx-Out	126.22	ppm	SO2	17.1
Wed	12/06/06	19:04:36	O2	4.91	%	CO2	10.25	%	CO	3.42	ppm	CH4-Out	1.37	ppm	NOx-Out	127.20	ppm	SO2	17.1
Wed	12/06/06	19:04:46	O2	5.02	%	CO2	10.11	%	CO	3.42	ppm	CH4-Out	1.22	ppm	NOx-Out	128.91	ppm	SO2	17.1
Wed	12/06/06	19:04:56	O2	5.14	%	CO2	10.18	%	CO	3.42	ppm	CH4-Out	1.22	ppm	NOx-Out	133.06	ppm	SO2	17.1

Wed	12/06/06	19:05:06	O2	5.26	%	CO2	10.11	%	CO	2.93	ppm	CH4-Out	1.03	ppm	NOx-Out	138.92	ppm	SO2	17.1
Wed	12/06/06	19:05:16	O2	5.31	%	CO2	10.11	%	CO	3.42	ppm	CH4-Out	1.03	ppm	NOx-Out	143.80	ppm	SO2	17.1
Wed	12/06/06	19:05:26	O2	5.31	%	CO2	10.11	%	CO	2.93	ppm	CH4-Out	0.93	ppm	NOx-Out	148.19	ppm	SO2	17.1
Wed	12/06/06	19:05:36	O2	5.30	%	CO2	10.25	%	CO	2.93	ppm	CH4-Out	1.03	ppm	NOx-Out	151.61	ppm	SO2	17.1
Wed	12/06/06	19:05:46	O2	5.35	%	CO2	10.25	%	CO	3.42	ppm	CH4-Out	1.07	ppm	NOx-Out	153.32	ppm	SO2	17.1
Wed	12/06/06	19:05:56	O2	5.35	%	CO2	10.25	%	CO	2.93	ppm	CH4-Out	1.03	ppm	NOx-Out	152.34	ppm	SO2	17.1
Wed	12/06/06	19:06:06	O2	5.32	%	CO2	10.18	%	CO	2.93	ppm	CH4-Out	1.03	ppm	NOx-Out	150.63	ppm	SO2	17.1
Wed	12/06/06	19:06:16	O2	5.30	%	CO2	10.25	%	CO	2.93	ppm	CH4-Out	1.03	ppm	NOx-Out	148.68	ppm	SO2	17.1
Wed	12/06/06	19:06:26	O2	5.24	%	CO2	10.33	%	CO	2.93	ppm	CH4-Out	0.98	ppm	NOx-Out	146.24	ppm	SO2	17.1
Wed	12/06/06	19:06:36	O2	5.16	%	CO2	10.18	%	CO	2.93	ppm	CH4-Out	0.98	ppm	NOx-Out	144.53	ppm	SO2	17.1
Wed	12/06/06	19:06:46	O2	5.19	%	CO2	10.25	%	CO	2.93	ppm	CH4-Out	1.27	ppm	NOx-Out	144.04	ppm	SO2	17.1
Wed	12/06/06	19:06:56	O2	5.22	%	CO2	10.33	%	CO	2.93	ppm	CH4-Out	1.12	ppm	NOx-Out	145.02	ppm	SO2	17.1
Wed	12/06/06	19:07:06	O2	5.24	%	CO2	10.47	%	CO	2.93	ppm	CH4-Out	1.32	ppm	NOx-Out	146.00	ppm	SO2	17.1
Wed	12/06/06	19:07:16	O2	5.16	%	CO2	10.40	%	CO	2.93	ppm	CH4-Out	1.27	ppm	NOx-Out	147.95	ppm	SO2	17.1
Wed	12/06/06	19:07:26	O2	5.11	%	CO2	10.33	%	CO	2.93	ppm	CH4-Out	1.17	ppm	NOx-Out	149.90	ppm	SO2	19.5
Wed	12/06/06	19:07:36	O2	5.09	%	CO2	10.47	%	CO	2.93	ppm	CH4-Out	1.12	ppm	NOx-Out	150.88	ppm	SO2	17.1
Wed	12/06/06	19:07:46	O2	5.14	%	CO2	10.33	%	CO	3.42	ppm	CH4-Out	1.27	ppm	NOx-Out	152.10	ppm	SO2	17.1
Wed	12/06/06	19:07:56	O2	5.18	%	CO2	10.33	%	CO	2.93	ppm	CH4-Out	1.17	ppm	NOx-Out	152.83	ppm	SO2	17.1
Wed	12/06/06	19:08:06	O2	5.11	%	CO2	10.47	%	CO	2.44	ppm	CH4-Out	1.17	ppm	NOx-Out	153.56	ppm	SO2	17.1
Wed	12/06/06	19:08:16	O2	4.99	%	CO2	10.25	%	CO	2.93	ppm	CH4-Out	1.37	ppm	NOx-Out	152.83	ppm	SO2	17.1
Wed	12/06/06	19:08:26	O2	4.94	%	CO2	10.40	%	CO	2.93	ppm	CH4-Out	1.37	ppm	NOx-Out	151.86	ppm	SO2	17.1
Wed	12/06/06	19:08:36	O2	4.85	%	CO2	10.33	%	CO	2.93	ppm	CH4-Out	1.32	ppm	NOx-Out	150.63	ppm	SO2	17.1
Wed	12/06/06	19:08:46	O2	4.81	%	CO2	10.33	%	CO	3.42	ppm	CH4-Out	1.17	ppm	NOx-Out	151.12	ppm	SO2	17.1
Wed	12/06/06	19:08:56	O2	4.85	%	CO2	10.40	%	CO	3.42	ppm	CH4-Out	1.22	ppm	NOx-Out	150.15	ppm	SO2	17.1
Wed	12/06/06	19:09:06	O2	4.88	%	CO2	10.03	%	CO	2.93	ppm	CH4-Out	1.27	ppm	NOx-Out	151.61	ppm	SO2	17.1
Wed	12/06/06	19:09:16	O2	4.93	%	CO2	10.40	%	CO	3.42	ppm	CH4-Out	1.32	ppm	NOx-Out	154.30	ppm	SO2	17.1
Wed	12/06/06	19:09:26	O2	4.93	%	CO2	10.40	%	CO	3.42	ppm	CH4-Out	1.42	ppm	NOx-Out	156.01	ppm	SO2	17.1
Wed	12/06/06	19:09:36	O2	4.83	%	CO2	10.40	%	CO	3.42	ppm	CH4-Out	1.22	ppm	NOx-Out	157.71	ppm	SO2	17.1
Wed	12/06/06	19:09:46	O2	4.69	%	CO2	10.33	%	CO	2.93	ppm	CH4-Out	1.17	ppm	NOx-Out	157.71	ppm	SO2	17.1
Wed	12/06/06	19:09:56	O2	4.61	%	CO2	10.33	%	CO	3.42	ppm	CH4-Out	0.98	ppm	NOx-Out	157.47	ppm	SO2	17.1
Wed	12/06/06	19:10:06	O2	4.60	%	CO2	10.18	%	CO	3.42	ppm	CH4-Out	0.78	ppm	NOx-Out	155.27	ppm	SO2	17.1
Wed	12/06/06	19:10:16	O2	4.63	%	CO2	10.18	%	CO	3.42	ppm	CH4-Out	0.68	ppm	NOx-Out	153.81	ppm	SO2	17.1
Wed	12/06/06	19:10:26	O2	4.63	%	CO2	10.11	%	CO	2.93	ppm	CH4-Out	0.73	ppm	NOx-Out	151.86	ppm	SO2	17.1
Wed	12/06/06	19:10:36	O2	4.55	%	CO2	10.03	%	CO	5.37	ppm	CH4-Out	0.88	ppm	NOx-Out	151.86	ppm	SO2	17.1
Wed	12/06/06	19:10:46	O2	4.27	%	CO2	10.25	%	CO	24.90	ppm	CH4-Out	1.03	ppm	NOx-Out	153.32	ppm	SO2	17.1
Wed	12/06/06	19:10:56	O2	4.11	%	CO2	10.40	%	CO	24.90	ppm	CH4-Out	1.27	ppm	NOx-Out	151.61	ppm	SO2	17.1
Wed	12/06/06	19:11:06	O2	4.06	%	CO2	10.33	%	CO	57.62	ppm	CH4-Out	1.37	ppm	NOx-Out	142.58	ppm	SO2	17.1
Wed	12/06/06	19:11:16	O2	3.96	%	CO2	10.55	%	CO	76.17	ppm	CH4-Out	1.42	ppm	NOx-Out	136.72	ppm	SO2	17.1
Wed	12/06/06	19:11:26	O2	3.87	%	CO2	10.40	%	CO	98.63	ppm	CH4-Out	1.51	ppm	NOx-Out	135.01	ppm	SO2	17.1
Wed	12/06/06	19:11:36	O2	3.91	%	CO2	10.25	%	CO	98.63	ppm	CH4-Out	1.46	ppm	NOx-Out	129.15	ppm	SO2	17.1
Wed	12/06/06	19:11:46	O2	4.11	%	CO2	10.47	%	CO	98.63	ppm	CH4-Out	1.37	ppm	NOx-Out	122.56	ppm	SO2	17.1
Wed	12/06/06	19:11:56	O2	4.37	%	CO2	10.62	%	CO	98.63	ppm	CH4-Out	1.42	ppm	NOx-Out	123.05	ppm	SO2	17.1
		AVG	O2	5.22	%	CO2	10.29	%	CO	17.28	ppm	CH4-Out	2.63	ppm	NOx-Out	131.77	ppm	SO2	17.2

Tetra Tech @ Indesco Site Dec 7th 2006

Carbon Bed Outlet

Run # 3

Thu	12/07/06	09:33:39	O2	8.11	%	CO2	8.42	%	CO	3.42	ppm	CH4-Out	1.56	ppm	NOx-Out	114.99	ppm	SO2	4.9
Thu	12/07/06	09:33:46	O2	8.07	%	CO2	8.50	%	CO	3.42	ppm	CH4-Out	1.66	ppm	NOx-Out	114.99	ppm	SO2	4.9
Thu	12/07/06	09:33:56	O2	7.97	%	CO2	8.35	%	CO	3.42	ppm	CH4-Out	2.00	ppm	NOx-Out	116.46	ppm	SO2	4.9
Thu	12/07/06	09:34:06	O2	7.93	%	CO2	8.28	%	CO	3.42	ppm	CH4-Out	2.29	ppm	NOx-Out	118.90	ppm	SO2	4.9
Thu	12/07/06	09:34:16	O2	7.89	%	CO2	8.50	%	CO	3.42	ppm	CH4-Out	2.64	ppm	NOx-Out	120.36	ppm	SO2	4.9
Thu	12/07/06	09:34:26	O2	7.70	%	CO2	8.57	%	CO	3.42	ppm	CH4-Out	2.54	ppm	NOx-Out	121.09	ppm	SO2	4.9
Thu	12/07/06	09:34:36	O2	7.56	%	CO2	8.64	%	CO	3.91	ppm	CH4-Out	2.59	ppm	NOx-Out	121.58	ppm	SO2	4.9
Thu	12/07/06	09:34:46	O2	7.50	%	CO2	8.86	%	CO	3.42	ppm	CH4-Out	2.64	ppm	NOx-Out	124.27	ppm	SO2	4.9
Thu	12/07/06	09:34:56	O2	7.32	%	CO2	8.94	%	CO	3.42	ppm	CH4-Out	2.78	ppm	NOx-Out	125.73	ppm	SO2	2.4
Thu	12/07/06	09:35:06	O2	7.09	%	CO2	9.01	%	CO	3.42	ppm	CH4-Out	2.59	ppm	NOx-Out	126.46	ppm	SO2	4.9
Thu	12/07/06	09:35:16	O2	6.80	%	CO2	9.01	%	CO	3.42	ppm	CH4-Out	2.69	ppm	NOx-Out	126.22	ppm	SO2	4.9
Thu	12/07/06	09:35:26	O2	6.79	%	CO2	8.86	%	CO	3.91	ppm	CH4-Out	2.73	ppm	NOx-Out	124.51	ppm	SO2	4.9
Thu	12/07/06	09:35:36	O2	6.86	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	122.31	ppm	SO2	4.9
Thu	12/07/06	09:35:46	O2	6.82	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	122.07	ppm	SO2	4.9
Thu	12/07/06	09:35:56	O2	6.71	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	122.31	ppm	SO2	4.9
Thu	12/07/06	09:36:06	O2	6.64	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	3.12	ppm	NOx-Out	123.54	ppm	SO2	4.9
Thu	12/07/06	09:36:16	O2	6.58	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	2.69	ppm	NOx-Out	123.78	ppm	SO2	4.9
Thu	12/07/06	09:36:26	O2	6.54	%	CO2	9.30	%	CO	3.42	ppm	CH4-Out	2.64	ppm	NOx-Out	122.80	ppm	SO2	4.9
Thu	12/07/06	09:36:36	O2	6.58	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	2.64	ppm	NOx-Out	123.78	ppm	SO2	4.9
Thu	12/07/06	09:36:46	O2	6.70	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	2.69	ppm	NOx-Out	124.76	ppm	SO2	4.9
Thu	12/07/06	09:36:56	O2	6.69	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	126.22	ppm	SO2	4.9
Thu	12/07/06	09:37:06	O2	6.57	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	2.73	ppm	NOx-Out	127.69	ppm	SO2	4.9
Thu	12/07/06	09:37:16	O2	6.41	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	3.27	ppm	NOx-Out	127.69	ppm	SO2	4.9
Thu	12/07/06	09:37:26	O2	6.34	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	3.37	ppm	NOx-Out	126.95	ppm	SO2	4.9
Thu	12/07/06	09:37:36	O2	6.46	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	3.76	ppm	NOx-Out	123.54	ppm	SO2	4.9
Thu	12/07/06	09:37:46	O2	6.60	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	3.71	ppm	NOx-Out	122.31	ppm	SO2	4.9
Thu	12/07/06	09:37:56	O2	6.65	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	3.71	ppm	NOx-Out	121.34	ppm	SO2	7.3
Thu	12/07/06	09:38:06	O2	6.67	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	3.76	ppm	NOx-Out	122.07	ppm	SO2	4.9
Thu	12/07/06	09:38:16	O2	6.63	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	3.81	ppm	NOx-Out	122.07	ppm	SO2	4.9
Thu	12/07/06	09:38:26	O2	6.57	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	3.47	ppm	NOx-Out	122.31	ppm	SO2	7.3
Thu	12/07/06	09:38:36	O2	6.47	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	2.98	ppm	NOx-Out	123.05	ppm	SO2	4.9
Thu	12/07/06	09:38:46	O2	6.52	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	3.56	ppm	NOx-Out	124.27	ppm	SO2	4.9
Thu	12/07/06	09:38:56	O2	6.62	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	3.03	ppm	NOx-Out	125.49	ppm	SO2	4.9
Thu	12/07/06	09:39:06	O2	6.63	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	2.98	ppm	NOx-Out	126.46	ppm	SO2	7.3
Thu	12/07/06	09:39:16	O2	6.52	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	3.12	ppm	NOx-Out	127.69	ppm	SO2	7.3
Thu	12/07/06	09:39:26	O2	6.45	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	126.46	ppm	SO2	7.3
Thu	12/07/06	09:39:36	O2	6.45	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	2.83	ppm	NOx-Out	125.00	ppm	SO2	7.3
Thu	12/07/06	09:39:46	O2	6.52	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	3.08	ppm	NOx-Out	123.54	ppm	SO2	7.3
Thu	12/07/06	09:39:56	O2	6.57	%	CO2	9.96	%	CO	3.91	ppm	CH4-Out	2.98	ppm	NOx-Out	121.58	ppm	SO2	4.9
Thu	12/07/06	09:40:06	O2	6.63	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	2.78	ppm	NOx-Out	120.36	ppm	SO2	7.3
Thu	12/07/06	09:40:16	O2	6.62	%	CO2	9.89	%	CO	3.91	ppm	CH4-Out	2.29	ppm	NOx-Out	120.36	ppm	SO2	7.3
Thu	12/07/06	09:40:26	O2	6.53	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	2.20	ppm	NOx-Out	121.58	ppm	SO2	7.3
Thu	12/07/06	09:40:36	O2	6.48	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	2.44	ppm	NOx-Out	122.56	ppm	SO2	7.3
Thu	12/07/06	09:40:46	O2	6.51	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	2.49	ppm	NOx-Out	124.02	ppm	SO2	7.3
Thu	12/07/06	09:40:56	O2	6.56	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	2.59	ppm	NOx-Out	125.49	ppm	SO2	7.3
Thu	12/07/06	09:41:06	O2	6.64	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	2.69	ppm	NOx-Out	126.71	ppm	SO2	7.3
Thu	12/07/06	09:41:16	O2	6.65	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	2.64	ppm	NOx-Out	128.17	ppm	SO2	7.3
Thu	12/07/06	09:41:26	O2	6.53	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	2.59	ppm	NOx-Out	127.20	ppm	SO2	7.3

Thu	12/07/06	09:41:36	O2	6.40	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	2.54	ppm	NOx-Out	126.46	ppm	SO2	7.3
Thu	12/07/06	09:41:46	O2	6.42	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	2.54	ppm	NOx-Out	124.76	ppm	SO2	7.3
Thu	12/07/06	09:41:56	O2	6.54	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	2.29	ppm	NOx-Out	123.29	ppm	SO2	7.3
Thu	12/07/06	09:42:06	O2	6.60	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	122.80	ppm	SO2	7.3
Thu	12/07/06	09:42:16	O2	6.54	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	122.31	ppm	SO2	7.3
Thu	12/07/06	09:42:26	O2	6.43	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	2.20	ppm	NOx-Out	122.07	ppm	SO2	7.3
Thu	12/07/06	09:42:36	O2	6.34	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	2.29	ppm	NOx-Out	121.58	ppm	SO2	7.3
Thu	12/07/06	09:42:46	O2	6.31	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	2.10	ppm	NOx-Out	121.09	ppm	SO2	7.3
Thu	12/07/06	09:42:56	O2	6.38	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	122.56	ppm	SO2	7.3
Thu	12/07/06	09:43:06	O2	6.47	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	2.29	ppm	NOx-Out	125.49	ppm	SO2	7.3
Thu	12/07/06	09:43:16	O2	6.49	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	2.29	ppm	NOx-Out	126.71	ppm	SO2	7.3
Thu	12/07/06	09:43:26	O2	6.41	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	2.15	ppm	NOx-Out	126.71	ppm	SO2	7.3
Thu	12/07/06	09:43:36	O2	6.31	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	2.10	ppm	NOx-Out	126.95	ppm	SO2	7.3
Thu	12/07/06	09:43:46	O2	6.18	%	CO2	9.59	%	CO	3.42	ppm	CH4-Out	2.00	ppm	NOx-Out	125.73	ppm	SO2	7.3
Thu	12/07/06	09:43:56	O2	6.24	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	124.27	ppm	SO2	7.3
Thu	12/07/06	09:44:06	O2	6.38	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	123.29	ppm	SO2	7.3
Thu	12/07/06	09:44:16	O2	6.49	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	3.37	ppm	NOx-Out	124.51	ppm	SO2	7.3
Thu	12/07/06	09:44:26	O2	6.48	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	129.15	ppm	SO2	7.3
Thu	12/07/06	09:44:36	O2	6.41	%	CO2	9.59	%	CO	3.42	ppm	CH4-Out	1.95	ppm	NOx-Out	128.91	ppm	SO2	7.3
Thu	12/07/06	09:44:46	O2	6.27	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	1.90	ppm	NOx-Out	125.00	ppm	SO2	7.3
Thu	12/07/06	09:44:56	O2	6.19	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	1.86	ppm	NOx-Out	127.20	ppm	SO2	7.3
Thu	12/07/06	09:45:06	O2	6.21	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	1.95	ppm	NOx-Out	126.22	ppm	SO2	7.3
Thu	12/07/06	09:45:16	O2	6.31	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	2.00	ppm	NOx-Out	126.46	ppm	SO2	7.3
Thu	12/07/06	09:45:26	O2	6.38	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	1.95	ppm	NOx-Out	129.39	ppm	SO2	7.3
Thu	12/07/06	09:45:36	O2	6.30	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	1.90	ppm	NOx-Out	130.62	ppm	SO2	7.3
Thu	12/07/06	09:45:46	O2	6.14	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	1.86	ppm	NOx-Out	133.06	ppm	SO2	7.3
Thu	12/07/06	09:45:56	O2	6.16	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	1.86	ppm	NOx-Out	131.59	ppm	SO2	7.3
Thu	12/07/06	09:46:06	O2	6.35	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	1.71	ppm	NOx-Out	129.39	ppm	SO2	7.3
Thu	12/07/06	09:46:16	O2	6.36	%	CO2	9.37	%	CO	4.39	ppm	CH4-Out	1.71	ppm	NOx-Out	127.93	ppm	SO2	7.3
Thu	12/07/06	09:46:26	O2	6.34	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	1.81	ppm	NOx-Out	127.93	ppm	SO2	7.3
Thu	12/07/06	09:46:36	O2	6.37	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	128.66	ppm	SO2	7.3
Thu	12/07/06	09:46:46	O2	6.25	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	1.90	ppm	NOx-Out	127.20	ppm	SO2	7.3
Thu	12/07/06	09:46:56	O2	6.14	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	1.81	ppm	NOx-Out	126.71	ppm	SO2	7.3
Thu	12/07/06	09:47:06	O2	6.12	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	1.71	ppm	NOx-Out	125.98	ppm	SO2	9.8
Thu	12/07/06	09:47:16	O2	6.21	%	CO2	9.52	%	CO	4.39	ppm	CH4-Out	1.71	ppm	NOx-Out	127.44	ppm	SO2	9.8
Thu	12/07/06	09:47:26	O2	6.30	%	CO2	9.52	%	CO	4.39	ppm	CH4-Out	1.56	ppm	NOx-Out	130.13	ppm	SO2	7.3
Thu	12/07/06	09:47:36	O2	6.27	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	1.66	ppm	NOx-Out	131.35	ppm	SO2	7.3
Thu	12/07/06	09:47:46	O2	6.27	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	1.56	ppm	NOx-Out	133.06	ppm	SO2	7.3
Thu	12/07/06	09:47:56	O2	6.02	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	1.51	ppm	NOx-Out	132.57	ppm	SO2	7.3
Thu	12/07/06	09:48:06	O2	6.07	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	1.51	ppm	NOx-Out	130.86	ppm	SO2	9.8
Thu	12/07/06	09:48:16	O2	6.27	%	CO2	9.52	%	CO	3.91	ppm	CH4-Out	1.42	ppm	NOx-Out	129.64	ppm	SO2	9.8
Thu	12/07/06	09:48:26	O2	6.54	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	1.42	ppm	NOx-Out	128.42	ppm	SO2	9.8
Thu	12/07/06	09:48:36	O2	6.63	%	CO2	9.81	%	CO	3.91	ppm	CH4-Out	1.51	ppm	NOx-Out	131.59	ppm	SO2	7.3
Thu	12/07/06	09:48:46	O2	6.62	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	1.46	ppm	NOx-Out	132.08	ppm	SO2	7.3
Thu	12/07/06	09:48:56	O2	6.56	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.37	ppm	NOx-Out	136.96	ppm	SO2	7.3
Thu	12/07/06	09:49:06	O2	6.54	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.32	ppm	NOx-Out	136.47	ppm	SO2	9.8
Thu	12/07/06	09:49:16	O2	6.64	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.32	ppm	NOx-Out	137.45	ppm	SO2	7.3
Thu	12/07/06	09:49:26	O2	6.70	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.27	ppm	NOx-Out	139.40	ppm	SO2	7.3
Thu	12/07/06	09:49:36	O2	6.65	%	CO2	9.08	%	CO	3.91	ppm	CH4-Out	1.17	ppm	NOx-Out	142.33	ppm	SO2	7.3
Thu	12/07/06	09:49:46	O2	6.47	%	CO2	8.86	%	CO	3.91	ppm	CH4-Out	1.12	ppm	NOx-Out	143.80	ppm	SO2	9.8
Thu	12/07/06	09:49:56	O2	6.19	%	CO2	8.94	%	CO	3.91	ppm	CH4-Out	1.07	ppm	NOx-Out	144.04	ppm	SO2	9.8
Thu	12/07/06	09:50:06	O2	6.12	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.12	ppm	NOx-Out	139.65	ppm	SO2	9.8
Thu	12/07/06	09:50:16	O2	6.24	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	1.22	ppm	NOx-Out	133.30	ppm	SO2	9.8
Thu	12/07/06	09:50:26	O2	6.34	%	CO2	9.37	%	CO	4.39	ppm	CH4-Out	1.17	ppm	NOx-Out	131.59	ppm	SO2	7.3

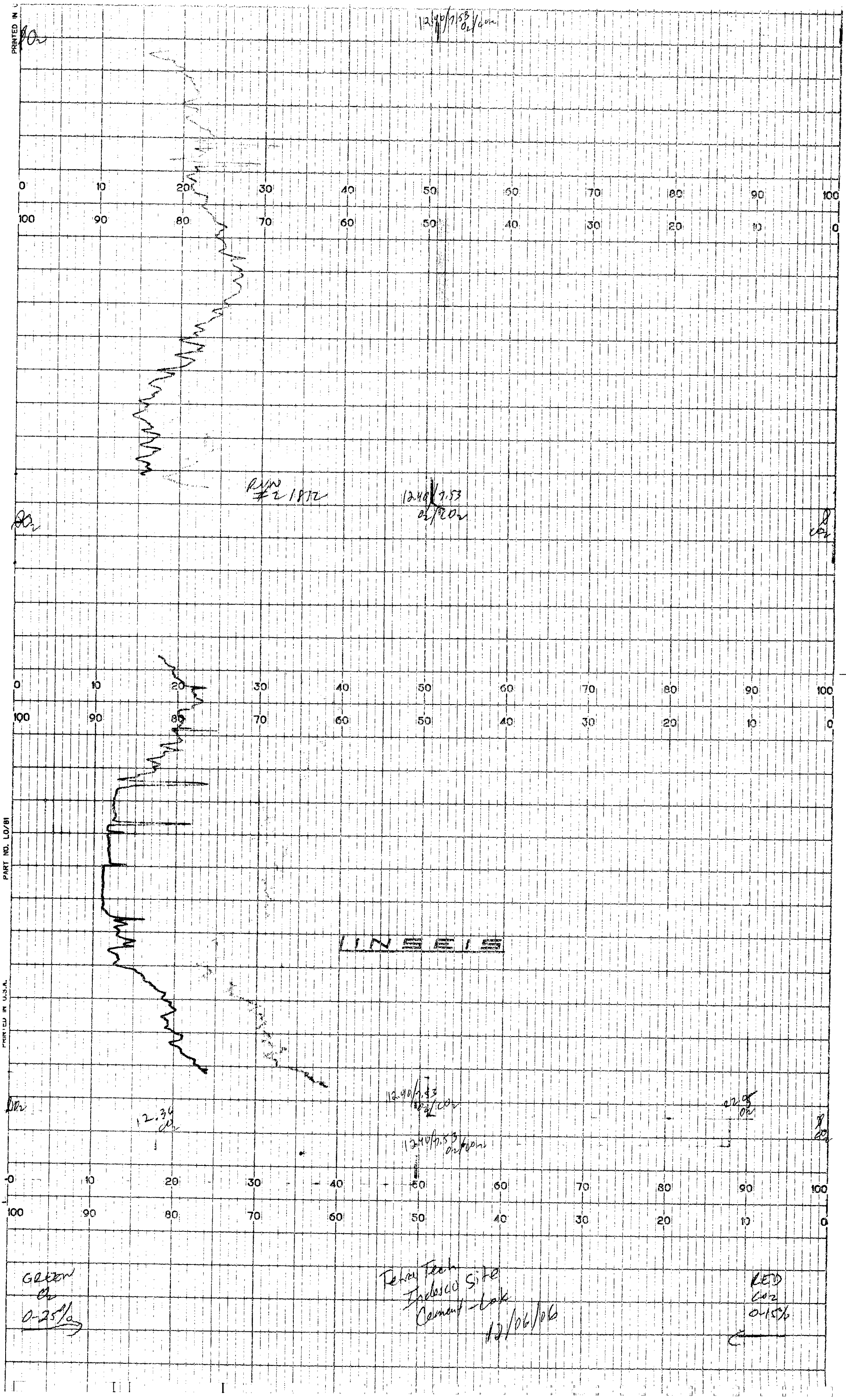
Thu	12/07/06	09:50:36	O2	6.31	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	1.27	ppm	NOx-Out	132.81	ppm	SO2	9.8
Thu	12/07/06	09:50:46	O2	6.14	%	CO2	9.23	%	CO	4.39	ppm	CH4-Out	1.17	ppm	NOx-Out	134.52	ppm	SO2	9.8
Thu	12/07/06	09:50:56	O2	5.94	%	CO2	9.23	%	CO	4.39	ppm	CH4-Out	1.22	ppm	NOx-Out	132.08	ppm	SO2	9.8
Thu	12/07/06	09:51:06	O2	5.81	%	CO2	9.23	%	CO	3.91	ppm	CH4-Out	1.27	ppm	NOx-Out	129.64	ppm	SO2	9.8
Thu	12/07/06	09:51:16	O2	5.80	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	1.12	ppm	NOx-Out	126.95	ppm	SO2	9.8
Thu	12/07/06	09:51:26	O2	5.88	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	1.22	ppm	NOx-Out	126.95	ppm	SO2	9.8
Thu	12/07/06	09:51:36	O2	6.05	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	1.42	ppm	NOx-Out	130.13	ppm	SO2	9.8
Thu	12/07/06	09:51:46	O2	6.10	%	CO2	9.74	%	CO	3.91	ppm	CH4-Out	1.37	ppm	NOx-Out	133.06	ppm	SO2	9.8
Thu	12/07/06	09:51:56	O2	5.97	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	1.42	ppm	NOx-Out	135.99	ppm	SO2	9.8
Thu	12/07/06	09:52:06	O2	5.75	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	1.32	ppm	NOx-Out	136.23	ppm	SO2	9.8
Thu	12/07/06	09:52:16	O2	5.76	%	CO2	9.59	%	CO	3.91	ppm	CH4-Out	1.27	ppm	NOx-Out	132.32	ppm	SO2	9.8
Thu	12/07/06	09:52:26	O2	6.02	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	1.12	ppm	NOx-Out	129.15	ppm	SO2	9.8
Thu	12/07/06	09:52:36	O2	6.21	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	1.17	ppm	NOx-Out	129.39	ppm	SO2	9.8
Thu	12/07/06	09:52:46	O2	6.36	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	1.07	ppm	NOx-Out	132.32	ppm	SO2	9.8
Thu	12/07/06	09:52:56	O2	6.57	%	CO2	9.52	%	CO	4.39	ppm	CH4-Out	0.98	ppm	NOx-Out	134.03	ppm	SO2	9.8
Thu	12/07/06	09:53:06	O2	6.70	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	0.93	ppm	NOx-Out	136.72	ppm	SO2	9.8
Thu	12/07/06	09:53:16	O2	6.82	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	0.88	ppm	NOx-Out	137.45	ppm	SO2	9.8
Thu	12/07/06	09:53:26	O2	6.97	%	CO2	9.01	%	CO	3.91	ppm	CH4-Out	1.03	ppm	NOx-Out	139.65	ppm	SO2	9.8
Thu	12/07/06	09:53:36	O2	7.14	%	CO2	8.94	%	CO	4.39	ppm	CH4-Out	0.83	ppm	NOx-Out	142.09	ppm	SO2	9.8
Thu	12/07/06	09:53:46	O2	7.26	%	CO2	8.94	%	CO	3.91	ppm	CH4-Out	0.83	ppm	NOx-Out	145.02	ppm	SO2	9.8
Thu	12/07/06	09:53:56	O2	7.18	%	CO2	8.79	%	CO	3.91	ppm	CH4-Out	0.88	ppm	NOx-Out	147.22	ppm	SO2	9.8
Thu	12/07/06	09:54:06	O2	6.92	%	CO2	8.57	%	CO	4.39	ppm	CH4-Out	0.98	ppm	NOx-Out	148.19	ppm	SO2	9.8
Thu	12/07/06	09:54:16	O2	6.79	%	CO2	8.35	%	CO	3.91	ppm	CH4-Out	1.03	ppm	NOx-Out	147.95	ppm	SO2	9.8
Thu	12/07/06	09:54:26	O2	6.85	%	CO2	8.35	%	CO	3.91	ppm	CH4-Out	1.37	ppm	NOx-Out	144.78	ppm	SO2	9.8
Thu	12/07/06	09:54:36	O2	6.99	%	CO2	8.64	%	CO	4.39	ppm	CH4-Out	1.22	ppm	NOx-Out	142.09	ppm	SO2	9.8
Thu	12/07/06	09:54:46	O2	7.09	%	CO2	8.86	%	CO	3.91	ppm	CH4-Out	1.22	ppm	NOx-Out	140.87	ppm	SO2	9.8
Thu	12/07/06	09:54:56	O2	7.09	%	CO2	8.94	%	CO	3.91	ppm	CH4-Out	2.59	ppm	NOx-Out	142.33	ppm	SO2	9.8
Thu	12/07/06	09:55:06	O2	6.99	%	CO2	8.64	%	CO	3.91	ppm	CH4-Out	0.93	ppm	NOx-Out	142.82	ppm	SO2	9.8
Thu	12/07/06	09:55:16	O2	6.88	%	CO2	8.57	%	CO	3.42	ppm	CH4-Out	0.93	ppm	NOx-Out	142.09	ppm	SO2	9.8
Thu	12/07/06	09:55:26	O2	6.90	%	CO2	8.72	%	CO	3.42	ppm	CH4-Out	0.98	ppm	NOx-Out	142.33	ppm	SO2	9.8
Thu	12/07/06	09:55:36	O2	6.97	%	CO2	8.79	%	CO	4.39	ppm	CH4-Out	1.03	ppm	NOx-Out	143.07	ppm	SO2	9.8
Thu	12/07/06	09:55:46	O2	7.10	%	CO2	8.79	%	CO	3.91	ppm	CH4-Out	0.93	ppm	NOx-Out	145.02	ppm	SO2	9.8
Thu	12/07/06	09:55:56	O2	7.14	%	CO2	8.72	%	CO	3.91	ppm	CH4-Out	1.03	ppm	NOx-Out	146.48	ppm	SO2	9.8
Thu	12/07/06	09:56:06	O2	7.10	%	CO2	8.86	%	CO	4.39	ppm	CH4-Out	0.93	ppm	NOx-Out	148.93	ppm	SO2	9.8
Thu	12/07/06	09:56:16	O2	6.97	%	CO2	8.72	%	CO	3.91	ppm	CH4-Out	0.93	ppm	NOx-Out	151.12	ppm	SO2	9.8
Thu	12/07/06	09:56:26	O2	6.86	%	CO2	8.57	%	CO	3.91	ppm	CH4-Out	0.88	ppm	NOx-Out	150.88	ppm	SO2	9.8
Thu	12/07/06	09:56:36	O2	6.97	%	CO2	8.50	%	CO	3.91	ppm	CH4-Out	0.78	ppm	NOx-Out	149.17	ppm	SO2	9.8
Thu	12/07/06	09:56:46	O2	7.13	%	CO2	8.64	%	CO	3.91	ppm	CH4-Out	0.73	ppm	NOx-Out	147.22	ppm	SO2	9.8
Thu	12/07/06	09:56:56	O2	7.15	%	CO2	8.57	%	CO	3.91	ppm	CH4-Out	0.54	ppm	NOx-Out	148.93	ppm	SO2	9.8
Thu	12/07/06	09:57:06	O2	7.10	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	149.90	ppm	SO2	9.8
Thu	12/07/06	09:57:16	O2	7.02	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	151.61	ppm	SO2	9.8
Thu	12/07/06	09:57:26	O2	6.95	%	CO2	8.50	%	CO	3.91	ppm	CH4-Out	0.54	ppm	NOx-Out	150.39	ppm	SO2	9.8
Thu	12/07/06	09:57:36	O2	6.87	%	CO2	8.35	%	CO	4.39	ppm	CH4-Out	0.49	ppm	NOx-Out	149.66	ppm	SO2	9.8
Thu	12/07/06	09:57:46	O2	6.91	%	CO2	8.42	%	CO	4.39	ppm	CH4-Out	0.44	ppm	NOx-Out	152.59	ppm	SO2	9.8
Thu	12/07/06	09:57:56	O2	6.98	%	CO2	8.42	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	156.01	ppm	SO2	9.8
Thu	12/07/06	09:58:06	O2	6.96	%	CO2	8.42	%	CO	4.39	ppm	CH4-Out	0.49	ppm	NOx-Out	159.91	ppm	SO2	9.8
Thu	12/07/06	09:58:16	O2	6.70	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	0.63	ppm	NOx-Out	161.38	ppm	SO2	9.8
Thu	12/07/06	09:58:26	O2	6.15	%	CO2	8.35	%	CO	3.91	ppm	CH4-Out	0.59	ppm	NOx-Out	162.35	ppm	SO2	9.8
Thu	12/07/06	09:58:36	O2	5.90	%	CO2	8.57	%	CO	3.91	ppm	CH4-Out	0.59	ppm	NOx-Out	155.52	ppm	SO2	9.8
Thu	12/07/06	09:58:46	O2	5.98	%	CO2	8.57	%	CO	4.39	ppm	CH4-Out	0.54	ppm	NOx-Out	145.75	ppm	SO2	9.8
Thu	12/07/06	09:58:56	O2	6.09	%	CO2	8.42	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	143.07	ppm	SO2	9.8
Thu	12/07/06	09:59:06	O2	6.01	%	CO2	9.01	%	CO	4.39	ppm	CH4-Out	0.68	ppm	NOx-Out	143.31	ppm	SO2	9.8
Thu	12/07/06	09:59:16	O2	5.76	%	CO2	9.16	%	CO	4.39	ppm	CH4-Out	0.73	ppm	NOx-Out	143.07	ppm	SO2	9.8
Thu	12/07/06	09:59:26	O2	5.48	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	0.68	ppm	NOx-Out	141.85	ppm	SO2	9.8

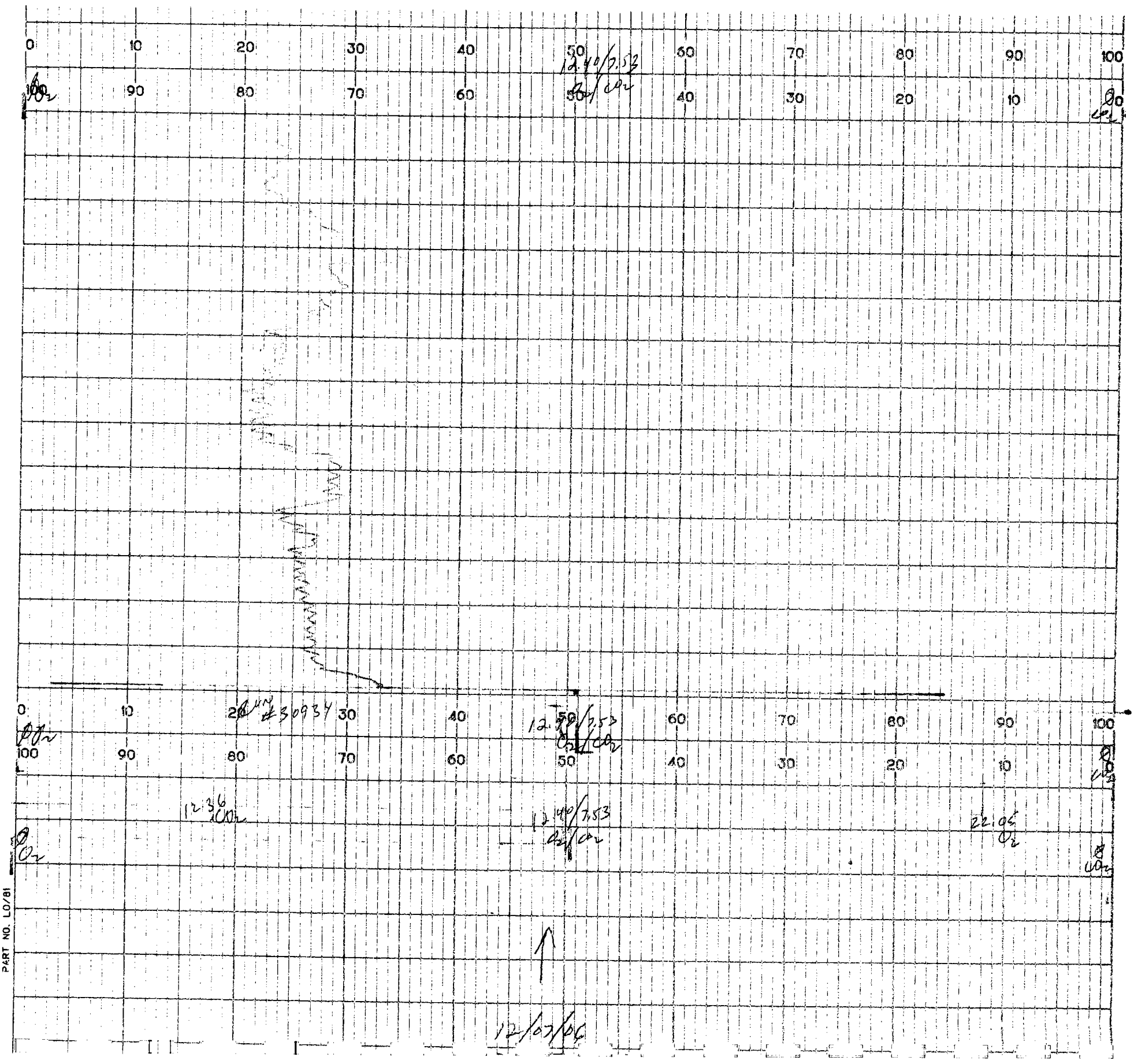
Thu	12/07/06	09:59:36	O2	5.30	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	0.68	ppm	NOx-Out	140.87	ppm	SO2	9.8
Thu	12/07/06	09:59:46	O2	5.35	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	137.21	ppm	SO2	9.8
Thu	12/07/06	09:59:56	O2	5.49	%	CO2	9.16	%	CO	4.39	ppm	CH4-Out	0.63	ppm	NOx-Out	139.40	ppm	SO2	9.8
Thu	12/07/06	10:00:06	O2	5.64	%	CO2	9.37	%	CO	4.39	ppm	CH4-Out	0.63	ppm	NOx-Out	143.31	ppm	SO2	9.8
Thu	12/07/06	10:00:16	O2	5.60	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	0.63	ppm	NOx-Out	147.46	ppm	SO2	9.8
Thu	12/07/06	10:00:26	O2	5.32	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	0.68	ppm	NOx-Out	150.63	ppm	SO2	9.8
Thu	12/07/06	10:00:36	O2	5.11	%	CO2	9.81	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	147.22	ppm	SO2	9.8
Thu	12/07/06	10:00:46	O2	5.25	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	0.54	ppm	NOx-Out	141.11	ppm	SO2	9.8
Thu	12/07/06	10:00:56	O2	5.51	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	0.59	ppm	NOx-Out	136.96	ppm	SO2	9.8
Thu	12/07/06	10:01:06	O2	5.57	%	CO2	9.52	%	CO	4.88	ppm	CH4-Out	0.68	ppm	NOx-Out	141.60	ppm	SO2	9.8
Thu	12/07/06	10:01:16	O2	5.46	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	0.73	ppm	NOx-Out	145.26	ppm	SO2	9.8
Thu	12/07/06	10:01:26	O2	5.26	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	0.68	ppm	NOx-Out	145.51	ppm	SO2	9.8
Thu	12/07/06	10:01:36	O2	5.10	%	CO2	9.81	%	CO	4.39	ppm	CH4-Out	0.68	ppm	NOx-Out	141.11	ppm	SO2	9.8
Thu	12/07/06	10:01:46	O2	5.14	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	0.63	ppm	NOx-Out	135.25	ppm	SO2	9.8
Thu	12/07/06	10:01:56	O2	5.35	%	CO2	9.52	%	CO	4.39	ppm	CH4-Out	0.54	ppm	NOx-Out	135.50	ppm	SO2	12.2
Thu	12/07/06	10:02:06	O2	5.53	%	CO2	9.37	%	CO	4.88	ppm	CH4-Out	0.54	ppm	NOx-Out	144.53	ppm	SO2	9.8
Thu	12/07/06	10:02:16	O2	5.63	%	CO2	9.52	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	156.01	ppm	SO2	9.8
Thu	12/07/06	10:02:26	O2	5.41	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	0.49	ppm	NOx-Out	161.87	ppm	SO2	9.8
Thu	12/07/06	10:02:36	O2	5.10	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	160.89	ppm	SO2	9.8
Thu	12/07/06	10:02:46	O2	5.10	%	CO2	9.59	%	CO	4.88	ppm	CH4-Out	0.68	ppm	NOx-Out	153.08	ppm	SO2	9.8
Thu	12/07/06	10:02:56	O2	5.37	%	CO2	9.30	%	CO	4.88	ppm	CH4-Out	0.68	ppm	NOx-Out	144.78	ppm	SO2	9.8
Thu	12/07/06	10:03:06	O2	5.58	%	CO2	9.23	%	CO	4.39	ppm	CH4-Out	0.59	ppm	NOx-Out	148.19	ppm	SO2	9.8
Thu	12/07/06	10:03:16	O2	5.60	%	CO2	9.45	%	CO	3.91	ppm	CH4-Out	0.68	ppm	NOx-Out	156.01	ppm	SO2	9.8
Thu	12/07/06	10:03:26	O2	5.46	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	0.88	ppm	NOx-Out	162.35	ppm	SO2	9.8
Thu	12/07/06	10:03:36	O2	5.20	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	0.78	ppm	NOx-Out	157.96	ppm	SO2	9.8
Thu	12/07/06	10:03:46	O2	5.10	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	0.68	ppm	NOx-Out	149.17	ppm	SO2	9.8
Thu	12/07/06	10:03:56	O2	5.19	%	CO2	9.30	%	CO	4.88	ppm	CH4-Out	0.59	ppm	NOx-Out	142.58	ppm	SO2	9.8
Thu	12/07/06	10:04:06	O2	5.46	%	CO2	9.37	%	CO	4.88	ppm	CH4-Out	0.54	ppm	NOx-Out	144.29	ppm	SO2	9.8
Thu	12/07/06	10:04:16	O2	5.66	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	0.39	ppm	NOx-Out	153.08	ppm	SO2	9.8
Thu	12/07/06	10:04:26	O2	5.59	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	0.44	ppm	NOx-Out	162.35	ppm	SO2	9.8
Thu	12/07/06	10:04:36	O2	5.21	%	CO2	9.74	%	CO	4.39	ppm	CH4-Out	0.44	ppm	NOx-Out	170.65	ppm	SO2	9.8
Thu	12/07/06	10:04:46	O2	4.94	%	CO2	9.67	%	CO	3.91	ppm	CH4-Out	0.29	ppm	NOx-Out	167.48	ppm	SO2	9.8
Thu	12/07/06	10:04:56	O2	5.11	%	CO2	9.52	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	155.76	ppm	SO2	9.8
Thu	12/07/06	10:05:06	O2	5.43	%	CO2	9.52	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	147.22	ppm	SO2	9.8
Thu	12/07/06	10:05:16	O2	5.63	%	CO2	9.52	%	CO	4.88	ppm	CH4-Out	0.10	ppm	NOx-Out	150.63	ppm	SO2	9.8
Thu	12/07/06	10:05:26	O2	5.60	%	CO2	9.59	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	159.42	ppm	SO2	9.8
Thu	12/07/06	10:05:36	O2	5.47	%	CO2	9.89	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	164.06	ppm	SO2	9.8
Thu	12/07/06	10:05:46	O2	5.32	%	CO2	9.89	%	CO	4.88	ppm	CH4-Out	0.15	ppm	NOx-Out	161.38	ppm	SO2	9.8
Thu	12/07/06	10:05:56	O2	5.42	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	0.20	ppm	NOx-Out	156.74	ppm	SO2	9.8
Thu	12/07/06	10:06:06	O2	5.54	%	CO2	9.45	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	160.40	ppm	SO2	9.8
Thu	12/07/06	10:06:16	O2	5.66	%	CO2	9.16	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	168.21	ppm	SO2	9.8
Thu	12/07/06	10:06:26	O2	5.77	%	CO2	9.30	%	CO	3.91	ppm	CH4-Out	0.15	ppm	NOx-Out	177.98	ppm	SO2	9.8
Thu	12/07/06	10:06:36	O2	5.74	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	0.34	ppm	NOx-Out	186.28	ppm	SO2	9.8
Thu	12/07/06	10:06:46	O2	5.48	%	CO2	9.45	%	CO	4.39	ppm	CH4-Out	0.34	ppm	NOx-Out	190.67	ppm	SO2	9.8
Thu	12/07/06	10:06:56	O2	5.40	%	CO2	9.37	%	CO	4.39	ppm	CH4-Out	0.29	ppm	NOx-Out	184.81	ppm	SO2	9.8
Thu	12/07/06	10:07:06	O2	5.59	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	0.24	ppm	NOx-Out	172.61	ppm	SO2	9.8
Thu	12/07/06	10:07:16	O2	5.83	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	0.15	ppm	NOx-Out	170.65	ppm	SO2	9.8
Thu	12/07/06	10:07:26	O2	5.91	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	0.10	ppm	NOx-Out	177.00	ppm	SO2	9.8
Thu	12/07/06	10:07:36	O2	5.83	%	CO2	9.30	%	CO	4.39	ppm	CH4-Out	0.15	ppm	NOx-Out	186.77	ppm	SO2	9.8
Thu	12/07/06	10:07:46	O2	5.73	%	CO2	9.52	%	CO	4.39	ppm	CH4-Out	0.15	ppm	NOx-Out	191.16	ppm	SO2	9.8
Thu	12/07/06	10:07:56	O2	5.62	%	CO2	9.37	%	CO	3.91	ppm	CH4-Out	0.15	ppm	NOx-Out	189.21	ppm	SO2	9.8
Thu	12/07/06	10:08:06	O2	5.66	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	0.05	ppm	NOx-Out	184.57	ppm	SO2	9.8
Thu	12/07/06	10:08:16	O2	5.86	%	CO2	9.01	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	185.79	ppm	SO2	9.8
Thu	12/07/06	10:08:26	O2	6.52	%	CO2	9.08	%	CO	4.88	ppm	CH4-Out	0.00	ppm	NOx-Out	193.60	ppm	SO2	9.8

Thu	12/07/06	10:08:36	O2	6.43	%	CO2	9.23	%	CO	4.39	ppm	CH4-Out	0.05	ppm	NOx-Out	199.71	ppm	SO2	9.8
Thu	12/07/06	10:08:46	O2	5.70	%	CO2	9.37	%	CO	4.39	ppm	CH4-Out	0.15	ppm	NOx-Out	198.49	ppm	SO2	9.8
Thu	12/07/06	10:08:56	O2	5.32	%	CO2	9.23	%	CO	4.39	ppm	CH4-Out	0.15	ppm	NOx-Out	207.52	ppm	SO2	9.8
Thu	12/07/06	10:09:06	O2	5.32	%	CO2	9.23	%	CO	4.88	ppm	CH4-Out	0.20	ppm	NOx-Out	194.82	ppm	SO2	9.8
Thu	12/07/06	10:09:16	O2	5.59	%	CO2	8.86	%	CO	4.39	ppm	CH4-Out	0.39	ppm	NOx-Out	179.69	ppm	SO2	9.8
Thu	12/07/06	10:09:26	O2	5.82	%	CO2	8.86	%	CO	4.88	ppm	CH4-Out	0.00	ppm	NOx-Out	180.18	ppm	SO2	9.8
Thu	12/07/06	10:09:36	O2	5.96	%	CO2	9.01	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	193.60	ppm	SO2	9.8
Thu	12/07/06	10:09:46	O2	5.88	%	CO2	9.37	%	CO	4.88	ppm	CH4-Out	0.00	ppm	NOx-Out	202.64	ppm	SO2	9.8
Thu	12/07/06	10:09:56	O2	5.76	%	CO2	9.59	%	CO	4.88	ppm	CH4-Out	0.15	ppm	NOx-Out	203.61	ppm	SO2	9.8
Thu	12/07/06	10:10:06	O2	5.77	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	0.10	ppm	NOx-Out	199.22	ppm	SO2	9.8
Thu	12/07/06	10:10:16	O2	5.82	%	CO2	9.37	%	CO	4.88	ppm	CH4-Out	0.10	ppm	NOx-Out	194.34	ppm	SO2	9.8
Thu	12/07/06	10:10:26	O2	5.81	%	CO2	9.16	%	CO	4.88	ppm	CH4-Out	0.05	ppm	NOx-Out	198.73	ppm	SO2	9.8
Thu	12/07/06	10:10:36	O2	5.80	%	CO2	8.86	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	204.10	ppm	SO2	9.8
Thu	12/07/06	10:10:46	O2	5.73	%	CO2	9.16	%	CO	4.88	ppm	CH4-Out	0.05	ppm	NOx-Out	205.08	ppm	SO2	9.8
Thu	12/07/06	10:10:56	O2	5.51	%	CO2	9.16	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	202.39	ppm	SO2	9.8
Thu	12/07/06	10:11:06	O2	5.37	%	CO2	9.16	%	CO	4.88	ppm	CH4-Out	0.10	ppm	NOx-Out	196.78	ppm	SO2	9.8
Thu	12/07/06	10:11:16	O2	5.54	%	CO2	9.23	%	CO	4.88	ppm	CH4-Out	0.05	ppm	NOx-Out	185.79	ppm	SO2	9.8
Thu	12/07/06	10:11:26	O2	5.90	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	177.49	ppm	SO2	9.8
Thu	12/07/06	10:11:36	O2	6.14	%	CO2	9.23	%	CO	4.88	ppm	CH4-Out	0.00	ppm	NOx-Out	182.86	ppm	SO2	9.8
Thu	12/07/06	10:11:46	O2	6.20	%	CO2	8.94	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	192.14	ppm	SO2	9.8
Thu	12/07/06	10:11:56	O2	6.23	%	CO2	8.86	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	196.04	ppm	SO2	9.8
Thu	12/07/06	10:12:06	O2	6.18	%	CO2	8.94	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	197.51	ppm	SO2	9.8
Thu	12/07/06	10:12:16	O2	6.23	%	CO2	8.79	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	194.82	ppm	SO2	12.2
Thu	12/07/06	10:12:26	O2	6.40	%	CO2	8.94	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	193.85	ppm	SO2	12.2
Thu	12/07/06	10:12:36	O2	6.59	%	CO2	8.86	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	199.22	ppm	SO2	9.8
Thu	12/07/06	10:12:46	O2	6.69	%	CO2	8.72	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	203.61	ppm	SO2	9.8
Thu	12/07/06	10:12:56	O2	6.64	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	210.45	ppm	SO2	9.8
Thu	12/07/06	10:13:06	O2	6.47	%	CO2	8.57	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	214.60	ppm	SO2	9.8
Thu	12/07/06	10:13:16	O2	6.42	%	CO2	8.57	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	211.18	ppm	SO2	9.8
Thu	12/07/06	10:13:26	O2	6.57	%	CO2	8.57	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	203.12	ppm	SO2	9.8
Thu	12/07/06	10:13:36	O2	6.81	%	CO2	8.79	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	198.24	ppm	SO2	9.8
Thu	12/07/06	10:13:46	O2	6.87	%	CO2	8.64	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	200.44	ppm	SO2	9.8
Thu	12/07/06	10:13:56	O2	6.81	%	CO2	8.42	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	198.97	ppm	SO2	9.8
Thu	12/07/06	10:14:06	O2	6.73	%	CO2	8.57	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	196.04	ppm	SO2	9.8
Thu	12/07/06	10:14:16	O2	6.71	%	CO2	8.57	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	190.92	ppm	SO2	12.2
Thu	12/07/06	10:14:26	O2	6.68	%	CO2	8.64	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	185.55	ppm	SO2	9.8
Thu	12/07/06	10:14:36	O2	6.70	%	CO2	8.72	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	182.86	ppm	SO2	9.8
Thu	12/07/06	10:14:46	O2	6.87	%	CO2	8.64	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	180.91	ppm	SO2	9.8
Thu	12/07/06	10:14:56	O2	6.97	%	CO2	8.72	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	179.44	ppm	SO2	9.8
Thu	12/07/06	10:15:06	O2	6.97	%	CO2	8.79	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	178.96	ppm	SO2	9.8
Thu	12/07/06	10:15:16	O2	6.88	%	CO2	8.57	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	181.64	ppm	SO2	9.8
Thu	12/07/06	10:15:26	O2	6.86	%	CO2	8.57	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	180.91	ppm	SO2	9.8
Thu	12/07/06	10:15:36	O2	7.01	%	CO2	8.50	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	179.44	ppm	SO2	9.8
Thu	12/07/06	10:15:46	O2	7.17	%	CO2	8.64	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	179.44	ppm	SO2	9.8
Thu	12/07/06	10:15:56	O2	7.28	%	CO2	8.64	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	179.69	ppm	SO2	9.8
Thu	12/07/06	10:16:06	O2	7.26	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	181.40	ppm	SO2	9.8
Thu	12/07/06	10:16:16	O2	7.14	%	CO2	8.35	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	181.88	ppm	SO2	9.8
Thu	12/07/06	10:16:26	O2	7.06	%	CO2	8.20	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	181.64	ppm	SO2	9.8
Thu	12/07/06	10:16:36	O2	7.04	%	CO2	8.35	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	180.42	ppm	SO2	9.8
Thu	12/07/06	10:16:46	O2	7.03	%	CO2	8.42	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	180.66	ppm	SO2	9.8
Thu	12/07/06	10:16:56	O2	7.02	%	CO2	8.35	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	180.66	ppm	SO2	9.8
Thu	12/07/06	10:17:06	O2	7.02	%	CO2	8.72	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	178.96	ppm	SO2	9.8
Thu	12/07/06	10:17:16	O2	6.96	%	CO2	8.64	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	177.00	ppm	SO2	9.8
Thu	12/07/06	10:17:26	O2	6.88	%	CO2	8.57	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	175.54	ppm	SO2	9.8

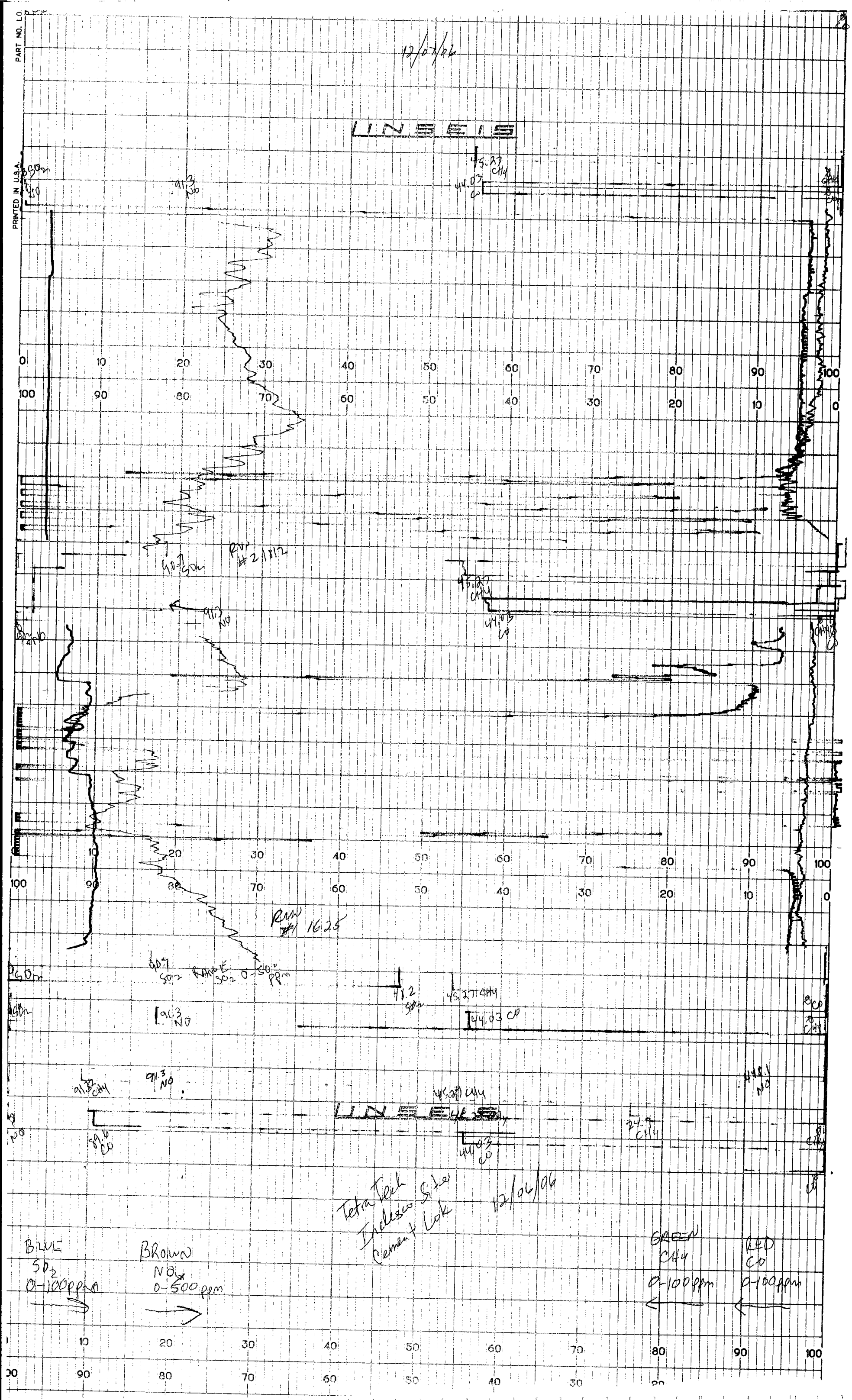
Thu	12/07/06	10:17:36	O2	6.86	%	CO2	8.42	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	173.10	ppm	SO2	12.2
Thu	12/07/06	10:17:46	O2	6.87	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	170.90	ppm	SO2	12.2
Thu	12/07/06	10:17:56	O2	6.86	%	CO2	8.57	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	169.19	ppm	SO2	12.2
Thu	12/07/06	10:18:06	O2	6.85	%	CO2	8.57	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	170.17	ppm	SO2	12.2
Thu	12/07/06	10:18:16	O2	6.86	%	CO2	8.42	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	170.17	ppm	SO2	9.8
Thu	12/07/06	10:18:26	O2	6.85	%	CO2	8.64	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	170.65	ppm	SO2	9.8
Thu	12/07/06	10:18:36	O2	7.67	%	CO2	8.57	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	170.17	ppm	SO2	9.8
Thu	12/07/06	10:18:46	O2	8.35	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	166.02	ppm	SO2	9.8
Thu	12/07/06	10:18:56	O2	8.80	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	156.25	ppm	SO2	9.8
Thu	12/07/06	10:19:06	O2	8.64	%	CO2	7.98	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	150.63	ppm	SO2	9.8
Thu	12/07/06	10:19:16	O2	8.36	%	CO2	7.54	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	146.97	ppm	SO2	9.8
Thu	12/07/06	10:19:26	O2	8.18	%	CO2	7.25	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	143.55	ppm	SO2	9.8
Thu	12/07/06	10:19:36	O2	8.06	%	CO2	7.32	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	139.89	ppm	SO2	9.8
Thu	12/07/06	10:19:46	O2	8.03	%	CO2	7.54	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	135.25	ppm	SO2	9.8
Thu	12/07/06	10:19:56	O2	8.06	%	CO2	7.76	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	133.30	ppm	SO2	9.8
Thu	12/07/06	10:20:06	O2	8.04	%	CO2	7.98	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	132.32	ppm	SO2	9.8
Thu	12/07/06	10:20:16	O2	6.85	%	CO2	7.84	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	133.06	ppm	SO2	9.8
Thu	12/07/06	10:20:26	O2	5.59	%	CO2	7.84	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	136.23	ppm	SO2	9.8
Thu	12/07/06	10:20:36	O2	5.69	%	CO2	7.69	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	153.56	ppm	SO2	9.8
Thu	12/07/06	10:20:46	O2	6.07	%	CO2	8.42	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	155.76	ppm	SO2	12.2
Thu	12/07/06	10:20:56	O2	6.47	%	CO2	9.30	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	157.23	ppm	SO2	9.8
Thu	12/07/06	10:21:06	O2	6.79	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	160.64	ppm	SO2	9.8
Thu	12/07/06	10:21:16	O2	6.95	%	CO2	9.37	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	161.62	ppm	SO2	9.8
Thu	12/07/06	10:21:26	O2	7.06	%	CO2	9.08	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	164.31	ppm	SO2	9.8
Thu	12/07/06	10:21:36	O2	7.08	%	CO2	8.86	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	163.33	ppm	SO2	9.8
Thu	12/07/06	10:21:46	O2	7.03	%	CO2	8.50	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	161.38	ppm	SO2	9.8
Thu	12/07/06	10:21:56	O2	6.98	%	CO2	8.42	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	158.45	ppm	SO2	9.8
Thu	12/07/06	10:22:06	O2	6.91	%	CO2	8.42	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	156.49	ppm	SO2	9.8
Thu	12/07/06	10:22:16	O2	6.77	%	CO2	8.57	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	156.25	ppm	SO2	9.8
Thu	12/07/06	10:22:26	O2	6.67	%	CO2	8.64	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	156.25	ppm	SO2	9.8
Thu	12/07/06	10:22:36	O2	6.62	%	CO2	8.72	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	155.76	ppm	SO2	9.8
Thu	12/07/06	10:22:46	O2	6.51	%	CO2	8.72	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	154.54	ppm	SO2	9.8
Thu	12/07/06	10:22:56	O2	6.46	%	CO2	8.79	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	154.30	ppm	SO2	9.8
Thu	12/07/06	10:23:06	O2	6.51	%	CO2	8.79	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	155.27	ppm	SO2	9.8
Thu	12/07/06	10:23:16	O2	6.56	%	CO2	8.86	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	155.76	ppm	SO2	9.8
Thu	12/07/06	10:23:26	O2	6.56	%	CO2	9.08	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	154.79	ppm	SO2	9.8
Thu	12/07/06	10:23:36	O2	6.46	%	CO2	8.94	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	154.79	ppm	SO2	9.8
Thu	12/07/06	10:23:46	O2	6.42	%	CO2	9.08	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	154.54	ppm	SO2	9.8
Thu	12/07/06	10:23:56	O2	6.45	%	CO2	8.94	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	151.61	ppm	SO2	9.8
Thu	12/07/06	10:24:06	O2	6.34	%	CO2	9.01	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	148.93	ppm	SO2	12.2
Thu	12/07/06	10:24:16	O2	6.21	%	CO2	9.08	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	146.73	ppm	SO2	9.8
Thu	12/07/06	10:24:26	O2	6.08	%	CO2	9.01	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	146.48	ppm	SO2	9.8
Thu	12/07/06	10:24:36	O2	5.94	%	CO2	9.16	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	146.73	ppm	SO2	9.8
Thu	12/07/06	10:24:46	O2	5.86	%	CO2	9.23	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	145.75	ppm	SO2	9.8
Thu	12/07/06	10:24:56	O2	5.77	%	CO2	9.37	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	145.02	ppm	SO2	9.8
Thu	12/07/06	10:25:06	O2	5.75	%	CO2	9.30	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	144.53	ppm	SO2	9.8
Thu	12/07/06	10:25:16	O2	5.79	%	CO2	9.52	%	CO	5.37	ppm	CH4-Out	0.00	ppm	NOx-Out	146.48	ppm	SO2	9.8
Thu	12/07/06	10:25:26	O2	5.77	%	CO2	9.52	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	146.48	ppm	SO2	9.8
Thu	12/07/06	10:25:36	O2	5.74	%	CO2	9.59	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	145.26	ppm	SO2	9.8
Thu	12/07/06	10:25:46	O2	5.74	%	CO2	9.52	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	143.55	ppm	SO2	9.8
Thu	12/07/06	10:25:56	O2	5.65	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	142.58	ppm	SO2	9.8
Thu	12/07/06	10:26:06	O2	5.58	%	CO2	9.74	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	141.85	ppm	SO2	9.8
Thu	12/07/06	10:26:16	O2	5.42	%	CO2	9.74	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	140.87	ppm	SO2	9.8
Thu	12/07/06	10:26:26	O2	5.35	%	CO2	9.45	%	CO	4.88	ppm	CH4-Out	0.10	ppm	NOx-Out	139.40	ppm	SO2	9.8

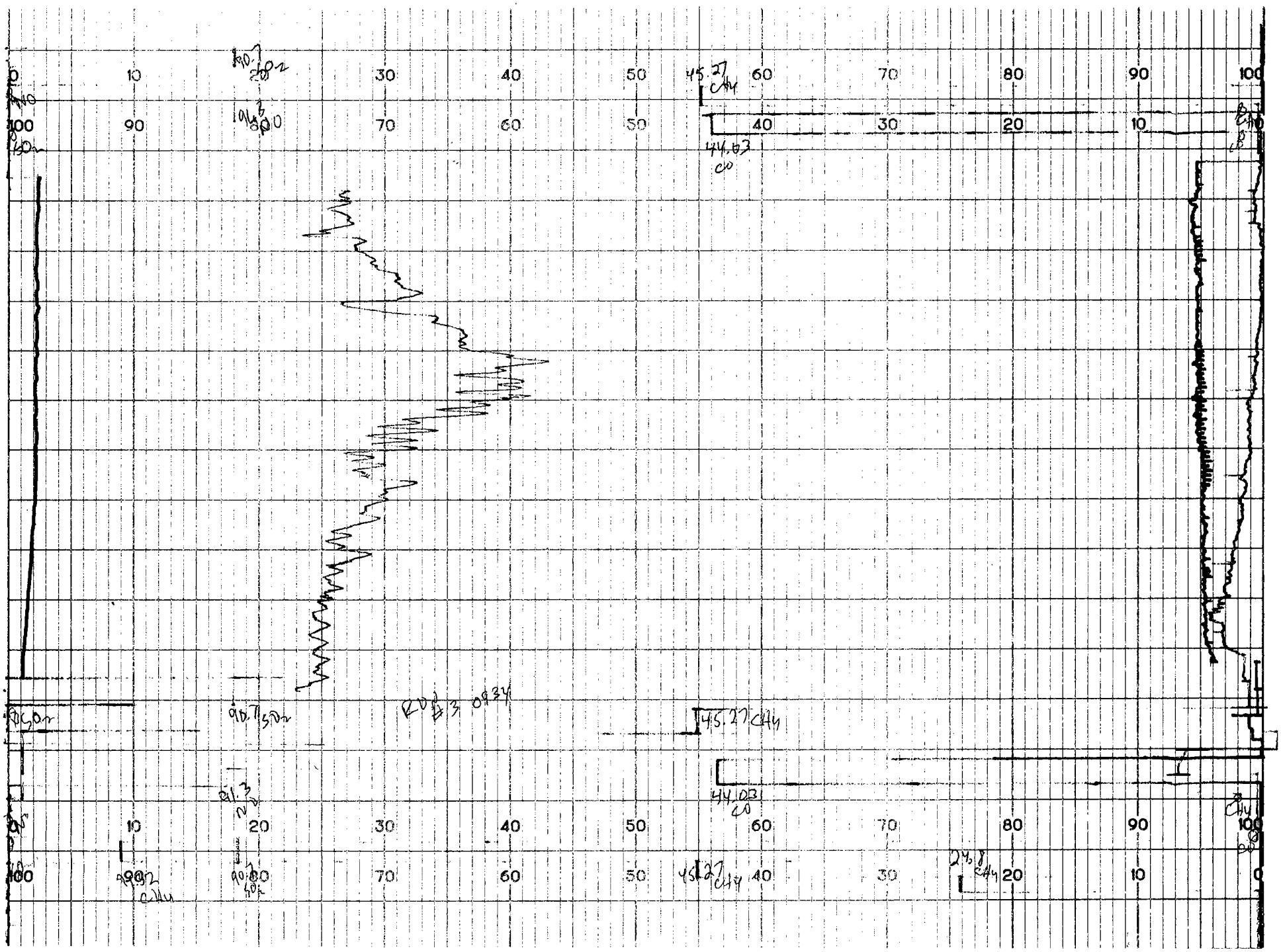
Thu	12/07/06	10:26:36	O2	5.35	%	CO2	9.74	%	CO	4.88	ppm	CH4-Out	0.20	ppm	NOx-Out	138.18	ppm	SO2	9.8
Thu	12/07/06	10:26:46	O2	5.31	%	CO2	9.89	%	CO	5.37	ppm	CH4-Out	0.10	ppm	NOx-Out	138.92	ppm	SO2	9.8
Thu	12/07/06	10:26:56	O2	5.37	%	CO2	9.74	%	CO	4.88	ppm	CH4-Out	0.20	ppm	NOx-Out	138.43	ppm	SO2	9.8
Thu	12/07/06	10:27:06	O2	5.42	%	CO2	9.96	%	CO	5.37	ppm	CH4-Out	0.20	ppm	NOx-Out	138.18	ppm	SO2	9.8
Thu	12/07/06	10:27:16	O2	5.53	%	CO2	9.81	%	CO	4.88	ppm	CH4-Out	0.10	ppm	NOx-Out	139.65	ppm	SO2	9.8
Thu	12/07/06	10:27:26	O2	5.60	%	CO2	9.96	%	CO	5.37	ppm	CH4-Out	0.24	ppm	NOx-Out	141.11	ppm	SO2	9.8
Thu	12/07/06	10:27:36	O2	5.59	%	CO2	*******	%	CO	4.88	ppm	CH4-Out	0.39	ppm	NOx-Out	142.33	ppm	SO2	9.8
Thu	12/07/06	10:27:46	O2	5.77	%	CO2	*******	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	140.62	ppm	SO2	9.8
Thu	12/07/06	10:27:56	O2	7.52	%	CO2	9.96	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	139.16	ppm	SO2	9.8
Thu	12/07/06	10:28:06	O2	7.47	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	123.05	ppm	SO2	9.8
Thu	12/07/06	10:28:16	O2	5.76	%	CO2	9.81	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	117.43	ppm	SO2	9.8
Thu	12/07/06	10:28:26	O2	4.91	%	CO2	8.94	%	CO	4.88	ppm	CH4-Out	0.29	ppm	NOx-Out	124.27	ppm	SO2	9.8
Thu	12/07/06	10:28:36	O2	4.99	%	CO2	8.28	%	CO	5.37	ppm	CH4-Out	0.29	ppm	NOx-Out	127.20	ppm	SO2	9.8
Thu	12/07/06	10:28:46	O2	5.15	%	CO2	8.94	%	CO	5.37	ppm	CH4-Out	0.24	ppm	NOx-Out	123.78	ppm	SO2	9.8
Thu	12/07/06	10:28:56	O2	5.42	%	CO2	*******	%	CO	5.37	ppm	CH4-Out	0.24	ppm	NOx-Out	126.46	ppm	SO2	9.8
Thu	12/07/06	10:29:06	O2	5.62	%	CO2	*******	%	CO	4.88	ppm	CH4-Out	0.24	ppm	NOx-Out	129.64	ppm	SO2	9.8
Thu	12/07/06	10:29:16	O2	5.71	%	CO2	*******	%	CO	4.88	ppm	CH4-Out	0.10	ppm	NOx-Out	131.35	ppm	SO2	9.8
Thu	12/07/06	10:29:26	O2	5.80	%	CO2	*******	%	CO	4.88	ppm	CH4-Out	0.10	ppm	NOx-Out	135.01	ppm	SO2	9.8
Thu	12/07/06	10:29:36	O2	5.82	%	CO2	9.89	%	CO	4.88	ppm	CH4-Out	0.05	ppm	NOx-Out	137.45	ppm	SO2	12.2
Thu	12/07/06	10:29:46	O2	5.83	%	CO2	9.89	%	CO	4.88	ppm	CH4-Out	0.05	ppm	NOx-Out	137.21	ppm	SO2	12.2
Thu	12/07/06	10:29:56	O2	5.86	%	CO2	9.81	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	135.99	ppm	SO2	12.2
Thu	12/07/06	10:30:06	O2	5.91	%	CO2	9.81	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	135.01	ppm	SO2	12.2
Thu	12/07/06	10:30:16	O2	5.93	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	135.50	ppm	SO2	9.8
Thu	12/07/06	10:30:26	O2	5.96	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	135.74	ppm	SO2	9.8
Thu	12/07/06	10:30:36	O2	5.99	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	135.25	ppm	SO2	9.8
Thu	12/07/06	10:30:46	O2	5.92	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	133.54	ppm	SO2	12.2
Thu	12/07/06	10:30:56	O2	5.80	%	CO2	9.59	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	132.08	ppm	SO2	12.2
Thu	12/07/06	10:31:06	O2	5.73	%	CO2	9.74	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	130.13	ppm	SO2	12.2
Thu	12/07/06	10:31:16	O2	5.65	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	126.71	ppm	SO2	12.2
Thu	12/07/06	10:31:26	O2	5.62	%	CO2	9.59	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	126.95	ppm	SO2	12.2
Thu	12/07/06	10:31:36	O2	5.74	%	CO2	9.59	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	129.64	ppm	SO2	12.2
Thu	12/07/06	10:31:46	O2	5.94	%	CO2	9.74	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	132.08	ppm	SO2	12.2
Thu	12/07/06	10:31:56	O2	6.01	%	CO2	9.74	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	134.28	ppm	SO2	9.8
Thu	12/07/06	10:32:06	O2	6.48	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	136.72	ppm	SO2	9.8
Thu	12/07/06	10:32:16	O2	6.54	%	CO2	9.52	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	135.01	ppm	SO2	9.8
Thu	12/07/06	10:32:26	O2	5.85	%	CO2	9.67	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	127.20	ppm	SO2	9.8
Thu	12/07/06	10:32:36	O2	5.66	%	CO2	9.37	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	135.74	ppm	SO2	12.2
Thu	12/07/06	10:32:46	O2	5.70	%	CO2	9.01	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	133.54	ppm	SO2	12.2
Thu	12/07/06	10:32:56	O2	5.91	%	CO2	9.30	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	131.35	ppm	SO2	12.2
Thu	12/07/06	10:33:06	O2	6.03	%	CO2	9.59	%	CO	4.39	ppm	CH4-Out	*******	ppm	NOx-Out	131.59	ppm	SO2	12.2
Thu	12/07/06	10:33:16	O2	6.10	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	133.30	ppm	SO2	12.2
Thu	12/07/06	10:33:26	O2	6.08	%	CO2	9.67	%	CO	4.88	ppm	CH4-Out	*******	ppm	NOx-Out	134.03	ppm	SO2	12.2
		AVG	O2	6.32	%	CO2	9.19	%	CO	4.38	ppm	CH4-Out	0.80	ppm	NOx-Out	148.23	ppm	SO2	9.1


PRINTED IN U.S.A.
PART NO. LO/81
LINSEIS
0 10 20 30 40 50 60 70 80 90 100
100 90 80 70 60 50 40 30 20 10 0
12.40/7.53 O2/CO2
RUN #2 1812
12.40/7.53 O2/CO2
12.34 O2
12.40/7.53 O2/CO2
12.40/7.53 O2/CO2
O2
CO2
GREEN O2 0-25%
RED CO2 0-15%
Petro Tech Inducco Site Cement-Lok 12/06/06


0 10 20 30 40 50 60 70 80 90 100
100 90 80 70 60 50 40 30 20 10 0
12.40/7.53
O2/CO2
0 10 20 30 40 50 60 70 80 90 100
100 90 80 70 60 50 40 30 20 10 0
12.36
CO2
12.40/7.53
O2/CO2
22.95
O2
12/07/06

PART NO. LO/81


PART NO. LO
PRINTED IN U.S.A.
12/07/96
LINEAR
45.37 CH4
44.03 CO
91.3 NO
90.7 SO2
RUN #2 1812
45.37 CH4
44.03 CO
91.3 NO
RUN #1 1625
90.7 SO2
91.3 NO
41.2 SO2
45.37 CH4
44.03 CO
91.32 CH4
91.3 NO
89.6 CO
LINEAR
44.03 CO
24.9 CH4
Tetra Tech
Indesco Site
Cement Lok
12/06/96
BLUE
SO2
0-100ppm
BROWN
NO
0-500 ppm
GREEN
CH4
0-100 ppm
RED
CO
0-100ppm



0
10
20
30
40
50
60
70
80
90
100
45.27 CH4
44.03 CO
90.7 SO2
RUN #3 0934
45.27 CH4
44.03 CO
24.8 CH4

Appendix B

Emission Calculations

AirNova, Inc.

EPA Method 6C Calculations

(Cal. Error, Bias Drift and Bias Adjustment)

Client Tetra Tech @ The Indesco Site
Project No. 2982
Test Location Carbon Bed Outlet
Test Date 12/06-07/06

Parameter: **Oxygen**
Instrument Span (% O2): 22.05

	Analyzer Calib. Gases				Upscale
	zero	*low*	*mid*	*high*	*Sys. Cal. Gas*
Actual Calibration Gas Value (% O2):	0.00	N/A	12.40	22.05	12.40
Analyzer Calibration Response (% O2):	-0.10	N/A	12.46	21.98	12.46
Analyzer Calibration Error (% Span):	-0.45	0.00	0.27	-0.32	--------

		Zero System Calibration Gas					Upscale System Calibration Gas					
Run	*Apparent Stack Conc.*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Actual Stack Conc.*
1	4.05	-0.05	0.23	-0.02	0.36	0.14	12.70	1.09	12.65	0.86	-0.23	**3.99**
2	5.22	-0.02	0.36	-0.02	0.36	0.00	12.65	0.86	12.65	0.86	0.00	**5.13**
3	6.32	-0.02	0.36	-0.02	0.36	0.00	12.65	0.86	12.70	1.09	0.23	**6.19**
4	0.00	-0.02	0.36	0.00	0.45	0.09	12.70	1.09	0.00	-56.51	-57.60	**0.02**
5	0.00	0.00	0.45	0.00	0.45	0.00	0.00	-56.51	0.00	-56.51	0.00	**ERR**
6	0.00	0.00	0.45	0.00	0.45	0.00	0.00	-56.51	0.00	-56.51	0.00	**ERR**
7	0.00	0.00	0.45	0.00	0.45	0.00	0.00	-56.51	0.00	-56.51	0.00	**ERR**
8	0.00	0.00	0.45	0.00	0.45	0.00	0.00	-56.51	0.00	-56.51	0.00	**ERR**
9	0.00	0.00	0.45	0.00	0.45	0.00	0.00	-56.51	0.00	-56.51	0.00	**ERR**
10	0.00	0.00	0.45	0.00	0.45	0.00	0.00	-56.51	0.00	-56.51	0.00	**ERR**
11	0.00	0.00	0.45	0.00	0.45	0.00	0.00	-56.51	0.00	-56.51	0.00	**ERR**
12	0.00	0.00	0.45	0.00	0.45	0.00	0.00	-56.51	0.00	-56.51	0.00	**ERR**

AirNova, Inc.

EPA Method 6C Calculations

(Cal. Error, Bias Drift and Bias Adjustment)

Client Tetra Tech @ The Indesco Site
Project No. 2982
Test Location Carbon Bed Outlet
Test Date 12/06-07/06

Parameter: **Carbon Dioxide**
Instrument Span (% CO2): 12.36

	Analyzer Calib. Gases				Upscale
	zero	*low*	*mid*	*high*	*Sys. Cal. Gas*
Actual Calibration Gas Value (% CO2):	0.00	N/A	7.53	12.36	7.53
Analyzer Calibration Response (% CO2):	0.02	N/A	7.55	12.32	7.55
Analyzer Calibration Error (% Span):	0.16	0.00	0.16	-0.32	--------

		Zero System Calibration Gas					Upscale System Calibration Gas					
Run	*Apparent Stack Conc.*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Actual Stack Conc.*
1	9.80	-0.03	0.10	0.03	0.08	0.49	7.59	0.32	7.43	-0.97	-1.29	**9.83**
2	10.29	0.03	0.08	0.06	0.32	0.24	7.43	-0.97	7.40	-1.21	-0.24	**10.47**
3	9.19	0.06	0.32	0.02	0.00	-0.32	7.40	-1.21	7.32	-1.86	-0.65	**9.41**
4	0.00	0.02	0.00	0.00	-0.16	-0.16	7.32	-1.86	0.00	-61.08	-59.22	**-0.02**
5	0.00	0.00	-0.16	0.00	-0.16	0.00	0.00	-61.08	0.00	-61.08	0.00	**ERR**
6	0.00	0.00	-0.16	0.00	-0.16	0.00	0.00	-61.08	0.00	-61.08	0.00	**ERR**
7	0.00	0.00	-0.16	0.00	-0.16	0.00	0.00	-61.08	0.00	-61.08	0.00	**ERR**
8	0.00	0.00	-0.16	0.00	-0.16	0.00	0.00	-61.08	0.00	-61.08	0.00	**ERR**
9	0.00	0.00	-0.16	0.00	-0.16	0.00	0.00	-61.08	0.00	-61.08	0.00	**ERR**
10	0.00	0.00	-0.16	0.00	-0.16	0.00	0.00	-61.08	0.00	-61.08	0.00	**ERR**
11	0.00	0.00	-0.16	0.00	-0.16	0.00	0.00	-61.08	0.00	-61.08	0.00	**ERR**
12	0.00	0.00	-0.16	0.00	-0.16	0.00	0.00	-61.08	0.00	-61.08	0.00	**ERR**

AirNova, Inc.

EPA Method 6C Calculations

(Cal. Error, Bias Drift and Bias Adjustment)

Client Tetra Tech @ The Indesco Site
Project No. 2982
Test Location Carbon Bed Outlet
Test Date 12/06-07/06

Parameter: **Carbon Monoxide**
Instrument Span (ppmV CO): 89.6

	Analyzer Calib. Gases				Upscale
	zero	*low*	*mid*	*high*	*Sys. Cal. Gas*
Actual Calibration Gas Value (ppmV CO):	0.0	0.0	44.0	89.6	44.0
Analyzer Calibration Response (ppmV CO):	0.1	0.0	44.3	89.4	44.3
Analyzer Calibration Error (% Span):	0.11	0.00	0.30	-0.22	--------

		Zero System Calibration Gas					Upscale System Calibration Gas					
Run	*Apparent Stack Conc.*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Actual Stack Conc.*
1	100.0	0.1	0.00	0.2	0.11	0.11	44.1	-0.22	43.2	-1.23	-1.00	**101.1**
2	17.3	0.2	0.11	0.3	0.22	0.11	43.2	-1.23	44.0	-0.33	0.89	**17.3**
3	4.4	0.3	0.22	0.2	0.11	-0.11	44.0	-0.33	44.1	-0.22	0.11	**4.2**
4	0.0	0.2	0.11	0.0	-0.11	-0.22	44.1	-0.22	0.0	-49.44	-49.22	**-0.2**
5	0.0	0.0	-0.11	0.0	-0.11	0.00	0.0	-49.44	0.0	-49.44	0.00	**ERR**
6	0.0	0.0	-0.11	0.0	-0.11	0.00	0.0	-49.44	0.0	-49.44	0.00	**ERR**
7	0.0	0.0	-0.11	0.0	-0.11	0.00	0.0	-49.44	0.0	-49.44	0.00	**ERR**
8	0.0	0.0	-0.11	0.0	-0.11	0.00	0.0	-49.44	0.0	-49.44	0.00	**ERR**
9	0.0	0.0	-0.11	0.0	-0.11	0.00	0.0	-49.44	0.0	-49.44	0.00	**ERR**
10	0.0	0.0	-0.11	0.0	-0.11	0.00	0.0	-49.44	0.0	-49.44	0.00	**ERR**
11	0.0	0.0	-0.11	0.0	-0.11	0.00	0.0	-49.44	0.0	-49.44	0.00	**ERR**
12	0.0	0.0	-0.11	0.0	-0.11	0.00	0.0	-49.44	0.0	-49.44	0.00	**ERR**

AirNova, Inc.

EPA Method 6C Calculations

(Cal. Error, Bias Drift and Bias Adjustment)

Client Tetra Tech @ The Indesco Site
Project No. 2982
Test Location Carbon Bed Outlet
Test Date 12/06-07/06

Parameter: **Total Hydrocarbons (as CH4)**
Instrument Span (ppmV THC): 100

	Analyzer Calib. Gases				Upscale
	zero	*low*	*mid*	*high*	*Sys. Cal. Gas*
Actual Calibration Gas Value (ppmV THC):	0.00	24.87	45.27	91.32	45.27
Analyzer Calibration Response (ppmV THC):	0.20	24.00	45.20	91.00	45.20
Analyzer Calibration Error (% Cal. Gas Value):	-------	-0.87	-0.07	-0.32	--------

		Zero System Calibration Gas					Upscale System Calibration Gas					
Run	*Apparent Stack Conc.*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Actual Stack Conc.*
1	2.65	0.20	0.00	0.50	0.30	0.30	46.00	0.80	45.60	0.40	-0.40	**2.29**
2	2.63	0.50	0.30	0.60	0.40	0.10	45.60	0.40	44.90	-0.30	-0.70	**2.11**
3	0.80	0.60	0.40	0.20	0.00	-0.40	44.90	-0.30	45.00	-0.20	0.10	**0.41**
4	0.00	0.20	0.00	0.00	-0.20	-0.20	45.00	-0.20	0.00	-45.20	-45.00	**-0.20**
5	0.00	0.00	-0.20	0.00	-0.20	0.00	0.00	-45.20	0.00	-45.20	0.00	**ERR**
6	0.00	0.00	-0.20	0.00	-0.20	0.00	0.00	-45.20	0.00	-45.20	0.00	**ERR**
7	0.00	0.00	-0.20	0.00	-0.20	0.00	0.00	-45.20	0.00	-45.20	0.00	**ERR**
8	0.00	0.00	-0.20	0.00	-0.20	0.00	0.00	-45.20	0.00	-45.20	0.00	**ERR**
9	0.00	0.00	-0.20	0.00	-0.20	0.00	0.00	-45.20	0.00	-45.20	0.00	**ERR**
10	0.00	0.00	-0.20	0.00	-0.20	0.00	0.00	-45.20	0.00	-45.20	0.00	**ERR**
11	0.00	0.00	-0.20	0.00	-0.20	0.00	0.00	-45.20	0.00	-45.20	0.00	**ERR**
12	0.00	0.00	-0.20	0.00	-0.20	0.00	0.00	-45.20	0.00	-45.20	0.00	**ERR**

AirNova, Inc.

EPA Method 6C Calculations

(Cal. Error, Bias Drift and Bias Adjustment)

Client Tetra Tech @ The Indesco Site
Project No. 2982
Test Location Carbon Bed Outlet
Test Date 12/06-07/06

Parameter: **Nitrogen Oxides (as NO2)**
Instrument Span (ppmV NOx): 448.1

	Analyzer Calib. Gases				Upscale
	zero	*low*	*mid*	*high*	*Sys. Cal. Gas*
Actual Calibration Gas Value (ppmV NOx):	0.0	0.0	91.3	448.1	91.3
Analyzer Calibration Response (ppmV NOx):	0.6	0.0	90.5	447.3	90.5
Analyzer Calibration Error (% Span):	0.13	0.00	-0.18	-0.18	--------

		Zero System Calibration Gas					Upscale System Calibration Gas					
Run	*Apparent Stack Conc.*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Actual Stack Conc.*
1	92.3	0.5	-0.02	3.0	0.54	0.56	90.5	0.00	89.0	-0.33	-0.33	**94.0**
2	131.8	3.0	0.54	0.2	-0.09	-0.62	89.0	-0.33	91.5	0.22	0.56	**134.1**
3	148.2	0.2	-0.09	0.2	-0.09	0.00	91.5	0.22	90.5	0.00	-0.22	**148.8**
4	0.0	0.2	-0.09	0.0	-0.13	-0.04	90.5	0.00	0.0	-20.20	-20.20	**-0.2**
5	0.0	0.0	-0.13	0.0	-0.13	0.00	0.0	-20.20	0.0	-20.20	0.00	**ERR**
6	0.0	0.0	-0.13	0.0	-0.13	0.00	0.0	-20.20	0.0	-20.20	0.00	**ERR**
7	0.0	0.0	-0.13	0.0	-0.13	0.00	0.0	-20.20	0.0	-20.20	0.00	**ERR**
8	0.0	0.0	-0.13	0.0	-0.13	0.00	0.0	-20.20	0.0	-20.20	0.00	**ERR**
9	0.0	0.0	-0.13	0.0	-0.13	0.00	0.0	-20.20	0.0	-20.20	0.00	**ERR**
10	0.0	0.0	-0.13	0.0	-0.13	0.00	0.0	-20.20	0.0	-20.20	0.00	**ERR**
11	0.0	0.0	-0.13	0.0	-0.13	0.00	0.0	-20.20	0.0	-20.20	0.00	**ERR**
12	0.0	0.0	-0.13	0.0	-0.13	0.00	0.0	-20.20	0.0	-20.20	0.00	**ERR**

AirNova, Inc.

EPA Method 6C Calculations

(Cal. Error, Bias Drift and Bias Adjustment)

Client Tetra Tech @ The Indesco Site
Project No. 2982
Test Location Carbon Bed Outlet
Test Date 12/06-07/06

Parameter: **Sulfur Dioxide (SO2)**
Instrument Span (ppmV SO2): 500

	Analyzer Calib. Gases				Upscale
	zero	*low*	*mid*	*high*	*Sys. Cal. Gas*
Actual Calibration Gas Value (ppmV SO2):	0.0	0.0	48.2	90.7	90.7
Analyzer Calibration Response (ppmV SO2):	0.3	0.0	47.6	86.0	86.0
Analyzer Calibration Error (% Span):	0.06	0.00	-0.12	-0.94	--------

		Zero System Calibration Gas					Upscale System Calibration Gas					
Run	*Apparent Stack Conc.*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Init. Sys. Calib. Response*	*Init. Sys. Cal. Bias (% span)*	*Final Sys. Calib. Response*	*Final Sys. Cal. Bias (% span)*	*Calib. Drift (% span)*	*Actual Stack Conc.*
1	41.6	0.3	0.00	1.0	0.14	0.14	86.0	0.00	91.3	1.06	1.06	**42.2**
2	17.2	1.0	0.14	0.4	0.02	-0.12	91.3	1.06	91.5	1.10	0.04	**16.5**
3	9.1	0.4	0.02	0.3	0.00	-0.02	91.5	1.10	90.0	0.80	-0.30	**8.8**
4	0.0	0.3	0.00	0.0	-0.06	-0.06	90.0	0.80	0.0	-17.20	-18.00	**-0.3**
5	0.0	0.0	-0.06	0.0	-0.06	0.00	0.0	-17.20	0.0	-17.20	0.00	**ERR**
6	0.0	0.0	-0.06	0.0	-0.06	0.00	0.0	-17.20	0.0	-17.20	0.00	**ERR**
7	0.0	0.0	-0.06	0.0	-0.06	0.00	0.0	-17.20	0.0	-17.20	0.00	**ERR**
8	0.0	0.0	-0.06	0.0	-0.06	0.00	0.0	-17.20	0.0	-17.20	0.00	**ERR**
9	0.0	0.0	-0.06	0.0	-0.06	0.00	0.0	-17.20	0.0	-17.20	0.00	**ERR**
10	0.0	0.0	-0.06	0.0	-0.06	0.00	0.0	-17.20	0.0	-17.20	0.00	**ERR**
11	0.0	0.0	-0.06	0.0	-0.06	0.00	0.0	-17.20	0.0	-17.20	0.00	**ERR**
12	0.0	0.0	-0.06	0.0	-0.06	0.00	0.0	-17.20	0.0	-17.20	0.00	**ERR**

2982-13

AirNova, Inc.

EPA Methods 1,2,3A,4,and 26A
(Flows, O2/CO2, H2O,and HCl)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	One
Test Date	12/06/06
Test Time	1700-1832

Emission Data

INPUT	Vlc =	1155.4	cc	Vol. of H2O collected
INPUT	Vm =	43.419	dcf	Dry gas meter reading
INPUT	Pstatic =	0.08	in. H2O	Static pressure
INPUT	Pb =	30.13	in. Hg	Barometric pressure
	Ps =	30.14	in. Hg	Stack pressure
	Pstd =	29.92	in. Hg	EPA Standard pressure
	dP =	0.4929	in. H2O ^.5	Average sq.rt delta P
	dH =	1.621	in. H2O	Average draft gauge reading
	Tm =	516.9	R	Average meter temperature
	Ts =	745.8	R	Average stack temperature
INPUT	Tstd=	529.7	R	Standard temperature
INPUT	Dn =	0.419	in.	Nozzle diameter
	An =	0.000958	sq. ft.	Area of nozzle orifice
INPUT	Y =	1.02		Meter calibration factor
INPUT	t =	64	min.	Duration of sampling time
INPUT	Ds =	2.958	ft.	Diameter of stack
	As =	6.8718	sq. ft.	Cross sectional area of stack
INPUT	Cp =	0.84		Pitot tube coefficient
	Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
	K1 =	17.704	R/in.Hg	constant
	K2 =	0.047248	cu.ft/ml	constant
	K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

INPUT	[O2]	5.13	%-dry	Oxygen concentration
INPUT	[CO2]	10.47	%-dry	Carbon Dioxide concentration
	[N2]	84.40	%-dry	Nitrogen concentration

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 45.882 dscf
1.30 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 54.591 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.543

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.43 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 36.38 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 15001.3 cfm
424.8 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 4900.5 dscfm
138.8 dscmm

8) Hydrogen Chloride Concentration and Emissions

M[HCl] = M[Cl-](mg) * MW[HCl](mg/mmol) / MW[Cl-](mg/mmol)
C[HCl] = (M[HCl](mg) * 2.205E-06(lb/mg) * 21.85(scf*inHg/lbmol*R) * K1 * 10^6) / (MW[HCl](lb/lbmol) * Vmstd(ds
C[HCl](@corr. O2) = C[HCl](ppmV) * [(20.9-corrected O2) / (20.9-actual %O2)]
E[HCl] = M[HCl](mg) * Qstd(dscfm) * (2.205E-06)(lb/mg) * 60(min/hr) / Vmstd(dscf)

M[Cl-] =	113.00	mg		
M[HCl] =	116.19	mg		
C[HCl] =	59.259	ppmV		
C[HCl] =	52.232	ppmV @	7.0	% O2
E[HCl] =	1.642	lb/hr		

9) Isokinecity, I.

% I = (100*Ts*(K3*Vlc+(Vm*Y/Tm)(Pb+dH/13.6)))/(60*t*Ps*Vs*An)
% I = 104.99

2982-14

AirNova, Inc.

EPA Methods 1,2,3A,4,and 26A
(Flows, O2/CO2, H2O,and HCl)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	Two
Test Date	12/07/06
Test Time	0959-1110

Emission Data

INPUT	Vlc =	997.9	cc	Vol. of H2O collected
INPUT	Vm =	40.593	dcf	Dry gas meter reading
INPUT	Pstatic =	0.08	in. H2O	Static pressure
INPUT	Pb =	30	in. Hg	Barometric pressure
	Ps =	30.01	in. Hg	Stack pressure
	Pstd =	29.92	in. Hg	EPA Standard pressure
	dP =	0.4786	in. H2O ^.5	Average sq.rt delta P
	dH =	1.369	in. H2O	Average draft gauge reading
	Tm =	520.3	R	Average meter temperature
	Ts =	766.8	R	Average stack temperature
INPUT	Tstd=	529.7	R	Standard temperature
INPUT	Dn =	0.419	in.	Nozzle diameter
	An =	0.000958	sq. ft.	Area of nozzle orifice
INPUT	Y =	1.02		Meter calibration factor
INPUT	t =	64	min.	Duration of sampling time
INPUT	Ds =	2.958	ft.	Diameter of stack
	As =	6.8718	sq. ft.	Cross sectional area of stack
INPUT	Cp =	0.84		Pitot tube coefficient
	Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
	K1 =	17.704	R/in.Hg	constant
	K2 =	0.047248	cu.ft/ml	constant
	K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

INPUT	[O2]	6.3	%-dry	Oxygen concentration
INPUT	[CO2]	9.2	%-dry	Carbon Dioxide concentration
	[N2]	84.50	%-dry	Nitrogen concentration

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 42.411 dscf
1.20 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 47.149 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.526

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.55 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 35.80 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 14760.8 cfm
418.0 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 4842.7 dscfm
137.1 dscmm

8) Hydrogen Chloride Concentration and Emissions

M[HCl] = M[Cl-](mg) * MW[HCl](mg/mmol) / MW[Cl-](mg/mmol)
C[HCl] = (M[HCl](mg) * 2.205E-06(lb/mg) * 21.85(scf*inHg/lbmol*R) * K1 * 10^6) / (MW[HCl](lb/lbmol) * Vmstd(ds
C[HCl](@corr. O2) = C[HCl](ppmV) * [(20.9-corrected O2) / (20.9-actual %O2)]
E[HCl] = M[HCl](mg) * Qstd(dscfm) * (2.205E-06)(lb/mg) * 60(min/hr) / Vmstd(dscf)

M[Cl-] = 90.30 mg
M[HCl] = 92.85 mg
C[HCl] = 51.230 ppmV
C[HCl] = 48.774 ppmV @ 7.0 % O2
E[HCl] = 1.403 lb/hr

9) Isokinecity, I.

% I = (100*Ts*(K3*Vlc+(Vm*Y/Tm)(Pb+dH/13.6)))/(60*t*Ps*Vs*An)
% I = 98.21

2982-01

AirNova, Inc.

EPA Methods 1,2,3,4, and 29
(Flows, O2/CO2, H2O, and Metals)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Inlet
Test Run	One
Test Date	12/06/06
Test Time	1625-1901

Emission Data

INPUT	Vlc =	2134.0	cc	Vol. of H2O collected
INPUT	Vm =	86.095	dcf	Dry gas meter reading
INPUT	Pstatic =	-7.00	in. H2O	Static pressure
INPUT	Pb =	30.13	in. Hg	Barometric pressure
	Ps =	29.62	in. Hg	Stack pressure
	Pstd =	29.92	in. Hg	EPA Standard pressure
	dP =	0.5044	in. H2O ^.5	Average sq.rt delta P
	dH =	1.719	in. H2O	Average draft gauge reading
	Tm =	522.0	R	Average meter temperature
	Ts =	796.5	R	Average stack temperature
INPUT	Tstd=	529.7	R	Standard temperature
INPUT	Dn =	0.425	in.	Nozzle diameter
	An =	0.000985	sq. ft.	Area of nozzle orifice
INPUT	Y =	1.02		Meter calibration factor
INPUT	t =	120	min.	Duration of sampling time
INPUT	Ds =	3.00	ft.	Diameter of stack
	As =	7.0684	sq. ft.	Cross sectional area of stack
INPUT	Cp =	0.84		Pitot tube coefficient
	Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
	K1 =	17.704	R/in.Hg	constant
	K2 =	0.047248	cu.ft/ml	constant
	K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

INPUT	[O2]	3.99	%-dry	Oxygen concentration
INPUT	[CO2]	9.83	%-dry	Carbon Dioxide concentration
	[N2]	86.18	%-dry	Nitrogen concentration

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 90.108 dscf
2.552 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 100.828 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.5281

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.537 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 38.718 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 16420.57 cfm
465.03 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 5101.43 dscfm
144.47 dscmm

Calculations (cont.)

8) Trace metal concentrations and emission rates

C[M] = M[M] (ug) / Vmstd (dscm)
E[M] = C[M] (ug/dscm) * (2.205E-09) (lb/ug) * Qstd (dscmm) * 60 (min/hr)
C[M](@ corr. O2) = C[M] (ug/dscm) * [(20.9-corrected %O2) / (20.9-actual %O2)]
Corrected O2 percentage is: 7.0 %

Element	Sample Mass (ug)	Conc. (ug/dscm)	Conc.@corr. O2 (ug/dscm)	Emission Rate (lb/hr)
Arsenic	10.7	4.19E+000	3.45E+000	8.01E-005
Barium	6.76	2.65E+000	2.18E+000	5.06E-005
Cadmium	5.34	2.09E+000	1.72E+000	4.00E-005
Chromium	53.5	2.10E+001	1.72E+001	4.01E-004
Cobalt	1.85	7.25E-001	5.96E-001	1.39E-005
Copper	25.6	1.00E+001	8.25E+000	1.92E-004
Lead	59.4	2.33E+001	1.91E+001	4.45E-004
Manganese	1310	5.13E+002	4.22E+002	9.81E-003
Nickel	45.8	1.79E+001	1.48E+001	3.43E-004
Selenium	15.2	5.96E+000	4.90E+000	1.14E-004
Silver	3.25	1.27E+000	1.05E+000	2.43E-005
Zinc	179	7.01E+001	5.77E+001	1.34E-003
Mercury	403	1.58E+002	1.30E+002	3.02E-003

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 105.61

" < " symbol indicates values given are the quantitative detection limit.

2982-02

AirNova, Inc.

EPA Methods 1,2,3,4, and 29
(Flows, O2/CO2, H2O, and Metals)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Inlet
Test Run	Two
Test Date	12/07/06
Test Time	0930-1148

Emission Data

INPUT	Vlc =	2044.8	cc	Vol. of H2O collected	
INPUT	Vm =	77.287	dcf	Dry gas meter reading	
INPUT	Pstatic =	-7.00	in. H2O	Static pressure	
INPUT	Pb =	30.00	in. Hg	Barometric pressure	
	Ps =	29.49	in. Hg	Stack pressure	
	Pstd =	29.92	in. Hg	EPA Standard pressure	
	dP =	0.4804	in. H2O ^.5	Average sq.rt delta P	
	dH =	1.401	in. H2O	Average draft gauge reading	
	Tm =	523.0	R	Average meter temperature	
	Ts =	800.7	R	Average stack temperature	
INPUT	Tstd=	529.7	R	Standard temperature	
INPUT	Dn =	0.425	in.	Nozzle diameter	
	An =	0.000985	sq. ft.	Area of nozzle orifice	
INPUT	Y =	1.02		Meter calibration factor	
INPUT	t =	120	min.	Duration of sampling time	
INPUT	Ds =	3.00	ft.	Diameter of stack	
	As =	7.0684	sq. ft.	Cross sectional area of stack	
INPUT	Cp =	0.84		Pitot tube coefficient	
	Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]		Pitot tube constant
	K1 =	17.704	R/in.Hg	constant	
	K2 =	0.047248	cu.ft/ml	constant	
	K3 =	0.0026688	in.Hg-cf/ml-R	constant	

Instrumental Data

INPUT	[O2]	6.19	%-dry	Oxygen concentration
INPUT	[CO2]	9.41	%-dry	Carbon Dioxide concentration
	[N2]	84.40	%-dry	Nitrogen concentration

Client	Tetra Tech @ Indesco Site	**Test Location**	Carbon Bed Inlet
Project No.	2982	**Test Run**	Two

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 80.339 dscf
2.275 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 96.613 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.5460

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.336 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 37.217 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 15783.92 cfm
447.00 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 4672.09 dscfm
132.31 dscmm

Calculations (cont.)

8) Trace metal concentrations and emission rates

C[M] = M[M] (ug) / Vmstd (dscm)
E[M] = C[M] (ug/dscm) * (2.205E-09) (lb/ug) * Qstd (dscmm) * 60 (min/hr)
C[M](@ corr. O2) = C[M] (ug/dscm) * [(20.9-corrected %O2) / (20.9-actual %O2)]
Corrected O2 percentage is: 7.0 %

Element	Sample Mass (ug)	Conc. (ug/dscm)	Conc.@corr. O2 (ug/dscm)	Emission Rate (lb/hr)
Arsenic	2.65	1.16E+000	1.10E+000	2.04E-005
Barium	5.41	2.38E+000	2.25E+000	4.16E-005
Cadmium	4.05	1.78E+000	1.68E+000	3.12E-005
Chromium	48.6	2.14E+001	2.02E+001	3.74E-004
Cobalt	0.71	3.12E-001	2.95E-001	5.46E-006
Copper	13.6	5.98E+000	5.65E+000	1.05E-004
Lead	32.8	1.44E+001	1.36E+001	2.52E-004
Manganese	35.4	1.56E+001	1.47E+001	2.72E-004
Nickel	38	1.67E+001	1.58E+001	2.92E-004
Selenium	3.04	1.34E+000	1.26E+000	2.34E-005
Silver	1.89	8.31E-001	7.85E-001	1.45E-005
Zinc	103	4.53E+001	4.28E+001	7.92E-004
Mercury	304	1.34E+002	1.26E+002	2.34E-003

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 102.82

" < " symbol indicates values given are the quantitative detection limit.

AirNova, Inc.

EPA Methods 1, 2, 3A, 4, 6C, 7E, 10, 29, & NJATM 3
(Flows, O2/CO2, H2O, SO2, NOx, CO, Metals, and NMHC)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	One
Test Date	12/06/06
Test Time	1625-1915

Emission Data

Vlc =	2019.9	cc	Vol. of H2O collected
Vm =	88.044	dcf	Dry gas meter reading
Pstatic =	0.08	in. H2O	Static pressure
Pb =	30.13	in. Hg	Barometric pressure
Ps =	30.14	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.495	in. H2O ^.5	Average sq.rt delta P
dH =	1.714	in. H2O	Average draft gauge reading
Tm =	516.7	R	Average meter temperature
Ts =	746.8	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.422	in.	Nozzle diameter
An =	9.71E-004	sq. ft.	Area of nozzle orifice
Y =	1.00		Meter calibration factor
t =	120	min.	Duration of sampling time
Ds =	2.958	ft.	Diameter of stack
As =	6.8686	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	{ft*[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047301	cu.ft/ml	constant
K3 =	0.0026718	in.Hg*cf / ml*R	constant
R =	21.85	in.Hg*scf / lbmol*R	Molar Gas Constant
CF =	0.000000072	lb/dscf / ppmVd	Conversion Factor for CO
CF =	0.000000041	lb/dscf / ppmVd	Conversion Factor for CH4
CF =	0.000000119	lb/dscf / ppmVd	Conversion Factor for NOx(as NO2)

Instrumental Data

	[O2]	3.99	%-dry	Oxygen concentration
	[CO2]	9.83	%-dry	Carbon Dioxide concentration
>	[CO]	100.0	ppmV-dry	Carbon Monoxide concentration
	[THC](asCH4)	2.3	ppmV-wet	Total Hydrocarbon concentration (as methane)
	[CH4]	0.0	ppmV-dry	Methane concentration
	[NOx](as NO2)	94.0	ppmV-dry	Nitrogen Oxides concentration (as NO2)
	[SO2]	42.2	ppmV-dry	Sulfur Dioxide concentration
	[N2]	86.18	%-dry	Nitrogen concentration

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm

Vmstd = 91.278 dscf
2.59 dscm

2) Volume of water vapor collected at standard conditions, Vwstd.

Vwstd = K2 * Vlc

Vwstd = 95.543 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)

Bws = 0.511

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((.44*%CO2) + (.32*%O2) + (.28*%N2)) * (1-Bws)] + (18*Bws)

Ms = 23.73 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5

Vs = 36.36 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As

Qa = 14983.2 cfm
424.3 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)

Qstd = 5229.8 dscfm
148.1 dscmm

Calculations (cont.)

8) Carbon Monoxide Concentration and Emissions

C[CO](@ %corr. for O2) = C[CO](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[CO] lb/hr = (C[CO](ppmVd) * Qstd(dscfm) * MW[CO](lb/lbmole) * 60(min/hr)) / 387*10^6

> C[CO] =	100.0	ppmVd			
> C[CO] =	82.2	ppmVd	(corrected to	7.0	% O2)
> E[CO] =	2.27	lb/hr			

9) Nonmethane Hydrocarbon Concentration and Emissions (as CH4)

C[THC](dry) = C[THC](ppmVw) / (1 - Bws)
C[NMHC] = C[THC](ppmVd) - C[CH4](ppmVd)
C[NMHC](@ %corr. for O2) = C[NMHC](ppmVd) * [(20.9-%corr.) / (20.9-%O2actual)]
E[NMHC] = (C[NMHC](ppmVd) * Qstd(dscfm) * MW[CH4](lb/lbmole) * 60(min/hr)) / (387 * 10^6)

C[THC] =	4.7	ppmVd			
C[NMHC] =	4.7	ppmVd			
C[NMHC] =	3.9	ppmVd	(corrected to	7.0	% O2)
E[NMHC] =	0.06	lb/hr			

10) Nitrogen Oxides Concentration and Emissions (as NO2)

C[NOx](@ %corr. for O2) = C[NOx](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[NOx] = (C[NOx](ppmVd) * Qstd(dscfm) * MW[NO2](lb/lbmole) * 60(min/hr)) / 387*10^6

C[NOx] =	94.0	ppmVd			
C[NOx] =	77.3	ppmVd	(corrected to	7.0	% O2)
E[NOx] =	3.51	lb/hr			

11) Sulfur Dioxide Concentration and Emissions

C[SO2](@ %corr. for O2) = C[SO2](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[SO2] = (C[SO2](ppmVd) * Qstd(dscfm) * MW[SO2](lb/lbmole) * 60(min/hr)) / 387*10^6

C[SO2] =	42.2	ppmVd			
C[SO2] =	34.7	ppmVd	(corrected to	7.0	% O2)
E[SO2] =	2.19	lb/hr			

12) Target Metals - Concentrations and Emission Rates

M[metal] = sample mass (ug)
C[metal] = M[metal] (ug) / sample volume (dscm)
E[metal] = C[metal] (ug/dscm) * 60 (min/hr) * Qstd (dscmm) * (1 lb / 4.536 e-08 ug)

Metal Analyte	Sample Mass (ug)	Concentration (ug/dcsm)	Mass Emission (lb/hr)	
Arsenic	4.64	1.795	3.52E-005	
Barium	5.90	2.282	4.47E-005	
Cadmium	2.17	0.839	1.64E-005	
Chromium	84.70	32.766	6.42E-004	
Cobalt	0.78	0.302	5.91E-006	
Copper	25.00	9.671	1.89E-004	
Lead	56.90	22.012	4.31E-004	
Manganese	144.00	55.706	1.09E-003	
Nickel	20.50	7.930	1.55E-004	
Selenium	4.07	1.574	3.08E-005	
Silver	6.55	2.534	4.96E-005	
Zinc	93.50	36.170	7.09E-004	
Mercury	3.40	1.315	2.58E-005	*

" * " symbol indicates values given are the quantitative detection limit and should be viewed as nondetectable.

13) Isokinetic Rate (%)

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)

% I 102.86

AirNova, Inc.

EPA Methods 1, 2, 3A, 4, 6C, 7E, 10, 29, & NJATM 3
(Flows, O2/CO2, H2O, SO2, NOx, CO, Metals, and NMHC)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	Two - Metals / Three - Gases
Test Date	12/07/06
Test Time	0929-1142

Emission Data

Vlc =	2015.4	cc	Vol. of H2O collected
Vm =	82.906	dcf	Dry gas meter reading
Pstatic =	0.08	in. H2O	Static pressure
Pb =	30.00	in. Hg	Barometric pressure
Ps =	30.01	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.480	in. H2O ^.5	Average sq.rt delta P
dH =	1.584	in. H2O	Average draft gauge reading
Tm =	524.0	R	Average meter temperature
Ts =	764.0	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.422	in.	Nozzle diameter
An =	9.71E-004	sq. ft.	Area of nozzle orifice
Y =	1.00		Meter calibration factor
t =	120	min.	Duration of sampling time
Ds =	2.958	ft.	Diameter of stack
As =	6.8686	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	{ft*[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047301	cu.ft/ml	constant
K3 =	0.0026718	in.Hg*cf / ml*R	constant
R =	21.85	in.Hg*scf / lbmol*R	Molar Gas Constant
CF =	0.000000072	lb/dscf / ppmVd	Conversion Factor for CO
CF =	0.000000041	lb/dscf / ppmVd	Conversion Factor for CH4
CF =	0.000000119	lb/dscf / ppmVd	Conversion Factor for NOx(as NO2)

Instrumental Data

[O2]	6.19	%-dry	Oxygen concentration
[CO2]	9.41	%-dry	Carbon Dioxide concentration
[CO]	4.2	ppmV-dry	Carbon Monoxide concentration
[THC](asCH4)	0.4	ppmV-wet	Total Hydrocarbon concentration (as methane)
[CH4]	0.0	ppmV-dry	Methane concentration
[NOx](as NO2)	148.8	ppmV-dry	Nitrogen Oxides concentration (as NO2)
[SO2]	8.8	ppmV-dry	Sulfur Dioxide concentration
[N2]	84.40	%-dry	Nitrogen concentration

Client	Tetra Tech @ Indesco Site	**Test Location**	Carbon Bed Outlet	
Project No.	2982	**Test Run**	12/07/06	

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm

Vmstd = 84.356 dscf

2.39 dscm

2) Volume of water vapor collected at standard conditions, Vwstd.

Vwstd = K2 * Vlc

Vwstd = 95.330 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)

Bws = 0.531

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((.44*%CO2) + (.32*%O2) + (.28*%N2)) * (1-Bws)] + (18*Bws)

Ms = 23.52 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5

Vs = 35.90 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As

Qa = 14794.5 cfm

419.0 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)

Qstd = 4829.6 dscfm

136.8 dscmm

Calculations (cont.)

8) Carbon Monoxide Concentration and Emissions

C[CO](@ %corr. for O2) = C[CO](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[CO] lb/hr = (C[CO](ppmVd) * Qstd(dscfm) * MW[CO](lb/lbmole) * 60(min/hr)) / 387*10^6

C[CO] =	4.2	ppmVd			
C[CO] =	4.0	ppmVd	(corrected to	7.0	% O2)
E[CO] =	0.09	lb/hr			

9) Nonmethane Hydrocarbon Concentration and Emissions (as CH4)

C[THC](dry) = C[THC](ppmVw) / (1 - Bws)
C[NMHC] = C[THC](ppmVd) - C[CH4](ppmVd)
C[NMHC](@ %corr. for O2) = C[NMHC](ppmVd) * [(20.9-%corr.) / (20.9-%O2actual)]
E[NMHC] = (C[NMHC](ppmVd) * Qstd(dscfm) * MW[CH4](lb/lbmole) * 60(min/hr)) / (387 * 10^6)

C[THC] =	0.9	ppmVd			
C[NMHC] =	0.9	ppmVd			
C[NMHC] =	0.8	ppmVd	(corrected to	7.0	% O2)
E[NMHC] =	0.01	lb/hr			

10) Nitrogen Oxides Concentration and Emissions (as NO2)

C[NOx](@ %corr. for O2) = C[NOx](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[NOx] = (C[NOx](ppmVd) * Qstd(dscfm) * MW[NO2](lb/lbmole) * 60(min/hr)) / 387*10^6

C[NOx] =	148.8	ppmVd			
C[NOx] =	140.6	ppmVd	(corrected to	7.0	% O2)
E[NOx] =	5.13	lb/hr			

11) Sulfur Dioxide Concentration and Emissions

C[SO2](@ %corr. for O2) = C[SO2](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[SO2] = (C[SO2](ppmVd) * Qstd(dscfm) * MW[SO2](lb/lbmole) * 60(min/hr)) / 387*10^6

C[SO2] =	8.8	ppmVd			
C[SO2] =	8.3	ppmVd	(corrected to	7.0	% O2)
E[SO2] =	0.42	lb/hr			

12) Target Metals - Concentrations and Emission Rates

M[metal] = sample mass (ug)
C[metal] = M[metal] (ug) / sample volume (dscm)
E[metal] = C[metal] (ug/dscm) * 60 (min/hr) * Qstd (dscmm) * (1 lb / 4.536 e-08 ug)

Metal Analyte	Sample Mass (ug)	Concentration (ug/dcsm)	Mass Emission (lb/hr)
Arsenic	6.06	2.537	4.59E-005
Barium	4.65	1.946	3.52E-005
Cadmium	1.38	0.578	1.05E-005
Chromium	34.80	14.567	2.64E-004
Cobalt	0.81	0.339	6.13E-006
Copper	16.60	6.949	1.26E-004
Lead	26.60	11.135	2.01E-004
Manganese	98.10	41.064	7.43E-004
Nickel	13.10	5.484	9.92E-005
Selenium	0.99	0.414	7.50E-006
Silver	0.90	0.377	6.82E-006
Zinc	48.40	20.260	3.67E-004
Mercury	77.80	32.566	5.89E-004

" * " symbol indicates values given are the quantitative detection limit and should be viewed as nondetectable.

13) Isokinetic Rate (%)

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)

% I 102.93

AirNova, Inc.

EPA Methods 1, 2, 3A, 4, 6C, 7E, 10, and NJ 1 and 3
(Flows, O2/CO2, H2O, SO2, NOx, CO, TSP and NMHC)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	One - PM / Two - Gases
Test Date	12/06/06
Test Time	1700-1832

Emission Data

INPUT	Vlc =	1155.4	cc	Vol. of H2O collected
INPUT	Vm =	43.419	dcf	Dry gas meter reading
INPUT	Pstatic =	0.08	in. H2O	Static pressure
INPUT	Pb =	30.13	in. Hg	Barometric pressure
	Ps =	30.14	in. Hg	Stack pressure
	Pstd =	29.92	in. Hg	EPA Standard pressure
	dP =	0.493	in. H2O ^.5	Average sq.rt delta P
	dH =	1.621	in. H2O	Average draft gauge reading
	Tm =	516.9	R	Average meter temperature
	Ts =	745.8	R	Average stack temperature
INPUT	Tstd=	529.7	R	Standard temperature
INPUT	Dn =	0.419	in.	Nozzle diameter
	An =	9.58E-004	sq. ft.	Area of nozzle orifice
INPUT	Y =	1.02		Meter calibration factor
INPUT	t =	64	min.	Duration of sampling time
INPUT	Ds =	2.958	ft.	Diameter of stack
	As =	6.8718	sq. ft.	Cross sectional area of stack
INPUT	Cp =	0.84		Pitot tube coefficient
	Kp =	85.49	{ft*[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
	K1 =	17.704	R/in.Hg	constant
	K2 =	0.047301	cu.ft/ml	constant
	K3 =	0.0026718	in.Hg*cf / ml*R	constant
	R =	21.85	in.Hg*scf / lbmol*R	Molar Gas Constant
	CF =	0.000000072	lb/dscf / ppmVd	Conversion Factor for CO
	CF =	0.000000041	lb/dscf / ppmVd	Conversion Factor for CH4
	CF =	0.000000119	lb/dscf / ppmVd	Conversion Factor for NOx(as NO2)
	Fd =	0	scf/MMBtu	Fuel Factor

Instrumental Data

INPUT	[O2]	5.13	%-dry	Oxygen concentration
INPUT	[CO2]	10.47	%-dry	Carbon Dioxide concentration
INPUT	[CO]	17.3	ppmV-dry	Carbon Monoxide concentration
INPUT	[THC](asCH4)	2.1	ppmV-wet	Total Hydrocarbon concentration (as methane)
INPUT	[CH4]	0.0	ppmV-dry	Methane concentration
INPUT	[NOx](as NO2)	134.1	ppmV-dry	Nitrogen Oxides concentration (as NO2)
INPUT	[SO2]	16.5	ppmV-dry	Sulfur Dioxide concentration
	[N2]	84.40	%-dry	Nitrogen concentration

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm

Vmstd = 45.882 dscf
1.30 dscm

2) Volume of water vapor collected at standard conditions, Vwstd.

Vwstd = K2 * Vlc

Vwstd = 54.651 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)

Bws = 0.544

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((.44*%CO2) + (.32*%O2) + (.28*%N2)) * (1-Bws)] + (18*Bws)

Ms = 23.42 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5

Vs = 36.39 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As

Qa = 15002.4 cfm
424.9 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)

Qstd = 4897.9 dscfm
138.7 dscmm

Calculations (cont.)

8) Carbon Monoxide Concentration and Emissions

C[CO](@ %corr. for O2) = C[CO](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[CO] lb/hr = (C[CO](ppmVd) * Qstd(dscfm) * MW[CO](lb/lbmole) * 60(min/hr)) / 387*10^6
E[CO] lb/MMBtu = C[CO] ppmVdx(CF(lb/dscf/ppmV))xFuel Factorx(20.9/(20.9-O2))

C[CO] =	17.3	ppmVd			
C[CO] =	15.2	ppmVd	(corrected to	7.0	% O2)
E[CO] =	0.37	lb/hr			
E[CO] =	0.0000	lb/MMBtu			

9) Nonmethane Hydrocarbon Concentration and Emissions (as CH4)

C[THC](dry) = C[THC](ppmVw) / (1 - Bws)
C[NMHC] = C[THC](ppmVd) - C[CH4](ppmVd)
C[NMHC](@ %corr. for O2) = C[NMHC](ppmVd) * [(20.9-%corr.) / (20.9-%O2actual)]
E[NMHC] = (C[NMHC](ppmVd) * Qstd(dscfm) * MW[CH4](lb/lbmole) * 60(min/hr)) / (387 * 10^6)
E[NMHC] lb/MMBtu = C[NMHC] ppmVdx(CF(lb/dscf/ppmV))xFuel Factorx(20.9/(20.9-O2))

C[THC] =	4.6	ppmVd			
C[NMHC] =	4.6	ppmVd			
C[NMHC] =	4.1	ppmVd	(corrected to	7.0	% O2)
E[NMHC] =	0.06	lb/hr			
E[NMHC] =	0.0000	lb/MMBtu			

10) Nitrogen Oxides Concentration and Emissions (as NO2)

C[NOx](@ %corr. for O2) = C[NOx](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[NOx] = (C[NOx](ppmVd) * Qstd(dscfm) * MW[NO2](lb/lbmole) * 60(min/hr)) / 387*10^6
E[NOx] lb/MMBtu = C[NOx] ppmVdx(CF(lb/dscf/ppmV))xFuel Factorx(20.9/(20.9-O2))

C[NOx] =	134.1	ppmVd			
C[NOx] =	118.2	ppmVd	(corrected to	7.0	% O2)
E[NOx] =	4.69	lb/hr			
E[NOx] =	0.0000	lb/MMBtu			

11) Sulfur Dioxide Concentration and Emissions

C[SO2](@ %corr. for O2) = C[SO2](ppmVd) * [(20.9-%corr.)/(20.9-%O2actual)]
E[SO2] = (C[SO2](ppmVd) * Qstd(dscfm) * MW[SO2](lb/lbmole) * 60(min/hr)) / 387*10^6

C[SO2] =	16.5	ppmVd			
C[SO2] =	14.5	ppmVd	(corrected to	7.0	% O2)
E[SO2] =	0.80	lb/hr			

12) Particulate Matter Analytical Data

INPUT	A	0.0000	g	Filter sample net wt
INPUT	B	0	ml	Front acetone wash vol.
INPUT	C	0.0000	g	Front acetone residue wt.
INPUT	D	0	ml	Acetone blank vol.
INPUT	E	0.0000	g	Acetone blank residue wt.

13) Particulate sample mass calculations

	Front Half:			
H	Acetone blank adj. residue wt	ERR	g	E * (B / D)
I	Adj. Acetone wash part.wt.	ERR	g	C - H
J	Front half sample wt.	ERR	g	A + I

14) Front Half Particulate Matter Emission Data

C[PM] = (Front Half Wt)(g) * (1/Vmstd) * 15.43(grains/g)
E lb/hr [PM] = C[PM] * Vdscfm * A * (60 min/hr) * (1 lb / 7000 grains)
E[PM] lb/MMBtu = E[PM] lb/hr*(Fuel HV) scf/Btu*(fuel use) 1 hour/kscf*kscf/1000scf*10^6Btu/MMBtu

C[PM] =	ERR	grains/dscf
C[PM] =	ERR	lb/dscf
E[PM] =	ERR	lb/hr
E[PM] =	ERR	lb/MMBtu

15) Isokinetic Rate (%)

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)

% I 105.05

Full list of PCB Congeners

Isomer name	BZ#	Isomer name	BZ#	Isomer name	BZ#
2-Chlorobiphenyl	PCB 1	2,3',4',6-Tetrachlorobiphenyl	PCB 71	2,2',3,4,5,5'-Hexachlorobiphenyl	PCB 141
3-Chlorobiphenyl	PCB 2	2,3',5,5'-Tetrachlorobiphenyl	PCB 72	2,2',3,4,5,6-Hexachlorobiphenyl	PCB 142
4-Chlorobiphenyl	PCB 3	2,3',5',6'-Tetrachlorobiphenyl	PCB 73	2,2',3,4,5,6'-Hexachlorobiphenyl	PCB 143
2,2'-Dichlorobiphenyl	PCB 4	2,4,4',5-Tetrachlorobiphenyl	PCB 74	2,2',3,4,5',6-Hexachlorobiphenyl	PCB 144
2,3-Dichlorobiphenyl	PCB 5	2,4,4',6-Tetrachlorobiphenyl	PCB 75	2,2',3,4,6,6'-Hexachlorobiphenyl	PCB 145
2,3'-Dichlorobiphenyl	PCB 6	2',3,4,5-Tetrachlorobiphenyl	PCB 76	2,2',3,4',5,5'-Hexachlorobiphenyl	PCB 146
2,4-Dichlorobiphenyl	PCB 7	3,3',4,4'-Tetrachlorobiphenyl	PCB 77	2,2',3,4',5,6-Hexachlorobiphenyl	PCB 147
2,4'-Dichlorobiphenyl	PCB 8	3,3',4,5-Tetrachlorobiphenyl	PCB 78	2,2',3,4',5,6'-Hexachlorobiphenyl	PCB 148
2,5-Dichlorobiphenyl	PCB 9	3,3',4,5'-Tetrachlorobiphenyl	PCB 79	2,2',3,4',5',6-Hexachlorobiphenyl	PCB 149
2,6-Dichlorobiphenyl	PCB 10	3,3',5,5'-Tetrachlorobiphenyl	PCB 80	2,2',3,4',6,6'-Hexachlorobiphenyl	PCB 150
3,3'-Dichlorobiphenyl	PCB 11	3,4,4',5-Tetrachlorobiphenyl	PCB 81	2,2',3,5,5',6-Hexachlorobiphenyl	PCB 151
3,4-Dichlorobiphenyl	PCB 12	2,2',3,3',4-Pentachlorobiphenyl	PCB 82	2,2',3,5,6,6'-Hexachlorobiphenyl	PCB 152
3,4'-Dichlorobiphenyl	PCB 13	2,2',3,3',5-Pentachlorobiphenyl	PCB 83	2,2',4,4',5,5'-Hexachlorobiphenyl	PCB 153
3,5-Dichlorobiphenyl	PCB 14	2,2',3,3',6-Pentachlorobiphenyl	PCB 84	2,2',4,4',5,6-Hexachlorobiphenyl	PCB 154
4,4'-Dichlorobiphenyl	PCB 15	2,2',3,4,4'-Pentachlorobiphenyl	PCB 85	2,2',4,4',6,6'-Hexachlorobiphenyl	PCB 155
2,2',3-Trichlorobiphenyl	PCB 16	2,2',3,4,5-Pentachlorobiphenyl	PCB 86	2,3,3',4,4',5-Hexachlorobiphenyl	PCB 156
2,2',4-Trichlorobiphenyl	PCB 17	2,2',3,4,5'-Pentachlorobiphenyl	PCB 87	2,3,3',4,4',5'-Hexachlorobiphenyl	PCB 157
2,2',5-Trichlorobiphenyl	PCB 18	2,2',3,4,6-Pentachlorobiphenyl	PCB 88	2,3,3',4,4',6-Hexachlorobiphenyl	PCB 158
2,2',6-Trichlorobiphenyl	PCB 19	2,2',3,4,6'-Pentachlorobiphenyl	PCB 89	2,3,3',4,5,5'-Hexachlorobiphenyl	PCB 159
2,3,3'-Trichlorobiphenyl	PCB 20	2,2',3,4',5-Pentachlorobiphenyl	PCB 90	2,3,3',4,5,6-Hexachlorobiphenyl	PCB 160
2,3,4-Trichlorobiphenyl	PCB 21	2,2',3,4',6-Pentachlorobiphenyl	PCB 91	2,3,3',4,5',6-Hexachlorobiphenyl	PCB 161
2,3,4'-Trichlorobiphenyl	PCB 22	2,2',3,5,5'-Pentachlorobiphenyl	PCB 92	2,3,3',4',5,5'-Hexachlorobiphenyl	PCB 162
2,3,5-Trichlorobiphenyl	PCB 23	2,2',3,5,6-Pentachlorobiphenyl	PCB 93	2,3,3',4',5,6-Hexachlorobiphenyl	PCB 163
2,3,6-Trichlorobiphenyl	PCB 24	2,2',3,5,6'-Pentachlorobiphenyl	PCB 94	2,3,3',4,5',6-Hexachlorobiphenyl	PCB 164
2,3',4-Trichlorobiphenyl	PCB 25	2,2',3,5',6-Pentachlorobiphenyl	PCB 95	2,3,3',5,5',6-Hexachlorobiphenyl	PCB 165
2,3',5-Trichlorobiphenyl	PCB 26	2,2',3,6,6'-Pentachlorobiphenyl	PCB 96	2,3,4,4',5,6-Hexachlorobiphenyl	PCB 166
2,3',6-Trichlorobiphenyl	PCB 27	2,2',3',4,5-Pentachlorobiphenyl	PCB 97	2,3',4,4',5,5'-Hexachlorobiphenyl	PCB 167
2,4,4'-Trichlorobiphenyl	PCB 28	2,2',3',4,6-Pentachlorobiphenyl	PCB 98	2,3',4,4',5',6-Hexachlorobiphenyl	PCB 168
2,4,5-Trichlorobiphenyl	PCB 29	2,2',4,4',5-Pentachlorobiphenyl	PCB 99	3,3',4,4',5,5'-Hexachlorobiphenyl	PCB 169
2,4,6-Trichlorobiphenyl	PCB 30	2,2',4,4',6-Pentachlorobiphenyl	PCB 100	2,2',3,3',4,4',5-Heptachlorobiphenyl	PCB 170
2,4',5-Trichlorobiphenyl	PCB 31	2,2',4,5,5'-Pentachlorobiphenyl	PCB 101	2,2',3,3',4,4',6-Heptachlorobiphenyl	PCB 171
2,4',6-Trichlorobiphenyl	PCB 32	2,2',4,5,6'-Pentachlorobiphenyl	PCB 102	2,2',3,3',4,5,5'Heptachlorobiphenyl	PCB 172
2',3,4-Trichlorobiphenyl	PCB 33	2,2',4,5',6-Pentachlorobiphenyl	PCB 103	2,2',3,3',4,5,6-Heptachlorobiphenyl	PCB 173
2',3,5-Trichlorobiphenyl	PCB 34	2,2',4,6,6'-Pentachlorobiphenyl	PCB 104	2,2',3,3',4,5,6'-Heptachlorobiphenyl	PCB 174
3,3',4-Trichlorobiphenyl	PCB 35	2,3,3',4,4'-Pentachlorobiphenyl	PCB 105	2,2',3,3',4,5',6-Heptachlorobiphenyl	PCB 175
3,3',5-Trichlorobiphenyl	PCB 36	2,3,3',4,5-Pentachlorobiphenyl	PCB 106	2,2',3,3',4,6,6'-Heptachlorobiphenyl	PCB 176
3,4,4'-Trichlorobiphenyl	PCB 37	2,3,3',4',5-Pentachlorobiphenyl	PCB 107*	2,2',3,3',4',5,6-Heptachlorobiphenyl	PCB 177
3,4,5-Trichlorobiphenyl	PCB 38	2,3,3',4,5'-Pentachlorobiphenyl	PCB 108*	2,2',3,3',5,5',6-Heptachlorobiphenyl	PCB 178
3,4',5-Trichlorobiphenyl	PCB 39	2,3,3',4,6-Pentachlorobiphenyl	PCB 109*	2,2',3,3',5,6,6'-Heptachlorobiphenyl	PCB 179
2,2',3,3'-Tetrachlorobiphenyl	PCB 40	2,3,3',4',6-Pentachlorobiphenyl	PCB 110	2,2',3,4,4',5,5'-Heptachlorobiphenyl	PCB 180
2,2',3,4-Tetrachlorobiphenyl	PCB 41	2,3,3',5,5'-Pentachlorobiphenyl	PCB 111	2,2',3,4,4',5,6-Heptachlorobiphenyl	PCB 181
2,2',3,4'-Tetrachlorobiphenyl	PCB 42	2,3,3',5,6-Pentachlorobiphenyl	PCB 112	2,2',3,4,4',5,6'-Heptachlorobiphenyl	PCB 182
2,2',3,5-Tetrachlorobiphenyl	PCB 43	2,3,3',5',6-Pentachlorobiphenyl	PCB 113	2,2',3,4,4',5',6-Heptachlorobiphenyl	PCB 183
2,2',3,5'-Tetrachlorobiphenyl	PCB 44	2,3,4,4',5-Pentachlorobiphenyl	PCB 114	2,2',3,4,4',6,6'-Heptachlorobiphenyl	PCB 184
2,2',3,6-Tetrachlorobiphenyl	PCB 45	2,3,4,4',6-Pentachlorobiphenyl	PCB 115	2,2',3,4,5,5',6-Heptachlorobiphenyl	PCB 185
2,2',3,6'-Tetrachlorobiphenyl	PCB 46	2,3,4,5,6-Pentachlorobiphenyl	PCB 116	2,2',3,4,5,6,6'-Heptachlorobiphenyl	PCB 186
2,2',4,4'-Tetrachlorobiphenyl	PCB 47	2,3,4',5,6-Pentachlorobiphenyl	PCB 117	2,2',3,4',5,5',6-Heptachlorobiphenyl	PCB 187
2,2',4,5-Tetrachlorobiphenyl	PCB 48	2,3',4,4',5-Pentachlorobiphenyl	PCB 118	2,2',3,4',5,6,6'-Heptachlorobiphenyl	PCB 188
2,2',4,5'-Tetrachlorobiphenyl	PCB 49	2,3',4,4',6-Pentachlorobiphenyl	PCB 119	2,3,3',4,4',5,5'-Heptachlorobiphenyl	PCB 189
2,2',4,6-Tetrachlorobiphenyl	PCB 50	2,3',4,5,5'-Pentachlorobiphenyl	PCB 120	2,3,3',4,4',5,6-Heptachlorobiphenyl	PCB 190
2,2',4,6'-Tetrachlorobiphenyl	PCB 51	2,3',4,5',6-Pentachlorobiphenyl	PCB 121	2,3,3',4,4',5',6-Heptachlorobiphenyl	PCB 191
2,2',5,5'-Tetrachlorobiphenyl	PCB 52	2',3,3',4,5-Pentachlorobiphenyl	PCB 122	2,3,3',4,5,5',6-Heptachlorobiphenyl	PCB 192
2,2',5,6'-Tetrachlorobiphenyl	PCB 53	2',3,4,4',5-Pentachlorobiphenyl	PCB 123	2,3,3',4',5,5',6-Heptachlorobiphenyl	PCB 193
2,2',6,6'-Tetrachlorobiphenyl	PCB 54	2',3,4,5,5'-Pentachlorobiphenyl	PCB 124	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	PCB 194
2,3,3',4-Tetrachlorobiphenyl	PCB 55	2',3,4,5,6'-Pentachlorobiphenyl	PCB 125	2,2',3,3',4,4',5,6-Octachlorobiphenyl	PCB 195
2,3,3',4'-Tetrachlorobiphenyl	PCB 56	3,3',4,4',5-Pentachlorobiphenyl	PCB 126	2,2',3,3',4,4',5',6-Octachlorobiphenyl	PCB 196
2,3,3',5-Tetrachlorobiphenyl	PCB 57	3,3',4,5,5'-Pentachlorobiphenyl	PCB 127	2,2',3,3',4,4',6,6'-Octachlorobiphenyl	PCB 197
2,3,3',5'-Tetrachlorobiphenyl	PCB 58	2,2',3,3',4,4',-Hexachlorobiphenyl	PCB 128	2,2',3,3',4,5,5',6-Octachlorobiphenyl	PCB 198
2,3,3',6-Tetrachlorobiphenyl	PCB 59	2,2',3,3',4,5-Hexachlorobiphenyl	PCB 129	2,2',3,3',4,5,6,6'-Octachlorobiphenyl	PCB 199
2,3,4,4'-Tetrachlorobiphenyl	PCB 60	2,2',3,3',4,5',-Hexachlorobiphenyl	PCB 130	2,2',3,3',4,5',6,6'-Octachlorobiphenyl	PCB 200
2,3,4,5-Tetrachlorobiphenyl	PCB 61	2,2',3,3',4,6-Hexachlorobiphenyl	PCB 131	2,2',3,3',4',5,5',6-Octachlorobiphenyl	PCB 201
2,3,4,6-Tetrachlorobiphenyl	PCB 62	2,2',3,3',4,6'-Hexachlorobiphenyl	PCB 132	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	PCB 202
2,3,4',5-Tetrachlorobiphenyl	PCB 63	2,2',3,3',5,5'-Hexachlorobiphenyl	PCB 133	2,2',3,4,4',5,5',6-Octachlorobiphenyl	PCB 203
2,3,4',6-Tetrachlorobiphenyl	PCB 64	2,2',3,3',5,6-Hexachlorobiphenyl	PCB 134	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	PCB 204
2,3,5,6-Tetrachlorobiphenyl	PCB 65	2,2',3,3',5,6'-Hexachlorobiphenyl	PCB 135	2,3,3',4,4',5,5',6-Octachlorobiphenyl	PCB 205
2,3',4,4'-Tetrachlorobiphenyl	PCB 66	2,2',3,3',6,6'-Hexachlorobiphenyl	PCB 136	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	PCB 206
2,3',4,5-Tetrachlorobiphenyl	PCB 67	2,2',3,4,4',5-Hexachlorobiphenyl	PCB 137	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	PCB 207
2,3',4,5'-Tetrachlorobiphenyl	PCB 68	2,2',3,4,4',5'-Hexachlorobiphenyl	PCB 138	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	PCB 208
2,3',4,6-Tetrachlorobiphenyl	PCB 69	2,2',3,4,4',6-Hexachlorobiphenyl	PCB 139	2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	PCB 209
2,3',4',5-Tetrachlorobiphenyl	PCB 70	2,2',3,4,4',6'-Hexachlorobiphenyl	PCB 140		

** PCB BZ # 107 = IUPAC 109*
** PCB BZ # 108 = IUPAC 107*
** PCB BZ # 109 = IUPAC 108*

2982-05

AirNova, Inc.

EPA Methods 1,2,3A,4, and 23

(Flows, O2/CO2, H2O, PCB's and PCDD/PCDF)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Inlet
Test Run	One
Test Date	12/07/06
Test Time	1406-1754

Emission Data

Vlc =	2389.6	cc	Vol. of H2O collected
Vm =	118.052	dcf	Dry gas meter reading
Pstatic =	-7.00	in. H2O	Static pressure
Pb =	30	in. Hg	Barometric pressure
Ps =	29.49	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.4784	in. H2O ^.5	Average sq.rt delta P
dH =	1.352	in. H2O	Average draft gauge reading
Tm =	531.0	R	Average meter temperature
Ts =	804.4	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.421	in.	Nozzle diameter
An =	0.000967	sq. ft.	Area of nozzle orifice
Y =	0.98		Meter calibration factor
t =	180	min.	Duration of sampling time
Ds =	3.000	ft.	Diameter of stack
As =	7.0684	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047248	cu.ft/ml	constant
K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

[O2]	6.3	%-dry	Oxygen concentration
[CO2]	9.2	%-dry	Carbon Dioxide concentration
[N2]	84.50	%-dry	Nitrogen concentration

Client	Tetra Tech @ Indesco Site	**Test Location**	Carbon Bed Inlet	**Page 2**
Project No.	2982	**Test Run**	One	

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm

Vmstd =	116.111	dscf
	3.29	dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc

Vw(std) =	112.904	scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)

Bws =	0.493	

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)

Ms =	23.94	lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5

Vs =	36.67	fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As

Qa =	15550.5	cfm
	440.4	cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)

Qstd =	5116.5	dscfm
	144.9	dscmm

Calculations (cont.)

08a) Chlorinated Dibenzodioxins (CDD) Concentrations, Emission Rates, and Equivalents

Conc. [CDD] = Mass [CCD](ng) / Vmstd(dscm)
TEF Conc. = Conc. [CDD](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
2,3,7,8-TCDD	0.0000	0.0	1	0.00E+00	0.00E+00	0.00
Total TCDD	5.1900	1.6	0	0.00E+00	0.00E+00	0.00
2,3,7,8-PeCDD	0.0148	0.0	1	4.50E-03	8.63E-11	39.13
Total PeCDD	3.3500	1.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HxCDD	0.1038	0.0	0.1	3.16E-03	6.05E-11	27.44
Total HxCDD	3.2100	1.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HpCDD	0.2750	0.1	0.01	8.36E-04	1.60E-11	7.27
Total HpCDD	0.4810	0.1	0	0.00E+00	0.00E+00	0.00
OCDD	0.0000	0.0	0.0003	0.00E+00	0.00E+00	0.00
				CDD total	**1.62829E-10**	**73.85**

08b) Chlorinated Dibenzofurans (CDF) Concentrations, Emission Rates, and Equivalents

Conc. [CDF] = Mass [CDF](ng) / Vmstd(dscm)
TEF Conc. = Conc. [CDF](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
2,3,7,8-TCDF	0.0125	0.0	0.1	3.80E-04	7.29E-12	3.30
Total TCDF	0.5270	0.2	0	0.00E+00	0.00E+00	0.00
1,2,3,7,8-PeCDF	0.0144	0.0	0.03	1.31E-04	2.52E-12	1.14
2,3,4,7,8-PeCDF	0.0210	0.0	0.30	1.92E-03	3.67E-11	16.66
Total PeCDF	0.2910	0.1	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HxCDF	0.0344	0.0	0.1	1.05E-03	2.01E-11	9.10
Total HxCDF	0.1890	0.1	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HpCDF	0.0000	0.0	0.01	0.00E+00	0.00E+00	0.00
Total HpCDF	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
OCDF	0.0000	0.0	0.0003	0.00E+00	0.00E+00	0.00
				CDF total	**6.65889E-11**	**30.20**

Calculations (cont.)

08c) Non-ortho and Mono-ortho Substituted PCBs Concentrations, Emission Rates, and Equivalents

Conc. [PCB] = Mass [PCB](ng) / Vmstd(dscm)
TEF Conc. = Conc. [PCB](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Non-ortho Substituted PCBs

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
PCB 77	0.0	0.0	0.0001	0.00E+00	0.00E+00	0.00
PCB 81	0.0	0.0	0.0003	0.00E+00	0.00E+00	0.00
PCB 126	0.0	0.0	0.1	0.00E+00	0.00E+00	0.00
PCB 169	0.0	0.0	0.03	0.00E+00	0.00E+00	0.00

Mono-ortho Substituted PCBs

PCB 105	1820.0	553.5	0.00003	1.66E-02	3.18E-10	144.36
PCB 114	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 118	5030.0	1529.7	0.00003	4.59E-02	8.80E-10	398.97
PCB 123	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 156	285.0	86.7	0.00003	2.60E-03	4.98E-11	22.61
PCB 157	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 167	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 189	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
				PCB total	**1.2479E-09**	**565.93**
				CDD/CDF/PCB Total	**1.4773E-09**	**669.98**

9) PCBs Concentrations and Emissions

C[PCB] = M[PCB](ng) / Vmstd(dscm)
E[PCB] = C[PCB](ng/dscm) * Qstd(dscmm) * (2.205E-12)(lb/ng) * 60(min/hr)

Analyte	Sample Mass (ng)	Conc. (ng/dscm)	Emission Rate (lb/hr)
PCB 1	52100.0	15844.27	3.04E-04
PCB 2	74200.0	22565.16	4.33E-04
PCB 3	31300.0	9518.73	1.82E-04
PCB 4	2770.0	842.39	1.61E-05
PCB 5	647.0	196.76	3.77E-06
PCB 6	2080.0	632.55	1.21E-05
PCB 7	1370.0	416.63	7.99E-06
PCB 8	2500.0	760.28	1.46E-05
PCB 9	1920.0	583.90	1.12E-05
PCB 10	349.0	106.14	2.03E-06
PCB 11	5400.0	1642.21	3.15E-05
PCB 12	4570.0	1389.79	2.66E-05
PCB 13	0.0	0.00	0.00E+00
PCB 14	443.0	134.72	2.58E-06
PCB 15	2740.0	833.27	1.60E-05
PCB 16	973.0	295.90	5.67E-06
PCB 17	1470.0	447.05	8.57E-06
PCB 18	3200.0	973.16	1.87E-05
PCB 19	277.0	84.24	1.61E-06
PCB 20	7150.0	2174.41	4.17E-05
PCB 21	3230.0	982.28	1.88E-05
PCB 22	2400.0	729.87	1.40E-05
PCB 23	0.0	0.00	0.00E+00
PCB 24	243.0	73.90	1.42E-06
PCB 25	352.0	107.05	2.05E-06
PCB 26	811.0	246.64	4.73E-06
PCB 27	295.0	89.71	1.72E-06
PCB 28	0.0	0.00	0.00E+00
PCB 29	0.0	0.00	0.00E+00
PCB 30	0.0	0.00	0.00E+00
PCB 31	4760.0	1447.58	2.78E-05
PCB 32	1320.0	401.43	7.70E-06
PCB 33	0.0	0.00	0.00E+00
PCB 34	0.0	0.00	0.00E+00
PCB 35	333.0	101.27	1.94E-06
PCB 36	0.0	0.00	0.00E+00
PCB 37	791.0	240.55	4.61E-06
PCB 38	158.0	48.05	9.21E-07
PCB 39	0.0	0.00	0.00E+00
PCB 40	1320.0	401.43	7.70E-06
PCB 41	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 42	819.0	249.07	4.77E-06
PCB 43	0.0	0.00	0.00E+00
PCB 44	6130.0	1864.21	3.57E-05
PCB 45	693.0	210.75	4.04E-06
PCB 46	142.0	43.18	8.28E-07
PCB 47	0.0	0.00	0.00E+00
PCB 48	735.0	223.52	4.28E-06
PCB 49	3480.0	1058.31	2.03E-05
PCB 50	0.0	0.00	0.00E+00
PCB 51	0.0	0.00	0.00E+00
PCB 52	11500.0	3497.30	6.70E-05
PCB 53	0.0	0.00	0.00E+00
PCB 54	0.0	0.00	0.00E+00
PCB 55	0.0	0.00	0.00E+00
PCB 56	1070.0	325.40	6.24E-06
PCB 57	0.0	0.00	0.00E+00
PCB 58	0.0	0.00	0.00E+00
PCB 59	516.0	156.92	3.01E-06
PCB 60	646.0	196.46	3.77E-06
PCB 61	10100.0	3071.54	5.89E-05
PCB 62	0.0	0.00	0.00E+00
PCB 63	0.0	0.00	0.00E+00
PCB 64	2230.0	678.17	1.30E-05
PCB 65	0.0	0.00	0.00E+00
PCB 66	2750.0	836.31	1.60E-05
PCB 67	78.2	23.78	4.56E-07
PCB 68	54.4	16.54	3.17E-07
PCB 69	0.0	0.00	0.00E+00
PCB 70	0.0	0.00	0.00E+00
PCB 71	0.0	0.00	0.00E+00
PCB 72	0.0	0.00	0.00E+00
PCB 73	74.3	22.60	4.33E-07
PCB 74	0.0	0.00	0.00E+00
PCB 75	0.0	0.00	0.00E+00
PCB 76	0.0	0.00	0.00E+00
PCB 77	0.0	0.00	0.00E+00
PCB 78	0.0	0.00	0.00E+00
PCB 79	108.0	32.84	6.30E-07
PCB 80	0.0	0.00	0.00E+00
PCB 81	0.0	0.00	0.00E+00
PCB 82	0.0	0.00	0.00E+00
PCB 83	675.0	205.28	3.94E-06
PCB 84	2750.0	836.31	1.60E-05
PCB 85	1550.0	471.37	9.04E-06
PCB 86	6440.0	1958.49	3.75E-05
PCB 87	0.0	0.00	0.00E+00
PCB 88	1260.0	383.18	7.35E-06

Calculations (cont.)

PCB 89	0.0	0.00	0.00E+00
PCB 90	8610.0	2618.41	5.02E-05
PCB 91	0.0	0.00	0.00E+00
PCB 92	1650.0	501.79	9.62E-06
PCB 93	0.0	0.00	0.00E+00
PCB 94	0.0	0.00	0.00E+00
PCB 95	7920.0	2408.57	4.62E-05
PCB 96	0.0	0.00	0.00E+00
PCB 97	0.0	0.00	0.00E+00
PCB 98	0.0	0.00	0.00E+00
PCB 99	3910.0	1189.08	2.28E-05
PCB 100	0.0	0.00	0.00E+00
PCB 101	0.0	0.00	0.00E+00
PCB 102	0.0	0.00	0.00E+00
PCB 103	0.0	0.00	0.00E+00
PCB 104	0.0	0.00	0.00E+00
PCB 105	1820.0	553.49	1.06E-05
PCB 106	0.0	0.00	0.00E+00
PCB 107	315.0	95.80	1.84E-06
PCB 108	0.0	0.00	0.00E+00
PCB 109	377.0	114.65	2.20E-06
PCB 110	8510.0	2588.00	4.96E-05
PCB 111	0.0	0.00	0.00E+00
PCB 112	0.0	0.00	0.00E+00
PCB 113	0.0	0.00	0.00E+00
PCB 114	0.0	0.00	0.00E+00
PCB 115	0.0	0.00	0.00E+00
PCB 116	0.0	0.00	0.00E+00
PCB 117	0.0	0.00	0.00E+00
PCB 118	5030.0	1529.69	2.93E-05
PCB 119	0.0	0.00	0.00E+00
PCB 120	0.0	0.00	0.00E+00
PCB 121	0.0	0.00	0.00E+00
PCB 122	0.0	0.00	0.00E+00
PCB 123	0.0	0.00	0.00E+00
PCB 124	0.0	0.00	0.00E+00
PCB 125	0.0	0.00	0.00E+00
PCB 126	0.0	0.00	0.00E+00
PCB 127	0.0	0.00	0.00E+00
PCB 128	545.0	165.74	3.18E-06
PCB 129	4330.0	1316.81	2.52E-05
PCB 130	336.0	102.18	1.96E-06
PCB 131	0.0	0.00	0.00E+00
PCB 132	1660.0	504.83	9.68E-06
PCB 133	0.0	0.00	0.00E+00
PCB 134	0.0	0.00	0.00E+00
PCB 135	1520.0	462.25	8.86E-06

Calculations (cont.)

PCB 136	804.0	244.51	4.69E-06
PCB 137	280.0	85.15	1.63E-06
PCB 138	0.0	0.00	0.00E+00
PCB 139	149.0	45.31	8.69E-07
PCB 140	0.0	0.00	0.00E+00
PCB 141	792.0	240.86	4.62E-06
PCB 142	0.0	0.00	0.00E+00
PCB 143	0.0	0.00	0.00E+00
PCB 144	0.0	0.00	0.00E+00
PCB 145	0.0	0.00	0.00E+00
PCB 146	515.0	156.62	3.00E-06
PCB 147	3430.0	1043.11	2.00E-05
PCB 148	0.0	0.00	0.00E+00
PCB 149	0.0	0.00	0.00E+00
PCB 150	0.0	0.00	0.00E+00
PCB 151	0.0	0.00	0.00E+00
PCB 152	0.0	0.00	0.00E+00
PCB 153	3320.0	1009.65	1.94E-05
PCB 154	0.0	0.00	0.00E+00
PCB 155	0.0	0.00	0.00E+00
PCB 156	285.0	86.67	1.66E-06
PCB 157	0.0	0.00	0.00E+00
PCB 158	433.0	131.68	2.52E-06
PCB 159	0.0	0.00	0.00E+00
PCB 160	0.0	0.00	0.00E+00
PCB 161	0.0	0.00	0.00E+00
PCB 162	0.0	0.00	0.00E+00
PCB 163	0.0	0.00	0.00E+00
PCB 164	266.0	80.89	1.55E-06
PCB 165	0.0	0.00	0.00E+00
PCB 166	0.0	0.00	0.00E+00
PCB 167	0.0	0.00	0.00E+00
PCB 168	0.0	0.00	0.00E+00
PCB 169	0.0	0.00	0.00E+00
PCB 170	0.0	0.00	0.00E+00
PCB 171	149.0	45.31	8.69E-07
PCB 172	0.0	0.00	0.00E+00
PCB 173	0.0	0.00	0.00E+00
PCB 174	345.0	104.92	2.01E-06
PCB 175	0.0	0.00	0.00E+00
PCB 176	97.4	29.62	5.68E-07
PCB 177	192.0	58.39	1.12E-06
PCB 178	0.0	0.00	0.00E+00
PCB 179	273.0	83.02	1.59E-06
PCB 180	464.0	141.11	2.71E-06
PCB 181	0.0	0.00	0.00E+00
PCB 182	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 183	284.0	86.37	1.66E-06
PCB 184	0.0	0.00	0.00E+00
PCB 185	0.0	0.00	0.00E+00
PCB 186	0.0	0.00	0.00E+00
PCB 187	410.0	124.69	2.39E-06
PCB 188	0.0	0.00	0.00E+00
PCB 189	0.0	0.00	0.00E+00
PCB 190	0.0	0.00	0.00E+00
PCB 191	0.0	0.00	0.00E+00
PCB 192	0.0	0.00	0.00E+00
PCB 193	0.0	0.00	0.00E+00
PCB 194	0.0	0.00	0.00E+00
PCB 195	0.0	0.00	0.00E+00
PCB 196	0.0	0.00	0.00E+00
PCB 197	0.0	0.00	0.00E+00
PCB 198	0.0	0.00	0.00E+00
PCB 199	0.0	0.00	0.00E+00
PCB 200	0.0	0.00	0.00E+00
PCB 201	0.0	0.00	0.00E+00
PCB 202	0.0	0.00	0.00E+00
PCB 203	0.0	0.00	0.00E+00
PCB 204	0.0	0.00	0.00E+00
PCB 205	0.0	0.00	0.00E+00
PCB 206	0.0	0.00	0.00E+00
PCB 207	0.0	0.00	0.00E+00
PCB 208	0.0	0.00	0.00E+00
PCB 209	0.0	0.00	0.00E+00

Total PCBs Emission Rate (lb/hr) 1.89E-03

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 92.19

" < " symbol indicates values given are the quantitative detection limit.

2982-06

AirNova, Inc.

EPA Methods 1,2,3A,4, and 23

(Flows, O2/CO2, H2O, PCB's and PCDD/PCDF)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Inlet
Test Run	Two
Test Date	12/07-08/06
Test Time	2026-0016

Emission Data

Vlc =	2399.6	cc	Vol. of H2O collected
Vm =	120.321	dcf	Dry gas meter reading
Pstatic =	-7.00	in. H2O	Static pressure
Pb =	30	in. Hg	Barometric pressure
Ps =	29.49	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.4887	in. H2O ^.5	Average sq.rt delta P
dH =	1.406	in. H2O	Average draft gauge reading
Tm =	514.5	R	Average meter temperature
Ts =	801.4	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.421	in.	Nozzle diameter
An =	0.000967	sq. ft.	Area of nozzle orifice
Y =	0.98		Meter calibration factor
t =	180	min.	Duration of sampling time
Ds =	3.000	ft.	Diameter of stack
As =	7.0684	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047248	cu.ft/ml	constant
K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

[O2]	10.6	%-dry	Oxygen concentration
[CO2]	5.3	%-dry	Carbon Dioxide concentration
[N2]	84.10	%-dry	Nitrogen concentration

Client	Tetra Tech @ Indesco Site	**Test Location**	Carbon Bed Inlet	**Page 2**
Project No.	2982	**Test Run**	Two	

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm

Vmstd =	122.144	dscf
	3.46	dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc

Vw(std) =	113.377	scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)

Bws =	0.481

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)

Ms =	23.85	lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5

Vs =	37.47	fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As

Qa =	15890.4	cfm
	450.0	cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)

Qstd =	5368.1	dscfm
	152.0	dscmm

Calculations (cont.)

08a) Chlorinated Dibenzodioxins (CDD) Concentrations, Emission Rates, and Equivalents

Conc. [CDD] = Mass [CCD](ng) / Vmstd(dscm)
TEF Conc. = Conc. [CDD](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
2,3,7,8-TCDD	0.0000	0.0	1	0.00E+00	0.00E+00	0.00
Total TCDD	4.2000	1.2	0	0.00E+00	0.00E+00	0.00
2,3,7,8-PeCDD	0.0000	0.0	1	0.00E+00	0.00E+00	0.00
Total PeCDD	2.4400	0.7	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HxCDD	0.0734	0.0	0.1	2.12E-03	4.27E-11	19.36
Total HxCDD	2.4200	0.7	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HpCDD	0.2450	0.1	0.01	7.08E-04	1.42E-11	6.46
Total HpCDD	0.4330	0.1	0	0.00E+00	0.00E+00	0.00
OCDD	0.0000	0.0	0.0003	0.00E+00	0.00E+00	0.00
				CDD total	**5.69234E-11**	**25.82**

08b) Chlorinated Dibenzofurans (CDF) Concentrations, Emission Rates, and Equivalents

Conc. [CDF] = Mass [CDF](ng) / Vmstd(dscm)
TEF Conc. = Conc. [CDF](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
2,3,7,8-TCDF	0.0000	0.0	0.1	0.00E+00	0.00E+00	0.00
Total TCDF	0.4000	0.1	0	0.00E+00	0.00E+00	0.00
1,2,3,7,8-PeCDF	0.0111	0.0	0.03	9.63E-05	1.94E-12	0.88
2,3,4,7,8-PeCDF	0.0194	0.0	0.30	1.68E-03	3.38E-11	15.35
Total PeCDF	0.2490	0.1	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HxCDF	0.0336	0.0	0.1	9.73E-04	1.96E-11	8.87
Total HxCDF	0.1160	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HpCDF	0.0188	0.0	0.01	5.45E-05	1.10E-12	0.50
Total HpCDF	0.0370	0.0	0	0.00E+00	0.00E+00	0.00
OCDF	0.0000	0.0	0.0003	0.00E+00	0.00E+00	0.00
				CDF total	**5.64315E-11**	**25.59**

Calculations (cont.)

08c) Non-ortho and Mono-ortho Substituted PCBs Concentrations, Emission Rates, and Equivalents

Conc. [PCB] = Mass [PCB](ng) / Vmstd(dscm)
TEF Conc. = Conc. [PCB](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Non-ortho Substituted PCBs

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
PCB 77	0.0	0.0	0.0001	0.00E+00	0.00E+00	0.00
PCB 81	0.0	0.0	0.0003	0.00E+00	0.00E+00	0.00
PCB 126	0.0	0.0	0.1	0.00E+00	0.00E+00	0.00
PCB 169	0.0	0.0	0.03	0.00E+00	0.00E+00	0.00

Mono-ortho Substituted PCBs

PCB 105	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 114	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 118	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 123	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 156	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 157	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 167	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 189	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
				PCB total	**0.0000E+00**	**0.00**
				CDD/CDF/PCB Total	**1.1335E-10**	**51.41**

9) PCBs Concentrations and Emissions

C[PCB] = M[PCB](ng) / Vmstd(dscm)
E[PCB] = C[PCB](ng/dscm) * Qstd(dscmm) * (2.205E-12)(lb/ng) * 60(min/hr)

Analyte	Sample Mass (ng)	Conc. (ng/dscm)	Emission Rate (lb/hr)
PCB 1	67800.0	19600.35	3.94E-04
PCB 2	90700.0	26220.52	5.27E-04
PCB 3	46700.0	13500.53	2.72E-04
PCB 4	2430.0	702.49	1.41E-05
PCB 5	686.0	198.32	3.99E-06
PCB 6	1980.0	572.40	1.15E-05
PCB 7	1680.0	485.67	9.77E-06
PCB 8	1340.0	387.38	7.79E-06
PCB 9	2250.0	650.45	1.31E-05
PCB 10	399.0	115.35	2.32E-06
PCB 11	2910.0	841.25	1.69E-05
PCB 12	3810.0	1101.44	2.22E-05
PCB 13	0.0	0.00	0.00E+00
PCB 14	503.0	145.41	2.92E-06
PCB 15	1870.0	540.60	1.09E-05
PCB 16	0.0	0.00	0.00E+00
PCB 17	194.0	56.08	1.13E-06
PCB 18	769.0	222.31	4.47E-06
PCB 19	0.0	0.00	0.00E+00
PCB 20	0.0	0.00	0.00E+00
PCB 21	0.0	0.00	0.00E+00
PCB 22	0.0	0.00	0.00E+00
PCB 23	0.0	0.00	0.00E+00
PCB 24	0.0	0.00	0.00E+00
PCB 25	97.8	28.27	5.69E-07
PCB 26	283.0	81.81	1.65E-06
PCB 27	50.7	14.66	2.95E-07
PCB 28	0.0	0.00	0.00E+00
PCB 29	0.0	0.00	0.00E+00
PCB 30	0.0	0.00	0.00E+00
PCB 31	0.0	0.00	0.00E+00
PCB 32	0.0	0.00	0.00E+00
PCB 33	0.0	0.00	0.00E+00
PCB 34	0.0	0.00	0.00E+00
PCB 35	196.0	56.66	1.14E-06
PCB 36	0.0	0.00	0.00E+00
PCB 37	0.0	0.00	0.00E+00
PCB 38	110.0	31.80	6.40E-07
PCB 39	0.0	0.00	0.00E+00
PCB 40	0.0	0.00	0.00E+00
PCB 41	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 42	0.0	0.00	0.00E+00
PCB 43	0.0	0.00	0.00E+00
PCB 44	594.0	171.72	3.45E-06
PCB 45	0.0	0.00	0.00E+00
PCB 46	0.0	0.00	0.00E+00
PCB 47	0.0	0.00	0.00E+00
PCB 48	107.0	30.93	6.22E-07
PCB 49	247.0	71.41	1.44E-06
PCB 50	0.0	0.00	0.00E+00
PCB 51	0.0	0.00	0.00E+00
PCB 52	0.0	0.00	0.00E+00
PCB 53	0.0	0.00	0.00E+00
PCB 54	0.0	0.00	0.00E+00
PCB 55	0.0	0.00	0.00E+00
PCB 56	120.0	34.69	6.98E-07
PCB 57	0.0	0.00	0.00E+00
PCB 58	0.0	0.00	0.00E+00
PCB 59	355.0	102.63	2.06E-06
PCB 60	0.0	0.00	0.00E+00
PCB 61	0.0	0.00	0.00E+00
PCB 62	0.0	0.00	0.00E+00
PCB 63	0.0	0.00	0.00E+00
PCB 64	185.0	53.48	1.08E-06
PCB 65	0.0	0.00	0.00E+00
PCB 66	0.0	0.00	0.00E+00
PCB 67	0.0	0.00	0.00E+00
PCB 68	0.0	0.00	0.00E+00
PCB 69	0.0	0.00	0.00E+00
PCB 70	0.0	0.00	0.00E+00
PCB 71	0.0	0.00	0.00E+00
PCB 72	0.0	0.00	0.00E+00
PCB 73	0.0	0.00	0.00E+00
PCB 74	0.0	0.00	0.00E+00
PCB 75	0.0	0.00	0.00E+00
PCB 76	0.0	0.00	0.00E+00
PCB 77	0.0	0.00	0.00E+00
PCB 78	0.0	0.00	0.00E+00
PCB 79	0.0	0.00	0.00E+00
PCB 80	0.0	0.00	0.00E+00
PCB 81	0.0	0.00	0.00E+00
PCB 82	0.0	0.00	0.00E+00
PCB 83	383.0	110.72	2.23E-06
PCB 84	0.0	0.00	0.00E+00
PCB 85	0.0	0.00	0.00E+00
PCB 86	518.0	149.75	3.01E-06
PCB 87	0.0	0.00	0.00E+00
PCB 88	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 89	0.0	0.00	0.00E+00
PCB 90	0.0	0.00	0.00E+00
PCB 91	0.0	0.00	0.00E+00
PCB 92	0.0	0.00	0.00E+00
PCB 93	0.0	0.00	0.00E+00
PCB 94	0.0	0.00	0.00E+00
PCB 95	0.0	0.00	0.00E+00
PCB 96	0.0	0.00	0.00E+00
PCB 97	0.0	0.00	0.00E+00
PCB 98	0.0	0.00	0.00E+00
PCB 99	0.0	0.00	0.00E+00
PCB 100	0.0	0.00	0.00E+00
PCB 101	0.0	0.00	0.00E+00
PCB 102	0.0	0.00	0.00E+00
PCB 103	0.0	0.00	0.00E+00
PCB 104	0.0	0.00	0.00E+00
PCB 105	0.0	0.00	0.00E+00
PCB 106	0.0	0.00	0.00E+00
PCB 107	0.0	0.00	0.00E+00
PCB 108	0.0	0.00	0.00E+00
PCB 109	0.0	0.00	0.00E+00
PCB 110	0.0	0.00	0.00E+00
PCB 111	0.0	0.00	0.00E+00
PCB 112	0.0	0.00	0.00E+00
PCB 113	0.0	0.00	0.00E+00
PCB 114	0.0	0.00	0.00E+00
PCB 115	0.0	0.00	0.00E+00
PCB 116	0.0	0.00	0.00E+00
PCB 117	0.0	0.00	0.00E+00
PCB 118	0.0	0.00	0.00E+00
PCB 119	0.0	0.00	0.00E+00
PCB 120	0.0	0.00	0.00E+00
PCB 121	0.0	0.00	0.00E+00
PCB 122	0.0	0.00	0.00E+00
PCB 123	0.0	0.00	0.00E+00
PCB 124	0.0	0.00	0.00E+00
PCB 125	0.0	0.00	0.00E+00
PCB 126	0.0	0.00	0.00E+00
PCB 127	0.0	0.00	0.00E+00
PCB 128	0.0	0.00	0.00E+00
PCB 129	0.0	0.00	0.00E+00
PCB 130	0.0	0.00	0.00E+00
PCB 131	0.0	0.00	0.00E+00
PCB 132	0.0	0.00	0.00E+00
PCB 133	0.0	0.00	0.00E+00
PCB 134	0.0	0.00	0.00E+00
PCB 135	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 136	0.0	0.00	0.00E+00
PCB 137	0.0	0.00	0.00E+00
PCB 138	0.0	0.00	0.00E+00
PCB 139	0.0	0.00	0.00E+00
PCB 140	0.0	0.00	0.00E+00
PCB 141	0.0	0.00	0.00E+00
PCB 142	0.0	0.00	0.00E+00
PCB 143	0.0	0.00	0.00E+00
PCB 144	0.0	0.00	0.00E+00
PCB 145	0.0	0.00	0.00E+00
PCB 146	0.0	0.00	0.00E+00
PCB 147	0.0	0.00	0.00E+00
PCB 148	0.0	0.00	0.00E+00
PCB 149	0.0	0.00	0.00E+00
PCB 150	0.0	0.00	0.00E+00
PCB 151	0.0	0.00	0.00E+00
PCB 152	0.0	0.00	0.00E+00
PCB 153	0.0	0.00	0.00E+00
PCB 154	0.0	0.00	0.00E+00
PCB 155	0.0	0.00	0.00E+00
PCB 156	0.0	0.00	0.00E+00
PCB 157	0.0	0.00	0.00E+00
PCB 158	0.0	0.00	0.00E+00
PCB 159	0.0	0.00	0.00E+00
PCB 160	0.0	0.00	0.00E+00
PCB 161	0.0	0.00	0.00E+00
PCB 162	0.0	0.00	0.00E+00
PCB 163	0.0	0.00	0.00E+00
PCB 164	0.0	0.00	0.00E+00
PCB 165	0.0	0.00	0.00E+00
PCB 166	0.0	0.00	0.00E+00
PCB 167	0.0	0.00	0.00E+00
PCB 168	0.0	0.00	0.00E+00
PCB 169	0.0	0.00	0.00E+00
PCB 170	0.0	0.00	0.00E+00
PCB 171	0.0	0.00	0.00E+00
PCB 172	0.0	0.00	0.00E+00
PCB 173	0.0	0.00	0.00E+00
PCB 174	0.0	0.00	0.00E+00
PCB 175	0.0	0.00	0.00E+00
PCB 176	0.0	0.00	0.00E+00
PCB 177	0.0	0.00	0.00E+00
PCB 178	0.0	0.00	0.00E+00
PCB 179	0.0	0.00	0.00E+00
PCB 180	0.0	0.00	0.00E+00
PCB 181	0.0	0.00	0.00E+00
PCB 182	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 183	0.0	0.00	0.00E+00
PCB 184	0.0	0.00	0.00E+00
PCB 185	0.0	0.00	0.00E+00
PCB 186	0.0	0.00	0.00E+00
PCB 187	0.0	0.00	0.00E+00
PCB 188	0.0	0.00	0.00E+00
PCB 189	0.0	0.00	0.00E+00
PCB 190	0.0	0.00	0.00E+00
PCB 191	0.0	0.00	0.00E+00
PCB 192	0.0	0.00	0.00E+00
PCB 193	0.0	0.00	0.00E+00
PCB 194	0.0	0.00	0.00E+00
PCB 195	0.0	0.00	0.00E+00
PCB 196	0.0	0.00	0.00E+00
PCB 197	0.0	0.00	0.00E+00
PCB 198	0.0	0.00	0.00E+00
PCB 199	0.0	0.00	0.00E+00
PCB 200	0.0	0.00	0.00E+00
PCB 201	0.0	0.00	0.00E+00
PCB 202	0.0	0.00	0.00E+00
PCB 203	0.0	0.00	0.00E+00
PCB 204	0.0	0.00	0.00E+00
PCB 205	0.0	0.00	0.00E+00
PCB 206	0.0	0.00	0.00E+00
PCB 207	0.0	0.00	0.00E+00
PCB 208	0.0	0.00	0.00E+00
PCB 209	0.0	0.00	0.00E+00

Total PCBs Emission Rate (lb/hr) 1.33E-03

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 92.43

" < " symbol indicates values given are the quantitative detection limit.

2982-07

AirNova, Inc.

EPA Methods 1,2,3A,4, and 23

(Flows, O2/CO2, H2O, PCB's and PCDD/PCDF)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	One
Test Date	12/07/06
Test Time	1406-1748

Emission Data

Vlc =	2589.3	cc	Vol. of H2O collected
Vm =	117.852	dcf	Dry gas meter reading
Pstatic =	0.08	in. H2O	Static pressure
Pb =	30	in. Hg	Barometric pressure
Ps =	30.01	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.4851	in. H2O ^.5	Average sq.rt delta P
dH =	1.407	in. H2O	Average draft gauge reading
Tm =	513.5	R	Average meter temperature
Ts =	750.0	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.419	in.	Nozzle diameter
An =	0.000958	sq. ft.	Area of nozzle orifice
Y =	1.02		Meter calibration factor
t =	184	min.	Duration of sampling time
Ds =	2.958	ft.	Diameter of stack
As =	6.8718	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047248	cu.ft/ml	constant
K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

[O2]	6.3	%-dry	Oxygen concentration
[CO2]	9.2	%-dry	Carbon Dioxide concentration
[N2]	84.50	%-dry	Nitrogen concentration

Client	Tetra Tech @ Indesco Site	**Test Location**	Carbon Bed Outlet	**Page 2**
Project No.	2982	**Test Run**	One	

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 124.774 dscf
3.53 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 122.340 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.495

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.92 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 35.61 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 14684.1 cfm
415.9 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 5251.5 dscfm
148.7 dscmm

Calculations (cont.)

08a) Chlorinated Dibenzodioxins (CDD) Concentrations, Emission Rates, and Equivalents

Conc. [CDD] = Mass [CCD](ng) / Vmstd(dscm)
TEF Conc. = Conc. [CDD](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
2,3,7,8-TCDD	0.0000	0.0	1	0.00E+00	0.00E+00	0.00
Total TCDD	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-PeCDD	0.0000	0.0	1	0.00E+00	0.00E+00	0.00
Total PeCDD	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HxCDD	0.0000	0.0	0.1	0.00E+00	0.00E+00	0.00
Total HxCDD	0.0267	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HpCDD	0.0000	0.0	0.01	0.00E+00	0.00E+00	0.00
Total HpCDD	0.0250	0.0	0	0.00E+00	0.00E+00	0.00
OCDD	0.0000	0.0	0.0003	0.00E+00	0.00E+00	0.00
				CDD total	**0**	**0.00**

08b) Chlorinated Dibenzofurans (CDF) Concentrations, Emission Rates, and Equivalents

Conc. [CDF] = Mass [CDF](ng) / Vmstd(dscm)
TEF Conc. = Conc. [CDF](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
2,3,7,8-TCDF	0.0135	0.0	0.1	3.82E-04	7.52E-12	3.41
Total TCDF	0.0705	0.0	0	0.00E+00	0.00E+00	0.00
1,2,3,7,8-PeCDF	0.0117	0.0	0.03	9.93E-05	1.95E-12	0.89
2,3,4,7,8-PeCDF	0.0132	0.0	0.30	1.12E-03	2.21E-11	10.00
Total PeCDF	0.0394	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HxCDF	0.0266	0.0	0.1	7.53E-04	1.48E-11	6.72
Total HxCDF	0.0405	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HpCDF	0.0238	0.0	0.01	6.74E-05	1.33E-12	0.60
Total HpCDF	0.0238	0.0	0	0.00E+00	0.00E+00	0.00
OCDF	0.0000	0.0	0.0003	0.00E+00	0.00E+00	0.00
				CDF total	**4.76583E-11**	**21.61**

Calculations (cont.)

08c) Non-ortho and Mono-ortho Substituted PCBs Concentrations, Emission Rates, and Equivalents

Conc. [PCB] = Mass [PCB](ng) / Vmstd(dscm)
TEF Conc. = Conc. [PCB](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Non-ortho Substituted PCBs

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
PCB 77	0.0	0.0	0.0001	0.00E+00	0.00E+00	0.00
PCB 81	0.0	0.0	0.0003	0.00E+00	0.00E+00	0.00
PCB 126	0.0	0.0	0.1	0.00E+00	0.00E+00	0.00
PCB 169	0.0	0.0	0.03	0.00E+00	0.00E+00	0.00

Mono-ortho Substituted PCBs

PCB 105	352.0	99.6	0.00003	2.99E-03	5.88E-11	26.67
PCB 114	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 118	801.0	226.7	0.00003	6.80E-03	1.34E-10	60.68
PCB 123	64.9	18.4	0.00003	5.51E-04	1.08E-11	4.92
PCB 156	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 157	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 167	47.4	13.4	0.00003	4.02E-04	7.92E-12	3.59
PCB 189	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
				PCB total	**2.1136E-10**	**95.86**
				CDD/CDF/PCB Total	**2.5902E-10**	**117.47**

9) PCBs Concentrations and Emissions

C[PCB] = M[PCB](ng) / Vmstd(dscm)
E[PCB] = C[PCB](ng/dscm) * Qstd(dscmm) * (2.205E-12)(lb/ng) * 60(min/hr)

Analyte	Sample Mass (ng)	Conc. (ng/dscm)	Emission Rate (lb/hr)
PCB 1	441.0	124.80	2.46E-06
PCB 2	224.0	63.39	1.25E-06
PCB 3	122.0	34.53	6.79E-07
PCB 4	1940.0	549.02	1.08E-05
PCB 5	0.0	0.00	0.00E+00
PCB 6	0.0	0.00	0.00E+00
PCB 7	0.0	0.00	0.00E+00
PCB 8	1510.0	427.33	8.41E-06
PCB 9	0.0	0.00	0.00E+00
PCB 10	0.0	0.00	0.00E+00
PCB 11	0.0	0.00	0.00E+00
PCB 12	0.0	0.00	0.00E+00
PCB 13	0.0	0.00	0.00E+00
PCB 14	0.0	0.00	0.00E+00
PCB 15	507.0	143.48	2.82E-06
PCB 16	1000.0	283.00	5.57E-06
PCB 17	1110.0	314.13	6.18E-06
PCB 18	2280.0	645.24	1.27E-05
PCB 19	418.0	118.29	2.33E-06
PCB 20	1450.0	410.35	8.07E-06
PCB 21	798.0	225.83	4.44E-06
PCB 22	491.0	138.95	2.73E-06
PCB 23	0.0	0.00	0.00E+00
PCB 24	459.0	129.90	2.56E-06
PCB 25	102.0	28.87	5.68E-07
PCB 26	274.0	77.54	1.53E-06
PCB 27	151.0	42.73	8.41E-07
PCB 28	0.0	0.00	0.00E+00
PCB 29	0.0	0.00	0.00E+00
PCB 30	0.0	0.00	0.00E+00
PCB 31	1150.0	325.45	6.40E-06
PCB 32	581.0	164.42	3.24E-06
PCB 33	0.0	0.00	0.00E+00
PCB 34	0.0	0.00	0.00E+00
PCB 35	243.0	68.77	1.35E-06
PCB 36	0.0	0.00	0.00E+00
PCB 37	0.0	0.00	0.00E+00
PCB 38	0.0	0.00	0.00E+00
PCB 39	0.0	0.00	0.00E+00
PCB 40	315.0	89.14	1.75E-06
PCB 41	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 42	0.0	0.00	0.00E+00
PCB 43	0.0	0.00	0.00E+00
PCB 44	1090.0	308.47	6.07E-06
PCB 45	0.0	0.00	0.00E+00
PCB 46	78.2	22.13	4.35E-07
PCB 47	0.0	0.00	0.00E+00
PCB 48	167.0	47.26	9.30E-07
PCB 49	492.0	139.23	2.74E-06
PCB 50	215.0	60.84	1.20E-06
PCB 51	0.0	0.00	0.00E+00
PCB 52	1500.0	424.50	8.35E-06
PCB 53	0.0	0.00	0.00E+00
PCB 54	0.0	0.00	0.00E+00
PCB 55	446.0	126.22	2.48E-06
PCB 56	220.0	62.26	1.23E-06
PCB 57	0.0	0.00	0.00E+00
PCB 58	0.0	0.00	0.00E+00
PCB 59	58.3	16.50	3.25E-07
PCB 60	104.0	29.43	5.79E-07
PCB 61	1260.0	356.58	7.02E-06
PCB 62	0.0	0.00	0.00E+00
PCB 63	0.0	0.00	0.00E+00
PCB 64	322.0	91.13	1.79E-06
PCB 65	0.0	0.00	0.00E+00
PCB 66	0.0	0.00	0.00E+00
PCB 67	0.0	0.00	0.00E+00
PCB 68	0.0	0.00	0.00E+00
PCB 69	0.0	0.00	0.00E+00
PCB 70	0.0	0.00	0.00E+00
PCB 71	0.0	0.00	0.00E+00
PCB 72	0.0	0.00	0.00E+00
PCB 73	0.0	0.00	0.00E+00
PCB 74	0.0	0.00	0.00E+00
PCB 75	0.0	0.00	0.00E+00
PCB 76	0.0	0.00	0.00E+00
PCB 77	0.0	0.00	0.00E+00
PCB 78	0.0	0.00	0.00E+00
PCB 79	0.0	0.00	0.00E+00
PCB 80	0.0	0.00	0.00E+00
PCB 81	0.0	0.00	0.00E+00
PCB 82	0.0	0.00	0.00E+00
PCB 83	0.0	0.00	0.00E+00
PCB 84	384.0	108.67	2.14E-06
PCB 85	0.0	0.00	0.00E+00
PCB 86	1670.0	472.61	9.30E-06
PCB 87	0.0	0.00	0.00E+00
PCB 88	179.0	50.66	9.97E-07

Calculations (cont.)

PCB 89	0.0	0.00	0.00E+00
PCB 90	1020.0	288.66	5.68E-06
PCB 91	0.0	0.00	0.00E+00
PCB 92	187.0	52.92	1.04E-06
PCB 93	0.0	0.00	0.00E+00
PCB 94	0.0	0.00	0.00E+00
PCB 95	1120.0	316.96	6.24E-06
PCB 96	0.0	0.00	0.00E+00
PCB 97	0.0	0.00	0.00E+00
PCB 98	0.0	0.00	0.00E+00
PCB 99	454.0	128.48	2.53E-06
PCB 100	0.0	0.00	0.00E+00
PCB 101	0.0	0.00	0.00E+00
PCB 102	0.0	0.00	0.00E+00
PCB 103	0.0	0.00	0.00E+00
PCB 104	0.0	0.00	0.00E+00
PCB 105	352.0	99.62	1.96E-06
PCB 106	0.0	0.00	0.00E+00
PCB 107	0.0	0.00	0.00E+00
PCB 108	0.0	0.00	0.00E+00
PCB 109	75.8	21.45	4.22E-07
PCB 110	1280.0	362.24	7.13E-06
PCB 111	0.0	0.00	0.00E+00
PCB 112	0.0	0.00	0.00E+00
PCB 113	0.0	0.00	0.00E+00
PCB 114	0.0	0.00	0.00E+00
PCB 115	0.0	0.00	0.00E+00
PCB 116	0.0	0.00	0.00E+00
PCB 117	0.0	0.00	0.00E+00
PCB 118	801.0	226.68	4.46E-06
PCB 119	0.0	0.00	0.00E+00
PCB 120	0.0	0.00	0.00E+00
PCB 121	0.0	0.00	0.00E+00
PCB 122	0.0	0.00	0.00E+00
PCB 123	64.9	18.37	3.61E-07
PCB 124	0.0	0.00	0.00E+00
PCB 125	0.0	0.00	0.00E+00
PCB 126	0.0	0.00	0.00E+00
PCB 127	0.0	0.00	0.00E+00
PCB 128	239.0	67.64	1.33E-06
PCB 129	1260.0	356.58	7.02E-06
PCB 130	114.0	32.26	6.35E-07
PCB 131	0.0	0.00	0.00E+00
PCB 132	0.0	0.00	0.00E+00
PCB 133	0.0	0.00	0.00E+00
PCB 134	0.0	0.00	0.00E+00
PCB 135	338.0	95.65	1.88E-06

Calculations (cont.)

PCB 136	151.0	42.73	8.41E-07
PCB 137	0.0	0.00	0.00E+00
PCB 138	0.0	0.00	0.00E+00
PCB 139	0.0	0.00	0.00E+00
PCB 140	0.0	0.00	0.00E+00
PCB 141	210.0	59.43	1.17E-06
PCB 142	0.0	0.00	0.00E+00
PCB 143	0.0	0.00	0.00E+00
PCB 144	0.0	0.00	0.00E+00
PCB 145	0.0	0.00	0.00E+00
PCB 146	137.0	38.77	7.63E-07
PCB 147	794.0	224.70	4.42E-06
PCB 148	0.0	0.00	0.00E+00
PCB 149	0.0	0.00	0.00E+00
PCB 150	0.0	0.00	0.00E+00
PCB 151	0.0	0.00	0.00E+00
PCB 152	0.0	0.00	0.00E+00
PCB 153	772.0	218.47	4.30E-06
PCB 154	0.0	0.00	0.00E+00
PCB 155	0.0	0.00	0.00E+00
PCB 156	0.0	0.00	0.00E+00
PCB 157	0.0	0.00	0.00E+00
PCB 158	0.0	0.00	0.00E+00
PCB 159	0.0	0.00	0.00E+00
PCB 160	0.0	0.00	0.00E+00
PCB 161	0.0	0.00	0.00E+00
PCB 162	0.0	0.00	0.00E+00
PCB 163	0.0	0.00	0.00E+00
PCB 164	95.3	26.97	5.31E-07
PCB 165	0.0	0.00	0.00E+00
PCB 166	0.0	0.00	0.00E+00
PCB 167	47.4	13.41	2.64E-07
PCB 168	0.0	0.00	0.00E+00
PCB 169	0.0	0.00	0.00E+00
PCB 170	0.0	0.00	0.00E+00
PCB 171	0.0	0.00	0.00E+00
PCB 172	0.0	0.00	0.00E+00
PCB 173	0.0	0.00	0.00E+00
PCB 174	134.0	37.92	7.46E-07
PCB 175	0.0	0.00	0.00E+00
PCB 176	0.0	0.00	0.00E+00
PCB 177	0.0	0.00	0.00E+00
PCB 178	0.0	0.00	0.00E+00
PCB 179	0.0	0.00	0.00E+00
PCB 180	0.0	0.00	0.00E+00
PCB 181	0.0	0.00	0.00E+00
PCB 182	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 183	0.0	0.00	0.00E+00
PCB 184	0.0	0.00	0.00E+00
PCB 185	0.0	0.00	0.00E+00
PCB 186	0.0	0.00	0.00E+00
PCB 187	154.0	43.58	8.58E-07
PCB 188	0.0	0.00	0.00E+00
PCB 189	0.0	0.00	0.00E+00
PCB 190	0.0	0.00	0.00E+00
PCB 191	0.0	0.00	0.00E+00
PCB 192	0.0	0.00	0.00E+00
PCB 193	0.0	0.00	0.00E+00
PCB 194	0.0	0.00	0.00E+00
PCB 195	0.0	0.00	0.00E+00
PCB 196	0.0	0.00	0.00E+00
PCB 197	0.0	0.00	0.00E+00
PCB 198	0.0	0.00	0.00E+00
PCB 199	0.0	0.00	0.00E+00
PCB 200	0.0	0.00	0.00E+00
PCB 201	0.0	0.00	0.00E+00
PCB 202	38.2	10.81	2.13E-07
PCB 203	0.0	0.00	0.00E+00
PCB 204	0.0	0.00	0.00E+00
PCB 205	0.0	0.00	0.00E+00
PCB 206	0.0	0.00	0.00E+00
PCB 207	0.0	0.00	0.00E+00
PCB 208	0.0	0.00	0.00E+00
PCB 209	0.0	0.00	0.00E+00

Total PCBs Emission Rate (lb/hr) 1.87E-04

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 92.67

" < " symbol indicates values given are the quantitative detection limit.

2982-08

AirNova, Inc.

EPA Methods 1,2,3A,4, and 23

(Flows, O2/CO2, H2O, PCB's and PCDD/PCDF)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	Two
Test Date	12/07-08/06
Test Time	2016-0018

Emission Data

Vlc =	2613.2	cc	Vol. of H2O collected
Vm =	113.655	dcf	Dry gas meter reading
Pstatic =	0.08	in. H2O	Static pressure
Pb =	30	in. Hg	Barometric pressure
Ps =	30.01	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.4909	in. H2O ^.5	Average sq.rt delta P
dH =	1.399	in. H2O	Average draft gauge reading
Tm =	492.0	R	Average meter temperature
Ts =	749.0	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.419	in.	Nozzle diameter
An =	0.000958	sq. ft.	Area of nozzle orifice
Y =	1.02		Meter calibration factor
t =	184	min.	Duration of sampling time
Ds =	2.958	ft.	Diameter of stack
As =	6.8718	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047248	cu.ft/ml	constant
K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

[O2]	10.6	%-dry	Oxygen concentration
[CO2]	5.3	%-dry	Carbon Dioxide concentration
[N2]	84.10	%-dry	Nitrogen concentration

Client	Tetra Tech @ Indesco Site	**Test Location**	Carbon Bed Outlet	**Page 2**
Project No.	2982	**Test Run**	Two	

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm

Vmstd =	125.579	dscf
	3.56	dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc

Vw(std) =	123.469	scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)

Bws =	0.496	

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)

Ms =	23.68	lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5

Vs =	36.19	fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As

Qa =	14921.6	cfm
	422.6	cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)

Qstd =	5336.2	dscfm
	151.1	dscmm

Calculations (cont.)

08a) Chlorinated Dibenzodioxins (CDD) Concentrations, Emission Rates, and Equivalents

Conc. [CDD] = Mass [CCD](ng) / Vmstd(dscm)
TEF Conc. = Conc. [CDD](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
2,3,7,8-TCDD	0.0000	0.0	1	0.00E+00	0.00E+00	0.00
Total TCDD	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-PeCDD	0.0000	0.0	1	0.00E+00	0.00E+00	0.00
Total PeCDD	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HxCDD	0.0000	0.0	0.1	0.00E+00	0.00E+00	0.00
Total HxCDD	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HpCDD	0.0000	0.0	0.01	0.00E+00	0.00E+00	0.00
Total HpCDD	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
OCDD	0.1020	0.0	0.0003	8.60E-06	1.72E-13	0.08
				CDD total	**1.72028E-13**	**0.08**

08b) Chlorinated Dibenzofurans (CDF) Concentrations, Emission Rates, and Equivalents

Conc. [CDF] = Mass [CDF](ng) / Vmstd(dscm)
TEF Conc. = Conc. [CDF](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
2,3,7,8-TCDF	0.0000	0.0	0.1	0.00E+00	0.00E+00	0.00
Total TCDF	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
1,2,3,7,8-PeCDF	0.0000	0.0	0.03	0.00E+00	0.00E+00	0.00
2,3,4,7,8-PeCDF	0.0000	0.0	0.30	0.00E+00	0.00E+00	0.00
Total PeCDF	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HxCDF	0.0000	0.0	0.1	0.00E+00	0.00E+00	0.00
Total HxCDF	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
2,3,7,8-HpCDF	0.0000	0.0	0.01	0.00E+00	0.00E+00	0.00
Total HpCDF	0.0000	0.0	0	0.00E+00	0.00E+00	0.00
OCDF	0.0000	0.0	0.0003	0.00E+00	0.00E+00	0.00
				CDF total	**0**	**0.00**

Calculations (cont.)

08c) Non-ortho and Mono-ortho Substituted PCBs Concentrations, Emission Rates, and Equivalents

Conc. [PCB] = Mass [PCB](ng) / Vmstd(dscm)
TEF Conc. = Conc. [PCB](ng/dscm) * TEF
TEF Emission Rate (lb/hr) = TEF Conc. (ng/dscm) * (1lb/453.6E+09 ng) * Qstd(dscmm) * 60 min/hr
TEF Emission Rate (ng TEQ/hr) = TEF Conc. (ng/dscm) * Qstd(dscmm) * 60 min/hr

Non-ortho Substituted PCBs

Compound	Sample Mass (ng)	Conc. (ng/dscm)	Toxic Equivalency Factor (TEF)	TEF Conc (ng/dscm)	TEF Emission Rate (lb/hr)	TEF Emission Rate (ng TEQ/hr)
PCB 77	0.0	0.0	0.0001	0.00E+00	0.00E+00	0.00
PCB 81	0.0	0.0	0.0003	0.00E+00	0.00E+00	0.00
PCB 126	0.0	0.0	0.1	0.00E+00	0.00E+00	0.00
PCB 169	0.0	0.0	0.03	0.00E+00	0.00E+00	0.00

Mono-ortho Substituted PCBs

PCB 105	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 114	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 118	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 123	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 156	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 157	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 167	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
PCB 189	0.0	0.0	0.00003	0.00E+00	0.00E+00	0.00
				PCB total	**0.0000E+00**	**0.00**
				CDD/CDF/PCB Total	**1.7203E-13**	**0.08**

9) PCBs Concentrations and Emissions

C[PCB] = M[PCB](ng) / Vmstd(dscm)
E[PCB] = C[PCB](ng/dscm) * Qstd(dscmm) * (2.205E-12)(lb/ng) * 60(min/hr)

Analyte	Sample Mass (ng)	Conc. (ng/dscm)	Emission Rate (lb/hr)
PCB 1	173.0	48.64	9.73E-07
PCB 2	215.0	60.45	1.21E-06
PCB 3	120.0	33.74	6.75E-07
PCB 4	0.0	0.00	0.00E+00
PCB 5	505.0	142.00	2.84E-06
PCB 6	176.0	49.49	9.89E-07
PCB 7	0.0	0.00	0.00E+00
PCB 8	264.0	74.23	1.48E-06
PCB 9	352.0	98.98	1.98E-06
PCB 10	0.0	0.00	0.00E+00
PCB 11	2060.0	579.24	1.16E-05
PCB 12	0.0	0.00	0.00E+00
PCB 13	0.0	0.00	0.00E+00
PCB 14	0.0	0.00	0.00E+00
PCB 15	341.0	95.88	1.92E-06
PCB 16	0.0	0.00	0.00E+00
PCB 17	248.0	69.73	1.39E-06
PCB 18	0.0	0.00	0.00E+00
PCB 19	0.0	0.00	0.00E+00
PCB 20	0.0	0.00	0.00E+00
PCB 21	0.0	0.00	0.00E+00
PCB 22	0.0	0.00	0.00E+00
PCB 23	0.0	0.00	0.00E+00
PCB 24	0.0	0.00	0.00E+00
PCB 25	0.0	0.00	0.00E+00
PCB 26	0.0	0.00	0.00E+00
PCB 27	0.0	0.00	0.00E+00
PCB 28	0.0	0.00	0.00E+00
PCB 29	0.0	0.00	0.00E+00
PCB 30	0.0	0.00	0.00E+00
PCB 31	0.0	0.00	0.00E+00
PCB 32	0.0	0.00	0.00E+00
PCB 33	0.0	0.00	0.00E+00
PCB 34	0.0	0.00	0.00E+00
PCB 35	88.1	24.77	4.95E-07
PCB 36	0.0	0.00	0.00E+00
PCB 37	0.0	0.00	0.00E+00
PCB 38	0.0	0.00	0.00E+00
PCB 39	0.0	0.00	0.00E+00
PCB 40	0.0	0.00	0.00E+00
PCB 41	336.0	94.48	1.89E-06

Calculations (cont.)

PCB 42	0.0	0.00	0.00E+00
PCB 43	0.0	0.00	0.00E+00
PCB 44	580.0	163.09	3.26E-06
PCB 45	0.0	0.00	0.00E+00
PCB 46	0.0	0.00	0.00E+00
PCB 47	0.0	0.00	0.00E+00
PCB 48	0.0	0.00	0.00E+00
PCB 49	298.0	83.79	1.68E-06
PCB 50	0.0	0.00	0.00E+00
PCB 51	0.0	0.00	0.00E+00
PCB 52	0.0	0.00	0.00E+00
PCB 53	0.0	0.00	0.00E+00
PCB 54	0.0	0.00	0.00E+00
PCB 55	0.0	0.00	0.00E+00
PCB 56	0.0	0.00	0.00E+00
PCB 57	25.2	7.09	1.42E-07
PCB 58	0.0	0.00	0.00E+00
PCB 59	39.1	10.99	2.20E-07
PCB 60	95.6	26.88	5.37E-07
PCB 61	789.0	221.85	4.44E-06
PCB 62	0.0	0.00	0.00E+00
PCB 63	0.0	0.00	0.00E+00
PCB 64	225.0	63.27	1.26E-06
PCB 65	0.0	0.00	0.00E+00
PCB 66	0.0	0.00	0.00E+00
PCB 67	0.0	0.00	0.00E+00
PCB 68	0.0	0.00	0.00E+00
PCB 69	0.0	0.00	0.00E+00
PCB 70	0.0	0.00	0.00E+00
PCB 71	0.0	0.00	0.00E+00
PCB 72	0.0	0.00	0.00E+00
PCB 73	0.0	0.00	0.00E+00
PCB 74	0.0	0.00	0.00E+00
PCB 75	0.0	0.00	0.00E+00
PCB 76	0.0	0.00	0.00E+00
PCB 77	0.0	0.00	0.00E+00
PCB 78	0.0	0.00	0.00E+00
PCB 79	0.0	0.00	0.00E+00
PCB 80	0.0	0.00	0.00E+00
PCB 81	0.0	0.00	0.00E+00
PCB 82	0.0	0.00	0.00E+00
PCB 83	0.0	0.00	0.00E+00
PCB 84	146.0	41.05	8.21E-07
PCB 85	68.6	19.29	3.86E-07
PCB 86	459.0	129.06	2.58E-06
PCB 87	0.0	0.00	0.00E+00
PCB 88	97.2	27.33	5.46E-07

Calculations (cont.)

PCB 89	0.0	0.00	0.00E+00
PCB 90	0.0	0.00	0.00E+00
PCB 91	0.0	0.00	0.00E+00
PCB 92	0.0	0.00	0.00E+00
PCB 93	0.0	0.00	0.00E+00
PCB 94	0.0	0.00	0.00E+00
PCB 95	0.0	0.00	0.00E+00
PCB 96	0.0	0.00	0.00E+00
PCB 97	0.0	0.00	0.00E+00
PCB 98	0.0	0.00	0.00E+00
PCB 99	0.0	0.00	0.00E+00
PCB 100	0.0	0.00	0.00E+00
PCB 101	0.0	0.00	0.00E+00
PCB 102	0.0	0.00	0.00E+00
PCB 103	0.0	0.00	0.00E+00
PCB 104	0.0	0.00	0.00E+00
PCB 105	0.0	0.00	0.00E+00
PCB 106	0.0	0.00	0.00E+00
PCB 107	0.0	0.00	0.00E+00
PCB 108	0.0	0.00	0.00E+00
PCB 109	0.0	0.00	0.00E+00
PCB 110	0.0	0.00	0.00E+00
PCB 111	0.0	0.00	0.00E+00
PCB 112	0.0	0.00	0.00E+00
PCB 113	0.0	0.00	0.00E+00
PCB 114	0.0	0.00	0.00E+00
PCB 115	0.0	0.00	0.00E+00
PCB 116	0.0	0.00	0.00E+00
PCB 117	0.0	0.00	0.00E+00
PCB 118	0.0	0.00	0.00E+00
PCB 119	0.0	0.00	0.00E+00
PCB 120	0.0	0.00	0.00E+00
PCB 121	0.0	0.00	0.00E+00
PCB 122	0.0	0.00	0.00E+00
PCB 123	0.0	0.00	0.00E+00
PCB 124	0.0	0.00	0.00E+00
PCB 125	0.0	0.00	0.00E+00
PCB 126	0.0	0.00	0.00E+00
PCB 127	0.0	0.00	0.00E+00
PCB 128	60.1	16.90	3.38E-07
PCB 129	0.0	0.00	0.00E+00
PCB 130	0.0	0.00	0.00E+00
PCB 131	0.0	0.00	0.00E+00
PCB 132	0.0	0.00	0.00E+00
PCB 133	0.0	0.00	0.00E+00
PCB 134	0.0	0.00	0.00E+00
PCB 135	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 136	43.8	12.32	2.46E-07
PCB 137	0.0	0.00	0.00E+00
PCB 138	0.0	0.00	0.00E+00
PCB 139	0.0	0.00	0.00E+00
PCB 140	0.0	0.00	0.00E+00
PCB 141	0.0	0.00	0.00E+00
PCB 142	0.0	0.00	0.00E+00
PCB 143	0.0	0.00	0.00E+00
PCB 144	0.0	0.00	0.00E+00
PCB 145	0.0	0.00	0.00E+00
PCB 146	0.0	0.00	0.00E+00
PCB 147	0.0	0.00	0.00E+00
PCB 148	0.0	0.00	0.00E+00
PCB 149	0.0	0.00	0.00E+00
PCB 150	0.0	0.00	0.00E+00
PCB 151	0.0	0.00	0.00E+00
PCB 152	0.0	0.00	0.00E+00
PCB 153	0.0	0.00	0.00E+00
PCB 154	0.0	0.00	0.00E+00
PCB 155	0.0	0.00	0.00E+00
PCB 156	0.0	0.00	0.00E+00
PCB 157	0.0	0.00	0.00E+00
PCB 158	0.0	0.00	0.00E+00
PCB 159	0.0	0.00	0.00E+00
PCB 160	0.0	0.00	0.00E+00
PCB 161	0.0	0.00	0.00E+00
PCB 162	0.0	0.00	0.00E+00
PCB 163	0.0	0.00	0.00E+00
PCB 164	0.0	0.00	0.00E+00
PCB 165	0.0	0.00	0.00E+00
PCB 166	0.0	0.00	0.00E+00
PCB 167	0.0	0.00	0.00E+00
PCB 168	0.0	0.00	0.00E+00
PCB 169	0.0	0.00	0.00E+00
PCB 170	0.0	0.00	0.00E+00
PCB 171	0.0	0.00	0.00E+00
PCB 172	0.0	0.00	0.00E+00
PCB 173	0.0	0.00	0.00E+00
PCB 174	0.0	0.00	0.00E+00
PCB 175	0.0	0.00	0.00E+00
PCB 176	0.0	0.00	0.00E+00
PCB 177	0.0	0.00	0.00E+00
PCB 178	0.0	0.00	0.00E+00
PCB 179	0.0	0.00	0.00E+00
PCB 180	0.0	0.00	0.00E+00
PCB 181	0.0	0.00	0.00E+00
PCB 182	0.0	0.00	0.00E+00

Calculations (cont.)

PCB 183	0.0	0.00	0.00E+00
PCB 184	0.0	0.00	0.00E+00
PCB 185	0.0	0.00	0.00E+00
PCB 186	0.0	0.00	0.00E+00
PCB 187	0.0	0.00	0.00E+00
PCB 188	0.0	0.00	0.00E+00
PCB 189	0.0	0.00	0.00E+00
PCB 190	0.0	0.00	0.00E+00
PCB 191	0.0	0.00	0.00E+00
PCB 192	0.0	0.00	0.00E+00
PCB 193	0.0	0.00	0.00E+00
PCB 194	0.0	0.00	0.00E+00
PCB 195	0.0	0.00	0.00E+00
PCB 196	0.0	0.00	0.00E+00
PCB 197	0.0	0.00	0.00E+00
PCB 198	0.0	0.00	0.00E+00
PCB 199	0.0	0.00	0.00E+00
PCB 200	0.0	0.00	0.00E+00
PCB 201	0.0	0.00	0.00E+00
PCB 202	0.0	0.00	0.00E+00
PCB 203	0.0	0.00	0.00E+00
PCB 204	0.0	0.00	0.00E+00
PCB 205	0.0	0.00	0.00E+00
PCB 206	0.0	0.00	0.00E+00
PCB 207	0.0	0.00	0.00E+00
PCB 208	0.0	0.00	0.00E+00
PCB 209	0.0	0.00	0.00E+00

Total PCBs Emission Rate (lb/hr) 4.39E-05

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 91.79

" < " symbol indicates values given are the quantitative detection limit.

2982-09

AirNova, Inc.

EPA Methods 1,2,3A,4, and Modified Method 5
(Flows, O2/CO2, H2O, and SVOC's)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Inlet
Test Run	One
Test Date	12/07/06
Test Time	1406-1754

Emission Data

Vlc =	2547.7	cc	Vol. of H2O collected
Vm =	116.238	dcf	Dry gas meter reading
Pstatic =	-7.00	in. H2O	Static pressure
Pb =	30	in. Hg	Barometric pressure
Ps =	29.49	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.4845	in. H2O ^.5	Average sq.rt delta P
dH =	1.390	in. H2O	Average draft gauge reading
Tm =	522.1	R	Average meter temperature
Ts =	805.6	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.425	in.	Nozzle diameter
An =	0.000985	sq. ft.	Area of nozzle orifice
Y =	1.02		Meter calibration factor
t =	180	min.	Duration of sampling time
Ds =	3.000	ft.	Diameter of stack
As =	7.0684	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047248	cu.ft/ml	constant
K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

[O2]	6.3	%-dry	Oxygen concentration
[CO2]	9.2	%-dry	Carbon Dioxide concentration
[N2]	84.50	%-dry	Nitrogen concentration

Client	Tetra Tech @ Indesco Site	**Test Location**	Carbon Bed Inlet
Project No.	2982	**Test Run**	One

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 121.027 dscf
3.43 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 120.374 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.499

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.88 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 37.21 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 15782.9 cfm
447.0 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 5127.4 dscfm
145.2 dscmm

Calculations (cont.)

8) PAH Concentrations and Emissions

C[PAH] = M[PAH](ug) / Vmstd(dscm)
E[PAH] = C[PAH](ug/dscm) * Qstd(dscmm) * (2.205E-09)(lb/ug) * 60(min/hr)

PAH Analyte	Sample Mass (ug)	Conc. (ug/dscm)	Emission Rate (lb/hr)
Acenaphthene	0.00000	0.00	0.00E+000
Acenaphthylene	0.00000	0.00	0.00E+000
Anthracene	0.00000	0.00	0.00E+000
Benzo(a)anthracene	0.00000	0.00	0.00E+000
Benzo(a)pyrene	0.00009	0.00	5.04E-010
Benzo(b)fluoranthene	0.00000	0.00	0.00E+000
Benzo(g,h,i)perylene	0.00000	0.00	0.00E+000
Benzo(k)fluoranthene	0.00000	0.00	0.00E+000
Chrysene	0.00000	0.00	0.00E+000
Dibenzo(a,h)anthracene	0.00000	0.00	0.00E+000
Fluoranthene	0.00000	0.00	0.00E+000
Fluorene	0.00000	0.00	0.00E+000
Indeno(1,2,3-c,d)pyrene	0.00000	0.00	0.00E+000
1-Methylnaphthalene	0.00239	0.00	1.34E-008
2-Methylnaphthalene	0.00029	0.00	1.63E-009
Naphthalene	0.00238	0.00	1.33E-008
Phenanthrene	0.00000	0.00	0.00E+000
Pyrene	0.00000	0.00	0.00E+000
Total PAH Emission Rate (lb/hr)			2.89E-008

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 94.09

* - indicates that the values given on this row are the quantitative detection limit and should be viewed as nondetectable
** - this total reflects emissions from both nondetectable and detectable PAH's listed above

2982-10

AirNova, Inc.

EPA Methods 1,2,3A,4, and Modified Method 5
(Flows, O2/CO2, H2O, and SVOC's)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Inlet
Test Run	Two
Test Date	12/07-08/06
Test Time	2025-0016

Emission Data

Vlc =	2487.1	cc	Vol. of H2O collected
Vm =	117.296	dcf	Dry gas meter reading
Pstatic =	-7.00	in. H2O	Static pressure
Pb =	30	in. Hg	Barometric pressure
Ps =	29.49	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.4857	in. H2O ^.5	Average sq.rt delta P
dH =	1.377	in. H2O	Average draft gauge reading
Tm =	506.7	R	Average meter temperature
Ts =	801.5	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.425	in.	Nozzle diameter
An =	0.000985	sq. ft.	Area of nozzle orifice
Y =	1.02		Meter calibration factor
t =	180	min.	Duration of sampling time
Ds =	3.000	ft.	Diameter of stack
As =	7.0684	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047248	cu.ft/ml	constant
K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

[O2]	10.6	%-dry	Oxygen concentration
[CO2]	5.3	%-dry	Carbon Dioxide concentration
[N2]	84.10	%-dry	Nitrogen concentration

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 125.830 dscf
3.56 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 117.511 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.483

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.83 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 37.25 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 15799.9 cfm
447.5 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 5320.8 dscfm
150.7 dscmm

Calculations (cont.)

8) PAH Concentrations and Emissions

C[PAH] = M[PAH](ug) / Vmstd(dscm)
E[PAH] = C[PAH](ug/dscm) * Qstd(dscmm) * (2.205E-09)(lb/ug) * 60(min/hr)

PAH Analyte	Sample Mass (ug)	Conc. (ug/dscm)	Emission Rate (lb/hr)
Acenaphthene	0.00000	0.00	0.00E+000
Acenaphthylene	0.00000	0.00	0.00E+000
Anthracene	0.00000	0.00	0.00E+000
Benzo(a)anthracene	0.00000	0.00	0.00E+000
Benzo(a)pyrene	0.00000	0.00	0.00E+000
Benzo(b)fluoranthene	0.00000	0.00	0.00E+000
Benzo(g,h,i)perylene	0.00000	0.00	0.00E+000
Benzo(k)fluoranthene	0.00000	0.00	0.00E+000
Chrysene	0.00000	0.00	0.00E+000
Dibenzo(a,h)anthracene	0.00000	0.00	0.00E+000
Fluoranthene	0.00000	0.00	0.00E+000
Fluorene	0.00000	0.00	0.00E+000
Indeno(1,2,3-c,d)pyrene	0.00000	0.00	0.00E+000
1-Methylnaphthalene	0.00034	0.00	1.90E-009
2-Methylnaphthalene	0.00000	0.00	0.00E+000
Naphthalene	0.00143	0.00	8.00E-009
Phenanthrene	0.00018	0.00	1.01E-009
Pyrene	0.00000	0.00	0.00E+000
Total PAH Emission Rate (lb/hr)			1.09E-008

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 94.27

* - indicates that the values given on this row are the quantitative detection limit and should be viewed as nondetectable
** - this total reflects emissions from both nondetectable and detectable PAH's listed above

2982-11

AirNova, Inc.

EPA Methods 1,2,3A,4, and Modified Method 5
(Flows, O2/CO2, H2O, and SVOC's)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	One
Test Date	12/07/06
Test Time	1406-1748

Emission Data

Vlc =	2603.6	cc	Vol. of H2O collected
Vm =	118.59	dcf	Dry gas meter reading
Pstatic =	0.08	in. H2O	Static pressure
Pb =	30	in. Hg	Barometric pressure
Ps =	30.01	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.4825	in. H2O ^.5	Average sq.rt delta P
dH =	1.596	in. H2O	Average draft gauge reading
Tm =	518.0	R	Average meter temperature
Ts =	748.1	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.422	in.	Nozzle diameter
An =	0.000971	sq. ft.	Area of nozzle orifice
Y =	1.00		Meter calibration factor
t =	184	min.	Duration of sampling time
Ds =	2.958	ft.	Diameter of stack
As =	6.8718	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047248	cu.ft/ml	constant
K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

[O2]	6.3	%-dry	Oxygen concentration
[CO2]	9.2	%-dry	Carbon Dioxide concentration
[N2]	84.50	%-dry	Nitrogen concentration

Client	Tetra Tech @ Indesco Site	**Test Location**	Carbon Bed Outlet
Project No.	2982	**Test Run**	One

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 122.066 dscf
3.46 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 123.015 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.502

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.84 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 35.44 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 14610.5 cfm
413.8 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 5167.1 dscfm
146.3 dscmm

Calculations (cont.)

8) PAH Concentrations and Emissions

C[PAH] = M[PAH](ug) / Vmstd(dscm)
E[PAH] = C[PAH](ug/dscm) * Qstd(dscmm) * (2.205E-09)(lb/ug) * 60(min/hr)

PAH Analyte	Sample Mass (ug)	Conc. (ug/dscm)	Emission Rate (lb/hr)
Acenaphthene	0.00000	0.00	0.00E+000
Acenaphthylene	0.00000	0.00	0.00E+000
Anthracene	0.00000	0.00	0.00E+000
Benzo(a)anthracene	0.00000	0.00	0.00E+000
Benzo(a)pyrene	0.00000	0.00	0.00E+000
Benzo(b)fluoranthene	0.00000	0.00	0.00E+000
Benzo(g,h,i)perylene	0.00000	0.00	0.00E+000
Benzo(k)fluoranthene	0.00000	0.00	0.00E+000
Chrysene	0.00000	0.00	0.00E+000
Dibenzo(a,h)anthracene	0.00000	0.00	0.00E+000
Fluoranthene	0.00000	0.00	0.00E+000
Fluorene	0.00000	0.00	0.00E+000
Indeno(1,2,3-c,d)pyrene	0.00000	0.00	0.00E+000
1-Methylnaphthalene	0.00208	0.00	1.16E-008
2-Methylnaphthalene	0.00000	0.00	0.00E+000
Naphthalene	0.00081	0.00	4.54E-009
Phenanthrene	0.00000	0.00	0.00E+000
Pyrene	0.00000	0.00	0.00E+000
Total PAH Emission Rate (lb/hr)			1.62E-008

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 90.84

* - indicates that the values given on this row are the quantitative detection limit and should be viewed as nondetectable
** - this total reflects emissions from both nondetectable and detectable PAH's listed above

2982-12

AirNova, Inc.

EPA Methods 1,2,3A,4, and Modified Method 5
(Flows, O2/CO2, H2O, and SVOC's)

Client	Tetra Tech @ Indesco Site
Project No.	2982
Test Location	Carbon Bed Outlet
Test Run	Two
Test Date	12/07-08/06
Test Time	2016-0018

Emission Data

Vlc =	2615.7	cc	Vol. of H2O collected
Vm =	112.845	dcf	Dry gas meter reading
Pstatic =	0.08	in. H2O	Static pressure
Pb =	30	in. Hg	Barometric pressure
Ps =	30.01	in. Hg	Stack pressure
Pstd =	29.92	in. Hg	EPA Standard pressure
dP =	0.4766	in. H2O ^.5	Average sq.rt delta P
dH =	1.529	in. H2O	Average draft gauge reading
Tm =	499.0	R	Average meter temperature
Ts =	744.8	R	Average stack temperature
Tstd=	529.7	R	Standard temperature
Dn =	0.422	in.	Nozzle diameter
An =	0.000971	sq. ft.	Area of nozzle orifice
Y =	1.00		Meter calibration factor
t =	184	min.	Duration of sampling time
Ds =	2.958	ft.	Diameter of stack
As =	6.8718	sq. ft.	Cross sectional area of stack
Cp =	0.84		Pitot tube coefficient
Kp =	85.49	ft[(lb/lbmol)*(inHg)]^.5}/[s*R*inH2O]	Pitot tube constant
K1 =	17.704	R/in.Hg	constant
K2 =	0.047248	cu.ft/ml	constant
K3 =	0.0026688	in.Hg-cf/ml-R	constant

Instrumental Data

[O2]	6.3	%-dry	Oxygen concentration
[CO2]	9.2	%-dry	Carbon Dioxide concentration
[N2]	84.50	%-dry	Nitrogen concentration

Calculations

1) Volume of gas sampled at standard conditions, Vmstd.

Vmstd =K1* Y * Vm * (Pb + dH/13.6) / Tm
Vmstd = 120.563 dscf
3.41 dscm

2) Volume of water vapor collected at standard conditions, Vw(std).

Vw(std) = K2 * Vlc
Vw(std) = 123.587 scf

3) Decimal fraction of moisture by volume in stack gas, Bws.

Bws = Vwstd / (Vmstd+Vwstd)
Bws = 0.506

4) Molecular weight of the stack gas on a wet basis, Ms.

Ms = [((44*%CO2) + (32*%O2) + (28*%N2)) * (1-Bws)] + (18*Bws)
Ms = 23.79 lb/ lbmole

5) Average stack gas velocity, Vs.

Vs = Kp * Cp * (dP) * (Ts/Ps*Ms)^.5
Vs = 34.96 fps

6) Average actual stack gas volumetric flowrate, Qa.

Qa = 60 sec/min * Vs * As
Qa = 14415.6 cfm
408.2 cmm

7) Average stack gas dry volumetric flowrate, Qstd.

Qstd = Qa * (Tstd/Ts) * (Ps/Pstd) * (1-Bws)
Qstd = 5077.0 dscfm
143.8 dscmm

Calculations (cont.)

8) PAH Concentrations and Emissions

C[PAH] = M[PAH](ug) / Vmstd(dscm)
E[PAH] = C[PAH](ug/dscm) * Qstd(dscmm) * (2.205E-09)(lb/ug) * 60(min/hr)

PAH Analyte	Sample Mass (ug)	Conc. (ug/dscm)	Emission Rate (lb/hr)
Acenaphthene	0.00000	0.00	0.00E+000
Acenaphthylene	0.00000	0.00	0.00E+000
Anthracene	0.00000	0.00	0.00E+000
Benzo(a)anthracene	0.00000	0.00	0.00E+000
Benzo(a)pyrene	0.00000	0.00	0.00E+000
Benzo(b)fluoranthene	0.00000	0.00	0.00E+000
Benzo(g,h,i)perylene	0.00000	0.00	0.00E+000
Benzo(k)fluoranthene	0.00000	0.00	0.00E+000
Chrysene	0.00000	0.00	0.00E+000
Dibenzo(a,h)anthracene	0.00000	0.00	0.00E+000
Fluoranthene	0.00000	0.00	0.00E+000
Fluorene	0.00000	0.00	0.00E+000
Indeno(1,2,3-c,d)pyrene	0.00000	0.00	0.00E+000
1-Methylnaphthalene	0.00000	0.00	0.00E+000
2-Methylnaphthalene	0.00000	0.00	0.00E+000
Naphthalene	0.00085	0.00	4.74E-009
Phenanthrene	0.00000	0.00	0.00E+000
Pyrene	0.00000	0.00	0.00E+000
Total PAH Emission Rate (lb/hr)			4.74E-009

9) Isokinecity, I.

% I = [100*Ts*(K3*Vlc+(((Vm*Y)/Tm)*(Pb+(dH/13.6))))] / (60*t*Ps*Vs*An)
% I = 91.31

* - indicates that the values given on this row are the quantitative detection limit and should be viewed as nondetectable
** - this total reflects emissions from both nondetectable and detectable PAH's listed above

Appendix C

Laboratory Data

AirNova, Inc.

5845 Clayton Ave
Pennsauken, NJ 08109

Project ID: SGS

Hydrogen Chloride &
Chlorine

EPA Method 26A Analysis

Analytical Report
8432-M26A

el1

Element One, Inc.
5022-C Wrightsville Av., Wilmington, NC 28403
910-793-0128 FAX: 910-792-6853 e1lab@e1lab.com

The following data for Analytical Report 8432-M26A
has been reviewed for completeness, accuracy,
adherence to method protocol,
and compliance with quality assurance guidelines.

Review by:

Melissa Lawrence, QA Officer
January 12, 2007

Report Reviewed and Finalized By:

Ken Smith, Laboratory Director
January 12, 2007

SUMMARY OF RESULTS

Summary of Analysis

Summary of Method 26A Analysis

Element	M-26A Run 1 e8432-7 Total mg	M-26A Run 2 e8432-8 Total mg	M-26A Blank e8432-9 Total mg
HCl	113	90.3	0.94
Cl_2	4.33	4.31	4.36

ANALYTICAL NARRATIVE

Element One Analytical Narrative

Client:	AirNova, Inc.	Element One #:	8432-M26A
Client ID:	SGS	Analyst:	SMH
Method:	M26A	Dates Received:	12/15/06
Analytes:	HCl & Cl_2	Dates Analyzed:	01/02-08/07

Summary of Analysis

The samples were prepared and analyzed according to Method 26A protocol. The samples were analyzed for chloride on a Metrohm 761/788 ion chromatograph system.

Detection Limits

The Metrohm reporting limit was 0.1µg/mL for chloride.

Analysis QA/QC

Duplicate analyses relative percent difference (RPD) and spike recovery data are summarized in the Quality Control section. All QA/QC data was within the criteria of the method.

Additional Comments

The reported results have not been corrected for any M-26A Blank values or spike recovery values. Due to the nature of the sample matrix, it was necessary to analyze all samples at a minimum 2-fold dilution to reduce interferences and to preserve the anion column. The IC analysis of the reagent blank samples revealed detectable concentrations of chloride and chlorine. Subsequent analysis produced equivalent results. Nothing unusual was noticed with any of the other samples or analyses.

QUALITY CONTROL SUMMARY

Summary of Quality Control Data

Method 26A Duplicate Analysis RPD

(Method 26A QC limits: :< 10% for RPD)

Element	M-26A Run 1 RPD	M-26A Run 2 RPD	M-26A Blank RPD
HCl	0.5%	0.8%	0.2%
Cl_2	1.7%	7.4%	2.1%

Method 26A Spike Recoveries

(Laboratory QC limits: ±10% for Spike Recoveries)

Element	M-26A Run 3 Recovery
HCl	105%
Cl_2	106%

SAMPLE CUSTODY

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

@ 12/15/0
e ~~8432~~ 8432 p. 1 of

Please Invoice S&S/Paradigm for all analysis

Chain of Custody/Analysis Request Form

Requestor's Name: Joe Jackson
Date of Sample Shipment: 12-13-06
Number of Packages: 7
Total Number of Items Shipped: 65
(in all packages)

Shipped for analysis to:
Element One – Ken Smith
910-793-0128

EPA 5/26A (HCl and Cl2)

Item #	Sample #	Item Description (including matrix)	Analysis Requested	Comments
1	Run 1	Acetone Front Rinse EPA5/26A 12/6/06		Please consult
2	2	" " 12/7/06		Chris Cornwell
3	Blank	Reagent 200mL " "		S&S/Paradigm
				5500 Business Drive
4	Run 1	Quartz Filter EPA5/26A 12/6		Wilmington, NC 28405
5	2	" " 12/7		910-350-1903
6	Blank	" " "		for ALL ANALYSIS
7,8,9	Run 1	Back H_2SO_4 wash + catch EPA26A 12/6	(3 Bottles)	
10,11,12	2	" " 12/7	(3 Bottles)	Send results
13	Blank	Reagent 200mL "		to:
				AirNova
14	Run 1	Back NaOH wash + catch EPA26A 12/6		5845 Clayton Ave
15	2	" " 12/7		Pennsauken, NJ
16	Blank	Reagent 200mL " "		08109
17	Blank	Reagent Water 100mL		

Joe Jackson 12/13/06

Rec. [signature] 12/15/06 12:57

010

ANALYTICAL DATA

One **AIR TESTING SAMPLE SUBMISSION FORM** **Lab ID 8432**

Analysis Due Date 01.10.07

QA/QC/Report due Date 01.11.07

Client:	AIRNOVA/SGS
Project No.:	

Date Rec:	12.15.06
Time Rec:	1257

HNO_3 Lot:	HF Lot:	HCl Lot:	**Ref. Method:**
Volume Marked Y / N	Volume Loss Y / N / ?	pH < 2.0 Y / N	**5/26A**

Sample Identification

7	M-5/26A-Run 1	9	M-5/26A-Reagent Blank
8	M-5/26A-Run 2		
	M-5/26A-Run 2 spike		

Analyses Requested:	Samples 7-9	HCl & Cl2
	Samples 7-9	Archive C.1 & C.2 (Method 5)

Runs/FB	Filter(.1)	Acetone(.2)	Impinger 1&2-H_2SO_4 (.3)		Impinger 3&4-NaOH (.4)	
Lab ID		BV, ml	BV, ml	FV, ml	BV, ml	FV, ml
7			1360	1400	360	400
8			1245	1400	360	400

Reagent Blanks

ID No	Fraction	BV, ml	FV, ml	Notes:
9.1	Filter Blank			
9.2	Acetone			
9.5	DI H_2O			
9.3	H_2SO_4	180		
9.4	NaOH	305		

Lab Notes / Communications

SS Page 2 of 2
SS by
1/2/2007 11:00:56 AM

Filter Prep By / Date
Acetone Prep By / Date

Imp 1 & 2 Prep By / Date SMN 01.02.07
Imp 3 & 4 Prep By / Date SMN 01.02.07
ID Verification By/Date MAL 01/5/07

System	Ident	Vial	Volume	Dilution	Amount	IstdAmount	Calibration Level	Injections	Started	Sample-INFO
anions-26A.smt	Blank	1	10	1	1	100	0	1	1	Batch ID 010207-1
anions-26A.smt	Blank	2	10	1	1	100	0	1	1	
anions-26A.smt	0.1ppm std	3	10	1	1	100	0	1	1	
anions-26A.smt	1.0ppm std	4	10	1	1	100	0	1	1	
anions-26A.smt	5.0ppm std	5	10	1	1	100	0	1	1	
anions-26A.smt	10.0ppm std	6	10	1	1	100	0	1	1	
anions-26A.smt	QC Check std	7	10	1	1	100	0	1	1	
anions-26A.smt	QC Check std	8	10	1	1	100	0	1	1	
anions-26A.smt	LRB	9	10	1	1	100	0	1	1	
anions-26A.smt	LRB	10	10	1	1	100	0	1	1	
anions-26A.smt	LRB spk	11	10	1	1	100	0	1	1	
anions-26A.smt	LRB spk	12	10	1	1	100	0	1	1	
anions-26A.smt	8432-7.3	13	10	1	1	100	0	1	1	x10 HCL
anions-26A.smt	8432-7.3 dup	14	10	1	1	100	0	1	1	x10 HCL
anions-26A.smt	8432-8.3	122	10	1	1	100	0	1	1	x20 HCL
anions-26A.smt	8432-8.3 dup	123	10	1	1	100	0	1	1	x20 HCL
anions-26A.smt	8432-8.3 spk	124	10	1	1	100	0	1	1	x20 HCL +5ppm spk
anions-26A.smt	8432-8.3 spk dup	125	10	1	1	100	0	1	1	x20 HCL +5ppm spk
anions-26A.smt	8432-9.3	19	10	1	1	100	0	1	1	x10 HCL
anions-26A.smt	8432-9.3 dup	20	10	1	1	100	0	1	1	x10 HCL
anions-26A.smt	Blank	21	10	1	1	100	0	1	1	
anions-26A.smt	Blank	22	10	1	1	100	0	1	1	
anions-26A.smt	QC Check std	23	10	1	1	100	0	1	1	
anions-26A.smt	QC Check std	24	10	1	1	100	0	1	1	
anions-26A.smt	Blank	25	10	1	1	100	0	1	1	
anions-26A.smt	Blank	26	10	1	1	100	0	1	1	
anions-26A.smt	0.1ppm std	27	10	1	1	100	0	1	1	
anions-26A.smt	1.0ppm std	28	10	1	1	100	0	1	1	
anions-26A.smt	5.0ppm std	29	10	1	1	100	0	1	1	
anions-26A.smt	10.0ppm std	30	10	1	1	100	0	1	1	

SMH

elementOne

M26A-HCl IC Data Sheet

Lab ID #: 8432

Client: AirNova/SGS
Date: 01/04/07
Analyst: SMH
Detection Limit, (µg/ml): 0.10

Column: Metrosep A Supp 5
Eluent: 3.2 mM Na_2CO_3/ 1.0 mM $NaHCO_3$
Flow Rate: 0.7mL/min.
Cl^- to HCl factor: 1.028

Sample ID	Cl^- µg/ml	Dilution	Final Vol, ml	HCl, Total mg	Spike, µg/ml	% Recovery	file name	date time
LRB	0.000	1	10	< 0.001			r1021842.CHW	1/2/2007 18:42
LRB	0.000	1	10	< 0.001			r1021902.CHW	1/2/2007 19:02
LRB spk	4.874	1	10	0.050	5.00	97%	r1021922.CHW	1/2/2007 19:22
LRB spk	4.936	1	10	0.051	5.00	99%	r1021942.CHW	1/2/2007 19:42
8432-7.3	7.844	10	1400	113			r1022002.CHW	1/2/2007 20:02
8432-7.3 dup	7.887	10	1400	114			r1022021.CHW	1/2/2007 20:21
8432-8.3	3.149	20	1400	90.7			r1031211.CHW	1/3/2007 12:11
8432-8.3 dup	3.124	20	1400	90.0			r1031231.CHW	1/3/2007 12:31
8432-8.3 spk	8.352	20	1400	241	5.00	104%	r1031251.CHW	1/3/2007 12:51
8432-8.3 spk dup	8.470	20	1400	244	5.00	107%	r1031310.CHW	1/3/2007 13:10
8432-9.3	0.507	10	180	0.94			r1022200.CHW	1/2/2007 22:00
8432-9.3 dup	0.508	10	180	0.94			r1022220.CHW	1/2/2007 22:20

SMH

elementOne

e 8432-HCl

elementOne

M26A-HCl IC Data Sheet

Lab ID #: 8432

Client: AirNova/SGS
Date: 01/04/07
Analyst: SMH
Detection Limit, (µg/ml): 0.10

Column: Metrosep A Supp 5
Eluent: 3.2 mM Na_2CO_3/ 1.0 mM $NaHCO_3$
Flow Rate: 0.7mL/min.
Cl^- to HCl factor: 1.028

Standards	Cl^- µg/ml	QC, µg/ml	% RPD	% Recovery	file name	date time
Blank	0.000				r1021624.CHW	1/2/2007 16:24
0.1ppm std	0.095		2%	95%	r1031151.CHW	1/3/2007 11:51
1.0ppm std	0.942		1%	94%	r1021704.CHW	1/2/2007 17:04
5.0ppm std	4.969		1%	99%	r1021723.CHW	1/2/2007 17:23
10.0ppm std	10.021		0%	100%	r1021743.CHW	1/2/2007 17:43
0.1ppm std	0.097			97%	r1030039.CHW	1/3/2007 0:39
1.0ppm std	0.936			94%	r1030058.CHW	1/3/2007 0:58
5.0ppm std	5.005			100%	r1030118.CHW	1/3/2007 1:18
10.0ppm std	10.037			100%	r1030138.CHW	1/3/2007 1:38
Correlation-	0.99998					
QC Check std	4.957	5.00		99%	r1021803.CHW	1/2/2007 18:03
QC Check std	4.900	5.00		98%	r1021823.CHW	1/2/2007 18:23
QC Check std	5.031	5.00		101%	r1022319.CHW	1/2/2007 23:19
QC Check std	5.056	5.00		101%	r1022339.CHW	1/2/2007 23:39

SMH

elementOne

e 8432-HCl

System	Ident	Vial	Volume	Dilution	Amount	IstdAmount	Calibration Level	Injections	Started	Sample-INFO
anions-NaOH.smt	Blank	1	10	1	1	100	0	1	1	Batch ID 010507-1 NaOH
anions-NaOH.smt	Blank	2	10	1	1	100	0	1	1	
anions-NaOH.smt	0.1ppm std	3	10	1	1	100	0	1	1	
anions-NaOH.smt	1.0ppm std	4	10	1	1	100	0	1	1	
anions-NaOH.smt	5.0ppm std	5	10	1	1	100	0	1	1	
anions-NaOH.smt	10.0ppm std	6	10	1	1	100	0	1	1	
anions-NaOH.smt	QC Check std	7	10	1	1	100	0	1	1	
anions-NaOH.smt	QC Check std	8	10	1	1	100	0	1	1	
anions-NaOH.smt	LRB	9	10	1	1	100	0	1	1	
anions-NaOH.smt	LRB	10	10	1	1	100	0	1	1	
anions-NaOH.smt	LRB spk	11	10	1	1	100	0	1	1	
anions-NaOH.smt	LRB spk	12	10	1	1	100	0	1	1	
anions-NaOH.smt	8432-7.4	13	10	1	1	100	0	1	1	x2 HCl, Cl2
anions-NaOH.smt	8432-7.4 dup	14	10	1	1	100	0	1	1	x2 HCl, Cl2
anions-NaOH.smt	8432-8.4	80	10	1	1	100	0	1	1	x10 HCl, Cl2
anions-NaOH.smt	8432-8.4 dup	81	10	1	1	100	0	1	1	x10 HCl, Cl2
anions-NaOH.smt	8432-8.4 dpk	82	10	1	1	100	0	1	1	x10 HCl, Cl2 +5ppm spk
anions-NaOH.smt	8432-8.4 spk dup	83	10	1	1	100	0	1	1	x10 HCl, Cl2 +5ppm spk
anions-NaOH.smt	8432.9.4	91	10	1	1	100	0	1	1	x2 HCl, Cl2
anions-NaOH.smt	8432.9.4	92	10	1	1	100	0	1	1	x10 HCl, Cl2
anions-NaOH.smt	8432.9.4 dup	93	10	1	1	100	0	1	1	x10 HCl, Cl2
anions-NaOH.smt	Blank	21	10	1	1	100	0	1	1	
anions-NaOH.smt	Blank	22	10	1	1	100	0	1	1	
anions-NaOH.smt	QC Check std	23	10	1	1	100	0	1	1	
anions-NaOH.smt	QC Check std	24	10	1	1	100	0	1	1	
anions-NaOH.smt	Blank	25	10	1	1	100	0	1	1	
anions-NaOH.smt	Blank	26	10	1	1	100	0	1	1	
anions-NaOH.smt	0.1ppm std	27	10	1	1	100	0	1	1	
anions-NaOH.smt	1.0ppm std	28	10	1	1	100	0	1	1	
anions-NaOH.smt	5.0ppm std	29	10	1	1	100	0	1	1	
anions-NaOH.smt	10.0ppm std	30	10	1	1	100	0	1	1	

elementOne

M26A-Cl_2 IC Data Sheet

Lab ID #: 8432

Client: GEL
Date: 01/08/07
SMH
Detection Limit, (µg/ml): 0.10

Column: Metrosep A Supp 5
Eluent: 3.2 mM Na_2CO_3/ 1.0 mM $NaHCO_3$
Flow Rate: 0.7mL/min.

Sample ID	Cl^- µg/ml	Dilution	Final Vol, ml	Cl_2, Total mg	Spike, µg/ml	% Recovery	file name	date time
LRB	0.086	1	10	< 0.001			r1052011.CHW	1/5/2007 20:11
LRB	0.070	1	10	< 0.001			r1052042.CHW	1/5/2007 20:42
LRB spk	5.422	1	10	0.054	5.00	107%	r1052112.CHW	1/5/2007 21:12
LRB spk	5.401	1	10	0.054	5.00	106%	r1052143.CHW	1/5/2007 21:43
8432-7.4	5.329	2	410	4.37			r1052213.CHW	1/5/2007 22:13
8432-7.4 dup	5.239	2	410	4.30			r1052244.CHW	1/5/2007 22:44
8432-8.4	1.013	10	410	4.15			r1081117.CHW	1/8/2007 11:17
8432-8.4 dup	1.091	10	410	4.47			r1081147.CHW	1/8/2007 11:47
8432-8.4 spk	6.320	10	410	25.91	5.00	105%	r1081218.CHW	1/8/2007 12:18
8432-8.4 spk dup	6.411	10	410	26.29	5.00	107%	r1081248.CHW	1/8/2007 12:48
8432-9.4	2.150	10	205	4.41			r1081350.CHW	1/8/2007 13:50
8432-9.4 dup	2.106	10	205	4.32			r1081420.CHW	1/8/2007 14:20

SMH

elementOne

M26A-Cl_2 IC Data Sheet

Lab ID #: 8432

Client: GEL
Date: 01/08/07
SMH
Detection Limit, (µg/ml): 0.10

Column: Metrosep A Supp 5
Eluent: 3.2 mM Na_2CO_3/ 1.0 mM $NaHCO_3$
Flow Rate: 0.7mL/min.

Standards	Cl^- µg/ml	QC, µg/ml		% Recovery	file name	date time
Blank	0.082				r1051637.CHW	1/5/2007 16:37
0.1ppm std	0.162		3%	162%	r1051708.CHW	1/5/2007 17:08
1.0ppm std	0.986		3%	99%	r1051738.CHW	1/5/2007 17:38
5.0ppm std	5.062		5%	101%	r1051809.CHW	1/5/2007 18:09
10.0ppm std	9.912		2%	99%	r1051839.CHW	1/5/2007 18:39
0.1ppm std	0.158			158%	r1060521.CHW	1/6/2007 5:21
1.0ppm std	0.960			96%	r1060552.CHW	1/6/2007 5:52
5.0ppm std	4.809			96%	r1060622.CHW	1/6/2007 6:22
10.0ppm std	10.100			101%	r1060653.CHW	1/6/2007 6:53
Correlation-	0.99986					
QC Check std	5.397	5.00		108%	r1051910.CHW	1/5/2007 19:10
QC Check std	5.367	5.00		107%	r1051940.CHW	1/5/2007 19:40
QC Check std	5.293	5.00		106%	r1060319.CHW	1/6/2007 3:19
QC Check std	5.387	5.00		108%	r1060350.CHW	1/6/2007 3:50
		5.00		0%		
		5.00		0%		

SMH

elementOne

e 8432-Cl_2

Air Nova

5845 Clayton Ave
Pennsauken, NJ 08109

Project ID: SGS

Arsenic, Barium,
Cadmium, Chromium, Cobalt, Copper, Lead,
Manganese, Nickel, Selenium,
Silver and Mercury

EPA Method 29 Analysis

Analytical Report
8432-M29

el1

Element One, Inc.
5022-C Wrightsville Av., Wilmington, NC 28403
910-793-0128 FAX: 910-792-6853 e1lab@e1lab.com

The following data for Analytical Report 8432-M29
has been reviewed for completeness, accuracy,
adherence to method protocol,
and compliance with quality assurance guidelines.

Review by:

Melissa Lawrence, QA Officer
January 23, 2007

Daphne Woodman, Chemist
January 23, 2007

Report Reviewed and Finalized By:

Ken Smith, Laboratory Director
January 23, 2007

SUMMARY OF RESULTS

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

Multimetals EPA Method 29 (40 CFR Pt.60, App. A-8 7-06 Ed.)
AirNova Project # 2982
TetraTech @ Cement-Lock
Project ID: SGS/Element One

Dates Sampled:
December 6-7, 2006

For blank corrections, the total mass of a metal collected is M(t) where
M(t)=[M(fh)-M(fhb)] + [M(bh)-M(bhb)].
For Mercury, M(t)=[M(fh)-M(fhb)] + [M(bh)-M(bhb)] + [M(bh3)-M(bhb3)].

Inlet **Run # 1 (Blank Corrections)**

	Front Half		Back Half		KMnO4		Total Mass
	M(fh) ug	M(fhb) ug	M(bh) ug	M(bhb) ug	M(bh3) ug	M(bhb3) ug	M(t) ug
As	2.85	0.00	7.89	0.00			**10.7**
Ba	9.63	8.10	5.44	0.21			**6.76**
Cd	3.86	0.10	1.58	0.00			**5.34**
Cr	20.30	0.80	33.96	0.00			**53.5**
Co	0.80	0.00	1.05	0.00			**1.85**
Cu	7.22	0.52	19.26	0.38			**25.6**
Pb	58.00	0.23	1.62	0.00			**59.4**
Mn	10.90	0.63	1300	0.62			**1310**
Ni	35.90	0.58	10.45	0.00			**45.8**
Se	0.21	0.00	14.96	0.00			**15.2**
Ag	2.45	0.00	0.80	0.00			**3.25**
Zn	103.00	6.60	84.36	1.83			**179**
Hg	0.32	0.00	368.1	0.00	34.3	0.0	**403**

Inlet **Run # 2 (Blank Corrections)**

	Front Half		Back Half		KMnO4		Total Mass
	M(fh) ug	M(fhb) ug	M(bh) ug	M(bhb) ug	M(bh3) ug	M(bhb3) ug	M(t) ug
As	1.67	0.00	0.98	0.00			**2.65**
Ba	3.28	3.28	5.62	0.21			**5.41**
Cd	3.73	0.10	0.42	0.00			**4.05**
Cr	30.40	0.80	18.95	0.00			**48.6**
Co	0.51	0.00	0.20	0.00			**0.71**
Cu	5.62	0.52	8.92	0.38			**13.6**
Pb	31.80	0.23	1.21	0.00			**32.8**
Mn	7.00	0.63	29.60	0.62			**35.4**
Ni	32.50	0.58	6.12	0.00			**38.0**
Se	0.28	0.00	2.76	0.00			**3.04**
Ag	1.52	0.00	0.37	0.00			**1.89**
Zn	74.70	6.60	36.93	1.83			**103**
Hg	0.00	0.00	294.8	0.00	9.3	0.0	**304**

AirNova, Inc.

5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

Multimetals EPA Method 29 (40 CFR Pt.60, App. A-8 7-06 Ed.)
AirNova Project # 2982
TetraTech @ Cement-Lock
Project ID: SGS/Element One

Dates Sampled:
December 6-7, 2006

For blank corrections, the total mass of a metal collected is M(t) where
M(t)=[M(fh)-M(fhb)] + [M(bh)-M(bhb)].
For Mercury, M(t)=[M(fh)-M(fhb)] + [M(bh)-M(bhb)] + [M(bh3)-M(bhb3)].

Outlet **Run # 1 (Blank Corrections)**

	Front Half		Back Half		KMnO4		Total Mass
	M(fh) ug	M(fhb) ug	M(bh) ug	M(bhb) ug	M(bh3) ug	M(bhb3) ug	**M(t) ug**
As	3.29	0.00	1.35	0.00			**4.64**
Ba	3.70	3.70	6.11	0.21			**5.90**
Cd	1.89	0.10	0.38	0.00			**2.17**
Cr	5.94	0.80	79.60	0.00			**84.7**
Co	0.51	0.00	0.27	0.00			**0.78**
Cu	13.30	0.52	12.57	0.38			**25.0**
Pb	55.70	0.23	1.39	0.00			**56.9**
Mn	120.00	0.63	25.30	0.62			**144**
Ni	6.17	0.58	14.94	0.00			**20.5**
Se	0.00	0.00	4.07	0.00			**4.07**
Ag	5.76	0.00	0.79	0.00			**6.55**
Zn	65.30	6.60	36.60	1.83			**93.5**
Hg	0.00	0.00	0.00	0.00	0.0	0.0	**< 3.4**

Outlet **Run # 2 (Blank Corrections)**

	Front Half		Back Half		KMnO4		Total Mass
	M(fh) ug	M(fhb) ug	M(bh) ug	M(bhb) ug	M(bh3) ug	M(bhb3) ug	**M(t) ug**
As	4.87	0.00	1.19	0.00			**6.06**
Ba	8.20	8.10	4.76	0.21			**4.65**
Cd	1.10	0.10	0.38	0.00			**1.38**
Cr	4.64	0.80	30.92	0.00			**34.8**
Co	0.64	0.00	0.17	0.00			**0.81**
Cu	9.37	0.52	8.13	0.38			**16.6**
Pb	25.90	0.23	0.93	0.00			**26.6**
Mn	91.10	0.63	8.25	0.62			**98.1**
Ni	5.27	0.58	8.37	0.00			**13.1**
Se	0.22	0.00	0.77	0.00			**0.99**
Ag	0.59	0.00	0.31	0.00			**0.90**
Zn	36.10	6.60	20.69	1.83			**48.4**
Hg	0.00	0.00	77.80	0.00	0.0	0.0	**77.8**

Assumed 0 ug for any < dectection limit for calculations.
When one half of the sample train is not detectable, the following is applicable:
If detected value/not detected value < 5, add both values and report the sum as not detectable.
If detected value/not detected value > or = 5, report the detected value as the sum.
EPA Method 29 Section 8.4.3 "A" value for a 9cm diameter filter = 13.8 ug.

Summary of Analysis

Summary of Method 29 Mercury Analysis

Run Number		Average Total Catch, µg	Front half µg	H_2O_2 /HNO_3 µg	Empty Impinger µg	$KMnO_4$ µg	HCl µg
Inlet-Run 1	#1	402	0.32	321	47.1	6.48	27.8
	#2		0.32	320	47.1	6.40	27.7
Inlet-Run 2	#1	304	< 0.1	291	3.81	0.64	8.62
	#2		< 0.1	291	3.79	0.64	8.68
Outlet-Run 1	#1	< 0.8	< 0.1	< 1.8	< 0.6	< 0.5	< 0.4
	#2		< 0.1	< 1.8	< 0.6	< 0.5	< 0.4
Outlet-Run 2	#1	77.7	< 0.1	77.8	< 0.5	< 0.6	< 0.4
	#2		< 0.1	77.5	< 0.5	< 0.6	< 0.4
Field Blank	#1	< 0.5	< 0.1	< 0.3	< 0.2	< 0.5	< 0.4
	#2		< 0.1	< 0.3	< 0.2	< 0.5	< 0.4
Reagent Blank	#1	< 0.4	< 0.1	< 0.2	< 0.3	< 0.4	< 0.4
	#2		< 0.1	< 0.2	< 0.3	< 0.4	< 0.4

Summary of Analysis

Summary of Inlet Method 29 Metals Analysis

Element	Arsenic Total µg	Barium Total µg	Cadmium Total µg	Chromium Total µg
Inlet- 1-FH	2.85	9.63	3.86	20.3
Inlet- 1-FH	2.62	9.08	3.65	18.9
Inlet-1-BH	7.42	3.32	1.58	31.8
Inlet-1-BH	7.37	3.39	1.57	32.1
Inlet- 1-A	0.44	2.00	< 0.4	1.84
Inlet- 1-A	0.47	2.05	< 0.4	1.86
Inlet- 2-FH	1.67	3.28	3.73	30.4
Inlet- 2-BH	0.98	5.17	0.42	17.5
Inlet- 2-A	< 0.2	0.45	< 0.2	1.45

Summary of Inlet Method 29 Metals Analysis

Element	Cobalt Total µg	Copper Total µg	Lead Total µg	Manganese Total µg
Inlet- 1-FH	0.80	7.22	58.0	10.9
Inlet- 1-FH	0.73	6.72	58.0	10.1
Inlet-1-BH	1.03	17.4	1.60	1290
Inlet-1-BH	1.05	17.5	1.62	1208
Inlet- 1-A	< 0.4	1.72	< 0.4	10.5
Inlet- 1-A	< 0.4	1.76	< 0.4	10.6
Inlet- 2-FH	0.51	5.62	31.8	7.00
Inlet- 2-BH	0.20	7.03	0.95	15.9
Inlet- 2-A	< 0.2	1.89	0.26	13.7

Summary of Analysis

Summary of Inlet Method 29 Metals Analysis

Element	Nickel Total µg	Selenium Total µg	Silver Total µg	Zinc Total µg
Inlet- 1-FH	35.9	0.19	2.45	102
Inlet- 1-FH	33.6	0.21	2.41	103
Inlet-1-BH	9.91	14.4	0.80	78.2
Inlet-1-BH	10.0	14.0	0.72	78.7
Inlet- 1-A	0.45	0.49	< 0.4	5.43
Inlet- 1-A	0.41	0.56	< 0.4	5.66
Inlet- 2-FH	32.5	0.28	1.52	74.7
Inlet- 2-BH	4.44	2.32	0.37	32.7
Inlet- 2-A	1.68	0.44	< 0.2	4.23

Summary of Analysis

Summary of Method 29 Metals Analysis

Element	Arsenic Total µg	Barium Total µg	Cadmium Total µg	Chromium Total µg
Outlet- 1-FH	3.25	3.70	1.86	5.94
Outlet- 1-FH	3.29	3.66	1.89	5.92
Outlet-1-BH	1.34	3.99	0.38	65.7
Outlet-1-BH	1.35	4.03	0.38	66.5
Outlet- 1-A	< 0.6	1.99	< 0.6	12.4
Outlet- 1-A	< 0.6	2.08	< 0.6	13.1
Outlet- 2-FH	4.87	8.20	1.10	4.64
Outlet- 2-BH	1.19	4.13	0.38	24.6
Outlet- 2-A	< 0.5	0.63	< 0.5	6.32
Field Blank-FH	< 0.1	8.10	0.10	0.80
Field Blank-BH	< 0.1	0.21	< 0.1	< 0.1
Field Blank-A	< 0.2	< 0.2	< 0.2	< 0.2
Reagent Blank-FH	< 0.1	8.35	0.10	0.81
Reagent Blank-BH	< 0.1	0.22	< 0.1	0.10
Reagent Blank-A	< 0.3	< 0.3	< 0.3	< 0.3

Summary of Analysis

Summary of Method 29 Metals Analysis

Element	Cobalt Total µg	Copper Total µg	Lead Total µg	Manganese Total µg
Outlet- 1-FH	0.51	13.3	55.5	119
Outlet- 1-FH	0.51	13.3	55.7	120
Outlet-1-BH	0.26	9.28	1.37	25.2
Outlet-1-BH	0.27	9.35	1.39	25.3
Outlet- 1-A	< 0.6	3.12	< 0.6	8.37
Outlet- 1-A	< 0.6	3.22	< 0.6	8.63
Outlet- 2-FH	0.64	9.37	25.9	91.1
Outlet- 2-BH	0.17	6.34	0.93	6.81
Outlet- 2-A	< 0.5	1.79	< 0.5	1.44
Field Blank-FH	< 0.1	0.52	0.23	0.63
Field Blank-BH	< 0.1	0.38	< 0.1	0.62
Field Blank-A	< 0.2	< 0.2	< 0.2	< 0.2
Reagent Blank-FH	< 0.1	0.46	0.19	0.61
Reagent Blank-BH	< 0.1	0.60	< 0.1	0.30
Reagent Blank-A	< 0.3	0.31	< 0.3	< 0.3

Summary of Analysis

Summary of Method 29 Metals Analysis

Element	Nickel Total µg	Selenium Total µg	Silver Total µg	Zinc Total µg
Outlet- 1-FH	6.08	< 0.1	5.74	64.3
Outlet- 1-FH	6.17	< 0.1	5.76	65.3
Outlet-1-BH	12.6	3.09	0.79	24.0
Outlet-1-BH	12.6	3.05	0.79	24.3
Outlet- 1-A	2.26	0.81	< 0.6	11.7
Outlet- 1-A	2.34	0.98	< 0.6	12.3
Outlet- 2-FH	5.27	0.22	0.59	36.1
Outlet- 2-BH	6.37	0.77	0.31	15.9
Outlet- 2-A	2.00	< 0.5	< 0.5	4.79
Field Blank-FH	0.58	< 0.1	< 0.1	6.66
Field Blank-BH	< 0.1	< 0.1	< 0.1	1.83
Field Blank-A	< 0.2	< 0.2	< 0.2	< 0.2
Reagent Blank-FH	0.53	< 0.1	0.36	6.80
Reagent Blank-BH	0.14	< 0.1	< 0.1	2.09
Reagent Blank-A	< 0.3	< 0.3	< 0.3	< 0.3

ANALYTICAL NARRATIVE

Element One Analytical Narrative

Client:	Air Nova, Inc	Element One #:	8432-M29
Client ID:	SGS	Analyst:	RWJ, DBW, CMS
Method:	M29	Dates Received:	12/15/06
Analytes:	As, Ba, Cd, Cr, Co, Cu, Pb, Mn, Ni, Se, Ag, Zn & Hg	Dates Analyzed:	12/21/06-01/11/07

Summary of Analysis

The Method 29 samples were digested, prepared, and analyzed according to Method 29 protocol. Samples were analyzed for mercury on a PerkinElmer FIMS-100 CVAA mercury analyzer. The other metals were analyzed on a PerkinElmer ELAN 6100 ICP-MS.

Detection Limits

The FIMS-100 CVAA instrument reporting limit for mercury was 0.004 µg per aliquot analyzed. The ICP-MS instrument reporting limit was 1.0µg/L for the other metals.

Analysis QA/QC

Duplicate analyses relative percent difference (RPD), spike sample recovery, and second source calibration verification data are summarized in the Quality Control Section. All QA/QC data was within the criteria of the method.

Additional Comments

The reported results have not been corrected for any blank values or spike recovery values. The ICP analysis of the back half Inlet Run 1 sample revealed concentrations of manganese indicating sample contamination. The ICP analysis of the blank samples revealed detectable concentrations of metals. Subsequent analysis produced equivalent results. Nothing unusual was noticed with any of the other samples or analyses.

QUALITY CONTROL SUMMARY

Summary of Quality Control Data

Mercury Duplicate Analysis RPD

(Method 29 QC limits: <10% for RPD)

Run Number	Front half	H_2O_2/HNO_3	Empty Imp	$KMnO_4$	HCl
Inlet-Run 1	1.1%	0.4%	0.1%	1.3%	0.5%
Inlet-Run 2	NA	0.0%	0.5%	0.0%	0.7%
Outlet-Run 1	NA	NA	NA	NA	NA
Outlet-Run 2	NA	0.4%	NA	NA	NA
Field Blank	NA	NA	NA	NA	NA
Reagent Blank	NA	NA	NA	NA	NA

Mercury Spike Recoveries

(Method 29 QC limits: ±25% for Spike Recoveries)

Run Number		Front half	H2O2/HNO4	Empty Imp	KMnO4	HCl
Inlet-Run 2	#1	101%	101%	95%	104%	86%
	#2	101%	99%	94%	103%	88%
Outlet Run 2	#1	97%	105%	98%	95%	91%
	#2	96%	99%	97%	94%	92%

Summary of Quality Control Data

Inlet - Metals Duplicate Analysis RPD

(Method 29 QC limits: < 20% for RPD)

Element	Inlet-Run 1-FH RPD	Inlet-Run 1-BH RPD	Inlet-Run 1-5A RPD
Arsenic	0.6%	8.2%	7.6%
Barium	2.3%	5.9%	2.3%
Cadmium	0.2%	5.5%	NA
Chromium	1.0%	7.3%	0.6%
Cobalt	1.8%	8.9%	NA
Copper	0.1%	7.2%	1.9%
Lead	1.0%	0.1%	NA
Manganese	6.6%	7.7%	0.5%
Nickel	0.6%	6.7%	7.8%
Selenium	2.8%	11.0%	13.2%
Silver	10.6%	1.4%	NA
Zinc	0.7%	0.7%	4.1%

Outlet - Metals Duplicate Analysis RPD

(Method 29 QC limits: < 20% for RPD)

Element	Outlet-Run 1-FH RPD	Outlet-Run 1-BH RPD	Outlet-Run 1-5A RPD
Arsenic	1.1%	0.7%	NA
Barium	1.3%	1.1%	4.6%
Cadmium	1.8%	1.1%	NA
Chromium	0.3%	1.2%	5.2%
Cobalt	1.1%	2.9%	NA
Copper	0.3%	0.8%	3.2%
Lead	0.3%	1.6%	NA
Manganese	1.2%	0.2%	3.0%
Nickel	1.4%	0.1%	3.4%
Selenium	NA	1.5%	18.4%
Silver	0.3%	0.2%	NA
Zinc	1.6%	1.3%	4.7%

Summary of Quality Control Data

Inlet - Metals Analysis RPD

(Method 29 QC limits: < 20% for RPD)

Element	Outlet-Run 2-FH Recovery	Outlet-Run 2--BH Recovery	Outlet-Run 2-5A Recovery
Arsenic	111%	100%	96%
Barium	86%	96%	99%
Cadmium	105%	104%	97%
Chromium	93%	99%	97%
Cobalt	124%	96%	82%
Copper	103%	109%	108%
Lead	103%	104%	102%
Manganese	86%	96%	83%
Nickel	87%	94%	81%
Selenium	115%	87%	91%
Silver	119%	95%	96%
Zinc	96%	102%	99%

Outlet - Metals Analysis RPD

(Method 29 QC limits: < 20% for RPD)

Element	Outlet-Run 2-FH Recovery	Outlet-Run 2--BH Recovery	Outlet-Run 2-5A Recovery
Arsenic	96%	100%	101%
Barium	91%	90%	97%
Cadmium	101%	98%	104%
Chromium	99%	101%	100%
Cobalt	101%	103%	78%
Copper	95%	97%	105%
Lead	101%	102%	101%
Manganese	102%	83%	80%
Nickel	98%	97%	76%
Selenium	102%	89%	79%
Silver	94%	95%	97%
Zinc	81%	101%	112%

Summary of Quality Control Data

Outlet - Second Source Calibration Check Recoveries

(Method 29 QC limits: ±10% for Second Source Continuing Check Standard)*

Element	1 ppb	100 ppb*	250 ppb
Arsenic	117%	101%	102%
Barium	104%	103%	102%
Cadmium	99%	99%	101%
Chromium	89%	101%	101%
Cobalt	103%	101%	100%
Copper	105%	102%	103%
Lead	103%	102%	101%
Manganese	101%	101%	99%
Nickel	99%	102%	101%
Selenium	120%	101%	102%
Silver	120%	100%	89%
Zinc	105%	103%	101%

Inlet - Second Source Calibration Check Recoveries

(Method 29 QC limits: ±10% for Second Source Continuing Check Standard)*

Element	1 ppb	100 ppb*	250 ppb
Arsenic	80%	101%	100%
Barium	108%	104%	101%
Cadmium	104%	100%	100%
Chromium	114%	101%	99%
Cobalt	101%	101%	97%
Copper	107%	102%	101%
Lead	103%	99%	97%
Manganese	101%	100%	97%
Nickel	77%	102%	99%
Selenium	117%	102%	98%
Silver	102%	100%	91%
Zinc	93%	102%	99%

SAMPLE CUSTODY

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896

CHAIN OF CUSTODY DOCUMENTATION FORM

PROJECT NUMBER: 2982
SAMPLE DATE: RUN 1 = 12/6/06 RUN 2 = 12/7/06
PLANT: Tetratech @ Cement-Lock, Bayonne, NJ
RECOVERY DATE: "
SAMPLE LOCATION: Carbon Bed
SAMPLE RECOVERED BY: LK, WD, KZ

TEST SET	COLLECTION METHOD	RUN#	SAMPLE MATRIX (INDICATE # OF SAMPLES): SILICA GEL	QUARTZ FILTER	OTHER FILTER (SPECIFY) FRONT HALVES	WATER	Empty SAFFRACTION	H2O2 w/c HNO3	H2SO4 w/c KMnO4	HCl w/ NaSH + H2O	SPECIFY OTHER	CONTAINER: HDPE BOTTLE	GLASS BOT	PETRI DISH	TEDLAR BAG	SPECIFY OTHER	PRESERVATION: ICE	SPECIFY OTHER	SAFETY SEAL INTACT (Y/N)	PRIORITY RESULTS (X) FOR YES
Inlet	EPA29	1	P0463	Q3343		1		1	4	1	1		1	8	1			X			
"	↓	1	P0475										1								
Inlet	↓	2	P0487	Q3334		1		1	4	1	1		1	8	1			X			
"	↓	2	P0472										1								
Outlet	↓	1	V2985	Q3321		1		1	4	1	1		1	8	1			X			
"	↓	1	P0482										1								
Outlet	↓	2	P0481	Q3341		1		1	4	1	1		1	8	1			X			
	Field Train Blank			Q3368		1		1	1	1	1			5	1			X			
	Trip Reagent Blanks			3							1			1	1			X			
		"									1 - 300mL 6.1N HNO3			1				X			
											1 - 100mL water			1				X			
											1 - HNO3/H2O2			1				X			
											1 - KMnO4/H2SO4			1				X			

RELINQUISHED BY: [signature] DATE: 12-11-06 RELINQUISHED BY: _____ DATE: _____ RELINQUISHED BY: _____ DATE: _____
RECEIVED BY: J Jackson TIME: 8:00AM RECEIVED BY: _____ TIME: _____ RECEIVED BY: _____ TIME: _____

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

e8432 p. 2 of

Chain of Custody/Analysis Request Form

Requestor's Name: Joe Jackson
Date of Sample Shipment: 12-13-06
Number of Packages: 7
Total Number of Items Shipped: 65
(in all packages)

Shipped for analysis to:
Element One - Ken Smith
910 - 793-0128

Item #	Sample #	Item Description (including matrix)	Analysis Requested	Comments
18	Inlet Run 1	Front HNO_3 Rinse Container 3		Please Consult Chris Cornwell SGS/Paradigm 910-350-1903
19	" 2	" "		
20	Outlet 1	" "		
21	" 2	" "		
22	Field Train Blank	" "		
23	Inlet Run 1	Quartz Filter Container 1		
24	2	" "		
25	Outlet 1	" "		
26	2	" "		
27	Field Train Blank	" "		
28-31	Inlet Run 1	Back HNO_3/H_2O_2 wash + catch Container 4 (4 Bottles)		
32-35	2	" "		
36-39	Outlet Run 1	" "		
40-43	2	" "		
44	Field Train Blank	" (1 Bottle)		
45	Outlet Run 1	Back Empty Imp. wash + catch Container 5A *		
46	2	" "	*	
47	Inlet Run 1	" "	*	
48	2	" "	*	
49	Field Train Blank	" "		
		*AirNova recommends analyzing fraction 5A of the samples for all the metals of concerndue to the large pick-up volume (high moisture stack)		

EPA 29 Runs 1 = 12/6/06 Runs 2 = 12/7/06

for Jackson 12/13/06 Rec. [signature]

0858 12/15/06

AirNova, Inc.
5845 Clayton Avenue, Pennsauken, New Jersey 08109
(856) 486-1500 • FAX 486-9896 • www.airnova.com

@ 12/15/06 e8432 ~~e8341~~

p. 3 of 3

Chain of Custody/Analysis Request Form

Requestor's Name: Joe Jackson
Date of Sample Shipment: 12-13-06
Number of Packages: 7
Total Number of Items Shipped: 65
(in all packages)

Shipped for analysis to:
Element One - Ken Smith
910-793-0128

Item #	Sample #	Item Description (including matrix)	Analysis Requested	Comments
50	Inlet Run 1	Back KMnO4/H2SO4 wash + catch Container 5B		Please Consult
51	2	" "		Chris Cornwell
52	Outlet Run 1	" "		SGS/Paradigm
53	2	" "		910-350-1903
54	Field Blank Train	" "		
55	Inlet Run 1	Back HCl + H2O Rinse Container 5C		
56	2	" "		
57	Outlet Run 1	" "		
58	2	" "		
59	Field Train Blank	" "		
60	Trip Blank REAGENT	0.1 N HNO3 300mL Cont. 8A		
61	"	Water 100mL Cont. 8B		
62	"	5% HNO3/10% H2O2 200mL Cont 9		
63	"	4% KMnO4/10% H2SO4 100mL Cont 10		
64	"	8N HCl 25mL + 200mL H2O Cont 11		
65		(3) Quartz Filters Cont 12		

Joe Jackson 12/13/06

Rec. [signature] 12/15/06 12:57

EPA 29

ANALYTICAL DATA

Analytical Calculations

Metals-

Element Results (µg) =ICP Results (µg/L)*Dilution*Final Volume (L)

Where-

ICP Results= Raw sample concentration (ppb)--*ICP-Data Sheet*

Dilution= $\frac{\text{Diluted Volume}}{\text{Aliquot}}$--*ICP-MS Run Sheet*

Final Volume=FH=Final Volume (FV)--*Sample Submission*

BH=$\frac{\text{Received Volume (BV)}}{\text{Aliquot (Used)}}$.*Final Volume (FV)--*Sample Submission*

Combined Results=FH+BH

Mercury-

Mercury Results (µg) =$\frac{\text{CVAA Results (µg)}}{\text{Aliquot (ml)}}$ *Final Volume (ml)

Where-

CVAA Results= Raw sample reading (µg)--*Hg-Data Sheet*

Aliquot= Sample Aliquot (Alq.)--*Hg-Data Sheet*

Final Volume=Final Volume (FV)*--*Sample Submission*

* With the exception of the BH fraction where-

=Received Volume (BV)--*Sample Submission*

One **AIR TESTING SAMPLE SUBMISSION FORM** **Lab ID 8432**

Analysis Due Date 01.10.07

QA/QC/Report due Date 01.11.07

Client:	AIRNOVA/SGS
Project No.:	

Date Rec:	12.15.06
Time Rec:	1257

HNO_3 Lot:	HF Lot:	HCl Lot:	**Ref. Method:**
Volume Marked Y / N	Volume Loss Y / N / ?		**29**

Sample Identification

1	M29-Inlet-Run 1	3	M29-Outlet-Run 1	5	M29-Field Train Blank
	M29-Inlet-Run 1 duplicate		M29-Outlet-Run 1 duplicate	6	M29-Reagent Blank
2	M29-Inlet-Run 2	4	M29-Outlet-Run 2		
	M29-Inlet-Run 2 spike		M29-Outlet-Run 2 spike		

Analyses Requested: Samples 1-6 Hg

Samples 3-6 As, Ba, Cd, Cr, Co, Cu, Pb, Mn, Ni, Se, Ag & Zn

***Metals analysis on Cont. 5A samples-Handle Like BH**

Front and Back Analysis **Separate** **X** Combined

Run / FB	Front Half		Back Half			HNO_3 (A)		$KMnO_4$ (B)		HCl (C)	
	pH <2.0 Y / N		pH <2.0 Y / N			pH <2.0 Y / N		pH <2.0 Y / N		pH <2.0 Y / N	
Lab ID	BV, ml	FV, ml	BV, ml	Used	FV, ml	BV, ml	FV, ml	BV, ml	FV, ml	BV, ml	FV, ml
1/dup	100	100	2036	1018	50	350	400	480	500	230	
2/spk	100	↓	1985	993	↓	126	200	405	↓	235	
3/dup	96		1828	914		515	600	450		230	
4/spk	70		1675	838		455	500	510	600	225	
5	104		310	155		1024	200	405	500	225	

Reagent Blank

Lab ID	Fraction			SV, ml	BV, ml	Used	FV, ml	pH	Prep By / Date
6									
	C-8	FH	0.1N HNO_3	205	305	100	100		
	C-8	A	0.1N HNO_3	205	205	103	300		
	C-8	B	DI H_2O	100	100	33			
	C-9	BH	5% HNO_3/10% H_2O_2	210	210	105	50		
	C-10	B	4% $KMnO_4$/10%H_2SO_4	108	108	100			
	C-11	C	8N HCl & DI	230	230				
	C-12	FH	Filter						

Lab Communications

3A - used 258 mL FV = 300

4A - used 228 FV = ~~5~~ 250

5A - used 52 FV = 100

6A - used 103 FV = 150

XE

SS Page1 of 2

SS by

1/2/2007 11:00~~:56 AM~~

FH Prep By/Date 01.03.06 A Prep By/Date 01.02.06

BH Prep By/Date 01.02.06 B Prep By/Date

BH/FH Prep By/Date C Prep By/Date

ID Verification By / Date MAL / 12.15.06

022

Sample/Batch Report

User Name: daphne.woodman
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\xz.sam
Report Date/Time: Thursday, January 11, 2007 11:34:37

Daph W 1/11/07

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
12		LRB BH	AIRNOVA/SGS						
13	S	LRB BH	AIRNOVA/SGSSpike - 1						
14		8432-3 BH	AIRNOVA/SGS						
15	D	8432-3 BH	AIRNOVA/SGSQC Duplicate						
16		8432-4 BH	AIRNOVA/SGS						
17	S	8432-4 BH	AIRNOVA/SGSSpike - 1						
18		8432-5 BH	AIRNOVA/SGS						
19		8432-6 BH	AIRNOVA/SGS						
20		LRB FH	AIRNOVA/SGS						
21	S	LRB FH	AIRNOVA/SGSSpike - 1						
22		8432-3 FH	AIRNOVA/SGS						
23	D	8432-3 FH	AIRNOVA/SGSQC Duplicate						
24		8432-4 FH	AIRNOVA/SGS						
25	S	8432-4 FH	AIRNOVA/SGSSpike - 1						
26		8432-5 FH	AIRNOVA/SGS						
27		8432-6 FH	AIRNOVA/SGS						
28		8432-3 A	AIRNOVA/SGS						
29	D	8432-3 A	AIRNOVA/SGSQC Duplicate						
30		8432-4 A	AIRNOVA/SGS						
31	S	8432-4 A	AIRNOVA/SGSSpike - 1						
32		8432-5 A	AIRNOVA/SGS						
33		8432-6 A	AIRNOVA/SGS						
5		QC STD 2							
34	X10	8432-3 BH	AIRNOVA/SGS						
35	X10D	8432-3 BH	AIRNOVA/SGSQC Duplicate						
36	X5	8432-4 BH	AIRNOVA/SGS						
37	X5S	8432-4 BH	AIRNOVA/SGSSpike - 1						
38		8432-6 BH	AIRNOVA/SGS						
22		8432-3 FH	AIRNOVA/SGS						
23	D	8432-3 FH	AIRNOVA/SGSQC Duplicate						
39	X10	8432-3 FH	AIRNOVA/SGS						
40	X10D	8432-3 FH	AIRNOVA/SGSQC Duplicate						
41	X10	8432-4 FH	AIRNOVA/SGS						
42	X10S	8432-4 FH	AIRNOVA/SGSSpike - 1						
43	x20	8432-4 FH	AIRNOVA/SGS						
44	x20s	8432-4 FH	AIRNOVA/SGSSpike - 1						

023

Dataset Report

User Name: daphne.woodman
Computer Name: ICPMS1
Dataset File Path: c:\elandata\dataset\011007-2\
Report Date/Time: Thursday, January 11, 2007 11:34:27

Daph W
1/11/07

Autosampler Position: 3

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted \
12:14:01 Wed 10-Jan-07	Blank		Blank					
12:16:46 Wed 10-Jan-07	Standard 1		Standard #1					
12:19:31 Wed 10-Jan-07	Standard 2		Standard #2					
12:22:17 Wed 10-Jan-07	Standard 3		Standard #3	- No Ag				
12:25:02 Wed 10-Jan-07	QC Std 1		QC Std #1					
12:27:47 Wed 10-Jan-07	QC Std 2		QC Std #2					
12:30:33 Wed 10-Jan-07	QC Std 3		QC Std #3					
12:33:17 Wed 10-Jan-07	QC Std 4		QC Std #4					
12:36:03 Wed 10-Jan-07	QC Std 6		QC Std #6					
12:38:49 Wed 10-Jan-07	QC Std 7		QC Std #7					
12:41:35 Wed 10-Jan-07	LRB BH		Sample	AIRNOVA/SGS				
12:44:22 Wed 10-Jan-07	LRB BH	S	Spike - 1	AIRNOVA/SGS				
12:47:08 Wed 10-Jan-07	8432-3 BH		Sample	AIRNOVA/SGS				
12:49:51 Wed 10-Jan-07	8432-3 BH	D	QC Duplicate	AIRNOVA/SGS				
12:52:35 Wed 10-Jan-07	8432-4 BH		Sample	AIRNOVA/SGS				
12:55:19 Wed 10-Jan-07	8432-4 BH	S	Spike - 1	AIRNOVA/SGS				
12:58:03 Wed 10-Jan-07	8432-5 BH		Sample	AIRNOVA/SGS				
13:00:48 Wed 10-Jan-07	8432-6 BH		Sample	AIRNOVA/SGS	- Dirty tube			
13:03:32 Wed 10-Jan-07	LRB FH		Sample	AIRNOVA/SGS				
13:06:18 Wed 10-Jan-07	LRB FH	S	Spike - 1	AIRNOVA/SGS				
13:09:02 Wed 10-Jan-07	QC Std 1		QC Std #1					
13:11:47 Wed 10-Jan-07	QC Std 4		QC Std #4					
13:14:33 Wed 10-Jan-07	8432-3 FH		Sample	AIRNOVA/SGS				
13:17:19 Wed 10-Jan-07	8432-3 FH	D	QC Duplicate	AIRNOVA/SGS				
13:20:05 Wed 10-Jan-07	8432-4 FH		Sample	AIRNOVA/SGS				
13:22:52 Wed 10-Jan-07	8432-4 FH	S	Spike - 1	AIRNOVA/SGS				
13:25:38 Wed 10-Jan-07	8432-5 FH		Sample	AIRNOVA/SGS				
13:28:22 Wed 10-Jan-07	8432-6 FH		Sample	AIRNOVA/SGS				
13:31:06 Wed 10-Jan-07	8432-3 A		Sample	AIRNOVA/SGS				
13:33:50 Wed 10-Jan-07	8432-3 A	D	QC Duplicate	AIRNOVA/SGS				
13:36:34 Wed 10-Jan-07	8432-4 A		Sample	AIRNOVA/SGS				
13:39:19 Wed 10-Jan-07	8432-4 A	S	Spike - 1	AIRNOVA/SGS				
13:42:03 Wed 10-Jan-07	QC Std 1		QC Std #1					
13:44:48 Wed 10-Jan-07	QC Std 4		QC Std #4					
13:47:33 Wed 10-Jan-07	8432-5 A		Sample	AIRNOVA/SGS				
13:50:19 Wed 10-Jan-07	8432-6 A		Sample	AIRNOVA/SGS				
13:53:03 Wed 10-Jan-07	QC Std 1		QC Std #1					
13:55:48 Wed 10-Jan-07	QC Std 4		QC Std #4					
10:25:12 Thu 11-Jan-07	QC STD 2		QC Std #2					
10:27:59 Thu 11-Jan-07	8432-3 BH	X10	Sample	AIRNOVA/SGS				
10:30:45 Thu 11-Jan-07	8432-3 BH	X10D	QC Duplicate	AIRNOVA/SGS				
10:33:31 Thu 11-Jan-07	8432-4 BH	X5	Sample	AIRNOVA/SGS				
10:36:18 Thu 11-Jan-07	8432-4 BH	X5S	Spike - 1	AIRNOVA/SGS				

024

10:39:04 Thu 11-Jan-07	8432-6 BH		Sample	AIRNOVA/SGS
10:41:49 Thu 11-Jan-07	8432-3 FH		Sample	AIRNOVA/SGS
10:44:35 Thu 11-Jan-07	8432-3 FH	D	QC Duplicate	AIRNOVA/SGS
10:47:21 Thu 11-Jan-07	8432-3 FH	X10	Sample	AIRNOVA/SGS
10:50:06 Thu 11-Jan-07	8432-3 FH	X10D	QC Duplicate	AIRNOVA/SGS
10:52:50 Thu 11-Jan-07	QC Std 1		QC Std #1	
10:55:35 Thu 11-Jan-07	QC Std 4		QC Std #4	
10:58:20 Thu 11-Jan-07	8432-4 FH	X10	Sample	AIRNOVA/SGS
11:01:05 Thu 11-Jan-07	8432-4 FH	X10S	Spike - 1	AIRNOVA/SGS
11:03:49 Thu 11-Jan-07	QC Std 1		QC Std #1	
11:06:33 Thu 11-Jan-07	QC Std 4		QC Std #4	
11:19:57 Thu 11-Jan-07	8432-4 FH	x20	Sample	AIRNOVA/SGS
11:22:42 Thu 11-Jan-07	8432-4 FH	x20s	Spike - 1	AIRNOVA/SGS
11:25:26 Thu 11-Jan-07	QC Std 1		QC Std #1	
11:28:11 Thu 11-Jan-07	QC Std 4		QC Std #4	

e

025

elementOne **ICP-MS RUN SHEET** **8432**

Analyst: __DBW____ Date: 1-10-07 **Solid Samples** ☐ / *Liquid Samples*

Dapk W 1/11/07

A/S Loc	Batch # for sample sets	Sample Lab ID	Sample Description	Type Sample QC Spike QC Dup QC Reg Blank	Spike concentration	Prep Volume (ml)	Weight (g)	Aliquot (ml)	Diluted to Volume (ml)
12			LRB BH	S		50			
13			LRB BH	SS	Table #1	50			
14			8432-3 BH	S		50X2			
15			8432-3 BH	SD		50X2			
16			8432-4 BH	S		50X2			
17			8432-4 BH	SS	Table #1	50X2			
18			8432-5 BH	S		50X2			
19			8432-6 BH	S		50X2			
20			LRB FH	S		100			
21			LRB FH	SS	Table #1	100			
22			8432-3 FH	S		100			
23			8432-3 FH	SD		100			
24			8432-4 FH	S		100			
25			8432-4 FH	SS	Table #1	100			
26			8432-5 FH	S		100			
27			8432-6 FH	S		100			
28			8432-3 A	S		300X2			
29			8432-3 A	SD		300X2			
30			8432-4 A	S		250X2			
31			8432-4 A	SS	Table #1	250X2			
32			8432-5 A	S		100X2			

elementOne **ICP-MS RUN SHEET** **8432**

Analyst: __DBW____ Date: 1-10-07 **Solid Samples** ☐ / *Liquid Samples*

33			8432-6 A	S		150X2			
DILUTIONS AND RECHECKS									
34			8432-3 BH	S		50X2		1.0	10
35			8432-3 BH	SD		50X2		1.0	10
36			8432-4 BH	S		50X2		2.0	10
37			8432-4 BH	SS	Table #1	50X2		2.0	10
38			8432-6 BH	S		50X2			
22			8432-3 FH	S		100			
23			8432-3 FH	SD		100			
39			8432-3 FH	S		100		1.0	10
40			8432-3 FH	SD		100		1.0	10
41			8432-4 FH	S		100		1.0	10
42			8432-4 FH	SS	Table #1	100		1.0	10
43			8432-4 FH	S		100		0.5	10
44			8432-4 FH	SS	Table #1	100		0.5	10

Spikes are post at 0.02 mL of 25ppm spiking solutions lot 021406-AB & C in a final volume of 10ml.

Submitted for QC:	Date: 1/11/07	Time: 11:30	By: DBW	QC Review:	Date: 1.12.07	Time: 11:00	By:
Re-Test Required:	No:	Yes:	Comments: Okay				
Resubmitted for QC:	Date:	Time:	By:	QC Review:	Date:	Time:	By:

Element One, Inc. Form 126 - Revision 0.0

Sample/Batch Report

Daph W 1/21/07

User Name: daphne.woodman
Computer Name: ICPMS1
Sample File: C:\elandata\Sample\xz.sam
Report Date/Time: Monday, January 22, 2007 08:23:08

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
14		8432-1 BH	AIRNOVA/SGS						
15	D	8432-1 BH	AIRNOVA/SGSQC Duplicate						
16		8432-2 BH	AIRNOVA/SGS						
17	S	8432-2 BH	AIRNOVA/SGSSpike - 1						
18		8432-1 A	AIRNOVA/SGS						
19	D	8432-1 A	AIRNOVA/SGSQC Duplicate						
20		8432-2 A	AIRNOVA/SGS						
21	S	8432-2 A	AIRNOVA/SGSSpike - 1						
22		8432-1 FH	AIRNOVA/SGS						
23	D	8432-1 FH	AIRNOVA/SGSQC Duplicate						
24		8432-2 FH	AIRNOVA/SGS						
25	S	8432-2 FH	AIRNOVA/SGSSpike - 1						
5		QC STD 5							
14		8432-1 BH	AIRNOVA/SGS						
15	D	8432-1 BH	AIRNOVA/SGSQC Duplicate						
26	X5	8432-1 BH	AIRNOVA/SGS						
27	X5D	8432-1 BH	AIRNOVA/SGSQC Duplicate						
28	X100	8432-1 BH	AIRNOVA/SGS						
29	X100D	8432-1 BH	AIRNOVA/SGSQC Duplicate						
30		8432-1 BH un	AIRNOVA/SGS						
31	X5	8432-2 BH	AIRNOVA/SGS						
32	X5S	8432-2 BH	AIRNOVA/SGSSpike - 1						
18		8432-1 A	AIRNOVA/SGS						
19	D	8432-1 A	AIRNOVA/SGSQC Duplicate						
33	X5	8432-2 A	AIRNOVA/SGS						
34	X5S	8432-2 A	AIRNOVA/SGSSpike - 1						
35		8432-1 FH	AIRNOVA/SGS						
36	D	8432-1 FH	AIRNOVA/SGSQC Duplicate						
37	X10	8432-1 FH	AIRNOVA/SGS						
38	X10D	8432-1 FH	AIRNOVA/SGSQC Duplicate						
39	X5	8432-2 FH	AIRNOVA/SGS						
40	X5S	8432-2 FH	AIRNOVA/SGSSpike - 1						

008

Dataset Report

User Name: daphne.woodman
Computer Name: ICPMS1
Dataset File Path: C:\elandata\Dataset\011807-1\
Report Date/Time: Monday, January 22, 2007 08:23:01

Daph Wood 1/22/07

Autosampler Position: 36

The Dataset

Time	Sample ID	Batch ID	Read Type	Description	Init. Quant	Prep. Vol.	Aliquot. Vol.	Diluted \
11:10:34 Thu 18-Jan-07	Blank		Blank					
11:13:18 Thu 18-Jan-07	Standard 1		Standard #1					
11:16:03 Thu 18-Jan-07	Standard 2		Standard #2					
11:18:49 Thu 18-Jan-07	Standard 3		Standard #3					
11:21:34 Thu 18-Jan-07	QC Std 1		QC Std #1					
11:24:20 Thu 18-Jan-07	QC Std 2		QC Std #2					
11:27:05 Thu 18-Jan-07	QC Std 3		QC Std #3					
11:29:50 Thu 18-Jan-07	QC Std 4		QC Std #4					
11:32:35 Thu 18-Jan-07	QC Std 6		QC Std #6					
11:35:21 Thu 18-Jan-07	QC Std 7		QC Std #7					
11:38:06 Thu 18-Jan-07	8432-1 BH		Sample	AIRNOVA/SGS				
11:40:50 Thu 18-Jan-07	8432-1 BH	D	QC Duplicate	AIRNOVA/SGS				
11:43:34 Thu 18-Jan-07	8432-2 BH		Sample	AIRNOVA/SGS				
11:46:18 Thu 18-Jan-07	8432-2 BH	S	Spike - 1	AIRNOVA/SGS				
11:49:02 Thu 18-Jan-07	8432-1 A		Sample	AIRNOVA/SGS				
11:51:46 Thu 18-Jan-07	8432-1 A	D	QC Duplicate	AIRNOVA/SGS				
11:54:31 Thu 18-Jan-07	8432-2 A		Sample	AIRNOVA/SGS				
11:57:17 Thu 18-Jan-07	8432-2 A	S	Spike - 1	AIRNOVA/SGS				
12:00:02 Thu 18-Jan-07	8432-1 FH		Sample	AIRNOVA/SGS				
12:02:48 Thu 18-Jan-07	8432-1 FH	D	QC Duplicate	AIRNOVA/SGS				
12:05:33 Thu 18-Jan-07	QC Std 1		QC Std #1					
12:08:18 Thu 18-Jan-07	QC Std 4		QC Std #4					
12:11:04 Thu 18-Jan-07	8432-2 FH		Sample	AIRNOVA/SGS				
12:13:51 Thu 18-Jan-07	8432-2 FH	S	Spike - 1	AIRNOVA/SGS				
12:16:36 Thu 18-Jan-07	QC Std 1		QC Std #1					
12:19:21 Thu 18-Jan-07	QC Std 4		QC Std #4					
12:57:26 Thu 18-Jan-07	QC STD 5		Sample					
13:00:11 Thu 18-Jan-07	8432-1 BH		Sample	AIRNOVA/SGS				
13:02:55 Thu 18-Jan-07	8432-1 BH	D	QC Duplicate	AIRNOVA/SGS				
13:05:39 Thu 18-Jan-07	8432-1 BH	X5	Sample	AIRNOVA/SGS				
13:08:23 Thu 18-Jan-07	8432-1 BH	X5D	QC Duplicate	AIRNOVA/SGS				
13:11:07 Thu 18-Jan-07	8432-1 BH	X100	Sample	AIRNOVA/SGS				
13:13:51 Thu 18-Jan-07	8432-1 BH	X100D	QC Duplicate	AIRNOVA/SGS				
13:16:35 Thu 18-Jan-07	8432-1 BH und		Sample	AIRNOVA/SGS				
13:19:20 Thu 18-Jan-07	8432-2 BH	X5	Sample	AIRNOVA/SGS				
13:22:05 Thu 18-Jan-07	8432-2 BH	X5S	Spike - 1	AIRNOVA/SGS				
13:24:49 Thu 18-Jan-07	QC Std 1		QC Std #1					
13:27:34 Thu 18-Jan-07	QC Std 4		QC Std #4					
13:30:20 Thu 18-Jan-07	8432-1 A		Sample	AIRNOVA/SGS				
13:33:05 Thu 18-Jan-07	8432-1 A	D	QC Duplicate	AIRNOVA/SGS				
13:35:51 Thu 18-Jan-07	8432-1 FH		Sample	AIRNOVA/SGS				
13:38:38 Thu 18-Jan-07	8432-1 FH	d	QC Duplicate	AIRNOVA/SGS				
13:41:24 Thu 18-Jan-07	8432-1 FH		Sample	AIRNOVA/SGS				

wrong AIS Location

029

13:44:10 Thu 18-Jan-07	8432-1 FH	D	QC Duplicate	AIRNOVA/SGS
13:46:55 Thu 18-Jan-07	8432-1 FH	X10	Sample	AIRNOVA/SGS
13:49:40 Thu 18-Jan-07	8432-1 FH	X10D	QC Duplicate	AIRNOVA/SGS
13:52:24 Thu 18-Jan-07	8432-2 FH	X5	Sample	AIRNOVA/SGS
13:55:09 Thu 18-Jan-07	8432-2 FH	X5S	Spike - 1	AIRNOVA/SGS
13:57:53 Thu 18-Jan-07	QC Std 1		QC Std #1	
14:00:38 Thu 18-Jan-07	QC Std 4		QC Std #4	
14:17:14 Thu 18-Jan-07	8432-1 A		Sample	AIRNOVA/SGS
14:19:59 Thu 18-Jan-07	8432-1 A	D	QC Duplicate	AIRNOVA/SGS
14:22:44 Thu 18-Jan-07	8432-2 A	X5	Sample	AIRNOVA/SGS
14:25:29 Thu 18-Jan-07	8432-2 A	X5S	Spike - 1	AIRNOVA/SGS
14:28:15 Thu 18-Jan-07	8432-1 FH		Sample	AIRNOVA/SGS
14:31:02 Thu 18-Jan-07	8432-1 FH	D	QC Duplicate	AIRNOVA/SGS
14:33:49 Thu 18-Jan-07	8432-1 FH	X10	Sample	AIRNOVA/SGS
14:36:34 Thu 18-Jan-07	8432-1 FH	X10D	QC Duplicate	AIRNOVA/SGS
14:39:19 Thu 18-Jan-07	8432-2 FH	X5	Sample	AIRNOVA/SGS
14:42:04 Thu 18-Jan-07	8432-2 FH	X5S	Spike - 1	AIRNOVA/SGS
14:44:48 Thu 18-Jan-07	QC Std 1		QC Std #1	
14:47:33 Thu 18-Jan-07	QC Std 4		QC Std #4	

wrong AS Location

030

elementOne **ICP-MS RUN SHEET** **8432**

Analyst: __DBW____ Date: 1-18-07 **Solid Samples** ☐ / *Liquid Samples*

1/21/07

A/S Loc	Batch # for sample sets	Sample Lab ID	Sample Description	Type Sample QC Spike QC Dup QC Reg Blank	Spike concentration	Prep Volume (ml)	Weight (g)	Aliquot (ml)	Diluted to Volume (ml)
14			8432-1 BH	S		50X2			
15			8432-1 BH	SD		50X2			
16			8432-2 BH	S		50X2			
17			8432-2 BH	SS	Table #1	50X2			
18			8432-1 A	S		400			
19			8432-1 A	SD		400			
20			8432-2 A	S		200			
21			8432-2 A	SS	Table #1	200			
22			8432-1 FH	S		100			
23			8432-1 FH	SD		100			
24			8432-2 FH	S		100			
25			8432-2 FH	SS	Table #1	100			
Dilutions and Rechecks									
14			8432-1 BH	S		50X2			
15			8432-1 BH	SD		50X2			
26			8432-1 BH	S		50X2		2.0	10
27			8432-1 BH	SD		50X2		2.0	10
28			8432-1 BH	S		50X2		0.1	10
29			8432-1 BH	SD		50X2		0.1	10
30	undigested		8432-1 BH	S					
31			8432-2 BH	S		50X2		2.0	10

elementOne **ICP-MS RUN SHEET** **8432**

Analyst: __DBW____ Date: 1-18-07 **Solid Samples** ☐ / *Liquid Samples*

32			8432-2 BH	SS	Table #1	50X2		2.0	10
18			8432-1 A	S		400			
19			8432-1 A	SD		400			
33			8432-2 A	S		200		2.0	10
34			8432-2 A	SS	Table #1	200		2.0	10
35			8432-1 FH	S		100			
36			8432-1 FH	SD		100			
37			8432-1 FH	S		100		1.0	10
38			8432-1 FH	SD		100		1.0	10
39			8432-2 FH	S		100		2.0	10
40			8432-2 FH	SS	Table #1	100		2.0	10

Spikes are post at 0.02 mL of 25ppm spiking solutions lot 021406-AB & C in a final volume of 10ml.

Submitted for QC:	Date: 1/21/07	Time: 8:30	By: DW	QC Review:	Date: 1/23/07	Time: 13:55	By: DBW
Re-Test Required:	No:	Yes:	Comments:				
Resubmitted for QC:	Date:	Time:	By:	QC Review:	Date:	Time:	By:

Element One, Inc. Form 126 - Revision 0.0

ELAN Instrument Control Session - [Quantitative Analysis Method - [Untitled][Modified]]

File Edit Analysis Options Window Help

Timing | Processing | Equation | Calibration | Sampling | Devices... | QC...

	Analyte	Mass (amu)	Spike Table 1 (Conc.)	Spike Table 1 Det. Limit (Conc.)	Spike Table 2 (Conc.)	Spike Table 2 Det. Limit (Conc.)	Spike Table 3 (Conc.)	Spike Table 3 Det. Limit (Conc.)	Spike Table 4 (Conc.)	D
1	Li	6.0151								
2	Sc	44.9559	50	1	25	1	100	1		
3	Cr	51.9405	50	1	25	1	100	1		
4	Cr	52.9407	50	1	25	1	100	1		
5	Mn	54.9381	50	1	25	1	100	1		
6	Co	58.9332	50	1	25	1	100	1		
7	Ni	59.9332	50	1	25	1	100	1		
8	Cu	62.9298	50	1	25	1	100	1		
9	Cu	64.9278	50	1	25	1	100	1		
0	Zn	65.926	50	1	25	1	100	1		
1	Zn	66.9271	50	1	25	1	100	1		
2	Zn	67.9249	50	1	25	1	100	1		
3	As	74.9216	50	1	25	1	100	1		
4	Se	76.9199	50	1	25	1	100	1		
5	Se	81.9167	50	1	25	1	100	1		
6	Ag	106.905	50	1	25	1	100	1		
7	Ag	108.905	50	1	25	1	100	1		
8	Cd	110.904	50	1	25	1	100	1		
9	Cd	113.904	50	1	25	1	100	1		
0	Ba	134.906	50	1	25	1	100	1		
1	Ba	136.905	50	1	25	1	100	1		
2	Pb	207.977	50	1	25	1	100	1		
3	Kr	82.9141	50	1	25	1	100	1		

Report | Notes

Frequency | QC Std Int Stds | Calibration Stds | Sample Int Stds | Sample | Spike | Dilution | Duplicate | Spike Tables | QC Action Controls | Autosampler

help, Press F1

NUM | LOG | FAULT

Start | GpibManager | ELAN Instrument Co... | Microsoft Word - ICPMS...

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: Blank
Sample Date/Time: Wednesday, January 10, 2007 12:14:01
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30692.1		ppb
|-	Sc	45	54877		ppb
|	Cr	52	2841.5		ppb
|	Cr	53	8350.6		ppb
|	Mn	55	626.7		ppb
|	Co	59	66.3		ppb
|	Ni	60	47		ppb
|	Cu	63	169.7		ppb
|	Cu	65	184.7		ppb
|	Zn	66	182		ppb
|	Zn	67	1423.8		ppb
|	Zn	68	392		ppb
|	As	75	96.1		ppb
|	Se	77	487.7		ppb
|	Se	82	-1.5		ppb
|>	Rh	103	86205.8		ppb
|	Ag	107	203		ppb
|	Ag	109	190.7		ppb
|	Cd	111	19.3		ppb
|-	Cd	114	41.3		ppb
|-	Ba	135	44.7		ppb
|	Ba	137	65.3		ppb
|>	Ho	165	278821		ppb
|-	Pb	208	1196		ppb
	Kr	83	55.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 1
Sample Date/Time: Wednesday, January 10, 2007 12:16:46
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30996.3		ppb
|-	Sc	45	55870.6		ppb
|	Cr	52	4634.7	1.00983	ppb
|	Cr	53	8793.4	2.00369	ppb
|	Mn	55	3688.5	1.02354	ppb
|	Co	59	2266.3	1.03486	ppb
|	Ni	60	523	1.0945	ppb
|	Cu	63	1240.8	1.06635	ppb
|	Cu	65	672.4	1.00386	ppb
|	Zn	66	543.4	1.10325	ppb
|	Zn	67	1519.8	1.65114	ppb
|	Zn	68	681.7	1.21698	ppb
|	As	75	362.8	0.74809	ppb
|	Se	77	493.4	0.12771	ppb
|	Se	82	47.6	1.2356	ppb
|>	Rh	103	86471.9		ppb
|	Ag	107	2145.6	0.94978	ppb
|	Ag	109	2079.3	0.97252	ppb
|	Cd	111	575.3	1.02472	ppb
|-	Cd	114	1335.6	1.02153	ppb
|-	Ba	135	650.4	1.06095	ppb
|	Ba	137	1106.1	1.0184	ppb
|>	Ho	165	283561.5		ppb
|-	Pb	208	13896	0.98512	ppb
	Kr	83	45		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 2
Sample Date/Time: Wednesday, January 10, 2007 12:19:31
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30901.4		ppb
|-	Sc	45	57172.7		ppb
|	Cr	52	187087.4	102.34702	ppb
|	Cr	53	30301.6	102.38629	ppb
|	Mn	55	309121.1	101.36486	ppb
|	Co	59	222004.9	102.51341	ppb
|	Ni	60	45511.1	102.72709	ppb
|	Cu	63	104883.3	102.4431	ppb
|	Cu	65	51542.5	103.88793	ppb
|	Zn	66	34410.2	102.76194	ppb
|	Zn	67	7261.9	102.34881	ppb
|	Zn	68	25350.4	103.16871	ppb
|	As	75	36503	100.61455	ppb
|	Se	77	3545.1	100.71658	ppb
|	Se	82	4042.2	100.05925	ppb
|>	Rh	103	88069.3		ppb
|	Ag	107	208403.5	100.0005	ppb
|	Ag	109	197818.4	100.00027	ppb
|	Cd	111	55950	101.2323	ppb
|-	Cd	114	130889.1	101.41049	ppb
|-	Ba	135	59751.4	101.82411	ppb
|	Ba	137	106955.6	101.81883	ppb
|>	Ho	165	291576.5		ppb
|-	Pb	208	1350514.2	101.95203	ppb
	Kr	83	54.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 3
Sample Date/Time: Wednesday, January 10, 2007 12:22:17
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29538.5		ppb
|-	Sc	45	57221.7		ppb
|	Cr	52	902236.7	499.53058	ppb
|	Cr	53	114815	499.52073	ppb
|	Mn	55	1522164.3	499.72698	ppb
|	Co	59	1081666.5	499.49725	ppb
|	Ni	60	221184.8	499.45439	ppb
|	Cu	63	510944.4	499.51125	ppb
|	Cu	65	247018.1	499.22241	ppb
|	Zn	66	166591.7	499.44741	ppb
|	Zn	67	29805.8	499.52894	ppb
|	Zn	68	121223.6	499.36582	ppb
|	As	75	180995.1	499.87759	ppb
|	Se	77	15616.4	499.85843	ppb
|	Se	82	20198.9	499.98768	ppb
|>	Rh	103	88075.9		ppb
|	Ag	107	873105	419.17955	ppb
|	Ag	109	869232.3	439.62482	ppb
|	Cd	111	276249.3	499.75349	ppb
|-	Cd	114	644942	499.71786	ppb
|-	Ba	135	293933.9	499.63506	ppb
|	Ba	137	526258.4	499.6362	ppb
|>	Ho	165	292567.7		ppb
|-	Pb	208	6634476.5	499.60962	ppb
	Kr	83	60		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 10, 2007 12:25:02
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29791.3		ppb
|-	Sc	45	56355.8		ppb
|	Cr	52	2877.9	-0.00417	ppb
|	Cr	53	8137.7	-1.62639	ppb
|	Mn	55	1140.4	0.16694	ppb
|	Co	59	474	0.18953	ppb
|	Ni	60	116	0.15562	ppb
|	Cu	63	409	0.2335	ppb
|	Cu	65	316	0.26192	ppb
|	Zn	66	281.3	0.29198	ppb
|	Zn	67	1475.8	0.52415	ppb
|	Zn	68	458.4	0.2508	ppb
|	As	75	474.4	1.04814	ppb
|	Se	77	548.4	1.75902	ppb
|	Se	82	138.3	3.48463	ppb
|>	Rh	103	87580.7		ppb
|	Ag	107	20913.1	9.9928	ppb
|	Ag	109	20210.1	10.17655	ppb
|	Cd	111	103	0.15237	ppb
|-	Cd	114	279.4	0.18561	ppb
|-	Ba	135	163	0.20652	ppb
|	Ba	137	281.3	0.21053	ppb
|>	Ho	165	284383.4		ppb
|-	Pb	208	6397.1	0.40262	ppb
	Kr	83	43.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Date/Time: Wednesday, January 10, 2007 12:27:47
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29313.2		ppb
|-	Sc	45	55817.5		ppb
|	Cr	52	4496.6	0.89117	ppb
|	Cr	53	9002	2.31835	ppb
|	Mn	55	3711.2	1.01163	ppb
|	Co	59	2286.7	1.02718	ppb
|	Ni	60	486.4	0.99296	ppb
|	Cu	63	1247.1	1.05305	ppb
|	Cu	65	735.7	1.11011	ppb
|	Zn	66	535	1.05169	ppb
|	Zn	67	1528.8	1.37009	ppb
|	Zn	68	663	1.09143	ppb
|	As	75	561.3	1.28436	ppb
|	Se	77	490.4	-0.22051	ppb
|	Se	82	63.3	1.6091	ppb
|>	Rh	103	87863.7		ppb
|	Ag	107	14173	6.71758	ppb
|	Ag	109	13717.2	6.85297	ppb
|	Cd	111	566.9	0.99222	ppb
|-	Cd	114	1349.5	1.01561	ppb
|-	Ba	135	640	1.03923	ppb
|	Ba	137	1132.8	1.04125	ppb
|>	Ho	165	284466.1		ppb
|-	Pb	208	14571.5	1.03402	ppb
	Kr	83	40.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 3
Sample Date/Time: Wednesday, January 10, 2007 12:30:33
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28674.2		ppb
|-	Sc	45	55222.3		ppb
|	Cr	52	437916.9	253.40644	ppb
|	Cr	53	60012.9	255.64035	ppb
|	Mn	55	721731.1	248.27378	ppb
|	Co	59	517973.1	250.76187	ppb
|	Ni	60	106310.7	251.59915	ppb
|	Cu	63	251546.7	257.73629	ppb
|	Cu	65	122041.6	258.3691	ppb
|	Zn	66	80069.7	251.38621	ppb
|	Zn	67	15081.8	252.97921	ppb
|	Zn	68	57993.7	249.64079	ppb
|	As	75	87832.5	254.20023	ppb
|	Se	77	7848.1	255.48634	ppb
|	Se	82	9815.9	254.73406	ppb
|>	Rh	103	84020.7		ppb
|	Ag	107	440999.7	221.89581	ppb
|	Ag	109	413987	219.52514	ppb
|	Cd	111	132832.7	251.95111	ppb
|-	Cd	114	309463.7	251.37144	ppb
|-	Ba	135	144253.8	257.12273	ppb
|	Ba	137	256043.4	254.92638	ppb
|>	Ho	165	278904.2		ppb
|-	Pb	208	3209121.7	253.42205	ppb
	Kr	83	48		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 10, 2007 12:33:17
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30284.1		ppb
|-	Sc	45	57565.4		ppb
|	Cr	52	188111.5	100.68922	ppb
|	Cr	53	31122.7	103.10549	ppb
|	Mn	55	315927.7	101.3871	ppb
|	Co	59	223425.7	100.98483	ppb
|	Ni	60	45990	101.58422	ppb
|	Cu	63	107010.1	102.28656	ppb
|	Cu	65	52908.6	104.3916	ppb
|	Zn	66	35258.8	103.05873	ppb
|	Zn	67	7490.4	103.57694	ppb
|	Zn	68	25369.8	100.99578	ppb
|	As	75	37507.4	101.18053	ppb
|	Se	77	3670.2	102.32714	ppb
|	Se	82	4177.3	101.25437	ppb
|>	Rh	103	89966.3		ppb
|	Ag	107	212029.1	99.57519	ppb
|	Ag	109	204468.7	101.16017	ppb
|	Cd	111	55997.6	99.14891	ppb
|-	Cd	114	132129.9	100.20865	ppb
|-	Ba	135	61803	104.2346	ppb
|	Ba	137	108904.2	102.5985	ppb
|>	Ho	165	294661.2		ppb
|-	Pb	208	1362822.5	101.81922	ppb
	Kr	83	50.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 6
Sample Date/Time: Wednesday, January 10, 2007 12:36:03
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30209.7		ppb
|-	Sc	45	57001.5		ppb
|	Cr	52	3432.7	0.43634	ppb
|	Cr	53	9862.3	9.70863	ppb
|	Mn	55	6563	2.106	ppb
|	Co	59	2471.7	1.19521	ppb
|	Ni	60	920.7	2.12611	ppb
|	Cu	63	1151.8	1.04068	ppb
|	Cu	65	1953.6	3.86406	ppb
|	Zn	66	1430.8	4.05625	ppb
|	Zn	67	1731.9	7.15924	ppb
|	Zn	68	785.7	1.83444	ppb
|	As	75	344.3	0.751	ppb
|	Se	77	682.7	7.77954	ppb
|	Se	82	22.8	0.64339	ppb
|>	Rh	103	81972.7		ppb
|	Ag	107	15485.3	7.88674	ppb
|	Ag	109	14992.7	8.04737	ppb
|	Cd	111	116	0.19024	ppb
|-	Cd	114	1585.2	1.28715	ppb
|-	Ba	135	176	0.21574	ppb
|	Ba	137	326.3	0.24081	ppb
|>	Ho	165	296340.3		ppb
|-	Pb	208	10472.3	0.68435	ppb
	Kr	83	66		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 7
Sample Date/Time: Wednesday, January 10, 2007 12:38:49
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30804.9		ppb
|-	Sc	45	56383		ppb
|	Cr	52	19283.8	10.13079	ppb
|	Cr	53	11417.6	18.73812	ppb
|	Mn	55	33521	11.86082	ppb
|	Co	59	39031.6	19.73279	ppb
|	Ni	60	8368.3	20.61459	ppb
|	Cu	63	9456.8	9.9709	ppb
|	Cu	65	5700	12.25898	ppb
|	Zn	66	4118.1	12.99348	ppb
|	Zn	67	2115.3	15.23399	ppb
|	Zn	68	2663.1	10.41084	ppb
|	As	75	3378.3	9.96379	ppb
|	Se	77	929.4	17.21433	ppb
|	Se	82	337.8	9.20278	ppb
|>	Rh	103	80333.2		ppb
|	Ag	107	20901.4	10.90467	ppb
|	Ag	109	20227.1	11.12097	ppb
|	Cd	111	2515.8	4.95445	ppb
|-	Cd	114	7112.3	6.00983	ppb
|-	Ba	135	137	0.1497	ppb
|	Ba	137	248	0.16682	ppb
|>	Ho	165	297050.6		ppb
|-	Pb	208	8507.7	0.53652	ppb
	Kr	83	64		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB BH
Sample Date/Time: Wednesday, January 10, 2007 12:41:35
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30994.7		ppb
|-	Sc	45	54453.9		ppb
|	Cr	52	2042.3	-0.45256	ppb
|	Cr	53	3327.7	-24.07971	ppb
|	Mn	55	4210.1	1.20163	ppb
|	Co	59	181.3	0.0542	ppb
|	Ni	60	316.7	0.62132	ppb
|	Cu	63	548.4	0.37814	ppb
|	Cu	65	275	0.18676	ppb
|	Zn	66	1923.9	5.33811	ppb
|	Zn	67	1128.4	-5.28835	ppb
|	Zn	68	1607.5	5.13371	ppb
|	As	75	147.2	0.14444	ppb
|	Se	77	98.7	-13.13589	ppb
|	Se	82	0.9	0.05847	ppb
|>	Rh	103	86254.7		ppb
|	Ag	107	3923.6	1.82704	ppb
|	Ag	109	3818.3	1.87599	ppb
|	Cd	111	54.7	0.0654	ppb
|-	Cd	114	145.9	0.08282	ppb
|-	Ba	135	172	0.21416	ppb
|	Ba	137	289	0.21062	ppb
|>	Ho	165	291010		ppb
|-	Pb	208	39953.9	2.93034	ppb
	Kr	83	44.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB BH
Sample Date/Time: Wednesday, January 10, 2007 12:44:22
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30285.9		ppb
|-	Sc	45	54836.1		ppb
|	Cr	52	92044.7	50.71546	ppb
|	Cr	53	13684.4	25.7753	ppb
|	Mn	55	151834.2	50.82903	ppb
|	Co	59	104419.5	49.32242	ppb
|	Ni	60	21304.1	49.13435	ppb
|	Cu	63	54438.5	54.32305	ppb
|	Cu	65	26814.4	55.13205	ppb
|	Zn	66	16194.6	49.19752	ppb
|	Zn	67	3483.8	37.24388	ppb
|	Zn	68	12059.2	49.36171	ppb
|	As	75	17849.4	50.22432	ppb
|	Se	77	1376.1	30.10054	ppb
|	Se	82	1715.2	43.49855	ppb
|>	Rh	103	86055.1		ppb
|	Ag	107	100699.9	49.39686	ppb
|	Ag	109	96142.2	49.68811	ppb
|	Cd	111	26880.2	49.74702	ppb
|-	Cd	114	63194.2	50.09107	ppb
|-	Ba	135	29831.6	50.73364	ppb
|	Ba	137	53219.4	50.57273	ppb
|>	Ho	165	291912.1		ppb
|-	Pb	208	694386.6	52.31453	ppb
	Kr	83	43.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-3 BH
Sample Date/Time: Wednesday, January 10, 2007 12:47:08
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30200.4		ppb
|-	Sc	45	67525.5		ppb
|	Cr	52	1059357.3	656.59541	ppb
|	Cr	53	127917.5	632.40355	ppb
|	Mn	55	686676.7	252.05028	ppb
|	Co	59	5086.3	2.59619	ppb
|	Ni	60	49968.9	126.13439	ppb
|	Cu	63	84964.3	92.77356	ppb
|	Cu	65	42278.8	95.26808	ppb
|	Zn	66	71538.9	239.6228	ppb
|	Zn	67	11474	200.51666	ppb
|	Zn	68	51281.5	235.43478	ppb
|	As	75	4419.1	13.38744	ppb
|	Se	77	928.1	17.84913	ppb
|	Se	82	1116.4	30.94721	ppb
|>	Rh	103	78733.3		ppb
|	Ag	107	14897.1	7.90296	ppb
|	Ag	109	14168.2	7.91964	ppb
|	Cd	111	1871.8	3.75301	ppb
|-	Cd	114	3816.2	3.27622	ppb
|-	Ba	135	22881.9	40.16722	ppb
|	Ba	137	40711.3	39.92598	ppb
|>	Ho	165	282793.4		ppb
|-	Pb	208	177156.8	13.71118	ppb
	Kr	83	38.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-3 BH
Sample Date/Time: Wednesday, January 10, 2007 12:49:51
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30005.2		ppb
|-	Sc	45	71120.8		ppb
|	Cr	52	1073390	664.69311	ppb
|	Cr	53	127851.9	631.50359	ppb
|	Mn	55	688547.1	252.50722	ppb
|	Co	59	5240.7	2.67307	ppb
|	Ni	60	50063.5	126.25114	ppb
|	Cu	63	85680.5	93.47421	ppb
|	Cu	65	43013.2	96.83698	ppb
|	Zn	66	72563.3	242.84098	ppb
|	Zn	67	11695.3	204.68195	ppb
|	Zn	68	52320.6	240.03345	ppb
|	As	75	4453	13.47974	ppb
|	Se	77	923.7	17.64878	ppb
|	Se	82	1101.1	30.49058	ppb
|>	Rh	103	78809.1		ppb
|	Ag	107	14945.9	7.92148	ppb
|	Ag	109	14118.1	7.88338	ppb
|	Cd	111	1894	3.79459	ppb
|-	Cd	114	3757.4	3.2211	ppb
|-	Ba	135	22898	40.43075	ppb
|	Ba	137	40896.2	40.34975	ppb
|>	Ho	165	281091.2		ppb
|-	Pb	208	178889.7	13.92661	ppb
	Kr	83	40.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 BH
Sample Date/Time: Wednesday, January 10, 2007 12:52:35
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	32463.7		ppb
|-	Sc	45	79776.3		ppb
|	Cr	52	358182.5	249.32186	ppb
|	Cr	53	45562.1	230.07493	ppb
|	Mn	55	168930	69.75831	ppb
|	Co	59	2966.9	1.69722	ppb
|	Ni	60	22404	63.70945	ppb
|	Cu	63	51552.4	63.43119	ppb
|	Cu	65	59838.9	152.31347	ppb
|	Zn	66	41811.8	157.75804	ppb
|	Zn	67	7580.9	142.97422	ppb
|	Zn	68	22880.3	117.65908	ppb
|	As	75	3735.3	12.76633	ppb
|	Se	77	400.3	0.19006	ppb
|	Se	82	276.7	8.74959	ppb
|>	Rh	103	69824.4		ppb
|	Ag	107	5246	3.07746	ppb
|	Ag	109	4551.6	2.80492	ppb
|	Cd	111	1687.7	3.81573	ppb
|-	Cd	114	2462.4	2.37501	ppb
|-	Ba	135	23512.4	41.95947	ppb
|	Ba	137	41358.9	41.2644	ppb
|>	Ho	165	277996.3		ppb
|-	Pb	208	118147.4	9.26864	ppb
	Kr	83	338		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 BH
Sample Date/Time: Wednesday, January 10, 2007 12:55:19
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	34377.5		ppb
|-	Sc	45	120151.2		ppb
|	Cr	52	436242.8	293.20169	ppb
|	Cr	53	53965.1	268.53702	ppb
|	Mn	55	310783	123.9855	ppb
|	Co	59	94682.3	53.16962	ppb
|	Ni	60	40814.5	112.05229	ppb
|	Cu	63	93992	111.66032	ppb
|	Cu	65	84218	206.89116	ppb
|	Zn	66	55179.7	200.94204	ppb
|	Zn	67	9613.6	180.50996	ppb
|	Zn	68	31689.5	157.68852	ppb
|	As	75	21787.5	72.96676	ppb
|	Se	77	2379.7	79.27663	ppb
|	Se	82	2977.3	89.68823	ppb
|>	Rh	103	72391.3		ppb
|	Ag	107	86438.3	50.4054	ppb
|	Ag	109	83050.4	51.02046	ppb
|	Cd	111	23964.8	52.71827	ppb
|-	Cd	114	54757	51.59889	ppb
|-	Ba	135	49490.7	86.17864	ppb
|	Ba	137	88729.8	86.2962	ppb
|>	Ho	165	285367.2		ppb
|-	Pb	208	783401.4	60.40446	ppb
	Kr	83	268.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-5 BH
Sample Date/Time: Wednesday, January 10, 2007 12:58:03
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	34079.3		ppb
|-	Sc	45	56593.8		ppb
|	Cr	52	2755.2	0.12116	ppb
|	Cr	53	1996.6	-29.43823	ppb
|	Mn	55	17231.7	6.18633	ppb
|	Co	59	169.3	0.05709	ppb
|	Ni	60	363.3	0.81852	ppb
|	Cu	63	3589.1	3.79835	ppb
|	Cu	65	2196	4.64222	ppb
|	Zn	66	5561.2	18.31736	ppb
|	Zn	67	1349.5	1.27312	ppb
|	Zn	68	4020	17.12827	ppb
|	As	75	179.4	0.2931	ppb
|	Se	77	65.7	-14.0065	ppb
|	Se	82	9.7	0.30948	ppb
|>	Rh	103	77931.5		ppb
|	Ag	107	462	0.15095	ppb
|	Ag	109	468.7	0.16906	ppb
|	Cd	111	150.9	0.27342	ppb
|-	Cd	114	387	0.30694	ppb
|-	Ba	135	1250.4	2.09422	ppb
|	Ba	137	2182	2.05453	ppb
|>	Ho	165	285909.7		ppb
|-	Pb	208	13142.2	0.91849	ppb
	Kr	83	39.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-6 BH
Sample Date/Time: Wednesday, January 10, 2007 13:00:48
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	33350.9		ppb
|-	Sc	45	57433.1		ppb
|	Cr	52	4743.4	1.27775	ppb
|	Cr	53	2198	-28.72938	ppb
|	Mn	55	9437.4	3.18793	ppb
|	Co	59	186.3	0.06317	ppb
|	Ni	60	603.7	1.38614	ppb
|	Cu	63	5662.6	5.90325	ppb
|	Cu	65	2925.2	6.10642	ppb
|	Zn	66	6346.1	20.32796	ppb
|	Zn	67	1543.5	4.22113	ppb
|	Zn	68	4626	19.30982	ppb
|	As	75	124.9	0.10799	ppb
|	Se	77	70	-13.93477	ppb
|	Se	82	0.4	0.04984	ppb
|>	Rh	103	80336.4		ppb
|	Ag	107	555734.4	292.53743	ppb
|	Ag	109	540537	299.80557	ppb
|	Cd	111	175.5	0.31203	ppb
|-	Cd	114	361.1	0.27412	ppb
|-	Ba	135	1363.8	2.23881	ppb
|	Ba	137	2347.7	2.1649	ppb
|>	Ho	165	292438		ppb
|-	Pb	208	11672.6	0.78516	ppb
	Kr	83	36.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB FH
Sample Date/Time: Wednesday, January 10, 2007 13:03:32
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	34906.2		ppb
|-	Sc	45	61910.1		ppb
|	Cr	52	1950.9	-0.55485	ppb
|	Cr	53	2457.1	-28.82533	ppb
|	Mn	55	4378.9	1.19352	ppb
|	Co	59	642.7	0.25842	ppb
|	Ni	60	303.7	0.56093	ppb
|	Cu	63	686.7	0.48597	ppb
|	Cu	65	525	0.65479	ppb
|	Zn	66	1074.4	2.58945	ppb
|	Zn	67	755.7	-12.63334	ppb
|	Zn	68	936.7	2.12313	ppb
|	As	75	126.4	0.06992	ppb
|	Se	77	95.3	-13.39694	ppb
|	Se	82	-5.1	-0.08459	ppb
|>	Rh	103	90237.5		ppb
|	Ag	107	936.1	0.33913	ppb
|	Ag	109	896.7	0.34419	ppb
|	Cd	111	87.5	0.11883	ppb
|-	Cd	114	143.5	0.07585	ppb
|-	Ba	135	213	0.26292	ppb
|	Ba	137	380.7	0.27686	ppb
|>	Ho	165	309182.6		ppb
|-	Pb	208	10608.8	0.66147	ppb
	Kr	83	46.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: LRB FH
Sample Date/Time: Wednesday, January 10, 2007 13:06:18
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	34388.8		ppb
|-	Sc	45	63663.2		ppb
|	Cr	52	88521	49.02378	ppb
|	Cr	53	12365.3	19.77455	ppb
|	Mn	55	148795.7	50.11509	ppb
|	Co	59	100007.8	47.52603	ppb
|	Ni	60	20140.5	46.73872	ppb
|	Cu	63	50852.5	51.04808	ppb
|	Cu	65	25032.5	51.75939	ppb
|	Zn	66	16204.6	49.51745	ppb
|	Zn	67	3220.7	32.81987	ppb
|	Zn	68	11832.5	48.70935	ppb
|	As	75	17061.5	48.28498	ppb
|	Se	77	1354.5	29.64581	ppb
|	Se	82	1711.5	43.68824	ppb
|>	Rh	103	85531.4		ppb
|	Ag	107	98990	48.84652	ppb
|	Ag	109	95487.7	49.64709	ppb
|	Cd	111	26512.4	49.36084	ppb
|-	Cd	114	62481.5	49.82616	ppb
|-	Ba	135	29248.9	47.43408	ppb
|	Ba	137	51543.9	46.69863	ppb
|>	Ho	165	306122.5		ppb
|-	Pb	208	703973	50.57096	ppb
	Kr	83	46.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 10, 2007 13:09:02
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	33909.8		ppb
|-	Sc	45	57894.7		ppb
|	Cr	52	2661.5	-0.05062	ppb
|	Cr	53	6915.6	-5.75895	ppb
|	Mn	55	674	0.0236	ppb
|	Co	59	101.7	0.01832	ppb
|	Ni	60	57.7	0.02917	ppb
|	Cu	63	175.3	0.01165	ppb
|	Cu	65	290.7	0.23948	ppb
|	Zn	66	210.3	0.1088	ppb
|	Zn	67	1055.7	-5.97958	ppb
|	Zn	68	354.7	-0.10673	ppb
|	As	75	196.2	0.30217	ppb
|	Se	77	463.4	-0.28719	ppb
|	Se	82	16	0.45485	ppb
|>	Rh	103	83362		ppb
|	Ag	107	327	0.06631	ppb
|	Ag	109	300.3	0.06198	ppb
|	Cd	111	37.3	0.03567	ppb
|-	Cd	114	68.7	0.02358	ppb
|-	Ba	135	52.3	0.00966	ppb
|	Ba	137	86.3	0.01721	ppb
|>	Ho	165	291352.9		ppb
|-	Pb	208	2349.8	0.08319	ppb
	Kr	83	40.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 10, 2007 13:11:47
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	33401.3		ppb
|-	Sc	45	58594.5		ppb
|	Cr	52	180083.2	101.6626	ppb
|	Cr	53	28748.5	99.4054	ppb
|	Mn	55	304198.3	102.94099	ppb
|	Co	59	213003.3	101.5283	ppb
|	Ni	60	43436.4	101.1797	ppb
|	Cu	63	100412	101.21937	ppb
|	Cu	65	49289.2	102.54408	ppb
|	Zn	66	33537.4	103.37201	ppb
|	Zn	67	6689.8	96.07411	ppb
|	Zn	68	24573.1	103.20274	ppb
|	As	75	35117.6	99.92255	ppb
|	Se	77	3415.7	100.12883	ppb
|	Se	82	3981.6	101.7786	ppb
|>	Rh	103	85306.3		ppb
|	Ag	107	200749.2	99.43011	ppb
|	Ag	109	190955.7	99.63875	ppb
|	Cd	111	54439	101.65994	ppb
|-	Cd	114	127106.1	101.65883	ppb
|-	Ba	135	58778.9	99.20148	ppb
|	Ba	137	104705.5	98.71489	ppb
|>	Ho	165	294421		ppb
|-	Pb	208	1365646.5	102.09792	ppb
	Kr	83	44.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 FH
Sample Date/Time: Wednesday, January 10, 2007 13:20:05
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30953.5		ppb
|-	Sc	45	56377.3		ppb
|	Cr	52	97843	57.29961	ppb
|	Cr	53	13341.5	27.86506	ppb
|	Mn	55	2669924.3	950.42859	ppb
|	Co	59	12856	6.4048	ppb
|	Ni	60	21573.1	52.71046	ppb
|	Cu	63	88576.2	93.73071	ppb
|	Cu	65	43670.9	95.36865	ppb
|	Zn	66	111162.6	361.12342	ppb
|	Zn	67	17549.3	309.56452	ppb
|	Zn	68	81663	364.2076	ppb
|	As	75	16839.1	50.17189	ppb
|	Se	77	149.3	-11.12409	ppb
|	Se	82	79.6	2.17396	ppb
|>	Rh	103	81250.7		ppb
|	Ag	107	11568.8	5.92248	ppb
|	Ag	109	10842.8	5.84788	ppb
|	Cd	111	5622.1	10.99075	ppb
|-	Cd	114	12061.2	10.09895	ppb
|-	Ba	135	50938.4	86.44664	ppb
|	Ba	137	90456.2	85.76058	ppb
|>	Ho	165	292771.9		ppb
|-	Pb	208	3444502.8	259.1211	ppb
	Kr	83	49.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 FH
Sample Date/Time: Wednesday, January 10, 2007 13:22:52
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30769		ppb
|-	Sc	45	54410.9		ppb
|	Cr	52	173265.8	106.13433	ppb
|	Cr	53	22037.7	75.86389	ppb
|	Mn	55	2677577.6	984.36543	ppb
|	Co	59	110105.8	56.89763	ppb
|	Ni	60	40254.4	101.68197	ppb
|	Cu	63	128968.6	141.03796	ppb
|	Cu	65	63391.8	143.1595	ppb
|	Zn	66	119698.8	401.6595	ppb
|	Zn	67	18924.3	347.65415	ppb
|	Zn	68	88252.7	406.69926	ppb
|	As	75	31810.7	98.14688	ppb
|	Se	77	1483.1	38.41498	ppb
|	Se	82	1911.3	53.00522	ppb
|>	Rh	103	78673.1		ppb
|	Ag	107	98927.7	53.08301	ppb
|	Ag	109	96201.7	54.38783	ppb
|	Cd	111	30399.7	61.54056	ppb
|-	Cd	114	70473.1	61.10189	ppb
|-	Ba	135	75088.9	129.31703	ppb
|	Ba	137	134002.2	128.91296	ppb
|>	Ho	165	288581		ppb
|-	Pb	208	4057765.3	309.70834	ppb
	Kr	83	37		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-5 FH
Sample Date/Time: Wednesday, January 10, 2007 13:25:38
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28856.6		ppb
|-	Sc	45	51110.2		ppb
|	Cr	52	14028.9	7.9925	ppb
|	Cr	53	3110.3	-22.06112	ppb
|	Mn	55	16174.5	6.33811	ppb
|	Co	59	278	0.12696	ppb
|	Ni	60	2129.6	5.82081	ppb
|	Cu	63	4458.9	5.20564	ppb
|	Cu	65	2264.7	5.2651	ppb
|	Zn	66	18143.2	66.55854	ppb
|	Zn	67	3297.7	46.02185	ppb
|	Zn	68	13423.6	66.72036	ppb
|	As	75	156.1	0.26238	ppb
|	Se	77	62	-13.94098	ppb
|	Se	82	12.7	0.43131	ppb
|>	Rh	103	71458.9		ppb
|	Ag	107	1690.9	0.90102	ppb
|	Ag	109	1448.8	0.80471	ppb
|	Cd	111	479	1.03124	ppb
|-	Cd	114	349.7	0.30146	ppb
|-	Ba	135	43685.7	81.13609	ppb
|	Ba	137	78042.6	80.97697	ppb
|>	Ho	165	267507.9		ppb
|-	Pb	208	28693.8	2.27078	ppb
	Kr	83	39.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-6 FH
Sample Date/Time: Wednesday, January 10, 2007 13:28:22
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30552.5		ppb
|-	Sc	45	54563		ppb
|	Cr	52	14652.4	8.05492	ppb
|	Cr	53	3294.7	-21.66593	ppb
|	Mn	55	16146.5	6.08877	ppb
|	Co	59	281	0.12279	ppb
|	Ni	60	2003.9	5.26863	ppb
|	Cu	63	4063.7	4.55078	ppb
|	Cu	65	2058.3	4.56368	ppb
|	Zn	66	19225	67.97359	ppb
|	Zn	67	3386.7	45.29329	ppb
|	Zn	68	13884	66.49669	ppb
|	As	75	108.5	0.08553	ppb
|	Se	77	64.7	-13.92976	ppb
|	Se	82	10.4	0.34064	ppb
|>	Rh	103	74151.3		ppb
|	Ag	107	6413.9	3.55983	ppb
|	Ag	109	5972.2	3.48985	ppb
|	Cd	111	485.2	1.0081	ppb
|-	Cd	114	363.3	0.30159	ppb
|-	Ba	135	47020.8	83.9687	ppb
|	Ba	137	83681.7	83.471	ppb
|>	Ho	165	278292.9		ppb
|-	Pb	208	25513.3	1.92607	ppb
	Kr	83	32.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-3 A
Sample Date/Time: Wednesday, January 10, 2007 13:31:06
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	32552.3		ppb
|-	Sc	45	51544.3		ppb
|	Cr	52	37121.6	20.72036	ppb
|	Cr	53	6067.9	-9.17245	ppb
|	Mn	55	39797.3	13.94579	ppb
|	Co	59	334.7	0.13604	ppb
|	Ni	60	1585.8	3.77024	ppb
|	Cu	63	5065.9	5.19776	ppb
|	Cu	65	2556.1	5.21883	ppb
|	Zn	66	6172	19.50996	ppb
|	Zn	67	1408.5	1.28187	ppb
|	Zn	68	4610.7	18.99345	ppb
|	As	75	145.2	0.16283	ppb
|	Se	77	98	-12.95757	ppb
|	Se	82	49.3	1.35776	ppb
|>	Rh	103	81316.7		ppb
|	Ag	107	832.4	0.33291	ppb
|	Ag	109	757.7	0.31661	ppb
|	Cd	111	292.1	0.5373	ppb
|-	Cd	114	674.1	0.53286	ppb
|-	Ba	135	1933.6	3.20708	ppb
|	Ba	137	3561.1	3.31593	ppb
|>	Ho	165	292540.5		ppb
|-	Pb	208	12631.3	0.85659	ppb
	Kr	83	38		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-3 A
Sample Date/Time: Wednesday, January 10, 2007 13:33:50
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31523.7		ppb
|-	Sc	45	52934.6		ppb
|	Cr	52	38890.3	21.83069	ppb
|	Cr	53	6269.4	-8.08778	ppb
|	Mn	55	40925.3	14.37713	ppb
|	Co	59	349.3	0.14377	ppb
|	Ni	60	1635.8	3.9	ppb
|	Cu	63	5215.4	5.3653	ppb
|	Cu	65	2691.5	5.52834	ppb
|	Zn	66	6448.6	20.44825	ppb
|	Zn	67	1470.1	2.50254	ppb
|	Zn	68	4800.4	19.87952	ppb
|	As	75	108.1	0.05236	ppb
|	Se	77	110	-12.52501	ppb
|	Se	82	59.4	1.63334	ppb
|>	Rh	103	81160.5		ppb
|	Ag	107	866.4	0.35181	ppb
|	Ag	109	838.1	0.3615	ppb
|	Cd	111	318.2	0.58934	ppb
|-	Cd	114	726.9	0.57897	ppb
|-	Ba	135	2102	3.55275	ppb
|	Ba	137	3661.2	3.47071	ppb
|>	Ho	165	287662.8		ppb
|-	Pb	208	12767.6	0.88325	ppb
	Kr	83	30		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 A
Sample Date/Time: Wednesday, January 10, 2007 13:36:34
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	32302.2		ppb
|-	Sc	45	49943		ppb
|	Cr	52	24623.2	12.64549	ppb
|	Cr	53	4756.1	-16.75044	ppb
|	Mn	55	9011	2.87355	ppb
|	Co	59	307	0.11652	ppb
|	Ni	60	1741.2	3.99357	ppb
|	Cu	63	3669.2	3.57069	ppb
|	Cu	65	1904.2	3.63291	ppb
|	Zn	66	3242	9.58824	ppb
|	Zn	67	998.7	-7.23445	ppb
|	Zn	68	2394.4	8.65935	ppb
|	As	75	229.1	0.38941	ppb
|	Se	77	74	-13.9141	ppb
|	Se	82	5.9	0.19169	ppb
|>	Rh	103	84503.6		ppb
|	Ag	107	241.7	0.02118	ppb
|	Ag	109	228.7	0.02181	ppb
|	Cd	111	136.1	0.22139	ppb
|-	Cd	114	309.4	0.21707	ppb
|-	Ba	135	820.7	1.30939	ppb
|	Ba	137	1405.8	1.26376	ppb
|>	Ho	165	293832.5		ppb
|-	Pb	208	7393	0.4595	ppb
	Kr	83	47.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 A
Sample Date/Time: Wednesday, January 10, 2007 13:39:19
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	32298.5		ppb
|-	Sc	45	52972.5		ppb
|	Cr	52	110203.5	62.42926	ppb
|	Cr	53	14973.3	33.54253	ppb
|	Mn	55	124728.8	42.6511	ppb
|	Co	59	80461.8	38.8457	ppb
|	Ni	60	17844.3	42.05487	ppb
|	Cu	63	55089.4	56.20097	ppb
|	Cu	65	27434.4	57.67416	ppb
|	Zn	66	20982.9	65.33173	ppb
|	Zn	67	3901.3	46.3055	ppb
|	Zn	68	15383	64.87067	ppb
|	As	75	17536.3	50.43097	ppb
|	Se	77	1262.8	27.2013	ppb
|	Se	82	1522.5	39.4594	ppb
|>	Rh	103	84180.6		ppb
|	Ag	107	96725.2	48.49398	ppb
|	Ag	109	93168.2	49.21461	ppb
|	Cd	111	27564.1	52.14411	ppb
|-	Cd	114	64777.1	52.48782	ppb
|-	Ba	135	29525.2	50.13424	ppb
|	Ba	137	52626.9	49.93037	ppb
|>	Ho	165	292399.1		ppb
|-	Pb	208	673978.5	50.67166	ppb
	Kr	83	42.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 10, 2007 13:42:03
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30870		ppb
|-	Sc	45	54200.8		ppb
|	Cr	52	2061.9	-0.27738	ppb
|	Cr	53	5486.2	-10.04774	ppb
|	Mn	55	591.4	0.01617	ppb
|	Co	59	81.7	0.01269	ppb
|	Ni	60	46	0.0128	ppb
|	Cu	63	214.7	0.07546	ppb
|	Cu	65	210.3	0.1143	ppb
|	Zn	66	196.3	0.12863	ppb
|	Zn	67	876.4	-7.63203	ppb
|	Zn	68	282.3	-0.29509	ppb
|	As	75	203.3	0.38561	ppb
|	Se	77	323	-4.03324	ppb
|	Se	82	26.7	0.80759	ppb
|>	Rh	103	75564.2		ppb
|	Ag	107	252.7	0.04181	ppb
|	Ag	109	244.3	0.0457	ppb
|	Cd	111	32.8	0.0336	ppb
|-	Cd	114	63	0.02423	ppb
|-	Ba	135	62	0.03284	ppb
|	Ba	137	103	0.03933	ppb
|>	Ho	165	274331.5		ppb
|-	Pb	208	4270.5	0.24926	ppb
	Kr	83	39.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 10, 2007 13:44:48
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31543		ppb
|-	Sc	45	52407.5		ppb
|	Cr	52	163373.6	102.19082	ppb
|	Cr	53	24788.1	93.15916	ppb
|	Mn	55	271889.1	101.94406	ppb
|	Co	59	193098.1	101.97129	ppb
|	Ni	60	39655.5	102.33529	ppb
|	Cu	63	91868.5	102.60459	ppb
|	Cu	65	44970.1	103.6535	ppb
|	Zn	66	30608.8	104.53148	ppb
|	Zn	67	6117.3	97.65223	ppb
|	Zn	68	22294.3	103.74324	ppb
|	As	75	31182.8	98.29518	ppb
|	Se	77	3085.9	100.22669	ppb
|	Se	82	3620.5	102.53151	ppb
|>	Rh	103	76999.9		ppb
|	Ag	107	179640.5	98.57179	ppb
|	Ag	109	176253.5	101.88794	ppb
|	Cd	111	50049	103.53845	ppb
|-	Cd	114	118688.7	105.16689	ppb
|-	Ba	135	53051.2	93.33284	ppb
|	Ba	137	95386.2	93.74674	ppb
|>	Ho	165	282425.6		ppb
|-	Pb	208	1338194.3	104.2939	ppb
	Kr	83	38		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-5 A
Sample Date/Time: Wednesday, January 10, 2007 13:47:33
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	32074.4		ppb
|-	Sc	45	52666.3		ppb
|	Cr	52	2181.6	-0.33772	ppb
|	Cr	53	2699.1	-26.68396	ppb
|	Mn	55	2182	0.54289	ppb
|	Co	59	82	0.00846	ppb
|	Ni	60	83	0.08901	ppb
|	Cu	63	464.7	0.30802	ppb
|	Cu	65	281.7	0.21802	ppb
|	Zn	66	238.3	0.19324	ppb
|	Zn	67	680	-12.97183	ppb
|	Zn	68	274.3	-0.4605	ppb
|	As	75	111.9	0.05308	ppb
|	Se	77	104.7	-12.82101	ppb
|	Se	82	18.6	0.51981	ppb
|>	Rh	103	83805.8		ppb
|	Ag	107	1433.5	0.63635	ppb
|	Ag	109	1408.2	0.66306	ppb
|	Cd	111	26.7	0.0153	ppb
|-	Cd	114	37.8	-0.00177	ppb
|-	Ba	135	193	0.24999	ppb
|	Ba	137	312.3	0.23334	ppb
|>	Ho	165	290878.6		ppb
|-	Pb	208	2852.9	0.12166	ppb
	Kr	83	44.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-6 A
Sample Date/Time: Wednesday, January 10, 2007 13:50:19
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31933.2		ppb
|-	Sc	45	54894.8		ppb
|	Cr	52	1653.8	-0.66328	ppb
|	Cr	53	2347	-28.67222	ppb
|	Mn	55	2381	0.59699	ppb
|	Co	59	113	0.02268	ppb
|	Ni	60	171.7	0.29186	ppb
|	Cu	63	1186.1	1.02785	ppb
|	Cu	65	638	0.95131	ppb
|	Zn	66	432.7	0.78168	ppb
|	Zn	67	621	-14.3155	ppb
|	Zn	68	446.7	0.25225	ppb
|	As	75	190.6	0.27304	ppb
|	Se	77	85.7	-13.54676	ppb
|	Se	82	15.3	0.42976	ppb
|>	Rh	103	85317.8		ppb
|	Ag	107	206.7	0.00284	ppb
|	Ag	109	207.7	0.00975	ppb
|	Cd	111	20.6	0.00297	ppb
|-	Cd	114	48.4	0.00603	ppb
|-	Ba	135	341	0.50041	ppb
|	Ba	137	531.4	0.43998	ppb
|>	Ho	165	292292.2		ppb
|-	Pb	208	3823.7	0.19369	ppb
	Kr	83	40.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Wednesday, January 10, 2007 13:53:03
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31352		ppb
|-	Sc	45	55154		ppb
|	Cr	52	2226.7	-0.23283	ppb
|	Cr	53	6498.3	-6.03095	ppb
|	Mn	55	568.4	-0.00204	ppb
|	Co	59	99.3	0.01987	ppb
|	Ni	60	47.7	0.01172	ppb
|	Cu	63	191.7	0.0396	ppb
|	Cu	65	209.7	0.09161	ppb
|	Zn	66	204	0.12471	ppb
|	Zn	67	991.1	-6.15225	ppb
|	Zn	68	325.3	-0.15504	ppb
|	As	75	139.6	0.16038	ppb
|	Se	77	389.7	-2.09663	ppb
|	Se	82	-6	-0.13193	ppb
|>	Rh	103	78961.1		ppb
|	Ag	107	228	0.0225	ppb
|	Ag	109	224	0.02784	ppb
|	Cd	111	25.8	0.01641	ppb
|-	Cd	114	60	0.01912	ppb
|-	Ba	135	52.3	0.01333	ppb
|	Ba	137	82	0.01635	ppb
|>	Ho	165	279792.9		ppb
|-	Pb	208	1738.8	0.0424	ppb
	Kr	83	44		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Wednesday, January 10, 2007 13:55:48
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	31528.3		ppb
|-	Sc	45	53655.1		ppb
|	Cr	52	165433.1	102.72857	ppb
|	Cr	53	25652	96.78475	ppb
|	Mn	55	279076.9	103.86266	ppb
|	Co	59	196637	103.08391	ppb
|	Ni	60	39771.1	101.88369	ppb
|	Cu	63	92840.3	102.9244	ppb
|	Cu	65	46004.8	105.27018	ppb
|	Zn	66	31508.8	106.82473	ppb
|	Zn	67	6324.8	100.92224	ppb
|	Zn	68	22803.1	105.35215	ppb
|	As	75	31780	99.44503	ppb
|	Se	77	3115.6	100.48986	ppb
|	Se	82	3683.9	103.57404	ppb
|>	Rh	103	77568.1		ppb
|	Ag	107	183128.6	99.74337	ppb
|	Ag	109	177658.2	101.94735	ppb
|	Cd	111	50960.8	104.65552	ppb
|-	Cd	114	119979.8	105.53592	ppb
|-	Ba	135	54445.9	95.56774	ppb
|	Ba	137	96730.6	94.84745	ppb
|>	Ho	165	283065.5		ppb
|-	Pb	208	1332430.4	103.60716	ppb
	Kr	83	40.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC STD 2
Sample Date/Time: Thursday, January 11, 2007 10:25:12
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28618.4		ppb
|-	Sc	45	49383.4		ppb
|	Cr	52	3002.2	0.51299	ppb
|	Cr	53	3375.7	-19.86983	ppb
|	Mn	55	3033.9	1.06026	ppb
|	Co	59	1819.6	1.04002	ppb
|	Ni	60	399.7	1.04187	ppb
|	Cu	63	905.1	0.95844	ppb
|	Cu	65	614.4	1.20188	ppb
|	Zn	66	452.7	1.17459	ppb
|	Zn	67	717.4	-9.51551	ppb
|	Zn	68	389.7	0.39768	ppb
|	As	75	408.9	1.17242	ppb
|	Se	77	216.3	-7.35249	ppb
|	Se	82	36.6	1.19566	ppb
|>	Rh	103	69101.7		ppb
|	Ag	107	2115.3	1.19546	ppb
|	Ag	109	1965.9	1.16915	ppb
|	Cd	111	492.8	1.10089	ppb
|-	Cd	114	1149.9	1.10348	ppb
|-	Ba	135	542.4	0.99088	ppb
|	Ba	137	955.1	0.98788	ppb
|>	Ho	165	251990.8		ppb
|-	Pb	208	13557.8	1.09085	ppb
	Kr	83	51.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 BH
Sample Date/Time: Thursday, January 11, 2007 10:33:31
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29729.2		ppb
|-	Sc	45	60023.3		ppb
|	Cr	52	69210.9	49.23874	ppb
|	Cr	53	10513.1	25.26043	ppb
|	Mn	55	31834.7	13.62028	ppb
|	Co	59	613	0.34308	ppb
|	Ni	60	4413.9	13.07818	ppb
|	Cu	63	10137.6	12.94343	ppb
|	Cu	65	10612.9	28.01209	ppb
|	Zn	66	8153.7	31.81352	ppb
|	Zn	67	1910.2	18.89052	ppb
|	Zn	68	5012.9	25.75113	ppb
|	As	75	727.2	2.38538	ppb
|	Se	77	180.3	-8.58513	ppb
|	Se	82	45.9	1.53795	ppb
|>	Rh	103	66585.6		ppb
|	Ag	107	1015.7	0.54565	ppb
|	Ag	109	920.1	0.51709	ppb
|	Cd	111	304.1	0.69212	ppb
|-	Cd	114	493.1	0.47267	ppb
|-	Ba	135	4420.5	8.36612	ppb
|	Ba	137	7909.5	8.37583	ppb
|>	Ho	165	260315.7		ppb
|-	Pb	208	23335	1.88048	ppb
	Kr	83	89.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 BH
Sample Date/Time: Thursday, January 11, 2007 10:36:18
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29732.8		ppb
|-	Sc	45	71905.7		ppb
|	Cr	52	136202.6	99.64971	ppb
|	Cr	53	18226.4	74.58155	ppb
|	Mn	55	125820	55.10408	ppb
|	Co	59	66416.7	41.02819	ppb
|	Ni	60	17495.5	52.78868	ppb
|	Cu	63	49886.7	65.1523	ppb
|	Cu	65	29774.4	80.2361	ppb
|	Zn	66	20625.4	82.3178	ppb
|	Zn	67	3802.2	64.0511	ppb
|	Zn	68	13614.2	73.69184	ppb
|	As	75	14272	52.53439	ppb
|	Se	77	1208.8	37.0216	ppb
|	Se	82	1381.3	45.82685	ppb
|>	Rh	103	65795.1		ppb
|	Ag	107	76420.4	49.01956	ppb
|	Ag	109	74203	50.15653	ppb
|	Cd	111	21935.6	53.09432	ppb
|-	Cd	114	52011.2	53.92796	ppb
|-	Ba	135	28404	54.46152	ppb
|	Ba	137	50033.6	53.59748	ppb
|>	Ho	165	258975.5		ppb
|-	Pb	208	645262.7	54.80104	ppb
	Kr	83	94		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-6 BH
Sample Date/Time: Thursday, January 11, 2007 10:39:04
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27809.5		ppb
|-	Sc	45	45723.6		ppb
|	Cr	52	3390.4	1.0027	ppb
|	Cr	53	1001.1	-33.54415	ppb
|	Mn	55	7146.1	3.0479	ppb
|	Co	59	163.7	0.07366	ppb
|	Ni	60	495	1.44393	ppb
|	Cu	63	4506.3	5.95335	ppb
|	Cu	65	2311	6.10642	ppb
|	Zn	66	5143.3	20.87035	ppb
|	Zn	67	1040.4	-0.14037	ppb
|	Zn	68	3773.9	19.98978	ppb
|	As	75	131.9	0.24058	ppb
|	Se	77	43	-14.48928	ppb
|	Se	82	4.6	0.18757	ppb
|>	Rh	103	63469.4		ppb
|	Ag	107	554	0.26899	ppb
|	Ag	109	533.7	0.27501	ppb
|	Cd	111	145.1	0.32882	ppb
|-	Cd	114	323.9	0.31619	ppb
|-	Ba	135	1085.4	2.15317	ppb
|	Ba	137	1941.6	2.16767	ppb
|>	Ho	165	241717.6		ppb
|-	Pb	208	10598.8	0.8729	ppb
	Kr	83	40.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-3 FH
Sample Date/Time: Thursday, January 11, 2007 10:41:49
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28313.8		ppb
|-	Sc	45	70536		ppb
|	Cr	52	82843.9	59.43287	ppb
|	Cr	53	10329.2	24.30147	ppb
|	Mn	55	2728761	1188.6714	ppb
|	Co	59	8335.9	5.07574	ppb
|	Ni	60	20329.6	60.8078	ppb
|	Cu	63	102641.3	132.9925	ppb
|	Cu	65	49838.1	133.33578	ppb
|	Zn	66	161565.9	642.71121	ppb
|	Zn	67	24816.5	554.41113	ppb
|	Zn	68	117938.3	644.96297	ppb
|	As	75	8938.6	32.49572	ppb
|	Se	77	76.7	-13.11309	ppb
|	Se	82	25.7	0.88238	ppb
|>	Rh	103	66394.4		ppb
|	Ag	107	90334.9	57.44617	ppb
|	Ag	109	85835.4	57.50286	ppb
|	Cd	111	7753.5	18.57301	ppb
|-	Cd	114	17539.9	17.99557	ppb
|-	Ba	135	18966.8	37.29532	ppb
|	Ba	137	33714.1	37.04124	ppb
|>	Ho	165	252355.8		ppb
|-	Pb	208	6359739.2	555.16426	ppb
	Kr	83	69.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-3 FH
Sample Date/Time: Thursday, January 11, 2007 10:44:35
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27894.7		ppb
|-	Sc	45	67165.6		ppb
|	Cr	52	81055.5	59.2342	ppb
|	Cr	53	9977.4	23.28479	ppb
|	Mn	55	2710128.8	1202.7777	ppb
|	Co	59	8274.5	5.13333	ppb
|	Ni	60	20243.8	61.68828	ppb
|	Cu	63	101015.9	133.34836	ppb
|	Cu	65	49496.7	134.91852	ppb
|	Zn	66	161208.4	653.38512	ppb
|	Zn	67	24626.6	560.84888	ppb
|	Zn	68	117671.5	655.70726	ppb
|	As	75	8868.4	32.85028	ppb
|	Se	77	78	-12.98691	ppb
|	Se	82	26.4	0.92184	ppb
|>	Rh	103	65169.2		ppb
|	Ag	107	88940	57.62299	ppb
|	Ag	109	84837.8	57.90973	ppb
|	Cd	111	7750.7	18.91702	ppb
|-	Cd	114	17662	18.46666	ppb
|-	Ba	135	18552.8	36.27194	ppb
|	Ba	137	33477.1	36.57418	ppb
|>	Ho	165	253796.7		ppb
|-	Pb	208	6415194.1	556.81757	ppb
	Kr	83	65.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 11, 2007 10:52:50
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27406.1		ppb
|-	Sc	45	46798.5		ppb
|	Cr	52	1317.1	-0.62664	ppb
|	Cr	53	2841.2	-22.10756	ppb
|	Mn	55	557.4	0.0365	ppb
|	Co	59	43	-0.00456	ppb
|	Ni	60	38	0.00732	ppb
|	Cu	63	93.3	-0.04659	ppb
|	Cu	65	200	0.163	ppb
|	Zn	66	170.7	0.13159	ppb
|	Zn	67	637	-10.51269	ppb
|	Zn	68	191.7	-0.58904	ppb
|	As	75	65.5	-0.02885	ppb
|	Se	77	161	-9.30929	ppb
|	Se	82	-13.8	-0.42506	ppb
|>	Rh	103	65372.8		ppb
|	Ag	107	64	-0.05822	ppb
|	Ag	109	69.7	-0.05115	ppb
|	Cd	111	17.2	0.00647	ppb
|-	Cd	114	25.7	-0.00577	ppb
|-	Ba	135	28.7	-0.02125	ppb
|	Ba	137	41.7	-0.01778	ppb
|>	Ho	165	245126.9		ppb
|-	Pb	208	2316.8	0.11423	ppb
	Kr	83	55		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Thursday, January 11, 2007 10:55:35
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27678.9		ppb
|-	Sc	45	47132		ppb
|	Cr	52	140679.8	104.01275	ppb
|	Cr	53	19174.6	81.74715	ppb
|	Mn	55	235115	104.14808	ppb
|	Co	59	167102.4	104.27724	ppb
|	Ni	60	34271.5	104.56416	ppb
|	Cu	63	78699	103.85397	ppb
|	Cu	65	38763.3	105.57395	ppb
|	Zn	66	26672.6	107.67023	ppb
|	Zn	67	4967.9	92.61899	ppb
|	Zn	68	19367.7	106.53439	ppb
|	As	75	26234.7	97.69838	ppb
|	Se	77	2403	90.85726	ppb
|	Se	82	3002.1	100.50031	ppb
|>	Rh	103	65171.9		ppb
|	Ag	107	159711.2	103.54473	ppb
|	Ag	109	154758.1	105.74739	ppb
|	Cd	111	44916.6	109.87055	ppb
|-	Cd	114	105071.1	110.11094	ppb
|-	Ba	135	47171.3	93.87648	ppb
|	Ba	137	84256.7	93.67426	ppb
|>	Ho	165	249569.9		ppb
|-	Pb	208	1215829.7	107.27825	ppb
	Kr	83	91.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 11, 2007 11:03:49
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27596.4		ppb
|-	Sc	45	46680.2		ppb
|	Cr	52	1434.8	-0.52494	ppb
|	Cr	53	3024.9	-20.69679	ppb
|	Mn	55	476.7	0.00341	ppb
|	Co	59	58.3	0.00546	ppb
|	Ni	60	46.7	0.03538	ppb
|	Cu	63	121	-0.00802	ppb
|	Cu	65	203	0.17855	ppb
|	Zn	66	162.7	0.10797	ppb
|	Zn	67	672	-9.47167	ppb
|	Zn	68	207	-0.4879	ppb
|	As	75	156.7	0.3201	ppb
|	Se	77	175.3	-8.56501	ppb
|	Se	82	0.1	0.0428	ppb
|>	Rh	103	64544.6		ppb
|	Ag	107	137.3	-0.0096	ppb
|	Ag	109	126	-0.01158	ppb
|	Cd	111	23.2	0.02176	ppb
|-	Cd	114	32.8	0.00202	ppb
|-	Ba	135	43	0.00882	ppb
|	Ba	137	75.3	0.02164	ppb
|>	Ho	165	241391.7		ppb
|-	Pb	208	2385.5	0.12333	ppb
	Kr	83	61		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Thursday, January 11, 2007 11:06:33
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28060.7		ppb
|-	Sc	45	47767		ppb
|	Cr	52	142873.1	103.78517	ppb
|	Cr	53	19635.3	82.44979	ppb
|	Mn	55	237985.8	103.59409	ppb
|	Co	59	168528.2	103.33119	ppb
|	Ni	60	34134.4	102.28298	ppb
|	Cu	63	79754.3	103.4213	ppb
|	Cu	65	38564.4	103.20686	ppb
|	Zn	66	27124.7	107.56787	ppb
|	Zn	67	5038.6	92.25694	ppb
|	Zn	68	19456.9	105.14192	ppb
|	As	75	26213.7	95.91973	ppb
|	Se	77	2433.4	90.38783	ppb
|	Se	82	3020.8	99.30358	ppb
|>	Rh	103	66318.9		ppb
|	Ag	107	160129.5	102.02432	ppb
|	Ag	109	154769.5	103.88892	ppb
|	Cd	111	44489.9	106.86804	ppb
|-	Cd	114	106296.3	109.35983	ppb
|-	Ba	135	47362.3	93.8725	ppb
|	Ba	137	85063.9	94.17152	ppb
|>	Ho	165	250742		ppb
|-	Pb	208	1225160.8	107.55899	ppb
	Kr	83	95.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 FH
Sample Date/Time: Thursday, January 11, 2007 11:19:57
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	29894.4		ppb
|-	Sc	45	50690.9		ppb
|	Cr	52	5754	2.32164	ppb
|	Cr	53	3747.5	-18.41486	ppb
|	Mn	55	113225.9	45.55857	ppb
|	Co	59	602.4	0.31114	ppb
|	Ni	60	1035.7	2.77	ppb
|	Cu	63	4195.4	4.88153	ppb
|	Cu	65	2171.3	5.02313	ppb
|	Zn	66	5513.9	19.80948	ppb
|	Zn	67	1610.5	9.28688	ppb
|	Zn	68	4012.7	18.75946	ppb
|	As	75	797.4	2.43412	ppb
|	Se	77	176.3	-9.30387	ppb
|	Se	82	-4.5	-0.10097	ppb
|>	Rh	103	71574.9		ppb
|	Ag	107	559.7	0.23144	ppb
|	Ag	109	530.7	0.23165	ppb
|	Cd	111	283.6	0.59516	ppb
|-	Cd	114	600.9	0.54052	ppb
|-	Ba	135	2235.3	4.06899	ppb
|	Ba	137	4019.7	4.10127	ppb
|>	Ho	165	267959.6		ppb
|-	Pb	208	163337.8	13.33486	ppb
	Kr	83	59		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-4 FH
Sample Date/Time: Thursday, January 11, 2007 11:22:42
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	30707.9		ppb
|-	Sc	45	52574.2		ppb
|	Cr	52	80813.9	52.04346	ppb
|	Cr	53	12540.9	30.35997	ppb
|	Mn	55	245783.9	96.29116	ppb
|	Co	59	92403.8	50.98018	ppb
|	Ni	60	19609.6	52.83407	ppb
|	Cu	63	48871	56.96398	ppb
|	Cu	65	23885.8	57.36601	ppb
|	Zn	66	20037.6	71.33421	ppb
|	Zn	67	4017.3	58.97253	ppb
|	Zn	68	14703.8	70.99389	ppb
|	As	75	15363.3	50.47682	ppb
|	Se	77	1395.5	38.67603	ppb
|	Se	82	1661.1	49.18242	ppb
|>	Rh	103	73681.1		ppb
|	Ag	107	82557.5	47.28803	ppb
|	Ag	109	79704.2	48.10192	ppb
|	Cd	111	24079.7	52.04171	ppb
|-	Cd	114	56810.4	52.59103	ppb
|-	Ba	135	27737.4	50.61576	ppb
|	Ba	137	48640.4	49.58164	ppb
|>	Ho	165	272171		ppb
|-	Pb	208	814325	65.82964	ppb
	Kr	83	84.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 11, 2007 11:25:26
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27644.6		ppb
|-	Sc	45	47988.3		ppb
|	Cr	52	1539.8	-0.46906	ppb
|	Cr	53	3510.4	-18.04522	ppb
|	Mn	55	422	-0.02488	ppb
|	Co	59	65	0.00885	ppb
|	Ni	60	42.3	0.0193	ppb
|	Cu	63	106.7	-0.03023	ppb
|	Cu	65	206	0.17506	ppb
|	Zn	66	161.7	0.09041	ppb
|	Zn	67	789.4	-7.0441	ppb
|	Zn	68	222.3	-0.42676	ppb
|	As	75	110.4	0.13816	ppb
|	Se	77	207	-7.32432	ppb
|	Se	82	-2.8	-0.05597	ppb
|>	Rh	103	65896.9		ppb
|	Ag	107	115.3	-0.02563	ppb
|	Ag	109	105.7	-0.02713	ppb
|	Cd	111	27.7	0.03154	ppb
|-	Cd	114	23.7	-0.00818	ppb
|-	Ba	135	48	0.01745	ppb
|	Ba	137	75.3	0.02023	ppb
|>	Ho	165	245657.3		ppb
|-	Pb	208	2196.8	0.10272	ppb
	Kr	83	55.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Thursday, January 11, 2007 11:28:11
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28297.8		ppb
|-	Sc	45	48414.4		ppb
|	Cr	52	144165.7	104.05725	ppb
|	Cr	53	20097.7	84.55191	ppb
|	Mn	55	239086.9	103.41809	ppb
|	Co	59	170541.3	103.90459	ppb
|	Ni	60	34648.6	103.16861	ppb
|	Cu	63	80277	103.43062	ppb
|	Cu	65	39401	104.7817	ppb
|	Zn	66	27738	109.30861	ppb
|	Zn	67	5287.4	97.31165	ppb
|	Zn	68	19878.2	106.77304	ppb
|	As	75	27242.2	99.06534	ppb
|	Se	77	2498.7	92.54805	ppb
|	Se	82	3050.5	99.66697	ppb
|>	Rh	103	66742.2		ppb
|	Ag	107	161105.1	101.9901	ppb
|	Ag	109	156206.4	104.18495	ppb
|	Cd	111	45283.8	108.08156	ppb
|-	Cd	114	106168	108.52947	ppb
|-	Ba	135	47200.1	93.1621	ppb
|	Ba	137	84575.6	93.25642	ppb
|>	Ho	165	251743		ppb
|-	Pb	208	1228339.1	107.40844	ppb
	Kr	83	93		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: Blank
Sample Date/Time: Thursday, January 18, 2007 11:10:34
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27322		ppb
|-	Sc	45	34692.1		ppb
|	Cr	52	993.1		ppb
|	Cr	53	5052.9		ppb
|	Mn	55	755.7		ppb
|	Co	59	37.7		ppb
|	Ni	60	199.7		ppb
|	Cu	63	104		ppb
|	Cu	65	108.7		ppb
|	Zn	66	126.7		ppb
|	Zn	67	1068.1		ppb
|	Zn	68	344		ppb
|	As	75	102.4		ppb
|	Se	77	155		ppb
|	Se	82	-0.7		ppb
|>	Rh	103	48627		ppb
|	Ag	107	50		ppb
|	Ag	109	47.7		ppb
|	Cd	111	9.3		ppb
|-	Cd	114	15.5		ppb
|-	Ba	135	32.3		ppb
|	Ba	137	40.7		ppb
|>	Ho	165	204395.7		ppb
|-	Pb	208	491.3		ppb
	Kr	83	39.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 1
Sample Date/Time: Thursday, January 18, 2007 11:13:18
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26885.8		ppb
|-	Sc	45	34894.6		ppb
|	Cr	52	2026.3	1.03391	ppb
|	Cr	53	5186.7	2.12397	ppb
|	Mn	55	2435.4	1.00399	ppb
|	Co	59	1272.8	1.01276	ppb
|	Ni	60	487.7	1.19466	ppb
|	Cu	63	678	1.006	ppb
|	Cu	65	383.3	0.99206	ppb
|	Zn	66	298.3	0.9421	ppb
|	Zn	67	1127.1	2.7767	ppb
|	Zn	68	448.7	0.85511	ppb
|	As	75	238.9	0.74942	ppb
|	Se	77	172.7	1.4195	ppb
|	Se	82	27.4	1.37037	ppb
|>	Rh	103	47473.3		ppb
|	Ag	107	1218.1	1.01362	ppb
|	Ag	109	1176.4	1.00106	ppb
|	Cd	111	344.4	1.05194	ppb
|-	Cd	114	803.2	1.04003	ppb
|-	Ba	135	395.7	1.04795	ppb
|	Ba	137	644.7	0.9822	ppb
|>	Ho	165	200879.1		ppb
|-	Pb	208	10348.3	0.96853	ppb
	Kr	83	32.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 2
Sample Date/Time: Thursday, January 18, 2007 11:16:03
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27722.7		ppb
|-	Sc	45	36459.3		ppb
|	Cr	52	111106.3	101.04421	ppb
|	Cr	53	18279.2	101.96562	ppb
|	Mn	55	183378.1	101.35145	ppb
|	Co	59	131812.6	101.33609	ppb
|	Ni	60	26790.9	101.79614	ppb
|	Cu	63	62797.8	102.71259	ppb
|	Cu	65	30646.9	102.5486	ppb
|	Zn	66	20308.3	102.16526	ppb
|	Zn	67	4410.5	101.79458	ppb
|	Zn	68	14680.4	101.84241	ppb
|	As	75	19802.5	99.39435	ppb
|	Se	77	1800.2	101.93007	ppb
|	Se	82	2148.3	98.68889	ppb
|>	Rh	103	50574.9		ppb
|	Ag	107	122941	99.99986	ppb
|	Ag	109	120252.6	99.99999	ppb
|	Cd	111	34265.7	100.88435	ppb
|-	Cd	114	81148.5	100.50648	ppb
|-	Ba	135	37399.4	102.77154	ppb
|	Ba	137	65844.4	102.09818	ppb
|>	Ho	165	210216.3		ppb
|-	Pb	208	1064191.4	99.77087	ppb
	Kr	83	35		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: Standard 3
Sample Date/Time: Thursday, January 18, 2007 11:18:49
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27118.1		ppb
|-	Sc	45	36775		ppb
|	Cr	52	536732.4	499.79109	ppb
|	Cr	53	67972.1	499.60463	ppb
|	Mn	55	886700.4	499.7297	ppb
|	Co	59	639547.5	499.73276	ppb
|	Ni	60	128612.9	499.64038	ppb
|	Cu	63	300080.7	499.45747	ppb
|	Cu	65	146462	499.4903	ppb
|	Zn	66	97209.4	499.56706	ppb
|	Zn	67	17032.9	499.63753	ppb
|	Zn	68	69490.2	499.63181	ppb
|	As	75	97632	500.12163	ppb
|	Se	77	8065	499.61315	ppb
|	Se	82	10719.2	500.26148	ppb
|>	Rh	103	49769.4		ppb
|	Ag	107	527791.3	436.50844	ppb
|	Ag	109	523722.3	442.88681	ppb
|	Cd	111	167027.9	499.82303	ppb
|-	Cd	114	397111.5	499.89862	ppb
|-	Ba	135	182762	499.4456	ppb
|	Ba	137	324014.8	499.5804	ppb
|>	Ho	165	211506.8		ppb
|-	Pb	208	5364433.2	500.04589	ppb
	Kr	83	56.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 18, 2007 11:21:34
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27716.9		ppb
|-	Sc	45	36150.6		ppb
|	Cr	52	1132.4	0.09501	ppb
|	Cr	53	5359.4	0.95019	ppb
|	Mn	55	1035.7	0.14034	ppb
|	Co	59	163.3	0.09575	ppb
|	Ni	60	121.7	-0.32771	ppb
|	Cu	63	254	0.24065	ppb
|	Cu	65	180.3	0.22749	ppb
|	Zn	66	169.3	0.19239	ppb
|	Zn	67	1203.8	2.98894	ppb
|	Zn	68	388.3	0.22627	ppb
|	As	75	219.9	0.57221	ppb
|	Se	77	230	4.33095	ppb
|	Se	82	67.6	3.16089	ppb
|>	Rh	103	50443.8		ppb
|	Ag	107	14678.5	11.91662	ppb
|	Ag	109	14680.8	12.18964	ppb
|	Cd	111	38.3	0.08445	ppb
|-	Cd	114	85.6	0.08629	ppb
|-	Ba	135	85.3	0.14469	ppb
|	Ba	137	137.3	0.14924	ppb
|>	Ho	165	208977.2		ppb
|-	Pb	208	4929	0.41838	ppb
	Kr	83	44		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 2
Sample Date/Time: Thursday, January 18, 2007 11:24:20
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27965.3		ppb
|-	Sc	45	36875.1		ppb
|	Cr	52	2304.3	1.14114	ppb
|	Cr	53	5711	3.013	ppb
|	Mn	55	2631.1	1.00549	ppb
|	Co	59	1369.8	1.0096	ppb
|	Ni	60	404	0.73184	ppb
|	Cu	63	772	1.0709	ppb
|	Cu	65	419.3	1.01112	ppb
|	Zn	66	320	0.93229	ppb
|	Zn	67	1302.4	5.42228	ppb
|	Zn	68	491.4	0.90758	ppb
|	As	75	356.9	1.23952	ppb
|	Se	77	175	0.70051	ppb
|	Se	82	38.9	1.79214	ppb
|>	Rh	103	51233.9		ppb
|	Ag	107	8034.7	6.40516	ppb
|	Ag	109	7846.1	6.3968	ppb
|	Cd	111	365.7	1.03542	ppb
|-	Cd	114	840.5	1.00824	ppb
|-	Ba	135	430.7	1.11256	ppb
|	Ba	137	728.4	1.0838	ppb
|>	Ho	165	206714.5		ppb
|-	Pb	208	11338.1	1.03395	ppb
	Kr	83	51.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 3
Sample Date/Time: Thursday, January 18, 2007 11:27:05
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27379.6		ppb
|-	Sc	45	37666.3		ppb
|	Cr	52	270235.2	248.19987	ppb
|	Cr	53	37065.3	250.25102	ppb
|	Mn	55	436602.2	242.94267	ppb
|	Co	59	313032.2	241.72948	ppb
|	Ni	60	64773.8	248.29894	ppb
|	Cu	63	153848.2	252.98174	ppb
|	Cu	65	75161.5	253.13962	ppb
|	Zn	66	48742	247.20473	ppb
|	Zn	67	9285.3	253.33414	ppb
|	Zn	68	35289.3	249.47323	ppb
|	As	75	49621.7	250.89924	ppb
|	Se	77	4165.8	250.07801	ppb
|	Se	82	5317.4	245.25869	ppb
|>	Rh	103	50362.9		ppb
|	Ag	107	277941.7	227.06742	ppb
|	Ag	109	265407.6	221.60597	ppb
|	Cd	111	84134.6	248.78103	ppb
|-	Cd	114	198408.7	246.8053	ppb
|-	Ba	135	91903.3	254.22381	ppb
|	Ba	137	161984.3	252.81916	ppb
|>	Ho	165	208920.6		ppb
|-	Pb	208	2557433.6	241.33261	ppb
	Kr	83	45.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Thursday, January 18, 2007 11:29:50
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	28618.5		ppb
|-	Sc	45	37978.4		ppb
|	Cr	52	116398.9	100.69146	ppb
|	Cr	53	19481.3	103.94819	ppb
|	Mn	55	191144.3	100.44654	ppb
|	Co	59	137418.9	100.46333	ppb
|	Ni	60	28083.2	101.47009	ppb
|	Cu	63	65764.9	102.30547	ppb
|	Cu	65	31942.8	101.64626	ppb
|	Zn	66	21266.3	101.75249	ppb
|	Zn	67	4864.1	108.4536	ppb
|	Zn	68	15427.4	101.8163	ppb
|	As	75	21119.6	100.81661	ppb
|	Se	77	1929.6	104.09453	ppb
|	Se	82	2323.3	101.45638	ppb
|>	Rh	103	53187.5		ppb
|	Ag	107	128657.1	99.52365	ppb
|	Ag	109	124353.4	98.32893	ppb
|	Cd	111	35710.4	99.99633	ppb
|-	Cd	114	84642.2	99.72464	ppb
|-	Ba	135	38187	101.57572	ppb
|	Ba	137	68949.5	103.47492	ppb
|>	Ho	165	217196.1		ppb
|-	Pb	208	1084881	98.45907	ppb
	Kr	83	43.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 6
Sample Date/Time: Thursday, January 18, 2007 11:32:35
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26307.5		ppb
|-	Sc	45	33527.3		ppb
|	Cr	52	1593.5	0.71938	ppb
|	Cr	53	6128.3	13.5443	ppb
|	Mn	55	3773.9	1.95149	ppb
|	Co	59	1371.5	1.17184	ppb
|	Ni	60	490.4	1.34476	ppb
|	Cu	63	677.4	1.08782	ppb
|	Cu	65	994.7	3.42822	ppb
|	Zn	66	783.4	3.85451	ppb
|	Zn	67	1271.1	10.41844	ppb
|	Zn	68	555	1.9537	ppb
|	As	75	193.3	0.573	ppb
|	Se	77	271	9.19065	ppb
|	Se	82	12.9	0.70754	ppb
|>	Rh	103	44368.6		ppb
|	Ag	107	8490.1	7.83338	ppb
|	Ag	109	8404.4	7.92795	ppb
|	Cd	111	49.1	0.13621	ppb
|-	Cd	114	654.5	0.90419	ppb
|-	Ba	135	111.7	0.22401	ppb
|	Ba	137	213.3	0.27529	ppb
|>	Ho	165	204608.7		ppb
|-	Pb	208	7978.6	0.72196	ppb
	Kr	83	49		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 7
Sample Date/Time: Thursday, January 18, 2007 11:35:21
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26177.8		ppb
|-	Sc	45	32211.1		ppb
|	Cr	52	10326.8	10.34166	ppb
|	Cr	53	7190.5	25.88926	ppb
|	Mn	55	17930.8	11.41642	ppb
|	Co	59	21237.6	19.41879	ppb
|	Ni	60	4605.3	20.20588	ppb
|	Cu	63	5269.1	10.10361	ppb
|	Cu	65	3148.6	12.21356	ppb
|	Zn	66	2299.3	13.19808	ppb
|	Zn	67	1419.8	17.89181	ppb
|	Zn	68	1574.8	10.79238	ppb
|	As	75	1667.9	9.48419	ppb
|	Se	77	394	19.1537	ppb
|	Se	82	164.9	9.05295	ppb
|>	Rh	103	42470.7		ppb
|	Ag	107	10746.4	10.37125	ppb
|	Ag	109	10618.9	10.478	ppb
|	Cd	111	1512.3	5.2755	ppb
|-	Cd	114	3938.3	5.78961	ppb
|-	Ba	135	98	0.19765	ppb
|	Ba	137	151.3	0.18705	ppb
|>	Ho	165	195975.6		ppb
|-	Pb	208	6163.6	0.57269	ppb
	Kr	83	49.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 BH
Sample Date/Time: Thursday, January 18, 2007 11:38:06
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	20190.5		ppb
|-	Sc	45	36492.4		ppb
|	Cr	52	219703	318.11406	ppb
|	Cr	53	31652	350.833	ppb
|	Mn	55	14630905	12845.236	ppb
|	Co	59	8466.1	10.26717	ppb
|	Ni	60	16486.5	99.06144	ppb
|	Cu	63	67378.6	174.46309	ppb
|	Cu	65	93577.1	496.66519	ppb
|	Zn	66	96056.4	768.70209	ppb
|	Zn	67	17361.9	812.74182	ppb
|	Zn	68	57695.7	646.3761	ppb
|	As	75	9359.5	74.15252	ppb
|	Se	77	1658.8	153.19485	ppb
|	Se	82	1979.3	143.83529	ppb
|>	Rh	103	31974.2		ppb
|	Ag	107	6224.7	7.97023	ppb
|	Ag	109	5517.2	7.21916	ppb
|	Cd	111	3392.6	15.77448	ppb
|-	Cd	114	5986.5	11.70988	ppb
|-	Ba	135	9543.6	34.47278	ppb
|	Ba	137	22117.8	45.12804	ppb
|>	Ho	165	159651.3		ppb
|-	Pb	208	129950.8	16.00346	ppb
	Kr	83	266.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 BH
Sample Date/Time: Thursday, January 18, 2007 11:40:50
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	19724.2		ppb
|-	Sc	45	43746		ppb
|	Cr	52	208675.8	321.26996	ppb
|	Cr	53	27956.4	326.93186	ppb
|	Mn	55	13967863	13039.848	ppb
|	Co	59	8105.7	10.45399	ppb
|	Ni	60	15598.7	99.66819	ppb
|	Cu	63	63427.5	174.62306	ppb
|	Cu	65	90787.5	512.4544	ppb
|	Zn	66	90642.2	771.29324	ppb
|	Zn	67	15843.9	787.60859	ppb
|	Zn	68	54469	648.90523	ppb
|	As	75	8753.4	73.74515	ppb
|	Se	77	1497.1	146.56211	ppb
|	Se	82	1810.3	139.84526	ppb
|>	Rh	103	30071.5		ppb
|	Ag	107	5270.4	7.17042	ppb
|	Ag	109	4655	6.47099	ppb
|	Cd	111	3183.7	15.7396	ppb
|-	Cd	114	5669.6	11.79213	ppb
|-	Ba	135	9032.3	34.4112	ppb
|	Ba	137	16435	35.35086	ppb
|>	Ho	165	151359.4		ppb
|-	Pb	208	124476.1	16.16911	ppb
	Kr	83	270		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 BH
Sample Date/Time: Thursday, January 18, 2007 11:43:34
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	20191		ppb
|-	Sc	45	34906		ppb
|	Cr	52	110046.7	171.45462	ppb
|	Cr	53	15398.7	164.59461	ppb
|	Mn	55	162702.9	153.67475	ppb
|	Co	59	1534.5	1.98376	ppb
|	Ni	60	6866.9	44.07798	ppb
|	Cu	63	25390.9	70.81258	ppb
|	Cu	65	46394.9	265.53761	ppb
|	Zn	66	35145.3	303.02815	ppb
|	Zn	67	6634	314.90976	ppb
|	Zn	68	19869.9	238.56033	ppb
|	As	75	1830.2	15.21816	ppb
|	Se	77	439.7	36.66508	ppb
|	Se	82	480.1	37.65127	ppb
|>	Rh	103	29643.9		ppb
|	Ag	107	2683.5	3.68481	ppb
|	Ag	109	2453.4	3.44157	ppb
|	Cd	111	852.8	4.25527	ppb
|-	Cd	114	1450.5	3.04486	ppb
|-	Ba	135	13705.7	53.95612	ppb
|	Ba	137	24220.1	53.82272	ppb
|>	Ho	165	146606.3		ppb
|-	Pb	208	69765.5	9.33697	ppb
	Kr	83	150.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 BH
Sample Date/Time: Thursday, January 18, 2007 11:46:18
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	15807.3		ppb
|-	Sc	45	34840		ppb
|	Cr	52	139703.4	275.86777	ppb
|	Cr	53	18755.9	275.75183	ppb
|	Mn	55	214343.8	256.35151	ppb
|	Co	59	38678.3	64.16443	ppb
|	Ni	60	14283.7	117.25567	ppb
|	Cu	63	43006.1	151.90871	ppb
|	Cu	65	55256.8	400.17249	ppb
|	Zn	66	40481.2	441.76112	ppb
|	Zn	67	7413.4	459.17625	ppb
|	Zn	68	23635.7	360.20076	ppb
|	As	75	10315.5	111.78552	ppb
|	Se	77	1357.8	172.25995	ppb
|	Se	82	1684.3	166.89597	ppb
|>	Rh	103	23434.5		ppb
|	Ag	107	36043.5	63.258	ppb
|	Ag	109	34820.3	62.47323	ppb
|	Cd	111	10846.5	68.91613	ppb
|-	Cd	114	25210.8	67.38678	ppb
|-	Ba	135	24584.1	124.02165	ppb
|	Ba	137	43778.5	124.62565	ppb
|>	Ho	165	114517.3		ppb
|-	Pb	208	439114	75.56317	ppb
	Kr	83	178.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 A
Sample Date/Time: Thursday, January 18, 2007 11:49:02
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	22317.7		ppb
|-	Sc	45	34857.1		ppb
|	Cr	52	3957.3	4.61195	ppb
|	Cr	53	2461.4	-11.61765	ppb
|	Mn	55	31446.2	26.27011	ppb
|	Co	59	374	0.40974	ppb
|	Ni	60	326.3	1.11581	ppb
|	Cu	63	1789.2	4.31023	ppb
|	Cu	65	4307.2	21.76201	ppb
|	Zn	66	1838.6	13.5771	ppb
|	Zn	67	824	4.6624	ppb
|	Zn	68	893.1	7.17363	ppb
|	As	75	194.8	0.96936	ppb
|	Se	77	76	-2.78939	ppb
|	Se	82	16.7	1.20771	ppb
|>	Rh	103	33057.1		ppb
|	Ag	107	586.4	0.68838	ppb
|	Ag	109	527	0.62977	ppb
|	Cd	111	95.9	0.40356	ppb
|-	Cd	114	137.5	0.24048	ppb
|-	Ba	135	1346.5	5.01919	ppb
|	Ba	137	2368	5.00614	ppb
|>	Ho	165	152296.5		ppb
|-	Pb	208	6751.8	0.82707	ppb
	Kr	83	39.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 A
Sample Date/Time: Thursday, January 18, 2007 11:51:46
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	22440.9		ppb
|-	Sc	45	35980.5		ppb
|	Cr	52	4044.4	4.64132	ppb
|	Cr	53	2412.4	-12.66059	ppb
|	Mn	55	32142.9	26.41096	ppb
|	Co	59	372	0.40051	ppb
|	Ni	60	317	1.03253	ppb
|	Cu	63	1853.6	4.39457	ppb
|	Cu	65	4458.9	22.16055	ppb
|	Zn	66	1943.6	14.14381	ppb
|	Zn	67	837.1	4.63454	ppb
|	Zn	68	957.7	7.70701	ppb
|	As	75	214.4	1.0941	ppb
|	Se	77	67.7	-3.67575	ppb
|	Se	82	11.9	0.8476	ppb
|>	Rh	103	33611.7		ppb
|	Ag	107	534.7	0.61229	ppb
|	Ag	109	503.4	0.58849	ppb
|	Cd	111	97.5	0.40434	ppb
|-	Cd	114	152.2	0.26404	ppb
|-	Ba	135	1373.1	5.12399	ppb
|	Ba	137	2419	5.121	ppb
|>	Ho	165	152141.3		ppb
|-	Pb	208	6621.1	0.8108	ppb
	Kr	83	52.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 A
Sample Date/Time: Thursday, January 18, 2007 11:54:31
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24003.3		ppb
|-	Sc	45	31003.6		ppb
|	Cr	52	6691.4	7.25804	ppb
|	Cr	53	2479.4	-15.10237	ppb
|	Mn	55	93080.7	68.60111	ppb
|	Co	59	650	0.63774	ppb
|	Ni	60	1793.5	8.38861	ppb
|	Cu	63	4392.9	9.44099	ppb
|	Cu	65	2549.7	11.07322	ppb
|	Zn	66	3220.3	21.14538	ppb
|	Zn	67	970.1	5.85316	ppb
|	Zn	68	2362.4	19.92133	ppb
|	As	75	77	-0.02157	ppb
|	Se	77	61.3	-4.92018	ppb
|	Se	82	19.4	1.23223	ppb
|>	Rh	103	37869		ppb
|	Ag	107	469.7	0.47015	ppb
|	Ag	109	356.3	0.3546	ppb
|	Cd	111	67.4	0.23674	ppb
|-	Cd	114	146.2	0.22244	ppb
|-	Ba	135	663.7	2.23213	ppb
|	Ba	137	1171.1	2.24537	ppb
|>	Ho	165	165123.5		ppb
|-	Pb	208	11452.2	1.32005	ppb
	Kr	83	29.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 A
Sample Date/Time: Thursday, January 18, 2007 11:57:17
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24028.2		ppb
|-	Sc	45	30603.1		ppb
|	Cr	52	46651	55.71851	ppb
|	Cr	53	7177.5	33.2089	ppb
|	Mn	55	150212.3	109.87576	ppb
|	Co	59	40271.2	40.94217	ppb
|	Ni	60	9849.6	49.10964	ppb
|	Cu	63	29353.9	63.46061	ppb
|	Cu	65	14594.3	64.47014	ppb
|	Zn	66	10676.3	70.8616	ppb
|	Zn	67	2133.3	52.80204	ppb
|	Zn	68	7642.9	69.36508	ppb
|	As	75	7232.8	47.75087	ppb
|	Se	77	473.7	28.95476	ppb
|	Se	82	603.1	36.67344	ppb
|>	Rh	103	38224.9		ppb
|	Ag	107	44639.1	48.01634	ppb
|	Ag	109	43720.5	48.07611	ppb
|	Cd	111	12476.8	48.58446	ppb
|-	Cd	114	29860.5	48.92022	ppb
|-	Ba	135	14694.4	51.23983	ppb
|	Ba	137	26285.3	51.72172	ppb
|>	Ho	165	165549.6		ppb
|-	Pb	208	439318.1	52.28783	ppb
	Kr	83	31		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 FH
Sample Date/Time: Thursday, January 18, 2007 12:00:02
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23472.9		ppb
|-	Sc	45	47240.4		ppb
|	Cr	52	165101.2	203.0637	ppb
|	Cr	53	21260.6	182.88532	ppb
|	Mn	55	146204	108.78772	ppb
|	Co	59	7762.4	8.00482	ppb
|	Ni	60	69888.9	359.40856	ppb
|	Cu	63	32835.6	72.24348	ppb
|	Cu	65	15770.1	70.91551	ppb
|	Zn	66	152149.6	1036.3475	ppb
|	Zn	67	23532.1	942.73123	ppb
|	Zn	68	108908.2	1039.8483	ppb
|	As	75	4269.1	28.45607	ppb
|	Se	77	88	-2.65904	ppb
|	Se	82	37.4	2.34402	ppb
|>	Rh	103	37577.9		ppb
|	Ag	107	224718.5	246.0984	ppb
|	Ag	109	215381.3	241.10851	ppb
|	Cd	111	9732	38.55331	ppb
|-	Cd	114	22931.6	38.21632	ppb
|-	Ba	135	27780.5	96.22661	ppb
|	Ba	137	49276.1	96.32861	ppb
|>	Ho	165	166742.6		ppb
|-	Pb	208	5410011.8	639.74091	ppb
	Kr	83	33.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 FH
Sample Date/Time: Thursday, January 18, 2007 12:02:48
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25007.5		ppb
|-	Sc	45	47766.3		ppb
|	Cr	52	165252.9	188.83852	ppb
|	Cr	53	21296.7	167.41581	ppb
|	Mn	55	145627.8	100.68263	ppb
|	Co	59	7645.6	7.3249	ppb
|	Ni	60	70342.7	336.1739	ppb
|	Cu	63	32893.1	67.24632	ppb
|	Cu	65	16024.6	66.94723	ppb
|	Zn	66	153641.4	972.56612	ppb
|	Zn	67	23634.4	877.62368	ppb
|	Zn	68	109747.7	973.72144	ppb
|	As	75	4236.3	26.20321	ppb
|	Se	77	81.7	-3.67232	ppb
|	Se	82	24.9	1.46527	ppb
|>	Rh	103	40429.6		ppb
|	Ag	107	24086.7	24.47681	ppb
|	Ag	109	23246.3	24.14898	ppb
|	Cd	111	9914	36.49528	ppb
|-	Cd	114	22852.9	35.39394	ppb
|-	Ba	135	27554.8	89.36112	ppb
|	Ba	137	49609.4	90.79978	ppb
|>	Ho	165	178084.5		ppb
|-	Pb	208	5436866.6	601.95057	ppb
	Kr	83	45		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 18, 2007 12:05:33
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25374.9		ppb
|-	Sc	45	31731.6		ppb
|	Cr	52	1303.4	0.5677	ppb
|	Cr	53	4740.1	5.86653	ppb
|	Mn	55	1213.8	0.41718	ppb
|	Co	59	48.3	0.01698	ppb
|	Ni	60	81	-0.40239	ppb
|	Cu	63	116.7	0.06487	ppb
|	Cu	65	195	0.45011	ppb
|	Zn	66	161	0.36554	ppb
|	Zn	67	792.4	-3.30709	ppb
|	Zn	68	223.3	-0.53215	ppb
|	As	75	31.8	-0.33358	ppb
|	Se	77	203.7	6.016	ppb
|	Se	82	6.4	0.4034	ppb
|>	Rh	103	39924.5		ppb
|	Ag	107	141	0.10306	ppb
|	Ag	109	132	0.09783	ppb
|	Cd	111	11.3	0.01366	ppb
|-	Cd	114	23.4	0.01668	ppb
|-	Ba	135	58	0.10125	ppb
|	Ba	137	94	0.11115	ppb
|>	Ho	165	174124.4		ppb
|-	Pb	208	2855.9	0.27602	ppb
	Kr	83	33.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Thursday, January 18, 2007 12:08:18
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24613		ppb
|-	Sc	45	29674.5		ppb
|	Cr	52	82248.7	100.85476	ppb
|	Cr	53	13694.1	103.28828	ppb
|	Mn	55	136882.3	102.0244	ppb
|	Co	59	99637.2	103.30361	ppb
|	Ni	60	20860	106.90281	ppb
|	Cu	63	47925.6	105.66111	ppb
|	Cu	65	23166.5	104.53278	ppb
|	Zn	66	15678.3	106.32331	ppb
|	Zn	67	3280	101.96648	ppb
|	Zn	68	11248.7	105.33319	ppb
|	As	75	14836	100.33192	ppb
|	Se	77	1410.1	108.05506	ppb
|	Se	82	1651.2	102.15935	ppb
|>	Rh	103	37531.6		ppb
|	Ag	107	92609	101.63699	ppb
|	Ag	109	90600.5	101.61818	ppb
|	Cd	111	26794.1	106.44376	ppb
|-	Cd	114	63954.1	106.86558	ppb
|-	Ba	135	28747.2	95.6404	ppb
|	Ba	137	51201	96.11948	ppb
|>	Ho	165	173551.2		ppb
|-	Pb	208	903921.2	102.66886	ppb
	Kr	83	36.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 FH
Sample Date/Time: Thursday, January 18, 2007 12:11:04
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24769.5		ppb
|-	Sc	45	48904.9		ppb
|	Cr	52	246049	304.10172	ppb
|	Cr	53	30863.4	285.12169	ppb
|	Mn	55	93962.4	69.99499	ppb
|	Co	59	4981.5	5.14225	ppb
|	Ni	60	63001.3	324.98063	ppb
|	Cu	63	25497.5	56.24379	ppb
|	Cu	65	12499.5	56.30812	ppb
|	Zn	66	106135.1	725.06148	ppb
|	Zn	67	16624.7	658.16869	ppb
|	Zn	68	75500.6	722.41224	ppb
|	As	75	2529.5	16.69656	ppb
|	Se	77	75	-3.73018	ppb
|	Se	82	44.1	2.7645	ppb
|>	Rh	103	37456.7		ppb
|	Ag	107	13860.4	15.18921	ppb
|	Ag	109	13365.2	14.97198	ppb
|	Cd	111	9381.2	37.27763	ppb
|-	Cd	114	22014.7	36.80357	ppb
|-	Ba	135	9605.3	32.00972	ppb
|	Ba	137	17419.7	32.78496	ppb
|>	Ho	165	172992.1		ppb
|-	Pb	208	2790493.7	318.02948	ppb
	Kr	83	30		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 FH
Sample Date/Time: Thursday, January 18, 2007 12:13:51
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24282.4		ppb
|-	Sc	45	48761.4		ppb
|	Cr	52	284755.7	353.79916	ppb
|	Cr	53	34886.6	329.46346	ppb
|	Mn	55	157289.2	118.03264	ppb
|	Co	59	51053.1	53.24304	ppb
|	Ni	60	71725.4	371.90274	ppb
|	Cu	63	49783.8	110.52125	ppb
|	Cu	65	24224.4	110.00386	ppb
|	Zn	66	113437.8	778.75895	ppb
|	Zn	67	17733	707.83073	ppb
|	Zn	68	81008	779.12073	ppb
|	As	75	9814.8	66.65656	ppb
|	Se	77	616.4	41.98816	ppb
|	Se	82	741.1	46.22701	ppb
|>	Rh	103	37277.2		ppb
|	Ag	107	56798.8	62.67139	ppb
|	Ag	109	55603.1	62.72551	ppb
|	Cd	111	22385.2	89.4181	ppb
|-	Cd	114	52603.9	88.40594	ppb
|-	Ba	135	23851.7	80.11398	ppb
|	Ba	137	42514.6	80.59821	ppb
|>	Ho	165	171934.3		ppb
|-	Pb	208	3226669.5	370.03942	ppb
	Kr	83	35.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 18, 2007 12:16:36
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24981.2		ppb
|-	Sc	45	30021.6		ppb
|	Cr	52	1253.1	0.60575	ppb
|	Cr	53	4398.9	5.37936	ppb
|	Mn	55	1238.4	0.49258	ppb
|	Co	59	50.3	0.02224	ppb
|	Ni	60	105.7	-0.24854	ppb
|	Cu	63	134	0.11927	ppb
|	Cu	65	164.7	0.36757	ppb
|	Zn	66	150.7	0.3626	ppb
|	Zn	67	779	-1.80596	ppb
|	Zn	68	239.7	-0.24269	ppb
|	As	75	114.5	0.24563	ppb
|	Se	77	180.7	5.14983	ppb
|	Se	82	14.7	0.95244	ppb
|>	Rh	103	37440		ppb
|	Ag	107	139.3	0.11086	ppb
|	Ag	109	131.3	0.1064	ppb
|	Cd	111	17.2	0.03978	ppb
|-	Cd	114	32.8	0.03482	ppb
|-	Ba	135	38	0.03925	ppb
|	Ba	137	61	0.05349	ppb
|>	Ho	165	168239.7		ppb
|-	Pb	208	2688.2	0.26789	ppb
	Kr	83	30		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Thursday, January 18, 2007 12:19:21
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25573.4		ppb
|-	Sc	45	31447.2		ppb
|	Cr	52	87605.2	101.11385	ppb
|	Cr	53	14765.2	105.58056	ppb
|	Mn	55	143733.6	100.82367	ppb
|	Co	59	105233	102.664	ppb
|	Ni	60	21733.9	104.83036	ppb
|	Cu	63	50769	105.4102	ppb
|	Cu	65	24717.2	104.98673	ppb
|	Zn	66	16563.9	105.80754	ppb
|	Zn	67	3545.1	104.46726	ppb
|	Zn	68	11831.5	104.23271	ppb
|	As	75	15830.5	100.8511	ppb
|	Se	77	1463.1	105.45496	ppb
|	Se	82	1772.3	103.35595	ppb
|>	Rh	103	39854.8		ppb
|	Ag	107	98213.1	101.39791	ppb
|	Ag	109	96336.1	101.6637	ppb
|	Cd	111	28152.4	105.21112	ppb
|-	Cd	114	67341.3	105.85162	ppb
|-	Ba	135	30140	97.72769	ppb
|	Ba	137	53674.5	98.21218	ppb
|>	Ho	165	178135.7		ppb
|-	Pb	208	932255.3	103.1446	ppb
	Kr	83	33.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC STD 5
Sample Date/Time: Thursday, January 18, 2007 12:57:26
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26304.2		ppb
|-	Sc	45	30228.7		ppb
|	Cr	52	2078.3	1.42129	ppb
|	Cr	53	5450.8	11.86792	ppb
|	Mn	55	2097	1.00944	ppb
|	Co	59	1090.7	1.01163	ppb
|	Ni	60	330	0.77426	ppb
|	Cu	63	628.7	1.10172	ppb
|	Cu	65	361.7	1.12947	ppb
|	Zn	66	273	1.05085	ppb
|	Zn	67	1000.7	4.08322	ppb
|	Zn	68	373.3	0.75258	ppb
|	As	75	214.3	0.80478	ppb
|	Se	77	193	4.88148	ppb
|	Se	82	20	1.17206	ppb
|>	Rh	103	40728.7		ppb
|	Ag	107	1052.7	1.02149	ppb
|	Ag	109	1008.4	1.00022	ppb
|	Cd	111	319.1	1.13885	ppb
|-	Cd	114	717.2	1.08313	ppb
|-	Ba	135	313.3	0.92056	ppb
|	Ba	137	587	1.0051	ppb
|>	Ho	165	178952.1		ppb
|-	Pb	208	9365.5	0.98425	ppb
	Kr	83	39		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 BH
Sample Date/Time: Thursday, January 18, 2007 13:00:11
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	19301.3		ppb
|-	Sc	45	31968.6		ppb
|	Cr	52	185201.7	324.30526	ppb
|	Cr	53	24036.2	318.80591	ppb
|	Mn	55	12156110	12906.786	ppb
|	Co	59	7078.4	10.38226	ppb
|	Ni	60	14149.5	102.8543	ppb
|	Cu	63	55278	173.08742	ppb
|	Cu	65	93407.1	599.72956	ppb
|	Zn	66	82216.2	795.71882	ppb
|	Zn	67	14577.2	825.77911	ppb
|	Zn	68	48193.8	653.02324	ppb
|	As	75	7802.8	74.77708	ppb
|	Se	77	1472.5	165.15588	ppb
|	Se	82	1750.9	153.8452	ppb
|>	Rh	103	26439.5		ppb
|	Ag	107	4391.2	6.79314	ppb
|	Ag	109	3774.2	5.96425	ppb
|	Cd	111	2923.1	16.44028	ppb
|-	Cd	114	5148.7	12.18086	ppb
|-	Ba	135	8095	32.67941	ppb
|	Ba	137	14548.5	33.16195	ppb
|>	Ho	165	142814.5		ppb
|-	Pb	208	123126.1	16.95002	ppb
	Kr	83	232.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 BH
Sample Date/Time: Thursday, January 18, 2007 13:02:55
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	19226.5		ppb
|-	Sc	45	36144.6		ppb
|	Cr	52	185453.4	326.1757	ppb
|	Cr	53	23162.4	307.22597	ppb
|	Mn	55	12457127	13284.372	ppb
|	Co	59	7200.5	10.6079	ppb
|	Ni	60	14117.4	103.06457	ppb
|	Cu	63	55168.3	173.48986	ppb
|	Cu	65	90047.5	580.65673	ppb
|	Zn	66	82198.6	799.03978	ppb
|	Zn	67	13890.7	788.82382	ppb
|	Zn	68	48378.5	658.40812	ppb
|	As	75	7782	74.91343	ppb
|	Se	77	1436.1	161.59695	ppb
|	Se	82	1681.1	148.32549	ppb
|>	Rh	103	26326.5		ppb
|	Ag	107	4368.5	6.78685	ppb
|	Ag	109	3740.9	5.93771	ppb
|	Cd	111	2879.4	16.26439	ppb
|-	Cd	114	5111.1	12.148	ppb
|-	Ba	135	8016.9	33.09831	ppb
|	Ba	137	14550.5	33.92045	ppb
|>	Ho	165	139655.7		ppb
|-	Pb	208	122717.5	17.2907	ppb
	Kr	83	247.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 BH
Sample Date/Time: Thursday, January 18, 2007 13:05:39
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	22481.3		ppb
|-	Sc	45	55863.2		ppb
|	Cr	52	43432.4	66.35934	ppb
|	Cr	53	7800.7	61.93238	ppb
|	Mn	55	2766256.7	2591.6774	ppb
|	Co	59	1957.9	2.51143	ppb
|	Ni	60	3385.7	21.08714	ppb
|	Cu	63	13072	35.98409	ppb
|	Cu	65	20261.5	114.47946	ppb
|	Zn	66	18368.7	156.35007	ppb
|	Zn	67	3554.1	150.7077	ppb
|	Zn	68	11173.3	131.5711	ppb
|	As	75	1302.8	10.57229	ppb
|	Se	77	355.7	27.3239	ppb
|	Se	82	248.3	19.28954	ppb
|>	Rh	103	29966.1		ppb
|	Ag	107	1028.1	1.37022	ppb
|	Ag	109	886.1	1.20279	ppb
|	Cd	111	656.5	3.23488	ppb
|-	Cd	114	1220.4	2.53078	ppb
|-	Ba	135	1933.9	7.2433	ppb
|	Ba	137	5047.9	10.6902	ppb
|>	Ho	165	152409.8		ppb
|-	Pb	208	28385	3.62631	ppb
	Kr	83	80.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 BH
Sample Date/Time: Thursday, January 18, 2007 13:08:23
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	21873.4		ppb
|-	Sc	45	41471.4		ppb
|	Cr	52	41295.8	65.84056	ppb
|	Cr	53	7443.7	61.51469	ppb
|	Mn	55	2655981.8	2596.7488	ppb
|	Co	59	1763.9	2.35992	ppb
|	Ni	60	3206	20.83105	ppb
|	Cu	63	12433.4	35.71248	ppb
|	Cu	65	20148.9	118.83587	ppb
|	Zn	66	17723	157.42516	ppb
|	Zn	67	3457.8	153.58559	ppb
|	Zn	68	10686.3	131.32358	ppb
|	As	75	1194.5	10.0785	ppb
|	Se	77	342	27.45605	ppb
|	Se	82	209.3	16.95934	ppb
|>	Rh	103	28711.3		ppb
|	Ag	107	941.7	1.30728	ppb
|	Ag	109	868.4	1.23134	ppb
|	Cd	111	631.7	3.24849	ppb
|-	Cd	114	1125	2.43451	ppb
|-	Ba	135	1824.9	7.06169	ppb
|	Ba	137	13918.6	30.6245	ppb
|>	Ho	165	147512.3		ppb
|-	Pb	208	25726.3	3.39237	ppb
	Kr	83	84.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 BH
Sample Date/Time: Thursday, January 18, 2007 13:11:07
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	22275.5		ppb
|-	Sc	45	25623.3		ppb
|	Cr	52	3484.4	4.31069	ppb
|	Cr	53	3664.5	6.01943	ppb
|	Mn	55	141915.3	129.0385	ppb
|	Co	59	129	0.13277	ppb
|	Ni	60	267.7	0.88851	ppb
|	Cu	63	946.7	2.37356	ppb
|	Cu	65	1924.9	10.24757	ppb
|	Zn	66	1230.1	9.56868	ppb
|	Zn	67	710.7	1.78614	ppb
|	Zn	68	777	6.53355	ppb
|	As	75	75.7	0.10343	ppb
|	Se	77	187.3	9.14968	ppb
|	Se	82	19.8	1.5447	ppb
|>	Rh	103	30776.1		ppb
|	Ag	107	91	0.07924	ppb
|	Ag	109	101.7	0.0974	ppb
|	Cd	111	38.1	0.1553	ppb
|-	Cd	114	83.6	0.15005	ppb
|-	Ba	135	274.7	0.9813	ppb
|	Ba	137	442.3	0.90921	ppb
|>	Ho	165	148005.1		ppb
|-	Pb	208	2231.5	0.24991	ppb
	Kr	83	24.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 BH
Sample Date/Time: Thursday, January 18, 2007 13:13:51
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	24488.6		ppb
|-	Sc	45	27910.3		ppb
|	Cr	52	3494.4	3.85321	ppb
|	Cr	53	3895.3	4.5077	ppb
|	Mn	55	145928.6	120.75934	ppb
|	Co	59	146.3	0.13825	ppb
|	Ni	60	236	0.55633	ppb
|	Cu	63	816.4	1.82509	ppb
|	Cu	65	1849.6	8.91532	ppb
|	Zn	66	1247.8	8.7898	ppb
|	Zn	67	748.4	0.26709	ppb
|	Zn	68	770.7	5.65331	ppb
|	As	75	80.1	0.06694	ppb
|	Se	77	187.7	7.44448	ppb
|	Se	82	-7	-0.45159	ppb
|>	Rh	103	33805.1		ppb
|	Ag	107	103.3	0.08337	ppb
|	Ag	109	95	0.07695	ppb
|	Cd	111	37.4	0.13528	ppb
|-	Cd	114	89.9	0.1467	ppb
|-	Ba	135	312.3	1.01945	ppb
|	Ba	137	534.7	1.00752	ppb
|>	Ho	165	162600.4		ppb
|-	Pb	208	2251.1	0.2255	ppb
	Kr	83	43.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 BH
Sample Date/Time: Thursday, January 18, 2007 13:19:20
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	22804.4		ppb
|-	Sc	45	38713.4		ppb
|	Cr	52	23429.1	34.9072	ppb
|	Cr	53	5416.1	29.52889	ppb
|	Mn	55	34757	31.72041	ppb
|	Co	59	333	0.3967	ppb
|	Ni	60	1516.5	8.88468	ppb
|	Cu	63	5214.4	14.06268	ppb
|	Cu	65	12108.6	67.4052	ppb
|	Zn	66	7836.4	65.47658	ppb
|	Zn	67	1844.6	60.57996	ppb
|	Zn	68	4220.1	47.48026	ppb
|	As	75	297.5	1.96934	ppb
|	Se	77	194	10.08278	ppb
|	Se	82	60.1	4.63103	ppb
|>	Rh	103	30342.4		ppb
|	Ag	107	513	0.65346	ppb
|	Ag	109	456	0.5909	ppb
|	Cd	111	175.8	0.83394	ppb
|-	Cd	114	293.7	0.58585	ppb
|-	Ba	135	2711.8	10.231	ppb
|	Ba	137	4842.5	10.33638	ppb
|>	Ho	165	151847.5		ppb
|-	Pb	208	15019.5	1.90296	ppb
	Kr	83	61.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 BH
Sample Date/Time: Thursday, January 18, 2007 13:22:05
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	21957.3		ppb
|-	Sc	45	55331		ppb
|	Cr	52	51973.8	81.18389	ppb
|	Cr	53	8730	76.49279	ppb
|	Mn	55	78819.8	74.87066	ppb
|	Co	59	32488.2	42.97425	ppb
|	Ni	60	8070.3	52.39885	ppb
|	Cu	63	23272.7	65.45773	ppb
|	Cu	65	19687.4	113.43552	ppb
|	Zn	66	13068.4	113.23839	ppb
|	Zn	67	2595.4	103.52256	ppb
|	Zn	68	8158.7	97.32268	ppb
|	As	75	6681.9	57.48875	ppb
|	Se	77	712.4	66.25194	ppb
|	Se	82	787.9	62.30796	ppb
|>	Rh	103	29383.3		ppb
|	Ag	107	34235.2	47.90787	ppb
|	Ag	109	33326.5	47.67792	ppb
|	Cd	111	10394.4	52.66294	ppb
|-	Cd	114	24935.8	53.15107	ppb
|-	Ba	135	13489.7	52.36653	ppb
|	Ba	137	24372.8	53.40901	ppb
|>	Ho	165	148671.3		ppb
|-	Pb	208	402249.2	53.30256	ppb
	Kr	83	54		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 18, 2007 13:24:49
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23093.6		ppb
|-	Sc	45	24680.7		ppb
|	Cr	52	1107.1	0.72198	ppb
|	Cr	53	3028.9	-2.1948	ppb
|	Mn	55	1343.1	0.79015	ppb
|	Co	59	44.7	0.0267	ppb
|	Ni	60	90.7	-0.22491	ppb
|	Cu	63	90.3	0.06653	ppb
|	Cu	65	360.7	1.6155	ppb
|	Zn	66	141.3	0.50903	ppb
|	Zn	67	470.4	-10.42478	ppb
|	Zn	68	155.7	-0.7319	ppb
|	As	75	58.9	-0.03129	ppb
|	Se	77	151	5.39919	ppb
|	Se	82	1.1	0.1154	ppb
|>	Rh	103	30814.6		ppb
|	Ag	107	114	0.10995	ppb
|	Ag	109	93	0.08638	ppb
|	Cd	111	19.9	0.06821	ppb
|-	Cd	114	27.9	0.0366	ppb
|-	Ba	135	444.3	1.6112	ppb
|	Ba	137	814.4	1.69628	ppb
|>	Ho	165	150567.7		ppb
|-	Pb	208	2333.2	0.25822	ppb
	Kr	83	31		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Thursday, January 18, 2007 13:27:34
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23514.4		ppb
|-	Sc	45	26284.7		ppb
|	Cr	52	72142.2	101.34532	ppb
|	Cr	53	11347.5	96.08679	ppb
|	Mn	55	120131.3	102.55802	ppb
|	Co	59	87549.3	103.95232	ppb
|	Ni	60	17885.4	104.96065	ppb
|	Cu	63	41486.8	104.81355	ppb
|	Cu	65	20170.3	104.2547	ppb
|	Zn	66	13774.2	107.05898	ppb
|	Zn	67	2765.8	97.44908	ppb
|	Zn	68	9830.6	105.46171	ppb
|	As	75	12839.2	99.50918	ppb
|	Se	77	1234.8	108.58772	ppb
|	Se	82	1502.3	106.57814	ppb
|>	Rh	103	32746.9		ppb
|	Ag	107	82457.9	103.60467	ppb
|	Ag	109	80249.6	103.05967	ppb
|	Cd	111	24005.5	109.21352	ppb
|-	Cd	114	57643.1	110.31231	ppb
|-	Ba	135	26016.2	93.28011	ppb
|	Ba	137	46467.1	94.01661	ppb
|>	Ho	165	161092.4		ppb
|-	Pb	208	862026.6	105.46922	ppb
	Kr	83	27.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 FH
Sample Date/Time: Thursday, January 18, 2007 13:35:51
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23468.4		ppb
|-	Sc	45	43064.8		ppb
|	Cr	52	140842.5	190.57095	ppb
|	Cr	53	17839.9	165.75281	ppb
|	Mn	55	126188.3	103.30873	ppb
|	Co	59	6595.7	7.48251	ppb
|	Ni	60	60214.4	340.71966	ppb
|	Cu	63	27496.9	66.5549	ppb
|	Cu	65	13617.9	67.35437	ppb
|	Zn	66	132202.2	990.82257	ppb
|	Zn	67	20422.5	898.82666	ppb
|	Zn	68	94701.3	994.9673	ppb
|	As	75	3596.8	26.34792	ppb
|	Se	77	72.7	-3.31866	ppb
|	Se	82	27.4	1.89818	ppb
|>	Rh	103	34147.8		ppb
|	Ag	107	20318.3	24.45244	ppb
|	Ag	109	19891.6	24.47351	ppb
|	Cd	111	8659.7	37.75082	ppb
|-	Cd	114	20621.1	37.82016	ppb
|-	Ba	135	24313.3	84.71446	ppb
|	Ba	137	43398.8	85.34135	ppb
|>	Ho	165	165745.8		ppb
|-	Pb	208	5105901.8	607.39598	ppb
	Kr	83	31.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 FH
Sample Date/Time: Thursday, January 18, 2007 13:38:38
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23740.8		ppb
|-	Sc	45	43090.2		ppb
|	Cr	52	143005.6	191.9859	ppb
|	Cr	53	17895.4	164.73812	ppb
|	Mn	55	126788.2	102.99324	ppb
|	Co	59	6632.4	7.4639	ppb
|	Ni	60	59993.2	336.78467	ppb
|	Cu	63	27764.1	66.66989	ppb
|	Cu	65	13617.3	66.84196	ppb
|	Zn	66	130786.9	972.50907	ppb
|	Zn	67	20003.5	872.40052	ppb
|	Zn	68	93219.2	971.52803	ppb
|	As	75	3600.6	26.17097	ppb
|	Se	77	64.3	-4.15557	ppb
|	Se	82	31	2.11847	ppb
|>	Rh	103	34419.3		ppb
|	Ag	107	20196.3	24.10934	ppb
|	Ag	109	19956.7	24.35654	ppb
|	Cd	111	8759.1	37.87728	ppb
|-	Cd	114	20535.5	37.35888	ppb
|-	Ba	135	24565.1	84.4162	ppb
|	Ba	137	43657.2	84.66621	ppb
|>	Ho	165	168058.4		ppb
|-	Pb	208	5169418.9	606.47435	ppb
	Kr	83	35.3		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 18, 2007 13:57:53
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25834.8		ppb
|-	Sc	45	30658.6		ppb
|	Cr	52	1234.1	0.47914	ppb
|	Cr	53	4380.2	2.05469	ppb
|	Mn	55	910.4	0.20025	ppb
|	Co	59	43	0.01152	ppb
|	Ni	60	134	-0.1487	ppb
|	Cu	63	107.7	0.04497	ppb
|	Cu	65	173	0.35206	ppb
|	Zn	66	149.7	0.28773	ppb
|	Zn	67	791.4	-3.51787	ppb
|	Zn	68	247	-0.33167	ppb
|	As	75	57.8	-0.17121	ppb
|	Se	77	190	4.85845	ppb
|	Se	82	-6.6	-0.35251	ppb
|>	Rh	103	40151.6		ppb
|	Ag	107	101	0.0612	ppb
|	Ag	109	106.3	0.07016	ppb
|	Cd	111	11.2	0.01282	ppb
|-	Cd	114	22.1	0.0144	ppb
|-	Ba	135	43.3	0.04861	ppb
|	Ba	137	64.7	0.05294	ppb
|>	Ho	165	178818.4		ppb
|-	Pb	208	1243.4	0.08974	ppb
	Kr	83	33		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 4
Sample Date/Time: Thursday, January 18, 2007 14:00:38
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26502.6		ppb
|-	Sc	45	32221.9		ppb
|	Cr	52	90782.5	100.75954	ppb
|	Cr	53	15035	102.4802	ppb
|	Mn	55	149486.2	100.81743	ppb
|	Co	59	109066.3	102.31818	ppb
|	Ni	60	22381.2	103.80194	ppb
|	Cu	63	52426.6	104.66048	ppb
|	Cu	65	25356.1	103.54301	ppb
|	Zn	66	17208.3	105.66518	ppb
|	Zn	67	3595.8	101.0716	ppb
|	Zn	68	12174.7	103.1115	ppb
|	As	75	16364	100.22403	ppb
|	Se	77	1543.5	107.11251	ppb
|	Se	82	1848.3	103.60491	ppb
|>	Rh	103	41447.9		ppb
|	Ag	107	101505.2	100.74787	ppb
|	Ag	109	99645.2	101.11748	ppb
|	Cd	111	29347.6	105.44046	ppb
|-	Cd	114	69554.2	105.11874	ppb
|-	Ba	135	31219	96.73259	ppb
|	Ba	137	55806.1	97.57924	ppb
|>	Ho	165	186418.1		ppb
|-	Pb	208	970655.4	102.61979	ppb
	Kr	83	31.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 A
Sample Date/Time: Thursday, January 18, 2007 14:17:14
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	23973.4		ppb
|-	Sc	45	37999.5		ppb
|	Cr	52	4160.4	4.46176	ppb
|	Cr	53	2486.7	-13.63802	ppb
|	Mn	55	34075.9	26.35652	ppb
|	Co	59	405.3	0.41137	ppb
|	Ni	60	391.3	1.32744	ppb
|	Cu	63	1892.2	4.21383	ppb
|	Cu	65	5076.3	23.77005	ppb
|	Zn	66	2047.9	14.02151	ppb
|	Zn	67	954.4	7.32336	ppb
|	Zn	68	979.7	7.3239	ppb
|	As	75	228.6	1.09617	ppb
|	Se	77	67.3	-4.08508	ppb
|	Se	82	18.2	1.23276	ppb
|>	Rh	103	35696.7		ppb
|	Ag	107	341.7	0.35136	ppb
|	Ag	109	317.3	0.33247	ppb
|	Cd	111	81.5	0.31161	ppb
|-	Cd	114	129.8	0.20786	ppb
|-	Ba	135	1416.8	4.80315	ppb
|	Ba	137	2493.4	4.79501	ppb
|>	Ho	165	167342.7		ppb
|-	Pb	208	6867.2	0.76178	ppb
	Kr	83	48.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 A
Sample Date/Time: Thursday, January 18, 2007 14:19:59
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	22691.4		ppb
|-	Sc	45	34952.5		ppb
|	Cr	52	3749.5	4.46976	ppb
|	Cr	53	1889.6	-17.85681	ppb
|	Mn	55	31459.6	27.0491	ppb
|	Co	59	392.3	0.44515	ppb
|	Ni	60	366.3	1.4127	ppb
|	Cu	63	1764.5	4.37322	ppb
|	Cu	65	4589.6	23.8874	ppb
|	Zn	66	1889.2	14.38544	ppb
|	Zn	67	761.4	2.66895	ppb
|	Zn	68	895.1	7.47118	ppb
|	As	75	216.3	1.18219	ppb
|	Se	77	58.7	-4.29116	ppb
|	Se	82	19	1.40713	ppb
|>	Rh	103	32136.5		ppb
|	Ag	107	247.7	0.27474	ppb
|	Ag	109	223	0.25063	ppb
|	Cd	111	109.4	0.47972	ppb
|-	Cd	114	134.7	0.24259	ppb
|-	Ba	135	1273.4	4.64735	ppb
|	Ba	137	2337	4.84185	ppb
|>	Ho	165	155377.1		ppb
|-	Pb	208	6606.1	0.79104	ppb
	Kr	83	42.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 A
Sample Date/Time: Thursday, January 18, 2007 14:22:44
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25909.4		ppb
|-	Sc	45	29296.7		ppb
|	Cr	52	2147.6	1.67023	ppb
|	Cr	53	3444.7	-5.32817	ppb
|	Mn	55	18964.1	13.53795	ppb
|	Co	59	227.7	0.20467	ppb
|	Ni	60	462.7	1.55662	ppb
|	Cu	63	941.7	1.87318	ppb
|	Cu	65	594.4	2.27419	ppb
|	Zn	66	748.7	4.3644	ppb
|	Zn	67	663.4	-7.11869	ppb
|	Zn	68	630.7	3.41049	ppb
|	As	75	22.6	-0.38132	ppb
|	Se	77	152	2.53204	ppb
|	Se	82	6.8	0.43997	ppb
|>	Rh	103	38096		ppb
|	Ag	107	72.3	0.03594	ppb
|	Ag	109	70.3	0.03643	ppb
|	Cd	111	27.5	0.07918	ppb
|-	Cd	114	66.9	0.09016	ppb
|-	Ba	135	125	0.32279	ppb
|	Ba	137	235	0.37472	ppb
|>	Ho	165	174296.5		ppb
|-	Pb	208	2797.9	0.26916	ppb
	Kr	83	28		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 A
Sample Date/Time: Thursday, January 18, 2007 14:25:29
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26281.2		ppb
|-	Sc	45	30169.2		ppb
|	Cr	52	43052.4	50.49614	ppb
|	Cr	53	8435.4	44.81902	ppb
|	Mn	55	85217	61.11586	ppb
|	Co	59	47602.4	47.6106	ppb
|	Ni	60	10095.9	49.52163	ppb
|	Cu	63	25866	54.9801	ppb
|	Cu	65	12787.6	55.49823	ppb
|	Zn	66	8471.1	55.14676	ppb
|	Zn	67	2005.9	46.23428	ppb
|	Zn	68	6157.7	54.4448	ppb
|	As	75	7600.3	49.37107	ppb
|	Se	77	753	50.91436	ppb
|	Se	82	764.5	45.69954	ppb
|>	Rh	103	38865.5		ppb
|	Ag	107	40376	42.7169	ppb
|	Ag	109	39287.8	42.49287	ppb
|	Cd	111	13354	51.14694	ppb
|-	Cd	114	31627.4	50.98132	ppb
|-	Ba	135	14722.5	47.48568	ppb
|	Ba	137	25979	47.29231	ppb
|>	Ho	165	178937		ppb
|-	Pb	208	465490.7	51.25749	ppb
	Kr	83	30		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 FH
Sample Date/Time: Thursday, January 18, 2007 14:33:49
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26346.7		ppb
|-	Sc	45	32510.3		ppb
|	Cr	52	17367.6	19.34658	ppb
|	Cr	53	5448.5	13.15927	ppb
|	Mn	55	15439.8	10.47366	ppb
|	Co	59	782.7	0.73621	ppb
|	Ni	60	7102.1	33.82534	ppb
|	Cu	63	3392.1	6.89623	ppb
|	Cu	65	1749.2	7.0998	ppb
|	Zn	66	15954.4	102.1667	ppb
|	Zn	67	3009.9	83.91034	ppb
|	Zn	68	11715.3	103.47731	ppb
|	As	75	450.7	2.35037	ppb
|	Se	77	159.7	2.61646	ppb
|	Se	82	7.8	0.47722	ppb
|>	Rh	103	39738.6		ppb
|	Ag	107	2323.7	2.36518	ppb
|	Ag	109	2255	2.34718	ppb
|	Cd	111	1049.9	3.90731	ppb
|-	Cd	114	2392.4	3.7512	ppb
|-	Ba	135	2796.5	8.66317	ppb
|	Ba	137	4909.8	8.60732	ppb
|>	Ho	165	184653.5		ppb
|-	Pb	208	544054	58.0495	ppb
	Kr	83	24		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-1 FH
Sample Date/Time: Thursday, January 18, 2007 14:36:34
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25733.2		ppb
|-	Sc	45	31377.3		ppb
|	Cr	52	16596.3	19.01843	ppb
|	Cr	53	5588.3	16.19203	ppb
|	Mn	55	14847.7	10.36189	ppb
|	Co	59	762	0.73772	ppb
|	Ni	60	6829.2	33.47615	ppb
|	Cu	63	3261.7	6.82488	ppb
|	Cu	65	1717.9	7.18049	ppb
|	Zn	66	15601.8	102.84704	ppb
|	Zn	67	3023.2	87.95672	ppb
|	Zn	68	11041.8	100.35442	ppb
|	As	75	460.7	2.50567	ppb
|	Se	77	150.7	2.26093	ppb
|	Se	82	13.4	0.83489	ppb
|>	Rh	103	38598.6		ppb
|	Ag	107	2281.3	2.39014	ppb
|	Ag	109	2175	2.33032	ppb
|	Cd	111	1004.5	3.84594	ppb
|-	Cd	114	2237.5	3.61154	ppb
|-	Ba	135	2699.8	8.73262	ppb
|	Ba	137	4774.1	8.73722	ppb
|>	Ho	165	176919.3		ppb
|-	Pb	208	520460	57.96369	ppb
	Kr	83	29.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 FH
Sample Date/Time: Thursday, January 18, 2007 14:39:19
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	27076		ppb
|-	Sc	45	34714.2		ppb
|	Cr	52	52822.5	60.57133	ppb
|	Cr	53	9583.3	54.04338	ppb
|	Mn	55	20654.8	14.11013	ppb
|	Co	59	1112.4	1.05548	ppb
|	Ni	60	13249.7	63.56973	ppb
|	Cu	63	5506.9	11.2662	ppb
|	Cu	65	2789.5	11.50423	ppb
|	Zn	66	23359.6	149.41835	ppb
|	Zn	67	4217.4	130.81524	ppb
|	Zn	68	16734.6	148.38887	ppb
|	As	75	556.2	3.02156	ppb
|	Se	77	160.7	2.65491	ppb
|	Se	82	-3	-0.14898	ppb
|>	Rh	103	39869.6		ppb
|	Ag	107	2686.8	2.73188	ppb
|	Ag	109	2628.4	2.73317	ppb
|	Cd	111	1952.9	7.26703	ppb
|-	Cd	114	4665	7.31242	ppb
|-	Ba	135	2080.9	6.41159	ppb
|	Ba	137	3698.2	6.45632	ppb
|>	Ho	165	185019.1		ppb
|-	Pb	208	595032.8	63.36694	ppb
	Kr	83	38.3		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report
Sample ID: 8432-2 FH
Sample Date/Time: Thursday, January 18, 2007 14:42:04
Sample Description: AIRNOVA/SGS
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	26396.2		ppb
|-	Sc	45	34879.2		ppb
|	Cr	52	93883.6	109.34887	ppb
|	Cr	53	14556.9	104.68018	ppb
|	Mn	55	87491.9	61.71045	ppb
|	Co	59	49142.3	48.33037	ppb
|	Ni	60	23253.3	113.15253	ppb
|	Cu	63	31056.7	64.94553	ppb
|	Cu	65	14978.6	63.99825	ppb
|	Zn	66	31038.3	200.46374	ppb
|	Zn	67	5423.8	179.8254	ppb
|	Zn	68	22478.5	202.01743	ppb
|	As	75	8310.5	53.12412	ppb
|	Se	77	736	48.54217	ppb
|	Se	82	807.4	47.48946	ppb
|>	Rh	103	39520.9		ppb
|	Ag	107	48938.1	50.91969	ppb
|	Ag	109	47661.1	50.69501	ppb
|	Cd	111	15722.1	59.22401	ppb
|-	Cd	114	37340.5	59.17446	ppb
|-	Ba	135	17071	53.66843	ppb
|	Ba	137	30506.4	54.13858	ppb
|>	Ho	165	183575.9		ppb
|-	Pb	208	1069795.7	114.85971	ppb
	Kr	83	31.7		ppb

Method 6020 & 200.8 Metals Summary Report
Sample ID: QC Std 1
Sample Date/Time: Thursday, January 18, 2007 14:44:48
Sample Description:
Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25351.6		ppb
|-	Sc	45	29706.2		ppb
|	Cr	52	1157.4	0.464	ppb
|	Cr	53	4210.4	2.66087	ppb
|	Mn	55	884.1	0.21619	ppb
|	Co	59	48.7	0.01957	ppb
|	Ni	60	137.7	-0.09396	ppb
|	Cu	63	112	0.06628	ppb
|	Cu	65	179	0.41987	ppb
|	Zn	66	147.7	0.32692	ppb
|	Zn	67	798	-1.54741	ppb
|	Zn	68	233.7	-0.33765	ppb
|	As	75	115.9	0.24527	ppb
|	Se	77	182.3	5.04107	ppb
|	Se	82	6.4	0.42537	ppb
|>	Rh	103	38061.1		ppb
|	Ag	107	111.7	0.07848	ppb
|	Ag	109	112.7	0.08325	ppb
|	Cd	111	13.4	0.02397	ppb
|-	Cd	114	25.6	0.02219	ppb
|-	Ba	135	40.3	0.04163	ppb
|	Ba	137	57	0.04127	ppb
|>	Ho	165	175151		ppb
|-	Pb	208	2348.2	0.21715	ppb
	Kr	83	28.7		ppb

PerkinElmer ELAN 6100 ICP-MS

Method 6020 & 200.8 Metals Summary Report

Sample ID: QC Std 4

Sample Date/Time: Thursday, January 18, 2007 14:47:33

Sample Description:

Concentration Results

	Analyte	Mass	Meas. Intens	Conc. Mear	Report Unit
	Li	6	25382.1		ppb
|-	Sc	45	29963.4		ppb
|	Cr	52	85515.8	100.80006	ppb
|	Cr	53	14121.1	102.13043	ppb
|	Mn	55	141066.2	101.04101	ppb
|	Co	59	102961.9	102.58789	ppb
|	Ni	60	21010	103.47394	ppb
|	Cu	63	49450.5	104.83671	ppb
|	Cu	65	24352.1	105.61682	ppb
|	Zn	66	16347.2	106.61293	ppb
|	Zn	67	3452.7	103.76186	ppb
|	Zn	68	11720.4	105.47614	ppb
|	As	75	15459.2	100.55921	ppb
|	Se	77	1491.1	110.1568	ppb
|	Se	82	1748.2	104.08038	ppb
|>	Rh	103	39024.6		ppb
|	Ag	107	97640.7	102.92784	ppb
|	Ag	109	94406.2	101.72687	ppb
|	Cd	111	27952.6	106.65669	ppb
|-	Cd	114	66534.6	106.79914	ppb
|-	Ba	135	29364.6	96.12738	ppb
|	Ba	137	52667.5	97.2878	ppb
|>	Ho	165	176455.8		ppb
|-	Pb	208	926485.9	103.48888	ppb
	Kr	83	36.3		ppb

PerkinElmer FIMS-100 CVAA Mercury Analyzer

Sample_ID	Date	Time	Mean_Sig	Mean_Rd	Mean_Rt	Units	Alq.	Vol.	Sig 1	Reading-1	Result-1	Sig 2	Reading-2	Result-2
Calib Blank	12/21/2006	9:42:48	0.00190246			µg			0.00190246					
Calib Blank	12/21/2006	9:44:45	0.00051624			µg			0.00051624					
STD1=.004ug	12/21/2006	9:46:00	0.00100483			µg			0.00100483					
STD2=.04ug	12/21/2006	9:47:15	0.00934082			µg			0.00934082					
STD3=.08ug	12/21/2006	9:48:31	0.01941159			µg			0.01941159					
STD4=.16ug	12/21/2006	9:49:47	0.03684469			µg			0.03684469					
STD5=.2ug	12/21/2006	9:51:05	0.04696232			µg			0.04696232					
0.004ug = DL	12/21/2006	9:54:04	0.00108299	0.00441609	0.00441609	µg			0.00108299	0.00441609	0.00441609			
0.080ug = STD.2	12/21/2006	9:55:20	0.01833306	0.07639989	0.07639989	µg			0.01833306	0.07639989	0.07639989			
0.080ug = QC STD 3	12/21/2006	9:56:39	0.01838851	0.07663639	0.07663639	µg			0.01838851	0.07663639	0.07663639			
REAGENT BLANK	12/21/2006	9:57:56	0.00020274	0.00082583	0.00082583	µg			0.00020274	0.00082583	0.00082583			
0.004ug = DL	12/21/2006	10:43:35	0.00106905	0.00435916	0.00435916	µg	0	1	0.00106905	0.00435916	0.00435916			
0.080ug = STD.2	12/21/2006	10:44:51	0.01918349	0.08003072	0.08003072	µg	0	1	0.01918349	0.08003072	0.08003072			
REAGENT BLANK	12/21/2006	10:46:07	0.00009426	0.0003839	0.0003839	µg	0	1	0.00009426	0.0003839	0.0003839			
8432-B 1	12/21/2006	10:49:42	0.01244919	0.05149363	6.43670464	µg	4	500	0.01252796	0.05182456	6.47807103	0.01237043	0.0511627	6.39533825
8432-B 2	12/21/2006	10:51:32	0.00125124	0.00510322	0.63790274	µg	4	500	0.00125098	0.00510214	0.63776869	0.00125151	0.00510429	0.63803678
8432-B 2 SPK	12/21/2006	10:53:18	0.02096157	0.08764759	10.9559488	µg	4	500	0.02106222	0.08807972	11.0099654	0.02086093	0.08721545	10.9019321
8432-B 3	12/21/2006	10:55:01	0.00014777	0.00060188	0.07523561	µg	4	500	0.00013693	0.00055769	0.06971213	0.00015862	0.00064607	0.0807591
8432-B 4	12/21/2006	10:58:30	-0.0000787	-0.0003206	-0.0480908	µg	4	600	-0.0000696	-0.0002834	-0.0425109	-0.0000878	-0.0003578	-0.0536707
8432-B 4 SPK	12/21/2006	11:00:14	0.01811195	0.07545724	11.3185868	µg	4	600	0.01818764	0.07577985	11.3669783	0.01803626	0.07513463	11.2701953
8432-B 5	12/21/2006	11:02:00	-0.0001353	-0.0005512	-0.0689058	µg	4	500	-0.0001403	-0.0005712	-0.0714099	-0.0001304	-0.0005312	-0.0664018
0.004ug = DL	12/21/2006	11:08:46	0.0010258	0.00418259	0.00418259	µg	4	500	0.0010258	0.00418259	0.00418259			
0.080ug = STD.2	12/21/2006	11:10:02	0.01950301	0.08139689	0.08139689	µg	4	500	0.01950301	0.08139689	0.08139689			
0.080ug = QC STD 3	12/21/2006	11:11:21	0.01962989	0.0819397	0.0819397	µg	4	500	0.01962989	0.0819397	0.0819397			
REAGENT BLANK	12/21/2006	11:12:37	0.00013191	0.00053725	0.00053725	µg	4	500	0.00013191	0.00053725	0.00053725			
0.004ug = DL	12/21/2006	11:13:50	0.00102278	0.00417025	0.00417025	µg	4	500	0.00102278	0.00417025	0.00417025			
0.080ug = STD.2	12/21/2006	11:15:06	0.01943819	0.08111964	0.08111964	µg	4	500	0.01943819	0.08111964	0.08111964			
REAGENT BLANK	12/21/2006	11:16:23	0.00014247	0.00058027	0.00058027	µg	4	500	0.00014247	0.00058027	0.00058027			
8432-B 6	12/21/2006	11:18:08	-0.0000353	-0.0001439	-0.0143925	µg	4	400	-0.000037	-0.000151	-0.0151022	-0.0000336	-0.0001368	-0.0136829
0.004ug = DL	12/21/2006	11:19:22	0.00102673	0.00418636	0.00418636	µg	4	400	0.00102673	0.00418636	0.00418636			
0.080ug = QC STD 3	12/21/2006	11:20:39	0.01965811	0.08206048	0.08206048	µg	4	400	0.01965811	0.08206048	0.08206048			
REAGENT BLANK	12/21/2006	11:21:55	0.00013905	0.00056635	0.00056635	µg	4	400	0.00013905	0.00056635	0.00056635			
Calib Blank	12/27/2006	15:19:20	0.00007183			µg			0.00007183					
STD1=.004ug	12/27/2006	15:20:34	0.00123869			µg			0.00123869					
STD2=.04ug	12/27/2006	15:21:49	0.01205681			µg			0.01205681					
STD3=.08ug	12/27/2006	15:23:05	0.02335907			µg			0.02335907					
STD4=.16ug	12/27/2006	15:24:22	0.0476183			µg			0.0476183					
STD5=.2ug	12/27/2006	15:25:41	0.059234			µg			0.059234					
0.004ug = DL	12/27/2006	15:28:40	0.00133452	0.00438529	0.00438529	µg			0.00133452	0.00438529	0.00438529			
0.080ug = STD.2	12/27/2006	15:29:56	0.02313764	0.07701386	0.07701386	µg			0.02313764	0.07701386	0.07701386			
0.080ug = QC STD 3	12/27/2006	15:31:15	0.02328527	0.07751202	0.07751202	µg			0.02328527	0.07751202	0.07751202			
REAGENT BLANK	12/27/2006	15:32:30	0.00017356	0.00056993	0.00056993	µg			0.00017356	0.00056993	0.00056993			
0.004ug = DL	12/27/2006	16:16:02	0.00126148	0.0041451	0.0041451	µg	40	1	0.00126148	0.0041451	0.0041451			
0.080ug = STD.2	12/27/2006	16:17:19	0.02303359	0.0766628	0.0766628	µg	40	1	0.02303359	0.0766628	0.0766628			
REAGENT BLANK	12/27/2006	16:18:35	0.00021964	0.00072127	0.00072127	µg	40	1	0.00021964	0.00072127	0.00072127			
8432-C 2	12/27/2006	16:25:48	0.02594438	0.0865001	8.65001087	µg	4	400	0.02585986	0.08621396	8.6213961	0.0260289	0.08678625	8.67862565
8432-C 2 SPK	12/27/2006	16:27:33	0.04626012	0.15611791	15.6117919	µg	4	400	0.04612964	0.15566531	15.566531	0.04639061	0.15657052	15.6570528
8432-C 3	12/27/2006	16:29:20	0.00087144	0.0028628	0.28628032	µg	4	400	0.00086687	0.0028478	0.28478034	0.000876	0.0028778	0.28778031
8432-C 3 DUP	12/27/2006	16:31:08	0.00088504	0.00290751	0.29075102	µg	4	400	0.000884	0.00290408	0.29040865	0.00088608	0.00291093	0.29109339
8432-C 4	12/27/2006	16:33:20	0.00042988	0.00141186	0.14118661	µg	4	400	0.00044637	0.00146604	0.14660425	0.00041339	0.00135768	0.13576898
8432-C 4 SPK	12/27/2006	16:35:04	0.02198433	0.07312507	7.3125071	µg	4	400	0.0219014	0.07284562	7.28456215	0.02206727	0.07340452	7.34045206
8432-C 5	12/27/2006	16:36:49	0.00015435	0.00050684	0.0506849	µg	4	400	0.00015364	0.00050452	0.05045294	0.00015505	0.00050916	0.05091686
0.004ug = DL	12/27/2006	16:38:04	0.00128647	0.00422727	0.00422727	µg	4	400	0.00128647	0.00422727	0.00422727			
0.080ug = STD.2	12/27/2006	16:39:21	0.02248834	0.07482384	0.07482384	µg	4	400	0.02248834	0.07482384	0.07482384			
REAGENT BLANK	12/27/2006	16:40:37	0.00024112	0.00079183	0.00079183	µg	4	400	0.00024112	0.00079183	0.00079183			
8432-C 6	12/27/2006	16:42:22	0.00021821	0.00071659	0.07165929	µg	4	400	0.00020861	0.00068504	0.06850472	0.00022782	0.00074813	0.07481386
0.004ug = DL	12/27/2006	16:43:36	0.00128113	0.00420971	0.00420971	µg	4	400	0.00128113	0.00420971	0.00420971			
0.080ug = QC STD 3	12/27/2006	16:44:53	0.02256037	0.07506672	0.07506672	µg	4	400	0.02256037	0.07506672	0.07506672			
REAGENT BLANK	12/27/2006	16:46:09	0.00024087	0.00079101	0.00079101	µg	4	400	0.00024087	0.00079101	0.00079101			
Calib Blank	12/29/2006	12:26:49	0.00027959			µg	1	100	0.00027959					
STD1=.004ug	12/29/2006	12:28:03	0.00086949			µg	1	100	0.00086949					
STD2=.04ug	12/29/2006	12:29:19	0.0093305			µg	1	100	0.0093305					
STD3=.08ug	12/29/2006	12:30:35	0.01901963			µg	1	100	0.01901963					
STD4=.16ug	12/29/2006	12:31:52	0.03789587			µg	1	100	0.03789587					
STD5=.2ug	12/29/2006	12:33:10	0.04749921			µg	1	100	0.04749921					
0.004ug = DL	12/29/2006	12:36:09	0.00085852	0.00380323	0.00380323	µg	1	100	0.00085852	0.00380323	0.00380323			
0.080ug = STD.2	12/29/2006	12:37:26	0.01839618	0.07955163	0.07955163	µg	1	100	0.01839618	0.07955163	0.07955163			
0.080ug = QC STD 3	12/29/2006	12:38:46	0.018659	0.08065934	0.08065934	µg	1	100	0.018659	0.08065934	0.08065934			
REAGENT BLANK	12/29/2006	12:40:02	0.00000984	0.00004366	0.00004366	µg	1	100	0.00000984	0.00004366	0.00004366			
8432-C 1	12/29/2006	12:41:46	0.03267089	0.1385907	27.7181413	µg	2	400	0.0327493	0.13890882	27.7817644	0.03259248	0.13827259	27.6545182
0.004ug = DL	12/29/2006	12:59:27	0.00082137	0.00363885	0.00363885	µg	4	200	0.00082137	0.00363885	0.00363885			
0.080ug = STD.2	12/29/2006	13:00:44	0.01848945	0.07994484	0.07994484	µg	4	200	0.01848945	0.07994484	0.07994484			
REAGENT BLANK	12/29/2006	13:02:00	-0.0000501	-0.0002223	-0.0002223	µg	4	200	-0.0000501	-0.0002223	-0.0002223			
Calib Blank	1/4/2007	15:25:39	0.00023784			µg	4	600	0.00023784					
STD1=.004ug	1/4/2007	15:26:53	0.00128054			µg	4	600	0.00128054					
STD2=.04ug	1/4/2007	15:28:09	0.01214673			µg	4	600	0.01214673					

PerkinElmer FIMS-100 CVAA Mercury Analyzer

Sample_ID	Date	Time	Mean_Sig	Mean_Rd	Mean_Rt	Units	Alq.	Vol.	Sig 1	Reading-1	Result-1	Sig 2	Reading-2	Result-2
STD3=.08ug	1/4/2007	15:29:25	0.02418729			µg	4	600	0.02418729					
STD4=.16ug	1/4/2007	15:30:42	0.04767942			µg	4	600	0.04767942					
STD5=.2ug	1/4/2007	15:32:00	0.05967455			µg	4	600	0.05967455					
0.004ug = DL	1/4/2007	15:35:00	0.00129699	0.00409339	0.00409339	µg	4	600	0.00129699	0.00409339	0.00409339			
0.080ug = STD.2	1/4/2007	15:36:16	0.02393882	0.07929113	0.07929113	µg	4	600	0.02393882	0.07929113	0.07929113			
REAGENT BLANK	1/4/2007	15:37:32	0.00011817	0.00037005	0.00037005	µg	4	600	0.00011817	0.00037005	0.00037005			
8432-A 3 DUP	1/4/2007	15:39:15	0.00002102	0.00006578	0.00986782	µg	4	600	0.00002787	0.00008722	0.01308382	0.00001417	0.00004434	0.00665181
8432-A 4	1/4/2007	15:40:58	-0.0000044	-0.0000137	-0.001723	µg	4	500	-0.0000034	-0.0000108	-0.0013591	-0.0000053	-0.0000166	-0.002087
8432-A 4 SPK	1/4/2007	15:42:42	0.02359606	0.0781353	9.76691253	µg	4	500	0.02365828	0.0783451	9.79313872	0.02353383	0.07792549	9.74068634
8432-A 5	1/4/2007	15:44:27	0.00004092	0.00012807	0.0064038	µg	4	200	0.00004506	0.00014104	0.00705215	0.00003678	0.0001151	0.00575546
8432-A 6	1/4/2007	15:46:11	0.00001381	0.00004321	0.00324117	µg	4	300	0.00001868	0.00005846	0.00438466	0.00000893	0.00002796	0.00209767
0.004ug = DL	1/4/2007	15:58:30	0.00126385	0.00398799	0.00398799	µg	20	1	0.00126385	0.00398799	0.00398799			
0.080ug = QC STD 3	1/4/2007	15:59:46	0.0242338	0.08028601	0.08028601	µg	20	1	0.0242338	0.08028601	0.08028601			
REAGENT BLANK	1/4/2007	16:01:01	0.00008356	0.00026162	0.00026162	µg	20	1	0.00008356	0.00026162	0.00026162			
0.004ug = DL	1/4/2007	16:06:17	0.00127764	0.00403185	0.00403185	µg	20	1	0.00127764	0.00403185	0.00403185			
0.080ug = STD.2	1/4/2007	16:07:34	0.02400614	0.07951818	0.07951818	µg	20	1	0.02400614	0.07951818	0.07951818			
0.080ug = QC STD 3	1/4/2007	16:08:52	0.02437118	0.08074942	0.08074942	µg	20	1	0.02437118	0.08074942	0.08074942			
REAGENT BLANK	1/4/2007	16:10:08	0.00009203	0.00028814	0.00028814	µg	20	1	0.00009203	0.00028814	0.00028814			
8432-BH 3 DUP	1/4/2007	16:11:53	0.00020847	0.00065328	0.29855326	µg	4	1828	0.00021346	0.00066893	0.30570554	0.00020349	0.00063763	0.29140097
8432-BH 4	1/4/2007	16:13:39	0.05529084	0.18545555	77.6595139	µg	4	1675	0.05539359	0.18580423	77.8055218	0.05518809	0.18510688	77.513506
8432-BH 4 SPK	1/4/2007	16:15:26	0.07926396	0.2668616	111.748299	µg	4	1675	0.07994654	0.26918056	112.719362	0.07858138	0.26454265	110.777235
8432-BH 5	1/4/2007	16:17:13	0.00016307	0.00051085	0.03959121	µg	4	310	0.0001558	0.00048805	0.03782404	0.00017034	0.00053365	0.04135837
8432-BH 6	1/4/2007	16:19:02	0.00013822	0.00043292	0.02272849	µg	4	210	0.00014962	0.00046865	0.02460413	0.00012683	0.00039719	0.02085285
8432-A 2	1/4/2007	16:20:51	0.02297429	0.07603912	3.80195638	µg	4	200	0.02303018	0.07622751	3.8113755	0.0229184	0.07585074	3.79253727
8432-A 2 SPK	1/4/2007	16:22:41	0.04539739	0.15189614	7.594807	µg	4	200	0.04554025	0.15238048	7.61902447	0.04525453	0.15141179	7.57058954
8432-A 3	1/4/2007	16:24:27	0.00002096	0.0000656	0.00984124	µg	4	600	0.00002816	0.00008812	0.01321886	0.00001377	0.00004309	0.00646361
0.004ug = DL	1/4/2007	16:25:39	0.00130265	0.00411138	0.00411138	µg	4	600	0.00130265	0.00411138	0.00411138			
0.080ug = QC STD 3	1/4/2007	16:26:54	0.02441565	0.08089942	0.08089942	µg	4	600	0.02441565	0.08089942	0.08089942			
REAGENT BLANK	1/4/2007	16:28:10	0.00011007	0.00034467	0.00034467	µg	4	600	0.00011007	0.00034467	0.00034467			
Calib Blank	1/5/2007	13:00:53	0.00032754			µg			0.00032754					
STD1=.004ug	1/5/2007	13:02:08	0.00126434			µg			0.00126434					
STD2=.04ug	1/5/2007	13:03:24	0.0125064			µg			0.0125064					
STD3=.08ug	1/5/2007	13:04:40	0.02548833			µg			0.02548833					
STD4=.16ug	1/5/2007	13:05:57	0.05062514			µg			0.05062514					
STD5=.2ug	1/5/2007	13:07:15	0.06214603			µg			0.06214603					
0.004ug = DL	1/5/2007	13:10:14	0.00133943	0.00423561	0.00423561	µg			0.00133943	0.00423561	0.00423561			
0.080ug = STD.2	1/5/2007	13:11:30	0.02510037	0.07964345	0.07964345	µg			0.02510037	0.07964345	0.07964345			
0.080ug = QC STD 3	1/5/2007	13:12:50	0.02452601	0.0778146	0.0778146	µg			0.02452601	0.0778146	0.0778146			
REAGENT BLANK	1/5/2007	13:14:06	0.00009072	0.00028684	0.00028684	µg			0.00009072	0.00028684	0.00028684			
0.004ug = DL	1/5/2007	14:16:14	0.00132111	0.00417766	0.00417766	µg	4	400	0.00132111	0.00417766	0.00417766			
0.080ug = STD.2	1/5/2007	14:17:31	0.02516386	0.07984563	0.07984563	µg	4	400	0.02516386	0.07984563	0.07984563			
REAGENT BLANK	1/5/2007	14:18:47	0.00002919	0.00009231	0.00009231	µg	4	400	0.00002919	0.00009231	0.00009231			
8432-FH LRB	1/5/2007	14:20:32	0.00032885	0.00103975	0.02599378	µg	4	100	0.00031653	0.00100081	0.02502036	0.00034116	0.00107868	0.02696719
8432-FH LRB SPK	1/5/2007	14:22:17	0.01969152	0.06243279	3.90204979	µg	1.6	100	0.01977046	0.06268377	3.91773561	0.01961259	0.06218182	3.88636398
8432-FH 1	1/5/2007	14:24:04	0.00408012	0.01290734	0.32268364	µg	4	100	0.00405856	0.01283911	0.32097775	0.00410168	0.01297558	0.32438953
8432-FH 1 DUP	1/5/2007	14:25:51	0.0041614	0.01316461	0.3291153	µg	4	100	0.00414287	0.01310596	0.32764906	0.00417993	0.01322326	0.33058154
8432-FH 2	1/5/2007	14:27:39	0.00093484	0.00295603	0.07390077	µg	4	100	0.00093495	0.00295635	0.07390897	0.00093474	0.0029557	0.07389257
8432-FH 2 SPK	1/5/2007	14:29:27	0.02539178	0.08057146	2.01428657	µg	4	100	0.02538447	0.08054818	2.0137045	0.02539909	0.08059474	2.01486864
8432-FH 3	1/5/2007	14:31:15	0.00046662	0.00147538	0.03688465	µg	4	100	0.00046311	0.0014643	0.03660751	0.00047012	0.00148647	0.03716179
8432-FH 3 DUP	1/5/2007	14:33:05	0.00065993	0.00208666	0.05216653	µg	4	100	0.00066632	0.00210686	0.0526716	0.00065354	0.00206645	0.05166146
8432-FH 4	1/5/2007	14:34:55	0.00037627	0.00118971	0.02974283	µg	4	100	0.00037673	0.00119114	0.0297786	0.00037582	0.00118828	0.02970706
8432-FH 4 SPK	1/5/2007	14:36:42	0.02440362	0.07742494	1.93562372	µg	4	100	0.02450071	0.07773406	1.94335166	0.02430653	0.07711583	1.92789579
0.004ug = DL	1/5/2007	14:37:58	0.00134469	0.00425222	0.00425222	µg	4	100	0.00134469	0.00425222	0.00425222			
0.080ug = STD.2	1/5/2007	14:39:14	0.02541207	0.08063608	0.08063608	µg	4	100	0.02541207	0.08063608	0.08063608			
REAGENT BLANK	1/5/2007	14:40:30	0.00004815	0.00015224	0.00015224	µg	4	100	0.00004815	0.00015224	0.00015224			
8432-FH 5	1/5/2007	14:42:13	0.00032105	0.00101509	0.02537741	µg	4	100	0.00029943	0.00094674	0.02366855	0.00034267	0.00108345	0.02708627
8432-FH 6	1/5/2007	14:43:57	0.0002688	0.00084989	0.02124732	µg	4	100	0.00026126	0.00082603	0.02065099	0.00027634	0.00087374	0.02184365
8432-BH 1	1/5/2007	14:45:42	0.0248055	0.07870453	320.484849	µg	0.5	2036	0.02485636	0.07886647	321.144298	0.02475464	0.07854258	319.8254
8432-BH 1 DUP	1/5/2007	14:47:25	0.02474374	0.07850788	319.68412	µg	0.5	2036	0.02485713	0.07886891	321.154224	0.02463036	0.07814686	318.214017
8432-BH 2	1/5/2007	14:49:09	0.0230972	0.07326636	290.867465	µg	0.5	1985	0.0230942	0.07325682	290.829586	0.0231002	0.0732759	290.905343
8432-BH 2 SPK	1/5/2007	14:50:54	0.0481572	0.15330948	608.638665	µg	0.5	1985	0.04835495	0.15394336	611.155153	0.04795946	0.15267561	606.122176
8432-A 1	1/5/2007	14:52:40	0.01856841	0.05886244	47.0899588	µg	0.5	400	0.01858217	0.05890618	47.1249504	0.01855465	0.0588187	47.0549672
8432-A 1 DUP	1/5/2007	14:54:26	0.01844733	0.0584776	46.7820808	µg	0.5	400	0.01848962	0.05861203	46.889626	0.01840503	0.05834316	46.6745356
0.004ug = DL	1/5/2007	14:59:13	0.00130788	0.00413582	0.00413582	µg	20	1	0.00130788	0.00413582	0.00413582			
0.080ug = STD.2	1/5/2007	15:00:30	0.02487071	0.07891216	0.07891216	µg	20	1	0.02487071	0.07891216	0.07891216			
REAGENT BLANK	1/5/2007	15:01:46	0.00005113	0.00016166	0.00016166	µg	20	1	0.00005113	0.00016166	0.00016166			
0.004ug = DL	1/5/2007	15:04:48	0.00131197	0.00414876	0.00414876	µg	20	1	0.00131197	0.00414876	0.00414876			
0.080ug = QC STD 3	1/5/2007	15:06:04	0.02465614	0.07822894	0.07822894	µg	20	1	0.02465614	0.07822894	0.07822894			
REAGENT BLANK	1/5/2007	15:07:20	0.00003134	0.0000991	0.0000991	µg	20	1	0.00003134	0.0000991	0.0000991			

SGS

Laboratory Results

Mr. Ken Partymiller
Tetra Tech EM, Inc.
5326 Paris Pike
Georgetown KY 40324

Phone: 502-867-0423
Fax:

Dear Mr. Partymiller:

Enclosed is a full data package containing the final results for samples received by Paradigm Analytical Labs, Inc. on December 16, 2006 under your project name "Cement Lock". The samples were analyzed by Method M23 following Paradigm's Standard Operating Procedures and are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards.

Number of Samples Received:	5
Your Project Reference:	Cement Lock
PAL Project Number:	G368-59

We appreciate your business and look forward to working with you again. Please contact me at 910-350-1903 if you have questions or need additional technical support.

Sincerely,

Christopher K. Cornwell
Assistant Director

Date 1/22/07

5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.sgs.com

Member of the SGS Group

SGS

Case Narrative; Supplemental
SGS Project: **G368-59**
Project Name: **Cement Lock**

For Method: 23

- The submitted samples were accepted into the lab on December 16th, 2006 and extracted on January 5th, 2007 by method 3540C. The sample extracst and associated QC extracts were then processed through clean-up by method 3630/3620 and analyzed by HRGC/HRMS for method 23.
- The samples were received at temperatures of 12.6°C and12.8°C which are outside of the laboratories recommended temperature range of 0-6°C.
- Sample **Run2 Dioxin Outlet** has recoveries for all of the sampling standards below the method's QC limits. All extraction standard recoveries are within method limits.

Craig R. Tronzo 1/23/07
Craig R. Tronzo — Date
Data Validation/QA Officer

Secondary Review

W. Mike Larkins — Date
Technical Director

Or

Heather Patterson 23 Jan 2007
Heather Patterson — Date
Director

SGS

Table of Contents

Section 1: Cover Letter/Case Narrative

Contains the Table of Contents, a project narrative, the client and PAL project identifiers, the number and type of samples, the methodology used to process the samples, and a summary table of sample results. A listing of current certifications by state, a table of abbreviations and qualifiers and the Toxic Equivalent Factors (TEF) are also supplied.

Section 2: Project Information

Contains the chain-of-custody(s), internal chain-of-custody(s) if applicable, sample login summary, sample receipt checklist, and any other project/client specific information.

Section 3: Sample Analytical Results

Contains results for client samples. Sample results include two pages of summarized analytical data and the associated raw data. The raw data includes a quantitation report from the instrumentation used that lists, ion areas, ratios, retention times, concentrations, and signal-to-noise ratios. It also has the selected ion current profiles (SICPs) for all homolog groups and any manual integrations.

Section 4: Quality Control Analytical Results

Contains results for each analytical workgroup associated with the submitted samples. A workgroup consists of the Lab Method Blank (LMB) and the Ongoing Precision and Recovery sample (OPR). All sample preparation data, including dry weight determinations, extraction logs, clean-up logs and observation notes are also documented. Any other supporting QC data will be documented here upon client request.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information: GC performance data, mass resolution check, windows defining mix, and SICPs for all homolog groups and any manual integrations as well as the injection prep and instrument run logs.

Section 6: Continuing Calibration Data

Contains all daily instrument quality control information. This includes mass resolution checks, a table summarizing the window defining peaks, SICPs for the first and last eluters for each homolog group, SICPs documenting GC performance, a summary quantitation report showing RRFs for the Ccal and Ical, and SICPs for all homolog groups and any manual integrations, injection prep and instrumentation runlogs.

SGS

List of Qualifiers

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* See case narrative

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Calibration Limit.

J Amount detected is between the Method Detection Limit and the Lower Calibration Limit.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation generally results in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

SGS

Toxic Equivalency Factors

Analyte	WHO* 1998	WHO* 2005	International-89	MADEP+
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	1	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.01	0.1
OCDD	0.0001	0.0003	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.3	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.1
OCDF	0.0001	0.0003	0.001	0.001

* World Health Organization
+ Massachusetts Department of Environmental Protection

SGS

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide
- Alaska
- Hawaii
- Louisiana
- Maryland
- New Jersey
- North Carolina
- West Virginia

www.us.sgs.com

066644

(1)

CLIENT: Tetratech/AirNova

CONTACT: Joe Jackson PHONE NO: (856) 486-1500

PROJECT: Cement Lock SITE/PWSID#: Bayonne, NJ

REPORTS TO: Joe Jackson E-MAIL: jackson@airnova.com
AirNova FAX NO.: (856) 486-9896

INVOICE TO: Ken Partymiller QUOTE #
Tetratech P.O. NUMBER

SGS Reference: 6368-59

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C=COMP, G=GRAB)	All Acetone Washes	All Toluene Washes	XAD Trap	Impinger Solutions	All Acetone/MeCl2 Washes	MeCl2 · 250ml				REMARKS
	Preservatives Used															
	Analysis Required (3)															
✓	RUN 1 Dioxin Inlet	12/7/06		Stack gas	9		1	1	1	6						
	RUN 2 " "				8		1	1	1	5						
✓	RUN 1 " Outlet				9		1	1	1	6						
✓	RUN 2 " "				8		1	1	1	5						
✓	TRIP Blanks - Dioxin				4		1	1	1	1						
	RUN 1 MM5-PAH Inlet	12/7/06			8				1	6	1*					* Some Toluene was used as rinse
	RUN 2 " "				7				1	5	1					
	RUN 1 " Outlet				8				1	6	1					
	RUN 2 " "				7				1	5	1					
	TRIP Blanks - PAH/SVOC				4		1		1	1		1				

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
William Rand	12/11/06	8:00 AM	Joe Jackson
Relinquished By: (2)	**Date**	**Time**	**Received By:**
Joe Jackson	12/14/06	2:00 PM	
Relinquished By: (3)	**Date**	**Time**	**Received By:**
	12/16/06	1100	[illegible]
Relinquished By: (4)	**Date**	**Time**	**Received By:**

(4)

Shipping Carrier:

Shipping Ticket No:

Special Deliverable Requirements:

Samples Received Cold? (Circle) YES NO

Temperature °C: 12.6, 12.8 & 8 boxes ambient

Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557
1270 Greenbrier Street Charleston, WV 25311 Tel (304) 346-0725 Fax (304) 346-0761

White - Retained by Lab
Yellow - Returned with Report
Pink - Retained by Sampler

Sample Receipt Checklist (SRC)

SGS Environmetal Services Inc.

Client: **Tetra Tech EM, Inc.** Lab Proj. ID: **G368-59**

Client Proj. ID: **Cement Lock**

1. X Shipped
   __ Hand Delivered
   Notes:

2. __ Proper, full, and complete documentation
   (unique sample identification on durable label with indelible ink, location of collection, date/time of collection, collector's name, preservation type, sample type (method/matrix))
   X Acceptable documentation (but, incomplete)
   __ Unacceptable documentation
   Notes:

3. __ Custody Tape on Container
   X No Custody Tape
   Notes:

4. X Samples Intact*
   (are in appropriate container, are not damaged, and do not show signs of contamination)
   __ Samples Broken / Leaking
   __ VOA Vials Checked for Air Bubbles
   Notes:

5. __ Chilled on Receipt* Actual Temp.(s) in °C: 12.6 12.8 and eight boxes ambient
   X Ambient on Receipt
   __ Walk-in on Ice; Coming down to temp.
   X Received out of temperature protocol
   Notes:

6. X Sufficient Sample Submitted
   __ Insufficient Sample Submitted
   Notes:

7. X Samples Preserved Correctly*
   (see preservative checklist where applicable)
   __ Improper Preservative(s)
   __ None recommended (N/A)
   Notes:

8. X Received Within Holding Time
   __ Not Received Within Holding Time
   __ N/A
   Notes:

9. X No Discrepancies Noted
   __ Discrepancies Noted
   Notes:

Comments: Received out of temp protocol, two coolers with traps had white ice bags not enough to chill samples, eight boxes of rinses were ambient, no ice.

no collection times.

* = Rejection of sample is required when not marked; Contact client services immediately for a resolution.

Inspected and Logged in by: [illegible]

DC27.091503.3

Date / Time: Wed-12/20/06 10:43

Method M23
Run1 Dioxin Inlet
Tetra Tech EM, Inc.

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.00625					
1,2,3,7,8-PeCDD	0.0148 J			33:19	1.48		A
1,2,3,4,7,8-HxCDD	EMPC 4	0.00500	0.0174	35:43	1.46	*	A
1,2,3,6,7,8-HxCDD	0.0670 J			35:48	1.16		A
1,2,3,7,8,9-HxCDD	0.0368 J			36:01	1.41		A
1,2,3,4,6,7,8-HpCDD	0.275			38:48	1.09		
OCDD	0.166 U			42:36	0.95		A
2,3,7,8-TCDF	0.0125 J			28:49	0.88		A
1,2,3,7,8-PeCDF	0.0144 J			32:33	1.32		DPE Q A
2,3,4,7,8-PeCDF	0.0210 J			33:07	1.59		A
1,2,3,4,7,8-HxCDF	0.0118 J			35:04	1.14		DPE A
1,2,3,6,7,8-HxCDF	EMPC 4	0.00500	0.0111	35:09	1.46	*	DPE A
2,3,4,6,7,8-HxCDF	0.0226 J			35:36	1.19		A
1,2,3,7,8,9-HxCDF	ND	0.00500					
1,2,3,4,6,7,8-HpCDF	ND	0.00500					
1,2,3,4,7,8,9-HpCDF	ND	0.00558					
OCDF	ND	0.0123					
Total TCDDs	5.19		5.22				
Total PeCDDs	3.35 J						Q
Total HxCDDs	3.21		3.24				
Total HpCDDs	0.481						
Total TCDFs	0.527						
Total PeCDFs	0.291 J		0.339				DPE Q
Total HxCDFs	0.189 J						DPE
Total HpCDFs	ND	0.00558					
WHO-98 TEQ (ND=0)	0.0439		0.0467				
WHO-98 TEQ (ND=½)	0.0478		0.0501				

HUE

Client Information	26 Feb 07		**Sample Information**	
Project Name:	Cement Lock		Report Basis:	
			Matrix:	Air
Sample ID:	Run1 Dioxin Inlet		Weight / Volume:	1 train
			Solids / Lipids:	NA %
			Original pH :	NA
Laboratory Information			Batch ID:	WG14050
Project ID:	G368-59		Instrument:	HRMS1
Sample ID:	G368-59-6B		Filename:	a14jan07c_4-9
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_3-14
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_3-14
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14
Analysis Date/Time:	01/15/07	20:51	Initial Cal:	m8290-071006e

Method M23
Run1 Dioxin Inlet
Tetra Tech EM, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	8.0	3.92	49.0	29:43	0.78	
13C12-1,2,3,7,8-PeCDD	8.0	4.62	57.8	33:19	1.40	
13C12-1,2,3,6,7,8-HxCDD	8.0	4.72	59.0	35:48	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	8.0	4.17	52.1	38:46	1.05	
13C12-OCDD	16.0	6.81	42.6	42:36	0.89	
13C12-2,3,7,8-TCDF	8.0	4.86	60.8	28:46	0.79	
13C12-1,2,3,7,8-PeCDF	8.0	4.68	58.5	32:31	1.57	Q
13C12-1,2,3,6,7,8-HxCDF	8.0	4.91	61.4	35:09	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	8.0	4.18	52.2	37:40	0.44	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	3.47	86.9	29:45	-	
13C12-2,3,4,7,8-PeCDF	4.0	3.18	79.4	33:07	1.59	
13C12-1,2,3,4,7,8-HxCDD	4.0	2.91	72.7	35:43	1.25	
13C12-1,2,3,4,7,8-HxCDF	4.0	3.17	79.4	35:04	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	3.30	82.6	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	29:00	0.78	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	36:01	1.25	

Client Information			**Sample Information**		
Project Name:	Cement Lock		Report Basis:		
			Matrix:	Air	
Sample ID:	Run1 Dioxin Inlet		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14050	
Project ID:	G368-59		Instrument:	HRMS1	
Sample ID:	G368-59-6B		Filename:	a14jan07c_4-9	
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_3-14	
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_3-14	
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14	
Analysis Date/Time:	01/15/07	20:51	Initial Cal:	m8290-071006e	

Form Version [8290_DB_2.08]Report

Analyzed by: JWD
Date: 01/16/07

Reviewed by: [illegible]
Date: 1/24/07

Method M23
Run2 Dioxin Inlet
Tetra Tech EM, Inc.

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00470				
1,2,3,7,8-PeCDD	EMPC U	0.00500	0.0145	33:19	2.21 *	A
1,2,3,4,7,8-HxCDD	0.0181 J			35:43	1.18	A
1,2,3,6,7,8-HxCDD	0.0553 J			35:49	1.34	A
1,2,3,7,8,9-HxCDD	EMPC U	0.00500	0.0344	36:01	1.45 *	A
1,2,3,4,6,7,8-HpCDD	0.245			38:49	0.98	
OCDD	0.187 U			42:37	0.88	A
2,3,7,8-TCDF	EMPC U	0.00330	0.0106	28:49	0.98 *	A
1,2,3,7,8-PeCDF	0.0111 J			32:34	1.49	DPE Q A
2,3,4,7,8-PeCDF	0.0194 J			33:09	1.69	A
1,2,3,4,7,8-HxCDF	0.00776 J			35:04	1.19	DPE A
1,2,3,6,7,8-HxCDF	0.00968 J			35:10	1.20	DPE A
2,3,4,6,7,8-HxCDF	0.0162 J			35:37	1.11	A
1,2,3,7,8,9-HxCDF	ND	0.00500				
1,2,3,4,6,7,8-HpCDF	0.0110 J			37:40	1.11	A
1,2,3,4,7,8,9-HpCDF	0.00784 J			39:24	1.00	A
OCDF	ND	0.0100				
Total TCDDs	4.20		4.23			
Total PeCDDs	2.44 J		2.45			Q
Total HxCDDs	2.42		2.47			
Total HpCDDs	0.433					
Total TCDFs	0.400		0.415			
Total PeCDFs	0.249 J		0.271			DPE Q
Total HxCDFs	0.116 J		0.144			DPE
Total HpCDFs	0.0370					
WHO-98 TEQ (ND=0)	0.0236		0.0426			
WHO-98 TEQ (ND=½)	0.0291		0.0452			

HVE

Client Information	26 Feb 07		**Sample Information**	
Project Name:	Cement Lock		Report Basis:	
			Matrix:	Air
Sample ID:	Run2 Dioxin Inlet		Weight / Volume:	1 train
			Solids / Lipids:	NA %
			Original pH :	NA
Laboratory Information			Batch ID:	WG14050
Project ID:	G368-59		Instrument:	HRMS1
Sample ID:	G368-59-12D		Filename:	a14jan07c_7-8
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_6-14
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_6-14
Extraction Date:	01/05/07		End ConCal:	a14jan07c_7-14
Analysis Date/Time:	01/17/07	4:47	Initial Cal:	m8290-071006e

Method M23
Run2 Dioxin Inlet
Tetra Tech EM, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	8.0	5.47	68.4	29:43	0.78	
13C12-1,2,3,7,8-PeCDD	8.0	6.57	82.2	33:19	1.48	
13C12-1,2,3,6,7,8-HxCDD	8.0	6.32	79.0	35:49	1.22	
13C12-1,2,3,4,6,7,8-HpCDD	8.0	6.07	75.9	38:48	1.05	
13C12-OCDD	16.0	9.69	60.6	42:37	0.89	
13C12-2,3,7,8-TCDF	8.0	6.89	86.1	28:48	0.79	
13C12-1,2,3,7,8-PeCDF	8.0	6.56	82.0	32:33	1.58	Q
13C12-1,2,3,6,7,8-HxCDF	8.0	6.41	80.1	35:10	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	8.0	6.05	75.6	37:40	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	3.78	94.6	29:46	-	
13C12-2,3,4,7,8-PeCDF	4.0	3.57	89.3	33:07	1.59	
13C12-1,2,3,4,7,8-HxCDD	4.0	3.61	90.4	35:43	1.36	
13C12-1,2,3,4,7,8-HxCDF	4.0	3.62	90.5	35:04	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	3.74	93.5	39:22	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	29:00	0.78	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	36:01	1.25	

Client Information			**Sample Information**		
Project Name:	Cement Lock		Report Basis:		
			Matrix:	Air	
Sample ID:	Run2 Dioxin Inlet		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14050	
Project ID:	G368-59		Instrument:	HRMS1	
Sample ID:	G368-59-12D		Filename:	a14jan07c_7-8	
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_6-14	
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_6-14	
Extraction Date:	01/05/07		End ConCal:	a14jan07c_7-14	
Analysis Date/Time:	01/17/07	4:47	Initial Cal:	m8290-071006e	

Form Version:[8290_DB_2 08]Report

Analyzed by: JWP
Date: 01-22-07

Reviewed by: MAC
Date: 1/22/07

Method M23
Run1 Dioxin Outlet
Tetra Tech EM, Inc.

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00507				
1,2,3,7,8-PeCDD	ND	0.00500				
1,2,3,4,7,8-HxCDD	ND	0.00500				
1,2,3,6,7,8-HxCDD	ND	0.00500				
1,2,3,7,8,9-HxCDD	ND	0.00500				
1,2,3,4,6,7,8-HpCDD	EMPC U	0.00556	0.0344	38:48	0.80 *	A
OCDD	0.106 U			42:36	0.91	A
2,3,7,8-TCDF	0.0135 J			28:48	0.78	A
1,2,3,7,8-PeCDF	0.0117 J			32:33	1.43	A
2,3,4,7,8-PeCDF	0.0132 J			33:07	1.45	A
1,2,3,4,7,8-HxCDF	0.00936 J			35:04	1.07	A
1,2,3,6,7,8-HxCDF	0.00704 J			35:10	1.37	A
2,3,4,6,7,8-HxCDF	0.0102 J			35:37	1.10	A
1,2,3,7,8,9-HxCDF	ND	0.00500				
1,2,3,4,6,7,8-HpCDF	0.0238 J			37:40	1.15	A
1,2,3,4,7,8,9-HpCDF	ND	0.00500				
OCDF	ND	0.0112				
Total TCDDs	ND	0.00507				
Total PeCDDs	ND	0.00500				
Total HxCDDs	0.0267					
Total HpCDDs	0.0250		0.0594			
Total TCDFs	0.0705					
Total PeCDFs	0.0394		0.0722			
Total HxCDFs	0.0405					
Total HpCDFs	0.0238					
WHO-98 TEQ (ND=0)	0.0114		0.0118			
WHO-98 TEQ (ND=½)	0.0175		0.0178			

HUE

Client Information			**Sample Information**	
Project Name:	Cement Lock 26 Feb 07		Report Basis:	
			Matrix:	Air
Sample ID:	Run1 Dioxin Outlet		Weight / Volume:	1 train
			Solids / Lipids:	NA %
			Original pH :	NA
Laboratory Information			Batch ID:	WG14050
Project ID:	G368-59		Instrument:	HRMS1
Sample ID:	G368-59-18B		Filename:	a14jan07c_4-11
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_3-14
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_3-14
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14
Analysis Date/Time:	01/15/07	22:24	Initial Cal:	m8290-071006e

Method M23
Run1 Dioxin Outlet
Tetra Tech EM, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	8.0	4.88	61.1	29:43	0.78	
13C12-1,2,3,7,8-PeCDD	8.0	5.70	71.3	33:19	1.32	
13C12-1,2,3,6,7,8-HxCDD	8.0	5.65	70.6	35:48	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	8.0	5.19	64.8	38:46	1.05	
13C12-OCDD	16.0	8.13	50.8	42:36	0.90	
13C12-2,3,7,8-TCDF	8.0	6.01	75.1	28:46	0.78	
13C12-1,2,3,7,8-PeCDF	8.0	5.62	70.3	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	8.0	6.09	76.2	35:09	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	8.0	5.20	64.9	37:40	0.44	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.01	100	29:45	-	
13C12-2,3,4,7,8-PeCDF	4.0	3.76	93.9	33:07	1.57	
13C12-1,2,3,4,7,8-HxCDD	4.0	4.01	100	35:43	1.26	
13C12-1,2,3,4,7,8-HxCDF	4.0	3.72	93.1	35:04	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	4.13	103	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	29:00	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	36:01	1.25	

Client Information		**Sample Information**	
Project Name:	Cement Lock	Report Basis:	
		Matrix:	Air
Sample ID:	Run1 Dioxin Outlet	Weight / Volume:	1 train
		Solids / Lipids:	NA %
		Original pH :	NA
Laboratory Information		Batch ID:	WG14050
Project ID:	G368-59	Instrument:	HRMS1
Sample ID:	G368-59-18B	Filename:	a14jan07c_4-11
Collection Date/Time:	12/07/06	Retchk:	a14jan07c_3-14
Receipt Date/Time:	12/16/06 11:00	Begin ConCal:	a14jan07c_3-14
Extraction Date:	01/05/07	End ConCal:	a14jan07c_4-14
Analysis Date/Time:	01/15/07 22:24	Initial Cal:	m8290-071006e

Form Version [8290_DB_2 08]Report

Analyzed by: JWP
Date: 01-17-07

Reviewed by: [illegible]
Date: 1/16/07

Method M23
Run2 Dioxin Outlet
Tetra Tech EM, Inc.

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND UJ	0.00472				
1,2,3,7,8-PeCDD	ND UJ	0.00500				
1,2,3,4,7,8-HxCDD	ND UJ	0.00500				
1,2,3,6,7,8-HxCDD	ND UJ	0.00500				
1,2,3,7,8,9-HxCDD	ND UJ	0.00500				
1,2,3,4,6,7,8-HpCDD	ND UJ	0.00556				
OCDD	0.102 UJ			42:36	0.90	A
2,3,7,8-TCDF	ND UJ	0.00267				
1,2,3,7,8-PeCDF	ND	0.00500				
2,3,4,7,8-PeCDF	ND	0.00500				
1,2,3,4,7,8-HxCDF	ND	0.00500				
1,2,3,6,7,8-HxCDF	ND	0.00500				
2,3,4,6,7,8-HxCDF	ND	0.00500				
1,2,3,7,8,9-HxCDF	ND	0.00500				
1,2,3,4,6,7,8-HpCDF	ND	0.00500				
1,2,3,4,7,8,9-HpCDF	ND	0.00500				
OCDF	ND	0.0100				
Total TCDDs	ND	0.00472				
Total PeCDDs	ND	0.00500				
Total HxCDDs	ND	0.00500				
Total HpCDDs	ND	0.00556				
Total TCDFs	ND	0.00267				
Total PeCDFs	ND	0.00500				
Total HxCDFs	ND	0.00500				
Total HpCDFs	ND UJ	0.00500				
WHO-98 TEQ (ND=0)	0.0000102		0.0000102			
WHO-98 TEQ (ND=½)	0.00821		0.00821			

14 UF

Client Information	28 Feb 07		**Sample Information**	
Project Name:	Cement Lock		Report Basis:	
			Matrix:	Air
Sample ID:	Run2 Dioxin Outlet		Weight / Volume:	1 train
			Solids / Lipids:	NA %
			Original pH :	NA
Laboratory Information			Batch ID:	WG14050
Project ID:	G368-59		Instrument:	HRMS1
Sample ID:	G368-59-24B		Filename:	a14jan07c_4-12
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_3-14
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_3-14
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14
Analysis Date/Time:	01/15/07	23:10	Initial Cal:	m8290-071006e

Method M23
Run2 Dioxin Outlet
Tetra Tech EM, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	8.0	5.26	65.8	29:43	0.78	
13C12-1,2,3,7,8-PeCDD	8.0	6.45	80.6	33:18	1.32	
13C12-1,2,3,6,7,8-HxCDD	8.0	6.40	80.0	35:48	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	8.0	5.69	71.2	38:46	1.05	
13C12-OCDD	16.0	8.89	55.6	42:36	0.89	
13C12-2,3,7,8-TCDF	8.0	6.55	81.9	28:46	0.79	
13C12-1,2,3,7,8-PeCDF	8.0	6.30	78.8	32:31	1.59	
13C12-1,2,3,6,7,8-HxCDF	8.0	6.73	84.1	35:09	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	8.0	5.77	72.2	37:40	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	1.33	33.1 #	29:45	-	
13C12-2,3,4,7,8-PeCDF	4.0	1.25	31.2 #	33:07	1.60	
13C12-1,2,3,4,7,8-HxCDD	4.0	1.18	29.5 #	35:43	1.25	
13C12-1,2,3,4,7,8-HxCDF	4.0	1.12	28.0 #	35:03	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	1.27	31.7 #	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	29:00	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	36:01	1.25	

Client Information			**Sample Information**	
Project Name:	Cement Lock		Report Basis:	
			Matrix:	Air
Sample ID:	Run2 Dioxin Outlet		Weight / Volume:	1 train
			Solids / Lipids:	NA %
			Original pH :	NA
Laboratory Information			Batch ID:	WG14050
Project ID:	G368-59		Instrument:	HRMS1
Sample ID:	G368-59-24B		Filename:	a14jan07c_4-12
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_3-14
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_3-14
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14
Analysis Date/Time:	01/15/07	23:10	Initial Cal:	m8290-071006e

Form Version [8290_DB_2 08]Report

Analyzed by: JW
Date: 01-16-07

Reviewed by: [illegible]
Date: 1/24/07

Method M23
Trip Blanks-Dioxin
Tetra Tech EM, Inc.

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00387				
1,2,3,7,8-PeCDD	ND	0.00500				
1,2,3,4,7,8-HxCDD	ND	0.00500				
1,2,3,6,7,8-HxCDD	ND	0.00500				
1,2,3,7,8,9-HxCDD	ND	0.00500				
1,2,3,4,6,7,8-HpCDD	ND	0.00500				
OCDD	0.0559 U			42:36	0.97	A
2,3,7,8-TCDF	ND	0.00250				
1,2,3,7,8-PeCDF	ND	0.00500				
2,3,4,7,8-PeCDF	ND	0.00500				
1,2,3,4,7,8-HxCDF	ND	0.00500				
1,2,3,6,7,8-HxCDF	ND	0.00500				
2,3,4,6,7,8-HxCDF	ND	0.00500				
1,2,3,7,8,9-HxCDF	ND	0.00500				
1,2,3,4,6,7,8-HpCDF	ND	0.00500				
1,2,3,4,7,8,9-HpCDF	ND	0.00500				
OCDF	ND	0.0100				
Total TCDDs	ND	0.00387				
Total PeCDDs	ND	0.00500				
Total HxCDDs	ND	0.00500				
Total HpCDDs	ND	0.00500				
Total TCDFs	ND	0.00250				
Total PeCDFs	ND	0.00500				
Total HxCDFs	ND	0.00500				
Total HpCDFs	ND	0.00500				
WHO-98 TEQ (ND=0)	0.00000559		0.00000559			
WHO-98 TEQ (ND=½)	0.00777		0.00777			

HUE

Client Information	26 Feb 07		**Sample Information**	
Project Name:	Cement Lock		Report Basis:	
			Matrix:	Air
Sample ID:	Trip Blanks-Dioxin		Weight / Volume:	1 train
			Solids / Lipids:	NA %
			Original pH :	NA
Laboratory Information			Batch ID:	WG14050
Project ID:	G368-59		Instrument:	HRMS1
Sample ID:	G368-59-30B		Filename:	a14jan07c_4-13
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_3-14
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_3-14
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14
Analysis Date/Time:	01/15/07	23:56	Initial Cal:	m8290-071006e

Method M23
Trip Blanks-Dioxin
Tetra Tech EM, Inc.

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00387				
1,2,3,7,8-PeCDD	ND	0.00500				
1,2,3,4,7,8-HxCDD	ND	0.00500				
1,2,3,6,7,8-HxCDD	ND	0.00500				
1,2,3,7,8,9-HxCDD	ND	0.00500				
1,2,3,4,6,7,8-HpCDD	ND	0.00500				
OCDD	0.0559			42:36	0.97	A
2,3,7,8-TCDF	ND	0.00250				
1,2,3,7,8-PeCDF	ND	0.00500				
2,3,4,7,8-PeCDF	ND	0.00500				
1,2,3,4,7,8-HxCDF	ND	0.00500				
1,2,3,6,7,8-HxCDF	ND	0.00500				
2,3,4,6,7,8-HxCDF	ND	0.00500				
1,2,3,7,8,9-HxCDF	ND	0.00500				
1,2,3,4,6,7,8-HpCDF	ND	0.00500				
1,2,3,4,7,8,9-HpCDF	ND	0.00500				
OCDF	ND	0.0100				
Total TCDDs	ND	0.00387				
Total PeCDDs	ND	0.00500				
Total HxCDDs	ND	0.00500				
Total HpCDDs	ND	0.00500				
Total TCDFs	ND	0.00250				
Total PeCDFs	ND	0.00500				
Total HxCDFs	ND	0.00500				
Total HpCDFs	ND	0.00500				
WHO-98 TEQ (ND=0)	0.00000559		0.00000559			
WHO-98 TEQ (ND=½)	0.00777		0.00777			

Client Information			**Sample Information**	
Project Name:	Cement Lock		Report Basis:	
			Matrix:	Air
Sample ID:	Trip Blanks-Dioxin		Weight / Volume:	1 train
			Solids / Lipids:	NA %
			Original pH :	NA
Laboratory Information			Batch ID:	WG14050
Project ID:	G368-59		Instrument:	HRMS1
Sample ID:	G368-59-30B		Filename:	a14jan07c_4-13
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_3-14
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_3-14
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14
Analysis Date/Time:	01/15/07	23:56	Initial Cal:	m8290-071006e

Method M23
Trip Blanks-Dioxin
Tetra Tech EM, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	8.0	5.65	70.6	29:43	0.78	
13C12-1,2,3,7,8-PeCDD	8.0	6.32	79.1	33:19	1.46	
13C12-1,2,3,6,7,8-HxCDD	8.0	6.72	83.9	35:48	1.19	
13C12-1,2,3,4,6,7,8-HpCDD	8.0	6.00	75.0	38:46	1.06	
13C12-OCDD	16.0	9.82	61.4	42:34	0.90	
13C12-2,3,7,8-TCDF	8.0	6.84	85.5	28:46	0.79	
13C12-1,2,3,7,8-PeCDF	8.0	5.80	72.5	32:33	1.58	
13C12-1,2,3,6,7,8-HxCDF	8.0	6.88	86.0	35:09	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	8.0	5.87	73.3	37:40	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.06	101	29:45	-	
13C12-2,3,4,7,8-PeCDF	4.0	4.08	102	33:07	1.59	
13C12-1,2,3,4,7,8-HxCDD	4.0	3.69	92.2	35:43	1.39	
13C12-1,2,3,4,7,8-HxCDF	4.0	3.61	90.3	35:04	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	3.83	95.8	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	29:00	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	36:01	1.25	

Client Information			**Sample Information**		
Project Name:	Cement Lock		Report Basis:		
			Matrix:	Air	
Sample ID:	Trip Blanks-Dioxin		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14050	
Project ID:	G368-59		Instrument:	HRMS1	
Sample ID:	G368-59-30B		Filename:	a14jan07c_4-13	
Collection Date/Time:	12/07/06		Retchk:	a14jan07c_3-14	
Receipt Date/Time:	12/16/06	11:00	Begin ConCal:	a14jan07c_3-14	
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14	
Analysis Date/Time:	01/15/07	23:56	Initial Cal:	m8290-071006e	

Form Version.[8290_DB_2 08]Report

Analyzed by: JWP
Date: 01-16-07

Reviewed by: [illegible]
Date: 1/24/07

Method M23
Lab Method Blank

Analytical Data Summary Sheet

Analyte	Amount (ng)	EDL (ng)	EMPC (ng)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00475				
1,2,3,7,8-PeCDD	ND	0.00500				
1,2,3,4,7,8-HxCDD	ND	0.00500				
1,2,3,6,7,8-HxCDD	ND	0.00500				
1,2,3,7,8,9-HxCDD	ND	0.00500				
1,2,3,4,6,7,8-HpCDD	ND	0.00684				
OCDD	0.394			42:36	0.83	A
2,3,7,8-TCDF	ND	0.00258				
1,2,3,7,8-PeCDF	ND	0.00500				
2,3,4,7,8-PeCDF	ND	0.00500				
1,2,3,4,7,8-HxCDF	ND	0.00500				
1,2,3,6,7,8-HxCDF	ND	0.00500				
2,3,4,6,7,8-HxCDF	ND	0.00500				
1,2,3,7,8,9-HxCDF	ND	0.00500				
1,2,3,4,6,7,8-HpCDF	ND	0.00500				
1,2,3,4,7,8,9-HpCDF	ND	0.00500				
OCDF	ND	0.0111				
Total TCDDs	ND	0.00475				
Total PeCDDs	ND	0.00500				
Total HxCDDs	ND	0.00500				
Total HpCDDs	ND	0.00684				
Total TCDFs	ND	0.00258				
Total PeCDFs	ND	0.00500				
Total HxCDFs	ND	0.00500				
Total HpCDFs	ND	0.00500				
WHO-98 TEQ (ND=0)	0.0000394		0.0000394			
WHO-98 TEQ (ND=½)	0.00825		0.00825			

Client Information			**Sample Information**		
Project Name:			Report Basis:		
			Matrix:	Air	
Sample ID:	Lab Method Blank		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14050	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a14jan07c_4-8	
Collection Date/Time:			Retchk:	a14jan07c_3-14	
Receipt Date/Time:			Begin ConCal:	a14jan07c_3-14	
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14	
Analysis Date/Time:	01/15/07	20:04	Initial Cal:	m8290-071006e	

Method M23
Lab Method Blank

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	8.0	5.16	64.5	29:43	0.78	
13C12-1,2,3,7,8-PeCDD	8.0	5.67	70.9	33:19	1.46	
13C12-1,2,3,6,7,8-HxCDD	8.0	6.24	78.1	35:48	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	8.0	5.58	69.7	38:46	1.06	
13C12-OCDD	16.0	9.31	58.2	42:36	0.90	
13C12-2,3,7,8-TCDF	8.0	6.38	79.8	28:46	0.79	
13C12-1,2,3,7,8-PeCDF	8.0	5.55	69.4	32:33	1.58	
13C12-1,2,3,6,7,8-HxCDF	8.0	6.65	83.1	35:09	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	8.0	5.71	71.4	37:40	0.45	
Sampling Standards						
37Cl4-2,3,7,8-TCDD	4.0	4.16	104	29:45	-	
13C12-2,3,4,7,8-PeCDF	4.0	4.08	102	33:07	1.58	
13C12-1,2,3,4,7,8-HxCDD	4.0	3.97	99.3	35:43	1.26	
13C12-1,2,3,4,7,8-HxCDF	4.0	3.74	93.5	35:04	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	4.0	3.91	97.9	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	29:00	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	36:01	1.25	

Client Information			**Sample Information**		
Project Name:			Report Basis:		
			Matrix:	Air	
Sample ID:	Lab Method Blank		Weight / Volume:	1 train	
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG14050	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a14jan07c_4-8	
Collection Date/Time:			Retchk:	a14jan07c_3-14	
Receipt Date/Time:			Begin ConCal:	a14jan07c_3-14	
Extraction Date:	01/05/07		End ConCal:	a14jan07c_4-14	
Analysis Date/Time:	01/15/07	20:04	Initial Cal:	m8290-071006e	

Form Version:[8290_DB_2.08]Report

Analyzed by: JW
Date: 01-16-07

Reviewed by: [illegible]
Date: 1/24/07

SGS

Laboratory Results

Mr. Ken Partymiller
Tetra Tech EM, Inc.
5326 Paris Pike
Georgetown KY 40324

Phone: 502-867-0423
Fax:

Dear Mr. Partymiller:

Enclosed is a full data package containing the final results for samples received by Paradigm Analytical Labs, Inc. on December 16, 2006 under your project name "Cement Lock". The samples were analyzed by Method 1668A following Paradigm's Standard Operating Procedures and are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards.

Number of Samples Received:	5
Your Project Reference:	Cement Lock
PAL Project Number:	G368-59

We appreciate your business and look forward to working with you again. Please contact me at 910-350-1903 if you have questions or need additional technical support.

Sincerely,

for Christopher K. Cornwell
Assistant Director

02Feb07
Date

5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.sgs.com

DC136.120605.6

Member of the SGS Group

SGS

Case Narrative
SGS Project: **G368-59**
Project Name: **Cement Lock**

For Method: 1668A

- The submitted samples were accepted into the lab on December 16th, 2006 and extracted on January 5th, 2007 by method 3540C. The sample extracts and associated QC extracts were then processed through clean-up by method 3630/3620 and analyzed by HRGC/HRMS for method 1668A.
- The samples were received at temperatures of 12.6°C and 12.8°C which are outside of the laboratory's recommended temperature range of 0-6°C.
- The LMB and the OPR associated with workgroup WG14051 have ion ratios for ^{13}C-1-MoCB above the method's QC limits. The presence of interferences at these retention times have been 'Q' flagged. The OPR also has recoveries for 4-DiCB and 208-NoCB above the method's QC limits. These analytes are 'Q' indicating interferences present at these retention times.
- Sample **Trip Blank** has ion ratios for ^{13}C-3-MoCB and ^{13}C-19-TrCB which are above the method's QC limits. Both analytes have been 'Q' flagged indicating that interference is also present at these retention times.

Craig R. Tronzo 2/2/07
Craig R. Tronzo Date
Data Validation/QA Officer

Secondary Review

W. Mike Larkins Date
Technical Director

Or Heather Patterson 02Feb07
Heather Patterson Date
Director

SGS

Table of Contents

Section 1: Cover Letter/Case Narrative

Contains the Table of Contents, a project narrative, the client and PAL project identifiers, the number and type of samples, the methodology used to process the samples, and a summary table of sample results. A listing of current certifications by state, a table of abbreviations and qualifiers and the Toxic Equivalent Factors (TEF) are also supplied.

Section 2: Project Information

Contains the chain-of-custody(s), internal chain-of-custody(s) if applicable, sample login summary, sample receipt checklist, and any other project/client specific information.

Section 3: Sample Analytical Results

Contains results for client samples. Sample results include two pages of summarized analytical data and the associated raw data. The raw data includes a quantitation report from the instrumentation used that lists, ion areas, ratios, retention times, concentrations, and signal-to-noise ratios. It also has the selected ion current profiles (SICPs) for all homolog groups and any manual integrations.

Section 4: Quality Control Analytical Results

Contains results for each analytical workgroup associated with the submitted samples. A workgroup consists of the Lab Method Blank (LMB) and the Ongoing Precision and Recovery sample (OPR). All sample preparation data, including dry weight determinations, extraction logs, clean-up logs and observation notes are also documented. Any other supporting QC data will be documented here upon client request.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information: GC performance data, mass resolution check, windows defining mix, and SICPs for all homolog groups and any manual integrations as well as the injection prep and instrument run logs.

Section 6: Continuing Calibration Data

Contains all daily instrument quality control information. This includes mass resolution checks, a table summarizing the window defining peaks, SICPs for the first and last eluters for each homolog group, SICPs documenting GC performance, a summary quantitation report showing RRFs for the Ccal and Ical, and SICPs for all homolog groups and any manual integrations, injection prep and instrumentation runlogs.

SGS

List of Qualifiers

B	Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.
EDL	"Estimated Detection Limit"
EMPC	"Estimated Maximum Possible Concentration"
ppt	Parts-per-trillion (pg/g; ng/L)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.
#	Outside quality control limits
*	See case narrative

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A	Amount detected is less than the Lower Calibration Limit.
J	Amount detected is between the Method Detection Limit and the Lower Calibration Limit.
E	Amount detected is greater than the Upper Calibration Limit.
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).
Q	Indicates the presence of a quantitative interference. This situation generally results in an underestimation of the affected analyte(s).
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

SGS

CHAIN OF CUSTODY RECORD
SGS Environmental Services Inc.

Locations Nationwide
- Alaska
- Louisiana
- New Jersey
- West Virginia
- Hawaii
- Maryland
- North Carolina

www.us.sgs.com

066644

(1)

CLIENT: Tetratech/AirNova
CONTACT: Joe Jackson PHONE NO: 856 486-1500
PROJECT: Cement Lock SITE/PWSID#: Bayonne, NJ
REPORTS TO: Joe Jackson E-MAIL: jackson@airnova.com
AirNova FAX NO.: (856) 486-9896
INVOICE TO: Ken Partymiller QUOTE #
tetratech P.O. NUMBER

SGS Reference: G368-59

PAGE 1 OF 1

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	All Acetone Washes	All Toluene Washes	XAD Trap	Impinger Solutions	All Acetone/MeCl2 Washes	MeCl2 - 250ml				REMARKS
	RUN 1 Dioxin Inlet	12/7/06		stack gas	9		1	1	1	6						
	RUN 2 " "				8		1	1	1	5						
	RUN 1 " Outlet				9		1	1	1	6						
	RUN 2 " "				8		1	1	1	5						
	TRIP Blanks - Dioxin				4		1	1	1	1						
	RUN 1 MM5-PAH Inlet	12/7/06			8				1	6	1*					* some Toluene was used as rinse
	RUN 2 " "				7				1	5	1					
	RUN 1 " Outlet				8				1	6	1					
	RUN 2 " "				7				1	5	1					
	TRIP Blanks - PAH/SVOC				4		1		1	1		1				

(3)

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
William Dennel	12/11/06	8:00 AM	Joe Jackson
Relinquished By: (2) Joe Jackson	12/14/06	2:00 PM	Received By:
Relinquished By: (3)	12/16/06	1100	Received By: [signature]
Relinquished By: (4)	Date	Time	Received By:

(4)

Shipping Carrier:
Shipping Ticket No:
Special Deliverable Requirements:

Samples Received Cold? (Circle) YES NO
Temperature °C: 12.6, 12.8 & 8 boxes ambient
Chain of Custody Seal: (Circle)
INTACT BROKEN ABSENT

Requested Turnaround Time and Special Instructions:

Sample Receipt Checklist (SRC)

SGS Environmetal Services Inc.

Client: **Tetra Tech EM, Inc.** Lab Proj. ID: **G368-59**

Client Proj. ID: **Cement Lock**

1. X Shipped
   __ Hand Delivered

   Notes:

2. __ Proper, full, and complete documentation
   (unique sample identification on durable label with indelible ink, location of collection, date/time of collection, collector's name, preservation type, sample type (method/matrix))
   X Acceptable documentation (but, incomplete)
   __ Unacceptable documentation

   Notes:

3. __ Custody Tape on Container
   X No Custody Tape

   Notes:

4. X Samples Intact*
   (are in appropriate container, are not damaged, and do not show signs of contamination)
   __ Samples Broken / Leaking
   __ VOA Vials Checked for Air Bubbles

   Notes:

5. __ Chilled on Receipt* Actual Temp.(s) in °C: 12.6 12.8 and eight boxes ambient
   X Ambient on Receipt
   __ Walk-in on Ice; Coming down to temp.
   X Received out of temperature protocol

   Notes:

6. X Sufficient Sample Submitted
   __ Insufficient Sample Submitted

   Notes:

7. X Samples Preserved Correctly*
   (see preservative checklist where applicable)
   __ Improper Preservative(s)
   __ None recommended (N/A)

   Notes:

8. X Received Within Holding Time
   __ Not Received Within Holding Time
   __ N/A

   Notes:

9. X No Discrepancies Noted
   __ Discrepancies Noted

   Notes:

Comments: Received out of temp protocol, two coolers with traps had white ice bags not enough to chill samples, eight boxes of rinses were ambient, no ice.

no collection times.

* = Rejection of sample is required when not marked; Contact client services immediately for a resolution.

DC27.091503.3

Inspected and Logged in by: [illegible]

Date / Time: Wed-12/20/06 10:43

PCB Congener Results by Method 1668A | EPA FORM 1 | *SGS Environmental Services*

Client Project ID: **Cement Lock**

Page 1 of 4

Client Sample ID
Run1 Dioxin Inlet

Laboratory Information			Sample Information		
Lab Project ID:	G368-59		Matrix:	Air	
Lab Sample ID:	G368-59-6C		Amount:	1.00	train
Dilution factor:	1				
Collection Date/Time:	07-Dec-06				
Receipt Date/Time:	16-Dec-06	11:00	QC Batch ID:	WG14051 / 14051	
Extraction Date:	08-Jan-06		Filename:	b13jan07a-6	
Analysis Date/Time:	13-Jan-07	21:23	ConCal:	b13jan07a-1	
			RRT Std:	b13jan07a-2	
			Initial Cal:	m1668a-b010906d	

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT	#	Ratio	#	Qualifier
1	2 -MoCB		52100 J	12.4	6:51		3.35		Q
2	3 -MoCB		74200 J	26.6	8:12		3.30		Q
3	4 -MoCB		31300 J	28.7	8:22		3.27		Q
4	2,2' -DiCB		2770 J	238	8:32		1.43		Q
5	2,3 -DiCB		647 4 J	62.0	10:28		1.29	#	K
6	2,3' -DiCB		2080 J	116	10:14		1.50		
7	2,4 -DiCB		1370 J	108	10:02		1.48		
8	2,4' -DiCB		2500 J	62.0	10:34		1.52		
9	2,5 -DiCB		1920 J	152	10:02		1.48		
10	2,6 -DiCB		349 4 J	235	8:39		1.11	#	K
11	3,3' -DiCB		5400 J	131	12:34		1.52		
12	3,4 -DiCB	C	4570 J	122	12:52		1.51		
13	3,4' -DiCB	C12							
14	3,5 -DiCB		443 4 J	133	11:50		1.21	#	K
15	4,4' -DiCB		2740 J	168	13:09		1.64		Q
16	2,2',3 -TrCB		973	66.9	13:06		1.16		
17	2,2',4 -TrCB		1470 J	50.8	12:39		1.06		Q
18	2,2',5 -TrCB	C	3200	42.0	12:17		1.02		
19	2,2',6 -TrCB		277	56.9	10:49		1.06		
20	2,3,3' -TrCB	C	7150	37.9	15:52		1.08		
21	2,3,4 -TrCB	C	3230	33.4	16:05		1.03		
22	2,3,4' -TrCB		2400	39.1	16:30		1.00		
23	2,3,5 -TrCB		174 4	33.8	14:44		1.22	#	K
24	2,3,6 -TrCB		243 J	30.6	12:59		1.03		Q
25	2,3',4 -TrCB		352	29.7	15:16		1.18		
26	2,3',5 -TrCB	C	811	35.1	15:03		1.19		
27	2,3',6 -TrCB		295 J	40.1	12:52		1.09		Q
28	2,4,4' -TrCB	C20							
29	2,4,5 -TrCB	C26							
30	2,4,6 -TrCB	C18							
31	2,4',5 -TrCB		4760	36.2	15:34		1.07		
32	2,4',6 -TrCB		1320 J	36.0	13:30		1.11		Q
33	2,3',4' -TrCB	C21							
34	2,3',5' -TrCB		53.2 4	41.0	14:36		1.62	#	K
35	3,3',4 -TrCB		333	64.6	19:39		1.05		
36	3,3',5 -TrCB		ND	55.5					U
37	3,4,4' -TrCB		791	59.9	20:07		1.04		
38	3,4,5 -TrCB		158	63.0	19:07		1.13		
39	3,4',5 -TrCB		90.6 4	58.2	18:29		0.80	#	K
40	2,2',3,3' -TeCB	C	1320	38.2	19:53		0.86		
41	2,2',3,4 -TeCB		407 4	55.6	19:45		0.89	#	K
42	2,2',3,4' -TeCB		819	40.3	19:20		0.83		
43	2,2',3,5 -TeCB		144 4	43.1	17:56		0.89	#	K
44	2,2',3,5' -TeCB	C	6130	39.5	18:46		0.81		

HWG
26 Feb 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run1 Dioxin Inlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
45	2,2',3,6 -TeCB	C	693	49.5	16:00	0.80	
46	2,2',3,6' -TeCB		142	51.3	16:17	0.83	
47	2,2',4,4' -TeCB	C44					
48	2,2',4,5 -TeCB		735	42.0	18:29	0.70	
49	2,2',4,5' -TeCB	C	3480	35.9	18:12	0.80	
50	2,2',4,6 -TeCB	C	475 U	49.2	15:19	0.89 #	K
51	2,2',4,6' -TeCB	C45					
52	2,2',5,5' -TeCB		11500	45.1	17:41	0.83	
53	2,2',5,6' -TeCB	C50					
54	2,2',6,6' -TeCB		ND	27.2			U
55	2,3,3',4 -TeCB		ND	44.8			U
56	2,3,3',4' -TeCB		1070	50.4	24:21	0.86	
57	2,3,3',5 -TeCB		ND	48.2			U
58	2,3,3',5' -TeCB		ND	45.5			U
59	2,3,3',6 -TeCB	C	516	31.1	19:05	0.72	
60	2,3,4,4' -TeCB		646	45.0	24:37	0.81	
61	2,3,4,5 -TeCB	C	10100	58.3	23:06	0.79	
62	2,3,4,6 -TeCB	C59					
63	2,3,4',5 -TeCB		162 U	48.4	22:41	0.96 #	K
64	2,3,4',6 -TeCB		2230	30.3	20:08	0.78	
65	2,3,5,6 -TeCB	C44					
66	2,3',4,4' -TeCB		2750	48.3	23:30	0.74	
67	2,3',4,5 -TeCB		78.2	39.7	22:21	0.77	
68	2,3',4,5' -TeCB		54.4	42.0	21:23	0.84	
69	2,3',4,6 -TeCB	C49					
70	2,3',4',5 -TeCB	C61					
71	2,3',4',6 -TeCB	C40					
72	2,3',5,5' -TeCB		ND	48.5			U
73	2,3',5',6 -TeCB		74.3	30.9	17:51	0.85	
74	2,4,4',5 -TeCB	C61					
75	2,4,4',6 -TeCB	C59					
76	2,3',4',5' -TeCB	C61					
77	3,3',4,4' -TeCB		125 U	46.7	29:13	0.81	
78	3,3',4,5 -TeCB		ND	49.8			U
79	3,3',4,5' -TeCB		108	40.2	27:03	0.73	
80	3,3',5,5' -TeCB		ND	42.6			U
81	3,4,4',5 -TeCB		ND	49.6			U
82	2,2',3,3',4 -PeCB		ND	134			U
83	2,2',3,3',5 -PeCB		675	140	26:15	1.59	
84	2,2',3,3',6 -PeCB		2750	126	23:23	1.42	
85	2,2',3,4,4' -PeCB	C	1550	99.4	28:00	1.56	
86	2,2',3,4,5 -PeCB	C	6440	103	27:08	1.57	
87	2,2',3,4,5' -PeCB	C86					
88	2,2',3,4,6 -PeCB	C	1260	119	23:05	1.47	
89	2,2',3,4,6' -PeCB		ND	131			U
90	2,2',3,4',5 -PeCB	C	8610	108	25:39	1.58	
91	2,2',3,4',6 -PeCB	C88					
92	2,2',3,5,5' -PeCB		1650	124	24:55	1.59	
93	2,2',3,5,6 -PeCB	C	ND	118			U
94	2,2',3,5,6' -PeCB		ND	123			U
95	2,2',3,5',6 -PeCB		7920	121	22:04	1.57	
96	2,2',3,6,6' -PeCB		ND	178			U
97	2,2',3,4',5' -PeCB	C86					
98	2,2',3,4',6' -PeCB	C	296 U	114	22:27	1.24 #	K
99	2,2',4,4',5 -PeCB		3910	105	26:22	1.53	

HUE
26 Feb 07

PCB Congener Results by Method 1668A

Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run1 Dioxin Inlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
100	2,2',4,4',6 -PeCB	C93					
101	2,2',4,5,5' -PeCB	C90					
102	2,2',4,5,6' -PeCB	C98					
103	2,2',4,5',6 -PeCB		ND	111			U
104	2,2',4,6,6' -PeCB		ND	144			U
105	2,3,3',4,4' -PeCB		1820	174	34:02	1.55	
106	2,3,3',4,5 -PeCB		ND	154			U
107	2,3,3',4',5 -PeCB	C	315	157	31:23	1.62	
108	2,3,3',4,5' -PeCB	C86					
109	2,3,3',4,6 -PeCB		377	161	31:42	1.44	
110	2,3,3',4',6 -PeCB	C	8510	89.4	28:15	1.64	
111	2,3,3',5,5' -PeCB		ND	88.1			U
112	2,3,3',5,6 -PeCB		195 U	86.3	26:31	1.11 #	K
113	2,3,3',5',6 -PeCB	C90					
114	2,3,4,4',5 -PeCB		ND	150			U
115	2,3,4,4',6 -PeCB	C110					
116	2,3,4,5,6 -PeCB	C85					
117	2,3,4',5,6 -PeCB	C85					
118	2,3',4,4',5 -PeCB		5030	153	32:21	1.57	
119	2,3',4,4',6 -PeCB	C86					
120	2,3',4,5,5' -PeCB		ND	86.5			U
121	2,3',4,5',6 -PeCB		ND	90.9			U
122	2,3,3',4',5' -PeCB		ND	175			U
123	2,3',4,4',5' -PeCB		ND U	146			U
124	2,3',4',5,5' -PeCB	C107					
125	2,3',4',5',6 -PeCB	C86					
126	3,3',4,4',5 -PeCB		ND	173			U
127	3,3',4,5,5' -PeCB		ND	167			U
128	2,2',3,3',4,4' -HxCB	C	545	118	38:42	1.18	
129	2,2',3,3',4,5 -HxCB	C	4330	129	36:49	1.25	
130	2,2',3,3',4,5' -HxCB		336	150	35:52	1.10	
131	2,2',3,3',4,6 -HxCB		ND	149			U
132	2,2',3,3',4,6' -HxCB		1660	140	32:29	1.34	
133	2,2',3,3',5,5' -HxCB		ND	144			U
134	2,2',3,3',5,6 -HxCB		379 U	174	31:01	1.54 #	K
135	2,2',3,3',5,6' -HxCB	C	1520	57.3	29:29	1.30	
136	2,2',3,3',6,6' -HxCB		804	45.7	26:18	1.31	
137	2,2',3,4,4',5 -HxCB		280	131	36:11	1.06	
138	2,2',3,4,4',5' -HxCB	C129					
139	2,2',3,4,4',6 -HxCB	C	149	126	31:31	1.37	
140	2,2',3,4,4',6' -HxCB	C139					
141	2,2',3,4,5,5' -HxCB		792	125	35:16	1.20	
142	2,2',3,4,5,6 -HxCB		ND	145			U
143	2,2',3,4,5,6' -HxCB		ND	124			U
144	2,2',3,4,5',6 -HxCB		311 U	59.4	30:14	0.96 #	K
145	2,2',3,4,6,6' -HxCB		ND	47.5			U
146	2,2',3,4',5,5' -HxCB		515	117	34:06	1.20	
147	2,2',3,4',5,6 -HxCB	C	3430	124	30:43	1.26	
148	2,2',3,4',5,6' -HxCB		ND	61.7			U
149	2,2',3,4',5',6 -HxCB	C147					
150	2,2',3,4',6,6' -HxCB		ND	44.4			U
151	2,2',3,5,5',6 -HxCB	C135					
152	2,2',3,5,6,6' -HxCB		ND	48.2			U
153	2,2',4,4',5,5' -HxCB	C	3320	109	34:58	1.25	
154	2,2',4,4',5,6' -HxCB		58.2 U	48.6	29:46	1.68 #	K

NM 3-7-07

NUG 26 Feb 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run1 Dioxin Inlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
155	2,2',4,4',6,6' -HxCB		ND	29.6			U
156	2,3,3',4,4',5 -HxCB	C	285	134	43:04	1.23	
157	2,3,3',4,4',5' -HxCB	C156					
158	2,3,3',4,4',6 -HxCB		433	92.2	37:23	1.10	
159	2,3,3',4,5,5' -HxCB		ND	108			U
160	2,3,3',4,5,6 -HxCB		ND	99.2			U
161	2,3,3',4,5',6 -HxCB		ND	104			U
162	2,3,3',4',5,5' -HxCB		ND	103			U
163	2,3,3',4',5,6 -HxCB	C129					
164	2,3,3',4',5',6 -HxCB		266	101	36:23	1.11	
165	2,3,3',5,5',6 -HxCB		ND	108			U
166	2,3,4,4',5,6 -HxCB	C128					
167	2,3',4,4',5,5' -HxCB		111 U	88.5	41:17	1.05 #	K
168	2,3',4,4',5',6 -HxCB	C153					
169	3,3',4,4',5,5' -HxCB		ND	91.5			U
170	2,2',3,3',4,4',5 -HpCB		ND	62.4			U
171	2,2',3,3',4,4',6 -HpCB	C	149	61.5	41:40	0.90	
172	2,2',3,3',4,5,5' -HpCB		ND	63.0			U
173	2,2',3,3',4,5,6 -HpCB	C171					
174	2,2',3,3',4,5,6' -HpCB		345	57.1	40:05	0.99	
175	2,2',3,3',4,5',6 -HpCB		ND	45.1			U
176	2,2',3,3',4,6,6' -HpCB		97.4	36.6	34:45	1.14	
177	2,2',3,3',4,5',6' -HpCB		192	62.9	40:44	0.99	
178	2,2',3,3',5,5',6 -HpCB		100 U	48.2	37:25	0.76 #	K
179	2,2',3,3',5,6,6' -HpCB		273	35.7	33:30	1.14	
180	2,2',3,4,4',5,5' -HpCB	C	464	49.8	45:12	0.96	
181	2,2',3,4,4',5,6 -HpCB		ND	56.2			U
182	2,2',3,4,4',5,6' -HpCB		ND	42.9			U
183	2,2',3,4,4',5',6 -HpCB	C	284	55.9	39:43	0.90	
184	2,2',3,4,4',6,6' -HpCB		ND	33.7			U
185	2,2',3,4,5,5',6 -HpCB	C183					
186	2,2',3,4,5,6,6' -HpCB		ND	36.0			U
187	2,2',3,4',5,5',6 -HpCB		410	40.6	38:47	0.96	
188	2,2',3,4',5,6,6' -HpCB		ND	33.0			U
189	2,3,3',4,4',5,5' -HpCB		ND	67.5			U
190	2,3,3',4,4',5,6 -HpCB		68.6 U	49.8	48:00	1.32 #	K
191	2,3,3',4,4',5',6 -HpCB		ND	47.0			U
192	2,3,3',4,5,5',6 -HpCB		ND	48.6			U
193	2,3,3',4',5,5',6 -HpCB	C180					
194	2,2',3,3',4,4',5,5' -OcCB		ND	80.9			U
195	2,2',3,3',4,4',5,6 -OcCB		ND	86.6			U
196	2,2',3,3',4,4',5,6' -OcCB		ND	63.2			U
197	2,2',3,3',4,4',6,6' -OcCB	C	ND	47.6			U
198	2,2',3,3',4,5,5',6 -OcCB	C	ND	63.7			U
199	2,2',3,3',4,5,5',6' -OcCB	C198					
200	2,2',3,3',4,5,6,6' -OcCB	C197					
201	2,2',3,3',4,5',6,6' -OcCB		ND	50.3			U
202	2,2',3,3',5,5',6,6' -OcCB		ND	44.3			U
203	2,2',3,4,4',5,5',6 -OcCB		ND	56.8			U
204	2,2',3,4,4',5,6,6' -OcCB		ND	51.0			U
205	2,3,3',4,4',5,5',6 -OcCB		ND	61.9			U
206	2,2',3,3',4,4',5,5',6 -NoCB		ND	62.9			U
207	2,2',3,3',4,4',5,6,6' -NoCB		ND	55.7			U
208	2,2',3,3',4,5,5',6,6' -NoCB		ND	53.0			U
209	2,2',3,3',4,4',5,5',6,6' -DeCB		ND	80.6			U

Analyzed By: AF HVG Reviewed By: [illegible]

Date: 02/02/07 26 Feb 07 Date: 2/3/07

PCB Congener Results by Method 1668A

EPA FORM 2

SGS Environmental Services

Client Project ID: Cement Lock

Page 1 of 1

Client Sample ID
Run1 Dioxin Inlet

Recovery Information

No.	Labeled Standards Structure -LOC	CARP	Amount Spiked (ng)	Measured Amount (ng)	Percent Recovery (%) #	RT (min.) #	Ratio #	Qualifier
Extraction Standards					(15-150%)			
1L	13C-2 -MoCB		8.00	6.08	76.0	6:50	2.85	Q
3L	13C-4 -MoCB		8.00	4.22	52.8	8:20	2.85	Q
					(25-150%)			
4L	13C-2,2' -DiCB		8.00	5.41	67.6	8:31	1.58	Q
15L	13C-4,4' -DiCB		8.00	4.16	52.0	13:09	1.45	Q
19L	13C-2,2',6 -TrCB		8.00	5.64	70.5	10:47	1.04	
37L	13C-3,4,4' -TrCB		8.00	6.65	83.1	20:06	1.03	
54L	13C-2,2',6,6' -TeCB		8.00	5.62	70.2	13:23	0.77	
77L	13C-3,3',4,4' -TeCB		8.00	5.62	70.2	29:12	0.82	
81L	13C-3,4,4',5 -TeCB		8.00	5.90	73.8	28:25	0.79	
104L	13C-2,2',4,6,6' -PeCB		8.00	6.01	75.1	18:40	1.60	
105L	13C-2,3,3',4,4' -PeCB		8.00	5.63	70.4	34:01	1.52	
114L	13C-2,3,4,4',5 -PeCB		8.00	5.72	71.4	33:03	1.60	
118L	13C-2,3',4,4',5 -PeCB		8.00	5.80	72.5	32:18	1.55	
123L	13C-2,3',4,4',5' -PeCB		8.00	6.50	81.3	31:51	1.53	
126L	13C-3,3',4,4',5 -PeCB		8.00	6.11	76.4	38:33	1.51	
155L	13C-2,2',4,4',6,6' -HxCB		8.00	5.67	70.9	25:17	1.27	
156L	13C-2,3,3',4,4',5 -HxCB	C	16.0	9.75	60.9	43:04	1.30	
157L	13C-2,3,3',4,4',5' -HxCB	C156L						
167L	13C-2,3',4,4',5,5' -HxCB		8.00	5.84	73.1	41:17	1.30	
169L	13C-3,3',4,4',5,5' -HxCB		8.00	6.00	75.0	48:07	1.34	
188L	13C-2,2',3,4',5,6,6' -HpCB		8.00	6.70	83.8	32:58	1.09	
189L	13C-2,3,3',4,4',5,5' -HpCB		8.00	6.36	79.5	52:03	1.07	
202L	13C-2,2',3,3',5,5',6,6' -OcCB		8.00	5.85	73.1	40:51	0.95	
205L	13C-2,3,3',4,4',5,5',6 -OcCB		8.00	5.37	67.1	56:07	0.90	
206L	13C-2,2',3,3',4,4',5,5',6 -NoCB		8.00	5.60	70.0	58:53	0.83	
208L	13C-2,2',3,3',4,5,5',6,6' -NoCB		8.00	6.26	78.2	51:11	0.78	
209L	13C-2,2',3,3',4,4',5,5',6,6' -DeCB		8.00	4.14	51.7	61:24	1.26	
Injection Standards								
9L	13C-2,5 -DiCB		2.00			9:53	1.69	
52L	13C-2,2',5,5' -TeCB		2.00			17:40	0.81	
101L	13C-2,2',4,5,5' -PeCB		2.00			25:37	1.58	
138L	13C-2,2',3,4,4',5' -HxCB		2.00			36:47	1.33	
194L	13C-2,2',3,3',4,4',5,5' -OcCB		2.00			55:22	0.88	

Analyzed By: JF

Date: 02/02/07

Reviewed By: [illegible]

Date: 2/8/07

PCB Congener Results by Method 1668A | EPA FORM 1 | *SGS Environmental Services*

Client Project ID: **Cement Lock**

Page 1 of 4

Client Sample ID
Run2 Dioxin Inlet

Laboratory Information			Sample Information		
Lab Project ID:	G368-59		Matrix:	Air	
Lab Sample ID:	G368-59-12C		Amount:	1.00	train
Dilution factor:	1				
Collection Date/Time:	07-Dec-06				
Receipt Date/Time:	16-Dec-06	11:00	QC Batch ID:	WG14051 / 14051	
Extraction Date:	08-Jan-06		Filename:	b13jan07a-7	
Analysis Date/Time:	13-Jan-07	22:29	ConCal:	b13jan07a-1	
			RRT Std:	b13jan07a-2	
			Initial Cal:	m1668a-b010906d	

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
1	2 -MoCB		67800 J	18.3	6:43	3.28	Q
2	3 -MoCB		90700 J	27.4	8:06	3.29	Q
3	4 -MoCB		46700 J	21.7	8:15	3.37	Q
4	2,2' -DiCB		2430 J	268	8:25	1.46	Q
5	2,3 -DiCB		686 J	122	10:23	1.43	
6	2,3' -DiCB		1980 J	227	10:08	1.43	
7	2,4 -DiCB		1680 J	212	9:57	1.45	
8	2,4' -DiCB		1340 J	122	10:29	1.52	
9	2,5 -DiCB		2250 J	298	9:50	1.46	
10	2,6 -DiCB		399 J	223	8:32	1.40	
11	3,3' -DiCB		2910 J	258	12:30	1.43	
12	3,4 -DiCB	C	3810 J	240	12:46	1.47	
13	3,4' -DiCB	C12					
14	3,5 -DiCB		503 UJ	261	11:46	1.25 #	K Q
15	4,4' -DiCB		1870 J	291	13:03	1.61	Q
16	2,2',3 -TrCB		169 U	69.6	13:00	0.91	
17	2,2',4 -TrCB		194	52.8	12:33	1.18	
18	2,2',5 -TrCB	C	769	43.7	12:11	1.03	
19	2,2',6 -TrCB		77.4 U	59.9	10:43	1.31 #	K
20	2,3,3' -TrCB	C	837 U	39.4	15:47	0.98	
21	2,3,4 -TrCB	C	476 U	34.8	16:01	1.14	
22	2,3,4' -TrCB		309 U	40.7	16:26	1.24 #	K
23	2,3,5 -TrCB		158 U	35.1	14:40	0.87 #	K
24	2,3,6 -TrCB		172 U	31.8	12:53	0.80 #	K
25	2,3',4 -TrCB		97.8	30.9	15:11	1.02	
26	2,3',5 -TrCB	C	283	36.5	14:58	1.06	
27	2,3',6 -TrCB		50.7	41.7	12:46	0.97	
28	2,4,4' -TrCB	C20					
29	2,4,5 -TrCB	C26					
30	2,4,6 -TrCB	C18					
31	2,4',5 -TrCB		585 U	37.7	15:30	1.05	
32	2,4',6 -TrCB		146 U	37.4	13:25	1.06	
33	2,3',4' -TrCB	C21					
34	2,3',5' -TrCB		ND	42.6			U
35	3,3',4 -TrCB		196	45.0	19:34	1.18	
36	3,3',5 -TrCB		ND	38.6			U
37	3,4,4' -TrCB		255 U	41.1	20:04	1.03	
38	3,4,5 -TrCB		110	43.9	19:02	1.03	
39	3,4',5 -TrCB		ND	40.5			U
40	2,2',3,3' -TeCB	C	167 U	47.4	19:49	0.80	
41	2,2',3,4 -TeCB		ND	68.9			U
42	2,2',3,4' -TeCB		109 U	50.0	19:16	0.64 #	K
43	2,2',3,5 -TeCB		ND	53.5			U
44	2,2',3,5' -TeCB	C	594	48.9	18:41	0.71	

HUG

27 Rep 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run2 Dioxin Inlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT	#	Ratio	#	Qualifier
45	2,2',3,6 -TeCB	C	106 U	55.5	15:56		0.81		
46	2,2',3,6' -TeCB		ND	57.6					U
47	2,2',4,4' -TeCB	C44							
48	2,2',4,5 -TeCB		107	52.2	18:26		0.85		
49	2,2',4,5' -TeCB	C	247	44.5	18:07		0.75		
50	2,2',4,6 -TeCB	C	57.4 U	55.2	15:13		1.02	#	J K
51	2,2',4,6' -TeCB	C45							
52	2,2',5,5' -TeCB		573 U	56.0	17:37		0.83		
53	2,2',5,6' -TeCB	C50							
54	2,2',6,6' -TeCB		ND	31.5					U
55	2,3,3',4 -TeCB		ND	35.3					U
56	2,3,3',4' -TeCB		120	39.7	24:18		0.66		
57	2,3,3',5 -TeCB		ND	38.0					U
58	2,3,3',5' -TeCB		ND	35.8					U
59	2,3,3',6 -TeCB	C	355	38.6	19:01		0.74		
60	2,3,4,4' -TeCB		64.6 U	35.4	24:34		1.61	#	K
61	2,3,4,5 -TeCB	C	724 U	45.9	23:02		0.92	#	K
62	2,3,4,6 -TeCB	C59							
63	2,3,4',5 -TeCB		ND	38.0					U
64	2,3,4',6 -TeCB		185	37.6	20:04		0.69		
65	2,3,5,6 -TeCB	C44							
66	2,3',4,4' -TeCB		261 U	38.0	23:26		0.93	#	K
67	2,3',4,5 -TeCB		ND	31.3					U
68	2,3',4,5' -TeCB		ND	33.0					U
69	2,3',4,6 -TeCB	C49							
70	2,3',4',5 -TeCB	C61							
71	2,3',4',6 -TeCB	C40							
72	2,3',5,5' -TeCB		ND	38.1					U
73	2,3',5',6 -TeCB		ND	38.3					U
74	2,4,4',5 -TeCB	C61							
75	2,4,4',6 -TeCB	C59							
76	2,3',4',5' -TeCB	C61							
77	3,3',4,4' -TeCB		42.7 U	35.8	29:10		0.73		
78	3,3',4,5 -TeCB		ND	39.2					U
79	3,3',4,5' -TeCB		ND	31.6					U
80	3,3',5,5' -TeCB		ND	33.5					U
81	3,4,4',5 -TeCB		ND	41.1					U
82	2,2',3,3',4 -PeCB		ND	208					U
83	2,2',3,3',5 -PeCB		383	217	26:14		1.73		
84	2,2',3,3',6 -PeCB		260 U	196	23:22		0.77	#	K
85	2,2',3,4,4' -PeCB	C	ND	155					U
86	2,2',3,4,5 -PeCB	C	518	160	27:03		1.57		
87	2,2',3,4,5' -PeCB	C86							
88	2,2',3,4,6 -PeCB	C	ND	186					U
89	2,2',3,4,6' -PeCB		ND	204					U
90	2,2',3,4',5 -PeCB	C	394 U	168	25:35		1.45		
91	2,2',3,4',6 -PeCB	C88							
92	2,2',3,5,5' -PeCB		ND	193					U
93	2,2',3,5,6 -PeCB	C	ND	184					U
94	2,2',3,5,6' -PeCB		ND	191					U
95	2,2',3,5',6 -PeCB		394 U	189	22:00		1.66		
96	2,2',3,6,6' -PeCB		ND	215					U
97	2,2',3,4',5' -PeCB	C86							
98	2,2',3,4',6' -PeCB	C	ND	178					U
99	2,2',4,4',5 -PeCB		ND	163					U

1H VG
26 Feb 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run2 Dioxin Inlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
100	2,2',4,4',6 -PeCB	C93					
101	2,2',4,5,5' -PeCB	C90					
102	2,2',4,5,6' -PeCB	C98					
103	2,2',4,5',6 -PeCB		ND	173			U
104	2,2',4,6,6' -PeCB		ND	171			U
105	2,3,3',4,4' -PeCB		ND	377			U
106	2,3,3',4,5 -PeCB		ND	342			U
107	2,3,3',4',5 -PeCB	C	ND	350			U
108	2,3,3',4,5' -PeCB	C86					
109	2,3,3',4,6 -PeCB		ND	357			U
110	2,3,3',4',6 -PeCB	C	464 vl	139	28:12	1.66	
111	2,3,3',5,5' -PeCB		ND	137			U
112	2,3,3',5,6 -PeCB		ND	134			U
113	2,3,3',5',6 -PeCB	C90					
114	2,3,4,4',5 -PeCB		ND	346			U
115	2,3,4,4',6 -PeCB	C110					
116	2,3,4,5,6 -PeCB	C85					
117	2,3,4',5,6 -PeCB	C85					
118	2,3',4,4',5 -PeCB		ND	337			U
119	2,3',4,4',6 -PeCB	C86					
120	2,3',4,5,5' -PeCB		ND	135			U
121	2,3',4,5',6 -PeCB		ND	142			U
122	2,3,3',4',5' -PeCB		ND	388			U
123	2,3',4,4',5' -PeCB		ND UJ	323			U
124	2,3',4',5,5' -PeCB	C107					
125	2,3',4',5',6 -PeCB	C86					
126	3,3',4,4',5 -PeCB		ND	393			U
127	3,3',4,5,5' -PeCB		ND	370			U
128	2,2',3,3',4,4' -HxCB	C	ND	68.8			U
129	2,2',3,3',4,5 -HxCB	C	280 y	75.4	36:46	1.25	
130	2,2',3,3',4,5' -HxCB		ND	87.3			U
131	2,2',3,3',4,6 -HxCB		ND	86.7			U
132	2,2',3,3',4,6' -HxCB		114 y	81.7	32:26	1.49 #	K
133	2,2',3,3',5,5' -HxCB		ND	83.9			U
134	2,2',3,3',5,6 -HxCB		ND	101			U
135	2,2',3,3',5,6' -HxCB	C	105 y	56.1	29:25	1.10	
136	2,2',3,3',6,6' -HxCB		81.7 y	44.7	26:16	0.93 #	K
137	2,2',3,4,4',5 -HxCB		ND	76.1			U
138	2,2',3,4,4',5' -HxCB	C129					
139	2,2',3,4,4',6 -HxCB	C	ND	73.6			U
140	2,2',3,4,4',6' -HxCB	C139					
141	2,2',3,4,5,5' -HxCB		ND	72.6			U
142	2,2',3,4,5,6 -HxCB		ND	84.4			U
143	2,2',3,4,5,6' -HxCB		ND	72.3			U
144	2,2',3,4,5',6 -HxCB		ND	58.1			U
145	2,2',3,4,6,6' -HxCB		ND	46.4			U
146	2,2',3,4',5,5' -HxCB		ND	68.4			U
147	2,2',3,4',5,6 -HxCB	C	195 y	72.4	30:40	1.17	
148	2,2',3,4',5,6' -HxCB		ND	60.3			U
149	2,2',3,4',5',6 -HxCB	C147					
150	2,2',3,4',6,6' -HxCB		ND	43.5			U
151	2,2',3,5,5',6 -HxCB	C135					
152	2,2',3,5,6,6' -HxCB		ND	47.1			U
153	2,2',4,4',5,5' -HxCB	C	195 y	63.3	34:55	1.26	
154	2,2',4,4',5,6' -HxCB		ND	47.5			U

AM 3-7-07

HUG 26 Feb 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run2 Dioxin Inlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
155	2,2',4,4',6,6' -HxCB		ND	28.0			U
156	2,3,3',4,4',5 -HxCB	C	ND	74.3			U
157	2,3,3',4,4',5' -HxCB	C156					
158	2,3,3',4,4',6 -HxCB		ND	53.7			U
159	2,3,3',4,5,5' -HxCB		ND	60.4			U
160	2,3,3',4,5,6 -HxCB		ND	57.8			U
161	2,3,3',4,5',6 -HxCB		ND	60.4			U
162	2,3,3',4',5,5' -HxCB		ND	57.9			U
163	2,3,3',4',5,6 -HxCB	C129					
164	2,3,3',4',5',6 -HxCB		ND	58.7			U
165	2,3,3',5,5',6 -HxCB		ND	62.8			U
166	2,3,4,4',5,6 -HxCB	C128					
167	2,3',4,4',5,5' -HxCB		ND	48.6			U
168	2,3',4,4',5',6 -HxCB	C153					
169	3,3',4,4',5,5' -HxCB		ND	55.5			U
170	2,2',3,3',4,4',5 -HpCB		ND	72.0			U
171	2,2',3,3',4,4',6 -HpCB	C	ND	71.0			U
172	2,2',3,3',4,5,5' -HpCB		ND	72.7			U
173	2,2',3,3',4,5,6 -HpCB	C171					
174	2,2',3,3',4,5,6' -HpCB		ND	65.8			U
175	2,2',3,3',4,5',6 -HpCB		ND	28.2			U
176	2,2',3,3',4,6,6' -HpCB		ND	22.9			U
177	2,2',3,3',4,5',6' -HpCB		ND	72.6			U
178	2,2',3,3',5,5',6 -HpCB		ND	30.1			U
179	2,2',3,3',5,6,6' -HpCB		ND	22.3			U
180	2,2',3,4,4',5,5' -HpCB	C	ND	57.4			U
181	2,2',3,4,4',5,6 -HpCB		ND	64.8			U
182	2,2',3,4,4',5,6' -HpCB		ND	26.8			U
183	2,2',3,4,4',5',6 -HpCB	C	ND	64.5			U
184	2,2',3,4,4',6,6' -HpCB		ND	21.1			U
185	2,2',3,4,5,5',6 -HpCB	C183					
186	2,2',3,4,5,6,6' -HpCB		ND	22.5			U
187	2,2',3,4',5,5',6 -HpCB		64.1 U	25.4	38:45	1.37 #	K
188	2,2',3,4',5,6,6' -HpCB		ND	19.9			U
189	2,3,3',4,4',5,5' -HpCB		ND	60.1			U
190	2,3,3',4,4',5,6 -HpCB		ND	57.4			U
191	2,3,3',4,4',5',6 -HpCB		ND	54.2			U
192	2,3,3',4,5,5',6 -HpCB		ND	56.1			U
193	2,3,3',4',5,5',6 -HpCB	C180					
194	2,2',3,3',4,4',5,5' -OcCB		ND	73.7			U
195	2,2',3,3',4,4',5,6 -OcCB		ND	78.9			U
196	2,2',3,3',4,4',5,6' -OcCB		ND	66.2			U
197	2,2',3,3',4,4',6,6' -OcCB	C	ND	49.8			U
198	2,2',3,3',4,5,5',6 -OcCB	C	ND	66.7			U
199	2,2',3,3',4,5,5',6' -OcCB	C198					
200	2,2',3,3',4,5,6,6' -OcCB	C197					
201	2,2',3,3',4,5',6,6' -OcCB		ND	52.6			U
202	2,2',3,3',5,5',6,6' -OcCB		ND	46.4			U
203	2,2',3,4,4',5,5',6 -OcCB		ND	59.5			U
204	2,2',3,4,4',5,6,6' -OcCB		ND	53.4			U
205	2,3,3',4,4',5,5',6 -OcCB		ND	56.0			U
206	2,2',3,3',4,4',5,5',6 -NoCB		ND	91.0			U
207	2,2',3,3',4,4',5,6,6' -NoCB		ND	78.3			U
208	2,2',3,3',4,5,5',6,6' -NoCB		ND	72.0			U
209	2,2',3,3',4,4',5,5',6,6' -DeCB		ND	79.6			U

Analyzed By: AF HVG Reviewed By: [illegible]
Date: 02/02/07 26 Feb 07 Date: 2/2/07

PCB Congener Results by Method 1668A | EPA FORM 2 | *SGS Environmental Services*

Client Project ID: Cement Lock

Client Sample ID
Run2 Dioxin Inlet

Recovery Information

No.	Labeled Standards Structure	-LOC	CARP	Amount Spiked (ng)	Measured Amount (ng)	Percent Recovery (%) #	RT (min.) #	Ratio #	Qualifier
Extraction Standards						(15-150%)			
1L	13C-2	-MoCB		8.00	5.40	67.5	6:42	2.89	Q
3L	13C-4	-MoCB		8.00	3.84	48.0	8:15	2.76	Q
						(25-150%)			
4L	13C-2,2'	-DiCB		8.00	4.93	61.7	8:24	1.60	Q
15L	13C-4,4'	-DiCB		8.00	4.43	55.4	13:03	1.56	Q
19L	13C-2,2',6	-TrCB		8.00	5.14	64.3	10:42	1.05	
37L	13C-3,4,4'	-TrCB		8.00	6.06	75.8	20:01	1.09	
54L	13C-2,2',6,6'	-TeCB		8.00	5.45	68.1	13:17	0.80	
77L	13C-3,3',4,4'	-TeCB		8.00	4.75	59.4	29:09	0.78	
81L	13C-3,4,4',5	-TeCB		8.00	4.79	59.8	28:22	0.80	
104L	13C-2,2',4,6,6'	-PeCB		8.00	5.51	68.9	18:36	1.52	
105L	13C-2,3,3',4,4'	-PeCB		8.00	4.63	57.9	33:58	1.59	
114L	13C-2,3,4,4',5	-PeCB		8.00	4.73	59.2	33:01	1.63	
118L	13C-2,3',4,4',5	-PeCB		8.00	4.81	60.1	32:16	1.58	
123L	13C-2,3',4,4',5'	-PeCB		8.00	5.21	65.1	31:48	1.60	
126L	13C-3,3',4,4',5	-PeCB		8.00	5.03	62.8	38:31	1.59	
155L	13C-2,2',4,4',6,6'	-HxCB		8.00	5.51	68.8	25:13	1.32	
156L	13C-2,3,3',4,4',5	-HxCB	C	16.0	9.77	61.1	43:01	1.25	
157L	13C-2,3,3',4,4',5'	-HxCB	C156L						
167L	13C-2,3',4,4',5,5'	-HxCB		8.00	5.27	65.8	41:15	1.26	
169L	13C-3,3',4,4',5,5'	-HxCB		8.00	5.42	67.7	48:04	1.37	
188L	13C-2,2',3,4',5,6,6'	-HpCB		8.00	5.99	74.8	32:55	1.08	
189L	13C-2,3,3',4,4',5,5'	-HpCB		8.00	5.57	69.7	52:00	1.11	
202L	13C-2,2',3,3',5,5',6,6'	-OcCB		8.00	5.21	65.2	40:49	0.92	
205L	13C-2,3,3',4,4',5,5',6	-OcCB		8.00	5.06	63.2	56:05	0.93	
206L	13C-2,2',3,3',4,4',5,5',6	-NoCB		8.00	5.22	65.2	58:51	0.79	
208L	13C-2,2',3,3',4,5,5',6,6'	-NoCB		8.00	5.57	69.6	51:09	0.79	
209L	13C-2,2',3,3',4,4',5,5',6,6'	-DeCB		8.00	3.55	44.4	61:22	1.20	
Injection Standards									
9L	13C-2,5	-DiCB		2.00			9:48	1.61	
52L	13C-2,2',5,5'	-TeCB		2.00			17:36	0.80	
101L	13C-2,2',4,5,5'	-PeCB		2.00			25:34	1.52	
138L	13C-2,2',3,4,4',5'	-HxCB		2.00			36:44	1.23	
194L	13C-2,2',3,3',4,4',5,5'	-OcCB		2.00			55:19	0.93	

Analyzed By: JT Reviewed By: [illegible]

Date: 02/02/07 Date: 2/2/07

PCB Congener Results by Method 1668A | EPA FORM 1 | *SGS Environmental Services*

Client Project ID: **Cement Lock**

Page 1 of 4

Client Sample ID
Run1 Dioxin Outlet

Laboratory Information			**Sample Information**		
Lab Project ID:	G368-59		Matrix:	Air	
Lab Sample ID:	G368-59-18C		Amount:	1.00	train
Dilution factor:	1				
Collection Date/Time:	07-Dec-06				
Receipt Date/Time:	16-Dec-06	11:00	QC Batch ID:	WG14051 / 14051	
Extraction Date:	08-Jan-06		Filename:	b13jan07a-8	
Analysis Date/Time:	13-Jan-07	23:35	ConCal:	b13jan07a-1	
			RRT Std:	b13jan07a-2	
			Initial Cal:	m1668a-b010906d	

No.	Analyte Structure	-LOC	CARP	Amount ng	EDL ng	RT	#	Ratio	#	Qualifier
1	2	-MoCB		441 UJ	15.2	6:48		3.70	#	K Q
2	3	-MoCB		224 UJ	26.0	8:11		3.07		Q
3	4	-MoCB		122 UJ	22.5	8:19		2.33	#	K Q
4	2,2'	-DiCB		1940 UJ	345	8:29		1.43		Q
5	2,3	-DiCB		336 UJ	61.7	10:24		0.56	#	K
6	2,3'	-DiCB		672 U	115	10:12		1.29	#	K
7	2,4	-DiCB		ND	107					U
8	2,4'	-DiCB		1510	61.7	10:31		1.56		
9	2,5	-DiCB		429 U	151	9:53		0.66	#	K
10	2,6	-DiCB		ND	285					U
11	3,3'	-DiCB		2970 U	131	12:31		1.55		
12	3,4	-DiCB	C	ND	122					U
13	3,4'	-DiCB	C12							
14	3,5	-DiCB		ND	133					U
15	4,4'	-DiCB		507	145	13:04		1.39		
16	2,2',3	-TrCB		1000	88.2	13:01		0.96		
17	2,2',4	-TrCB		1110	67.0	12:35		1.12		
18	2,2',5	-TrCB	C	2280	55.4	12:15		1.07		
19	2,2',6	-TrCB		418	71.5	10:45		0.92		
20	2,3,3'	-TrCB	C	1450	49.9	15:48		1.06		
21	2,3,4	-TrCB	C	798	44.1	16:02		1.07		
22	2,3,4'	-TrCB		491	51.6	16:26		1.12		
23	2,3,5	-TrCB		ND	44.6					U
24	2,3,6	-TrCB		459	40.3	13:01		0.96		
25	2,3',4	-TrCB		102	39.2	15:13		0.89		
26	2,3',5	-TrCB	C	274	46.3	14:58		0.96		
27	2,3',6	-TrCB		151	52.9	12:47		1.08		
28	2,4,4'	-TrCB	C20							
29	2,4,5	-TrCB	C26							
30	2,4,6	-TrCB	C18							
31	2,4',5	-TrCB		1150	47.8	15:31		1.05		
32	2,4',6	-TrCB		581	47.5	13:26		1.08		
33	2,3',4'	-TrCB	C21							
34	2,3',5'	-TrCB		ND	54.1					U
35	3,3',4	-TrCB		243	37.2	19:34		0.89		
36	3,3',5	-TrCB		ND	31.9					U
37	3,4,4'	-TrCB		258 U	35.4	20:03		1.16		
38	3,4,5	-TrCB		ND	36.3					U
39	3,4',5	-TrCB		ND	33.5					U
40	2,2',3,3'	-TeCB	C	315	29.2	19:49		0.74		
41	2,2',3,4	-TeCB		118 U	42.5	19:40		1.01	#	K
42	2,2',3,4'	-TeCB		200 U	30.8	19:16		1.09	#	K
43	2,2',3,5	-TeCB		ND	33.0					U
44	2,2',3,5'	-TeCB	C	1090	30.2	18:41		0.87		

HJG
26 Feb 07

PCB Congener Results by Method 1668A

Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run1 Dioxin Outlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
45	2,2',3,6 -TeCB	C	332 U	30.0	15:56	0.76	
46	2,2',3,6' -TeCB		78.2	31.1	16:14	0.67	
47	2,2',4,4' -TeCB	C44					
48	2,2',4,5 -TeCB		167	32.2	18:26	0.70	
49	2,2',4,5' -TeCB	C	492	27.4	18:07	0.84	
50	2,2',4,6 -TeCB	C	215	29.8	15:14	0.78	
51	2,2',4,6' -TeCB	C45					
52	2,2',5,5' -TeCB		1500	34.5	17:37	0.85	
53	2,2',5,6' -TeCB	C50					
54	2,2',6,6' -TeCB		ND U	16.4			U
55	2,3,3',4 -TeCB		446	37.0	23:27	0.72	
56	2,3,3',4' -TeCB		220	41.6	24:18	0.85	
57	2,3,3',5 -TeCB		ND	39.8			U
58	2,3,3',5' -TeCB		ND	37.6			U
59	2,3,3',6 -TeCB	C	58.3 J	23.8	19:03	0.83	J
60	2,3,4,4' -TeCB		104	37.2	24:34	0.77	
61	2,3,4,5 -TeCB	C	1260	48.1	23:03	0.81	
62	2,3,4,6 -TeCB	C59					
63	2,3,4',5 -TeCB		ND	39.9			U
64	2,3,4',6 -TeCB		322	23.2	20:03	0.83	
65	2,3,5,6 -TeCB	C44					
66	2,3',4,4' -TeCB		ND	39.9			U
67	2,3',4,5 -TeCB		ND	32.8			U
68	2,3',4,5' -TeCB		ND	34.7			U
69	2,3',4,6 -TeCB	C49					
70	2,3',4',5 -TeCB	C61					
71	2,3',4',6 -TeCB	C40					
72	2,3',5,5' -TeCB		ND	40.0			U
73	2,3',5',6 -TeCB		ND	23.6			U
74	2,4,4',5 -TeCB	C61					
75	2,4,4',6 -TeCB	C59					
76	2,3',4',5' -TeCB	C61					
77	3,3',4,4' -TeCB		89.9 U	39.9	29:09	0.79	
78	3,3',4,5 -TeCB		ND	41.1			U
79	3,3',4,5' -TeCB		ND	33.2			U
80	3,3',5,5' -TeCB		ND	35.2			U
81	3,4,4',5 -TeCB		ND	40.9			U
82	2,2',3,3',4 -PeCB		ND	32.5			U
83	2,2',3,3',5 -PeCB		209 U	33.9	26:11	1.95 #	K
84	2,2',3,3',6 -PeCB		384	30.7	23:18	1.41	
85	2,2',3,4,4' -PeCB	C	181 U	24.2	27:55	1.29 #	K
86	2,2',3,4,5 -PeCB	C	1670	25.0	27:03	1.62	
87	2,2',3,4,5' -PeCB	C86					
88	2,2',3,4,6 -PeCB	C	179	29.0	23:01	1.41	
89	2,2',3,4,6' -PeCB		ND	31.8			U
90	2,2',3,4',5 -PeCB	C	1020	26.1	25:35	1.53	
91	2,2',3,4',6 -PeCB	C88					
92	2,2',3,5,5' -PeCB		187	30.1	24:51	1.49	
93	2,2',3,5,6 -PeCB	C	ND	28.7			U
94	2,2',3,5,6' -PeCB		ND	29.8			U
95	2,2',3,5',6 -PeCB		1120	29.4	21:59	1.64	
96	2,2',3,6,6' -PeCB		ND	60.0			U
97	2,2',3,4',5' -PeCB	C86					
98	2,2',3,4',6' -PeCB	C	58.7 U	27.8	22:24	1.26 #	J K
99	2,2',4,4',5 -PeCB		454	25.4	26:19	1.48	

1+ U E

26 Feb 01

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run1 Dioxin Outlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
100	2,2',4,4',6 -PeCB	C93					
101	2,2',4,5,5' -PeCB	C90					
102	2,2',4,5,6' -PeCB	C98					
103	2,2',4,5',6 -PeCB		ND	27.0			U
104	2,2',4,6,6' -PeCB		ND	40.0			U
105	2,3,3',4,4' -PeCB		352	28.9	33:58	1.45	
106	2,3,3',4,5 -PeCB		ND	24.1			U
107	2,3,3',4',5 -PeCB	C	ND	24.7			U
108	2,3,3',4,5' -PeCB	C86					
109	2,3,3',4,6 -PeCB		75.8	25.2	31:39	1.46	
110	2,3,3',4',6 -PeCB	C	1280	21.7	28:11	1.63	
111	2,3,3',5,5' -PeCB		ND	21.4			U
112	2,3,3',5,6 -PeCB		22.2 U	21.0	26:27	0.94 #	J K
113	2,3,3',5',6 -PeCB	C90					
114	2,3,4,4',5 -PeCB		ND	24.3			U
115	2,3,4,4',6 -PeCB	C110					
116	2,3,4,5,6 -PeCB	C85					
117	2,3,4',5,6 -PeCB	C85					
118	2,3',4,4',5 -PeCB		801	25.3	32:16	1.63	
119	2,3',4,4',6 -PeCB	C86					
120	2,3',4,5,5' -PeCB		ND	21.0			U
121	2,3',4,5',6 -PeCB		ND	22.1			U
122	2,3,3',4',5' -PeCB		ND	27.4			U
123	2,3',4,4',5' -PeCB		64.9 U	24.1	31:52	1.93 #	K
124	2,3',4',5,5' -PeCB	C107					
125	2,3',4',5',6 -PeCB	C86					
126	3,3',4,4',5 -PeCB		ND	29.7			U
127	3,3',4,5,5' -PeCB		ND	26.1			U
128	2,2',3,3',4,4' -HxCB	C	239	45.4	38:37	1.31	
129	2,2',3,3',4,5 -HxCB	C	1260	49.7	36:45	1.29	
130	2,2',3,3',4,5' -HxCB		114	57.6	35:49	1.10	
131	2,2',3,3',4,6 -HxCB		ND	57.3			U
132	2,2',3,3',4,6' -HxCB		417 U	53.9	32:26	1.54 #	K
133	2,2',3,3',5,5' -HxCB		ND	55.4			U
134	2,2',3,3',5,6 -HxCB		84.5 U	66.8	30:56	1.44 #	K
135	2,2',3,3',5,6' -HxCB	C	338	64.9	29:24	1.28	
136	2,2',3,3',6,6' -HxCB		151	51.7	26:14	1.31	
137	2,2',3,4,4',5 -HxCB		82.9 U	50.3	36:06	1.61 #	K
138	2,2',3,4,4',5' -HxCB	C129					
139	2,2',3,4,4',6 -HxCB	C	ND	48.6			U
140	2,2',3,4,4',6' -HxCB	C139					
141	2,2',3,4,5,5' -HxCB		210	47.9	35:12	1.42	
142	2,2',3,4,5,6 -HxCB		ND	55.7			U
143	2,2',3,4,5,6' -HxCB		ND	47.7			U
144	2,2',3,4,5',6 -HxCB		ND	67.2			U
145	2,2',3,4,6,6' -HxCB		ND	53.7			U
146	2,2',3,4',5,5' -HxCB		137	45.2	34:01	1.33	
147	2,2',3,4',5,6 -HxCB	C	794	47.8	30:39	1.14	
148	2,2',3,4',5,6' -HxCB		ND	69.8			U
149	2,2',3,4',5',6 -HxCB	C147					
150	2,2',3,4',6,6' -HxCB		ND	50.3			U
151	2,2',3,5,5',6 -HxCB	C135					
152	2,2',3,5,6,6' -HxCB		ND	54.5			U
153	2,2',4,4',5,5' -HxCB	C	772	41.8	34:54	1.30	
154	2,2',4,4',5,6' -HxCB		ND	55.0			U

HJE
26 Pet 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock
Page 4 of 4

SGS Environmental Services

Client Sample ID
Run1 Dioxin Outlet

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
155	2,2',4,4',6,6' -HxCB		ND	30.7			U
156	2,3,3',4,4',5 -HxCB	C	160 Y	39.3	43:00	1.51 #	K
157	2,3,3',4,4',5' -HxCB	C156					
158	2,3,3',4,4',6 -HxCB		122 Y	35.4	37:18	1.46 #	K
159	2,3,3',4,5,5' -HxCB		266 Y	33.6	40:09	11.04 #	K
160	2,3,3',4,5,6 -HxCB		ND	38.2			U
161	2,3,3',4,5',6 -HxCB		ND	39.9			U
162	2,3,3',4',5,5' -HxCB		ND	32.2			U
163	2,3,3',4',5,6 -HxCB	C129					
164	2,3,3',4',5',6 -HxCB		95.3	38.7	36:18	1.23	
165	2,3,3',5,5',6 -HxCB		ND	41.4			U
166	2,3,4,4',5,6 -HxCB	C128					
167	2,3',4,4',5,5' -HxCB		47.4	28.7	41:15	1.24	
168	2,3',4,4',5',6 -HxCB	C153					
169	3,3',4,4',5,5' -HxCB		ND	32.6			U
170	2,2',3,3',4,4',5 -HpCB		ND	49.1			U
171	2,2',3,3',4,4',6 -HpCB	C	63.5 Y	48.4	41:36	1.54 #	J K
172	2,2',3,3',4,5,5' -HpCB		50.5 Y	49.6	44:07	1.38 #	K
173	2,2',3,3',4,5,6 -HpCB	C171					
174	2,2',3,3',4,5,6' -HpCB		134	44.9	40:02	0.94	
175	2,2',3,3',4,5',6 -HpCB		ND	48.7			U
176	2,2',3,3',4,6,6' -HpCB		ND	39.5			U
177	2,2',3,3',4,5',6' -HpCB		86.8 Y	49.5	40:41	1.76 #	K
178	2,2',3,3',5,5',6 -HpCB		ND	52.1			U
179	2,2',3,3',5,6,6' -HpCB		95.0 Y	38.6	33:26	1.22 #	K
180	2,2',3,4,4',5,5' -HpCB	C	242 Y	39.2	45:07	1.12	
181	2,2',3,4,4',5,6 -HpCB		ND	44.2			U
182	2,2',3,4,4',5,6' -HpCB		ND	46.4			U
183	2,2',3,4,4',5',6 -HpCB	C	ND	44.0			U
184	2,2',3,4,4',6,6' -HpCB		ND	36.4			U
185	2,2',3,4,5,5',6 -HpCB	C183					
186	2,2',3,4,5,6,6' -HpCB		ND	38.9			U
187	2,2',3,4',5,5',6 -HpCB		154	43.9	38:44	1.02	
188	2,2',3,4',5,6,6' -HpCB		ND	34.1			U
189	2,3,3',4,4',5,5' -HpCB		ND	46.1			U
190	2,3,3',4,4',5,6 -HpCB		ND	39.2			U
191	2,3,3',4,4',5',6 -HpCB		ND	36.9			U
192	2,3,3',4,5,5',6 -HpCB		ND	38.2			U
193	2,3,3',4',5,5',6 -HpCB	C180					
194	2,2',3,3',4,4',5,5' -OcCB		92.2 Y	38.8	55:20	1.10 #	K
195	2,2',3,3',4,4',5,6 -OcCB		ND	41.5			U
196	2,2',3,3',4,4',5,6' -OcCB		ND	42.7			U
197	2,2',3,3',4,4',6,6' -OcCB	C	ND	32.2			U
198	2,2',3,3',4,5,5',6 -OcCB	C	ND	43.1			U
199	2,2',3,3',4,5,5',6' -OcCB	C198					
200	2,2',3,3',4,5,6,6' -OcCB	C197					
201	2,2',3,3',4,5',6,6' -OcCB		ND	34.0			U
202	2,2',3,3',5,5',6,6' -OcCB		38.2 J	30.3	40:50	0.90	J
203	2,2',3,4,4',5,5',6 -OcCB		68.5 Y	38.4	49:31	1.57 #	K
204	2,2',3,4,4',5,6,6' -OcCB		ND	34.5			U
205	2,3,3',4,4',5,5',6 -OcCB		ND	29.0			U
206	2,2',3,3',4,4',5,5',6 -NoCB		ND	52.0			U
207	2,2',3,3',4,4',5,6,6' -NoCB		ND	46.0			U
208	2,2',3,3',4,5,5',6,6' -NoCB		ND	43.4			U
209	2,2',3,3',4,4',5,5',6,6' -DeCB		ND	39.3			U

Analyzed By: JF HUE Reviewed By: MP

Date: 02/02/07 26 Feb 07 Date: 2/21/07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock
Page 1 of 1

EPA FORM 2

SGS Environmental Services

Client Sample ID
Run1 Dioxin Outlet

Recovery Information

No.	Labeled Standards Structure	-LOC	CARP	Amount Spiked (ng)	Measured Amount (ng)	Percent Recovery (%) #	RT (min.) #	Ratio #	Qualifier
Extraction Standards						(15-150%)			
1L	13C-2	-MoCB		8.00	4.34	54.2	6:48	2.65 #	Q
3L	13C-4	-MoCB		8.00	3.81	47.6	8:18	3.02	Q
						(25-150%)			
4L	13C-2,2'	-DiCB		8.00	4.01	50.1	8:28	1.58	Q
15L	13C-4,4'	-DiCB		8.00	4.16	52.1	13:04	1.64	
19L	13C-2,2',6	-TrCB		8.00	4.94	61.7	10:45	1.00	
37L	13C-3,4,4'	-TrCB		8.00	5.86	73.2	20:02	1.08	
54L	13C-2,2',6,6'	-TeCB		8.00	5.04	63.0	13:19	0.78	Q
77L	13C-3,3',4,4'	-TeCB		8.00	4.51	56.4	29:08	0.77	
81L	13C-3,4,4',5	-TeCB		8.00	4.79	59.9	28:21	0.76	
104L	13C-2,2',4,6,6'	-PeCB		8.00	6.45	80.6	18:36	1.56	
105L	13C-2,3,3',4,4'	-PeCB		8.00	5.38	67.3	33:57	1.60	
114L	13C-2,3,4,4',5	-PeCB		8.00	5.55	69.4	33:00	1.55	
118L	13C-2,3',4,4',5	-PeCB		8.00	5.46	68.3	32:15	1.59	
123L	13C-2,3',4,4',5'	-PeCB		8.00	6.11	76.3	31:48	1.64	
126L	13C-3,3',4,4',5	-PeCB		8.00	5.91	73.9	38:29	1.57	
155L	13C-2,2',4,4',6,6'	-HxCB		8.00	6.04	75.5	25:13	1.25	
156L	13C-2,3,3',4,4',5	-HxCB	C	16.0	10.6	66.5	43:00	1.30	
157L	13C-2,3,3',4,4',5'	-HxCB	C156L						
167L	13C-2,3',4,4',5,5'	-HxCB		8.00	5.59	69.8	41:14	1.21	
169L	13C-3,3',4,4',5,5'	-HxCB		8.00	5.66	70.8	48:02	1.34	
188L	13C-2,2',3,4',5,6,6'	-HpCB		8.00	6.11	76.4	32:54	1.08	
189L	13C-2,3,3',4,4',5,5'	-HpCB		8.00	5.87	73.4	51:59	1.11	
202L	13C-2,2',3,3',5,5',6,6'	-OcCB		8.00	5.33	66.7	40:47	0.89	
205L	13C-2,3,3',4,4',5,5',6	-OcCB		8.00	5.63	70.3	56:04	0.92	
206L	13C-2,2',3,3',4,4',5,5',6	-NoCB		8.00	5.40	67.4	58:50	0.78	
208L	13C-2,2',3,3',4,5,5',6,6'	-NoCB		8.00	5.68	71.0	51:09	0.80	
209L	13C-2,2',3,3',4,4',5,5',6,6'	-DeCB		8.00	5.76	72.0	61:22	1.14	
Injection Standards									
9L	13C-2,5	-DiCB		2.00			9:51	1.62	
52L	13C-2,2',5,5'	-TeCB		2.00			17:36	0.81	
101L	13C-2,2',4,5,5'	-PeCB		2.00			25:33	1.53	
138L	13C-2,2',3,4,4',5'	-HxCB		2.00			36:43	1.30	
194L	13C-2,2',3,3',4,4',5,5'	-OcCB		2.00			55:19	0.87	

Analyzed By: AF Reviewed By: [illegible]

Date: 02/02/07 Date: 2/2/07

PCB Congener Results by Method 1668A | EPA FORM 1 | *SGS Environmental Services*

Client Project ID: Cement Lock

Page 1 of 4

Client Sample ID
Run2 Dioxin Outlet

Laboratory Information			Sample Information		
Lab Project ID:	G368-59		Matrix:	Air	
Lab Sample ID:	G368-59-24C		Amount:	1.00	train
Dilution factor:	1				
Collection Date/Time:	07-Dec-06				
Receipt Date/Time:	16-Dec-06	11:00	QC Batch ID:	WG14051 / 14051	
Extraction Date:	08-Jan-06		Filename:	b13jan07a-9	
Analysis Date/Time:	14-Jan-07	00:41	ConCal:	b13jan07a-1	
			RRT Std:	b13jan07a-2	
			Initial Cal:	m1668a-b010906d	

No.	Analyte Structure	LOC	CARP	Amount ng	EDL ng	RT	#	Ratio	#	Qualifier
1	2	-MoCB		173 UJ	10.3	6:50		2.44	#	K Q
2	3	-MoCB		215 J	16.5	8:13		3.52		Q
3	4	-MoCB		120 UJ	13.6	8:21		2.42	#	K Q
4	2,2'	-DiCB		ND UJ	11.2					U Q
5	2,3	-DiCB		505 UJ	42.7	10:26		0.06	#	K
6	2,3'	-DiCB		176 UJ	79.8	10:13		0.53	#	K
7	2,4	-DiCB		ND UJ	74.3					U
8	2,4'	-DiCB		264 J	42.7	10:33		1.37		
9	2,5	-DiCB		352 UJ	104	9:54		0.09	#	K
10	2,6	-DiCB		ND UJ	9.63					U
11	3,3'	-DiCB		2060 UJ	90.4	12:32		1.54		
12	3,4	-DiCB	C	ND UJ	84.3					U
13	3,4'	-DiCB	C12							
14	3,5	-DiCB		ND UJ	91.7					U
15	4,4'	-DiCB		341 J	104	13:06		1.76		Q
16	2,2,3	-TrCB		197 U	72.3	13:02		0.88	#	K Q
17	2,2,4	-TrCB		248 J	54.9	12:37		1.03		Q
18	2,2,5	-TrCB	C	460 U	45.4	12:16		1.16		
19	2,2,6	-TrCB		73.3 U	60.9	10:48		0.84	#	K
20	2,3,3'	-TrCB	C	1030 U	40.9	15:48		1.08		
21	2,3,4	-TrCB	C	554 U	36.1	16:02		1.16		
22	2,3,4'	-TrCB		376 U	42.3	16:26		1.06		
23	2,3,5	-TrCB		ND	36.5					U
24	2,3,6	-TrCB		ND	33.0					U
25	2,3,4	-TrCB		58.6 U	32.1	15:12		1.39	#	K
26	2,3,5	-TrCB	C	ND	37.9					U
27	2,3,6	-TrCB		ND	43.3					U
28	2,4,4'	-TrCB	C20							
29	2,4,5	-TrCB	C26							
30	2,4,6	-TrCB	C18							
31	2,4,5	-TrCB		767 U	39.1	15:31		1.00		
32	2,4,6	-TrCB		207 U	38.9	13:27		1.19		
33	2,3,4'	-TrCB	C21							
34	2,3,5'	-TrCB		ND	44.3					U
35	3,3,4	-TrCB		88.1	36.2	19:34		0.90		
36	3,3,5	-TrCB		ND	31.1					U
37	3,4,4'	-TrCB		213 U	33.5	20:01		1.24	#	K
38	3,4,5	-TrCB		ND	35.3					U
39	3,4,5	-TrCB		ND	32.6					U
40	2,2',3,3'	-TeCB	C	ND	26.8					U
41	2,2',3,4	-TeCB		336	39.0	19:48		0.78		
42	2,2',3,4'	-TeCB		137 U	28.3	19:15		1.10	#	K
43	2,2',3,5	-TeCB		ND	30.3					U
44	2,2',3,5'	-TeCB	C	580	27.7	18:41		0.82		

HVG
26 Feb 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock
Page 2 of 4

SGS Environmental Services

Client Sample ID
Run2 Dioxin Outlet

No.	Analyte Structure	LOC	CARP	Amount ng	EDL ng	RT	#	Ratio	#	Qualifier
45	2,2',3,5'-TeCB		C	150 U	25.1	15:55		0.86		
46	2,2',3,6'-TeCB			28.9 U	26.0	16:15		0.64	#	J K
47	2,2',4,4'-TeCB		C44							
48	2,2',4,5-TeCB			142 U	29.5	18:25		0.92	#	K
49	2,2',4,5'-TeCB		C	298	25.2	18:07		0.77		
50	2,2',4,6-TeCB		C	76.6 U	24.9	15:14		1.16	#	J K
51	2,2',4,6'-TeCB		C45							
52	2,2',5,5'-TeCB			840 U	31.6	17:37		0.83		
53	2,2',5,6'-TeCB		C50							
54	2,2',6,6'-TeCB			ND	11.9					U
55	2,3,3',4-TeCB			ND	19.1					U
56	2,3,3',4'-TeCB			ND	21.5					U
57	2,3,3',5-TeCB			25.2 J	20.6	21:57		0.69		J
58	2,3,3',5'-TeCB			ND	19.4					U
59	2,3,3',6-TeCB		C	39.1 J	21.8	19:02		0.66		J
60	2,3,4,4'-TeCB			95.6	19.2	24:32		0.84		
61	2,3,4,5-TeCB		C	789	24.9	23:02		0.83		
62	2,3,4,6-TeCB		C59							
63	2,3,4',5-TeCB			ND	20.6					U
64	2,3,4',6-TeCB			225	21.3	20:04		0.76		
65	2,3,5,6-TeCB		C44							
66	2,3',4,4'-TeCB			306 U	20.6	23:25		0.79		
67	2,3',4,5-TeCB			ND	17.0					U
68	2,3',4,5'-TeCB			ND	17.9					U
69	2,3',4,6-TeCB		C49							
70	2,3',4',5-TeCB		C61							
71	2,3',4',6-TeCB		C40							
72	2,3',5,5'-TeCB			ND	20.7					U
73	2,3',5,6-TeCB			ND	21.7					U
74	2,4,4',5-TeCB		C61							
75	2,4,4',6-TeCB		C59							
76	2,3',4',5'-TeCB		C61							
77	3,3',4,4'-TeCB			39.0 U	20.7	29:09		0.79		J
78	3,3',4,5-TeCB			ND	21.3					U
79	3,3',4,5'-TeCB			ND	17.2					U
80	3,3',5,5'-TeCB			ND	18.2					U
81	3,4,4',5-TeCB			ND	22.9					U
82	2,2',3,3',4-PeCB			ND	60.3					U
83	2,2',3,3',5-PeCB			268 U	62.9	26:18		1.86	#	K
84	2,2',3,3',6-PeCB			146	56.9	23:16		1.33		
85	2,2',3,4,4'-PeCB		C	68.6 J	44.8	27:56		1.47		J
86	2,2',3,4,5-PeCB		C	459	46.3	27:02		1.57		
87	2,2',3,4,5'-PeCB		C86							
88	2,2',3,4,6-PeCB		C	97.2	53.8	23:00		1.48		
89	2,2',3,4,6'-PeCB			ND	59.1					U
90	2,2',3,4',5-PeCB		C	500 U	48.5	25:33		1.65		
91	2,2',3,4',6-PeCB		C88							
92	2,2',3,5,5'-PeCB			97.2 U	55.9	24:48		1.28	#	K
93	2,2',3,5,6-PeCB		C	ND	53.3					U
94	2,2',3,5,6'-PeCB			ND	55.3					U
95	2,2',3,5',6-PeCB			473 U	54.6	21:57		1.81	#	K
96	2,2',3,6,6'-PeCB			ND	33.7					U
97	2,2',3,4',5'-PeCB		C86							
98	2,2',3,4',6'-PeCB		C	ND	51.6					U
99	2,2',4,4',5-PeCB			201 U	47.2	26:18		1.86	#	K

HUG
26 Feb 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock
Page 3 of 4

SGS Environmental Services

Client Sample ID
Run2 Dioxin Outlet

No.	Analyte Structure	-LOC	CARP	Amount ng	EDL ng	RT	#	Ratio	#	Qualifier
100	2,2',4,4',6	-PeCB	C93							
101	2,2',4,5,6'	-PeCB	C90							
102	2,2',4,5,6'	-PeCB	C98							
103	2,2',4,5',6	-PeCB		ND	50.0					U
104	2,2',4,6,6'	-PeCB		ND	22.5					U
105	2,3,3',4,4'	-PeCB		111 U	46.1	33:57		2.02	#	K
106	2,3,3',4,5	-PeCB		ND	36.7					U
107	2,3,3',4',5	-PeCB	C	ND	37.6					U
108	2,3,3',4,5'	-PeCB	C86							
109	2,3,3',4,6	-PeCB		ND	38.4					U
110	2,3,3',4',6	-PeCB	C	490 U	40.3	28:10		1.64		
111	2,3,3',5,5'	-PeCB		ND	39.8					U
112	2,3,3',5,6	-PeCB		ND	38.9					U
113	2,3,3',5',6	-PeCB	C90							
114	2,3,4,4',5	-PeCB		ND	39.9					U
115	2,3,4,4',6	-PeCB	C110							
116	2,3,4,5,6	-PeCB	C85							
117	2,3,4',5,6	-PeCB	C85							
118	2,3',4,4',5	-PeCB		260 U	36.9	32:15		1.70		
119	2,3',4,4',6	-PeCB	C86							
120	2,3',4,5,5'	-PeCB		ND	39.0					U
121	2,3',4,5',6	-PeCB		ND	41.0					U
122	2,3,3',4',5'	-PeCB		ND	41.7					U
123	2,3',4,4',5'	-PeCB		ND U	35.6					U
124	2,3',4',5,5'	-PeCB	C107							
125	2,3',4',5',6	-PeCB	C86							
126	3,3',4,4',5	-PeCB		ND	43.8					U
127	3,3',4,5,5'	-PeCB		ND	39.7					U
128	2,2',3,3',4,4'	-HxCB	C	60.1 J	41.8	38:36		1.31		J
129	2,2',3,3',4,5	-HxCB	C	355 U	45.7	36:44		1.30		
130	2,2',3,3',4,5'	-HxCB		ND	53.0					U
131	2,2',3,3',4,6	-HxCB		ND	52.6					U
132	2,2',3,3',4,6'	-HxCB		124 U	49.6	32:24		1.39		
133	2,2',3,3',5,5'	-HxCB		ND	50.9					U
134	2,2',3,3',5,6	-HxCB		ND	61.4					U
135	2,2',3,3',5,6'	-HxCB	C	133 U	42.1	29:23		1.58	#	K
136	2,2',3,3',6,6'	-HxCB		43.8	33.6	26:12		1.38		
137	2,2',3,4,4',5	-HxCB		ND	46.2					U
138	2,2',3,4,4',5'	-HxCB	C129							
139	2,2',3,4,4',6	-HxCB	C	ND	44.7					U
140	2,2',3,4,4',6'	-HxCB	C139							
141	2,2',3,4,5,5'	-HxCB		63.8 U	44.0	35:10		1.67	#	K
142	2,2',3,4,5,6	-HxCB		ND	51.2					U
143	2,2',3,4,5,6'	-HxCB		ND	43.9					U
144	2,2',3,4,5',6	-HxCB		ND	43.6					U
145	2,2',3,4,6,6'	-HxCB		ND	34.9					U
146	2,2',3,4',5,5'	-HxCB		44.9 U	41.5	34:00		0.78	#	K
147	2,2',3,4',5,6	-HxCB	C	273 U	44.0	30:39		1.16		
148	2,2',3,4',5,6'	-HxCB		ND	45.3					U
149	2,2',3,4',5',6	-HxCB	C147							
150	2,2',3,4',6,6'	-HxCB		ND	32.7					U
151	2,2',3,5,5',6	-HxCB	C135							
152	2,2',3,5,6,6'	-HxCB		ND	35.4					U
153	2,2',4,4',5,5'	-HxCB	C	238 U	38.4	34:53		1.21		
154	2,2',4,4',5,6'	-HxCB		ND	35.7					U

LM
3-7-07

HOG
26 Feb 07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock

SGS Environmental Services

Client Sample ID
Run2 Dioxin Outlet

No.	Analyte Structure	-LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
155	2,2',4,4',6,6'	-HxCB		ND	18.3			U
156	2,3,3',4,4',5	-HxCB	C	ND	38.1			U
157	2,3,3',4,4',5'	-HxCB	C156					
158	2,3,3',4,4',6	-HxCB		ND	32.6			U
159	2,3,3',4,5,5'	-HxCB		ND	33.5			U
160	2,3,3',4,5,6	-HxCB		ND	35.1			U
161	2,3,3',4,5',6	-HxCB		ND	36.7			U
162	2,3,3',4',5,5'	-HxCB		ND	32.0			U
163	2,3,3',4',5,6	-HxCB	C129					
164	2,3,3',4',5',6	-HxCB		36.3 U	35.6	36:18	0.83 #	J K
165	2,3,3',5,5',6	-HxCB		ND	38.1			U
166	2,3,4,4',5,6	-HxCB	C128					
167	2,3',4,4',5,5'	-HxCB		ND	30.4			U
168	2,3',4,4',5',6	-HxCB	C153					
169	3,3',4,4',5,5'	-HxCB		ND	33.3			U
170	2,2',3,3',4,4',5	-HpCB		ND	66.6			U
171	2,2',3,3',4,4',6	-HpCB	C	ND	65.6			U
172	2,2',3,3',4,5,5'	-HpCB		ND	67.3			U
173	2,2',3,3',4,5,6	-HpCB	C171					
174	2,2',3,3',4,5,6'	-HpCB		ND	60.9			U
175	2,2',3,3',4,5',6	-HpCB		ND	33.7			U
176	2,2',3,3',4,6,6'	-HpCB		ND	27.3			U
177	2,2',3,3',4,5',6'	-HpCB		ND	67.1			U
178	2,2',3,3',5,5',6	-HpCB		ND	36.0			U
179	2,2',3,3',5,6,6'	-HpCB		ND	26.7			U
180	2,2',3,4,4',5,5'	-HpCB	C	65.7 U	53.1	45:05	1.47 #	J K
181	2,2',3,4,4',5,6	-HpCB		ND	59.9			U
182	2,2',3,4,4',5,6'	-HpCB		ND	32.1			U
183	2,2',3,4,4',5',6	-HpCB	C	ND	59.6			U
184	2,2',3,4,4',6,6'	-HpCB		ND	25.2			U
185	2,2',3,4,5,5',6	-HpCB	C183					
186	2,2',3,4,5,6,6'	-HpCB		ND	26.9			U
187	2,2',3,4',5,5',6	-HpCB		63.8 U	30.4	38:42	1.31 #	K
188	2,2',3,4',5,6,6'	-HpCB		ND	23.8			U
189	2,3,3',4,4',5,5'	-HpCB		ND	42.2			U
190	2,3,3',4,4',5,6	-HpCB		ND	53.1			U
191	2,3,3',4,4',5',6	-HpCB		ND	50.1			U
192	2,3,3',4,5,5',6	-HpCB		ND	51.9			U
193	2,3,3',4',5,5',6	-HpCB	C180					
194	2,2',3,3',4,4',5,5'	-OcCB		ND	62.6			U
195	2,2',3,3',4,4',5,6	-OcCB		ND	67.0			U
196	2,2',3,3',4,4',5',6	-OcCB		ND	48.9			U
197	2,2',3,3',4,4',6,6'	-OcCB	C	ND	36.8			U
198	2,2',3,3',4,5,5',6	-OcCB	C	ND	49.3			U
199	2,2',3,3',4,5,5',6'	-OcCB	C198					
200	2,2',3,3',4,5,6,6'	-OcCB	C197					
201	2,2',3,3',4,5',6,6'	-OcCB		ND	38.9			U
202	2,2',3,3',5,5',6,6'	-OcCB		ND	34.9			U
203	2,2',3,4,4',5,5',6	-OcCB		ND	43.9			U
204	2,2',3,4,4',5,6,6'	-OcCB		ND	39.4			U
205	2,3,3',4,4',5,5',6	-OcCB		ND	46.7			U
206	2,2',3,3',4,4',5,5',6	-NoCB		ND	38.6			U
207	2,2',3,3',4,4',5,6,6'	-NoCB		ND	35.6			U
208	2,2',3,3',4,5,5',6,6'	-NoCB		ND	35.0			U
209	2,2',3,3',4,4',5,5',6,6'	-DeCB		ND	37.2			U

Analyzed By: AF HVE Reviewed By: [illegible]
Date: 02/02/07 26 Feb 07 Date: [illegible]

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock
Page 1 of 1

EPA FORM 2

SGS Environmental Services

Client Sample ID
Run2 Dioxin Outlet

Recovery Information

No.	Labeled Standards Structure	-LOC	CARP	Amount Spiked (ng)	Measured Amount (ng)	Percent Recovery (%) #	RT (min.) #	Ratio #	Qualifier
Extraction Standards						(15-150%)			
1L	13C-2	-MoCB		8.00	4.51	56.4	6:50	2.69	Q
3L	13C-4	-MoCB		8.00	3.92	49.0	8:19	2:78	Q
						(25-150%)			
4L	13C-2,2'	-DiCB		8.00	4.18	52.2	8:30	1.72	Q
15L	13C-4,4'	-DiCB		8.00	3.82	47.7	13:05	1.53	Q
19L	13C-2,2',6	-TrCB		8.00	4.87	60.8	10:45	1.11	
37L	13C-3,4,4'	-TrCB		8.00	5.98	74.8	20:00	1.10	
54L	13C-2,2',6,6'	-TeCB		8.00	5.25	65.6	13:19	0.81	
77L	13C-3,3',4,4'	-TeCB		8.00	4.56	57.0	29:06	0.79	
81L	13C-3,4,4',5	-TeCB		8.00	4.61	57.7	28:20	0.81	
104L	13C-2,2',4,6,6'	-PeCB		8.00	5.55	69.4	18:35	1.65	
105L	13C-2,3,3',4,4'	-PeCB		8.00	4.56	57.0	33:56	1.65	
114L	13C-2,3,4,4',5	-PeCB		8.00	4.60	57.5	32:58	1.60	
118L	13C-2,3',4,4',5	-PeCB		8.00	4.66	58.3	32:14	1.56	
123L	13C-2,3',4,4',5'	-PeCB		8.00	5.02	62.8	31:46	1.56	
126L	13C-3,3',4,4',5	-PeCB		8.00	4.99	62.4	38:28	1.55	
155L	13C-2,2',4,4',6,6'	-HxCB		8.00	5.31	66.4	25:11	1.30	
156L	13C-2,3,3',4,4',5	-HxCB	C	16.0	9.24	57.7	42:58	1.33	
157L	13C-2,3,3',4,4',5'	-HxCB	C156L						
167L	13C-2,3',4,4',5,5'	-HxCB		8.00	4.90	61.2	41:12	1.31	
169L	13C-3,3',4,4',5,5'	-HxCB		8.00	5.02	62.8	48:01	1.39	
188L	13C-2,2',3,4',5,6,6'	-HpCB		8.00	5.51	68.9	32:53	1.04	
189L	13C-2,3,3',4,4',5,5'	-HpCB		8.00	5.08	63.5	51:57	1.11	
202L	13C-2,2',3,3',5,5',6,6'	-OcCB		8.00	5.00	62.5	40:46	0.92	
205L	13C-2,3,3',4,4',5,5',6	-OcCB		8.00	5.07	63.4	56:02	0.89	
206L	13C-2,2',3,3',4,4',5,5',6	-NoCB		8.00	4.92	61.5	58:49	0.76	
208L	13C-2,2',3,3',4,5,5',6,6'	-NoCB		8.00	5.20	65.0	51:07	0.79	
209L	13C-2,2',3,3',4,4',5,5',6,6'	-DeCB		8.00	5.14	64.3	61:20	1.22	
Injection Standards									
9L	13C-2,5	-DiCB		2.00			9:52	1.59	
52L	13C-2,2',5,5'	-TeCB		2.00			17:36	0.78	
101L	13C-2,2',4,5,5'	-PeCB		2.00			25:31	1.62	
138L	13C-2,2',3,4,4',5'	-HxCB		2.00			36:41	1.24	
194L	13C-2,2',3,3',4,4',5,5'	-OcCB		2.00			55:17	0.95	

Analyzed By: [illegible] Reviewed By: [illegible]

Date: 02/02/07 Date: 2/2/07

PCB Congener Results by Method 1668A — EPA FORM 1 — *SGS Environmental Services*

Client Project ID: Cement Lock

Page 1 of 4

Client Sample ID
Trip Blanks-Dioxin

Laboratory Information			Sample Information		
Lab Project ID:	G368-59		Matrix:	Air	
Lab Sample ID:	G368-59-30C		Amount:	1.00	train
Dilution factor:	1				
Collection Date/Time:	07-Dec-06				
Receipt Date/Time:	16-Dec-06	11:00	QC Batch ID:	WG14051 / 14051	
Extraction Date:	08-Jan-06		Filename:	b13jan07a-10	
Analysis Date/Time:	14-Jan-07	01:47	ConCal:	b13jan07a-1	
			RRT Std:	b13jan07a-2	
			Initial Cal:	m1668a-b010906d	

No.	Analyte Structure	-LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
1	2	-MoCB		ND UJ	33.5			U Q
2	3	-MoCB		ND UJ	63.0			U Q
3	4	-MoCB		ND UJ	66.4			U Q
4	2,2	-DiCB		ND UJ	17.0			U Q
5	2,3	-DiCB		ND	113			U
6	2,3	-DiCB		ND	211			U
7	2,4	-DiCB		ND	197			U
8	2,4	-DiCB		ND	113			U
9	2,5	-DiCB		ND	276			U
10	2,6	-DiCB		ND	17.7			U
11	3,3	-DiCB		1380 U	239	12:32	1.46	
12	3,4	-DiCB	C	ND	223			U
13	3,4	-DiCB	C12					
14	3,5	-DiCB		ND	243			U
15	4,4	-DiCB		ND	305			U
16	2,2,3	-TrCB		97.8 U	32.1	13:03	1.23 #	K Q
17	2,2,4	-TrCB		99.2 U	24.4	12:38	1.17	Q
18	2,2,5	-TrCB	C	227 U	20.2	12:16	1.02	Q
19	2,2,6	-TrCB		36.5 U J	25.6	10:47	1.13	J Q
20	2,3,3	-TrCB	C	533 U	18.2	15:48	1.26 #	K
21	2,3,4	-TrCB	C	245 U	16.0	16:02	1.27 #	K
22	2,3,4	-TrCB		190 U	18.8	16:26	0.68 #	K
23	2,3,5	-TrCB		ND	16.2			U
24	2,3,6	-TrCB		17.6 U	14.7	12:56	1.71 #	J K Q
25	2,3,4	-TrCB		36.9 U	14.3	15:13	0.83 #	J K
26	2,3,5	-TrCB	C	61.7 U	16.8	14:59	0.78 #	J K
27	2,3,6	-TrCB		ND	19.2			U
28	2,4,4	-TrCB	C20					
29	2,4,5	-TrCB	C26					
30	2,4,6	-TrCB	C18					
31	2,4,5	-TrCB		383 U	17.4	15:31	1.02	
32	2,4,6	-TrCB		104 U J	17.3	13:27	0.90	Q
33	2,3',4	-TrCB	C21					
34	2,3',5	-TrCB		ND	19.7			U
35	3,3',4	-TrCB		ND	49.5			U
36	3,3',5	-TrCB		ND	42.5			U
37	3,4,4	-TrCB		166 U	48.0	20:01	1.18	
38	3,4,5	-TrCB		ND	48.3			U
39	3,4,5	-TrCB		ND	44.6			U
40	2,2',3,3'	-TeCB	C	161 U	29.3	19:48	0.79	
41	2,2',3,4	-TeCB		ND	42.6			U
42	2,2',3,4'	-TeCB		101 U	30.9	19:15	1.00 #	K
43	2,2',3,5	-TeCB		ND	33.1			U
44	2,2',3,5'	-TeCB	C	400 U	30.3	18:41	0.89 #	K

IAVG
26Feb07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock
Page 2 of 4

SGS Environmental Services

Client Sample ID
Trip Blanks-Dioxin

No.	Analyte Structure	LOC	CARP	Amount ng	EDL ng	RT	#	Ratio	#	Qualifier
45	2,2',3,[illegible]	TeCB	C	78.7 U	40.1	15:55		0.97	#	J K
46	2,2',3,[illegible]	TeCB		ND	41.5					U
47	2,2',4,[illegible]	TeCB	C44							
48	2,2',4,[illegible]	TeCB		77.0 U	32.2	18:25		0.61	#	K
49	2,2',4,5	TeCB	C	179 U	27.5	18:07		0.94	#	K
50	2,2',4,[illegible]	TeCB	C	57.0 U	39.8	15:16		0.97	#	J K
51	2,2',4,6	TeCB	C45							
52	2,2',5,5	TeCB		417 U J	34.6	17:38		0.72		Q
53	2,2',5,6	TeCB	C50							
54	2,2',6,6	TeCB		ND	18.2					U
55	2,3,3',[illegible]	TeCB		18.7 J	17.3	23:36		0.66		J
56	2,3,3',[illegible]	TeCB		ND	19.4					U
57	2,3,3',[illegible]	TeCB		ND	18.6					U
58	2,3,3',5	TeCB		ND	17.5					U
59	2,3,3',[illegible]	TeCB	C	29.9 J	23.8	19:02		0.88		J
60	2,3,4,4	TeCB		85.9	17.4	24:32		0.73		
61	2,3,4,[illegible]	TeCB	C	555	22.4	23:02		0.83		
62	2,3,4,[illegible]	TeCB	C59							
63	2,3,4',[illegible]	TeCB		ND	18.6					U
64	2,3,4',[illegible]	TeCB		138 U	23.3	20:04		1.01	#	K
65	2,3,5,[illegible]	TeCB	C44							
66	2,3',4,4	TeCB		ND	18.6					U
67	2,3',4,[illegible]	TeCB		ND	15.3					U
68	2,3',4,5	TeCB		ND	16.2					U
69	2,3',4,[illegible]	TeCB	C49							
70	2,3',4',[illegible]	TeCB	C61							
71	2,3',4',[illegible]	TeCB	C40							
72	2,3',5,5	TeCB		ND	18.7					U
73	2,3',5',[illegible]	TeCB		ND	23.7					U
74	2,4,4',[illegible]	TeCB	C61							
75	2,4,4',[illegible]	TeCB	C59							
76	2,3',4',5	TeCB	C61							
77	3,3',4,4	TeCB		26.4 U	16.1	29:09		0.63	#	J K
78	3,3',4,5	TeCB		ND	19.2					U
79	3,3',4,5	TeCB		ND	15.5					U
80	3,3',5,5	TeCB		ND	16.4					U
81	3,4,4',[illegible]	TeCB		ND U J	23.5					U Q
82	2,2',3,3',[illegible]	PeCB		ND	37.2					U
83	2,2',3,3',[illegible]	PeCB		133 U	38.8	26:17		1.26	#	K
84	2,2',3,3',[illegible]	PeCB		69.8	35.1	23:16		1.45		
85	2,2',3,4,4	PeCB	C	38.1 U	27.6	27:58		1.93	#	J K
86	2,2',3,4,5	PeCB	C	200 U	28.6	27:03		2.00	#	J K
87	2,2',3,4,5	PeCB	C86							
88	2,2',3,4,6	PeCB	C	49.8 U	33.2	22:59		1.98	#	J K
89	2,2',3,4,6	PeCB		ND	36.4					U
90	2,2',3,4',[illegible]	PeCB	C	274 U	29.9	25:33		1.54		
91	2,2',3,4',[illegible]	PeCB	C88							
92	2,2',3,5,[illegible]	PeCB		46.5	34.5	24:48		1.66		
93	2,2',3,5,[illegible]	PeCB	C	ND	32.9					U
94	2,2',3,5,6	PeCB		ND	34.1					U
95	2,2',3,5',[illegible]	PeCB		223 U	33.7	21:57		1.76		
96	2,2',3,6,6	PeCB		ND	52.2					U
97	2,2',3,4',5	PeCB	C86							
98	2,2',3,4',6	PeCB	C	ND	31.8					U
99	2,2',4,4',5	PeCB		ND	29.1					U

AUG
26 Feb 0[illegible]

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock
Page 3 of 4

SGS Environmental Services

Client Sample ID
Trip Blanks-Dioxin

No.	Analyte Structure	LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
100	2,2',4,4',6	PeCB	C93					
101	2,2',4,5,5'	PeCB	C90					
102	2,2',4,5,6'	PeCB	C98					
103	2,2',4,5',6	PeCB		ND	30.9			U
104	2,2',4,6,6'	PeCB		ND	34.2			U
105	2,3,3',4,4'	PeCB		91.0 U	48.2	33:58	0.86 #	K
106	2,3,3',4,5	PeCB		ND	34.7			U
107	2,3,3',4',5	PeCB	C	ND	35.6			U
108	2,3,3',4,5'	PeCB	C86					
109	2,3,3',4,6	PeCB		ND	36.3			U
110	2,3,3',4',6	PeCB	C	295 U	24.9	28:10	1.31 #	K Q
111	2,3,3',5,5'	PeCB		ND	24.5			U
112	2,3,3',5,6	PeCB		ND	24.0			U
113	2,3,3',5',6	PeCB	C90					
114	2,3,4,4',5	PeCB		ND	36.8			U
115	2,3,4,4',6	PeCB	C110					
116	2,3,4,5,5'	PeCB	C85					
117	2,3,4',5,6	PeCB	C85					
118	2,3',4,4',5	PeCB		201	34.9	32:16	1.43	
119	2,3',4,4',6	PeCB	C86					
120	2,3',4,5,5'	PeCB		ND	24.1			U
121	2,3',4,5',6	PeCB		ND	25.3			U
122	2,3,3',4',5	PeCB		ND	39.4			U
123	2,3',4,4',5	PeCB		ND U	35.1			U
124	2,3',4',5,6	PeCB	C107					
125	2,3',4',5',6	PeCB	C86					
126	3,3',4,4',5	PeCB		ND	42.5			U
127	3,3',4,5,5'	PeCB		ND	37.6			U
128	2,2',3,3',4,4'	HxCB	C	ND	72.4			U
129	2,2',3,3',4,5	HxCB	C	212 U	79.3	36:45	1.20	
130	2,2',3,3',4,5'	HxCB		ND	91.9			U
131	2,2',3,3',4,6	HxCB		ND	91.3			U
132	2,2',3,3',4,6'	HxCB		101 U	86.0	32:25	1.02 #	K
133	2,2',3,3',5,5'	HxCB		ND	88.3			U
134	2,2',3,3',5,6	HxCB		ND	107			U
135	2,2',3,3',5,6'	HxCB	C	78.9 U J	47.0	29:24	1.15	J Q
136	2,2',3,3',6,6'	HxCB		58.6	37.5	26:13	1.28	
137	2,2',3,4,4',5	HxCB		ND	80.2			U
138	2,2',3,4,4',5'	HxCB	C129					
139	2,2',3,4,4',6	HxCB	C	ND	77.5			U
140	2,2',3,4,4',6'	HxCB	C139					
141	2,2',3,4,5,5'	HxCB		ND	76.4			U
142	2,2',3,4,5,6	HxCB		ND	88.9			U
143	2,2',3,4,5,6'	HxCB		ND	76.1			U
144	2,2',3,4,5',6	HxCB		ND	48.7			U
145	2,2',3,4,6,6'	HxCB		ND	38.9			U
146	2,2',3,4',5,5'	HxCB		ND	72.0			U
147	2,2',3,4',5,6	HxCB	C	161 U	76.3	30:40	1.44 #	K
148	2,2',3,4',5,6'	HxCB		ND	50.5			U
149	2,2',3,4',5',6	HxCB	C147					
150	2,2',3,4',6,6'	HxCB		ND	36.4			U
151	2,2',3,5,5',6	HxCB	C135					
152	2,2',3,5,6,6'	HxCB		ND	39.5			U
153	2,2',4,4',5,5'	HxCB	C	174 U	66.6	34:54	1.32	
154	2,2',4,4',5,6'	HxCB		ND	39.8			U

UM 3-7-07

HVE 26Feb07

PCB Congener Results by Method 1668A
Client Project ID: Cement Lock
Page 4 of 4

SGS Environmental Services

Client Sample ID
Trip Blanks-Dioxin

No.	Analyte Structure	LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
155	2,2',4,4',6,6'	HxCB		ND	22.0			U
156	2,3,3',4,4',5'	HxCB	C	ND	26.3			U
157	2,3,3',4,4',5'	HxCB	C156					
158	2,3,3',4,4',6'	HxCB		ND	56.5			U
159	2,3,3',4,5,5'	HxCB		ND	23.2			U
160	2,3,3',4,5,6'	HxCB		ND	60.8			U
161	2,3,3',4,5',6'	HxCB		ND	63.6			U
162	2,3,3',4',5,5'	HxCB		ND	22.3			U
163	2,3,3',4',5,6'	HxCB	C129					
164	2,3,3',4',5',6'	HxCB		ND	61.8			U
165	2,3,3',5,5',6'	HxCB		ND	66.1			U
166	2,3,4,4',5,6'	HxCB	C128					
167	2,3',4,4',5,5'	HxCB		ND	21.0			U
168	2,3',4,4',5',6'	HxCB	C153					
169	3,3',4,4',5,5'	HxCB		ND	22.4			U
170	2,2',3,3',4,4',5'	HpCB		ND	54.3			U
171	2,2',3,3',4,4',6'	HpCB	C	ND	53.6			U
172	2,2',3,3',4,5,5'	HpCB		ND	54.9			U
173	2,2',3,3',4,5,6'	HpCB	C171					
174	2,2',3,3',4,5,6'	HpCB		ND	49.7			U
175	2,2',3,3',4,5',6'	HpCB		ND	47.8			U
176	2,2',3,3',4,6,6'	HpCB		ND	38.8			U
177	2,2',3,3',4,5',6'	HpCB		ND	54.8			U
178	2,2',3,3',5,5',6'	HpCB		ND	51.1			U
179	2,2',3,3',5,6,6'	HpCB		ND	37.8			U
180	2,2',3,4,4',5,5'	HpCB	C	51.1 U	43.4	45:10	0.84 #	J K
181	2,2',3,4,4',5,6'	HpCB		ND	48.9			U
182	2,2',3,4,4',5,6'	HpCB		ND	45.5			U
183	2,2',3,4,4',5',6'	HpCB	C	ND	48.7			U
184	2,2',3,4,4',6,6'	HpCB		ND	35.7			U
185	2,2',3,4,5,5',6'	HpCB	C183					
186	2,2',3,4,5,6,6'	HpCB		ND	38.2			U
187	2,2',3,4',5,5',6'	HpCB		ND	43.1			U
188	2,2',3,4',5,6,6'	HpCB		ND	35.2			U
189	2,3,3',4,4',5,5'	HpCB		ND	48.6			U
190	2,3,3',4,4',5,6'	HpCB		ND	43.3			U
191	2,3,3',4,4',5',6'	HpCB		ND	40.9			U
192	2,3,3',4,5,5',6'	HpCB		ND	42.3			U
193	2,3,3',4',5,6',6'	HpCB	C180					
194	2,2',3,3',4,4',5,5'	OcCB		ND	42.3			U
195	2,2',3,3',4,4',5,6'	OcCB		ND	45.2			U
196	2,2',3,3',4,4',5,6'	OcCB		ND	66.0			U
197	2,2',3,3',4,4',6,6'	OcCB	C	ND	49.7			U
198	2,2',3,3',4,5,5',6'	OcCB	C	ND	66.5			U
199	2,2',3,3',4,5,5',6'	OcCB	C198					
200	2,2',3,3',4,5,6,6'	OcCB	C197					
201	2,2',3,3',4,5',6,6'	OcCB		ND	52.5			U
202	2,2',3,3',5,5',6,6'	OcCB		ND	50.1			U
203	2,2',3,4,4',5,5',6'	OcCB		ND	59.3			U
204	2,2',3,4,4',5,6,6'	OcCB		ND	53.2			U
205	2,3,3',4,4',5,5',6'	OcCB		ND	29.6			U
206	2,2',3,3',4,4',5,5',6'	NoCB		ND	45.6			U
207	2,2',3,3',4,4',5,6,6'	NoCB		ND	42.7			U
208	2,2',3,3',4,5,5',6,6'	NoCB		ND	42.4			U
209	2,2',3,3',4,4',5,5',6,6'	DeCB		ND	33.6			U

Analyzed By: JF
Date: 02/02/07

HVE
26 Feb 07

Reviewed By: [illegible]
Date: 2/2/07

PCB Congener Results by Method 1668A | EPA FORM 2 | *SGS Environmental Services*

Client Project ID: Cement Lock

Page 1 of 1

Client Sample ID
Trip Blanks-Dioxin

Recovery Information

No.	Labeled Standards Structure	LOC	CARP	Amount Spiked (ng)	Measured Amount (ng)	Percent Recovery (%)	#	RT (min.)	#	Ratio	#	Qualifier
Extraction Standards						(15-150%)						
1L	13C-2-MoCB			8.00	5.37	67.1		6:48		2.81		Q
3L	13C-4-MoCB			8.00	3.03	37.8		8:19		2.22	#	Q
						(25-150%)						
4L	13C-2,2'-DiCB			8.00	4.31	53.9		8:31		1.65		Q
15L	13C-4,4'-DiCB			8.00	3.80	47.5		13:06		1.58		
19L	13C-2,2',6-TrCB			8.00	5.42	67.7		10:45		1.21	#	Q
37L	13C-3,4,4'-TrCB			8.00	5.72	71.5		20:01		1.06		
54L	13C-2,2',6,6'-TeCB			8.00	5.07	63.4		13:20		0.81		
77L	13C-3,3',4,4'-TeCB			8.00	4.84	60.5		29:08		0.76		
81L	13C-3,4,4',5-TeCB			8.00	4.56	57.0		28:21		0.77		Q
104L	13C-2,2',4,6,6'-PeCB			8.00	5.34	66.7		18:36		1.61		
105L	13C-2,3,3',4,4'-PeCB			8.00	4.01	50.2		33:57		1.59		
114L	13C-2,3,4,4',5-PeCB			8.00	4.41	55.2		32:59		1.66		
118L	13C-2,3',4,4',5-PeCB			8.00	4.32	54.0		32:14		1.65		
123L	13C-2,3',4,4',5-PeCB			8.00	4.80	60.0		31:47		1.61		
126L	13C-3,3',4,4',5-PeCB			8.00	4.76	59.5		38:29		1.62		
155L	13C-2,2',4,4',6,6'-HxCB			8.00	5.59	69.9		25:11		1.24		
156L	13C-2,3,3',4,4',5-HxCB	C		16.0	9.94	62.1		42:59		1.27		
157L	13C-2,3,3',4,4',5-HxCB	C156L										
167L	13C-2,3',4,4',5,5'-HxCB			8.00	5.27	65.9		41:13		1.25		
169L	13C-3,3',4,4',5,5'-HxCB			8.00	5.29	66.2		48:04		1.35		
188L	13C-2,2',3,4',5,6,6'-HpCB			8.00	5.67	70.8		32:53		1.07		
189L	13C-2,3,3',4,4',5,5'-HpCB			8.00	5.31	66.3		52:00		1.11		
202L	13C-2,2',3,3',5,5',6,6'-OcCB			8.00	5.14	64.2		40:47		0.87		
205L	13C-2,3,3',4,4',5,5',6-OcCB			8.00	5.40	67.5		56:05		0.93		
206L	13C-2,2',3,3',4,4',5,5',6-NoCB			8.00	5.14	64.3		58:50		0.79		
208L	13C-2,2',3,3',4,5,5',6,6'-NoCB			8.00	4.82	60.2		51:12		0.77		
209L	13C-2,2',3,3',4,4',5,5',6,6'-DeCB			8.00	5.37	67.2		61:22		1.17		
Injection Standards												
9L	13C-2,5-DiCB			2.00				9:52		1.55		
52L	13C-2,2',5,5'-TeCB			2.00				17:37		0.78		Q
101L	13C-2,2',4,5,5'-PeCB			2.00				25:32		1.51		
138L	13C-2,2',3,4,4',5'-HxCB			2.00				36:42		1.28		
194L	13C-2,2',3,3',4,4',5,5'-OcCB			2.00				55:19		0.93		

Analyzed By: JF

Date: 02/02/07

Reviewed By: [illegible]

Date: 2/2/07

PCB Congener Results by Method 1668A **EPA FORM 1** ***SGS Environmental Services***

Client Project ID: **Lab Method Blank**

Page 1 of 4

Client Sample ID
LMB14051

Laboratory Information			**Sample Information**		
Lab Project ID:			Matrix:	Air	
Lab Sample ID:	LMB14051		Amount:	1.00	train
Dilution factor:	1				
Collection Date/Time:					
Receipt Date/Time:			QC Batch ID:	WG14051 / 14051	
Extraction Date:	08-Jan-06		Filename:	b13jan07a-5	
Analysis Date/Time:	13-Jan-07	20:17	ConCal:	b13jan07a-1	
			RRT Std:	b13jan07a-2	
			Initial Cal:	m1668a-b010906d	

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT	Ratio #	#	Qualifier
1	2 -MoCB		ND	208				U Q
2	3 -MoCB		ND	216				U Q
3	4 -MoCB		ND	103				U Q
4	2,2' -DiCB		ND	123				U Q
5	2,3 -DiCB		ND	220				U
6	2,3' -DiCB		ND	412				U
7	2,4 -DiCB		ND	384				U
8	2,4' -DiCB		ND	220				U
9	2,5 -DiCB		ND	540				U Q
10	2,6 -DiCB		ND	49.9				U
11	3,3' -DiCB		1210	467	12:34	1.37		
12	3,4 -DiCB	C	ND	435				U
13	3,4' -DiCB	C12						
14	3,5 -DiCB		ND	474				U
15	4,4' -DiCB		ND	265				U
16	2,2',3 -TrCB		179	35.0	13:03	1.15		
17	2,2',4 -TrCB		152	26.6	12:40	1.32	#	K
18	2,2',5 -TrCB	C	186	22.0	12:20	0.99		
19	2,2',6 -TrCB		41.0	29.9	10:49	1.14		
20	2,3,3' -TrCB	C	542	19.8	15:49	1.01		
21	2,3,4 -TrCB	C	311	17.5	16:03	1.01		
22	2,3,4' -TrCB		203	20.5	16:29	1.13		
23	2,3,5 -TrCB		ND	17.7				U
24	2,3,6 -TrCB		ND	16.0				U
25	2,3',4 -TrCB		42.9	15.6	15:13	1.57	#	K
26	2,3',5 -TrCB	C	62.6	18.3	14:59	0.94		J
27	2,3',6 -TrCB		ND	21.0				U
28	2,4,4' -TrCB	C20						
29	2,4,5 -TrCB	C26						
30	2,4,6 -TrCB	C18						
31	2,4',5 -TrCB		437	18.9	15:32	0.90		
32	2,4',6 -TrCB		95.4	18.8	13:29	1.17		
33	2,3',4' -TrCB	C21						
34	2,3',5' -TrCB		ND	21.4				U
35	3,3',4 -TrCB		ND	42.7				U
36	3,3',5 -TrCB		ND	36.7				U
37	3,4,4' -TrCB		166	39.7	20:06	0.94		
38	3,4,5 -TrCB		ND	41.7				U
39	3,4',5 -TrCB		ND	38.5				U
40	2,2',3,3' -TeCB	C	103	42.9	19:51	0.78		
41	2,2',3,4 -TeCB		73.5	62.4	19:44	1.67	#	K
42	2,2',3,4' -TeCB		91.0	45.2	19:19	0.69		
43	2,2',3,5 -TeCB		ND	48.4				U
44	2,2',3,5' -TeCB	C	409	44.3	18:45	0.93	#	K

PCB Congener Results by Method 1668A

Client Project ID: Lab Method Blank

SGS Environmental Services

Client Sample ID
LMB14051

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT	#	Ratio	#	Qualifier
45	2,2',3,6 -TeCB	C	127	59.0	15:57		0.67		
46	2,2',3,6' -TeCB		ND	61.1					U
47	2,2',4,4' -TeCB	C44							
48	2,2',4,5 -TeCB		83.4	47.2	18:28		0.95	#	K
49	2,2',4,5' -TeCB	C	196	40.3	18:10		0.94	#	K
50	2,2',4,6 -TeCB	C	ND	58.6					U
51	2,2',4,6' -TeCB	C45							
52	2,2',5,5' -TeCB		427	50.6	17:39		0.72		
53	2,2',5,6' -TeCB	C50							
54	2,2',6,6' -TeCB		ND	35.9					U
55	2,3,3',4 -TeCB		ND	32.8					U
56	2,3,3',4' -TeCB		144	36.9	24:20		1.12	#	K
57	2,3,3',5 -TeCB		ND	35.3					U
58	2,3,3',5' -TeCB		ND	33.3					U
59	2,3,3',6 -TeCB	C	ND	34.9					U
60	2,3,4,4' -TeCB		92.3	33.0	24:37		0.94	#	K
61	2,3,4,5 -TeCB	C	625	42.7	23:07		0.91	#	K
62	2,3,4,6 -TeCB	C59							
63	2,3,4',5 -TeCB		ND	35.4					U
64	2,3,4',6 -TeCB		155	34.0	20:07		0.96	#	K
65	2,3,5,6 -TeCB	C44							
66	2,3',4,4' -TeCB		311	35.4	23:29		0.80		
67	2,3',4,5 -TeCB		ND	29.1					U
68	2,3',4,5' -TeCB		ND	30.8					U
69	2,3',4,6 -TeCB	C49							
70	2,3',4',5 -TeCB	C61							
71	2,3',4',6 -TeCB	C40							
72	2,3',5,5' -TeCB		ND	35.5					U
73	2,3',5',6 -TeCB		ND	34.7					U
74	2,4,4',5 -TeCB	C61							
75	2,4,4',6 -TeCB	C59							
76	2,3',4',5' -TeCB	C61							
77	3,3',4,4' -TeCB		44.6	21.6	29:18		0.73		
78	3,3',4,5 -TeCB		ND	36.5					U
79	3,3',4,5' -TeCB		ND	29.4					U
80	3,3',5,5' -TeCB		ND	31.2					U
81	3,4,4',5 -TeCB		ND	49.6					U
82	2,2',3,3',4 -PeCB		ND	53.0					U
83	2,2',3,3',5 -PeCB		ND	55.3					U
84	2,2',3,3',6 -PeCB		ND	50.0					U
85	2,2',3,4,4' -PeCB	C	ND	39.4					U
86	2,2',3,4,5 -PeCB	C	215	40.7	27:08		1.79	#	J K
87	2,2',3,4,5' -PeCB	C86							
88	2,2',3,4,6 -PeCB	C	ND	47.3					U
89	2,2',3,4,6' -PeCB		ND	51.9					U
90	2,2',3,4',5 -PeCB	C	229	42.6	25:39		1.42		Q
91	2,2',3,4',6 -PeCB	C88							
92	2,2',3,5,5' -PeCB		ND	49.1					U
93	2,2',3,5,6 -PeCB	C	ND	46.9					U
94	2,2',3,5,6' -PeCB		ND	48.6					U
95	2,2',3,5',6 -PeCB		254	48.0	22:03		1.59		
96	2,2',3,6,6' -PeCB		ND	45.6					U
97	2,2',3,4',5' -PeCB	C86							
98	2,2',3,4',6' -PeCB	C	ND	45.3					U
99	2,2',4,4',5 -PeCB		91.5	41.5	26:25		1.82	#	K

PCB Congener Results by Method 1668A
Client Project ID: Lab Method Blank

SGS Environmental Services

Client Sample ID
LMB14051

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
100	2,2',4,4',6 -PeCB	C93					
101	2,2',4,5,5' -PeCB	C90					
102	2,2',4,5,6' -PeCB	C98					
103	2,2',4,5',6 -PeCB		ND	44.0			U
104	2,2',4,6,6' -PeCB		ND	44.1			U
105	2,3,3',4,4' -PeCB		101	45.3	34:05	1.62	
106	2,3,3',4,5 -PeCB		ND	43.4			U
107	2,3,3',4',5 -PeCB	C	ND	44.5			U
108	2,3,3',4,5' -PeCB	C86					
109	2,3,3',4,6 -PeCB		ND	45.4			U
110	2,3,3',4',6 -PeCB	C	247	35.4	28:16	1.73	Q
111	2,3,3',5,5' -PeCB		ND	34.9			U
112	2,3,3',5,6 -PeCB		ND	34.2			U
113	2,3,3',5',6 -PeCB	C90					
114	2,3,4,4',5 -PeCB		ND	41.0			U
115	2,3,4,4',6 -PeCB	C110					
116	2,3,4,5,6 -PeCB	C85					
117	2,3,4',5,6 -PeCB	C85					
118	2,3',4,4',5 -PeCB		172	39.0	32:22	1.31 #	K
119	2,3',4,4',6 -PeCB	C86					
120	2,3',4,5,5' -PeCB		ND	34.3			U
121	2,3',4,5',6 -PeCB		ND	36.0			U
122	2,3,3',4',5' -PeCB		ND	49.3			U
123	2,3',4,4',5' -PeCB		ND	41.9			U
124	2,3',4',5,5' -PeCB	C107					
125	2,3',4',5',6 -PeCB	C86					
126	3,3',4,4',5 -PeCB		ND	44.9			U
127	3,3',4,5,5' -PeCB		ND	47.0			U
128	2,2',3,3',4,4' -HxCB	C	ND	60.0			U
129	2,2',3,3',4,5 -HxCB	C	209	65.8	36:51	1.16	
130	2,2',3,3',4,5' -HxCB		ND	76.2			U
131	2,2',3,3',4,6 -HxCB		ND	75.7			U
132	2,2',3,3',4,6' -HxCB		122	71.3	32:30	1.08	
133	2,2',3,3',5,5' -HxCB		ND	73.2			U
134	2,2',3,3',5,6 -HxCB		ND	88.3			U
135	2,2',3,3',5,6' -HxCB	C	107	52.1	29:34	1.18	
136	2,2',3,3',6,6' -HxCB		ND	41.6			U
137	2,2',3,4,4',5 -HxCB		ND	66.5			U
138	2,2',3,4,4',5' -HxCB	C129					
139	2,2',3,4,4',6 -HxCB	C	ND	64.3			U
140	2,2',3,4,4',6' -HxCB	C139					
141	2,2',3,4,5,5' -HxCB		ND	63.3			U
142	2,2',3,4,5,6 -HxCB		ND	73.7			U
143	2,2',3,4,5,6' -HxCB		ND	63.1			U
144	2,2',3,4,5',6 -HxCB		ND	54.0			U
145	2,2',3,4,6,6' -HxCB		ND	43.2			U
146	2,2',3,4',5,5' -HxCB		ND	59.7			U
147	2,2',3,4',5,6 -HxCB	C	137	63.2	30:47	1.30	
148	2,2',3,4',5,6' -HxCB		ND	56.0			U
149	2,2',3,4',5',6 -HxCB	C147					
150	2,2',3,4',6,6' -HxCB		ND	40.4			U
151	2,2',3,5,5',6 -HxCB	C135					
152	2,2',3,5,6,6' -HxCB		ND	43.8			U
153	2,2',4,4',5,5' -HxCB	C	168	55.2	34:59	1.12	
154	2,2',4,4',5,6' -HxCB		ND	44.2			U

PCB Congener Results by Method 1668A

Client Project ID: Lab Method Blank

SGS Environmental Services

Client Sample ID
LMB14051

No.	Analyte Structure -LOC	CARP	Amount ng	EDL ng	RT #	Ratio #	Qualifier
155	2,2',4,4',6,6' -HxCB		ND	30.2			U
156	2,3,3',4,4',5 -HxCB	C	ND	77.0			U
157	2,3,3',4,4',5' -HxCB	C156					
158	2,3,3',4,4',6 -HxCB		ND	46.9			U
159	2,3,3',4,5,5' -HxCB		ND	63.5			U
160	2,3,3',4,5,6 -HxCB		ND	50.4			U
161	2,3,3',4,5',6 -HxCB		ND	52.7			U
162	2,3,3',4',5,5' -HxCB		ND	60.8			U
163	2,3,3',4',5,6 -HxCB	C129					
164	2,3,3',4',5',6 -HxCB		ND	51.2			U
165	2,3,3',5,5',6 -HxCB		ND	54.8			U
166	2,3,4,4',5,6 -HxCB	C128					
167	2,3',4,4',5,5' -HxCB		ND	51.7			U
168	2,3',4,4',5',6 -HxCB	C153					
169	3,3',4,4',5,5' -HxCB		ND	54.1			U
170	2,2',3,3',4,4',5 -HpCB		ND	80.2			U
171	2,2',3,3',4,4',6 -HpCB	C	ND	79.0			U
172	2,2',3,3',4,5,5' -HpCB		ND	81.0			U
173	2,2',3,3',4,5,6 -HpCB	C171					
174	2,2',3,3',4,5,6' -HpCB		ND	73.3			U
175	2,2',3,3',4,5',6 -HpCB		ND	51.2			U
176	2,2',3,3',4,6,6' -HpCB		ND	41.5			U
177	2,2',3,3',4,5',6' -HpCB		ND	80.8			U
178	2,2',3,3',5,5',6 -HpCB		ND	54.7			U
179	2,2',3,3',5,6,6' -HpCB		ND	40.5			U
180	2,2',3,4,4',5,5' -HpCB	C	94.2	64.0	45:15	1.20	
181	2,2',3,4,4',5,6 -HpCB		ND	72.2			U
182	2,2',3,4,4',5,6' -HpCB		ND	48.7			U
183	2,2',3,4,4',5',6 -HpCB	C	ND	71.8			U
184	2,2',3,4,4',6,6' -HpCB		ND	38.3			U
185	2,2',3,4,5,5',6 -HpCB	C183					
186	2,2',3,4,5,6,6' -HpCB		ND	40.9			U
187	2,2',3,4',5,5',6 -HpCB		ND	46.1			U
188	2,2',3,4',5,6,6' -HpCB		ND	38.7			U
189	2,3,3',4,4',5,5' -HpCB		ND	50.4			U
190	2,3,3',4,4',5,6 -HpCB		ND	64.0			U
191	2,3,3',4,4',5',6 -HpCB		ND	60.4			U
192	2,3,3',4,5,5',6 -HpCB		ND	62.5			U
193	2,3,3',4',5,5',6 -HpCB	C180					
194	2,2',3,3',4,4',5,5' -OcCB		ND	72.8			U
195	2,2',3,3',4,4',5,6 -OcCB		ND	77.9			U
196	2,2',3,3',4,4',5,6' -OcCB		ND	60.8			U
197	2,2',3,3',4,4',6,6' -OcCB	C	ND	45.7			U
198	2,2',3,3',4,5,5',6 -OcCB	C	ND	61.3			U
199	2,2',3,3',4,5,5',6' -OcCB	C198					
200	2,2',3,3',4,5,6,6' -OcCB	C197					
201	2,2',3,3',4,5',6,6' -OcCB		ND	48.3			U
202	2,2',3,3',5,5',6,6' -OcCB		ND	46.7			U
203	2,2',3,4,4',5,5',6 -OcCB		ND	54.6			U
204	2,2',3,4,4',5,6,6' -OcCB		ND	49.0			U
205	2,3,3',4,4',5,5',6 -OcCB		ND	50.4			U
206	2,2',3,3',4,4',5,5',6 -NoCB		ND	68.5			U
207	2,2',3,3',4,4',5,6,6' -NoCB		ND	99.5			U
208	2,2',3,3',4,5,5',6,6' -NoCB		ND	160			U
209	2,2',3,3',4,4',5,5',6,6' -DeCB		ND	49.8			U

Analyzed By: AF

Date: 02/02/07

Reviewed By: [illegible]

Date: 2/2/07

PCB Congener Results by Method 1668A

EPA FORM 2

SGS Environmental Services

Client Project ID: Lab Method Blank

Page 1 of 1

Client Sample ID
LMB14051

Recovery Information

No.	Labeled Standards Structure	-LOC	CARP	Amount Spiked (ng)	Measured Amount (ng)	Percent Recovery (%)	#	RT (min.)	#	Ratio	#	Qualifier
Extraction Standards						(15-150%)						
1L	13C-2	-MoCB		8.00	5.11	63.9		6:41		1.98	#	Q
3L	13C-4	-MoCB		8.00	5.06	63.2		8:17		3.06		Q
						(25-150%)						
4L	13C-2,2'	-DiCB		8.00	4.33	54.1		8:29		1.60		Q
15L	13C-4,4'	-DiCB		8.00	5.45	68.1		13:06		1.64		
19L	13C-2,2',6	-TrCB		8.00	4.60	57.5		10:47		1.11		
37L	13C-3,4,4'	-TrCB		8.00	6.13	76.6		20:05		1.00		
54L	13C-2,2',6,6'	-TeCB		8.00	4.61	57.6		13:20		0.79		
77L	13C-3,3',4,4'	-TeCB		8.00	4.92	61.5		29:17		0.84		
81L	13C-3,4,4',5	-TeCB		8.00	4.35	54.4		28:28		0.85		
104L	13C-2,2',4,6,6'	-PeCB		8.00	5.49	68.6		18:38		1.58		
105L	13C-2,3,3',4,4'	-PeCB		8.00	5.19	64.9		34:02		1.56		
114L	13C-2,3,4,4',5	-PeCB		8.00	5.06	63.3		33:05		1.66		
118L	13C-2,3',4,4',5	-PeCB		8.00	4.96	62.0		32:21		1.60		
123L	13C-2,3',4,4',5'	-PeCB		8.00	5.55	69.4		31:53		1.61		
126L	13C-3,3',4,4',5	-PeCB		8.00	5.67	70.9		38:35		1.64		
155L	13C-2,2',4,4',6,6'	-HxCB		8.00	6.03	75.4		25:16		1.31		
156L	13C-2,3,3',4,4',5	-HxCB	C	16.0	11.6	72.8		43:07		1.30		
157L	13C-2,3,3',4,4',5'	-HxCB	C156L									
167L	13C-2,3',4,4',5,5'	-HxCB		8.00	5.93	74.1		41:19		1.32		
169L	13C-3,3',4,4',5,5'	-HxCB		8.00	5.84	73.0		48:31		1.42		
188L	13C-2,2',3,4',5,6,6'	-HpCB		8.00	6.36	79.6		32:59		0.99		
189L	13C-2,3,3',4,4',5,5'	-HpCB		8.00	5.93	74.1		52:15		1.18		
202L	13C-2,2',3,3',5,5',6,6'	-OcCB		8.00	5.63	70.4		40:52		0.92		
205L	13C-2,3,3',4,4',5,5',6	-OcCB		8.00	5.82	72.8		56:12		0.92		
206L	13C-2,2',3,3',4,4',5,5',6	-NoCB		8.00	5.63	70.3		58:56		0.76		
208L	13C-2,2',3,3',4,5,5',6,6'	-NoCB		8.00	2.85	35.6		51:25		0.83		
209L	13C-2,2',3,3',4,4',5,5',6,6'	-DeCB		8.00	5.86	73.3		61:26		1.16		
Injection Standards												
9L	13C-2,5	-DiCB		2.00				10:00		1.69		Q
52L	13C-2,2',5,5'	-TeCB		2.00				17:39		0.81		
101L	13C-2,2',4,5,5'	-PeCB		2.00				25:37		1.58		Q
138L	13C-2,2',3,4,4',5'	-HxCB		2.00				36:49		1.29		
194L	13C-2,2',3,3',4,4',5,5'	-OcCB		2.00				55:26		0.90		

Analyzed By: AF

Date: 02/02/07

Reviewed By: [illegible]

Date: 2/2/07

Results for Semivolatiles
by GCMS 8270-SIM

Client Sample ID: Run1 MM5-PAH Inlet
Client Project ID: Cement Lock
Lab Sample ID: G368-59-35B
Lab Project ID: G368-59

Analyzed By: EAW
Date Collected: 12/7/2006 0:00
Date Received: 12/16/2006
Date Extracted: 1/11/2007
Matrix: Air

Compound	Result µg	Quantitation Limit µg	MDL ug	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL UJ	0.00050	0.00013	1	1/11/2007	
Acenaphthylene	BQL UJ	0.00050	0.00012	1	1/11/2007	
Anthracene	BQL UJ	0.00050	0.00006	1	1/11/2007	
Benzo[a]anthracene	BQL	0.00050	0.00002	1	1/11/2007	
Benzo[a]pyrene	**0.00009** J	0.00050	0.00004	1	1/11/2007	J
Benzo[b]fluoranthene	BQL	0.00050	0.00009	1	1/11/2007	
Benzo[g,h,i]perylene	BQL	0.00050	0.00009	1	1/11/2007	
Benzo[k]fluoranthene	BQL	0.00050	0.00009	1	1/11/2007	
Chrysene	BQL	0.00050	0.00007	1	1/11/2007	
Dibenzo[a,h]anthracene	BQL	0.00050	0.00007	1	1/11/2007	
Fluoranthene	BQL UJ	0.00050	0.00008	1	1/11/2007	
Fluorene	BQL UJ	0.00050	0.00013	1	1/11/2007	
Indeno(1,2,3-c,d)pyrene	BQL	0.00050	0.00012	1	1/11/2007	
1-Methylnaphthalene	**0.00239** J	0.00050	0.00015	1	1/11/2007	UM 3-7-07
2-Methylnaphthalene	**0.00029** J	0.00050	0.00014	1	1/11/2007	J
Naphthalene	**0.00238** J	0.00050	0.00015	1	1/11/2007	
Phenanthrene	BQL UJ	0.00050	0.00010	1	1/11/2007	
Pyrene	BQL	0.00050	0.00006	1	1/11/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	1000	783	78
4-Terphenyl-d14	1000	419	42

Comments: HUG

Flags: 22 Feb 07

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: [illegible]

Results for Semivolatiles
by GCMS 8270-SIM

Client Sample ID: Run2 MM5-PAH Inlet
Client Project ID: Cement Lock
Lab Sample ID: G368-59-40B
Lab Project ID: G368-59

Analyzed By: EAW
Date Collected: 12/7/2006 0:00
Date Received: 12/16/2006
Date Extracted: 1/11/2007
Matrix: Air

Compound	Result µg	Quantitation Limit µg	MDL ug	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL UJ	0.00050	0.00013	1	1/11/2007	
Acenaphthylene	BQL UJ	0.00050	0.00012	1	1/11/2007	
Anthracene	BQL UJ	0.00050	0.00006	1	1/11/2007	
Benzo[a]anthracene	BQL	0.00050	0.00002	1	1/11/2007	
Benzo[a]pyrene	BQL	0.00050	0.00004	1	1/11/2007	
Benzo[b]fluoranthene	BQL	0.00050	0.00009	1	1/11/2007	
Benzo[g,h,i]perylene	BQL	0.00050	0.00009	1	1/11/2007	
Benzo[k]fluoranthene	BQL	0.00050	0.00009	1	1/11/2007	
Chrysene	BQL	0.00050	0.00007	1	1/11/2007	
Dibenzo[a,h]anthracene	BQL	0.00050	0.00007	1	1/11/2007	
Fluoranthene	BQL UJ	0.00050	0.00008	1	1/11/2007	
Fluorene	BQL UJ	0.00050	0.00013	1	1/11/2007	
Indeno(1,2,3-c,d)pyrene	BQL	0.00050	0.00012	1	1/11/2007	
1-Methylnaphthalene	**0.00034** J	0.00050	0.00015	1	1/11/2007	J
2-Methylnaphthalene	BQL	0.00050	0.00014	1	1/11/2007	
Naphthalene	**0.00143** U	0.00050	0.00015	1	1/11/2007	
Phenanthrene	**0.00018** J	0.00050	0.00010	1	1/11/2007	J
Pyrene	BQL	0.00050	0.00006	1	1/11/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	1000	897	90
4-Terphenyl-d14	1000	448	45

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By:

Results for Semivolatiles
by GCMS 8270-SIM

Client Sample ID: Run1 MM5-PAH Outlet
Client Project ID: Cement Lock
Lab Sample ID: G368-59-45B
Lab Project ID: G368-59

Analyzed By: EAW
Date Collected: 12/7/2006 0:00
Date Received: 12/16/2006
Date Extracted: 1/11/2007
Matrix: Air

Compound	Result µg	Quantitation Limit µg	MDL ug	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL UJ	0.00050	0.00013	1	1/12/2007	
Acenaphthylene	BQL UJ	0.00050	0.00012	1	1/12/2007	
Anthracene	BQL UJ	0.00050	0.00006	1	1/12/2007	
Benzo[a]anthracene	BQL	0.00050	0.00002	1	1/12/2007	
Benzo[a]pyrene	BQL	0.00050	0.00004	1	1/12/2007	
Benzo[b]fluoranthene	BQL	0.00050	0.00009	1	1/12/2007	
Benzo[g,h,i]perylene	BQL	0.00050	0.00009	1	1/12/2007	
Benzo[k]fluoranthene	BQL	0.00050	0.00009	1	1/12/2007	
Chrysene	BQL	0.00050	0.00007	1	1/12/2007	
Dibenzo[a,h]anthracene	BQL	0.00050	0.00007	1	1/12/2007	
Fluoranthene	BQL UJ	0.00050	0.00008	1	1/12/2007	
Fluorene	BQL UJ	0.00050	0.00013	1	1/12/2007	
Indeno(1,2,3-c,d)pyrene	BQL	0.00050	0.00012	1	1/12/2007	
1-Methylnaphthalene	**0.00208** J	0.00050	0.00015	1	1/12/2007	
2-Methylnaphthalene	BQL UJ	0.00050	0.00014	1	1/12/2007	UM 3-7-07
Naphthalene	**0.00081** U	0.00050	0.00015	1	1/12/2007	
Phenanthrene	BQL UJ	0.00050	0.00010	1	1/12/2007	
Pyrene	BQL	0.00050	0.00006	1	1/12/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	1000	870	87 ✓
4-Terphenyl-d14	1000	527	53 ✓

HUG

Comments:

22 Feb 07

Flags:

BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

8270_sim.xls

Results for Semivolatiles
by GCMS 8270-SIM

Client Sample ID: Run2 MM5-PAH Outlet
Client Project ID: Cement Lock
Lab Sample ID: G368-59-50B
Lab Project ID: G368-59

Analyzed By: EAW
Date Collected: 12/7/2006 0:00
Date Received: 12/16/2006
Date Extracted: 1/11/2007
Matrix: Air

Compound	Result µg	Quantitation Limit µg	MDL ug	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL ND	0.00050	0.00013	1	1/12/2007	
Acenaphthylene	BQL ND	0.00050	0.00012	1	1/12/2007	
Anthracene	BQL ND	0.00050	0.00006	1	1/12/2007	
Benzo[a]anthracene	BQL	0.00050	0.00002	1	1/12/2007	
Benzo[a]pyrene	BQL	0.00050	0.00004	1	1/12/2007	
Benzo[b]fluoranthene	BQL	0.00050	0.00009	1	1/12/2007	
Benzo[g,h,i]perylene	BQL	0.00050	0.00009	1	1/12/2007	
Benzo[k]fluoranthene	BQL	0.00050	0.00009	1	1/12/2007	
Chrysene	BQL	0.00050	0.00007	1	1/12/2007	
Dibenzo[a,h]anthracene	BQL	0.00050	0.00007	1	1/12/2007	
Fluoranthene	BQL ND	0.00050	0.00008	1	1/12/2007	
Fluorene	BQL ND	0.00050	0.00013	1	1/12/2007	
Indeno(1,2,3-c,d)pyrene	BQL	0.00050	0.00012	1	1/12/2007	UM
1-Methylnaphthalene	BQL ~~ND~~	0.00050	0.00015	1	1/12/2007	3-7-07
2-Methylnaphthalene	BQL ~~ND~~	0.00050	0.00014	1	1/12/2007	
Naphthalene	**0.00085** J	0.00050	0.00015	1	1/12/2007	
Phenanthrene	BQL ND	0.00050	0.00010	1	1/12/2007	
Pyrene	BQL	0.00050	0.00006	1	1/12/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	1000	894	89
4-Terphenyl-d14	1000	593	59

Comments: HOE

25 Feb 07

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

8270_sim.xls

Results for Semivolatiles
by GCMS 8270-SIM

Client Sample ID: Trip Blanks-PAH/SVOC
Client Project ID: Cement Lock
Lab Sample ID: G368-59-56B
Lab Project ID: G368-59

Analyzed By: EAW
Date Collected: 12/7/2006 0:00
Date Received: 12/16/2006
Date Extracted: 1/11/2007
Matrix: Air

Compound	Result µg	Quantitation Limit µg	MDL ug	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL UJ	0.00050	0.00013	1	1/12/2007	
Acenaphthylene	BQL UJ	0.00050	0.00012	1	1/12/2007	
Anthracene	BQL	0.00050	0.00006	1	1/12/2007	
Benzo[a]anthracene	BQL	0.00050	0.00002	1	1/12/2007	
Benzo[a]pyrene	BQL	0.00050	0.00004	1	1/12/2007	
Benzo[b]fluoranthene	BQL	0.00050	0.00009	1	1/12/2007	
Benzo[g,h,i]perylene	BQL	0.00050	0.00009	1	1/12/2007	
Benzo[k]fluoranthene	BQL	0.00050	0.00009	1	1/12/2007	
Chrysene	BQL	0.00050	0.00007	1	1/12/2007	
Dibenzo[a,h]anthracene	BQL	0.00050	0.00007	1	1/12/2007	
Fluoranthene	BQL	0.00050	0.00008	1	1/12/2007	
Fluorene	BQL UJ	0.00050	0.00013	1	1/12/2007	
Indeno(1,2,3-c,d)pyrene	BQL	0.00050	0.00012	1	1/12/2007	
1-Methylnaphthalene	BQL	0.00050	0.00015	1	1/12/2007	
2-Methylnaphthalene	BQL	0.00050	0.00014	1	1/12/2007	
Naphthalene	**0.00045** Y	0.00050	0.00015	1	1/12/2007	J
Phenanthrene	BQL	0.00050	0.00010	1	1/12/2007	
Pyrene	BQL	0.00050	0.00006	1	1/12/2007	

		Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl		1000	599	60
4-Terphenyl-d14	HUG	1000	470	47

Comments: 22 Feb 07

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: _____

Results for Semivolatiles
by GCMS 8270-SIM

Client Sample ID: Method Blank
Client Project ID:
Lab Sample ID: PB7082
Lab Project ID:

Analyzed By: EAW
Date Collected:
Date Received:
Date Extracted: 1/11/2007
Matrix: Air

Compound	Result µg	Quantitation Limit µg	MDL ug	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL UJ	0.500	0.133	1	1/11/2007	
Acenaphthylene	BQL UJ	0.500	0.121	1	1/11/2007	
Anthracene	BQL	0.500	0.0556	1	1/11/2007	
Benzo[a]anthracene	BQL	0.500	0.0209	1	1/11/2007	
Benzo[a]pyrene	BQL	0.500	0.0435	1	1/11/2007	
Benzo[b]fluoranthene	BQL	0.500	0.0912	1	1/11/2007	
Benzo[g,h,i]perylene	BQL	0.500	0.0918	1	1/11/2007	
Benzo[k]fluoranthene	BQL	0.500	0.0894	1	1/11/2007	
Chrysene	BQL	0.500	0.0711	1	1/11/2007	
Dibenzo[a,h]anthracene	BQL	0.500	0.0741	1	1/11/2007	
Fluoranthene	BQL	0.500	0.0847	1	1/11/2007	
Fluorene	BQL UJ	0.500	0.126	1	1/11/2007	
Indeno(1,2,3-c,d)pyrene	BQL	0.500	0.121	1	1/11/2007	
1-Methylnaphthalene	BQL	0.500	0.148	1	1/11/2007	
2-Methylnaphthalene	BQL	0.500	0.135	1	1/11/2007	
Naphthalene	**1.33**	0.500	0.146	1	1/11/2007	
Phenanthrene	BQL	0.500	0.0972	1	1/11/2007	
Pyrene	BQL	0.500	0.0554	1	1/11/2007	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	1000	883	88
4-Terphenyl-d14	1000	1410	141

Comments:

Flags:
BQL = Below Quantitation Limits.
J = Detected below the quantitation limit.

Reviewed By: UL

Appendix D

Calibration Data

Spectra Gases Inc.

3434 Route 22 West, Branchburg, New Jersey 08876 USA

ISO 9001:2000

Shipped from: 80 Industrial Drive, Alpha, NJ 08865

CERTIFICATE OF ANALYSIS

EPA PROTOCOL MIXTURE

PROCEDURE # : G1

CUSTOMER: Cherokee Instruments Inc.
SGI ORDER # : 0099130
ITEM# : 4
P.O.# : 8174

CYLINDER # : CC-130944
CYLINDER PRES: 2000 PSIG
CGA OUTLET: 660

CERTIFICATION DATE: 11/14/06
EXPIRATION DATE: 11/14/2008

CERTIFICATION HISTORY

COMPONENT	DATE OF ASSAY	MEAN CONCENTRATION	CERTIFIED CONCENTRATION	ANALYTICAL ACCURACY
Sulfur Dioxide	11/06/06 11/14/06	48.00 ppm 48.32 ppm	48.2 ppm	+/- 1%

BALANCE Nitrogen
PREVIOUS CERTIFICATION DATES: None

REFERENCE STANDARDS

COMPONENT	SRM/NTRM#	CYLINDER#	CONCENTRATION
Sulfur Dioxide	NTRM-81694	CC-162843	96.1 ppm

INSTRUMENTATION

COMPONENT	MAKE/MODEL	SERIAL #	DETECTOR	CALIBRATION DATE(S)
Sulfur Dioxide	Horiba VIA-510	851221093	NDIR	11/14/06

THIS STANDARD IS NIST TRACEABLE. IT WAS CERTIFIED ACCORDING TO THE EPA PROTOCOL PROCEDURES.
DO NOT USE THIS STANDARD IF THE CYLINDER PRESSURE IS LESS THAN 150 PSIG.

ANALYST: _____ **DATE:** 11/14/06
FRED PIKULA

Tel: +1 908-252-9300 Fax: +1 908-252-0811
www.spectragases.com

SPECTRA GASES INC.
3434 Route 22 West • Branchburg, NJ 08876 USA Tel.: (908) 252-9300 • (800) 932-0624 • Fax: (908) 252-0811
Shipped From: 80 Industrial Drive • Alpha, NJ 08865

CERTIFICATE OF ANALYSIS

EPA PROTOCOL MIXTURE
PROCEDURE # : G1

CUSTOMER: Cherokee Instruments Inc.
SGI ORDER # : 0072403
ITEM# : 8
P.O.# : 7173

CYLINDER # : CC-135609
CYLINDER PRES: 2000 PSIG
CGA OUTLET: 660

CERTIFICATION DATE: 6/14/05
EXPIRATION DATE: 6/14/2007

CERTIFICATION HISTORY

COMPONENT	DATE OF ASSAY	MEAN CONCENTRATION	CERTIFIED CONCENTRATION	ANALYTICAL ACCURACY
Sulfur Dioxide	6/2/05 6/14/05	90.75 ppm 90.71 ppm	90.7 ppm	+/- 1%

BALANCE Nitrogen
PREVIOUS CERTIFICATION DATES: None

REFERENCE STANDARDS

COMPONENT	SRM/NTRM#	CYLINDER#	CONCENTRATION
Sulfur Dioxide	NTRM-81694	CC-162874	96.1 ppm

INSTRUMENTATION

COMPONENT	MAKE/MODEL	SERIAL #	DETECTOR	CALIBRATION DATE(S)
Sulfur Dioxide	Horiba VIA-510	851221093	NDIR	6/2/05

THIS STANDARD IS NIST TRACEABLE. IT WAS CERTIFIED ACCORDING TO THE EPA PROTOCOL PROCEDURES.
DO NOT USE THIS STANDARD IF THE CYLINDER PRESSURE IS LESS THAN 150 PSIG.

ANALYST: F. P.
FRED PIKULA

DATE: 6/14/05

Airgas

Airgas Specialty G
600 Union Landing Road
Riverton, NJ 08077
(856) 829-7876
Fax (856) 829-0571
www.airgas.com

Certificate of Analysis: EPA Protocol Gas Mixture

Cylinder Number:	CC125242	Reference Number:	82-124053253-1
Cylinder Pressure:	2000.6 PSIG	Expiration Date:	12/19/2008
Certification Date:	12/19/2005	Laboratory:	ASG - Riverton - NJ

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
CARBON DIOXIDE	7.527 %	+/- 1%	NDIR	G1
OXYGEN	12.40 %	+/- 1%	Paramagnetic	G1
NITROGEN	Balance			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes: O2 CONCENTRATION CORRECTED FOR CO2 INTERFERENCE.

Do not use cylinder below 150 psig. Approval Signature C. Cavallo

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 82658	NITROGEN	OXYGEN	CC14317	9.72 %
NTRM 81674	NITROGEN	CARBON DIOXIDE	XC018784B	6.89 %

Analytical Results

1st Component CARBON DIOXIDE

1st Analysis Date: 12/19/2005

R 1.380	S 1.507	Z -0.001	Conc 7.520 %
S 1.506	Z 0.002	R 1.378	Conc 7.530 %
Z -0.000	R 1.379	S 1.507	Conc 7.530 %
			AVG: 7.527 %

2nd Component OXYGEN

1st Analysis Date: 12/19/2005

R 1.103	S 1.408	Z -0.005	Conc 12.41 %
S 1.409	Z -0.006	R 1.104	Conc 12.39 %
Z -0.006	R 1.104	S 1.409	Conc 12.40 %
			AVG: 12.40 %

Airgas

Airgas Specialty Gase
12722 South Wentworth Ave
Chicago, IL 60628
773.785.3000 Fax: 773.7
www.airgas.com

Certificate of Analysis: EPA Protocol Gas Mixture

Cylinder Number:	CC80293	Reference Number:	54-124019767-4
Cylinder Pressure:	2014.3 PSIG	Expiration Date:	5/29/2007
Certification Date:	5/29/2004	Laboratory:	W08 - 124

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
CARBON DIOXIDE	12.36 %	+/- 1%	NDIR	G1
OXYGEN	22.05 %	+/- 1%	Paramagnetic	G1
NITROGEN	Balance			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes:

Do not use cylinder below 150 psig.

Approval Signature _____

Reference Standard Information

Type	Component	Cyl.Number	Concentration
NTRM 970513	CARBON DIOXIDE	SG9169295BAL	17.89 %
NTRM 980508	OXYGEN	SG9153936BAL	23.85 %

Analytical Results

1st Component **CARBON DIOXIDE**

1st Analysis Date: 05/29/2004

R 17.89	S 12.36	Z 0.000	Conc 12.36 %
S 12.36	Z 0.000	R 17.89	Conc 12.36 %
Z 0.000	R 17.89	S 12.36	Conc 12.36 %
			AVG: 12.36 %

2nd Component **OXYGEN**

1st Analysis Date: 05/29/2004

R 23.85	S 22.05	Z 0.000	Conc 22.05 %
S 22.05	Z 0.000	R 23.85	Conc 22.05 %
Z 0.000	R 23.85	S 22.05	Conc 22.05 %
			AVG: 22.05 %

Airgas

Certificate of Analysis: EPA Protocol Gas Mixture

Cylinder Number:	SG9138232	Reference Number:	82-124035592-1
Cylinder Pressure:	2014 PSIG	Expiration Date:	5/9/2008
Certification Date:	5/9/2005	Laboratory:	ASG - Riverton - NJ

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
CARBON MONOXIDE	44.03 PPM	+/- 1%	NDIR	G1
NITROGEN	Balance			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes:

Do not use cylinder below 150 psig.

Signature on file

Approval Signature

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81678	NITROGEN	CARBON MONOXIDE	XC012122B	49.59 PPM

Analytical Results

1st Component CARBON MONOXIDE

1st Analysis Date:	05/02/2005		
R 4.922	S 4.493	Z 0.997	Conc 44.02 PPM
S 4.495	Z 0.998	R 4.922	Conc 44.05 PPM
Z 1.001	R 4.925	S 4.494	Conc 43.99 PPM
			AVG: 44.02 PPM

2nd Analysis Date:	05/09/2005		
R 4.937	S 4.510	Z 0.995	Conc 44.07 PPM
S 4.510	Z 1.000	R 4.940	Conc 44.03 PPM
Z 0.999	R 4.940	S 4.511	Conc 44.04 PPM
			AVG: 44.04 PPM

Airgas

Airgas Specialty Gases
600 Union Landing Road
Riverton, NJ 08077
(856) 829-7878
Fax (856) 829-0571
www.airgas.com

Certificate of Analysis: EPA Protocol Gas Mixture

Cylinder Number:	XC021886B	Reference Number:	82-124036856-1
Cylinder Pressure:	1999.6 PSIG	Expiration Date:	5/31/2008
Certification Date:	5/31/2005	Laboratory:	ASG - Riverton - NJ

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
CARBON MONOXIDE	89.6 PPM	+/- 1%	NDIR	G1
NITROGEN	Balance			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes:

Do not use cylinder below 150 psig. Approval Signature _____

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81679	NITROGEN	CARBON MONOXIDE	CC97637	98.0 PPM

Analytical Results

1st Component CARBON MONOXIDE

1st Analysis Date: 05/23/2005

R 2.889	S 2.726	Z 1.000	Conc 89.5 PPM
S 2.724	Z 1.010	R 2.888	Conc 89.5 PPM
Z 1.018	R 2.887	S 2.727	Conc 89.7 PPM
			AVG: 89.5 PPM

2nd Analysis Date: 05/31/2005

R 2.888	S 2.727	Z 1.000	Conc 89.7 PPM
S 2.727	Z 1.001	R 2.888	Conc 89.7 PPM
Z 1.015	R 2.889	S 2.728	Conc 89.7 PPM
			AVG: 89.7 PPM

Airgas

Airgas Specialty Gases
12722 South Wentworth Aven
Chicago, IL 60628
773.785.3000 Fax: 773.785.1
www.airgas.com

Certificate of Analysis: EPA Protocol Gas Mixture

Cylinder Number:	CC44922	Reference Number:	54-124020689-1
Cylinder Pressure:	1999 PSIG	Expiration Date:	7/28/2007
Certification Date:	7/28/2004	Laboratory:	ASG - Chicago - IL

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
METHANE	24.867 PPM	+/- 1%	Total Hydrocarbon	G1
Air	Balance			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes:

Do not use cylinder below 150 psig.

Approval Signature

Reference Standard Information

Type	Component	Cyl.Number	Concentration
GMIS 60104	METHANE	CC146235	24.50 PPM

Analytical Results

1st Component **METHANE**

1st Analysis Date: 07/28/2004

R 24.50	S 24.80	Z 0.0	Conc 24.8 PPM
S 24.90	Z 0.0	R 24.50	Conc 24.90 PPM
Z 0.0	R 24.50	S 24.90	Conc 24.90 PPM
			AVG: 24.867 PPM

Airgas

Certificate of Analysis: EPA Protocol Gas Mixture

Airgas Specialty Gase
600 Union Landing Road
Riverton, NJ 08077
(856) 829-7878
Fax (856) 829-0571
www.airgas.com

Cylinder Number: CC39047
Cylinder Pressure: 1999.6 PSIG
Certification Date: 7/20/2005
Reference Number: 82-124040439-1
Expiration Date: 7/20/2008
Laboratory: ASG - Riverton - NJ

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
METHANE	45.27 PPM	+/- 1%	FID	G1
Air	Balance			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes:

Do not use cylinder below 150 psig.

Approval Signature

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
SRM 2750	AIR	METHANE	FF23236	49.22 PPM

Analytical Results

1st Component METHANE

1st Analysis Date: 07/20/2005

R 86597	S 79356	Z 0000	Conc 45.40 PPM
S 79705	Z 0000	R 86260	Conc 45.20 PPM
Z 0000	R 86383	S 79374	Conc 45.21 PPM
			AVG: 45.27 PPM

#5000

Airgas

Airgas Specialty Gase:
12722 South Wentworth A
Chicago, IL 60628
773.785.3000 Fax 773.78
www.airgas.com

Certificate of Analysis: E.P.A. Protocol Gas Mixture

Certification performed in accordance with "EPA Traceability Protocol (Sept.1997)" using assay procedures listed.

Cylinder No:	CC151925@	Reference No:	54-124021204-1
Certification Date:	8/20/2004	Expiration Date:	8/20/2007
Cylinder Pressure:	2000	Part No:	E02AI99E15A0571
*Do not use cylinder below	150 psig	Lab:	ASG Chicago

Component	Certified Concentration	Unit of Measure	Accuracy	Procedure	Analytical Principle
Methane	91.32	PPM	1%	G-1	THC
Air	Balance				
NOX (Reference Value Only)		ppm			

Reference Standard Information

Type	Component	Concentration	Unit	Cylinder Number
NTRM	Methane	249.6	PPM	CC146254

Analytical Data

Component 1 Methane

1st Analysis Date: 8/20/2004

R	98.900	S	36.200	Z	0.000
S	36.200	Z	0.000	R	99.100
Z	0.000	R	99.100	S	36.300

2nd Analysis Date:

R		S		Z	
S		Z		R	
Z		R		S	

Approved By:

Airgas

Airgas Specialty Gases
600 Union Landing Road
Riverton, NJ 08077
(856) 829-7878
Fax (856) 829-0571
www.airgas.com

Certificate of Analysis: EPA Protocol Gas Mixture

Cylinder Number:	XC022904B	Reference Number:	82-124032852-1
Cylinder Pressure:	1999.6 PSIG	Expiration Date:	4/15/2007
Certification Date:	4/15/2005	Laboratory:	ASG - Riverton - NJ

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
NITRIC OXIDE	91.3 PPM	+/- 1%	Chemiluminescence	G1
NITROGEN	Balance			
Total oxides of nitrogen	91.4 PPM			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes:

Do not use cylinder below 150 psig.

Approval Signature Don Massie

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81684	NITROGEN	NITRIC OXIDE	XC019250B	98.8 PPM

Analytical Results

1st Component NITRIC OXIDE

1st Analysis Date: 04/08/2005

R 0.677	S 0.628	Z 0.007	Conc 91.4 PPM
S 0.627	Z 0.008	R 0.678	Conc 91.2 PPM
Z 0.006	R 0.677	S 0.628	Conc 91.5 PPM
			AVG: 91.3 PPM

2nd Analysis Date: 04/15/2005

R 0.679	S 0.629	Z 0.005	Conc 91.4 PPM
S 0.629	Z 0.006	R 0.679	Conc 91.4 PPM
Z 0.001	R 0.679	S 0.629	Conc 91.3 PPM
			AVG: 91.3 PPM

Airgas

Certificate of Analysis: EPA Protocol Gas Mixture

Airgas Specialty Gases
600 Union Landing Road
Riverton, NJ 08077
(856) 829-7878
Fax (856) 829-0571
www.airgas.com

Cylinder Number: CC208292
Cylinder Pressure: 1999.6 PSIG
Certification Date: 7/26/2005
Reference Number: 82-124041344-1
Expiration Date: 7/26/2007
Laboratory: ASG - Riverton - NJ

Certified Concentrations

Component	Concentration	Accuracy	Analytical Principle	Procedure
NITRIC OXIDE	448.1 PPM	+/- 1%	FTIR	G1
NITROGEN	Balance			
Total oxides of nitrogen	448.3 PPM			

Certification performed in accordance with "EPA Traceability Protocol (Sept. 1997)" using the assay procedures listed. Analytical Methodology does not require correction for analytical interferences.

Notes:

Do not use cylinder below 150 psig.

Approval Signature C. Caballero

Reference Standard Information

Type	Balance Gas	Component	Cyl.Number	Concentration
NTRM 81686	NITROGEN	NITRIC OXIDE	XC023994B	487.6 PPM

Analytical Results

1st Component **NITRIC OXIDE**

1st Analysis Date: 07/19/2005

R 0.865	S 0.818	Z 0.000	Conc 447.2 PPM
S 0.818	Z 0.000	R 0.865	Conc 447.1 PPM
Z 0.000	R 0.865	S 0.818	Conc 447.8 PPM
			AVG: 447.3 PPM

2nd Analysis Date: 07/26/2005

R 0.865	S 0.819	Z 0.000	Conc 448.9 PPM
S 0.819	Z 0.000	R 0.865	Conc 449.0 PPM
Z 0.000	R 0.865	S 0.819	Conc 449.1 PPM
			AVG: 449.0 PPM

#5000

AirNova, Inc.
Dry gas meter & orifice
Calibration data and calculations

Meter Box #:	6
Checked with Pump #:	6
Date:	`01/04/[redacted]07
Calibrator:	KA

delta H =	0.5	in. H2O
Pb =	30.20	in. Hg
Time =	23	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	463.520	IVd =	42.563	1.868	0.987
FVw =	472.195	FVd =	51.580		
TVw =	8.675	TVd	9.017		
tw =	60	Itd =	74		
		Ftd=	74		
		Avg. td =	74		

---

delta H =	1.0	in. H2O
Pb =	30.20	in. Hg
Time =	13	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	472.447	IVd =	51.843	1.795	0.981
FVw =	479.536	FVd =	59.257		
TVw =	7.089	TVd	7.414		
tw =	63	Itd =	78		
		Ftd=	78		
		Avg. td =	78		

---

delta H =	1.5	in. H2O
Pb =	30.20	in. Hg
Time =	11	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	496.080	IVd =	76.615	1.752	0.973
FVw =	503.509	FVd =	84.466		
TVw =	7.429	TVd	7.851		
tw =	64	Itd =	81		
		Ftd=	81		
		Avg. td =	81		

AirNova, Inc.

Date: `01/04/06 Calibration Data MB#: 6

---

delta H =	2.0	in. H2O
Pb =	30.20	in. Hg
Time =	10	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	488.175	IVd =	68.303	1.795	0.979
FVw =	495.865	FVd =	76.405		
TVw =	7.690	TVd	8.102		
tw =	64	Itd =	83		
		Ftd=	83		
		Avg. td =	83		

---

delta H =	3.0	in. H2O
Pb =	30.20	in. Hg
Time =	8	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	503.734	IVd =	84.700	1.748	0.982
FVw =	511.356	FVd =	92.706		
TVw =	7.622	TVd	8.006		
tw =	63.5	Itd =	84		
		Ftd=	84		
		Avg. td =	84		

---

delta H =	4.0	in. H2O
Pb =	30.20	in. Hg
Time =	7	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	511.747	IVd =	93.115	1.774	0.982
FVw =	519.377	FVd =	101.130		
TVw =	7.630	TVd	8.015		
tw =	63	Itd =	85		
		Ftd=	85		
		Avg. td =	85		

Avg.^H@ = 1.79 Avg. Y = 0.98

Signature: Kenneth E. Allen **Date:** 1-4-07

AirNova, Inc.
Calibration data and calculations
Meter Box Temperature Sensors

Meter Box #:	6
Date:	`01/04/07
Calibrator:	KA
Ambient Temp. (F):	64
Barometric Pressure ("Hg):	30.20
Reference Thermometer:	ASTM-2F

Dry Gas Meter Thermocouple

Reference Point	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
Ambient Temp.	64	63	1
Hot Water (104-122F)	N/A	N/A	0

note: tolerance for inlet and outlet = +/- 5.4 F

Thermocouple connector/LED readout:

	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
1 Stack	64	64	0
2 Probe	64	64	0
3 Filter	64	64	0
4 Dryer	64	64	0
5 Aux	64	64	0
6 Aux	64	64	0

note: tolerance = +/- 2 F

Signature: Kenneth E. Allen **Date:** 1-4-07

AirNova, Inc.

5845 Clayton Avenue, Pennsauken, New Jersey 081
(856) 486-1500 • FAX 486-9896 • www.airnova.c

Meter Box Calibration Data Sheet:

Meter Box # 6 Pump # 6 Date: 1-4-

1) General maintenance (check off when completed)

- Check pump oil (fill to 1/4 full if needed): level ok - ✓
- Clean quick connects: ✓
- Check function of valves and seating in unit: ✓
- Check timer against reference stopwatch: ✓
- Check all LED displays for function (note any problems below):
  ok
- Check amphenol plug for function and mounting: ✓
- Check vacuum gauge for function: ✓
- Clean exterior and interior of the meter box: ✓
- Check the security of all electrical connections within the meter box: ✓

2) Check thermocouple / temperature readout

Reference temperature (ASTM 2F) [illegible] °F

Thermocouple	Temp.	Tolerance
#1 - Stack	64	+/- 2° of reference temp.
#2 - Probe	64	+/- 2°
#3 - Filter	64	+/- 2°
#4 - Dryer	64	+/- 2°
#5 - Aux.	64	+/- 2°
#6 - DGM inlet	64	+/- 5°
#7 - DGM outlet	64	+/- 5°

3) Leak Check:

Standard meter # 6 checked at 10 (5 - 10)" of H_2O in column
Leak check results: pass - ✓ fail - ____

General Comments: (remark specifically on the box condition, cleanliness, tubing condition, electric connections, etc.)

AirNova, Inc.
Dry gas meter & orifice
Calibration data and calculations

Meter Box #:	7
Checked with Pump #:	7
Date:	`2/15/07
Calibrator:	KA

delta H =	0.5	in. H2O
Pb =	29.95	in. Hg
Time =	24.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	88.575	IVd =	468.537	1.636	1.019
FVw =	98.266	FVd =	478.124		
TVw =	9.691	TVd	9.587		
tw =	48.5	Itd =	53		
		Ftd=	53		
		Avg. td =	53		

---

delta H =	1.0	in. H2O
Pb =	29.95	in. Hg
Time =	13.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	98.595	IVd =	478.450	1.703	1.012
FVw =	105.879	FVd =	485.683		
TVw =	7.284	TVd	7.233		
tw =	49	Itd =	53		
		Ftd=	53		
		Avg. td =	53		

---

delta H =	1.5	in. H2O
Pb =	29.95	in. Hg
Time =	12.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	106.084	IVd =	485.862	1.648	1.016
FVw =	114.455	FVd =	494.135		
TVw =	8.371	TVd	8.273		
tw =	49	Itd =	53		
		Ftd=	53		
		Avg. td =	53		

AirNova, Inc.

Date: `2/15/07 Calibration Data MB#: 7

---

delta H = 2.0 in. H2O
Pb = 29.95 in. Hg
Time = 10.0 min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	114.682	IVd =	494.358	1.769	1.013
FVw =	122.456	FVd =	502.056		
TVw =	7.774	TVd	7.698		
tw =	49	Itd =	53		
		Ftd=	53		
		Avg. td =	53		

---

delta H = 3.0 in. H2O
Pb = 29.95 in. Hg
Time = 8.0 min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	122.696	IVd =	502.305	1.700	1.013
FVw =	130.465	FVd =	509.980		
TVw =	7.769	TVd	7.675		
tw =	49	Itd =	53		
		Ftd=	53		
		Avg. td =	53		

---

delta H = 4.0 in. H2O
Pb = 29.95 in. Hg
Time = 6.0 min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	130.680	IVd =	510.209	1.674	1.008
FVw =	137.460	FVd =	516.925		
TVw =	6.780	TVd	6.716		
tw =	49	Itd =	53		
		Ftd=	53		
		Avg. td =	53		

Avg.^H@ = 1.69 Avg. Y = 1.01

Signature: Kenneth E. Allen **Date:** 2/15/07

AirNova, Inc.
Calibration data and calculations
Meter Box Temperature Sensors

Meter Box #:	7
Date:	`2/15/07
Calibrator:	KA
Ambient Temp. (F):	50
Barometric Pressure ("Hg):	29.95
Reference Thermometer:	ASTM-2F

Dry Gas Meter Thermocouple - INLET

Reference Point	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
Ambient Temp.	50	51	1
Hot Water (104-122F)	100	100	0

Dry Gas Meter Thermocouple - OUTLET

Reference Point	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
Ambient Temp.	50	51	1
Hot Water (104-122F)	100	100	0

note: tolerance for inlet and outlet = +/- 5.4 F

Thermocouple connector/LED readout:

	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
1 Stack	50	50	0
2 Probe	50	50	0
3 Filter	50	51	1
4 Dryer	50	50	0
5 Aux	50	50	0

note: tolerance = +/- 2 F

Signature: Kenneth E. Allen **Date:** 2/15/07

AirNova, Inc.
Dry gas meter & orifice
Calibration data and calculations

Meter Box #:	9
Checked with Pump #:	9
Date:	`01/04/07
Calibrator:	KA

delta H =	0.5	in. H2O
Pb =	30.30	in. Hg
Time =	17.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	399.424	IVd =	258.800	1.603	1.022
FVw =	406.480	FVd =	265.632		
TVw =	7.056	TVd	6.832		
tw =	63	Itd =	58		
		Ftd=	58		
		Avg. td =	58		

---

delta H =	1.0	in. H2O
Pb =	30.30	in. Hg
Time =	19.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	406.702	IVd =	265.830	1.620	1.028
FVw =	417.755	FVd =	276.534		
TVw =	11.053	TVd	10.704		
tw =	63	Itd =	62		
		Ftd=	62		
		Avg. td =	62		

---

delta H =	1.5	in. H2O
Pb =	30.30	in. Hg
Time =	11.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	423.503	IVd =	282.055	1.600	1.030
FVw =	431.389	FVd =	289.666		
TVw =	7.886	TVd	7.611		
tw =	63	Itd =	62		
		Ftd=	62		
		Avg. td =	62		

AirNova, Inc.

Date: `01/04/06 Calibration Data MB#: 9

---

delta H =	2.0	in. H2O
Pb =	30.30	in. Hg
Time =	9.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	431.775	IVd =	290.035	1.713	1.036
FVw =	438.975	FVd =	296.935		
TVw =	7.200	TVd	6.900		
tw =	63	Itd =	62		
		Ftd=	62		
		Avg. td =	62		

---

delta H =	3.0	in. H2O
Pb =	30.30	in. Hg
Time =	8.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	439.310	IVd =	297.263	1.722	1.030
FVw =	447.143	FVd =	304.771		
TVw =	7.833	TVd	7.508		
tw =	63	Itd =	60		
		Ftd=	60		
		Avg. td =	60		

---

delta H =	4.0	in. H2O
Pb =	30.30	in. Hg
Time =	6.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	447.403	IVd =	305.016	1.681	1.033
FVw =	454.269	FVd =	311.562		
TVw =	6.866	TVd	6.546		
tw =	63	Itd =	60		
		Ftd=	60		
		Avg. td =	60		

Avg.^H@ = 1.66 Avg. Y = 1.03

Signature: Kenneth E. Allen **Date:** 1-4-07

AirNova, Inc.
Calibration data and calculations
Meter Box Temperature Sensors

Meter Box #:	9
Date:	`01/04/06
Calibrator:	KA
Ambient Temp. (F):	62
Barometric Pressure ("Hg):	30.30
Reference Thermometer:	ASTM-2F

Dry Gas Meter Thermocouple - INLET

Reference Point	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
Ambient Temp.	62	62	0
Hot Water (104-122F)	110	109	1

Dry Gas Meter Thermocouple - OUTLET

Reference Point	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
Ambient Temp.	N/A	N/A	0
Hot Water (104-122F)	N/A	N/A	0

note: tolerance for inlet and outlet = +/- 5.4 F

Thermocouple connector/LED readout:

	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
1 Stack	62	62	0
2 Probe	62	62	0
3 Filter	62	62	0
4 Dryer	62	63	1
5 Aux	62	63	1

note: tolerance = +/- 2 F

Signature: Kenneth E. Ale **Date:** 1-4-07

AirNova, Inc.

5845 Clayton Avenue, Pennsauken, New Jersey 08
(856) 486-1500 • FAX 486-9896 • www.airnova.c

Meter Box Calibration Data Sheet: Meter Box # 9 Pump # 9 Date: 1-4-

1) General maintenance (check off when completed)

- Check pump oil (fill to 1/4 full if needed): level ok - ✓
- Clean quick connects: ✓
- Check function of valves and seating in unit: ✓
- Check timer against reference stopwatch: ✓
- Check all LED displays for function (note any problems below):
  OK
- Check amphenol plug for function and mounting: ✓
- Check vacuum gauge for function: ✓
- Clean exterior and interior of the meter box: ✓
- Check the security of all electrical connections within the meter box: ✓

2) Check thermocouple / temperature readout Reference temperature (ASTM 2F) 62

Thermocouple	Temp.	Tolerance
#1 - Stack	62	+/- 2° of reference temp.
#2 - Probe	62	+/- 2°
#3 - Filter	62	+/- 2°
#4 - Dryer	62	+/- 2°
#5 - Aux.	62	+/- 2°
#6 - DGM inlet	63	+/- 5°
#7 - DGM outlet	63	+/- 5°

3) Leak Check:

Standard meter # 10 checked at 10 (5 - 10)" of H_2O in column
Leak check results: pass - ✓ fail - ____

General Comments: (remark specifically on the box condition, cleanliness, tubing condition, electri connections, etc.)

AirNova, Inc.
Dry gas meter & orifice
Calibration data and calculations

Meter Box #:	10
Checked with Pump #:	10
Date:	`01/04/07
Calibrator:	KA

delta H =	0.5	in. H2O
Pb =	30.25	in. Hg
Time =	23.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	329.476	IVd =	86.125	1.853	1.024
FVw =	338.216	FVd =	94.743		
TVw =	8.740	TVd	8.618		
tw =	56	Itd =	61.5		
		Ftd=	61.5		
		Avg. td =	61.5		

---

delta H =	1.0	in. H2O
Pb =	30.25	in. Hg
Time =	19.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	338.470	IVd =	94.998	1.861	1.018
FVw =	348.653	FVd =	105.115		
TVw =	10.183	TVd	10.117		
tw =	57	Itd =	64		
		Ftd=	64		
		Avg. td =	64		

---

delta H =	1.5	in. H2O
Pb =	30.25	in. Hg
Time =	17.0	min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	348.972	IVd =	105.443	1.858	1.015
FVw =	360.125	FVd =	116.574		
TVw =	11.153	TVd	11.131		
tw =	57	Itd =	65.5		
		Ftd=	65.5		
		Avg. td =	65.5		

AirNova, Inc.

Date: `01/04/07 Calibration Data MB#: 10

---

delta H = 2.0 in. H2O
Pb = 30.25 in. Hg
Time = 12.0 min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	360.360	IVd =	116.805	1.869	1.016
FVw =	369.405	FVd =	125.841		
TVw =	9.045	TVd	9.036		
tw =	57	Itd =	67.5		
		Ftd=	67.5		
		Avg. td =	67.5		

---

delta H = 3.0 in. H2O
Pb = 30.25 in. Hg
Time = 9.0 min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	369.672	IVd =	126.099	1.833	1.017
FVw =	378.051	FVd =	134.472		
TVw =	8.379	TVd	8.373		
tw =	57.5	Itd =	70		
		Ftd=	70		
		Avg. td =	70		

---

delta H = 4.0 in. H2O
Pb = 30.25 in. Hg
Time = 6.0 min.

Std Test Meter Data		Dry Test Meter Data		^H@i	^Yi
IVw =	378.595	IVd =	135.003	1.814	1.017
FVw =	385.066	FVd =	141.480		
TVw =	6.471	TVd	6.477		
tw =	57.5	Itd =	72		
		Ftd=	72		
		Avg. td =	72		

Avg.^H@ = 1.85 Avg. Y = 1.02

Signature: Kenneth E. Allen **Date:** 1-4-07

AirNova, Inc.
Calibration data and calculations
Meter Box Temperature Sensors

Meter Box #:	10
Date:	`01/04/07
Calibrator:	KA
Ambient Temp. (F):	59
Barometric Pressure ("Hg):	30.25
Reference Thermometer:	ASTM-2F

Dry Gas Meter Thermocouple - INLET

Reference Point	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
Ambient Temp.	59	56	3
Hot Water (104-122F)	101	101	0

Dry Gas Meter Thermocouple - OUTLET

Reference Point	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
Ambient Temp.	N/A	N/A	0
Hot Water (104-122F)	N/A	N/A	0

note: tolerance for inlet and outlet = +/- 5.4 F

Thermocouple connector/LED readout:

	Ref. Thermometer Temp. (F)	Thermocouple Temp. (F)	Diff.
1 Stack	59	60	1
2 Probe	59	61	2
3 Filter	59	60	1
4 Dryer	59	60	1
5 Aux	59	60	1

note: tolerance = +/- 2 F

Signature: Kenneth E. Allen **Date:** 1-4-007

AirNova, Inc.

5845 Clayton Avenue, Pennsauken, New Jersey 08
(856) 486-1500 • FAX 486-9896 • www.airnova.c

Meter Box Calibration Data Sheet:

Meter Box # 10 Pump # 10 Date:

1) General maintenance (check off when completed)

- Check pump oil (fill to 1/4 full if needed): level ok - ✓
- Clean quick connects: ✓
- Check function of valves and seating in unit: ✓
- Check timer against reference stopwatch: ✓
- Check all LED displays for function (note any problems below):

  OK

- Check amphenol plug for function and mounting: ✓
- Check vacuum gauge for function: ✓
- Clean exterior and interior of the meter box: ✓
- Check the security of all electrical connections within the meter box: ✓

2) Check thermocouple / temperature readout

Reference temperature (ASTM 2F) 59

Thermocouple	Temp.	Tolerance
#1 - Stack	60	+/- 2° of reference temp.
#2 - Probe	61	+/- 2°
#3 - Filter	60	+/- 2°
#4 - Dryer	60	+/- 2°
#5 - Aux.	60	+/- 2°
#6 - DGM inlet	56	+/- 5°
#7 - DGM outlet	—	+/- 5°

3) Leak Check:

Standard meter # ____ checked at ____ (5 - 10)" of H_2O in column

Leak check results: pass - ✓ fail - ____

General Comments: (remark specifically on the box condition, cleanliness, tubing condition, electr connections, etc.)

AirNova, Inc.
Pitot Thermocouple
Calibration data

Date:	`09/12/06
Thermocouple I.D. :	P-6-A
Probe Length:	6 Foot
Calibrator	KA
Ambient Temp.(F):	80
Barometric Pressure (" Hg):	30.25
Reference Thermometer:	ASTM-2F

Reference Point	Source	Ref. Thermometer Temp.(F)	Thermocouple Temp.(F)	Temperature Diff. (%)
1	Ice Water	35	34	0.2%
2	Boiling Water	214	211	0.4%
3	Hot Oil Bath	491	488	0.3%
4	Ambient Temp	80	80	0.0%
		Average Temp. Change:		**0.3%**

Temperature Difference must be < 1.5 %

Signature: Kenneth E. Ell

Date: 9/12/06

AirNova, Inc.

Type S Pitot Tube
Dimensional Specification Verification Form

Pitot No. P-6-A
Calibrator KA
Date 9-12-96

Verify the following criteria and check all that apply

1) Face opening plane perpendicular to the transverse axis ? ✓

2) Face-opening plane parallel to the logitudinal axis ? ✓

3) Are Legs A & B of equal length and are centerlines coincident ? ✓

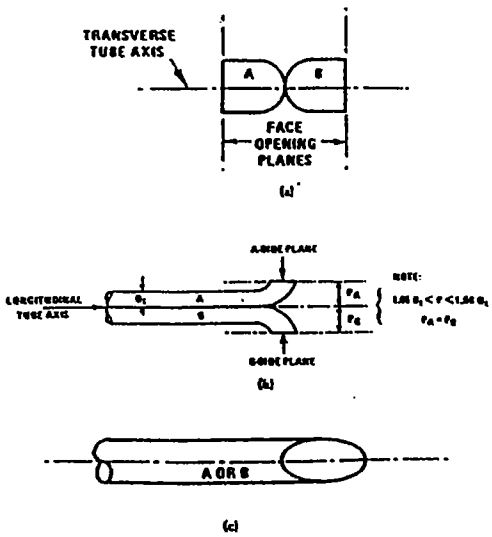
If all the above criteria are met, a pitot coeffecient of 0.84 may be assigned to the respective pitot tube. If one of the following criteria above is not met, the pitot tube must be calibrated in a wind tunnel.

Recommended Dimensions

4) Diameter of pitot tubing ? (Dt) = .374 in. (0.1875 < Dt < 0.375)

5) Dimensions of Pa = .501 in. Pa/Dt = 1.42 (1.05 < Dt < 1.50)

6) Dimensions of Pb = .498 in. Pb/Dt = 1.42 (1.05 < Dt < 1.50)



AirNova, Inc.
Probe Thermocouple
Calibration data

Date:	`09/12/06
Thermocouple I.D. :	AN-U5E
Probe Length:	5 Foot
Calibrator	KA
Ambient Temp.(F):	80
Barometric Pressure (" Hg):	30.25
Reference Thermometer:	ASTM-2F

Reference Point	Source	Ref. Thermometer Temp.(F)	Thermocouple Temp.(F)	Temperature Diff. (%)
1	Ice Water	32	34	0.4%
2	Ambient	81	80	0.2%
4	Boiling Water	211	209	0.3%
5	Hot oil bath	492	495	0.3%
		Average Temp. Change:		**0.3%**

Temperature Difference must be < 1.5 %

Signature: Kenneth E. Ell

Date: 9/12/06

AirNova, Inc.

Type S Pitot Tube
Dimensional Specification Verification Form

Pitot No. AN-USE
Calibrator KA
Date 9/12/06

Verify the following criteria and check all that apply

1) Face opening plane perpendicular to the transverse axis ? ✓

2) Face-opening plane parallel to the logitudinal axis ? ✓

3) Are Legs A & B of equal length and are centerlines coincident ? ✓

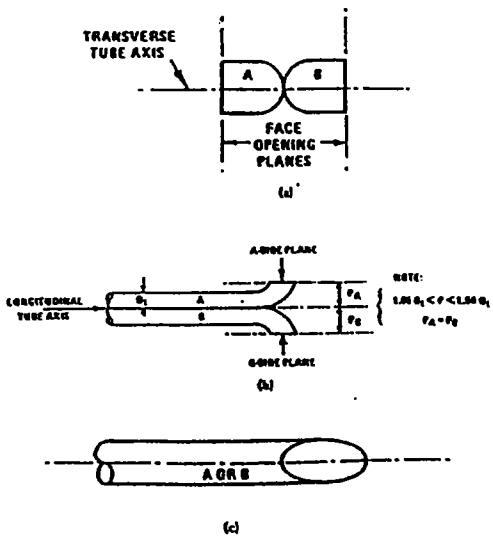
If all the above criteria are met, a pitot coeffecient of 0.84 may be assigned to the respective pitot tube. If one of the following criteria above is not met, the pitot tube must be calibrated in a wind tunnel.

Recommended Dimensions

4) Diameter of pitot tubing ? (Dt) = .375 in. (0.1875 < Dt < 0.375)

5) Dimensions of Pa = .498 in. Pa/Dt = 1.37 (1.05 < Dt < 1.50)

6) Dimensions of Pb = .520 in. Pb/Dt = 1.40 (1.05 < Dt < 1.50)



AirNova, Inc.
Probe Thermocouple
Calibration data

Date:	`09/12/06
Thermocouple I.D. :	ANT5A
Probe Length:	5 Foot
Calibrator	KA
Ambient Temp.(F):	80
Barometric Pressure (" Hg):	30.25
Reference Thermometer:	ASTM-2F

Reference Point	Source	Ref. Thermometer Temp.(F)	Thermocouple Temp.(F)	Temperature Diff. (%)
1	Ice Water	33	32	0.2%
2	Boiling Water	212	210	0.3%
3	Hot Oil Bath	463	465	0.2%
4	Ambient Temp.	80	80	0.0%
		Average Temp. Change:		**0.2%**

Temperature Difference must be < 1.5 %

Signature: Kenneth E. Allen

Date: 9/12/06

AirNova, Inc.

Type S Pitot Tube
Dimensional Specification Verification Form

Pitot No. ANT 5A
Calibrator KA
Date 9/12/06

Verify the following criteria and check all that apply

1) Face opening plane perpendicular to the transverse axis ? ✓

2) Face-opening plane parallel to the logitudinal axis ? ✓

3) Are Legs A & B of equal length and are centerlines coincident ? ✓

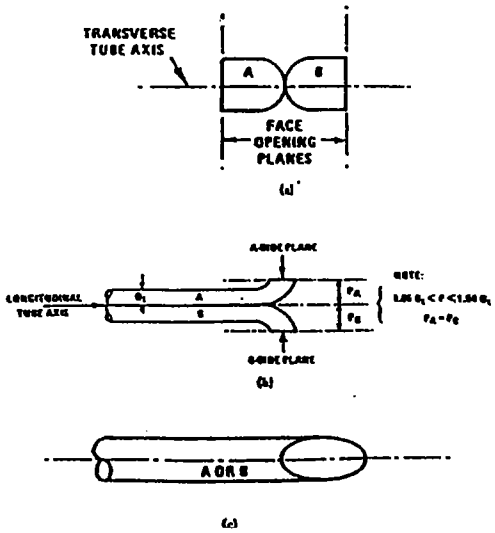
If all the above criteria are met, a pitot coeffecient of 0.84 may be assigned to the respective pitot tube. If one of the following criteria above is not met, the pitot tube must be calibrated in a wind tunnel.

Recommended Dimensions

4) Diameter of pitot tubing ? (Dt) = .372 in. (0.1875 < Dt < 0.375)

5) Dimensions of Pa = .525 in. Pa/Dt = 1.35 (1.05 < Dt < 1.50)

6) Dimensions of Pb = .530 in. Pb/Dt = 1.35 (1.05 < Dt < 1.50)



AirNova, Inc.
Probe Thermocouple
Calibration data

Date:	`09/12/06
Thermocouple I.D. :	AN-5D
Probe Length:	5 Foot
Calibrator	KA
Ambient Temp.(F):	80
Barometric Pressure (" Hg):	30.25
Reference Thermometer:	ASTM-2F

Reference Point	Source	Ref. Thermometer Temp.(F)	Thermocouple Temp.(F)	Temperature Diff. (%)
1	Ice Water	32	31	0.2%
2	Ambient	80	82	0.4%
4	Boiling Water	211	212	0.1%
5	Hot oil bath	455	458	0.3%
		Average Temp. Change:		**0.3%**

Temperature Difference must be < 1.5 %

Signature: Kenneth E. Allen

Date: 9/12/06

AirNova, Inc.

Type S Pitot Tube
Dimensional Specification Verification Form

Pitot No. AN-5D
Calibrator KA
Date 9/12/06

Verify the following criteria and check all that apply

1) Face opening plane perpendicular to the transverse axis ? ✓

2) Face-opening plane parallel to the logitudinal axis ? ✓

3) Are Legs A & B of equal length and are centerlines coincident ? ✓

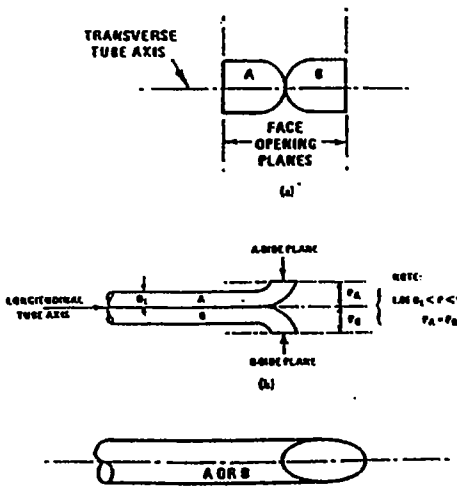
If all the above criteria are met, a pitot coeffecient of 0.84 may be assigned to the respective pitot tube. If one of the following criteria above is not met, the pitot tube must be calibrated in a wind tunnel.

Recommended Dimensions

4) Diameter of pitot tubing ? (Dt) = .373 in. (0.1875 < Dt < 0.375)

5) Dimensions of Pa = .511 in. Pa/Dt = 1.40 (1.05 < Dt < 1.50)

6) Dimensions of Pb = .510 in. Pb/Dt = 1.42 (1.05 < Dt < 1.50)



AirNova, Inc.
Probe Thermocouple
Calibration data

Date:	`09/12/06
Thermocouple I.D. :	AN_5H
Probe Length:	5 Foot
Calibrator	KA
Ambient Temp.(F):	80
Barometric Pressure (" Hg):	30.25
Reference Thermometer:	ASTM-2F

Reference Point	Source	Ref. Thermometer Temp.(F)	Thermocouple Temp.(F)	Temperature Diff. (%)
1	Ice Water	34	33	0.2%
2	Ambient	80	81	0.2%
4	Boiling Water	209	206	0.4%
5	Hot oil bath	488	483	0.5%
		Average Temp. Change:		**0.3%**

Temperature Difference must be < 1.5 %

Signature: Kenneth E. Ale

Date: 9/12/06

AirNova, Inc.

Type S Pitot Tube
Dimensional Specification Verification Form

Pitot No. AN-S14
Calibrator KA
Date 9/12/06

Verify the following criteria and check all that apply

1) Face opening plane perpendicular to the transverse axis ? ✓

2) Face-opening plane parallel to the logitudinal axis ? ✓

3) Are Legs A & B of equal length and are centerlines coincident ? ✓

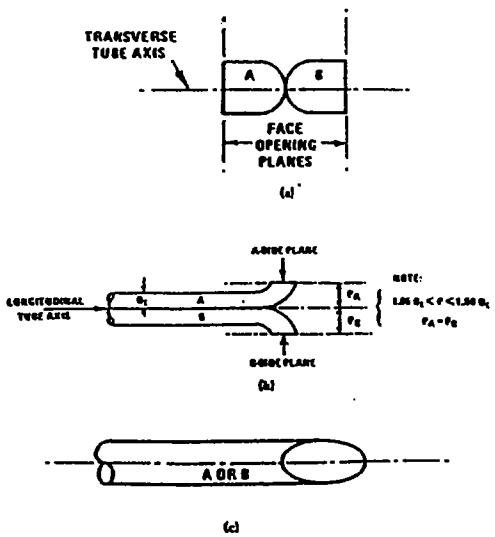
If all the above criteria are met, a pitot coeffecient of 0.84 may be assigned to the respective pitot tube. If one of the following criteria above is not met, the pitot tube must be calibrated in a wind tunnel.

Recommended Dimensions

4) Diameter of pitot tubing ? (Dt) = .372 in. (0.1875 < Dt < 0.375)

5) Dimensions of Pa = .500 in. Pa/Dt = 1.43 (1.05 < Dt < 1.50)

6) Dimensions of Pb = .503 in. Pb/Dt = 1.41 (1.05 < Dt < 1.50)



Proj 2982
NOx Converter Test
Outlet NOx Trailer - 2

AirNova, Incorporated
NOx Converter Effeciency Test

Date	December 5, 2006	
Analyzer ID	TECO Model 10 Chemiluminescent	
Serial Number	SN 10AB24250214	
Analyst	LDK	
Range	448.1	
Cal. Standard	448.1	ppmV Nitric Oxide

Step 1.	*Verify that all tubing is properly connected and securely fastened*	*OK*	
Step 2.	*Adjust the NOx analyzer to the correct span gas concentration and record the response.*	*448.1*	*INPUT*
Step 3.	*Turn on oxygen (zero air) flow and adjust to blend the NO span gas and oxygen to dilute the span concentration by 10% of the span gas value. (example = 90.0 ppmV NO reduced by 10% is 81.0 ppmV NO.) Record the response.*	*403.7*	*INPUT*
Step 4.	*Turn on the TECO 100B NOx Ozonator voltage, and increase the voltage until the analyzers NO response is 20% of the span gas value. (example - 20% of 90.0 ppmV NO is 18.0 ppmV NO). Record the response.*	*89.1*	*INPUT*
Step 5.	*Turn the NOx analyzer from the NO mode to NOx mode. Allow for a stable response by the NOx analyzer, and record the concentration.*	*402.7*	*INPUT*
Step 6.	*Turn off the TECO 100B NOx Ozonator voltage, and allow for a stable response by the NOx analyzer. Record the concentration.*	*404.2*	*INPUT*
Step 7.	*Calculate the NOx converter effeciency by the following equation:*	***99.5***	*% Effeciency*

$$\frac{\text{STEP 5 - STEP 4}}{\text{STEP 6 - STEP 4}} \times 100\% = \text{\% Converter Effeciency}$$

NOx Converter Effeciency must be > 90 % (SOURCE: 40CFR, Part 60, Appendix A, Method 20, Sec. 3.1)