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Florida Power & Light Company
West County Energy Center – Units 1&2
Permit No. – PSD-FL-354
DEP File No. – 0990646-001-AC

WCPP Project 144553
WCPP Files 14.0100/32.0440
WCPP-2011-TP-710
July 28, 2011

RECEIVED

E-mail, Express Mail

JUL 29 2011

Ms. Lynn Scarce
Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399-2400

DIVISION OF AIR
ENVIRONMENTAL PROTECTION

Subject: **West County Unit 2B Fuel Oil Emissions Test Report**

Dear Ms. Scarce:

On behalf of Florida Power & Light Company (FPL) and its Designated Representative, Christian Kiernan, the West County Power Partners, LLC (WCPP), EPC Contractor for construction of the new combined cycle generating Unit 2 at the FPL West County Energy Center, is submitting the Unit 2B Fuel Oil Emissions Test Report per the requirements of 40 CFR Part 60 and West County's Air Permit, Records and Reports, #31 (Permit No. PSD-FL-354).

If you have any questions about this notification or the attachment, please contact Terry Apple at (913) 458-7220 or John Rachal at (561) 784-8048.

Very truly yours,

WEST COUNTY POWER PARTNERS, LLC



for Mike Perkins
Project Executive

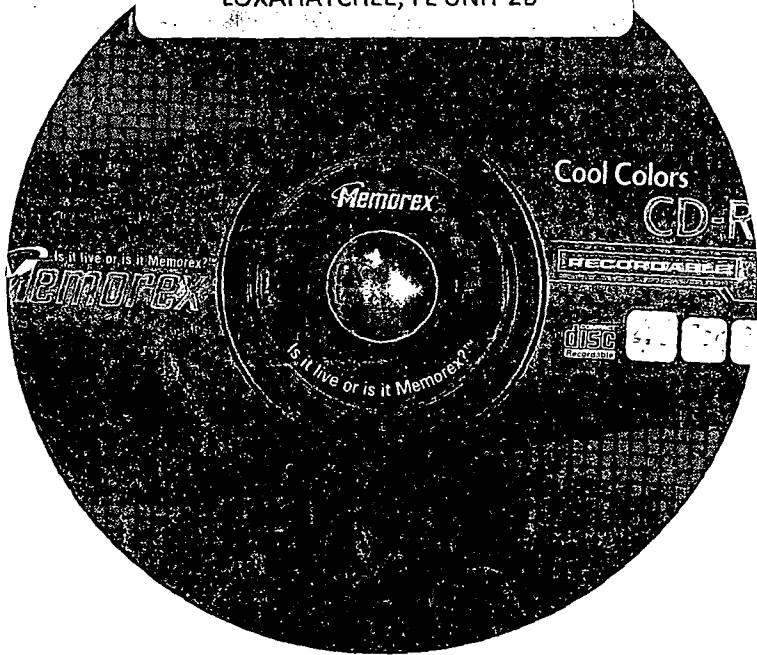
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EMISSIONS COMPLIANCE REPORT
FLORIDA POWER & LIGHT
WEST COUNTY ENERGY CENTER
LOXAHATCHEE, FL UNIT 2B



RECEIVED

JUL 29 2011

**BUREAU OF
AIR REGULATION**

**EMISSIONS COMPLIANCE REPORT
FOR
FLORIDA POWER & LIGHT
WEST COUNTY ENERGY CENTER
LOXAHATCHEE, FLORIDA
UNIT 2B**

Prepared for:

Black & Veatch
11401 Lamar Avenue
Overland Park, KS 66211

Prepared by:

Source Testing And Consulting Services, Inc.
1100 Purple Glory Drive
Apex, North Carolina 27502

July 2011

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1.0 INTRODUCTION

1.0 INTRODUCTION

Source Testing And Consulting Services, Inc. (STACS) is under contract to Black & Veatch Energy to conduct a series of initial emissions compliance tests at the Florida Power & Light, West County Energy Center (WCEC) located in Loxahatchee, Florida. Mitsubishi Power Systems recently completed construction of three, 3-on-1 combined cycle dual fuel MPS 501G combustion turbines rated at a nominal electrical output capacity of approximately 250 MW each. Steam produced in the Nooter/Erikson heat recovery/steam generator (HRSG) sections of the unit is routed to a Toshiba manufactured steam turbine/generator for additional generation capacity. The address of the facility is:

Florida Power & Light West County Energy Center
20505 State Road 80
Loxahatchee, Florida 33470
Palm Beach County

1.1 TEST DESCRIPTION AND PURPOSE

The purpose of the testing was to demonstrate that the combustion turbine meets the emission compliance limits as stated in the facility's permit. This document is the emissions compliance test report for Unit 2B combusting fuel oil at base load. Testing was conducted in accordance with the approved protocol previously submitted by Air Hygiene, Inc. Testing was conducted to determine emissions compliance for nitrogen oxides, carbon monoxide, volatile organic compounds, ammonia slip and opacity. Nitrogen oxides (NO_x) were determined by EPA Reference Methods 7E & 20. EPA Method 10 was used for carbon monoxide (CO) determination. Volatile Organic Compounds (VOC) were tested using EPA Method 25A. Testing for ammonia slip was conducted using EPA CTM-027. Diluent oxygen (O₂) and carbon dioxide (CO₂) were

measured by EPA Method 3A. Opacity was determined by a certified VE evaluator using EPA Method 9.

Three 1-hour tests were conducted at Base load, firing on fuel oil. All testing was conducted at the stack.

All procedures and quality control guidelines specified in the appropriate methods and the EPA Quality Assurance Handbook for Air Pollution Measurement Systems - Volume III were strictly followed during the test program, in addition to STACS' more stringent internal quality control standards.

1.2 TEST SCHEDULE

Testing was conducted on June 16, 2011 for the Base load level conditions firing fuel oil.

1.3 TEST REPORT ORGANIZATION

Section 2.0 of this document provides a brief description of the process, and the sampling location. Section 3.0 presents a summary of the test results. Section 4.0 outlines the procedures and test methods used, and Section 5.0 discusses the quality assurance/quality control measures followed during sampling and analysis. Sample calculations, field data sheets, analytical data, quality assurance data, process operating data, and a list of project participants are included in the appendices to this document. Documentation of process operating conditions is also included in the thermal performance test report under separate cover.

2.0 PROCESS DESCRIPTION AND SAMPLING LOCATION

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2.1 PROCESS DESCRIPTION

The Florida Power & Light West County Energy Center consists of nine, combined cycle Mitsubishi Model 501G combustion turbines in three 3 on 1 configurations (each power block – designated 1, 2 and 3 - consists of three combustion turbines and one steam turbine). The units are normally fired by natural gas as fuel, but distillate fuel oil may also be used as a backup fuel. The three combustion turbines within a power block are designated A, B and C. This test program was conducted for Unit 2B (Power Block 2, CT B) firing fuel oil.

Each combustion turbine includes a compressor, combustor, turbine and electric generator and has a nominal load capacity of approximately 250 MW. Steam produced in the Nooter/Erikson HRSG sections of the unit is routed to a Toshiba steam turbine/generator. Each HRSG is also equipped with a duct burner for additional steam generation.

The combustion turbines utilize good combustion practices as a preliminary control for NO_x and CO. Unit 2B combustion turbine (CT) is a combined cycle Mitsubishi Model 501G equipped with dry low NO_x combustors. Dry low NO_x technology is used to control NO_x emissions while firing natural gas, and a combination of dry low NO_x technology and water injection is used while firing on oil fuel.

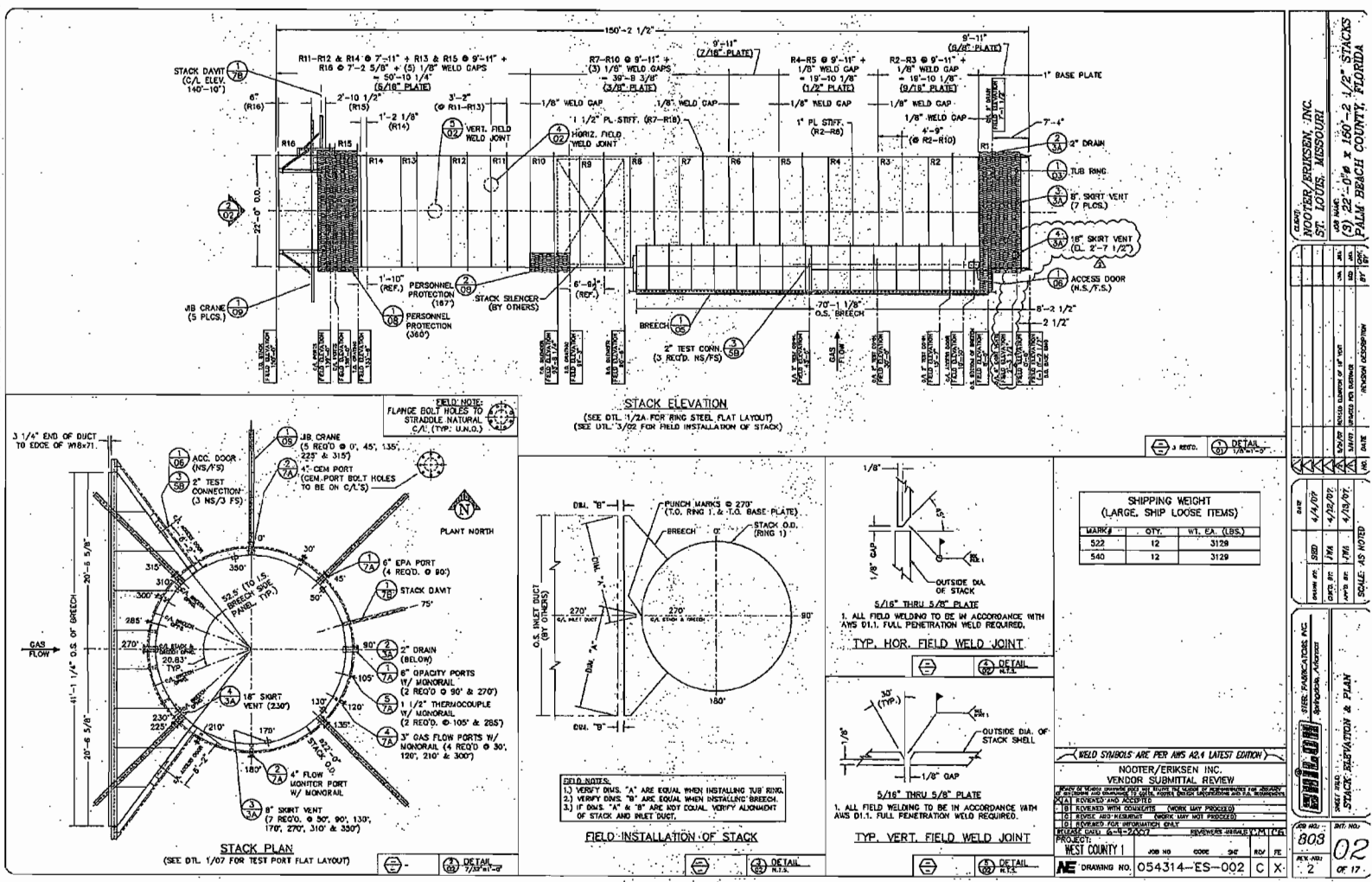
Emissions of nitrogen oxides are further controlled by selective catalytic reduction (SCR). The control device uses ammonia injection prior to a catalyst bed to react NO_x in the gas stream to water and nitrogen.

2.2 REFERENCE METHOD SAMPLING LOCATIONS

The exhaust stack is circular at the level of the sampling ports. There are four, 6 inch sampling ports available at the test platform located ninety degrees apart around the circumference of the stack. The sampling location is 138 feet from grade with an outside stack diameter of 264 inches (22'). The nearest upstream flow disturbance is the inlet duct breeching which is 94.5 feet below the test ports (4 diameters). The sampling location is approximately 12 feet (0.6 stack diameters) upstream from the nearest downstream disturbance (the exhaust exit). A schematic diagram of the stack location is attached as Figure 2-1 showing the location of the test ports and test points used during the testing.

Figure 2-1

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CREW:
 NOOTER/ERIKSEN, INC.
 ST. LOUIS, MISSOURI

JOB NO.: 054314-ES-002
DATE: 7/18/07

PROJECT:
 WEST COUNTY 1

DRAWING NO.: 054314-ES-002
DATE: 06/13/07

MARK#	QTY.	WT. EA. (LBS.)
S22	12	3128
S40	12	3128

SHIPMENT WEIGHT (LARGE, SHIP LOOSE ITEMS)

DATE: 4/24/07
ISSUED: 4/22/07
DATE: 7/18/07
APPROVED BY: 7/18/07

SCALE: AS NOTED

PROJECT: WEST COUNTY 1
JOB NO.: 054314-ES-002
DATE: 06/13/07

DRAWING NO.: 054314-ES-002
DATE: 06/13/07

3.0 EMISSIONS TEST RESULTS

3.0 EMISSIONS TEST RESULTS

Compliance testing was performed for Unit 2B at the Florida Power & Light, West County Energy Center on June 16 , 2011 while firing fuel oil.

Three 1-hour test runs were performed for each parameter during the base load compliance tests. The parameters included (NO_x, CO, VOC, CO₂, O₂, and NH₃). In addition, three visible emissions tests for opacity were conducted at base load.

Emissions test results are summarized in Table 3-1. Pollutant concentrations are expressed as the measured native concentrations in parts per million by volume on a dry basis (ppmVd), as concentrations corrected to 15% oxygen (ppmVd@15% O₂) and as emission rates in pounds per million Btu (lb/MMBtu). The results are also provided as mass emission rates in pounds per hour (lb/hr). Example calculations, data summaries, raw field data, analytical data, calibration data and certifications, process operating data, and a list of project participants are included in the appendices.

**Table 3-1
Compliance Test Results
West County Energy Center
Loxahatchee, Fl
CT-2B
Base Load - OIL**

Parameter	Units	Run #1	Run #2	Run #3	Average	Permit Limit	Meets Limit
Test Date:		6/16/11	6/16/11	6/16/11			
Run Time:		0842-1012	1030-1158	1209-1401			
Operating Parameters:							
Unit Load	MW	215.3	227.2	222.5	221.7		
Fuel Flow Engine:	lb/hr	113968.0	117530.4	115227.6	115,575		
Gross Heating Value:	BTU/lb	19,468	19,468	19,468	19,468		
Gross Heat Input:	MMBtu/hr	2218.7	2288.1	2243.3	2250.0		
Compressor Inlet Pressure	psig	71.2	76.0	73.9	73.7		
Ammonia Mass Flow	lb/hr	1024.6	1015.5	1019.0	1019.7		
Volumetric Flow (Method 19 based)	dscfm	945,725	991,130	965,122	967,326		
Constants							
Fd-Factor	dscf@0%O2/MMBtu	9190.0	9190.0	9190.0			
NOx Conv. Factor	lb/scf-ppmV	1.194E-07	1.194E-07	1.194E-07			
CO Conv. Factor	lb/scf-ppmV	7.260E-08	7.260E-08	7.260E-08			
CO2 Conv. Factor	lb/scf-ppmV	1.142E-07	1.142E-07	1.142E-07			
UHC Conv. Factor	lb/scf-ppmV	4.153E-08	4.153E-08	4.153E-08			
Emissions Data:							
Oxygen (O2)	%V, dry	13.39	13.51	13.46	13.45		
Carbon Dioxide (CO2)	%V, dry	5.58	5.50	5.71	5.59		
Carbon Dioxide (CO2)	lb/MMBtu	162.94	163.17	168.23	164.78		
Nitrogen Oxides (NOx)	ppmV, dry	8.54	8.74	8.65	8.6		
	lb/MMBtu	0.02609	0.02712	0.02666	0.02662		
	ppmvd @ 15% O2	6.7	7.0	6.9	6.8	8.0	yes
	lb/hr (b)	57.9	62.1	59.8	59.9	82.4	yes
Carbon Monoxide (CO)	ppmV, dry	5.71	5.69	6.30	5.9		
	lb/MMBtu	0.01059	0.01074	0.01181	0.01105		
	ppmvd @ 15% O2	4.5	4.5	5.0	4.7	8.0	yes
	lb/hr (b)	23.51	24.58	26.49	24.86	42.0	yes
VOC as methane	ppmvw	0.22	0.06	0.01	0.1		
	ppmvd (d)	0.25	0.06	0.01	0.1		
	lb/MMBtu	0.00026	0.00007	0.00001	0.00011		
	ppmvd @ 15% O2	0.19	0.05	0.01	0.08	6.0	yes
	lb/hr (b)	0.58	0.15	0.03	0.25	19.6	yes
Ammonia (NH3)	ppmV	0.68	0.76	0.67	0.70		
Ammonia (NH3)	ppmvd @ 15% O2	0.54	0.60	0.54	0.56	5.0	yes
Opacity	(%)	0.00	0.00	0.00	0.00	10.0	yes

Notes:

Fuel Factor (Fd) = 9190scf @ 0%O2/MMBtu from 40CFR60 Appendix A, Method 19. S content less than 1 ppm wt.

(b) Mass Emission Rates Calculated using the Volumetric Flowrate determined from the Method 19 approach.

Reference - Source Testing And Consulting Services, Inc. 2011

(d) VOC corrected for % moisture

**Table 3-2. Summary of Ammonia Emissions Data - Unit 2B Oil , Base Load
West County Energy Center
Compliance Test**

Parameter	Units	Run # Date: Run Time	Run 1 06/16/11 1045-1315	Run 2 06/16/11 1045-1329	Run 3 06/16/11 1045-1329	Average	Permit Limit	Meets Limit
Sampling Train & Analytical Parameters:								
Total NH3 Collected:	ug		627	694	601			
Metered Volume:	dscf		46.203	45.861	44.740			
Gas Stream Volumetric Flowrate:	dscfm		1,084,514	1,079,591	1,062,752			
Oxygen:	%V, dry		13.5	13.5	13.6			
NH3 Emissions:								
NH3 Concentration:	ug/dscf		13.57	15.13	13.43	14.35		
NH3 Concentration:	ppmV,dry		0.68	0.76	0.67	0.72		
NH3 Concentration:	ppmV@15%O2		0.54	0.60	0.54	0.57	5.00	Yes
NH3 Emissions	lb/hr		1.95	2.16	1.89	2.05		

Reference: Source Testing And Consulting Services, Inc.

4.0 EPA TEST PROCEDURES

4.0 EPA TEST PROCEDURES

4.1 EPA REFERENCE METHOD TEST PROCEDURES

STACS conducted the compliance tests in accordance with EPA Reference Test Methods as outlined in 40CFR60, Appendix A.

Specifically, the following test procedures were conducted by STACS:

- | | |
|----------------|---|
| EPA Method 1: | Location of sampling points for isokinetic sampling and velocity traverses for stationary sources. |
| EPA Method 2: | Determination of stack gas velocity and volumetric flowrate. |
| EPA Method 3A: | Continuous determination of oxygen and/or carbon dioxide content in the flue gas. A paramagnetic analyzer or fuel cell analyzer is used for O ₂ determination. An NDIR analyzer is used for CO ₂ determination. |
| EPA Method 4: | Determination of sample gas moisture content. |
| EPA Method 9: | Determination of opacity as visible emissions by a qualified and certified visible emissions evaluator. |
| EPA Method 10: | Carbon Monoxide analysis with a continuous GFC/NDIR emissions monitor. |

EPA Method 7E/20: Determination of nitrogen oxides with a chemiluminescent continuous emission monitor.

EPA Method 25A Continuous determination of volatile organic compounds as total hydrocarbons using a flame ionization detector. Analysis is on a wet basis. (Analysis by EPA Method 18 for subtraction of non-reactive methane and ethane was not required since the VOC limit was met as total hydrocarbons).

EPA Conditional Test Method 027 (CTM 027):

Determination of ammonia by isokinetic collection and stabilization into impinger solutions of 0.1 N sulfuric acid. Analysis was conducted by ion chromatography.

All procedures and quality control guidelines specified in the appropriate methods are strictly followed during the test program, in addition to STACS' more stringent internal quality control standards.

4.2 INSTRUMENTAL REFERENCE METHODS

Stack gas emissions of oxides of nitrogen (NO_x), carbon monoxide (CO), and Volatile Organic Compounds (VOC) are measured using continuous instrumental techniques. Diluent oxygen concentration is also measured using continuous instrumental techniques. These tests are performed in accordance with EPA Methods 3A for oxygen, 10 for CO, 20/7E for NO_x, and 25A for VOC as outlined in Title 40, Part 60, Appendix A of the Code of Federal Regulations. Copies of all on-line instrumental reference method data collected during the testing are included in the Appendices to this report. Calibration records are also given with the data. Prior to testing, a stratification test was conducted to determine the number of test points required during subsequent testing.

Flue gas sample is withdrawn from the stack exhaust at a constant rate via a stainless probe through a heated filter and Teflon sample line to the moisture removal system. The moisture removal system (gas conditioner) is designed for minimal contact between condensate and sample gas in order to prevent any reaction between the moisture and the measured pollutants. All components of the sampling and gas conditioning system are fabricated from borosilicate glass, Teflon, or stainless steel. The gas conditioning system consists of a continuously downward Teflon condenser coil (to prevent bubbling) and two glass knockout condenser traps. Moisture is continuously removed from the traps by an external peristaltic pump. The gas conditioning system is cooled in an ice water bath to facilitate complete moisture removal. (The gas conditioning system is bypassed for the Method 25A sample for measurement on a hot-wet basis). Dry gas sample from the gas conditioner is transported to the instrument enclosure via an unheated 1/4-inch O.D. Teflon tube to a teflon-lined diaphragm pump, which delivers positive pressure sample to the instrument system. Flow control valves are used to deliver the gas sample at a regulated positive pressure to the reference method analytical instruments through a Teflon and stainless steel manifold delivery network.

Flow and pressure to all monitors is held constant by monitoring sample and bypass rotameters. A diagram of the instrumental reference method sampling and analysis system used for the test program is given in Figure 4-1.

The sampling system is leak checked by passing known calibration gas standards up through a calibration line to the end of the probe. The gas standards are then pulled back through the sampling probe at stack pressure and subsequently through the entire sampling system to the instrument system. An oxygen analyzer response of less than or equal to 0.5% V to a zero oxygen standard is considered an acceptable leak check.

Analyzer calibration error is calculated by the difference between the known calibration gas concentration and the concentration exhibited by the analyzer. Bias checks are performed by comparing calibration responses through the entire sampling system to those exhibited at the analyzer. EPA Protocol #1, NIST traceable standard calibration gases are used to calibrate the analyzers.

Acceptable system performance checks do not exceed +/-2% calibration error, +/-5% system bias check, +/-3% zero drift, and +/- 3% upscale span drift.

Instrument response time is found by alternating zero nitrogen and upscale span gases through the bias check line and recording the upscale and down scale time. The response time of the CEM sampling system is performed to determine the length of time for the CEMs to respond to changes in the stack gas exhaust stream. Known, Protocol 1 reference gases and zero nitrogen are passed through the heated sample line, sample conditioning system and the manifold delivery network to the continuous emission monitors.

4.3 DATA ACQUISITION

The STACS data acquisition system (DAS) for the CEM analyzers consists of a Microlink 751 USB Data Interface and a proprietary STACS Data Acquisition program. The data are stored on disk as well as on a printed hard copy for each run. The system has 16-bit analog to digital conversion resolution (1 in 64,000) and a scan rate of approximately 1200 readings per minute. Data is averaged and reported by the DAS on a 30 second basis. The averaging time may be changed if desired. The system is capable of displaying the on line results in measured units and corrected to 15% O₂ as well as in lb/MMBtu. Averages are generated immediately at the end of each test run.

4.4 REFERENCE METHOD ANALYZER PRINCIPLES OF OPERATION

4.4.1 METHOD 3A: OXYGEN ANALYSIS

Flue gas sample is continuously analyzed for oxygen by a Servomex Model 1400A paramagnetic instrument. The Servomex 1400A analyzer uses electron paramagnetic resonance to detect the presence of oxygen molecules. Unlike most substances, oxygen has a triplet electron ground state, which leaves one electron unpaired, making it a paramagnetic molecule. This electron may have one of two quantum spin states ($m_s = +/- 2$). By applying an alternating electromagnetic field of the proper frequency, the Servomex 1400A O₂ analyzer induces resonance between the two spin quantum states. In effect, the O₂ analyzer measures the electromagnetic energy absorbed by O₂ molecules at the resonant frequency.

4.4.2 METHOD 7E: OXIDES OF NITROGEN ANALYSIS

A Thermo Electron Model 42C HL instrument is used to analyze NO_x. The principle of operation of this instrument is a chemiluminescent reaction in which ozone (O₃) reacts with nitric oxide (NO) to form oxygen (O₂) and nitrogen dioxide (NO₂). During this reaction, a photon with a specific ultraviolet wavelength is emitted which is detected by a photomultiplier tube. The instrument is capable of analyzing total oxides of nitrogen (NO + NO₂) by thermally converting NO₂ to NO in a separate reaction chamber prior to the photomultiplier tube, if desired. The analyzer is operated in the NO_x mode during sampling. A converter efficiency test is performed on the ThermoElectron Model 42C HL before the test series.

4.4.3 METHOD 10: CARBON MONOXIDE ANALYSIS

A TECO 48 Gas Filter Correlation Non-Dispersive Infrared (GFC/NDIR) analyzer was used for continuous CO analysis. The principle of operation of this analyzer is similar to traditional NDIR analyzers in that it relies on selective absorption; whereby, particular bandwidths of infrared energy are absorbed by a species based on its molecular orbital structure. Gas filter correlation NDIR differs from NDIR in the detection mechanism and

because the GFC/NDIR does not require a reference cell. Infrared radiation passes through a rotating filter, through the sample cell and to the detector. The chopper wheel of the GFC/NDIR is a rotating disk separated into two chambers where one half is filled with nitrogen and the other half is filled with pure CO. These partitions act as alternating gas filters for the incident IR radiation from the IR source. The CO gas filter side acts to produce a signal that cannot be further attenuated by CO in the sample cell and is used as a reference signal. The nitrogen filter allows all incident radiation to pass. Carbon monoxide in the sample cell will therefore, attenuate the signal proportionally to concentration. This is considered the measurement cycle. Any other gases which absorb infrared radiation are absorbed equally during both the measurement and reference cycles, providing a real-time reference and minimal interferences. The detector for this analyzer is a lead-selenium photo detector.

4.4.4 METHODS 25A AND 18: VOC MEASUREMENT

EPA Method 25A is used to measure VOC expressed as total hydrocarbons on a hot, wet basis. The results are reported as parts per million by volume as methane basis (ppmC). Methane in air is the calibration standard. A gas sample is extracted from the source through a heated sample line and a glass fiber filter, directly into a hydrocarbon analyzer. The analyzer uses the flame ionization detector (FID) principle to detect hydrocarbons on a continuous basis. The fuel used for the FID is a 40% hydrogen/60% argon blend in order to minimize any synergy effects associated with the observed oxygen and moisture levels. Since the THC measurement is taken on a wet basis, it must be corrected for moisture prior to correction for oxygen. The moisture for the correction was taken from the average Method 4 results measured during isokinetic testing.

EPA Method 18 for methane and ethane determination was conducted but not required to be used to supplement the Method 25A data since the emissions levels for VOC were met as total hydrocarbons. No methane or ethane was detected in the samples.

4.5 MANUAL SAMPLING METHODS

4.5.1 AMMONIA SAMPLING AND ANALYSIS – CTM 027

Ammonia sampling was conducted using EPA Conditional Test Method 027. The sampling train consists of the following sequential components: a glass nozzle, a glass or quartz filter apparatus, a heated glass sampling probe, three impingers containing a solution of 0.1 N Sulfuric Acid and an impinger containing silica gel. Samples are collected isokinetically as described in EPA Method 5. Each test was at least 60 minutes in duration. Samples were recovered using HPLC grade water.

Analysis is conducted using ion chromatography according to the procedures of CTM-027.

All sampling and analysis solvents are reagent grade or better. All glassware used for sampling and analysis are thoroughly cleaned with hot, soapy water, rinsed with hot water, rinsed with distilled / deionized water and rinsed with 0.1N H₂ SO₄ prior to use.

4.5.5 METHOD 9: VISIBLE EMISSIONS MEASUREMENT

Opacity was measured as visible emissions by a qualified and certified observer. The observer must be field certified every six months to remain current. A copy of the observer's certification is included in the appendices to this report. During the tests, the observer records visible emissions readings in 5% opacity increments every 15 seconds during the one hour test run.

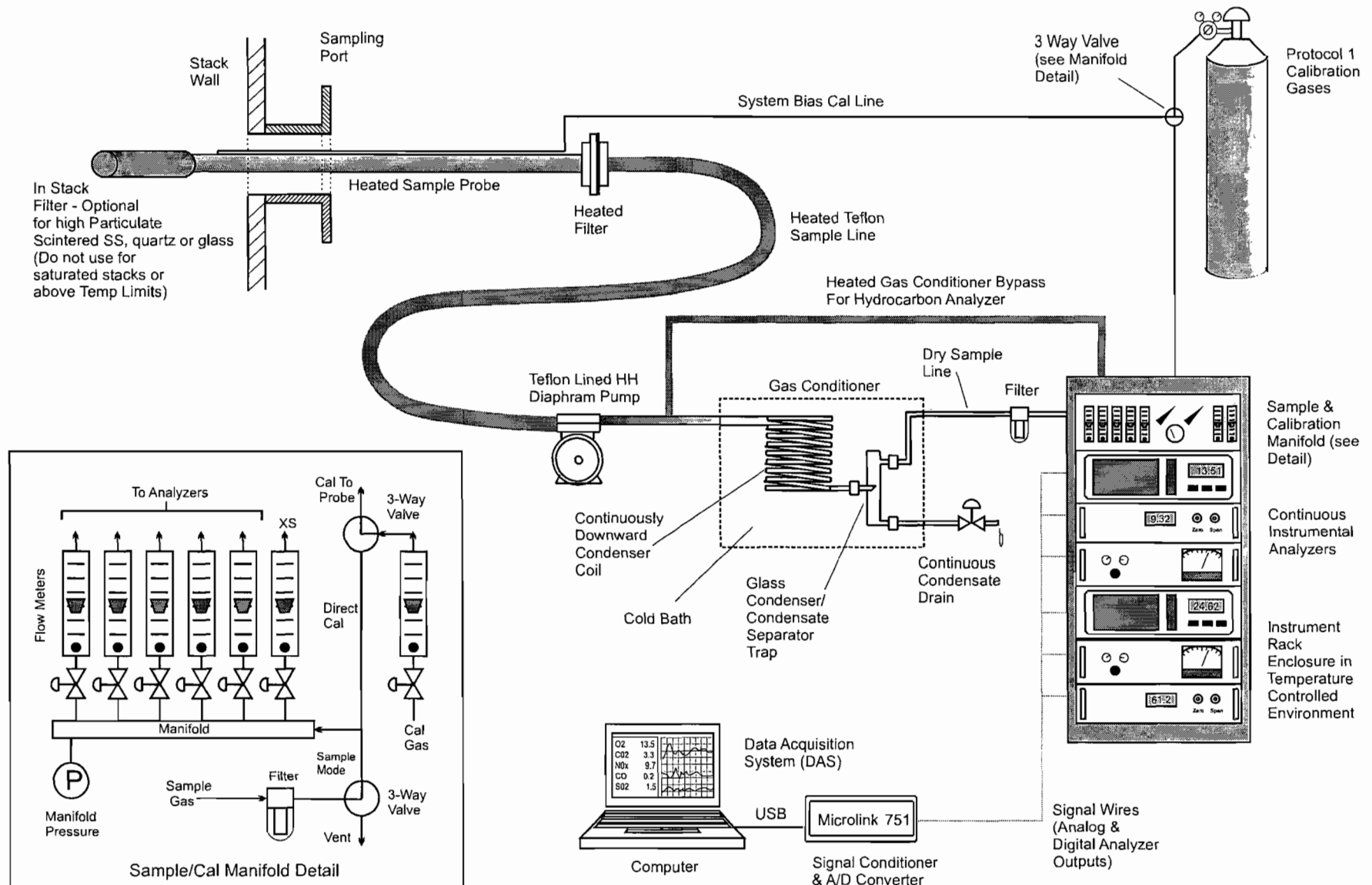


Figure 4-1. Schematic Diagram of STACS Instrumental Reference Method System

5.0 QUALITY ASSURANCE/QUALITY CONTROL

5.0 QUALITY ASSURANCE/QUALITY CONTROL

The objective of the overall QA/QC program is to provide guidelines in terms of accuracy and precision that can be used to assess the uncertainty in the results and to substantiate the data in terms of the use of accepted procedures. Quality Control can be defined as the use of operational techniques and activities, which sustain good quality data. Adherence to accepted sampling and analytical methods and procedures (and specifically noting any aberrations or exceptions to these procedures) is an example of quality control. Quality Assurance includes all those planned and systematic activities necessary to ensure that the accuracy and precision of the results meet the needs of the testing program. Quality Assurance programs can be internal or external.

Both internal and external programs are important to the overall integrity of the data. The internal QA program includes the activities planned by routine operators and analysts to provide an assessment of test data precision (and accuracy). Examples of implementation of an internal QA measure are routine calibration checks to assess the bias and drift of an analyzer after each test run. The measurement system bias is an indicator of the accuracy of the system and the drift is an indication of the precision of the measurements. External QA programs are those activities planned or conducted by an outside party such as FP&L, B&V, FDEP or Palm Beach County officials which ensure that QC guidelines are followed and provide an indicator of the accuracy of the data. Examples of external QA procedures implemented by an outside entity would include review of the test matrix, observation of selected testing to ensure proper techniques will be followed, submission of independent performance audits, and review of the final testing data.

The quality assurance/quality control measures for sampling and analysis included in the following documents were strictly followed during the emissions test program, except as

noted below and elsewhere in this document. The procedures are incorporated by reference into the quality assurance program for this effort as they apply to the collection, analysis, and calculation of pollutant concentrations and mass emission rates from the unit.

The Code of Federal Regulations, Title 40, Part 60, Appendix A.. EPA Methods 1-4, 3A, 7E, 9, 10, 25A, EPA CTM-027.

The Quality Assurance Handbook for Air Pollution Measurement Systems - Volume III - Stationary Source Specific Methods (EPA-600/4-77-027b) Sections 3.0-3.4.

The following sections provide a brief synopsis of the internal QA program that was used for this test effort.

5.1 CALIBRATIONS AND DRIFT ASSESSMENTS

At the beginning of each test day, the EPA Reference Method 7E, 10, 25A and 3A test equipment is calibrated, and adjusted as required, on a two-point basis. EPA Protocol #1, NIST traceable standard calibration gases are used to calibrate the analyzers.

Subsequently, additional calibration standards are introduced to the analyzers to check the linearity of the instrument response. If the linearity of the instrument is within +/-2% of full scale of the calibration standard value, the calibration is accepted. Otherwise, corrective maintenance is performed, and the instrument is re-calibrated. During this time, bias checks are also performed by introducing calibration standards directly to the instrument manifold and through the entire sampling system and comparing the results.

Calibration checks are performed through the entire sampling system at the conclusion of each test run to determine calibration drift and any change in sample system bias. If instrument drift is less than the required 2% of scale, then no corrective action is required. The calibration data is included in the Appendices of this report. All data was corrected for calibration drift and bias.

5.2 NO₂ CONVERTER EFFICIENCY

Prior to testing, an NO₂ to NO converter efficiency test is performed as prescribed in EPA Method 7E and 20. The procedure used for testing the converter efficiency is given below:

- Fill a leak-free Tedlar bag approximately half full with an NO in N₂ blend.
- Fill the remainder of the bag with 0.1 UHP grade air.
- Immediately attach the NO/Air mixture to the inlet of the NO_x monitor.
- Allow the monitor to sample the gas in the bag for 30 minutes.

As the O₂ and NO in the bag are exposed to each other a reaction occurs which changes the NO to NO₂. Attenuation in response over time of greater than two percent absolute indicates that the converter efficiency is unacceptable.

5.3 LEAK CHECKS

Since all calibrations are performed through the entire sampling system, leak-checks are incorporated in each calibration. The criterion used for this test is an oxygen response to a zero gas of less than 0.5% O₂. Leak checks are also incorporated into the zero and span drift checks at the end of each run since the calibration gas is passed through the entire sampling system for each post test drift check. In addition, STACS conducts a vacuum leak check prior to initial sampling.

5.4 MANUAL SAMPLING METHODS QA/QC

The STACS Manual Methods QA/QC program for this test series includes all of the QA/QC guidelines given in EPA Methods 1-5 and CTM-027 except as noted below and elsewhere in this document. Primary components of the QA/QC program for the manual sampling techniques are listed below:

- Equipment Calibrations - including pre-test and post-test calibrations of meter boxes, thermocouples, and pitot tubes. Sampling nozzles are also calibrated on site.
- Equipment Leak Checks - including pre- and post-test sample train leak checks, meter and pump leak checks, and pitot leak checks. All sampling train leak rates must be less than the maximum acceptable leak rate of 0.02 cubic feet per minute. Sample train leak checks are performed at a vacuum of at least the highest observed during sampling. Leak checks are documented on the field data sheets.
- Careful monitoring and documentation of sample train critical parameters including temperatures, velocity pressure, meter pressure, and sample vacuum. Final impinger temperature is maintained below 68 degrees F.
- Preliminary measurements to aid in calculating the sampling K-factor used to determine isokinetic sampling rate.
- Maintaining an isokinetic sampling rate so that the velocity through the sampling nozzle matches the surrounding flue gas steam velocity to within +/- 10%.

Documentation of isokinetic sampling rates is provided in the data summaries in the test report.

Specific measures that are observed to ensure the integrity of collection of the ammonia samples include but are not limited to:

- Pre-test cleaning for sampling glassware consisting of washing with hot soapy water (Alconox), followed by three hot water rinses, followed by three rinses with double distilled/deionized water. In the field, the impingers are rinsed with recovery solution (0.1 N H₂SO₄) prior to charging.
- The 0.1 N H₂SO₄ recovery solution is reagent grade or better and is certified to have a low ammonium background.
- Collection of reagent/trip blanks in the field for the acid used in sampling and water used in recovery of the particulate matter samples.
- All sample-exposed surfaces of the sampling train are constructed of glass or Teflon, except for the sampling probe, filter and nozzle which are quartz.
- The sampling time for each test run is at least 1 hour in duration.
- Sample bottles are EPA Class B pre-cleaned ICHEM amber borosilicate glass jars. The jars are 500-1000 ml in capacity and have Teflon lined screw caps.
- Samples are issued a unique identification number in the field and logged on an appropriate chain of custody form. The form includes the date and time of collection, the site, unit and sampling location ID, as well as the test condition.

The liquid level of each sample is clearly marked on the containers. Teflon tape is used to seal the sample jar lids.

APPENDIX A
SAMPLE CALCULATIONS

To Convert Pollutant Concentrations to 15% O₂

$$ppmV @ 15\% O_2 = ppmV \times \frac{5.9}{20.9 - O_2}$$

Where:

ppmV = the concentration of the pollutant in parts per million by volume, dry basis.

O₂ = the concentration of O₂ in percent volume, dry basis.

ppmV @ 15% O₂ = the concentration of the pollutant normalized to 15% O₂.

To Convert Pollutant Concentrations to lb/MMBtu

$$lb/MMBtu = ppmV \times CONV \times F_d \times \frac{20.9}{20.9 - O_2}$$

Where:

ppmV = the concentration of the pollutant in parts per million by volume, dry basis.

O₂ = the concentration of oxygen in percent volume, dry basis.

lb/MMBtu = Pollutant emission rate in pounds per million Btu.

F_d = the oxygen based dry F-factor for a given fuel in scf@0% O₂/MMBtu (9190 for Distillate Fuel Oil and 8710 for natural gas).

CONV = conversion factor to convert pollutant concentration in ppmV to lb/scf.

CONV = 1.194×10^{-7} lb/scf from ppmV for NO_x (as NO₂).

TO BIAS/DRIFT CORRECT RAW DATA FOR EPA METHODS 3A, 7E, AND 10:

$$C_{gas} = (\bar{C} - C_o) \frac{C_{ma}}{C_m - C_o}$$

Eq. 6C-1

Where:

C_{gas} = Effluent gas concentration, dry basis, ppm V or %V

\bar{C} = Average gas concentration indicated by gas analyzer, dry basis, ppm V or %V

C_o = Average of initial and final system calibration bias check responses for the zero gas, ppm V or %V

C_m = Average of initial and final system calibration bias check responses for the upscale calibration gas, ppm V or %V

C_{ma} = Actual concentration of the upscale calibration gas, ppm V or %V

Compliance Test Results

Plant

Loxahatchee

Unit #

CT-2B

BASE OIL

Bias/Drift Adjustment Calculation Spreadsheet

Fuel		OIL	OIL	OIL
Load		BASE	BASE	BASE
Run No.		1	2	3
Date		6/16/11	6/16/11	6/16/11
Run Time		0842-1012	1030-1158	1209-1401
BIAS ADJUSTED VALUES	PRELIM	Post-Run 1	Post-Run 2	Post-Run 3
O2 (%V,dry)	#N/A	13.39	13.51	13.46
CO2 (%V,dry)	#N/A	5.58	5.50	5.71
NOX (ppmV,dry)	#N/A	8.54	8.74	8.65
corr. NOx, ppmvd @ 15% O2	#N/A	6.71	6.98	6.86
CO (ppmV,dry)	#N/A	5.71	5.69	6.30
corr. CO, ppmvd @ 15% O2	#N/A	4.48	4.55	5.00
THC (ppmV,wet)	#N/A	0.22	0.06	0.01
corr. UHC, ppmvw @ 15% O2	#N/A	0.17	0.04	0.01
RAW AVERAGES	PRELIM			
O2 (%V,dry)	#N/A	13.39	13.48	13.40
CO2 (%V,dry)	#N/A	5.50	5.43	5.60
NOX (ppmV,dry)	#N/A	8.55	8.76	8.65
CO (ppmV,dry)	#N/A	5.70	5.74	6.30
THC (ppmV,wet)	#N/A	0.27	0.09	0.06
ZERO BIAS				
O2 (%V,dry)	0.02	0.01	0.02	0.04
CO2 (%V,dry)	-0.05	-0.04	-0.04	0.07
NOX (ppmV,dry)	0.00	0.08	0.04	0.00
CO (ppmV,dry)	-0.10	0.05	0.10	-0.06
THC (ppmV,wet)	0.07	0.03	0.04	0.06
BIAS CHECKS				
O2 (%V,dry)	9.04	9.03	9.00	9.00
CO2 (%V,dry)	9.07	9.09	9.10	8.90
NOX (ppmV,dry)	8.77	8.84	8.80	8.80
CO (ppmV,dry)	9.05	9.08	9.10	9.00
THC (ppmV,wet)	3.01	3.03	3.03	2.94
BIAS GAS VALUES				
O2 (%V,dry)	9.03	9.03	9.03	9.03
CO2 (%V,dry)	9.18	9.18	9.18	9.18
NOX (ppmV,dry)	8.80	8.80	8.80	8.80
CO (ppmV,dry)	9.06	9.06	9.06	9.06
THC (ppmV,wet)	3.00	3.00	3.00	3.00
Zero Drift/Bias (% of span)	SPAN			
O2 (%V,dry)	22.06	-0.05%	0.05%	0.09%
CO2 (%V,dry)	19.63	0.05%	0.00%	0.56%
NOX (ppmV,dry)	18.00	0.44%	-0.22%	-0.22%
CO (ppmV,dry)	17.94	0.84%	0.28%	-0.89%
THC (ppmV,wet)	8.60	-0.47%	0.12%	0.23%
Upspan Drift/Bias (% of span)	SPAN			
O2 (%V,dry)	22.06	-0.05%	-0.14%	0.00%
CO2 (%V,dry)	19.63	0.10%	0.05%	-1.02%
NOX (ppmV,dry)	18.00	0.39%	-0.22%	0.00%
CO (ppmV,dry)	17.94	0.17%	0.11%	-0.56%
THC (ppmV,wet)	8.60	0.23%	0.00%	-1.05%
Zero System Bias (% of span) 5%	Initial Linearity	1	2	3
O2 (%V,dry)	0.02	-0.05%	0.00%	0.09%
CO2 (%V,dry)	-0.06	0.10%	0.10%	0.66%
NOX (ppmV,dry)	0.00	0.44%	0.22%	0.00%
CO (ppmV,dry)	-0.12	0.95%	1.23%	0.33%
THC (ppmV,wet)	0.09	-0.70%	-0.58%	-0.35%
Upscale System Bias (% of span) 5%	Initial Linearity	1	2	3
O2 (%V,dry)	9.04	-0.05%	-0.18%	-0.18%
CO2 (%V,dry)	9.07	0.10%	0.15%	-0.87%
NOX (ppmV,dry)	8.80	0.22%	0.00%	0.00%
CO (ppmV,dry)	9.06	0.11%	0.22%	-0.33%
THC (ppmV,wet)	2.97	0.70%	0.70%	-0.35%

Note: Span is defined as the value of the upscale calibration gas.

Reference: Source Testing And Consulting Services, Inc - 2011

BASE COMPLIANCE RUN 1

Strat Check

Run Time

0842-1012

PORT	POINT	O2 %V, d	CO ppmVd	NOx ppmVd	CO ppmVd @ 15% O2	NOx ppmVd @ 15% O2
A	1	13.37	5.34	10.12	4.18	7.93
A	2	13.36	5.51	9.05	4.31	7.08
A	3	13.36	5.52	8.58	4.32	6.71
B	1	13.37	5.51	8.88	4.32	6.96
B	2	13.37	5.86	7.87	4.59	6.17
B	3	13.37	5.80	7.56	4.54	5.92
C	1	13.42	6.06	8.10	4.78	6.39
C	2	13.42	6.35	7.40	5.01	5.84
C	3	13.43	6.47	7.56	5.11	5.97
D	1	13.41	5.41	9.38	4.26	7.39
D	2	13.42	5.25	8.97	4.14	7.08
D	3	13.42	5.35	9.23	4.22	7.28
Avg:		13.39	5.70	8.56	4.48	6.73
Max:		13.43	6.47	10.12	5.11	7.93
Min:		13.36	5.25	7.40	4.14	5.84
avg+5%		14.06	5.99	8.99	4.71	7.06
avg-5%		12.72	5.42	8.13	4.26	6.39
avg+.5ppm			6.20	9.06	4.98	7.23
avg-.5ppm			5.20	8.06	3.98	6.23
avg+10%		14.73	6.27	9.41	4.93	7.40
avg-10%		12.05	5.13	7.70	4.03	6.05
avg+1 ppm			6.70	9.56	5.48	7.73
avg- 1ppm			4.70	7.56	3.48	5.73

BASE COMPLIANCE RUN 2

Strat Check

Run Time
1030-1158

PORT	POINT	O2 %V, d	CO2 %V, d	CO ppmVd	NOx ppmVd	CO ppmVd @ 15% O2	NOx ppmVd @ 15% O2
A	1	13.40	5.50	4.90	10.40	3.85	8.18
A	2	13.50	5.40	5.80	10.10	4.62	8.05
A	3	13.50	5.40	6.40	9.10	5.10	7.26
B	1	13.50	5.40	6.10	8.70	4.86	6.94
B	2	13.40	5.50	5.80	7.30	4.56	5.74
B	3	13.60	5.40	6.40	8.50	5.17	6.87
C	1	13.49	5.43	5.28	8.40	4.20	6.69
C	2	13.48	5.43	7.29	7.74	5.80	6.15
C	3	13.44	5.47	6.72	7.62	5.31	6.03
D	1	13.50	5.40	4.70	8.90	3.75	7.10
D	2	13.50	5.40	5.20	9.20	4.15	7.34
D	3	13.50	5.40	4.80	9.40	3.83	7.49
Avg:		13.48	5.43	5.78	8.78	4.60	6.99
Max:		13.60	5.50	7.29	10.40	5.80	8.18
Min:		13.40	5.40	4.70	7.30	3.75	5.74
avg+5%		14.16	5.70	6.07	9.22	4.83	7.34
avg-5%		12.81	5.16	5.49	8.34	4.37	6.64
avg+.5ppm				6.28	9.28	5.10	7.49
avg-.5ppm				5.28	8.28	4.10	6.49
avg+10%		14.83	5.97	6.36	9.66	5.06	7.68
avg-10%		12.14	4.88	5.20	7.90	4.14	6.29
avg+1 ppm				6.78	9.78	5.60	7.99
avg- 1ppm				4.78	7.78	3.60	5.99

BASE COMPLIANCE RUN 3

Strat Check

Run Time
1209-1401

PORT	POINT	O2 %V, d	CO2 %V, d	CO ppmVd	NOx ppmVd	CO ppmVd @ 15% O2	NOx ppmVd @ 15% O2
A	1	13.40	5.50	6.20	10.50	4.88	8.26
A	2	13.40	5.50	5.80	9.30	4.56	7.32
A	3	13.50	5.50	5.80	9.00	4.62	7.18
B	1	13.40	5.50	6.40	9.00	5.03	7.08
B	2	13.40	5.50	6.60	8.00	5.19	6.29
B	3	13.40	5.70	6.80	7.70	5.35	6.06
C	1	13.40	5.60	7.00	7.90	5.51	6.21
C	2	13.40	5.80	6.80	7.50	5.35	5.90
C	3	13.40	5.60	6.90	7.30	5.43	5.74
D	1	13.40	5.50	6.00	9.20	4.72	7.24
D	2	13.40	5.70	5.80	9.20	4.56	7.24
D	3	13.40	5.50	5.50	9.00	4.33	7.08
Avg:		13.41	5.58	6.30	8.63	4.96	6.80
Max:		13.50	5.80	7.00	10.50	5.51	8.26
Min:		13.40	5.50	5.50	7.30	4.33	5.74
avg+5%		14.08	5.85	6.62	9.07	5.21	7.14
avg-5%		12.74	5.30	5.99	8.20	4.71	6.46
avg+.5ppm				6.80	9.13	5.46	7.30
avg-.5ppm				5.80	8.13	4.46	6.30
avg+10%		14.75	6.13	6.93	9.50	5.46	7.48
avg-10%		12.07	5.02	5.67	7.77	4.47	6.12
avg+1 ppm				7.30	9.63	5.96	7.80
avg- 1ppm				5.30	7.63	3.96	5.80

SUMMARY OF EMISSIONS SAMPLING DATA

Plant:	West County Energy (Location: Loxahatchee)	Run #	1	2	3	AVERAGE
Condition:	Base Oil	Date:	16-Jun-11	16-Jun-11	16-Jun-11	
Unit:	2B	Method:	316			
Parameter	Units	Start Time:	8:48	10:58	12:58	
Sampling Time	min.	Stop Time:	10:40	12:30	14:24	
			60	60	60	60
AMBIENT DATA:						
Ambient Temperature	deg. F		82	85	87	84.67
Location Height above Pbar reading	feet		140	140	140	140
Barometric Pressure	in. Hg		29.90	29.90	29.90	29.90
Corrected Barometric Pressure (to location)	in. Hg		29.76	29.76	29.76	29.76
GAS METER DATA:						
Dry Gas Meter Correction Factor (gamma)	Dimensionless		0.9912	0.9912	0.9912	0.9912
Average Meter Differential Pressure	in. H2O		2.0533	2.0267	1.9667	2.0156
Absolute Meter Pressure	in. Hg		29.91	29.91	29.90	29.91
Average Meter Temperature	degrees F		86.5	85.0	92.3	87.9
Metered Dry Sample Gas Volume	dcf		48.261	47.775	47.242	47.759
Average Sampling Rate	dscfm		0.770	0.764	0.746	0.760
Standard Metered Volume	dscf		46.203	45.861	44.740	45.601
Standard Metered Volume	dscm		1.3085	1.2988	1.2670	1.2914
MOISTURE DATA:						
Moisture Determination Technique:		Gravimetric	Gravimetric	Gravimetric	Gravimetric	
Saturated Vapor Pressure of Water:	inches Hg	29.9000	29.9000	29.9000	29.9000	29.9000
Vapor Phase Moisture Content at Saturation:	% Volume	100.00	100.00	100.00	100.00	100.00
Total Condensate Collected	grams H2O	106.6	98.8	96	100.47	100.47
Standard Volume of Water Vapor	scf	5.026	4.658	4.526	4.737	4.737
Measured Moisture Content	mole fraction	0.0981	0.0922	0.0919	0.0941	0.0941
Measured Moisture Content	% Volume	9.81	9.22	9.19	9.41	9.41
Gas Stream Vapor Phase Moisture (Bs):	% Volume	9.81	9.22	9.19	9.41	9.41
FIXED GAS DATA:						
Oxygen Concentration, Dry Basis	% Volume	13.5	13.5	13.6	13.5	13.5
Carbon Dioxide Concentration, Dry Basis	% Volume	5.3	5.6	5.4	5.4	5.4
Nitrogen Concentration, Dry Basis (gas balance)	% Volume	81.2	80.9	81.0	81.0	81.0
Gas Molecular Weight, Dry Basis	lb/lb-mole	29.388	29.436	29.408	29.411	29.411
Gas Molecular Weight, Wet Basis	lb/lb-mole	28.271	28.381	28.360	28.337	28.337
Fo Calculated:	Dimensionless	1.396	1.321	1.352	1.357	1.357
Excess Air:	%	169.75	171.46	174.35	171.85	171.85
Ultimate CO2	%V,d	14.97	15.82	15.46	15.42	15.42
DUCT CONFIGURATION:						
Duct Geometry (C = Circular, R = Rectangular)		C	C	C		
Duct Dimensions (Diameter)	inches	264	264	264		
Effective Duct Diameter (De)	inches	264	264	264	264	264
Stack Cross-Sectional Area	ft2	380.13	380.13	380.13	380.13	380.13
DUCT GAS CONDITIONS:						
Static Pressure of Gas Stream	in. H2O	-0.850	-0.850	-0.850	-0.850	-0.850
Absolute Duct Gas Pressure	in. Hg	29.698	29.698	29.698	29.698	29.698
Gas Stream Temperature	degrees F	308.75	313.75	317.08	313.19	313.19
VELOCITY DATA:						
Pitot Tube Coefficient	Dimensionless	0.84	0.84	0.84	0.84	0.84
Avg. Square Root of Velocity Head	(in. H2O)^0.5	1.1255	1.1189	1.1030	1.1158	1.1158
Gas Stream Velocity	ft/sec	77.337	76.983	76.081	76.800	76.800
Gas Stream Velocity	ft/min	4640.24	4619.00	4564.85	4608.03	4608.03
Gas Stream Velocity	meters/min	1414.34	1407.87	1391.37	1404.53	1404.53
Gas Stream Velocity	mi/hr	52.733	52.492	51.876	52.367	52.367
FLOWRATE/ENGLISH UNITS						
Actual Volumetric Flow Rate, Wet Basis	acfm	1763905.2	1755831.8	1735249.0	1751662.0	1751662.0
Standard Volumetric Flow Rate, Wet Basis	scfm	1202492.4	1189253.6	1170271.0	1187339.0	1187339.0
Standard Volumetric Flow Rate, Dry Basis	dscfm	1084513.7	1079591.1	1062751.8	1075618.9	1075618.9
Standard Volumetric Flow Rate, Wet Basis	kscfh	72149.54	71355.21	70216.26	71240.34	71240.34
Standard Volumetric Flow Rate, Dry Basis	kdscfh	65070.82	64775.47	63765.11	64537.13	64537.13
Total Mass Flow Rate (wet)	kpph	5293.84	5256.08	5168.25	5239.39	5239.39
FLOWRATE/METRIC UNITS						
Actual Volumetric Flow Rate, Wet Basis	acmm	49953.79	49725.16	49142.25	49607.07	49607.07
Standard Volumetric Flow Rate, Wet Basis	scmm	34054.58	33679.66	33142.07	33625.44	33625.44
Standard Volumetric Flow Rate, Dry Basis	dscmm	30713.43	30574.02	30097.13	30461.53	30461.53
ISOKINETIC SAMPLING DATA:						
Nozzle Diameter:	inches	0.218	0.218	0.218	0.218	0.218
Area of Nozzle:	ft^2	2.592E-04	2.592E-04	2.592E-04	2.592E-04	2.592E-04
Isokinetic Sampling Rate:	%I	104.2	103.9	103.0	103.7	103.7

Notes: EPA Standard Conditions are defined at 68 degrees F (20 degrees C) and 1 atmosphere (29.92 "Hg)

West County Energy C Loxahatchee

Base Oil

Unit: 2B

MOISTURE CONTENT DETERMINATION
EPA METHOD 4 CALCULATIONS

Parameter	Definition	Units
Pm	- Absolute Meter Pressure	in. Hg
Po	- Average Meter Differential Pressure	in. H2O
Ps	- Absolute Stack Gas Pressure	in. Hg
Pstd	- Absolute Standard Barometric Pressure (29.92)	in. Hg
Pb	- Absolute Barometric Pressure	in. Hg
K	- Standard Volume H2O Vapor/Unit Weight Liquid Constant = 0.04715 cu.ft/g	ft3/g
Tm	- Average Meter Temperature	degrees R
Tstd	- Absolute Standard Temperature (528_R)	degrees R
DGMC	- Dry Gas Meter Correction Factor (gamma)	Dimensionless
Vlcg	- Total Condensate Collected	grams H2O
Vm	- Metered Dry Sample Gas Volume	dcf
Vmstd	- Metered Volume at Standard Conditions(528_R, 1atm)	dscf
Vwstd	- Volume of Water Vapor Collected, at Standard Conditions (528_R, 1atm)	scf
W(sat)	- Vapor Pressure of H2O at Stack Temperature	in. Hg
Bws	- Moisture Content	mole fraction
Bwd	- Moisture Content	% Volume

TEST DATA RUN # 1

Pb =	29.9	Tm =	546.5
Vm =	48.261	Po =	2.053333
Vlcg =	106.6	DGMC =	0.9912
W(sat) =	29.9	Ps =	29.8375

MEASURED MOISTURE CALCULATIONS

Pm	=	Pb + (Po/13.6)	=	29.90 + (2.05/13.6)	=	30.051 in. Hg
Vmstd	=	$\frac{(Vm)(DGMC)(Pm)(Tstd)}{(Pstd)(Tm)}$	=	$\frac{48.261*0.9912*30.05*528}{29.92*546.5}$	=	46.203 ft3
Vwstd	=	(K)(Vlcg)	=	(0.04715)*(106.6)	=	5.026 ft3
Bws	=	$\frac{Vwstd}{(Vwstd)+(Vmstd)}$	=	$\frac{5.026}{(5.026+46.203)}$	=	0.0981 mol frac
Bwd	=	(Bws)*100 %	=	0.0981*100%	=	9.81% V

SATURATED MOISTURE CALCULATIONS

B(sat)	=	W(sat)/Ps	=	29.90/29.84	=	1.002095 mol frac
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VAPOR PHASE MOISTURE

Bws	=	0.098112	Lower of Measured or Saturated Moisture	
Bwd	=	(Bws)*100 %	=	9.81%

West County Energy C Loxahatchee

Base Oil

Unit: 2B

MOLECULAR WEIGHT DETERMINATION
EPA METHOD 3 CALCULATIONS

Parameter	Definition	Units
Md	- Sample Gas Molecular Weight, Dry Basis	lb/lb-mole
Ms	- Sample Gas Molecular Weight, Wet Basis	lb/lb-mole
Bws	- Moisture Content	mole fraction
%CO2	- Carbon Dioxide Concentration, Dry Basis	% Volume
%CO	- Carbon Monoxide Concentration, Dry Basis	% Volume
%O2	- Oxygen Concentration, Dry Basis	% Volume
%N2	- Nitrogen Concentration, Dry Basis (gas balance)	% Volume
0.32	- Molecular Weight of Oxygen (O2), divided by 100%	lb/lb-mole
0.28	- Molecular Weight of Carbon Monoxide, divided by 100%	lb/lb-mole
0.28	- Molecular Weight of Nitrogen (N2), divided by 100%	lb/lb-mole
0.44	- Molecular Weight of Carbon Dioxide, divided by 100%	lb/lb-mole
18.0	- Molecular Weight of Water	lb/lb-mole

TEST DATA RUN # 1

Bws = 0.0981 %CO = 0.00
%N2 = 81.20 %CO2 = 5.30
%O2 = 13.50

$$\begin{aligned} Md &= (0.44)(\%CO2) + (0.32)(\%O2) + (0.28)(\%N2 + \%CO) \\ &= (0.44)*5.30 + (0.32)*13.50 + (0.28)*(81.20 + 0.00) \\ &= 29.388 \text{ lb/lb-mol} \end{aligned}$$

$$\begin{aligned} Ms &= (Md)(1 - Bws) + (18.0)(Bws) \\ &= 29.388*(1 - 0.0981) + 18.0*0.0981 \\ &= 28.271 \text{ lb/lb-mol} \end{aligned}$$

West County Energy C Loxahatchee

Base Oil

Unit: 2B

VELOCITY AND VOLUMETRIC FLOWRATE DETERMINATION
EPA METHOD 2 CALCULATIONS

Parameter	Definition	Units
Cp	- Pitot Tube Coefficient	Dimensionless
Vs	- Gas Stream Velocity	ft/sec
Qsd	- Volumetric Flow Rate at Standard Conditions, Dry Basis	dscfm
Qact	- Actual Volumetric Flow Rate, Wet Basis	acfm
Bws	- Moisture Content	mole fraction
Dp	- Avg. Sq. Root of Velocity Head	(in. H ₂ O) ^{0.5}
Pb	- Absolute Barometric Pressure	in. Hg
Kp	- Constant = 89.49 (ft)(lb/lb-mol)(in.Hg ^{0.5})/(s)(R)(in.H ₂ O)	
Ts	- Absolute Gas Stream Temperature	degrees R
Ms	- Sample Gas Molecular Weight, Wet Basis	lb/lb-mole
Sp	- Static Pressure of Gas Stream	in. H ₂ O
528	- Absolute Standard Temperature	degrees R
CSA	- Stack Cross-Sectional Area	ft ²
Ps	- Absolute Stack Gas Pressure	in. Hg
60	- Conversion Factor	sec/min.
Pi	- Constant Ratio ~ 3.1416	Dimensionless
D	- Duct Diameter	inches

TEST DATA RUN # 1

Ms =	28.271	Cp =	0.84
Bws =	0.0981	Pb =	29.90
Sp =	-0.85	Ts =	768.8
D =	264.00	Dp =	1.1255

Circular Duct

$$Ps = Pb + (Sp/13.6) = 29.9 + (-0.85/13.6) = 29.84 \text{ in.Hg}$$

$$Vs = (85.49)(Cp)(Dp)*[(Ts)/(Ms*Ps)]^{0.5}$$

$$= 85.49*0.84*1.1255*[768.8/(28.271*29.84)]^{0.5}$$

$$= 77.156 \text{ ft/s} \quad 77.156 \text{ ft/s}$$

$$CSA = (Pi)[(D)^2]/[(4)(144)] = 3.1416*(264.00^2)/(4*144) = 380.133 \text{ ft}^2 \quad 380.133$$

$$Qact = (Vs)*CSA*60 = 77.156*380.133*60 = 1759762 \text{ acfm}$$

$$Qsd = \frac{(Qact)(1-Bws)(528)(Ps)}{(Ts)(29.92)} = \frac{1,759,762.1*(1 - 0.0981)*528*29.84}{768.8*29.92}$$

$$= 1087067 \text{ dscfm} \quad 1087067 \text{ dscfm}$$

West County Energy C Loxahatchee

Base Oil

Unit: 2B

ISOKINETIC SAMPLING RATE
EPA METHOD 5 CALCULATIONS

Parameter	Definition	Units
K4	- Constant = 0.09450	
Ts	- Average Stack Temperature	degrees R
Vmstd	- Metered Volume at Standard Conditions(528_R, 1atm)	dscf
Ps	- Absolute Stack Gas Pressure	in. Hg
Vs	- Gas Stream Velocity	ft/sec
Bws	- Moisture Content	mole fraction
t	- Sampling Time Duration	minutes
Dn	- Sample Nozzle Diameter	inches
An	- Area of Nozzle	ft2
%I	- Percent of Isokinetic Sampling	%

TEST DATA RUN # 1

Ts = 768.75 Vs = 77.1556
Vmstd = 46.20303 Bws = 0.098112
Ps = 29.8375 Dn = 0.218
t = 60

$$\begin{aligned} An &= (Pi)[(Dn)^2]/[(4)(144)] \\ &= 3.1416*(0.218^2)/(4*144) \\ &= 2.59E-04 \text{ ft}^2 && 2.59E-04 \text{ ft}^2 \\ \\ \%I &= \frac{K4(Ts)(Vmstd)}{(Ps)(Vs)(An)(t)(1-Bws)} \\ &= \frac{0.09450*768.8*46.203}{29.84*77.16*0.0002592*60.0(1 - 0.098)} \\ &= 103.95 \% \text{ Isokinetic} && 103.9473 \% \end{aligned}$$

APPENDIX B
FIELD DATA SHEETS

Source Testing and Consulting Services, Inc.
Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V _d	ppmVd	ppmVd	ppmVd	ppmVd	
16-Jun-11	7:24:30	0.02	-0.06	-0.12	0.00	5.24	Cal:ZERO
16-Jun-11	7:24:35	0.01	-0.05	-0.12	0.00	5.27	Cal:ZERO
16-Jun-11	7:24:40	0.01	-0.06	-0.12	0.00	5.30	Cal:ZERO
16-Jun-11	7:24:45	0.01	-0.06	-0.10	0.00	5.32	Cal:ZERO
16-Jun-11	7:24:50	0.01	-0.06	-0.10	0.00	5.28	Cal:ZERO
16-Jun-11	7:24:55	0.02	-0.06	-0.16	-0.01	5.26	Cal:ZERO
Average:	7:24:59	0.02	-0.06	-0.12	0.00	5.28	Cal:ZERO
Gas Value:	7:24:59	0	0	0	#N/A	#N/A	ZERO
Diff%ofSpan	7:24:59	0.07%	-0.31%	-0.13%	#N/A	#N/A	
16-Jun-11	7:25:40	0.01	-0.05	-0.10	-0.01	5.27	Cal:ZERO
16-Jun-11	7:25:45	0.01	-0.05	-0.10	-0.01	5.27	Cal:ZERO
16-Jun-11	7:25:50	0.01	-0.05	-0.10	0.00	5.28	Cal:ZERO
16-Jun-11	7:25:55	0.02	-0.06	-0.10	-0.01	5.28	Cal:ZERO
16-Jun-11	7:26:00	0.01	-0.06	-0.10	0.00	5.27	Cal:ZERO
16-Jun-11	7:26:05	0.02	-0.06	-0.10	-0.01	5.28	Cal:ZERO
16-Jun-11	7:26:10	0.02	-0.05	-0.10	0.00	5.29	Cal:ZERO
16-Jun-11	7:26:15	0.02	-0.06	-0.12	0.00	5.30	Cal:ZERO
16-Jun-11	7:26:20	0.02	-0.06	-0.12	0.00	5.31	Cal:ZERO
Average:	7:26:21	0.02	-0.05	-0.10	0.00	5.28	Cal:ZERO
Gas Value:	7:26:21	0	0	0	#N/A	#N/A	ZERO
Diff%ofSpan	7:26:21	0.07%	-0.30%	-0.11%	#N/A	#N/A	
16-Jun-11	7:28:53	0.02	-0.06	18.13	18.48	0.08	HC=0
16-Jun-11	7:28:58	0.02	-0.06	18.12	18.48	0.09	HC=0
16-Jun-11	7:29:03	0.02	-0.06	18.07	18.51	0.09	HC=0
16-Jun-11	7:29:08	0.02	-0.05	18.04	18.51	0.09	HC=0
16-Jun-11	7:29:13	0.02	-0.05	18.07	18.52	0.09	HC=0
16-Jun-11	7:29:18	0.02	-0.06	18.10	18.52	0.07	HC=0
16-Jun-11	7:29:23	0.02	-0.06	18.13	18.53	0.10	HC=0
Average:	7:29:27	0.02	-0.06	18.09	18.51	0.09	HC=0
16-Jun-11	7:30:27	0.02	-0.05	18.24	18.55	0.08	HC=0
16-Jun-11	7:30:31	0.02	-0.05	18.23	18.55	0.07	HC=0
16-Jun-11	7:30:36	0.01	-0.06	18.22	18.55	0.09	HC=0
16-Jun-11	7:30:41	0.02	-0.06	18.18	18.56	0.06	HC=0
16-Jun-11	7:30:46	0.02	-0.05	18.04	18.57	0.06	HC=0
16-Jun-11	7:30:51	0.02	-0.05	18.03	18.57	0.08	HC=0
16-Jun-11	7:30:56	0.02	-0.06	18.00	18.01	0.07	HC=0
16-Jun-11	7:31:01	0.02	-0.06	18.03	18.00	0.08	HC=0
16-Jun-11	7:31:06	0.02	-0.06	18.16	18.01	0.07	HC=0
Average:	7:31:07	0.02	-0.05	18.13	18.38	0.07	HC=0
16-Jun-11	7:31:26	0.02	-0.06	17.86	18.00	0.07	Cal:NO=18.0 co=17.94
16-Jun-11	7:31:31	0.02	-0.05	17.85	18.01	0.07	Cal:NO=18.0 co=17.94
16-Jun-11	7:31:36	0.02	-0.05	17.82	18.01	0.07	Cal:NO=18.0 co=17.94
16-Jun-11	7:31:41	0.02	-0.06	17.82	18.01	0.09	Cal:NO=18.0 co=17.94
16-Jun-11	7:31:46	0.02	-0.05	17.82	18.02	0.07	Cal:NO=18.0 co=17.94
16-Jun-11	7:31:52	0.02	-0.06	17.81	18.02	0.08	Cal:NO=18.0 co=17.94
16-Jun-11	7:31:56	0.02	-0.06	17.80	18.02	0.06	Cal:NO=18.0 co=17.94
16-Jun-11	7:32:01	0.02	-0.06	17.81	18.02	0.07	Cal:NO=18.0 co=17.94
16-Jun-11	7:32:06	0.02	-0.06	17.84	18.03	0.06	Cal:NO=18.0 co=17.94
16-Jun-11	7:32:11	0.02	-0.06	17.84	18.03	0.03	Cal:NO=18.0 co=17.94
Average:	7:32:11	0.02	-0.06	17.83	18.02	0.07	Cal:NO=18.0 co=17.94
Gas Value:	7:32:11	0	18	17.94	#N/A	#N/A	NO=18.0 co=17.94
Diff%ofSpan	7:32:11	0.08%	-100.31%	-0.12%	#N/A	#N/A	

Source Testing and Consulting Services, Inc.

Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V,d	ppmVd	ppmVd	ppmVd	ppmVd	
16-Jun-11	7:32:52	0.02	-0.06	17.89	18.04	0.06	Cal:NO=18.0 co=17.94
16-Jun-11	7:32:56	0.02	-0.06	17.92	18.04	0.05	Cal:NO=18.0 co=17.94
16-Jun-11	7:33:01	0.02	-0.06	17.90	18.03	0.06	Cal:NO=18.0 co=17.94
16-Jun-11	7:33:06	0.02	-0.06	17.88	18.02	0.05	Cal:NO=18.0 co=17.94
16-Jun-11	7:33:11	0.02	-0.06	17.83	18.01	0.07	Cal:NO=18.0 co=17.94
16-Jun-11	7:33:16	0.02	-0.06	17.76	18.01	0.07	Cal:NO=18.0 co=17.94
16-Jun-11	7:33:21	0.02	-0.05	17.81	18.02	0.06	Cal:NO=18.0 co=17.94
16-Jun-11	7:33:26	0.02	-0.05	17.88	18.03	0.06	Cal:NO=18.0 co=17.94
Average:	7:33:28	0.02	-0.06	17.86	18.02	0.06	Cal:NO=18.0 co=17.94
Gas Value:	7:33:28	0	18	17.94	#N/A	#N/A	NO=18.0 co=17.94
Diff%ofSpan	7:33:28	0.08%	-100.31%	-0.09%	#N/A	#N/A	
16-Jun-11	7:37:29	0.01	-0.05	9.01	8.77	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	7:37:34	0.01	-0.06	9.10	8.77	0.02	Cal:NO=8.8 co=9.1
16-Jun-11	7:37:39	0.01	-0.06	9.10	8.77	0.02	Cal:NO=8.8 co=9.1
16-Jun-11	7:37:44	0.01	-0.06	9.10	8.78	0.02	Cal:NO=8.8 co=9.1
16-Jun-11	7:37:49	0.01	-0.06	9.10	8.78	0.02	Cal:NO=8.8 co=9.1
16-Jun-11	7:37:54	0.01	-0.06	9.04	8.79	0.03	Cal:NO=8.8 co=9.1
16-Jun-11	7:37:59	0.01	-0.06	9.04	8.79	0.02	Cal:NO=8.8 co=9.1
16-Jun-11	7:38:04	0.01	-0.06	9.04	8.78	0.04	Cal:NO=8.8 co=9.1
16-Jun-11	7:38:09	0.01	-0.06	9.03	8.78	0.01	Cal:NO=8.8 co=9.1
Average:	7:38:12	0.01	-0.06	9.06	8.78	0.02	Cal:NO=8.8 co=9.1
Gas Value:	7:38:12	0	8.8	9.1	#N/A	#N/A	NO=8.8 co=9.1
Diff%ofSpan	7:38:12	0.06%	-49.20%	-0.04%	#N/A	#N/A	
16-Jun-11	7:39:15	0.01	-0.06	8.97	8.77	0.00	Cal:NO=8.8 co=9.1
16-Jun-11	7:39:20	0.01	-0.06	9.00	8.77	-0.01	Cal:NO=8.8 co=9.1
16-Jun-11	7:39:25	0.01	-0.06	9.12	8.77	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	7:39:30	0.01	-0.06	9.11	8.77	-0.02	Cal:NO=8.8 co=9.1
16-Jun-11	7:39:35	0.01	-0.06	9.11	8.77	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	7:39:40	0.01	-0.06	9.08	8.77	0.03	Cal:NO=8.8 co=9.1
16-Jun-11	7:39:45	0.01	-0.06	8.93	8.78	-0.02	Cal:NO=8.8 co=9.1
Average:	7:39:47	0.01	-0.06	9.05	8.77	0.00	Cal:NO=8.8 co=9.1
Gas Value:	7:39:47	0	8.8	9.1	#N/A	#N/A	NO=8.8 co=9.1
Diff%ofSpan	7:39:47	0.06%	-49.20%	-0.06%	#N/A	#N/A	
16-Jun-11	7:41:40	20.19	0.00	7.34	7.58	8.65	HC=8.6
16-Jun-11	7:41:45	20.40	0.00	6.64	6.39	8.59	HC=8.6
16-Jun-11	7:41:50	20.50	0.00	6.45	5.44	8.62	HC=8.6
16-Jun-11	7:41:56	20.54	0.00	5.72	4.02	8.60	HC=8.6
16-Jun-11	7:42:00	20.55	0.00	5.46	3.69	8.63	HC=8.6
16-Jun-11	7:42:05	20.55	0.00	4.71	3.35	8.64	HC=8.6
16-Jun-11	7:42:10	20.55	0.00	4.52	3.09	8.64	HC=8.6
Average:	7:42:11	20.47	0.00	5.84	4.79	8.62	HC=8.6
16-Jun-11	7:43:18	20.51	0.00	0.76	1.08	8.62	HC=8.6
16-Jun-11	7:43:23	20.51	0.00	0.68	0.85	8.62	HC=8.6
16-Jun-11	7:43:28	20.51	0.00	0.66	0.85	8.63	HC=8.6
16-Jun-11	7:43:33	20.51	0.00	0.59	0.61	8.61	HC=8.6
16-Jun-11	7:43:38	20.50	0.00	0.58	0.61	8.62	HC=8.6
16-Jun-11	7:43:43	20.50	0.00	0.53	0.46	8.60	HC=8.6
16-Jun-11	7:43:48	20.50	0.00	0.52	0.46	8.63	HC=8.6
16-Jun-11	7:43:53	20.50	0.00	0.50	0.29	8.62	HC=8.6
Average:	7:43:54	20.50	0.00	0.60	0.65	8.62	HC=8.6
16-Jun-11	7:45:01	20.48	0.00	0.57	0.07	5.98	HC=6.0
16-Jun-11	7:45:07	20.48	0.00	0.58	0.07	5.98	HC=6.0

Source Testing and Consulting Services, Inc.
Instrumental Reference Method On-Line Data

	Parameter Units	O2 %V _d	CO2 ppmVd	CO ppmVd	NOx ppmVd	CH4 ppmVd	Comments
16-Jun-11	7:45:11	20.48	0.00	0.55	0.06	5.96	HC=6.0
16-Jun-11	7:45:16	20.48	0.00	0.52	0.06	6.00	HC=6.0
16-Jun-11	7:45:21	20.48	0.00	0.51	0.06	6.03	HC=6.0
16-Jun-11	7:45:26	20.48	0.01	0.51	0.06	6.00	HC=6.0
Average:	7:45:27	20.48	0.00	0.54	0.06	5.99	HC=6.0
16-Jun-11	7:45:53	20.47	0.00	0.58	0.06	5.99	HC=6.0
16-Jun-11	7:45:58	20.48	0.00	0.58	0.06	6.00	HC=6.0
16-Jun-11	7:46:03	20.47	0.00	0.58	0.06	6.00	HC=6.0
16-Jun-11	7:46:08	20.47	0.00	0.58	0.06	5.98	HC=6.0
16-Jun-11	7:46:13	20.47	0.00	0.54	0.06	5.99	HC=6.0
16-Jun-11	7:46:18	20.47	0.00	0.54	0.06	5.98	HC=6.0
16-Jun-11	7:46:23	20.47	0.00	0.50	0.06	5.98	HC=6.0
16-Jun-11	7:46:29	20.47	0.00	0.49	0.06	5.97	HC=6.0
16-Jun-11	7:46:33	20.47	0.00	0.49	0.06	5.99	HC=6.0
16-Jun-11	7:46:38	20.47	0.00	0.49	0.06	5.98	HC=6.0
16-Jun-11	7:46:43	20.47	0.00	0.51	0.06	5.97	HC=6.0
Average:	7:46:44	20.47	0.00	0.53	0.06	5.98	HC=6.0
16-Jun-11	7:48:32	20.45	0.00	0.54	0.06	2.98	Cal:HC=3
16-Jun-11	7:48:37	20.46	0.00	0.56	0.06	2.98	Cal:HC=3
16-Jun-11	7:48:42	20.46	0.00	0.56	0.06	2.98	Cal:HC=3
16-Jun-11	7:48:47	20.46	0.00	0.56	0.06	2.93	Cal:HC=3
16-Jun-11	7:48:52	20.45	0.00	0.53	0.06	2.95	Cal:HC=3
16-Jun-11	7:48:57	20.46	0.00	0.52	0.06	2.96	Cal:HC=3
16-Jun-11	7:49:02	20.46	0.00	0.52	0.06	2.99	Cal:HC=3
16-Jun-11	7:49:07	20.46	0.00	0.52	0.06	2.95	Cal:HC=3
Average:	7:49:11	20.46	0.00	0.54	0.06	2.97	Cal:HC=3
Gas Value:	7:49:11	0	0	0	#N/A	3	HC=3
Diff%ofSpan	7:49:11	92.98%	0.01%	0.59%	#N/A	-0.03%	
16-Jun-11	7:50:09	20.45	0.00	0.56	0.06	2.99	Cal:HC=3
16-Jun-11	7:50:14	20.45	0.00	0.58	0.06	3.00	Cal:HC=3
16-Jun-11	7:50:19	20.45	0.00	0.58	0.06	3.01	Cal:HC=3
16-Jun-11	7:50:24	20.46	0.00	0.52	0.07	3.01	Cal:HC=3
16-Jun-11	7:50:29	20.46	0.00	0.52	0.07	3.02	Cal:HC=3
Average:	7:50:31	20.46	0.00	0.55	0.06	3.01	Cal:HC=3
Gas Value:	7:50:31	0	0	0	#N/A	3	HC=3
Diff%ofSpan	7:50:31	92.98%	-0.01%	0.60%	#N/A	0.01%	
16-Jun-11	7:55:42	22.10	19.62	1.43	0.00	4.84	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:55:47	22.10	19.63	1.46	0.00	4.84	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:55:52	22.10	19.62	1.45	0.00	4.84	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:55:57	22.10	19.63	1.44	0.00	4.84	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:56:06	22.10	19.62	1.40	0.00	4.83	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:56:07	22.10	19.62	1.38	0.00	4.82	Cal:O2=22.06 CO2=19.63
Average:	7:56:07	22.10	19.62	1.42	0.00	4.83	Cal:O2=22.06 CO2=19.63
Gas Value:	7:56:07	22.06	19.63	0	#N/A	#N/A	O2=22.06 CO2=19.63
Diff%ofSpan	7:56:07	0.18%	-0.04%	1.56%	#N/A	#N/A	
16-Jun-11	7:56:44	22.11	19.63	1.46	0.00	4.79	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:56:48	22.11	19.63	1.46	0.00	4.79	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:56:53	22.11	19.63	1.39	0.00	4.79	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:56:58	22.11	19.63	1.38	0.00	4.75	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:57:03	22.11	19.64	1.39	0.00	4.68	Cal:O2=22.06 CO2=19.63
16-Jun-11	7:57:08	22.11	19.64	1.40	0.00	4.71	Cal:O2=22.06 CO2=19.63
Average:	7:57:10	22.11	19.63	1.41	0.00	4.75	Cal:O2=22.06 CO2=19.63

Source Testing and Consulting Services, Inc.

Instrumental Reference Method On-Line Data

	Parameter Units	O2 %V,d	CO2 ppmVd	CO ppmVd	NOx ppmVd	CH4 ppmVd	Comments
Gas Value:	7:57:10	22.06	19.63	0	#N/A	#N/A	O2=22.06 CO2=19.63
Diff%ofSpan	7:57:10	0.22%	0.00%	1.55%	#N/A	#N/A	
16-Jun-11	7:59:48	9.03	9.06	0.29	0.01	3.50	Cal:O2=9 CO2=8.9
16-Jun-11	7:59:53	9.04	9.06	0.33	0.00	3.50	Cal:O2=9 CO2=8.9
16-Jun-11	7:59:58	9.03	9.07	0.33	0.00	3.52	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:03	9.04	9.06	0.33	0.00	3.49	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:09	9.04	9.07	0.32	0.00	3.50	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:13	9.04	9.06	0.29	0.00	3.52	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:18	9.03	9.07	0.29	0.00	3.50	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:23	9.03	9.06	0.27	0.00	3.48	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:28	9.03	9.06	0.27	0.00	3.49	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:34	9.04	9.07	0.29	0.00	3.51	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:38	9.04	9.07	0.29	0.00	3.51	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:43	9.03	9.07	0.29	0.01	3.49	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:48	9.04	9.06	0.29	0.01	3.50	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:53	9.04	9.06	0.27	0.01	3.49	Cal:O2=9 CO2=8.9
16-Jun-11	8:00:59	9.04	9.07	0.27	0.01	3.49	Cal:O2=9 CO2=8.9
Average:	8:01:02	9.04	9.07	0.30	0.00	3.50	Cal:O2=9 CO2=8.9
Gas Value:	8:01:02	9	8.9	0	#N/A	#N/A	O2=9 CO2=8.9
Diff%ofSpan	8:01:02	0.16%	0.92%	0.32%	#N/A	#N/A	
16-Jun-11	8:01:39	9.04	9.07	0.33	0.00	3.43	Cal:O2=9 CO2=8.9
16-Jun-11	8:01:43	9.04	9.07	0.31	0.00	3.40	Cal:O2=9 CO2=8.9
16-Jun-11	8:01:48	9.04	9.07	0.31	0.00	3.42	Cal:O2=9 CO2=8.9
16-Jun-11	8:01:53	9.04	9.07	0.27	0.00	3.41	Cal:O2=9 CO2=8.9
16-Jun-11	8:01:58	9.04	9.07	0.27	0.00	3.44	Cal:O2=9 CO2=8.9
16-Jun-11	8:02:03	9.04	9.07	0.27	0.00	3.43	Cal:O2=9 CO2=8.9
16-Jun-11	8:02:09	9.04	9.07	0.28	0.00	3.42	Cal:O2=9 CO2=8.9
16-Jun-11	8:02:13	9.04	9.07	0.31	0.00	3.43	Cal:O2=9 CO2=8.9
Average:	8:02:17	9.04	9.07	0.29	0.00	3.42	Cal:O2=9 CO2=8.9
Gas Value:	8:02:17	9	8.9	0	#N/A	#N/A	O2=9 CO2=8.9
Diff%ofSpan	8:02:17	0.17%	0.94%	0.32%	#N/A	#N/A	
16-Jun-11	8:34:06	13.33	5.50	5.28	11.14	0.07	
16-Jun-11	8:34:35	13.34	5.50	5.36	10.99	0.09	
16-Jun-11	8:35:05	13.35	5.50	5.65	10.80	0.05	
16-Jun-11	8:35:35	13.36	5.49	5.96	10.51	0.05	
16-Jun-11	8:36:06	13.35	5.50	5.86	10.19	0.06	
16-Jun-11	8:36:35	13.35	5.51	5.49	10.43	0.04	
16-Jun-11	8:37:05	13.35	5.52	5.44	10.94	0.03	
16-Jun-11	8:37:35	13.35	5.52	5.38	11.34	0.04	
16-Jun-11	8:38:06	13.35	5.52	5.22	11.50	0.06	
16-Jun-11	8:38:35	13.37	5.51	5.38	11.41	0.05	
Average:	8:38:35	13.35	5.51	5.50	10.93	0.05	
16-Jun-11	8:39:14	13.38	5.50	5.82	10.89	0.06	
16-Jun-11	8:39:44	13.38	5.50	6.06	10.21	0.04	
16-Jun-11	8:40:14	13.38	5.50	5.89	9.56	0.07	
16-Jun-11	8:40:44	13.36	5.52	5.49	9.33	0.09	
16-Jun-11	8:41:15	13.34	5.53	5.04	9.70	0.12	
16-Jun-11	8:41:44	13.35	5.53	5.08	10.13	0.10	
Average:	8:41:57	13.36	5.51	5.57	9.97	0.08	
16-Jun-11	8:42:31	13.36	5.52	5.15	10.34	0.09	A1
16-Jun-11	8:43:00	13.37	5.51	5.51	10.20	0.10	A1
16-Jun-11	8:43:30	13.37	5.51	5.54	9.81	0.12	A1

Source Testing and Consulting Services, Inc.
Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V _d	ppmVd	ppmVd	ppmVd	ppmVd	
16-Jun-11	8:44:00	13.37	5.51	5.43	9.49	0.12	A1
16-Jun-11	8:44:31	13.37	5.51	5.55	9.55	0.12	A1
16-Jun-11	8:45:00	13.36	5.52	5.41	9.85	0.14	A1
16-Jun-11	8:45:30	13.36	5.52	5.08	10.28	0.13	A1
16-Jun-11	8:46:01	13.36	5.52	5.22	10.50	0.14	A1
16-Jun-11	8:46:31	13.37	5.52	5.26	10.60	0.13	A1
16-Jun-11	8:47:00	13.37	5.52	5.28	10.55	0.14	A1
Average:	8:47:00	13.37	5.52	5.34	10.12	0.12	A1
16-Jun-11	8:49:34	13.35	5.52	4.98	9.15	0.18	A2
16-Jun-11	8:50:05	13.36	5.52	5.15	9.33	0.18	A2
16-Jun-11	8:50:34	13.37	5.51	5.35	9.34	0.18	A2
16-Jun-11	8:51:04	13.39	5.49	5.83	8.98	0.18	A2
16-Jun-11	8:51:34	13.38	5.50	5.89	8.50	0.19	A2
16-Jun-11	8:52:05	13.36	5.52	5.39	8.53	0.18	A2
16-Jun-11	8:52:34	13.35	5.53	5.12	8.79	0.20	A2
16-Jun-11	8:53:04	13.35	5.53	4.96	9.28	0.20	A2
16-Jun-11	8:53:34	13.37	5.51	5.12	9.45	0.22	A2
16-Jun-11	8:54:05	13.38	5.50	5.65	9.19	0.20	A2
Average:	8:54:05	13.36	5.51	5.34	9.05	0.19	A2
16-Jun-11	8:55:58	13.35	5.53	5.11	8.62	0.26	A3
16-Jun-11	8:56:28	13.35	5.52	5.17	8.75	0.25	A3
16-Jun-11	8:56:58	13.36	5.52	5.16	8.98	0.25	A3
16-Jun-11	8:57:28	13.37	5.51	5.32	8.92	0.27	A3
16-Jun-11	8:57:58	13.38	5.50	5.72	8.55	0.27	A3
16-Jun-11	8:58:28	13.37	5.51	5.65	8.09	0.26	A3
16-Jun-11	8:58:58	13.36	5.51	5.30	8.08	0.26	A3
16-Jun-11	8:59:28	13.35	5.52	5.27	8.28	0.26	A3
16-Jun-11	8:59:58	13.35	5.52	5.01	8.67	0.27	A3
16-Jun-11	9:00:28	13.35	5.52	5.05	8.87	0.30	A3
Average:	9:00:28	13.36	5.52	5.28	8.58	0.27	A3
16-Jun-11	9:06:27	13.37	5.51	5.81	8.60	0.30	B1
16-Jun-11	9:06:57	13.36	5.52	5.63	8.82	0.31	B1
16-Jun-11	9:07:28	13.36	5.52	5.60	9.12	0.29	B1
16-Jun-11	9:07:58	13.36	5.52	5.72	9.25	0.30	B1
16-Jun-11	9:08:27	13.37	5.51	5.77	9.17	0.30	B1
16-Jun-11	9:08:57	13.37	5.51	5.98	8.95	0.29	B1
16-Jun-11	9:09:27	13.38	5.50	6.06	8.63	0.30	B1
16-Jun-11	9:09:57	13.37	5.50	6.25	8.48	0.29	B1
16-Jun-11	9:10:27	13.37	5.51	5.93	8.73	0.30	B1
16-Jun-11	9:10:57	13.36	5.52	5.61	9.02	0.31	B1
Average:	9:10:57	13.37	5.51	5.84	8.88	0.30	B1
16-Jun-11	9:11:42	13.37	5.51	5.66	8.50	0.30	B2
16-Jun-11	9:12:12	13.38	5.50	6.22	8.26	0.29	B2
16-Jun-11	9:12:42	13.39	5.50	6.27	7.92	0.30	B2
16-Jun-11	9:13:13	13.38	5.50	6.32	7.49	0.29	B2
16-Jun-11	9:13:42	13.35	5.53	5.83	7.40	0.30	B2
16-Jun-11	9:14:12	13.35	5.53	5.31	7.77	0.31	B2
16-Jun-11	9:14:42	13.35	5.53	5.47	7.97	0.31	B2
16-Jun-11	9:15:13	13.35	5.52	5.44	8.06	0.30	B2
16-Jun-11	9:15:42	13.37	5.51	5.87	7.87	0.32	B2
16-Jun-11	9:16:12	13.38	5.50	6.20	7.43	0.31	B2
Average:	9:16:12	13.37	5.51	5.86	7.87	0.30	B2

Source Testing and Consulting Services, Inc.

Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V,d	ppmVd	ppmVd	ppmVd	ppmVd	
16-Jun-11	9:18:09	13.37	5.51	5.57	7.69	0.33	B3
16-Jun-11	9:18:39	13.37	5.51	5.64	7.97	0.33	B3
16-Jun-11	9:19:09	13.38	5.51	5.72	8.07	0.32	B3
16-Jun-11	9:19:39	13.38	5.51	6.01	7.76	0.33	B3
16-Jun-11	9:20:09	13.38	5.51	5.97	7.38	0.32	B3
16-Jun-11	9:20:39	13.37	5.51	5.85	7.13	0.32	B3
16-Jun-11	9:21:09	13.37	5.51	5.72	7.12	0.32	B3
16-Jun-11	9:21:39	13.37	5.52	5.55	7.35	0.32	B3
16-Jun-11	9:22:09	13.38	5.51	5.64	7.52	0.32	B3
16-Jun-11	9:22:39	13.38	5.50	5.92	7.58	0.31	B3
16-Jun-11	9:23:09	13.39	5.50	6.24	7.59	0.32	B3
Average:	9:23:09	13.37	5.51	5.80	7.56	0.32	B3
16-Jun-11	9:32:07	13.39	5.49	5.05	9.09	0.33	D1
16-Jun-11	9:32:37	13.40	5.49	5.04	9.43	0.33	D1
16-Jun-11	9:33:07	13.41	5.48	5.27	9.48	0.30	D1
16-Jun-11	9:33:37	13.42	5.48	5.61	9.26	0.32	D1
16-Jun-11	9:34:07	13.43	5.47	5.62	9.14	0.32	D1
16-Jun-11	9:34:37	13.43	5.47	5.79	9.08	0.33	D1
16-Jun-11	9:35:07	13.42	5.47	5.83	9.18	0.32	D1
16-Jun-11	9:35:37	13.40	5.49	5.48	9.44	0.32	D1
16-Jun-11	9:36:08	13.40	5.49	5.19	9.81	0.32	D1
16-Jun-11	9:36:37	13.41	5.49	5.19	9.89	0.33	D1
Average:	9:36:37	13.41	5.48	5.41	9.38	0.32	D1
16-Jun-11	9:37:28	13.41	5.49	4.98	9.45	0.32	D2
16-Jun-11	9:37:58	13.42	5.47	5.23	9.14	0.32	D2
16-Jun-11	9:38:29	13.43	5.47	5.65	8.67	0.32	D2
16-Jun-11	9:38:59	13.42	5.47	5.50	8.39	0.32	D2
16-Jun-11	9:39:28	13.40	5.49	5.29	8.43	0.32	D2
16-Jun-11	9:39:58	13.40	5.49	4.89	8.79	0.32	D2
16-Jun-11	9:40:28	13.40	5.49	4.83	9.20	0.31	D2
16-Jun-11	9:40:58	13.41	5.48	4.93	9.54	0.31	D2
16-Jun-11	9:41:28	13.43	5.47	5.51	9.24	0.29	D2
16-Jun-11	9:41:58	13.43	5.47	5.66	8.82	0.30	D2
Average:	9:41:58	13.42	5.48	5.25	8.97	0.31	D2
16-Jun-11	9:44:02	13.40	5.49	5.01	9.25	0.30	D3
16-Jun-11	9:44:33	13.41	5.48	5.03	9.59	0.29	D3
16-Jun-11	9:45:02	13.43	5.47	5.45	9.52	0.28	D3
16-Jun-11	9:45:32	13.43	5.47	5.85	9.07	0.28	D3
16-Jun-11	9:46:02	13.43	5.47	5.71	8.78	0.29	D3
16-Jun-11	9:46:33	13.41	5.48	5.54	8.63	0.28	D3
16-Jun-11	9:47:02	13.40	5.49	5.07	8.99	0.29	D3
16-Jun-11	9:47:32	13.40	5.49	5.01	9.36	0.29	D3
16-Jun-11	9:48:03	13.42	5.48	5.08	9.63	0.29	D3
16-Jun-11	9:48:33	13.45	5.46	5.71	9.53	0.30	D3
Average:	9:48:33	13.42	5.48	5.35	9.23	0.29	D3
16-Jun-11	9:52:39	13.43	5.46	6.12	7.49	0.27	C1
16-Jun-11	9:53:10	13.42	5.47	6.06	7.29	0.27	C1
16-Jun-11	9:53:39	13.41	5.48	5.92	7.73	0.27	C1
16-Jun-11	9:54:09	13.40	5.49	5.72	8.15	0.28	C1
16-Jun-11	9:54:39	13.40	5.49	5.50	8.53	0.28	C1
16-Jun-11	9:55:10	13.41	5.48	5.69	8.75	0.29	C1
16-Jun-11	9:55:39	13.42	5.48	5.99	8.79	0.28	C1

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Instrumental Reference Method On-Line Data

	Parameter Units	O2 %V,d	CO2 ppmVd	CO ppmVd	NOx ppmVd	CH4 ppmVd	Comments
16-Jun-11	9:56:09	13.44	5.46	6.50	8.39	0.28	C1
16-Jun-11	9:56:39	13.43	5.47	6.68	8.04	0.28	C1
16-Jun-11	9:57:10	13.43	5.47	6.42	7.87	0.28	C1
Average:	9:57:10	13.42	5.48	6.06	8.10	0.28	C1
16-Jun-11	9:58:28	13.41	5.49	6.08	8.56	0.28	
16-Jun-11	9:58:59	13.41	5.49	5.93	8.87	0.28	
16-Jun-11	9:59:29	13.42	5.48	6.33	8.77	0.27	
16-Jun-11	9:59:58	13.42	5.48	6.62	8.38	0.28	
16-Jun-11	10:00:28	13.43	5.47	6.42	8.10	0.27	
16-Jun-11	10:00:59	13.43	5.47	6.72	7.89	0.29	
16-Jun-11	10:01:29	13.43	5.47	6.63	7.94	0.28	
Average:	10:01:38	13.42	5.48	6.39	8.36	0.28	
16-Jun-11	10:03:13	13.41	5.49	5.81	8.08	0.29	C2
16-Jun-11	10:03:43	13.42	5.48	6.06	7.96	0.27	C2
16-Jun-11	10:04:13	13.43	5.47	6.48	7.63	0.26	C2
16-Jun-11	10:04:44	13.43	5.47	6.62	7.10	0.28	C2
16-Jun-11	10:05:13	13.42	5.48	6.40	6.93	0.28	C2
16-Jun-11	10:05:43	13.41	5.49	6.22	7.01	0.29	C2
16-Jun-11	10:06:13	13.41	5.49	5.94	7.29	0.28	C2
16-Jun-11	10:06:44	13.43	5.47	6.53	7.38	0.28	C2
16-Jun-11	10:07:13	13.43	5.48	6.80	7.32	0.28	C2
16-Jun-11	10:07:43	13.43	5.47	6.58	7.30	0.27	C2
Average:	10:07:43	13.42	5.48	6.35	7.40	0.28	C2
16-Jun-11	10:08:25	13.42	5.48	6.51	7.37	0.29	C3
16-Jun-11	10:08:56	13.42	5.48	6.27	7.68	0.28	C3
16-Jun-11	10:09:25	13.42	5.48	6.31	7.83	0.29	C3
16-Jun-11	10:09:55	13.42	5.48	6.37	7.85	0.30	C3
16-Jun-11	10:10:25	13.42	5.48	6.38	7.81	0.29	C3
16-Jun-11	10:10:55	13.43	5.48	6.44	7.65	0.29	C3
16-Jun-11	10:11:25	13.43	5.48	6.54	7.45	0.29	C3
16-Jun-11	10:11:55	13.43	5.48	6.55	7.24	0.29	C3
16-Jun-11	10:12:25	13.44	5.47	6.57	7.32	0.30	C3
16-Jun-11	10:12:56	13.44	5.47	6.80	7.37	0.29	C3
Average:	10:12:56	13.43	5.48	6.47	7.56	0.29	C3
Average:	10:12:56	13.39	5.50	5.70	8.55	0.27	R1 AVG
16-Jun-11	10:14:44	9.03	9.08	0.03	0.13	0.01	Cal:O2=9 CO2=8.9
16-Jun-11	10:14:50	9.03	9.08	0.03	0.13	0.02	Cal:O2=9 CO2=8.9
16-Jun-11	10:14:54	9.03	9.09	0.04	0.06	0.02	Cal:O2=9 CO2=8.9
16-Jun-11	10:14:59	9.03	9.09	0.09	0.05	0.03	Cal:O2=9 CO2=8.9
16-Jun-11	10:15:04	9.03	9.09	0.09	0.04	0.07	Cal:O2=9 CO2=8.9
Average:	10:15:07	9.03	9.09	0.05	0.08	0.03	Cal:O2=9 CO2=8.9
Gas Value:	10:15:07	9	8.9	0	#N/A	#N/A	O2=9 CO2=8.9
Diff%ofSpan	10:15:07	0.14%	1.03%	0.06%	#N/A	#N/A	
16-Jun-11	10:19:11	0.01	-0.04	9.03	8.84	0.09	Cal:NO=8.8 co=9.1
16-Jun-11	10:19:16	0.01	-0.04	9.08	8.84	0.09	Cal:NO=8.8 co=9.1
16-Jun-11	10:19:21	0.01	-0.04	9.11	8.84	0.09	Cal:NO=8.8 co=9.1
16-Jun-11	10:19:26	0.01	-0.04	9.09	8.84	0.10	Cal:NO=8.8 co=9.1
16-Jun-11	10:19:31	0.01	-0.04	9.07	8.84	0.10	Cal:NO=8.8 co=9.1
Average:	10:19:34	0.01	-0.04	9.08	8.84	0.09	Cal:NO=8.8 co=9.1
Gas Value:	10:19:34	0	8.8	9.1	#N/A	#N/A	NO=8.8 co=9.1
Diff%ofSpan	10:19:34	0.05%	-49.13%	-0.02%	#N/A	#N/A	
16-Jun-11	10:25:41	13.43	5.48	6.01	7.75	3.05	Cal:HC=3

Source Testing and Consulting Services, Inc.
Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V _d	ppmV _d	ppmV _d	ppmV _d	ppmV _d	
16-Jun-11	10:25:46	13.44	5.48	6.04	7.80	3.02	Cal:HC=3
16-Jun-11	10:25:52	13.43	5.48	6.05	7.93	3.02	Cal:HC=3
16-Jun-11	10:25:56	13.43	5.48	6.13	8.00	3.04	Cal:HC=3
16-Jun-11	10:26:01	13.43	5.48	6.15	8.00	3.02	Cal:HC=3
Average:	10:26:04	13.43	5.48	6.08	7.90	3.03	Cal:HC=3
Gas Value:	10:26:04	0	0	0	#N/A	3	HC=3
Diff%ofSpan	10:26:04	61.06%	30.44%	6.65%	#N/A	0.03%	
16-Jun-11	10:26:36	13.44	5.48	6.56	8.09	0.02	Cal:ZERO
16-Jun-11	10:26:41	13.44	5.47	6.59	8.07	0.02	Cal:ZERO
16-Jun-11	10:26:46	13.44	5.47	6.62	8.05	0.03	Cal:ZERO
16-Jun-11	10:26:51	13.45	5.47	6.63	8.03	0.08	Cal:ZERO
16-Jun-11	10:26:56	13.46	5.47	6.75	8.01	0.07	Cal:ZERO
16-Jun-11	10:27:01	13.46	5.46	6.83	7.92	0.03	Cal:ZERO
16-Jun-11	10:27:06	13.47	5.45	7.00	7.86	0.04	Cal:ZERO
16-Jun-11	10:27:11	13.46	5.46	7.11	7.77	0.03	Cal:ZERO
16-Jun-11	10:27:16	13.46	5.46	7.24	7.71	0.03	Cal:ZERO
16-Jun-11	10:27:21	13.45	5.47	7.33	7.56	0.02	Cal:ZERO
16-Jun-11	10:27:27	13.45	5.47	7.24	7.46	0.03	Cal:ZERO
16-Jun-11	10:27:31	13.45	5.47	7.19	7.28	0.02	Cal:ZERO
16-Jun-11	10:27:36	13.45	5.46	6.99	7.22	0.03	Cal:ZERO
16-Jun-11	10:27:41	13.45	5.47	6.85	7.22	0.05	Cal:ZERO
16-Jun-11	10:27:46	13.45	5.46	6.72	7.23	0.04	Cal:ZERO
16-Jun-11	10:27:52	13.45	5.47	6.63	7.23	0.06	Cal:ZERO
16-Jun-11	10:27:56	13.45	5.47	6.62	7.23	0.05	Cal:ZERO
16-Jun-11	10:28:01	13.45	5.47	6.61	7.18	0.07	Cal:ZERO
16-Jun-11	10:28:06	13.45	5.47	6.71	7.14	0.06	Cal:ZERO
16-Jun-11	10:28:11	13.44	5.47	6.77	7.08	0.08	Cal:ZERO
16-Jun-11	10:28:17	13.44	5.47	6.89	7.05	0.07	Cal:ZERO
16-Jun-11	10:28:21	13.43	5.47	6.95	7.09	0.06	Cal:ZERO
16-Jun-11	10:28:26	13.43	5.48	6.90	7.10	0.08	Cal:ZERO
Average:	10:28:27	13.45	5.47	6.86	7.50	0.05	Cal:ZERO
Gas Value:	10:28:27	0	0	0	#N/A	#N/A	ZERO
Diff%ofSpan	10:28:27	61.13%	30.37%	7.50%	#N/A	#N/A	
16-Jun-11	10:30:09	13.44	5.47	6.32	7.86	0.12	C3
16-Jun-11	10:30:39	13.45	5.46	6.82	7.82	0.10	C3
16-Jun-11	10:31:09	13.44	5.46	7.10	7.45	0.13	C3
16-Jun-11	10:31:39	13.44	5.47	6.69	7.36	0.13	C3
16-Jun-11	10:32:09	13.45	5.46	6.87	7.42	0.13	C3
16-Jun-11	10:32:39	13.44	5.47	7.03	7.42	0.13	C3
16-Jun-11	10:33:09	13.43	5.48	6.69	7.63	0.12	C3
16-Jun-11	10:33:39	13.43	5.47	6.35	7.84	0.14	C3
16-Jun-11	10:34:09	13.43	5.48	6.55	7.80	0.15	C3
16-Jun-11	10:34:39	13.44	5.47	6.73	7.65	0.16	C3
Average:	10:34:39	13.44	5.47	6.72	7.62	0.13	C3
16-Jun-11	10:40:49	13.47	5.44	6.67	8.08	0.12	C2
16-Jun-11	10:41:19	13.49	5.43	8.19	7.70	0.11	C2
16-Jun-11	10:41:49	13.47	5.44	7.92	7.27	0.12	C2
16-Jun-11	10:42:19	13.46	5.45	7.28	7.16	0.12	C2
16-Jun-11	10:42:49	13.45	5.46	6.85	7.45	0.12	C2
16-Jun-11	10:43:19	13.44	5.46	6.39	7.92	0.10	C2
16-Jun-11	10:43:49	13.45	5.46	6.13	8.46	0.10	C2
16-Jun-11	10:44:19	13.48	5.43	6.61	8.50	0.11	C2

Source Testing and Consulting Services, Inc.
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	Parameter Units	O2 %V,d	CO2 ppmVd	CO ppmVd	NOx ppmVd	CH4 ppmVd	Comments
16-Jun-11	10:44:49	13.54	5.39	7.47	8.32	0.10	C2
16-Jun-11	10:45:19	13.55	5.37	8.64	7.45	0.09	C2
16-Jun-11	10:45:49	13.54	5.38	8.04	6.83	0.09	C2
Average:	10:45:49	13.48	5.43	7.29	7.74	0.11	C2
16-Jun-11	10:50:25	13.51	5.41	6.18	6.70	0.06	C1
16-Jun-11	10:50:55	13.49	5.42	5.75	6.61	0.07	C1
16-Jun-11	10:51:25	13.47	5.44	5.09	7.36	0.07	C1
16-Jun-11	10:51:55	13.47	5.44	4.65	8.61	0.07	C1
16-Jun-11	10:52:25	13.49	5.43	4.95	9.67	0.08	C1
16-Jun-11	10:52:55	13.49	5.42	5.34	9.83	0.08	C1
16-Jun-11	10:53:25	13.51	5.41	5.55	9.50	0.08	C1
16-Jun-11	10:53:55	13.50	5.41	5.73	8.67	0.09	C1
16-Jun-11	10:54:25	13.47	5.44	5.38	8.24	0.07	C1
16-Jun-11	10:54:55	13.46	5.45	4.75	8.32	0.05	C1
16-Jun-11	10:55:25	13.49	5.43	4.66	8.84	0.05	C1
Average:	10:55:25	13.49	5.43	5.28	8.40	0.07	C1
16-Jun-11	10:58:38	13.68	5.20	3.14	2.53	0.03	D1
16-Jun-11	10:59:08	13.68	5.20	3.14	2.53	0.03	D1
16-Jun-11	10:59:39	13.50	5.40	4.91	10.16	0.01	D1
16-Jun-11	11:00:09	13.49	5.41	4.89	10.12	-0.01	D1
16-Jun-11	11:00:38	13.49	5.42	4.90	9.81	0.01	D1
16-Jun-11	11:01:08	13.49	5.42	4.83	9.61	0.02	D1
16-Jun-11	11:01:39	13.49	5.41	4.90	9.59	0.01	D1
16-Jun-11	11:02:09	13.50	5.41	5.17	9.61	0.02	D1
16-Jun-11	11:02:38	13.51	5.40	5.41	9.56	0.01	D1
16-Jun-11	11:03:08	13.52	5.40	5.54	9.58	0.02	D1
16-Jun-11	11:03:38	13.50	5.41	5.40	9.72	0.01	D1
16-Jun-11	11:04:08	13.45	5.45	4.69	10.20	0.02	D1
16-Jun-11	11:04:38	13.43	5.46	4.11	10.80	0.02	D1
16-Jun-11	11:05:08	13.46	5.45	4.06	10.95	0.00	D1
Average:	11:05:08	13.52	5.39	4.65	8.91	0.01	D1
16-Jun-11	11:05:49	13.49	5.42	4.83	9.93	0.00	D2
16-Jun-11	11:06:19	13.50	5.41	5.41	8.56	0.00	D2
16-Jun-11	11:06:49	13.49	5.42	5.35	7.53	0.01	D2
16-Jun-11	11:07:19	13.48	5.43	4.88	7.61	0.01	D2
16-Jun-11	11:07:49	13.50	5.42	4.75	8.72	0.01	D2
16-Jun-11	11:08:19	13.50	5.41	4.99	9.74	0.00	D2
16-Jun-11	11:08:49	13.52	5.40	5.25	10.44	-0.02	D2
16-Jun-11	11:09:19	13.52	5.39	5.52	10.29	0.01	D2
16-Jun-11	11:09:49	13.51	5.40	5.45	9.99	0.00	D2
16-Jun-11	11:10:19	13.48	5.42	5.07	9.62	-0.01	D2
Average:	11:10:19	13.50	5.41	5.15	9.24	0.00	D2
16-Jun-11	11:11:22	13.47	5.44	4.37	10.08	0.00	D3
16-Jun-11	11:11:52	13.49	5.42	4.52	10.08	-0.02	D3
16-Jun-11	11:12:22	13.49	5.42	5.02	9.35	0.00	D3
16-Jun-11	11:12:52	13.48	5.43	5.01	8.64	-0.02	D3
16-Jun-11	11:13:22	13.46	5.44	4.80	8.30	-0.02	D3
16-Jun-11	11:13:52	13.44	5.46	4.36	8.69	-0.01	D3
16-Jun-11	11:14:22	13.46	5.44	4.24	9.43	-0.02	D3
16-Jun-11	11:14:52	13.50	5.41	4.84	9.95	-0.02	D3
16-Jun-11	11:15:22	13.51	5.40	5.44	9.93	0.00	D3
16-Jun-11	11:15:52	13.51	5.40	5.67	9.47	0.12	D3

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Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V,d	ppmVd	ppmVd	ppmVd	ppmVd	
Average:	11:15:52	13.48	5.43	4.83	9.39	0.00	D3
16-Jun-11	11:24:26	13.38	5.50	4.81	9.52	0.09	B1
16-Jun-11	11:24:56	13.40	5.49	4.24	9.61	0.11	B1
16-Jun-11	11:25:26	13.49	5.42	5.45	9.18	0.09	B1
16-Jun-11	11:25:56	13.52	5.39	7.45	7.82	0.09	B1
16-Jun-11	11:26:26	13.52	5.39	7.85	6.82	0.10	B1
16-Jun-11	11:26:56	13.50	5.41	7.37	6.78	0.10	B1
16-Jun-11	11:27:26	13.45	5.45	6.31	7.54	0.11	B1
16-Jun-11	11:27:56	13.48	5.43	5.84	9.01	0.12	B1
16-Jun-11	11:28:26	13.47	5.43	5.94	10.17	0.12	B1
16-Jun-11	11:28:57	13.46	5.44	5.69	10.61	0.10	B1
Average:	11:28:57	13.47	5.44	6.09	8.71	0.10	B1
16-Jun-11	11:29:48	13.43	5.47	5.15	10.02	0.09	B2
16-Jun-11	11:30:17	13.43	5.47	4.89	9.14	0.09	B2
16-Jun-11	11:30:47	13.44	5.46	5.04	8.27	0.08	B2
16-Jun-11	11:31:18	13.43	5.46	5.29	7.28	0.09	B2
16-Jun-11	11:31:47	13.43	5.46	5.37	6.41	0.09	B2
16-Jun-11	11:32:17	13.36	5.52	4.96	6.26	0.09	B2
16-Jun-11	11:32:47	13.34	5.54	4.55	6.17	0.07	B2
16-Jun-11	11:33:17	13.38	5.51	4.51	6.55	0.09	B2
16-Jun-11	11:33:47	13.49	5.42	6.26	7.00	0.09	B2
16-Jun-11	11:34:17	13.52	5.39	8.80	6.78	0.11	B2
16-Jun-11	11:34:47	13.53	5.39	9.00	6.46	0.11	B2
Average:	11:34:47	13.43	5.46	5.80	7.30	0.09	B2
16-Jun-11	11:35:25	13.50	5.41	7.83	7.25	0.10	B3
16-Jun-11	11:35:55	13.49	5.42	7.41	8.64	0.09	B3
16-Jun-11	11:36:25	13.49	5.42	6.98	9.83	0.09	B3
16-Jun-11	11:36:55	13.49	5.42	6.85	10.35	0.09	B3
16-Jun-11	11:37:25	13.49	5.42	6.69	9.98	0.08	B3
16-Jun-11	11:37:55	13.46	5.44	6.47	9.07	0.09	B3
16-Jun-11	11:38:25	13.45	5.45	5.88	8.20	0.09	B3
16-Jun-11	11:38:55	13.44	5.46	5.52	7.57	0.09	B3
16-Jun-11	11:39:25	13.41	5.48	5.28	7.23	0.08	B3
16-Jun-11	11:39:55	14.62	4.86	5.03	7.13	1.17	B3
Average:	11:39:55	13.58	5.38	6.39	8.53	0.20	B3
16-Jun-11	11:43:15	13.65	5.32	5.48	10.62	0.18	A1
16-Jun-11	11:43:44	13.44	5.46	5.16	11.24	0.11	A1
16-Jun-11	11:44:14	13.42	5.48	4.73	11.67	0.09	A1
16-Jun-11	11:44:44	13.44	5.46	4.51	11.86	0.10	A1
16-Jun-11	11:45:15	13.44	5.46	5.05	11.22	0.09	A1
16-Jun-11	11:45:44	13.44	5.46	5.10	10.10	0.09	A1
16-Jun-11	11:46:14	13.41	5.48	4.98	9.20	0.09	A1
16-Jun-11	11:46:44	13.39	5.50	4.83	8.95	0.10	A1
16-Jun-11	11:47:15	13.34	5.54	4.42	9.09	0.09	A1
16-Jun-11	11:47:44	13.39	5.51	4.22	9.57	0.11	A1
Average:	11:47:44	13.44	5.47	4.85	10.35	0.10	A1
16-Jun-11	11:50:00	13.52	5.39	7.11	9.31	0.13	A2
16-Jun-11	11:50:30	13.51	5.40	7.09	10.91	0.14	A2
16-Jun-11	11:51:00	13.50	5.41	6.64	11.94	0.13	A2
16-Jun-11	11:51:30	13.48	5.43	6.30	12.06	0.12	A2
16-Jun-11	11:52:00	13.48	5.43	5.92	11.30	0.13	A2
16-Jun-11	11:52:30	13.47	5.44	5.78	10.20	0.14	A2

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Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V,d	ppmVd	ppmVd	ppmVd	ppmVd	
16-Jun-11	11:53:00	13.45	5.45	5.47	9.32	0.13	A2
16-Jun-11	11:53:30	13.43	5.47	5.16	8.81	0.12	A2
16-Jun-11	11:54:00	13.90	5.15	4.58	8.51	0.35	A2
16-Jun-11	11:54:30	13.49	5.38	4.00	8.14	0.16	A2
Average:	11:54:30	13.52	5.39	5.80	10.05	0.16	A2
16-Jun-11	11:55:24	13.36	5.52	4.33	8.21	0.15	A3
16-Jun-11	11:55:54	13.47	5.44	5.25	8.13	0.15	A3
16-Jun-11	11:56:24	13.50	5.41	7.40	7.38	0.15	A3
16-Jun-11	11:56:55	13.52	5.39	8.22	6.70	0.14	A3
16-Jun-11	11:57:24	13.49	5.41	7.59	7.12	0.13	A3
16-Jun-11	11:57:54	13.49	5.41	6.76	8.65	0.11	A3
16-Jun-11	11:58:24	13.49	5.42	6.65	10.54	0.10	A3
16-Jun-11	11:58:55	13.48	5.42	6.31	11.79	0.11	A3
16-Jun-11	11:59:24	13.41	5.47	5.93	11.58	0.10	A3
16-Jun-11	11:59:54	13.39	5.50	5.12	10.36	0.10	A3
Average:	11:59:54	13.46	5.44	6.36	9.05	0.12	A3
Average:	12:59:54	13.48	5.43	5.74	8.76	0.09	R2 AVG
16-Jun-11	12:01:50	0.02	-0.04	8.99	8.73	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:01:56	0.02	-0.04	8.99	8.73	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:00	0.02	-0.04	9.00	8.74	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:05	0.02	-0.04	9.05	8.75	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:10	0.02	-0.04	9.06	8.76	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:15	0.02	-0.04	9.13	8.77	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:21	0.02	-0.04	9.12	8.77	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:25	0.02	-0.04	9.09	8.77	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:30	0.02	-0.04	9.08	8.77	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:35	0.02	-0.04	9.03	8.77	0.01	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:40	0.02	-0.04	9.03	8.77	0.09	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:45	0.02	-0.04	9.03	8.77	0.10	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:50	0.02	-0.04	9.03	8.77	0.06	Cal:NO=8.8 co=9.1
16-Jun-11	12:02:55	0.02	-0.04	9.01	8.77	0.11	Cal:NO=8.8 co=9.1
16-Jun-11	12:03:00	0.01	-0.04	9.02	8.77	0.10	Cal:NO=8.8 co=9.1
16-Jun-11	12:03:05	0.02	-0.04	9.07	8.77	0.09	Cal:NO=8.8 co=9.1
Average:	12:03:06	0.02	-0.04	9.05	8.76	0.04	Cal:NO=8.8 co=9.1
Gas Value:	12:03:06	0	8.8	9.1	#N/A	#N/A	NO=8.8 co=9.1
Diff%ofSpan	12:03:06	0.08%	-49.12%	-0.06%	#N/A	#N/A	
16-Jun-11	12:04:42	9.02	9.06	0.11	0.05	0.13	Cal:O2=9 CO2=8.9
16-Jun-11	12:04:47	9.02	9.06	0.13	0.05	0.11	Cal:O2=9 CO2=8.9
16-Jun-11	12:04:52	9.02	9.07	0.13	0.04	0.09	Cal:O2=9 CO2=8.9
16-Jun-11	12:04:57	9.02	9.07	0.13	0.04	0.09	Cal:O2=9 CO2=8.9
16-Jun-11	12:05:02	9.02	9.07	0.13	0.03	0.10	Cal:O2=9 CO2=8.9
16-Jun-11	12:05:07	9.02	9.07	0.13	0.03	0.09	Cal:O2=9 CO2=8.9
16-Jun-11	12:05:13	9.02	9.07	0.11	0.03	0.14	Cal:O2=9 CO2=8.9
Average:	12:05:13	9.02	9.07	0.12	0.04	0.11	Cal:O2=9 CO2=8.9
Gas Value:	12:05:13	9	8.9	0	#N/A	#N/A	O2=9 CO2=8.9
Diff%ofSpan	12:05:13	0.09%	0.93%	0.13%	#N/A	#N/A	
16-Jun-11	12:07:02	20.45	0.04	0.13	0.07	3.01	Cal:HC=3
16-Jun-11	12:07:07	20.46	0.04	0.13	0.07	3.04	Cal:HC=3
16-Jun-11	12:07:12	20.47	0.03	0.11	0.08	3.04	Cal:HC=3
16-Jun-11	12:07:17	20.47	0.03	0.11	0.08	3.01	Cal:HC=3
16-Jun-11	12:07:22	20.47	0.03	0.13	0.08	3.04	Cal:HC=3
16-Jun-11	12:07:27	20.47	0.03	0.15	0.08	3.04	Cal:HC=3

Source Testing and Consulting Services, Inc.

Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V,d	ppmVd	ppmVd	ppmVd	ppmVd	
Average:	12:07:27	20.47	0.03	0.12	0.08	3.03	Cal:HC=3
Gas Value:	12:07:27	0	0	0	#N/A	3	HC=3
Diff%ofSpan	12:07:27	93.02%	0.19%	0.14%	#N/A	0.03%	
16-Jun-11	12:09:39	13.39	5.52	5.15	9.72	0.08	A1
16-Jun-11	12:10:09	13.40	5.50	5.41	8.50	0.08	A1
16-Jun-11	12:10:39	13.40	5.50	5.85	8.26	0.10	A1
16-Jun-11	12:11:09	13.40	5.50	5.87	8.87	0.10	A1
16-Jun-11	12:11:39	13.44	5.46	6.08	10.18	0.07	A1
16-Jun-11	12:12:09	13.47	5.43	6.99	11.44	0.11	A1
16-Jun-11	12:12:39	13.49	5.41	7.40	12.14	0.10	A1
16-Jun-11	12:13:09	13.48	5.42	7.01	12.29	0.11	A1
16-Jun-11	12:13:39	13.46	5.44	6.32	11.92	0.11	A1
16-Jun-11	12:14:09	13.45	5.44	5.82	11.49	0.10	A1
Average:	12:14:09	13.44	5.46	6.19	10.48	0.09	A1
16-Jun-11	12:16:06	13.33	5.54	4.58	8.34	0.10	A2
16-Jun-11	12:16:36	13.31	5.56	4.17	7.78	0.08	A2
16-Jun-11	12:17:06	13.36	5.52	4.33	7.93	0.10	A2
16-Jun-11	12:17:36	13.40	5.49	5.35	8.05	0.11	A2
16-Jun-11	12:18:06	13.45	5.45	6.64	7.82	0.12	A2
16-Jun-11	12:18:36	13.46	5.44	7.22	7.80	0.11	A2
16-Jun-11	12:19:06	13.46	5.44	6.73	9.09	0.11	A2
16-Jun-11	12:19:36	13.46	5.44	6.47	10.95	0.12	A2
16-Jun-11	12:20:07	13.46	5.44	6.28	12.43	0.10	A2
16-Jun-11	12:20:36	13.44	5.46	5.84	12.60	0.12	A2
Average:	12:20:36	13.41	5.48	5.76	9.28	0.11	A2
16-Jun-11	12:27:57	13.48	5.41	7.15	11.22	0.09	A3
16-Jun-11	12:28:27	13.45	5.44	7.47	9.56	0.09	A3
16-Jun-11	12:28:57	13.38	5.49	6.31	8.30	0.08	A3
16-Jun-11	12:29:27	13.43	5.46	5.46	8.01	0.09	A3
16-Jun-11	12:29:57	13.41	5.47	5.71	8.43	0.08	A3
16-Jun-11	12:30:27	13.35	5.51	5.25	9.03	0.08	A3
16-Jun-11	12:30:57	13.34	5.53	4.62	9.22	0.08	A3
16-Jun-11	12:31:27	13.36	5.51	4.57	9.33	0.07	A3
16-Jun-11	12:31:57	13.38	5.49	5.25	8.84	0.09	A3
16-Jun-11	12:32:27	14.10	5.18	6.21	8.10	0.78	A3
Average:	12:32:27	13.47	5.45	5.80	9.00	0.15	A3
16-Jun-11	12:49:29	13.60	5.35	7.36	10.21	0.11	B1
16-Jun-11	12:49:59	13.44	5.44	7.90	10.41	0.04	B1
16-Jun-11	12:50:29	13.45	5.43	7.50	10.25	0.04	B1
16-Jun-11	12:50:59	13.46	5.43	7.16	9.68	0.04	B1
16-Jun-11	12:51:29	13.42	5.45	6.96	9.44	0.03	B1
16-Jun-11	12:51:59	13.38	5.49	6.09	8.77	0.01	B1
16-Jun-11	12:52:30	13.34	5.52	5.41	8.17	0.01	B1
16-Jun-11	12:52:59	13.31	5.55	4.90	7.86	0.01	B1
16-Jun-11	12:53:29	13.34	5.53	4.82	7.91	0.01	B1
16-Jun-11	12:53:59	13.38	5.50	6.04	7.61	0.01	B1
Average:	12:53:59	13.41	5.47	6.41	9.03	0.03	B1
16-Jun-11	12:54:49	13.37	5.50	6.84	6.98	0.00	B2
16-Jun-11	12:55:19	13.34	5.52	6.74	7.09	0.01	B2
16-Jun-11	12:55:49	13.33	5.53	5.96	7.47	0.02	B2
16-Jun-11	12:56:19	13.34	5.53	6.21	8.60	0.01	B2
16-Jun-11	12:56:49	13.34	5.53	6.44	9.26	0.03	B2

Source Testing and Consulting Services, Inc.

Instrumental Reference Method On-Line Data

	Parameter	O2	CO2	CO	NOx	CH4	Comments
	Units	%V,d	ppmVd	ppmVd	ppmVd	ppmVd	
16-Jun-11	12:57:19	13.37	5.51	6.53	9.38	0.01	B2
16-Jun-11	12:57:49	13.37	5.51	7.38	8.52	0.02	B2
16-Jun-11	12:58:22	13.34	5.53	7.33	7.65	0.02	B2
16-Jun-11	12:58:49	13.32	5.56	6.42	7.34	0.01	B2
16-Jun-11	12:59:20	13.39	5.51	6.25	7.53	0.02	B2
Average:	12:59:20	13.35	5.52	6.61	7.98	0.01	B2
16-Jun-11	13:00:49	13.35	5.55	6.77	7.63	0.04	B3
16-Jun-11	13:01:20	13.34	5.56	6.17	7.74	0.02	B3
16-Jun-11	13:01:49	13.38	5.55	6.29	8.19	0.03	B3
16-Jun-11	13:02:19	13.43	5.53	6.86	8.59	0.02	B3
16-Jun-11	13:02:49	13.47	5.52	8.31	8.13	0.03	B3
16-Jun-11	13:03:20	13.48	5.53	8.44	7.54	0.02	B3
16-Jun-11	13:03:49	13.45	5.64	7.77	7.32	0.02	B3
16-Jun-11	13:04:19	13.37	5.79	6.73	7.32	0.01	B3
16-Jun-11	13:04:49	13.32	5.90	5.43	7.22	0.00	B3
16-Jun-11	13:05:20	13.30	5.95	4.86	7.24	0.00	B3
Average:	13:05:20	13.39	5.65	6.76	7.69	0.02	B3
16-Jun-11	13:15:17	13.37	5.59	7.90	7.08	0.03	C1
16-Jun-11	13:15:47	13.36	5.59	6.91	7.24	0.04	C1
16-Jun-11	13:16:17	13.34	5.60	6.26	7.97	0.03	C1
16-Jun-11	13:16:47	13.34	5.58	6.05	8.76	0.02	C1
16-Jun-11	13:17:17	13.34	5.60	6.14	9.35	0.02	C1
16-Jun-11	13:17:47	13.35	5.60	6.59	9.00	0.03	C1
16-Jun-11	13:18:17	13.37	5.59	7.13	8.06	0.04	C1
16-Jun-11	13:18:47	13.39	5.57	7.48	7.38	0.04	C1
16-Jun-11	13:19:17	13.40	5.56	7.89	7.34	0.03	C1
16-Jun-11	13:19:47	13.37	5.56	8.06	7.26	0.04	C1
Average:	13:19:47	13.36	5.58	7.04	7.94	0.03	C1
16-Jun-11	13:21:47	13.33	5.80	6.53	8.80	0.05	C2
16-Jun-11	13:22:17	13.35	6.13	6.41	8.50	0.05	C2
16-Jun-11	13:22:47	13.37	6.02	7.21	7.82	0.04	C2
16-Jun-11	13:23:17	13.38	6.02	7.69	6.47	0.04	C2
16-Jun-11	13:23:47	13.38	5.78	7.48	5.98	0.04	C2
16-Jun-11	13:24:17	13.34	5.69	6.97	6.03	0.03	C2
16-Jun-11	13:24:47	13.34	5.67	6.35	6.88	0.03	C2
16-Jun-11	13:25:17	13.33	5.70	6.06	7.96	0.05	C2
16-Jun-11	13:25:47	13.33	5.70	6.29	8.43	0.04	C2
16-Jun-11	13:26:17	13.36	5.71	6.57	8.43	0.04	C2
Average:	13:26:17	13.35	5.82	6.76	7.53	0.04	C2
16-Jun-11	13:27:00	13.37	5.68	7.51	7.30	0.04	C3
16-Jun-11	13:27:31	13.35	5.66	7.01	6.52	0.04	C3
16-Jun-11	13:28:00	13.35	5.68	6.39	6.58	0.05	C3
16-Jun-11	13:28:30	13.35	5.60	6.30	7.35	0.04	C3
16-Jun-11	13:29:00	13.37	5.54	6.87	7.71	0.05	C3
16-Jun-11	13:29:31	13.35	5.54	7.04	7.45	0.05	C3
16-Jun-11	13:30:00	13.36	5.53	6.48	7.59	0.05	C3
16-Jun-11	13:30:30	13.37	5.51	6.68	7.61	0.03	C3
16-Jun-11	13:31:00	13.37	5.51	6.93	7.71	0.03	C3
16-Jun-11	13:31:30	13.41	5.47	7.54	7.59	0.03	C3
Average:	13:31:30	13.37	5.57	6.88	7.34	0.04	C3
16-Jun-11	13:37:00	13.36	5.47	6.99	7.23	0.03	D1
16-Jun-11	13:37:30	13.35	5.48	6.65	7.37	0.06	D1

Source Testing and Consulting Services, Inc.
Instrumental Reference Method On-Line Data

	Parameter Units	O2 %V,d	CO2 ppmVd	CO ppmVd	NOx ppmVd	CH4 ppmVd	Comments
16-Jun-11	13:38:00	13.33	5.50	5.92	8.54	0.05	D1
16-Jun-11	13:38:30	13.30	5.52	5.45	10.08	0.03	D1
16-Jun-11	13:39:00	13.33	5.50	5.11	11.37	0.04	D1
16-Jun-11	13:39:30	13.37	5.47	5.91	11.50	0.03	D1
16-Jun-11	13:40:00	13.40	5.50	6.66	10.17	0.03	D1
16-Jun-11	13:40:30	13.37	5.49	6.13	8.93	0.03	D1
16-Jun-11	13:41:00	13.36	5.52	5.78	8.25	0.03	D1
16-Jun-11	13:41:30	13.36	5.53	5.25	8.64	0.06	D1
Average:	13:41:30	13.35	5.50	5.98	9.21	0.04	D1
16-Jun-11	13:44:18	13.45	5.50	6.40	9.12	0.04	D2
16-Jun-11	13:44:48	13.66	5.73	6.22	10.06	0.06	D2
16-Jun-11	13:45:18	13.46	5.59	5.88	10.64	0.07	D2
16-Jun-11	13:45:48	13.66	5.84	5.49	10.59	0.09	D2
16-Jun-11	13:46:18	13.41	5.58	5.27	10.28	0.06	D2
16-Jun-11	13:46:48	13.37	5.60	5.17	9.61	0.06	D2
16-Jun-11	13:47:18	13.39	5.54	5.28	8.73	0.08	D2
16-Jun-11	13:47:48	13.64	5.85	5.47	8.05	0.10	D2
16-Jun-11	13:48:18	13.64	5.71	6.16	7.78	0.09	D2
16-Jun-11	13:48:48	13.50	5.56	6.92	7.53	0.09	D2
Average:	13:48:48	13.52	5.65	5.83	9.24	0.07	D2
16-Jun-11	13:57:13	13.56	5.10	5.90	10.29	0.13	D3
16-Jun-11	13:57:43	13.46	5.06	5.41	9.31	0.12	D3
16-Jun-11	13:58:13	13.46	5.82	4.92	8.70	0.11	D3
16-Jun-11	13:58:43	13.46	5.94	5.91	8.33	0.12	D3
16-Jun-11	13:59:13	13.41	5.76	6.49	7.73	0.11	D3
16-Jun-11	13:59:43	13.37	5.82	5.98	7.73	0.07	D3
16-Jun-11	14:00:13	13.39	5.92	5.45	8.38	0.09	D3
16-Jun-11	14:00:43	13.44	5.01	5.02	9.49	0.09	D3
16-Jun-11	14:01:13	13.44	5.88	4.88	10.16	0.09	D3
16-Jun-11	14:01:43	13.50	5.12	5.26	10.26	0.12	D3
Average:	14:01:43	13.45	5.54	5.52	9.04	0.10	D3
Average:	15:01:43	13.41	5.56	6.30	8.65	0.06	R3 AVG
16-Jun-11	14:03:41	15.15	6.24	6.60	8.39	0.13	
16-Jun-11	14:04:10	17.38	6.16	6.01	9.23	0.14	
Average:	14:04:21	16.26	6.20	6.30	8.81	0.13	
16-Jun-11	14:07:41	8.99	8.95	-0.04	0.01	0.04	Cal:O2=9 CO2=8.9
16-Jun-11	14:07:47	8.98	8.92	-0.06	0.00	0.08	Cal:O2=9 CO2=8.9
16-Jun-11	14:07:51	8.97	8.86	-0.08	0.00	0.04	Cal:O2=9 CO2=8.9
16-Jun-11	14:07:56	8.98	8.86	-0.08	0.00	0.08	Cal:O2=9 CO2=8.9
16-Jun-11	14:08:01	8.99	8.96	-0.04	0.00	0.08	Cal:O2=9 CO2=8.9
Average:	14:08:01	8.98	8.91	-0.06	0.00	0.06	Cal:O2=9 CO2=8.9
Gas Value:	14:08:01	9	8.9	0	#N/A	#N/A	O2=9 CO2=8.9
Diff%ofSpan	14:08:01	-0.08%	0.05%	-0.07%	#N/A	#N/A	
16-Jun-11	14:12:19	0.02	0.04	8.97	8.81	5.73	Cal:NO=8.8 co=9.1
16-Jun-11	14:12:24	0.02	0.09	8.98	8.80	4.49	Cal:NO=8.8 co=9.1
16-Jun-11	14:12:29	0.04	0.08	8.99	8.79	3.77	Cal:NO=8.8 co=9.1
16-Jun-11	14:12:34	0.03	0.08	8.99	8.79	3.57	Cal:NO=8.8 co=9.1
16-Jun-11	14:12:39	0.07	0.09	8.99	8.79	3.63	Cal:NO=8.8 co=9.1
16-Jun-11	14:12:44	0.04	0.04	8.98	8.79	5.80	Cal:NO=8.8 co=9.1
Average:	14:12:47	0.04	0.07	8.98	8.79	4.50	Cal:NO=8.8 co=9.1
Gas Value:	14:12:47	0	8.8	9.1	#N/A	#N/A	NO=8.8 co=9.1
Diff%ofSpan	14:12:47	0.17%	-48.49%	-0.13%	#N/A	#N/A	

Source Testing and Consulting Services, Inc.

Instrumental Reference Method On-Line Data

	Parameter Units	O2 %V,d	CO2 ppmVd	CO ppmVd	NOx ppmVd	CH4 ppmVd	Comments
16-Jun-11	14:14:52	7.70	0.98	8.13	8.66	2.98	
16-Jun-11	14:14:57	12.69	0.90	8.00	8.67	3.05	
16-Jun-11	14:15:02	15.76	0.88	7.73	6.82	2.45	
16-Jun-11	14:15:07	17.62	1.11	7.63	6.38	2.36	
16-Jun-11	14:15:12	18.99	1.17	7.53	4.52	2.45	
16-Jun-11	14:15:17	20.07	1.05	7.43	4.05	3.87	
16-Jun-11	14:15:22	20.56	0.75	7.29	3.45	8.03	
16-Jun-11	14:15:27	20.77	0.67	7.12	3.30	3.43	
16-Jun-11	14:15:32	20.87	0.82	6.86	2.75	3.19	
16-Jun-11	14:15:37	21.09	1.00	6.72	2.61	2.95	
16-Jun-11	14:15:42	21.56	0.97	6.43	2.56	2.83	
16-Jun-11	14:15:47	21.70	0.82	6.18	2.56	3.30	
16-Jun-11	14:15:53	21.45	0.98	6.00	2.54	3.87	
16-Jun-11	14:15:57	21.32	1.16	5.87	2.54	3.27	
16-Jun-11	14:16:02	21.44	1.14	5.74	2.47	3.32	
16-Jun-11	14:16:07	21.12	0.46	5.69	2.43	3.13	
16-Jun-11	14:16:12	21.40	0.58	5.47	2.41	3.33	
16-Jun-11	14:16:18	21.21	0.68	5.29	2.40	3.14	
16-Jun-11	14:16:22	21.19	0.81	5.07	2.31	3.28	
16-Jun-11	14:16:27	21.42	0.74	4.85	2.30	3.15	
16-Jun-11	14:16:32	21.67	0.81	4.51	2.23	3.90	
16-Jun-11	14:16:37	21.37	1.03	4.39	2.23	3.46	
Average:	14:16:41	19.68	0.89	6.36	3.65	3.40	
Gas Value:	14:16:41	0	0	0	#N/A	3	
Diff%ofSpan	14:16:41	89.45%	4.93%	6.96%	#N/A	0.40%	
16-Jun-11	14:17:11	21.19	0.83	0.06	0.09	2.95	Cal:HC=3
16-Jun-11	14:17:16	21.31	0.67	0.06	0.08	2.93	Cal:HC=3
16-Jun-11	14:17:21	21.27	0.84	0.11	0.09	2.95	Cal:HC=3
16-Jun-11	14:17:26	21.40	1.05	0.10	0.00	2.95	Cal:HC=3
16-Jun-11	14:17:31	21.66	0.87	0.01	0.01	2.95	Cal:HC=3
16-Jun-11	14:17:36	21.49	0.84	0.05	0.07	2.92	Cal:HC=3
16-Jun-11	14:17:41	21.31	1.06	0.40	0.64	2.92	Cal:HC=3
Average:	14:17:45	21.38	0.88	0.11	0.14	2.94	Cal:HC=3
Gas Value:	14:17:45	0	0	0	#N/A	3	HC=3
Diff%ofSpan	14:17:45	97.17%	4.88%	0.12%	#N/A	-0.06%	

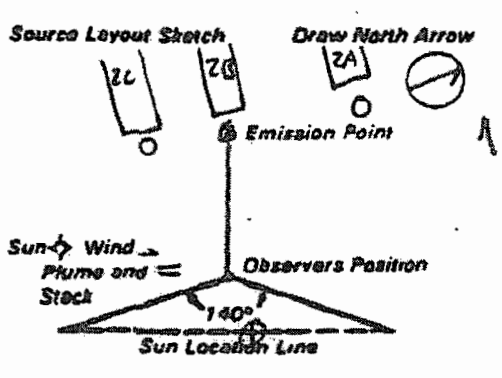

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NH3

STAGS ISOKINETIC SAMPLING FIELD DATA SHEET

Facility:	MNSU			Meter #:	A-4			Baro. Press.:				Page #:	1/1		
Unit:	2B			DHO:	1.7870			Ambient Temp:	78°			Pilot LC:	✓		
Location:	5th			DGM Factor:	.9912			Nozzle Dia:	.218						
Test Type:	CTM-007			Pilot #:	R018			Static P.:	228						
Run #:	1 21			Pilot Coef.:	.84			Stack Dimensions:							
Condition:	Bona			K-Factor:	1.6			Stack Height:							
Operator(s):	CLT			Filter #:				Init. Leak Check:	0.010 cfm@ 13 Hg						
Date:	6/16							Final Leak Check:	0.014 cfm@ 8 Hg						
Traverse Point Number	Time	Gas Meter Reading (m³)	Velocity Head (H2O)	Orifice Press (H2O)	Stack Temp (F)	Probe Temp (F)	Filter Temp (F)	Impinger Temp (F)	Dry Gas Meter Temp		Vacuum (Hg)				
									Initial (F)	Outlet (F)					
D	0849	182.082	1.1	1.8	308	266	257	56	79	74	4				
	0853	183.81	1.1	1.8	308	266	257	56	79	74	4				
	0858	187.53	1.1	1.8	307	267	255	49	84	75	4				
2	0903	190.840	.85	1.4	305	262	255	48	85	76	3				
	0906														
	0911	194.6	1.1	1.8	307	256	252	55	85	76	4				
C	0916	198.29	1.1	1.8	306	261	256	48	87	77	4				
	0921	201.614	.85	1.4	303	264	258	48	88	78	3				
	0922														
B	0937	206.08	1.5	2.4	312	267	260	52	86	79	5.6				
	0942	210.53	1.6	2.6	311	259	255	48	89	79	6				
	0947	214.950	1.5	2.4	308	258	258	50	89	80	6				
A	1025														
	1030	219.15	1.4	2.2	314	262	257	62	88	81	4.5				
	1035	223.77	1.7	2.7	314	262	257	48	91	81	6				
1	1040	228.343	1.6	2.6	311	260	261	51	90	82	6				
	1058	228.770	1.5	2.4	315	259	254	59	91	85	4				
	1103	233.10	1.5	2.4	315	259	254	59	91	85	4				
2	1108	237.67	1.6	2.6	313	267	247	55	94	86	4				
	1113	242.162	1.6	2.6	311	261	261	62	94	87	4				
	1139														
B	1144	246.46	1.5	2.4	314	263	259	65	90	88	4				
	1149	250.82	1.5	2.4	313	263	258	58	93	88	4				
	1154	255.029	1.4	2.2	312	268	264	61	94	88	4				
C	1158														
	1203	258.8	1.1	1.8	315	263	256	64	92	88	3				
	1208	262.48	1.1	1.8	314	257	246	60	92	88	3				
3	1213	265.746	.85	1.4	312	251	257	61	92	88	3				
	1218														
	1220	269.44	1.1	1.8	317	264	258	61	92	88	3				
D	1225	273.19	1.1	1.8	316	264	258	60	92	88	3				
	1230	276.595	.85	1.4	313	263	258	62	92	88	3				
Avg/Tot.															
Impinger												Total Traverse Point %s			
Filter												6 Point (4.4) (14.0) (23.0) (76.4) (85.4) (85.6)			
Initial												12 Point (2.1) (8.7) (11.0) (17.7) (25.0) (35.6) (41.4) (75.0) (82.3) (88.7) (93.5) (97.9)			
Total												Note: Nearest upstream disturbance or exit must be 2 duct diameters away and nearest downstream disturbance must be at least 8 diameters away to use 6 points per traverse.			
O3															
CO2															

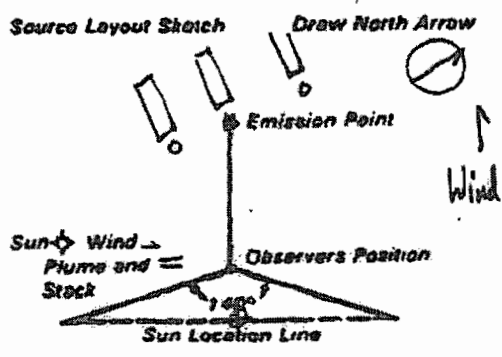
Run 2
pre leak check
0.000 @ B
Post leak check
0.000 @ 6
Ambient Temp 88°

Visible Emission Observation Form

SOURCE NAME		OBSERVATION DATE				START TIME		STOP TIME			
EPL/Mitsubishi Unit 2B		6/16/11				0842 56		0956			
ADDRESS		SEC		MIN		SEC		MIN		MIN	
20505 Southern Blvd		0	15	30	45	0	15	30	45		
CITY		STATE		ZIP		MIN		MIN		MIN	
Loxahatchee,		FL				31		0		0	
PHONE		SOURCE ID NUMBER				32		0		0	
PROCESS EQUIPMENT		OPERATING MODE				33		0		0	
Comb. Cyc. Combustion Turbine		Base, Oil				34		0		0	
CONTROL EQUIPMENT		OPERATING MODE				35		0		0	
SCR						36		0		0	
DESCRIBE EMISSION POINT		START		STOP		37		0		0	
Circular metal stack on End of HRSG		Circular metal stack		Same		38		0		0	
HEIGHT ABOVE GROUND LEVEL		HEIGHT RELATIVE TO OBSERVER				39		0		0	
START ~150' STOP ~150'		START ~150' STOP ~150'				40		0		0	
DISTANCE FROM OBSERVER		DIRECTION FROM OBSERVER				41		0		0	
START ~450' STOP ~450'		START 275° STOP 275°				42		0		0	
DESCRIBE EMISSIONS		START		STOP		43		0		0	
None observed		None observed				44		0		0	
EMISSION COLOR		PLUME TYPE: CONTINUOUS <input checked="" type="checkbox"/>		FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>		45		0		0	
START Faint STOP Faint						46		0		0	
WATER DROPLETS PRESENT		IF WATER DROPLET PLUME				47		0		0	
NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>		ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>				48		0		0	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED		START		STOP		49		0		0	
Stack Outlet		Stack Outlet				50		0		0	
DESCRIBE BACKGROUND		START		STOP		51		0		0	
Sky		Sky				52		0		0	
BACKGROUND COLOR		SKY CONDITIONS				53		0		0	
START Blue STOP Blue		START Scattered STOP Same				54		0		0	
WIND SPEED		WIND DIRECTION				55		0		0	
START 5-10 STOP 5-10		START W STOP NW				56		0		0	
AMBIENT TEMP.		WET BULB TEMP.		RH, percent		57		0		0	
START 82 STOP 84		62		62		58		0		0	
59		60		61		62		0		0	
Source Layout Sketch		Draw North Arrow				63		0		0	
						64		0		0	
AVERAGE OPACITY FOR HIGHEST PERIOD		NUMBER OF READINGS ABOVE % WERE				65		0		0	
RANGE OF OPACITY READINGS		MINIMUM		MAXIMUM		66		0		0	
OBSERVER'S NAME (PRINT)		OBSERVER'S SIGNATURE		DATE		67		0		0	
Joshua Gelston				6/16/11		68		0		0	
COMMENTS		ORGANIZATION		DATE		69		0		0	
		Source Testing & Consulting Services		4/13/11		70		0		0	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE		CERTIFIED BY		DATE		71		0		0	
		State of Georgia		4/13/11		72		0		0	
TITLE		DATE		DATE		73		0		0	
						74		0		0	

Visible Emission Observation Form

SOURCE NAME		OBSERVATION DATE		START TIME		STOP TIME					
FPL/Mitsubishi Unit 2B		6-16-11		1041		1141					
ADDRESS		MIN		SEC		MIN		SEC			
20505 Southern Blvd		0	15	30	45	0	15	30	45		
CITY	STATE	ZIP	1		2		3		4		
Coxahatchee	FL		0	0	0	0	0	0	0	0	
PHONE		SOURCE ID NUMBER		4		5		6		7	
PROCESS EQUIPMENT		OPERATING MODE		8		9		10		11	
Combustion Turbine, Combined Cycle		Base, Oil		0	0	0	0	0	0	0	0
CONTROL EQUIPMENT		OPERATING MODE		12		13		14		15	
SCR				0	0	0	0	0	0	0	0
DESCRIBE EMISSION POINT		HEIGHT ABOVE GROUND LEVEL		16		17		18		19	
START Circular metal stack on End of HRSG		START "150" STOP "150"		0	0	0	0	0	0	0	0
STOP Same		START "150" STOP "150"		20		21		22		23	
DISTANCE FROM OBSERVER		DIRECTION FROM OBSERVER		24		25		26		27	
START "450" STOP "450"		START "240" STOP "240"		0	0	0	0	0	0	0	0
DESCRIBE EMISSIONS		EMMISSION COLOR		28		29		30		31	
START None observed		START Tan w/ dust STOP Same		0	0	0	0	0	0	0	0
STOP None observed		PLUME TYPE CONTINUOUS <input checked="" type="checkbox"/>		32		33		34		35	
		FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>		0	0	0	0	0	0	0	0
WATER DROPLETS PRESENT		IF WATER DROPLET PLUME		36		37		38		39	
NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>		ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>		0	0	0	0	0	0	0	0
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED		DESCRIBE BACKGROUND		40		41		42		43	
START Stack Outlet		START Sky		0	0	0	0	0	0	0	0
STOP Same		STOP Sky		44		45		46		47	
BACKGROUND COLOR		SKY CONDITIONS		48		49		50		51	
START Blue		START Clear STOP Same		0	0	0	0	0	0	0	0
STOP Blue		WIND DIRECTION		52		53		54		55	
START 3-5		START NW		0	0	0	0	0	0	0	0
STOP 3-5		STOP NW		56		57		58		59	
AMBIENT TEMP.		WET BULB TEMP.		60		61		62		63	
START 86		RH, percent		0	0	0	0	0	0	0	0
STOP 86		55		64		65		66		67	
AVERAGE OPACITY FOR HIGHEST PERIOD		RANGE OF OPACITY READINGS		68		69		70		71	
0		MINIMUM		0	MAXIMUM		0	NUMBER OF READINGS ABOVE % WERE		0	
OBSERVER'S NAME (PRINT)		OBSERVER'S SIGNATURE		72		73		74		75	
Joshua Gelston		[Signature]		DATE		DATE		DATE		DATE	
6-16-11		6-16-11		76		77		78		79	
ORGANIZATION		CERTIFIED BY		80		81		82		83	
Source Testing & Consulting Services		State of Georgia		DATE		DATE		DATE		DATE	
4-13-11		VERIFIED BY		84		85		86		87	
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS		TITLE		88		89		90		91	
SIGNATURE		DATE		92		93		94		95	



Visible Emission Observation Form

SOURCE NAME			OBSERVATION DATE				START TIME		STOP TIME					
EPL/Mitsubishi Unit 2B			6/16/11				1326		1426					
ADDRESS			SEC		SEC		SEC		SEC					
20505 Southern Blvd.			MIN	0	15	30	45	MIN	0	15	30	45		
CITY			STATE		ZIP		1	0	15	30	45	0		
Loxahatchee, FL			FL				2	0	15	30	45	0		
PHONE			SOURCE ID NUMBER											
PROCESS EQUIPMENT			OPERATING MODE											
Comb. Cyc. Combustion Turbine			Base Oil											
CONTROL EQUIPMENT			OPERATING MODE											
SCR														
DESCRIBE EMISSION POINT			START											
Circular metal stack at End of HRSO			STOP Same											
HEIGHT ABOVE GROUND LEVEL			HEIGHT RELATIVE TO OBSERVER											
START ~150' STOP ~150'			START ~150' STOP ~150'											
DISTANCE FROM OBSERVER			DIRECTION FROM OBSERVER											
START ~1500' STOP ~1500'			START 23° STOP 23°											
DESCRIBE EMISSIONS			START											
None Observed			STOP Same											
EMISSION COLOR			PLUME TYPE - CONTINUOUS <input checked="" type="checkbox"/>											
START Invisible STOP Invisible			FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>											
WATER DROPLETS PRESENT			IF WATER DROPLET PLUME											
NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>			ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>											
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED			START											
Stack Outlet			STOP Stack outlet											
DESCRIBE BACKGROUND			START											
Sky			STOP Sky											
BACKGROUND COLOR			SKY CONDITIONS											
START Blue STOP Blue			START Scattered STOP Scattered											
WIND SPEED			WIND DIRECTION											
START 3-5 STOP 3-5			START NE STOP NE											
AMBIENT TEMP.			WET BULB TEMP.		RH, percent									
START 91 STOP 91					63									
Source Layout Sketch			Draw North Arrow											
<p>The sketch shows a vertical stack with an emission point at the top. Below the stack is the 'Observers Position'. A north arrow is drawn to the right of the stack. Wind direction is indicated by an arrow pointing from the right towards the stack. A sun location line is drawn at the bottom, forming a 140-degree angle with the ground line.</p>														
AVERAGE OPACITY FOR HIGHEST PERIOD			NUMBER OF READINGS ABOVE % WERE											
RANGE OF OPACITY READINGS			MINIMUM									MAXIMUM		
OBSERVER'S NAME (PRINT)			Joshna Gristay											
OBSERVER'S SIGNATURE			DATE											
			6/16/11											
ORGANIZATION			Source Testing & Consulting Services											
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE			CERTIFIED BY									DATE		
			State of Georgia									4/18/11		
TITLE			DATE											
VERIFIED BY			DATE											

APPENDIX C
CALIBRATION AND CERTIFICATION DATA

Site: Loxahatchee
 Unit: CT-2B Base Oil
 Reference Method Calibration Error - Initial Linearity
 Date: 6/16/2011

Linearity (Calibration Error)	Analyzer Range	Expected Value	Analyzer Response	Difference	Difference % of Range	Allowable Difference	
O2, vol % dry	Zero	22.06	0.00	0.02	0.02	0.09%	+/- 2% or +/- 0.5%V
	Mid	22.06	9.03	9.04	0.01	0.05%	+/- 2% or +/- 0.5%V
	Span	22.06	22.06	22.10	0.04	0.18%	+/- 2% or +/- 0.5%V
CO2, vol % dry	Zero	19.63	0.00	-0.06	-0.06	-0.31%	+/- 2% or +/- 0.5%V
	Mid	19.63	9.18	9.07	-0.11	-0.56%	+/- 2% or +/- 0.5%V
	Span	19.63	19.63	19.62	-0.01	-0.05%	+/- 2% or +/- 0.5%V
NOx, ppmv	Zero	18	0.00	0.00	0.00	0.00%	+/- 2% or +/- 0.5ppm
	Mid	18	8.80	8.80	0.00	0.00%	+/- 2% or +/- 0.5ppm
	Span	18	18.00	18.02	0.02	0.11%	+/- 2% or +/- 0.5ppm
CO, ppmv	Zero	17.94	0.00	-0.12	-0.12	-0.67%	+/- 2% or +/- 0.5ppm
	Mid	17.94	9.06	9.06	0.00	0.00%	+/- 2% or +/- 0.5ppm
	Span	17.94	17.94	17.83	-0.11	-0.61%	+/- 2% or +/- 0.5ppm
THC, ppmv	Zero	8.6	0.00	0.09	0.09	1.05%	+/- 2% or +/- 0.5ppm
	Mid	8.6	3.21	2.97	-0.24	-2.79%	+/- 2% or +/- 0.5ppm
	Mid	8.6	5.95	5.99	0.04	0.47%	+/- 2% or +/- 0.5ppm
	Span	8.6	8.60	8.62	0.02	0.23%	+/- 2% or +/- 0.5ppm

Source Testing and Consulting Services, Inc.

Instrumental Reference Method On-Line Data

NOx Converter Efficiency Test

	Parameter	O2	CO2	CO	NOx	THC	Comments
	Units	%V,d	%V,d	ppmVd	ppmVw	ppmVW	
13-Jun-11	18:39:42	20.45	0.01	0.49	58.12	1.54	CT 2B nx ce
13-Jun-11	18:40:43	20.47	0.01	0.48	58.14	1.53	CT 2B nx ce
13-Jun-11	18:41:42	20.47	0.01	0.44	58.14	1.53	CT 2B nx ce
13-Jun-11	18:42:42	20.47	0.01	0.41	58.12	1.52	CT 2B nx ce
13-Jun-11	18:43:42	20.47	0.01	0.37	58.07	1.55	CT 2B nx ce
13-Jun-11	18:44:43	20.47	0.00	0.35	58.01	1.59	CT 2B nx ce
13-Jun-11	18:45:42	20.47	0.00	0.32	58.06	1.54	CT 2B nx ce
13-Jun-11	18:46:42	20.46	0.00	0.32	58.07	1.51	CT 2B nx ce
13-Jun-11	18:47:43	20.46	0.00	0.27	58.06	1.49	CT 2B nx ce
13-Jun-11	18:48:43	20.45	0.00	0.21	58.07	1.48	CT 2B nx ce
13-Jun-11	18:49:42	20.45	0.00	0.17	58.04	1.48	CT 2B nx ce
13-Jun-11	18:50:42	20.45	0.00	0.15	58.07	1.45	CT 2B nx ce
13-Jun-11	18:51:43	20.46	0.00	0.13	58.04	1.46	CT 2B nx ce
13-Jun-11	18:52:43	20.46	0.00	0.11	57.98	1.45	CT 2B nx ce
13-Jun-11	18:53:42	20.45	0.00	0.05	57.92	1.59	CT 2B nx ce
13-Jun-11	18:54:42	20.41	0.00	0.07	57.91	1.71	CT 2B nx ce
13-Jun-11	18:55:42	20.40	0.00	0.04	57.93	1.44	CT 2B nx ce
13-Jun-11	18:56:42	20.40	0.00	0.05	57.96	1.43	CT 2B nx ce
13-Jun-11	18:57:42	20.40	0.00	0.02	58.01	1.49	CT 2B nx ce
13-Jun-11	18:58:42	20.39	0.00	-0.03	58.06	1.40	CT 2B nx ce
13-Jun-11	18:59:42	20.39	0.00	-0.03	58.07	1.40	CT 2B nx ce
13-Jun-11	19:00:42	20.40	0.00	-0.05	58.06	1.39	CT 2B nx ce
13-Jun-11	19:01:42	20.41	0.00	-0.06	58.07	1.46	CT 2B nx ce
13-Jun-11	19:02:42	20.41	0.00	-0.08	58.04	1.45	CT 2B nx ce
13-Jun-11	19:03:42	20.41	0.00	-0.11	58.07	1.39	CT 2B nx ce
13-Jun-11	19:04:42	20.42	0.00	-0.10	58.04	1.37	CT 2B nx ce
13-Jun-11	19:05:42	20.42	0.00	-0.12	57.98	1.34	CT 2B nx ce
13-Jun-11	19:06:42	20.43	0.00	-0.12	57.92	1.35	CT 2B nx ce
13-Jun-11	19:07:42	20.43	0.00	-0.13	57.91	1.34	CT 2B nx ce
13-Jun-11	19:08:42	20.44	0.00	-0.13	57.93	1.34	CT 2B nx ce
13-Jun-11	19:09:42	20.44	0.00	-0.17	57.96	1.33	CT 2B nx ce
13-Jun-11	19:10:42	20.44	0.00	-0.13	57.93	1.32	CT 2B nx ce
13-Jun-11	19:11:42	20.44	0.00	-0.15	57.96	1.36	CT 2B nx ce
13-Jun-11	19:12:42	20.43	0.00	-0.19	58.01	1.36	CT 2B nx ce
13-Jun-11	19:13:42	20.43	0.00	-0.18	58.06	1.44	CT 2B nx ce
13-Jun-11	19:14:42	20.44	0.00	-0.19	58.07	1.38	CT 2B nx ce
13-Jun-11	19:15:42	20.44	0.00	-0.18	58.04	1.87	CT 2B nx ce
Average:	19:16:16	20.44	0.00	0.06	58.02	1.46	CT 2B nx ce



Airgas Specialty Gases

630 Lintell Drive

Durham, NC 27713

Phone (919) 544-3773

Fax (919) 544-3774

www.airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E03NI99E15A00R3 Reference Number: 122-124228673-10
 Cylinder Number: CC337342 Cylinder Volume: 144 Cu.Ft.
 Laboratory: ASG - Durham - NC Cylinder Pressure: 2015 PSIG
 Analysis Date: Aug 12, 2010 Valve Outlet: 660

Expiration Date: Aug 12, 2012

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

ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
NOx	18.00 PPM	18.02 PPM	G1	+/- 1% NIST Traceable
CARBON MONOXIDE	18.00 PPM	17.94 PPM	G1	+/- 1% NIST Traceable
NITRIC OXIDE	18.00 PPM	18.01 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	100603	CC281051	20.34PPM NITRIC OXIDE/NITROGEN	Feb 01, 2013
NTRM	100603	CC281051 NOX	20.34PPM NOx/NITROGEN	Feb 01, 2013
NTRM	990612	XC018208B	24.33PPM CARBON MONOXIDE/NITROGEN	Jul 01, 2011
NTRM	080602	CC255843	51.28PPM CARBON MONOXIDE/NITROGEN	Jan 15, 2012

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 #2 CO	FTIR	Aug 06, 2010
TECO 42C NOX (0.05-100ppm)	Chemiluminescence	Jul 28, 2010
TECO 42C NOX (0.05-100ppm)	Chemiluminescence	Jul 28, 2010

Triad Data Available Upon Request

Notes: ANW Part # 781998

Approved for Release



Airgas Specialty Gases

630 United Drive
Durham, NC 27713
Phone (919) 544-3773
Fax (919) 544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E03NI58E15A39E9 Reference Number: 122-124223759-1
Cylinder Number: CC253913 Cylinder Volume: 159 Cu.Ft.
Laboratory: ASG - Durham - NC Cylinder Pressure: 2015 PSIG
Analysis Date: Jun 23, 2010 Valve Outlet: 590

Expiration Date: Jun 23, 2013

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

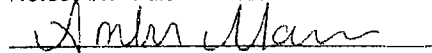
ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
CARBON DIOXIDE	19.25%	19.63%	GT	+/- 1% NIST Traceable
OXYGEN	22.00%	22.06%	GT	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	060608	CC206165	22.51% OXYGEN/NITROGEN	May 01, 2016
NTRM	080613	CC254469	20.09% CARBON DIOXIDE/NITROGEN	Jul 15, 2012

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba VIA-510 CO2	Infrared	Jun 21, 2010
Horiba MPA-510 O2 (0-25%)	Paramagnetic	Jun 21, 2010

Triad Data Available Upon Request

Notes: ANW Part # 781222


Approved for Release



Praxair
 5700 South Alameda Street
 Los Angeles, CA 90058
 Telephone: (323) 585-2154
 Facsimile: (714) 542-6689

DocNumber: 0000020774

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

CHEROKEE INSTRUMENTS

Praxair Order Number: 10387000-00
 Customer P. O. Number: 02470594
 Customer Reference Number: WA9A3

Fill Date:
 Part Number: EV AIME3ME-AS
 Lot Number: 109918101
 Cylinder Style & Outlet: AS 590
 Cylinder Pressure & Volume: 2000 psi 140 cu ft

Certified Concentration:

Expiration Date:	7/16/2012	
Cylinder Number:	CC 121093	Analytical Uncertainty:
3.21 ppm	METHANE	± 1 %
Balance	AIR	

NOx ppm = N/A

NOX Values for Reference Only

Certification Information: Certification Date: 7/16/2009 Term: 36 Months Expiration Date: 7/16/2012

This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G1
 Do Not Use this Standard if Pressure is less than 150 PSIG

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate:)

1. Component: METHANE

Requested Concentration: 3 ppm
 Certified Concentration: 3.21 ppm
 Instrument Used: HORIBA, FIA-510, 851135122
 Analytical Method: Flame Ionization Detector
 Last Multipoint Calibration: 7/11/2009

Reference Standard Type: GMS
 Ref. Std. Cylinder #: FF28579
 Ref. Std. Conc.: 10.40 ppm
 Ref. Std. Traceable to SRM #: 1659a
 SRM Sample #: 11-G-42
 SRM Cylinder #: FF28579

First Analysis Data:		Date: 7/16/2009	
Z: 0	R: 10.4	C: 3.21	Conc: 3.21
R: 10.4	Z: 0	C: 3.21	Conc: 3.21
Z: 0	C: 3.21	R: 10.4	Conc: 3.21
UOM: PPM	Mean Test Assay:	3.21 PPM	

Second Analysis Data:		Date:	
Z: 0	R: 0	C: 0	Conc: 0
R: 0	Z: 0	C: 0	Conc: 0
Z: 0	C: 0	R: 0	Conc: 0
UOM: PPM	Mean Test Assay:	0 PPM	

Analyzed by:

Nelson Ma
 Nelson Ma

Certified by:

Ying Yu
 Ying Yu

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.



MATHESON

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3106 Pasadena Freeway
Pasadena, TX 77503
713-534-8217

Certificate of Analysis - EPA Protocol Mixtures

Customer: SOURCE TESTING AND CONSULTING
208-114 TECHNOLOGY PARK LN.
FUQUAY VARINA, NC 27526

Cylinder Number: SX53567
Cylinder Pressure: 1800 psig
Last Analysis Date: 03/07/2011
Expiration Date: 03/07/2013

Protocol: Reference #: Lot#:
G1 555179-1 1741600185

**DO NOT USE THIS CYLINDER WHEN THE
PRESSURE FALLS BELOW 150 PSIG**

REPLICATE RESPONSES

Component: Carbon Monoxide	Date: 02/18/2011	Date: 02/25/2011
	9.127	9.073
Certified Conc: 9.09 ppm +/- 1% rel	9.101	9.053
	9.103	9.048
Component: Nitric Oxide	Date: 02/25/2011	Date: 03/07/2011
	8.801	8.823
Certified Conc: 8.82 ppm +/- 1% rel	8.799	8.836
	8.839	8.824

NOx: 9.1 ppm Reference Only:

BALANCE GAS: Nitrogen

REFERENCE STANDARDS:

Component: Carbon Monoxide	Component: Nitric Oxide
Reference Standard: SRM	Reference Standard: SRM
Cylinder #: CAL0172779	Cylinder #: ANB10861
Concentration: 9.86 ppm	Concentration: 9.61 ppm
Exp. Date: 01/08/2012	Exp. Date: 11/02/2011

CERTIFICATION INSTRUMENTS

Component: Carbon Monoxide	Component: Nitric Oxide
Make/Model: Thermo 48i	Make/Model: Horiba CLA-510
Serial Number: 903034427	Serial Number: 4LKB3FHH
Measurement Principle: NDIR	Measurement Principle: CHEMI
Last Calibration: 02/17/2011	Last Calibration: 02/18/2011

Notes:

This Certification was performed according to EPA Traceability Protocol for Assay & Certification of Gaseous Calibration Standards September 1997, using procedure G1 and/or G2.

Analyst: Debra Jackson

Date: 03/04/2011

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Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

DocNumber: 000003868

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

PRAXAIR WHSE SANFORD NC ST
1510 HAWKINS AVE
SANFORD NC 27330

Praxair Order Number: 11770929
Customer P. O. Number: 02659336
Customer Reference Number:

Fill Date: 12/1/2009
Part Number: EV AJME3ME-AS
Lot Number: 109933502
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date:	12/5/2012	NIST Traceable
Cylinder Number:	CC 303603	Analytical Uncertainty:
	3.00 ppm METHANE	± 1 %
	Balance AIR	

Certification Information: Certification Date: 12/5/2009 Term: 36 Months Expiration Date: 12/5/2012
This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G1
Do Not Use this Standard if Pressure is less than 150 PSIG

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. Component: METHANE

Requested Concentration: 3 ppm
Certified Concentration: 3.00 ppm
Instrument Used: HORIBA, FIA-510, 851135122
Analytical Method: Flame Ionization Detector
Last Mullipoint Calibration: 11/12/2009

Reference Standard Type: GMIS
Ref. Std. Cylinder #: SA 5891
Ref. Std. Conc: 5.023 ppm
Ref. Std. Traceable to SRM #: vs. 1659a
SRM Sample #: 11-G-42
SRM Cylinder #: FF28579

First Analysis Data:				Date:			
Z:	0	R:	5.02	C:	3	Conc:	3
R:	5.02	Z:	0	C:	3	Conc:	3
Z:	0	C:	3	R:	5.02	Conc:	3
UOM:	ppm	Mean Test Assay:	3 ppm				

Second Analysis Data:				Date:			
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	ppm	Mean Test Assay:	0 ppm				

Analyzed by:
Shameela Jiffrey

Certified by:
Nelson Ma



**MATHESON
TRI-GAS**

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Certificate of Analysis - EPA Protocol Mixtures

Matheson Tri-Gas Inc.

6874 S. Main Street
Morrow, GA 30260

Phone: 770-961-7891

Fax: 770-968-1268

Customer: Source Testing and Consulting Services
Cylinder Number: SX43063
Cylinder pressure: 2000 PSIG
Last Analysis date: 2/21/2011
Expiration Date: 2/21/14

Protocol: Reference # Lot #
G1 555179 1051618501

DO NOT USE THIS CYLINDER WHEN THE
PRESSURE FALLS BELOW 150 PSIG

REPLICATE RESPONSES

Component : Methane
Mean Conc: 6.0 ppm

Date: 2/21/2011 Date:
6.0 ppm
6.0 ppm
6.0 ppm

BALANCE GAS: Air

REFERENCE STANDARDS

Component: Methane
SRM #: SRM-1659a
Cylinder #: FF28644
Concentration: 9.863 ppm

CERTIFICATION INSTRUMENTS

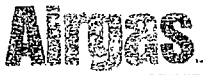
Component: Methane
Make/Model: Agilent 7890A
Serial Number: CN10919053
Measurement Principle: FID
Last Calibration: 2/8/2011

Notes:

This certification was performed according to EPA Traceability Protocol for Assay & Certification of Gaseous Calibration Standards September 1997, using procedure G1 and/or G2.

Analyst Derek Stuck

Date 2/21/2011



CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Airgas Specialty Gases
 430 Jaded Drive
 Durham, NC 27713
 Phone (919) 544-3773
 Fax (919) 544-3774
 www.airgas.com

Part Number: E02AI99E15A3395	Reference Number: 122-124236772-4
Cylinder Number: CC146462	Cylinder Volume: 146 Cu.Ft.
Laboratory: ASG - Durham - NC	Cylinder Pressure: 2015 PSIG
Analysis Date: Oct 07, 2010	Valve Outlet: 590

Expiration Date: Oct 07, 2013

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

ANALYTICAL RESULTS				
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
METHANE Air	9,000 PPM Balance	8,603 PPM	G1	+/- 1% NIST Traceable

CALIBRATION STANDARDS				
Type	Lot ID	Cylinder No	Concentration	Expiration Date
NTRM	070604	CC207894	4.495PPM METHANE/AIR	Jun 01, 2011

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 #2 CH4	FTIR	Oct 07, 2010

Triad Data Available Upon Request

Notes: ANWPN 715538

 Approved for Release



Praxair Distribution Mid-Atlantic
 145 Shimersville Rd.
 Bethlehem, PA 18015
 Telephone: (610) 317-1608
 Facsimile: (610) 758-8382

DocNumber: 000007975

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

CHEROKEE INSTRUMENTS INC *
 901 BRIDGE ST
 FUQUAY VARINA NC 275260

Praxair Order Number: 15303079
 Customer P. O. Number: 11036
 Customer Reference Number:

Fill Date: 12/9/2010
 Part Number: NI CD905E-AS
 Lot Number: 917034368
 Cylinder Style & Outlet: AS CGA 590
 Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date:	12/16/2013	NIST Traceable
Cylinder Number:	CC123685	Analytical Uncertainty:
9.18 %	CARBON DIOXIDE	± 1 %
9.03 %	OXYGEN	± 1 %
Balance	NITROGEN	

Certification Information: Certification Date: 12/16/2010 Term: 36 Months Expiration Date: 12/16/2013
 This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G1
 Do Not Use this Standard if Pressure is less than 150 PSIG

Analytical Data: (R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. Component: CARBON DIOXIDE

Requested Concentration: 9 %
 Certified Concentration: 9.18 %
 Instrument Used: SIEMENS ULTRAMAT 5E SN: D2-412
 Analytical Method: NON-DISPERSIVE INFRARED
 Last Multipoint Calibration: 12/2/2010

Reference Standard Type: GMIS
 Ref. Std. Cylinder #: CC247549
 Ref. Std. Conc: 11.84 %
 Ref. Std. Traceable to SRM #: 2745
 SRM Sample #: 9-C-04
 SRM Cylinder #: CAL016031

First Analysis Data:		Date:		12/16/2010	
Z:	0	R:	11.84	C:	9.18
Conc:	9.18				
R:	11.84	Z:	0	C:	9.18
Conc:	9.18				
Z:	0	C:	9.18	R:	11.84
Conc:	9.18				
UOM:	%	Mean Test Assay:	9.18 %		

Second Analysis Data:		Date:			
Z:	0	R:	0	C:	0
Conc:	0				
R:	0	Z:	0	C:	0
Conc:	0				
Z:	0	C:	0	R:	0
Conc:	0				
UOM:	%	Mean Test Assay:	0 %		

2. Component: OXYGEN

Requested Concentration: 9 %
 Certified Concentration: 9.03 %
 Instrument Used: SIEMENS OXYMAT 5E S/N F1-111
 Analytical Method: PARAMAGNETIC
 Last Multipoint Calibration: 12/9/2010

Reference Standard Type: GMIS
 Ref. Std. Cylinder #: CC148024
 Ref. Std. Conc: 11.05 %
 Ref. Std. Traceable to SRM #: 2659a
 SRM Sample #: 71-D-07
 SRM Cylinder #: CAL015449

First Analysis Data:		Date:		12/15/2010	
Z:	0	R:	11.04	C:	9.02
Conc:	9.028				
R:	11.04	Z:	0	C:	9.02
Conc:	9.028				
Z:	0	C:	9.02	R:	11.04
Conc:	9.028				
UOM:	%	Mean Test Assay:	9.028 %		

Second Analysis Data:		Date:			
Z:	0	R:	0	C:	0
Conc:	0				
R:	0	Z:	0	C:	0
Conc:	0				
Z:	0	C:	0	R:	0
Conc:	0				
UOM:	%	Mean Test Assay:	0 %		

Analyzed by:

Ashley Davila

Certified by:

Michelle Kostik

Meter Box Calibration

Calibration Date: 7/25/2011	Orifice ID	Y Calibration	Delta H @ Cal.	Vac
Meter Box: A-4	48	pass	pass	pass
Technician: MAD	73	pass	pass	pass
	63	pass	pass	pass
	40	pass	pass	pass
	55	pass	pass	pass

PART 1: Orifice Calibration												
Calibration Orifice Set: D1						Critical Vacuum: 13.9						
Barometric Pressure (in. Hg): 29.320												
Collected Data												
Orifice ID	Run #	Delta H	Initial Meter Volume (cu ft)	Final Meter Volume (cu ft)	Init Meter Temp (F)	Final Meter Temp (F)	Init Amb Temp (F)	Final Amb Temp (F)	Run Time min sec		K Factor	Vac
48	1	0.63	47.852	58.507	92.50	94.00	92.00	93.00	23	0	0.3472	24
48	2	0.63	58.507	64.065	94.00	94.00	93.00	93.00	12	0	0.3472	24
73	3	3.70	64.106	76.096	94.00	99.00	93.00	93.00	11	0	0.808	17
73	4	3.70	76.096	88.112	99.00	100.00	93.00	93.00	11	0	0.808	17
63	5	1.95	88.112	98.432	99.00	100.00	93.00	93.00	13	0	0.5906	22
63	6	1.95	98.432	107.171	100.00	99.00	93.00	93.00	11	0	0.5906	22
40	7	0.31	107.171	113.591	99.00	94.00	93.00	90.00	20	0	0.2391	24
40	8	0.31	113.591	119.714	94.00	93.00	90.00	87.00	18	0	0.2391	24
55	9	1.20	119.714	127.090	93.00	93.00	87.00	86.00	12	0	0.4585	23
55	10	1.20	127.090	132.614	93.00	93.00	86.00	87.00	9	0	0.4585	23
Calculated Data												
Orifice ID	Run #	Meter Volume (cu ft)	Meter Volume (std cu ft)	Corrected Meter Volume (std cu ft)	Ave Meter Temp (F)	Ave Amb Temp (F)	Y	Delta H @				
48	1	10.655	9.97655	9.96106	93.25	92.5	0.9984	1.7725				
48	2	5.558	5.19705	5.19472	94	93	0.9996	1.7717				
AVE							0.9990	1.7721				
73	1	11.99	11.24677	11.08168	96.5	93	0.9853	1.9422				
73	2	12.016	11.21072	11.08168	99.5	93	0.9885	1.9317				
AVE							0.9869	1.9370				
63	1	10.32	9.58652	9.57278	99.5	93	0.9986	1.8890				
63	2	8.739	8.11788	8.10005	99.5	93	0.9978	1.8890				
AVE							0.9982	1.8890				
40	1	6.42	5.97131	5.97036	96.5	91.5	0.9998	1.8221				
40	2	5.794	5.41827	5.38800	93.5	88.5	0.9944	1.8221				
AVE							0.9971	1.8221				
55	1	7.376	6.91932	6.90064	93	86.5	0.9973	1.9213				
55	2	5.524	5.18198	5.17548	93	86.5	0.9987	1.9213				
AVE							0.9980	1.9213				
Average for All Runs								0.9958	1.8683			

Source Testing And Consulting Services

Meter Box Calibration

Calibration Date: 7/25/2011
 Meter Box: A-4
 Technician: MAD

PART 2: Thermocouple Calibration

T/C Calibrator Make: PIE T/C Calibrator Model: 520

Calibrator Output (F)	Meter Reading (F)	Error (F)	Allowable Error (F)	Result
0.0	0	0	9.24	pass
32.0	31	-1	9.88	pass
70.0	69	-1	10.64	pass
100.0	99	-1	11.24	pass
200.0	199	-1	13.24	pass
500.0	500	0	19.24	pass
1200.0	1199	-1	33.24	pass
1995.0	1995	0	49.24	pass

Meter Box Calibration

Calibration Date: 4/21/2010	Orifice ID	Y Calibration	Delta H @ Cal.	Vac
Meter Box: A-4	40	pass	pass	pass
Technician: FLG	48	pass	pass	pass
	55	pass	pass	pass
	63	pass	pass	pass
	73	pass	pass	pass

PART 1: Orifice Calibration												
Calibration Orifice Set: D1						Critical Vacuum: 13.9						
Barometric Pressure (in. Hg): 29.200												
Collected Data												
Orifice ID	Run #	Delta H	Initial Meter Volume (cu ft)	Final Meter Volume (cu ft)	Init Meter Temp (F)	Final Meter Temp (F)	Init Amb Temp (F)	Final Amb Temp (F)	Run Time min sec		K Factor	Vac
40	1	0.29	5.958	9.982	67.00	67.00	67.00	67.00	13	0	0.2396	25
40	2	0.29	9.982	15.102	67.00	68.00	67.00	67.00	16	0	0.2396	25
48	1	0.63	45.196	50.154	68.00	70.00	68.00	68.00	11	0	0.3486	23
48	2	0.63	0.154	5.355	69.00	71.00	68.00	68.00	11	30	0.3486	23
55	1	1.20	0.875	5.082	71.00	70.00	69.00	69.00	7	0	0.4591	21
55	2	1.20	65.082	70.788	71.00	72.00	69.00	69.00	9	30	0.4591	21
63	1	1.90	0.788	5.846	72.00	72.00	71.00	71.00	6	30	0.5923	19.5
63	2	1.90	5.846	13.239	72.00	73.00	71.00	71.00	9	30	0.5923	19.5
73	1	3.20	3.239	8.706	73.00	73.00	71.00	71.00	5	0	0.815	17
73	2	3.20	8.706	14.173	73.00	74.00	72.00	72.00	5	0	0.815	17
Calculated Data												
Orifice ID	Run #	Meter Volume (cu ft)	Meter Volume (std cu ft)	Corrected Meter Volume (std cu ft)	Ave Meter Temp (F)	Ave Amb Temp (F)	Y	Delta H @				
40	1	4.024	3.93592	3.96194	67	67	1.0066	1.7197				
40	2	5.12	5.00318	4.87623	67.5	67	0.9746	1.7181				
	AVE						0.9906	1.7189				
48	1	4.958	4.83527	4.87288	69	68	1.0078	1.7646				
48	2	5.201	5.06268	5.09438	70	68	1.0063	1.7613				
	AVE						1.0070	1.7629				
55	1	4.207	4.09712	4.08000	70.5	69	0.9958	1.9416				
55	2	5.706	5.54652	5.53715	71.5	69	0.9983	1.9380				
	AVE						0.9971	1.9398				
63	1	5.058	4.92064	4.87855	72	71	0.9914	1.8553				
63	2	7.393	7.18547	7.13019	72.5	71	0.9923	1.8535				
	AVE						0.9919	1.8544				
73	1	5.467	5.32585	5.16373	73	71	0.9696	1.6580				
73	2	5.467	5.32086	5.15887	73.5	72	0.9696	1.6595				
	AVE						0.9696	1.6588				
Average for All Runs								0.9912	1.7870			

Source Testing And Consulting Services
Meter Box Calibration

Calibration Date: 9/16/2010
Meter Box: A-4
Technician: MLH

PART 2: Thermocouple Calibration

T/C Calibrator Make: PIE T/C Calibrator Model: 520

Calibrator Output (F)	Meter Reading (F)	Error (F)	Allowable Error (F)	Result
0.0	-3	-3	9.24	pass
32.0	28	-4	9.88	pass
70.0	65	-5	10.64	pass
100.0	95	-5	11.24	pass
200.0	196	-4	13.24	pass
500.0	495	-5	19.24	pass
1200.0	1194	-6	33.24	pass
1995.0	1995	0	49.24	pass

POST TEST METER CALIBRATION DATA - EMC APPROVED ALTERNATIVE METHOD (ALT - 009)

Plant:	West County Energy C	Location:	Loxahatchee	Run #	1	2	3	AVERAGE
Condition:	Base Oil	Meter #:	A-4	Date:	6/16/2011	6/16/2011	6/16/2011	
Unit:	2B	Method:	316	Start Time:	8:48	10:58	12:58	
Parameter	Units	Stop Time:		10:40	12:30	14:24		
Sampling Time	min.			60.00	60.00	60.00		60.0
GAS METER DATA:								
Average Meter Differential Pressure	in. H2O			2.05	2.03	1.97		2.02
Absolute Meter Pressure	in. Hg			29.91	29.91	29.90		29.91
Average Meter Temperature	degrees F			86.50	85.00	92.33		87.94
Metered Dry Sample Gas Volume	dcf			48.261	47.775	47.242		47.76
Gas Molecular Weight, Dry Basis	lb/lb-mole			29.39	29.44	29.41		29.41
Pre Test Calibration Factors								
DeltaH@	in. H2O			1.787	1.787	1.787		1.787
Dry Gas Meter Correction Factor (gamma)	Dimensionless			0.9912	0.9912	0.9912		0.9912
Post Test Data								
Calculated Meter Correction Factor (Yqa)	Dimensionless			1.0107	1.0121	1.0156		1.0128
Difference (Post Test and Pretest Y - Maximum Allowed 5%)	%			1.96%	2.11%	2.46%		2.18%

Type S Pitot Tube Inspection Data Form

Source Testing and Consulting Services, Inc

1100 Purple Glory Drive

Apex, NC 27502

PH(919)-367-2200/FAX(919)-367-2222

Pitot Tube I.D. # PO41
 Location Shop

Date 09-Dec-10
 Tech. GWJ

Quick Connects Attached & Leak Free? y
 Pitot Tube Assembly Level? y

Parameter	Value	Acceptance Criteria	Results	Meets Criteria?
$\alpha_1 =$	<u>1 °</u>	$\alpha_1 < 10 °$	<u>1 °</u>	TRUE
$\alpha_2 =$	<u>1 °</u>	$\alpha_2 < 10 °$	<u>1 °</u>	TRUE
$\beta_1 =$	<u>2 °</u>	$\beta_1 < 5 °$	<u>2 °</u>	TRUE
$\beta_2 =$	<u>2 °</u>	$\beta_2 < 5 °$	<u>2 °</u>	TRUE
$\gamma =$	<u>1 °</u>			
$\theta =$	<u>1 °</u>			
A =	<u>0.972 "</u>			
$z = A \sin \gamma =$	<u>0.017 "</u>	$z < .125 \text{ in.}$	<u>0.017 "</u>	TRUE
$w = A \sin \theta =$	<u>0.017 "</u>	$w < 0.03125 \text{ in.}$	<u>0.017 "</u>	TRUE
$P_A =$	<u>0.486 "</u>	$1.05 Dt < P_A < 1.5 Dt$	<u>0.486 "</u>	TRUE
$P_b =$	<u>0.486 "</u>	$1.05 Dt < P_b < 1.5 Dt$	<u>0.486 "</u>	TRUE
$D_t =$	<u>0.375 "</u>	$0.18750'' \leq Dt \leq 0.3750''$	<u>0.375 "</u>	TRUE
		$P_A = P_b \pm 0.0630''$	<u>0.000 "</u>	TRUE

Pitot Tube Acceptable ?..... TRUE

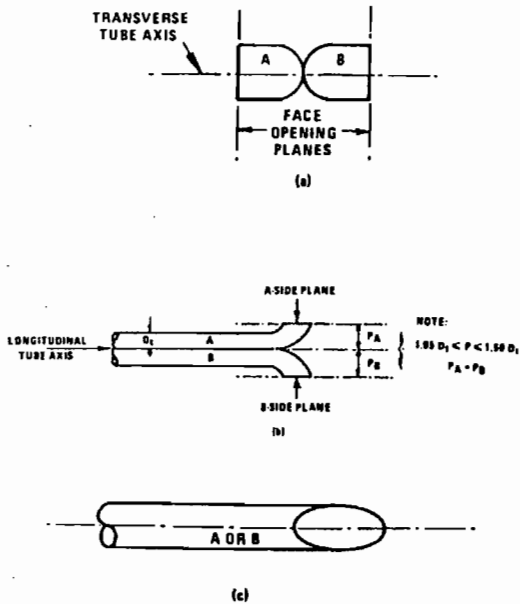


Figure 2-2. Properly constructed Type S pitot tube, shown in: (a) end view; face opening planes perpendicular to transverse axis; (b) top view; face opening planes parallel to longitudinal axis; (c) side view; both legs of equal length and concentric coincident, when viewed from both sides. Baseline coefficient values of 0.84 may be assigned to pitot tubes constructed this way.

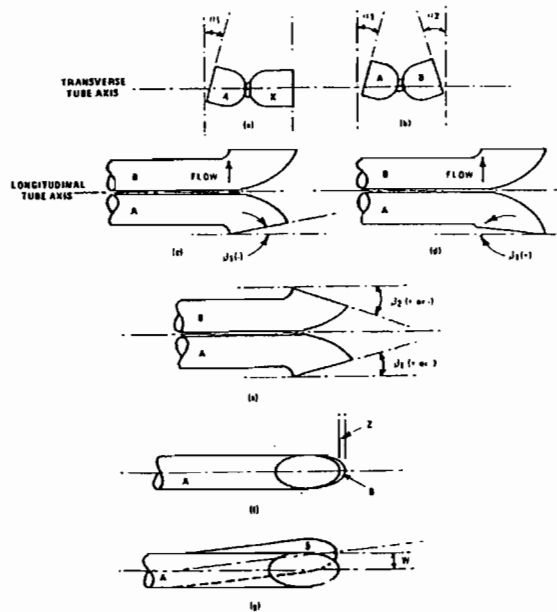


Figure 2-3. Types of face-opening misalignment that can result from held use or improper construction of Type S pitot tubes. These will not affect the baseline value of $C_p(s)$ so long as α_1 and $\alpha_2 \leq 10^\circ$, β_1 and $\beta_2 \leq 5^\circ$, $z \leq 0.33 \text{ cm (1/8 in.)}$ and $w \leq 0.08 \text{ cm (1/32 in.)}$ (citation 11 in Section 6).

Type S Pitot Tube Inspection Data Form

Source Testing and Consulting Services, Inc

1100 Purple Glory Drive

Apex, NC 27502

PH(919)-367-2200/FAX(919)-367-2222

Pitot Tube I.D. # 7.2-018
 Location Shop

Date 02-Nov-10
 Tech. MAD

Quick Connects Attached & Leak Free? y
 Pitot Tube Assembly Level? y

Parameter	Value	Acceptance Criteria	Results	Meets Criteria?
$\alpha_1 =$	<u>1 °</u>	$\alpha_1 < 10 °$	<u>1 °</u>	TRUE
$\alpha_2 =$	<u>2 °</u>	$\alpha_2 < 10 °$	<u>2 °</u>	TRUE
$\beta_1 =$	<u>0 °</u>	$\beta_1 < 5 °$	<u>0 °</u>	TRUE
$\beta_2 =$	<u>1 °</u>	$\beta_2 < 5 °$	<u>1 °</u>	TRUE
$\gamma =$	<u>0 °</u>			
$\theta =$	<u>0 °</u>			
A =	<u>0.890 "</u>			
$z = A \sin \gamma =$	<u>0.000 "</u>	$z < .125 \text{ in.}$	<u>0.000 "</u>	TRUE
$w = A \sin \theta =$	<u>0.000 "</u>	$w < 0.03125 \text{ in.}$	<u>0.000 "</u>	TRUE
$P_A =$	<u>0.445 "</u>	$1.05 Dt < P_A < 1.5 Dt$	<u>0.445 "</u>	TRUE
$P_b =$	<u>0.445 "</u>	$1.05 Dt < P_b < 1.5 Dt$	<u>0.445 "</u>	TRUE
$D_t =$	<u>0.373 "</u>	$0.18750" \leq Dt \leq 0.3750"$	<u>0.373 "</u>	TRUE
		$P_A = P_b \pm 0.0630"$	<u>0.000 "</u>	TRUE

Pitot Tube Acceptable ?..... **TRUE**

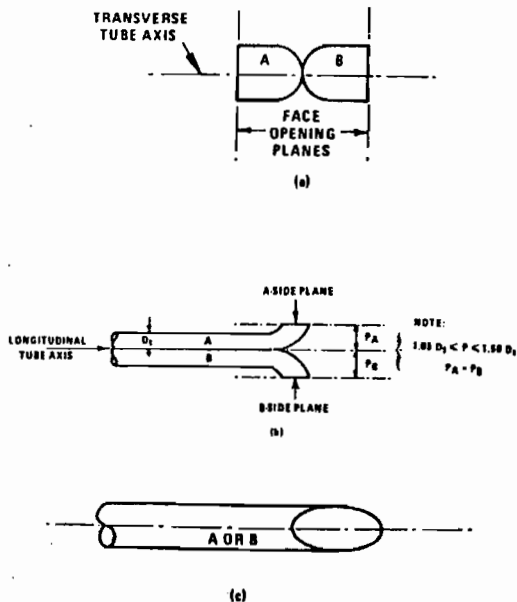


Figure 2-2. Properly constructed Type S pitot tube, shown in: (a) top view, face opening planes perpendicular to transverse axis; (b) side view, face opening planes parallel to longitudinal axis; (c) side view, both legs of equal length and centerlines coincident, when viewed from both sides. Baseline coefficient values of 0.84 may be assigned to pitot tubes constructed this way.

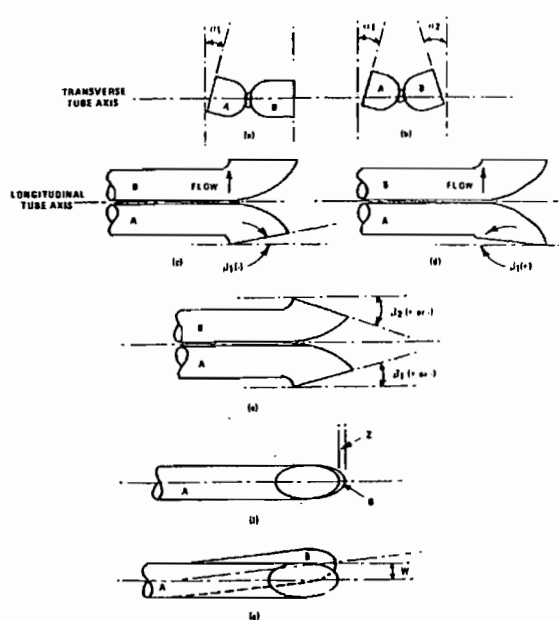


Figure 2-3. Types of face-opening misalignment that can result from field use or improper construction of Type S pitot tubes. These will not affect the baseline value of C_{pit} so long as α_1 and $\alpha_2 \leq 10^\circ$, β_1 and $\beta_2 \leq 5^\circ$, $z \leq 0.33 \text{ cm (1/8 in.)}$ and $w \leq 0.08 \text{ cm (1/32 in.)}$ (citation 11 in Section 6).



Georgia Department of Natural Resources
EPD • Air Protection Branch


Joshua Gelston

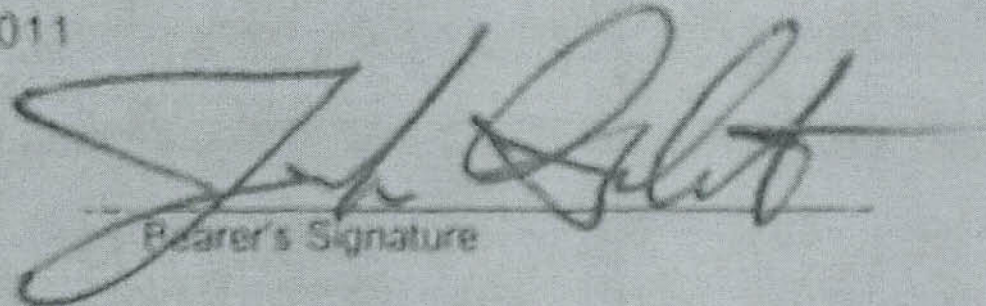
met the requirements of Federal Reference Method 9 and qualifies as a visible emissions evaluator. Maximum deviation on white & black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Georgia EPD's Air Protection Branch. This certificate is valid for 6 months from the date of issue and expires on the date below.

14-Oct-2011
Expiration Date

Apr-12-2011 - Apr-14-2011
School Date

20110233ATL
Cert No


Training Instructor


Bearer's Signature

APPENDIX D
PROCESS OPERATING DATA

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRS G B NH3 IN	PWC2_ANG_CT B FUEL OIL CURR	PWC2_ANG_FO FL W
16-Jun-11 07:00:00	176.2366638	90.46020508	225.61441	-0.399475098	4.472864628	64878.20703
16-Jun-11 07:01:00	180.6350098	104.3457031	225.70343	-0.399475098	1.012602568	69397.45313
16-Jun-11 07:02:00	182.7568817	111.1205978	225.336243	-0.399475098	2.154800415	71640.25781
16-Jun-11 07:03:00	183.9911194	113.2568283	223.923233	-0.399475098	3.304557085	72517.23438
16-Jun-11 07:04:00	183.9600067	114.3783569	222.886276	-0.399475098	4.469006538	71200.8125
16-Jun-11 07:05:00	183.53125	110.9909058	221.617889	-0.399475098	5.617568493	71862.60938
16-Jun-11 07:06:00	184.1699982	113.0126877	221.350845	-0.399475098	6.815777779	74211.26563
16-Jun-11 07:07:00	185.3950043	113.5772552	221.217316	2.200050354	8.016427994	76328.70313
16-Jun-11 07:08:00	181.2922211	120.1605759	221.484375	-0.399475098	9.276379585	78107.82031
16-Jun-11 07:09:00	178.5568848	127.4742126	221.050446	-0.399475098	10.55579662	80417.29688
16-Jun-11 07:10:00	181.0987396	131.7428589	221.217316	-0.399475098	11.86341476	81804.92188
16-Jun-11 07:11:00	186.9831238	138.6054993	220.916931	-0.399475098	13.21117973	84080.28125
16-Jun-11 07:12:00	187.6699982	139.8795929	220.58313	-0.399475098	14.5734005	84518.74219
16-Jun-11 07:13:00	195.4750061	149.0463257	220.483002	-0.399475098	15.96397495	87459.67969
16-Jun-11 07:14:00	204.6450043	159.7045898	220.683258	120.0304871	17.40654755	91003.85938
16-Jun-11 07:15:00	214.2131195	170.8358612	220.41626	312.1897583	18.93228531	94717.53125
16-Jun-11 07:16:00	223.4137573	181.3338928	220.683258	288.7793579	20.49685287	98756.55469
16-Jun-11 07:17:00	232.9949951	191.7785645	220.41626	282.9928284	22.12900162	103120.4531
16-Jun-11 07:18:00	243.8712463	201.8264771	219.147858	378.9403076	23.83382988	107248.5469
16-Jun-11 07:19:00	245.8166656	203.9686279	218.398697	506.5030823	25.56194496	108230.0625
16-Jun-11 07:20:00	247.0474854	205.305481	217.759293	492.8421021	27.33325577	108819.4453
16-Jun-11 07:21:00	247.8218842	206.2133484	216.464203	434.5510559	29.09655952	109322.8672
16-Jun-11 07:22:00	248.8850098	207.4493408	216.464233	364.2390442	30.86858368	109804.0234
16-Jun-11 07:23:00	250.3506317	208.8950958	216.664505	325.6867981	32.64995193	110417.7891
16-Jun-11 07:24:00	252.4768829	210.1654053	217.265289	304.3911743	34.4116478	111034.3438
16-Jun-11 07:25:00	253.7937469	211.3441467	217.518997	334.8144531	36.24253845	111506.7031
16-Jun-11 07:26:00	254.9356232	211.7218018	215.229202	362.2196045	38.04927444	111782.9219
16-Jun-11 07:27:00	255.7274933	212.7670288	214.781952	381.3268738	39.8600235	112169.7813
16-Jun-11 07:28:00	256.7643738	213.06073	214.962189	391.5854492	41.67636871	112408.3594
16-Jun-11 07:29:00	257.7399902	213.5986023	212.191772	417.1694946	43.49762344	112687.1953
16-Jun-11 07:30:00	258.2125244	213.9152527	210.94339	428.6030273	45.32308578	112998.5469
16-Jun-11 07:31:00	259.3266602	214.8295135	209.485886	402.1108093	47.15385818	113297.5781
16-Jun-11 07:32:00	259.875	215.4907227	208.239746	399.0756226	48.98907089	113597.7656
16-Jun-11 07:33:00	259.7831421	214.4874573	209.508133	399.9274292	50.82368851	113249.8125
16-Jun-11 07:34:00	259.0568542	214.4836426	209.140945	399.2077942	52.65336609	113197.6719
16-Jun-11 07:35:00	259.227478	214.8040771	208.640289	407.7994385	54.45345306	113232.9453
16-Jun-11 07:36:00	259.2799988	214.9070435	208.994095	403.2319336	56.28665924	113424.2031
16-Jun-11 07:37:00	259.2012634	214.5446777	209.107574	403.261322	58.12680054	113274.6484
16-Jun-11 07:38:00	259.227478	214.7125244	209.441376	404.8033752	59.95184326	113345.5781

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 07:39:00	259.0568542	214.2776489	211.123627	405.0603943	61.78462601	113304.3203
16-Jun-11 07:40:00	259.0787354	214.7277832	211.924744	398.6350098	63.62557983	113281.0156
16-Jun-11 07:41:00	258.9494629	214.6938629	214.76712	397.1043701	65.45078278	113362.3047
16-Jun-11 07:42:00	258.9572144	215.0431366	215.099396	404.1996155	67.28439331	113392.375
16-Jun-11 07:43:00	258.6893616	214.414978	216.197205	402.3654175	69.14763641	113355.1406
16-Jun-11 07:44:00	258.78125	215.0482178	222.151947	409.7821045	70.95053864	113447.8984
16-Jun-11 07:45:00	258.8424988	214.5446777	231.284332	402.3800659	72.81544495	113324.7188
16-Jun-11 07:46:00	258.5450134	214.9108582	244.769287	398.899353	74.64836121	113332.4766
16-Jun-11 07:47:00	258.448761	214.7354126	261.93924	403.1878052	76.48861694	113279.3906
16-Jun-11 07:48:00	258.4400024	214.5866241	280.063812	402.0570068	78.34489441	113390.3984
16-Jun-11 07:49:00	258.2650146	214.7583008	295.611542	401.8366699	80.17838287	113334.9063
16-Jun-11 07:50:00	257.9237366	214.3234253	302.767944	406.0076904	81.97949219	113124.8281
16-Jun-11 07:51:00	257.7166748	214.4632874	305.889191	404.9176331	83.82407379	113240.1875
16-Jun-11 07:52:00	257.9033203	214.8973083	309.158813	399.6565247	85.6499939	113255.8594
16-Jun-11 07:53:00	258.140564	214.798996	312.125793	399.7740173	87.50052643	113383.6016
16-Jun-11 07:54:00	258.6149902	214.9566498	315.692139	403.6578369	89.31166077	113466.4609
16-Jun-11 07:55:00	258.6772156	214.8396759	318.498901	404.0168152	91.14598846	113398.8125
16-Jun-11 07:56:00	258.5333557	214.5073853	320.652954	403.3510132	92.97647095	113294.9609
16-Jun-11 07:57:00	258.8512573	214.6934509	322.414581	399.3693237	94.79482269	113355.2266
16-Jun-11 07:58:00	260.9031372	215.9179688	324.450653	400.8160095	96.64098358	114014.4609
16-Jun-11 07:59:00	261.4616699	216.1587219	325.732391	399.4606934	98.47360992	114191.8203
16-Jun-11 08:00:00	262.0100098	217.0433044	327.855286	418.300354	87.75466919	114525.3672
16-Jun-11 08:01:00	262.0274963	217.2454834	329.550903	433.530365	1.669480801	114830.9844
16-Jun-11 08:02:00	262.2900085	218.0304565	331.423096	433.801239	3.536637783	115087.6797
16-Jun-11 08:03:00	262.3468628	218.4432983	332.888794	467.7207031	5.426221848	115406.9375
16-Jun-11 08:04:00	262.1674805	218.9544678	333.723236	470.3642578	7.264262199	115793.2578
16-Jun-11 08:05:00	262.6137695	219.9157715	334.424194	462.3013306	9.161955833	116062.8984
16-Jun-11 08:06:00	262.8772278	221.0822144	335.576874	479.0228577	11.0737648	116456.4922
16-Jun-11 08:07:00	262.7974854	219.7631836	336.440247	514.7471313	12.96463776	116271.9453
16-Jun-11 08:08:00	262.2200012	219.6716309	337.428284	532.5473022	14.83952522	115568
16-Jun-11 08:09:00	262.2588806	219.4071503	338.294647	437.9983215	16.70886421	115722.5
16-Jun-11 08:10:00	262.4475098	220.2667236	338.710022	428.801239	18.58476257	116017.4063
16-Jun-11 08:11:00	262.1981201	219.5571899	339.744751	470.0118408	20.45569229	115762.4922
16-Jun-11 08:12:00	261.8699951	218.4089355	340.111938	480.6595764	22.32763481	115315.3125
16-Jun-11 08:13:00	262.0100098	219.152832	340.979767	459.3787231	24.19517517	115600.9453
16-Jun-11 08:14:00	262.0333557	219.2952118	341.202301	461.5621033	26.04372215	115591.3047
16-Jun-11 08:15:00	261.8875122	218.6072998	341.907684	592.8797607	27.93359566	115430.3359
16-Jun-11 08:16:00	261.7416382	218.4577026	342.234802	524.5055542	29.76803207	115281.3516
16-Jun-11 08:17:00	261.7125244	218.8934326	342.949097	476.7969971	31.63304901	115320.0078
16-Jun-11 08:18:00	261.8787537	218.3746033	343.463074	452.0794983	33.50008774	115493.9688

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 08:19:00	261.6949768	218.359375	343.997192	460.2893066	35.36620712	115230.3047
16-Jun-11 08:20:00	261.625	217.9456635	344.53125	494.0879822	37.22885895	115155.8203
16-Jun-11 08:21:00	261.5375061	218.2220459	344.931793	484.7130737	39.09304047	115327.0625
16-Jun-11 08:22:00	261.4849854	218.8018799	345.118713	480.6742859	40.95892334	115363.2188
16-Jun-11 08:23:00	261.2224731	217.7452087	345.332336	489.9561768	42.82316208	115017.2031
16-Jun-11 08:24:00	261.2322083	217.7151184	346.032532	459.1600952	44.68225098	114922.4297
16-Jun-11 08:25:00	261.2837524	217.779541	345.933136	463.0063477	46.54131317	114947.9609
16-Jun-11 08:26:00	261.2662354	218.0541992	345.933136	462.536377	48.43299866	114992.5469
16-Jun-11 08:27:00	261.3138733	217.962616	346.424194	481.9013977	50.29405975	115131.5469
16-Jun-11 08:28:00	261.2837524	217.3217773	346.574036	485.3740234	52.15411758	114916.5859
16-Jun-11 08:29:00	261.2006226	217.5506592	346.981232	465.4295654	54.0125351	114924.7578
16-Jun-11 08:30:00	261.1700134	217.8100586	346.614075	466.5751343	55.87189865	115029.8672
16-Jun-11 08:31:00	261.0883484	217.4845276	347.053162	448.6379089	57.73161316	114945.9844
16-Jun-11 08:32:00	261.0299988	217.199707	347.281647	465.4883423	59.59044266	114823.6094
16-Jun-11 08:33:00	260.7893677	216.6275024	346.881104	473.6614075	61.44574738	114570.4844
16-Jun-11 08:34:00	261.1155701	217.2573547	347.254944	458.3114929	63.32446671	114781.3047
16-Jun-11 08:35:00	261.0299988	217.6307678	347.168152	442.0045166	65.15818024	114863.7109
16-Jun-11 08:36:00	261.0650024	217.1157532	347.361755	472.7582397	67.07078552	114746.8125
16-Jun-11 08:37:00	260.9599915	216.7648315	347.68219	510.6643066	68.90196228	114549.0625
16-Jun-11 08:38:00	261.1437683	217.2225952	347.815704	492.7613525	70.75635529	114783.25
16-Jun-11 08:39:00	261.183136	217.7108765	347.348389	480.887207	72.64757538	115028.7969
16-Jun-11 08:40:00	261.1087646	217.9206848	347.448547	488.0983582	74.47718811	114929.9453
16-Jun-11 08:41:00	260.9075012	216.5588379	347.281647	472.8757324	76.34085083	114600.9375
16-Jun-11 08:42:00	261.0518799	217.2531128	347.849091	456.0742493	78.18822479	114708.5625
16-Jun-11 08:43:00	261.1568909	217.7146912	347.715576	462.2720032	80.04569244	114936.7891
16-Jun-11 08:44:00	261.0037537	217.2225952	347.748962	462.4482422	81.90388489	114833.8125
16-Jun-11 08:45:00	260.973114	217.035675	347.949219	460.4434814	83.75963593	114505.3203
16-Jun-11 08:46:00	260.8549805	216.986084	348.015991	453.4159546	85.58141327	114578.9609
16-Jun-11 08:47:00	261.183136	217.5354004	347.915833	440.2641296	87.44298553	114999.3828
16-Jun-11 08:48:00	260.9425049	216.9250183	348.082733	461.8167114	89.29679871	114672.5313
16-Jun-11 08:49:00	260.9250183	216.734314	347.949219	477.2963257	91.14876556	114545.875
16-Jun-11 08:50:00	261.191864	217.7947998	348.182861	445.8009949	93.03583527	114912.8906
16-Jun-11 08:51:00	261.0299988	217.2709198	347.68219	455.0608521	94.88404083	114734.6797
16-Jun-11 08:52:00	260.9211121	216.3384399	348.067902	470.5960083	96.74742126	114458.7031
16-Jun-11 08:53:00	260.9206543	216.841095	347.949219	451.6976013	98.60064697	114806.0547
16-Jun-11 08:54:00	260.96875	217.596405	348.182861	435.9903259	100.4275436	114985.8438
16-Jun-11 08:55:00	260.9075317	216.8945313	347.815704	482.1723022	102.3151245	114617.2031
16-Jun-11 08:56:00	260.8199768	216.5816956	347.68219	463.1091309	104.1673965	114486.875
16-Jun-11 08:57:00	260.8330994	217.5582886	347.915833	457.6236877	106.021759	114766.8047

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 08:58:00	260.8724976	217.3751831	347.562012	455.0461426	107.8556595	114740.2969
16-Jun-11 08:59:00	260.6756287	216.4939728	347.24826	471.9210815	109.7332153	114467.5156
16-Jun-11 09:00:00	260.7193604	216.8677979	347.415161	478.1555176	111.5810242	114540.3281
16-Jun-11 09:01:00	260.8627625	216.619873	347.397308	461.4120178	1.730525494	114724.2344
16-Jun-11 09:02:00	260.6450195	217.035675	347.315033	459.789917	3.554379225	114574.9766
16-Jun-11 09:03:00	260.53125	216.3833618	347.348389	478.0307007	5.436905861	114387.1172
16-Jun-11 09:04:00	260.6138916	216.5690155	347.415161	460.4133301	7.284132004	114398.7813
16-Jun-11 09:05:00	260.7018738	216.5969543	347.515289	458.9307861	9.109622002	114605.4688
16-Jun-11 09:06:00	260.4743652	216.2384033	347.448547	473.1033325	10.99290371	114465.9219
16-Jun-11 09:07:00	260.3912354	215.7691956	347.415161	454.7450867	12.84138584	114270.2656
16-Jun-11 09:08:00	260.3455505	216.4232025	347.533844	431.4187012	14.67588902	114363.2891
16-Jun-11 09:09:00	260.5531311	216.5626526	347.415161	459.085022	16.54146576	114504.2109
16-Jun-11 09:10:00	260.4568787	215.7043457	347.68219	465.2533569	18.35966492	114167.8281
16-Jun-11 09:11:00	260.3494263	216.38591	347.711853	452.0191345	20.23748779	114372.8047
16-Jun-11 09:12:00	260.3299866	216.3604736	347.68219	434.5804443	22.09030724	114567.8594
16-Jun-11 09:13:00	260.0849915	215.7348633	348.05603	455.1342773	23.94161415	114207.3047
16-Jun-11 09:14:00	259.984375	215.2236938	347.515289	480.549408	25.78672981	113962.1094
16-Jun-11 09:15:00	260.3299866	216.4901733	347.748962	436.0417786	27.6335125	114391.4531
16-Jun-11 09:16:00	260.3649902	216.4367371	347.68219	434.440918	29.48359489	114264.6719
16-Jun-11 09:17:00	260.1025085	215.811142	347.949219	473.4631653	31.33207703	114255.3828
16-Jun-11 09:18:00	259.988739	216.0209656	348.049347	475.4899292	33.17847443	114166.5547
16-Jun-11 09:19:00	259.9624634	215.7043152	348.169525	439.86026	35.05289459	114277.6328
16-Jun-11 09:20:00	259.9712219	215.9408569	347.949219	463.8875427	36.8731041	114107.3594
16-Jun-11 09:21:00	259.6300049	215.0939789	348.082733	447.306366	38.71590042	113779.25
16-Jun-11 09:22:00	259.9012451	215.4754639	347.949219	449.8912048	40.55918884	114119.6094
16-Jun-11 09:23:00	259.7875366	215.738678	347.381775	460.0689697	42.43622589	114125.6953
16-Jun-11 09:24:00	259.774353	215.5097961	347.602051	474.6087341	44.2508812	114004.1719
16-Jun-11 09:25:00	259.7262268	214.8651123	347.481934	463.5056458	46.12253571	113717.4141
16-Jun-11 09:26:00	259.7700195	215.4602051	347.575378	440.3155518	47.96338272	114101.0781
16-Jun-11 09:27:00	259.9362183	215.6661987	347.882446	428.7278137	49.81665802	114141.5234
16-Jun-11 09:28:00	259.6611023	215.1516266	346.999786	464.9693909	51.66719437	113901.6094
16-Jun-11 09:29:00	259.4856262	215.3648376	346.814331	469.6226196	53.52622986	113970.4297
16-Jun-11 09:30:00	259.664978	215.4067993	346.614075	447.3210449	55.37155151	113999.5703
16-Jun-11 09:31:00	259.3325195	214.781189	346.513947	453.4967346	57.18348694	113772.7188
16-Jun-11 09:32:00	259.5906372	214.8422241	346.600708	451.6535645	59.02308655	113663.6797
16-Jun-11 09:33:00	259.6693726	215.7081604	346.614075	444.5379639	60.86399841	113930.0469
16-Jun-11 09:34:00	259.6824951	215.3991547	346.800995	454.2090759	62.73974991	114143.2344
16-Jun-11 09:35:00	259.6124878	215.2084351	346.680847	453.5701904	64.55473328	113966.3594
16-Jun-11 09:36:00	259.6261292	215.0397339	346.768372	478.7813416	66.36920166	113765.3125
16-Jun-11 09:37:00	259.4987488	215.2961731	347.148132	441.3729858	68.21121216	114006.4844

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CT B FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 09:38:00	259.546875	215.486908	347.148132	454.8626404	70.08319092	114089.9375
16-Jun-11 09:39:00	259.1925049	214.6591187	346.947876	468.2787781	71.92457581	113619.8281
16-Jun-11 09:40:00	259.1925049	213.9572144	347.381775	463.5497437	73.76112366	113515.3203
16-Jun-11 09:41:00	259.2799988	215.0634766	346.881104	413.2922363	75.60107422	113915.8125
16-Jun-11 09:42:00	259.1575012	214.781189	347.114746	425.9961243	77.4431839	113812.0234
16-Jun-11 09:43:00	259.0699768	214.2776489	347.348389	451.6829834	79.24983215	113394.25
16-Jun-11 09:44:00	258.9824829	214.5141449	347.415161	427.7731628	81.10029602	113635.6484
16-Jun-11 09:45:00	258.8512573	214.3310547	347.041321	418.6381226	82.95587158	113759.2578
16-Jun-11 09:46:00	259.109375	213.8809204	347.114746	458.6223755	84.79437256	113376.1719
16-Jun-11 09:47:00	259.1837769	214.0068054	347.114746	451.9766846	86.598526	113612.8438
16-Jun-11 09:48:00	259.2974854	215.3839111	347.014618	433.9122314	88.47059631	114030.3438
16-Jun-11 09:49:00	258.9562683	213.9266663	346.974548	451.1175232	90.31317139	113443.2813
16-Jun-11 09:50:00	258.7355652	214.2191467	346.418243	461.3728333	92.14077759	113474.1719
16-Jun-11 09:51:00	258.9125366	214.4989014	346.614075	418.4031372	93.98269653	113548.0469
16-Jun-11 09:52:00	258.7025146	214.1708374	346.747589	422.6182251	95.81996155	113573.1484
16-Jun-11 09:53:00	258.6227722	213.7342682	346.614075	443.9447632	97.65579224	113396.2656
16-Jun-11 09:54:00	258.3583374	213.5884399	346.703094	442.293335	99.47598267	113153.8594
16-Jun-11 09:55:00	258.6193848	213.5375824	346.780975	422.6695862	101.3168564	113322.5547
16-Jun-11 09:56:00	258.6072083	214.1716919	346.406372	435.8638916	103.1276245	113513.8438
16-Jun-11 09:57:00	258.3349915	213.3544922	346.347046	448.0112915	104.9850159	113226.3125
16-Jun-11 09:58:00	258.4575195	213.2171631	346.29364	441.2995605	106.8150406	113205.5156
16-Jun-11 09:59:00	258.5644531	213.6189728	346.495392	437.9265137	108.6459885	113251.4688
16-Jun-11 10:00:00	258.3918762	214.0830841	346.614075	428.0595703	110.4791794	113451.8906
16-Jun-11 10:01:00	258.3831177	213.7779236	346.614075	441.5639038	1.712586641	113399.8828
16-Jun-11 10:02:00	258.0977783	213.3951874	346.483521	476.2617493	3.542857885	112987.3594
16-Jun-11 10:03:00	258.1211243	213.6223755	346.66748	443.2528687	5.372168541	113260.8125
16-Jun-11 10:04:00	257.9888611	212.8526459	346.358917	420.5115051	7.20407629	113162.1875
16-Jun-11 10:05:00	257.8493652	213.0569153	346.347046	442.4964905	9.03187561	112968.7578
16-Jun-11 10:06:00	258.1381226	213.1637573	346.06665	409.5471191	10.8600502	113166.2188
16-Jun-11 10:07:00	258.0375366	213.0950928	346.240234	430.0055237	12.68955517	113108.6016
16-Jun-11 10:08:00	257.8274841	212.8738403	346.347046	438.42099	14.5182333	112907.1094
16-Jun-11 10:09:00	257.5868835	212.7593994	346.347046	444.5011902	16.34471321	112886.125
16-Jun-11 10:10:00	257.9849854	212.6831055	346.213531	431.9148254	18.18583679	112809.9531
16-Jun-11 10:11:00	257.6194458	212.4999695	346.821777	444.2123718	20.00218773	112804.375
16-Jun-11 10:12:00	257.6700134	212.3359375	347.448547	420.2316284	21.82088089	112861.6172
R1	259.6569009	215.2925207	347.24098	450.3065772	58.42060119	113967.9851
16-Jun-11 10:13:00	257.5844421	212.7949982	348.601959	445.9682312	23.67674828	112834.1875
16-Jun-11 10:14:00	257.5037537	211.668396	350.619507	423.0440979	25.49298477	112711.5938
16-Jun-11 10:15:00	257.5299988	212.1948242	352.435303	441.4904785	27.29333687	112716.9688

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 10:16:00	257.5387573	213.0492859	353.837219	434.7346191	29.11834908	112958.8594
16-Jun-11 10:17:00	257.4775085	212.0727234	354.972076	440.3155212	30.97383881	112550.8359
16-Jun-11 10:18:00	257.4833374	212.1744843	356.440735	434.9696045	32.76296616	112561.8516
16-Jun-11 10:19:00	257.796875	213.0493164	357.50885	425.349884	34.58815384	113057.875
16-Jun-11 10:20:00	257.5606384	212.7098083	358.763885	436.5704651	36.41799164	113019.7188
16-Jun-11 10:21:00	257.2324829	211.7370453	359.217834	462.9035034	38.24050522	112570.4375
16-Jun-11 10:22:00	257.4512329	211.8133545	360.05896	444.0679321	40.08748245	112564.8359
16-Jun-11 10:23:00	257.5562439	212.6296997	360.259247	418.4765625	41.9139595	112966.9688
16-Jun-11 10:24:00	257.3199768	212.1100464	360.926819	442.7306519	43.72558975	112775.4688
16-Jun-11 10:25:00	257.2937317	211.6531372	361.394104	434.8227844	45.52890015	112380.25
16-Jun-11 10:26:00	257.1931458	212.1681213	361.727905	435.7626953	47.35200119	112609.0469
16-Jun-11 10:27:00	257.1099854	212.0117188	362.395477	419.2255859	49.20122528	112676.3438
16-Jun-11 10:28:00	256.7424927	211.0656738	362.729248	423.0441284	50.99156189	112229.6016
16-Jun-11 10:29:00	256.6549988	211.214447	363.063049	445.5806274	52.83794785	112315.6953
16-Jun-11 10:30:00	256.8144531	211.2555389	363.330078	425.6485596	54.64083862	112325.3906
16-Jun-11 10:31:00	256.7833252	211.686203	363.579315	427.9200745	56.453125	112451.6094
16-Jun-11 10:32:00	256.5927734	211.1300964	362.380646	426.6667786	58.2610817	112345.6172
16-Jun-11 10:33:00	256.5150146	210.6384277	362.528992	440.2861938	60.1059494	112175.4453
16-Jun-11 10:34:00	256.4231262	211.1839142	362.62912	422.2583618	61.920681	112256
16-Jun-11 10:35:00	256.1300049	210.9741211	362.528992	413.4684448	63.73712158	112154.75
16-Jun-11 10:36:00	255.9200134	210.256958	362.595764	425.3352661	65.54692841	111713.7813
16-Jun-11 10:37:00	255.8281097	210.4667358	363.129822	401.454834	67.35704041	112153.0859
16-Jun-11 10:38:00	255.9987488	210.0661926	363.029663	391.644165	69.16763306	112014.8359
16-Jun-11 10:39:00	255.7372131	209.64151	363.033386	419.4736633	70.97273254	111432.3047
16-Jun-11 10:40:00	255.8718719	210.1539612	362.62912	409.6646423	72.76273346	111804.1875
16-Jun-11 10:41:00	256.2875061	210.8139038	362.849426	416.0826721	74.59333038	112108.1641
16-Jun-11 10:42:00	256.7293701	210.3485107	362.562378	442.0192261	76.40569305	111821.1875
16-Jun-11 10:43:00	256.7949829	209.967041	362.395477	468.6606445	78.1784668	111480.6094
16-Jun-11 10:44:00	256.698761	210.2645874	362.528992	450.4125366	79.98512268	111984.6016
16-Jun-11 10:45:00	256.7755432	211.486145	362.784149	452.8872681	81.82262421	112259.5469
16-Jun-11 10:46:00	256.4100037	211.1266937	363.063049	537.9519043	83.6325531	112502.6719
16-Jun-11 10:47:00	255.8937531	209.1125488	362.535675	517.9561157	85.46105957	111613.6563
16-Jun-11 10:48:00	255.8062439	209.4558716	363.303375	465.7379761	87.2633667	111459.4297
16-Jun-11 10:49:00	256.2272339	210.5434875	363.330078	414.9501648	89.07090759	112065.0234
16-Jun-11 10:50:00	255.9768829	209.5359802	363.543701	459.1657715	90.88218689	111801.1406
16-Jun-11 10:51:00	255.6487427	209.5588684	363.777344	482.9360046	92.68671417	111442.2734
16-Jun-11 10:52:00	255.4649963	209.6618652	363.864136	480.7330322	94.49038696	111735.2656
16-Jun-11 10:53:00	255.6006317	209.1773987	363.463593	468.3889465	96.29857635	111604.5781
16-Jun-11 10:54:00	255.4256287	208.5670471	363.597107	482.1870422	98.09913635	111260.0234

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 10:55:00	255.682785	209.319397	363.543701	439.819458	99.89968109	111536.0391
16-Jun-11 10:56:00	255.6750183	209.7229004	363.543701	444.4644775	101.705719	111699.9922
16-Jun-11 10:57:00	255.5524902	209.4787598	364.010986	459.0409546	103.5103073	111545.7969
16-Jun-11 10:58:00	255.2899933	209.0922089	363.72171	472.900177	105.312973	111378.4688
16-Jun-11 10:59:00	255.1849976	208.7158203	363.864136	454.0621948	107.1151505	111325.9375
16-Jun-11 11:00:00	255.2025146	208.59375	363.677216	451.7710876	108.9147263	111134.8438
16-Jun-11 11:01:00	255.5699921	209.1125488	363.81073	427.6263428	1.648151517	111367.8672
16-Jun-11 11:02:00	255.0187683	209.7457886	363.824097	432.6931763	3.454364061	111835.5156
16-Jun-11 11:03:00	254.7956238	208.6242676	363.81073	469.9384155	5.260907173	111339.1875
16-Jun-11 11:04:00	254.3100128	207.5866699	364.077759	488.6637573	7.084403038	110817.3125
16-Jun-11 11:05:00	255.0187683	208.4259033	363.610474	408.6365967	8.851797104	111353.6875
16-Jun-11 11:06:00	255.2200012	208.704361	363.410187	424.4099121	10.65259171	111256.0859
16-Jun-11 11:07:00	255.5568695	208.7692261	363.356781	459.4888611	12.45113277	111224.9219
16-Jun-11 11:08:00	255.7099915	210.1196289	363.543701	460.6417847	14.25347233	111804.1094
16-Jun-11 11:09:00	255.4168854	209.5970001	363.330078	467.5518188	16.07329559	111662.8438
16-Jun-11 11:10:00	255.0994263	209.0515137	363.472504	483.6246338	17.87792206	111272.6719
16-Jun-11 11:11:00	254.3372345	208.4377747	363.335999	455.3937378	19.66780853	111466.8125
16-Jun-11 11:12:00	254.5783386	208.6344452	363.223267	408.8274841	21.48741341	111293.2578
16-Jun-11 11:13:00	254.1233368	207.2814941	363.365692	450.9094238	23.29055595	110632.8672
16-Jun-11 11:14:00	254.2049866	208.4140015	362.528992	428.083252	25.05684853	111117.0078
16-Jun-11 11:15:00	254.2225037	208.4106445	362.595764	438.2447205	26.85352325	111210.8125
16-Jun-11 11:16:00	254.0455627	207.2509766	362.647675	448.513916	28.66456413	110620.7734
16-Jun-11 11:17:00	253.9862366	207.5485229	362.675842	434.059082	30.43869591	110954.5
16-Jun-11 11:18:00	254.4193726	208.4220581	362.281982	424.755127	32.24113464	111152.5469
16-Jun-11 11:19:00	254.1525116	207.418808	362.261963	435.4689636	34.0338974	110743.6406
16-Jun-11 11:20:00	254.0562439	207.3883057	362.328735	442.1072998	35.82260132	110683.2344
16-Jun-11 11:21:00	254.1218872	207.888031	362.495605	425.812561	37.6468544	111122.3984
16-Jun-11 11:22:00	253.5749817	208.5361023	362.261963	437.5283203	39.43429947	111493.8906
16-Jun-11 11:23:00	253.4349976	205.8776855	362.528992	453.827179	41.24351883	110197.6875
16-Jun-11 11:24:00	253.8462524	205.5419922	362.528992	430.0349426	43.0217514	110061.7422
16-Jun-11 11:25:00	253.5137634	206.8084717	362.25528	368.4173584	44.78060532	110622.1484
16-Jun-11 11:26:00	254.3450012	207.9070892	362.075012	370.1724243	46.56752777	110932.6563
16-Jun-11 11:27:00	254.1962433	208.303833	362.19519	448.3931274	48.36328125	111133.7031
16-Jun-11 11:28:00	254.4888916	208.5496674	362.499329	501.0201111	50.19002533	111367.5547
16-Jun-11 11:29:00	253.8156281	207.7735901	362.261963	476.3124084	51.99095535	111070.4922
16-Jun-11 11:30:00	252.332489	207.2662354	362.408813	425.9667358	53.78659058	111058.1328
16-Jun-11 11:31:00	252.9799957	205.5114746	361.994934	390.8511353	55.58067703	110274.0703
16-Jun-11 11:32:00	252.3237457	204.0161133	362.19519	364.4299316	57.32929611	109295.0391
16-Jun-11 11:33:00	252.8968658	205.1872101	362.348755	309.781189	59.09471893	109883.2656
16-Jun-11 11:34:00	253.4962616	205.9310608	362.762634	353.3856506	60.90458298	110141.9375

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CT B FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 11:35:00	253.8462524	206.7207336	364.111145	422.1776123	62.68878937	110406.0469
16-Jun-11 11:36:00	253.6975098	207.3730469	365.813446	447.3650818	64.44834137	110825.7031
16-Jun-11 11:37:00	253.5244598	207.4883118	368.326477	447.182312	66.24619293	111184.8828
16-Jun-11 11:38:00	253.3125	207.4493408	370.619965	437.9069519	68.06893158	111003.7266
16-Jun-11 11:39:00	253.2381287	206.3087463	373.303589	437.3855896	69.86029053	110507.2969
16-Jun-11 11:40:00	253.8355556	207.1560364	375.239563	381.4843445	71.62644958	110736.8906
16-Jun-11 11:41:00	253.5050049	207.0373535	377.322388	408.0050659	73.43994904	110710.3984
16-Jun-11 11:42:00	253.9162445	208.0177307	378.94458	418.1167908	75.23461914	111034.1875
16-Jun-11 11:43:00	253.4466705	207.1390839	380.615753	467.260498	77.02791595	110637.4844
16-Jun-11 11:44:00	253.3650055	207.3255768	382.099243	433.5401306	78.8184967	110743.4297
16-Jun-11 11:45:00	252.4506226	206.9458008	383.497437	387.0839844	80.61166382	110872.1094
16-Jun-11 11:46:00	252.9362488	203.8635254	384.345245	389.1915283	82.39113617	109118.3203
16-Jun-11 11:47:00	252.7918701	204.9888458	385.980804	330.8858032	84.15789795	109505.9453
16-Jun-11 11:48:00	253.0806274	205.0193787	387.102325	338.5375366	85.93208313	109827.1953
16-Jun-11 11:49:00	253.2775116	206.1752014	388.931458	400.9848633	87.711586	110123.125
16-Jun-11 11:50:00	253.5399933	206.5643311	390.7005	448.0406799	89.4947052	110411.8281
16-Jun-11 11:51:00	253.3824921	206.9839478	392.169189	445.5145874	91.28335571	110785.3906
16-Jun-11 11:52:00	253.0500183	207.5561523	393.771362	424.1015625	93.07746887	110994.0625
16-Jun-11 11:53:00	252.0087585	206.2705994	395.320129	428.0889587	94.87137604	110608.7031
16-Jun-11 11:54:00	252.4375	204.0771484	396.922302	408.4162598	96.66136169	109297.9531
16-Jun-11 11:55:00	253.1199951	205.5419922	398.435455	329.1478882	98.41941071	109842.8125
16-Jun-11 11:56:00	253.8549957	206.6101074	399.59259	345.9102173	100.1992111	110123.1641
16-Jun-11 11:57:00	252.3237457	206.4422607	400.927734	421.7957458	101.9837494	110546.5156
16-Jun-11 11:58:00	252.5774994	206.9610596	401.675415	438.5531616	103.7880859	110723.0313
R2AVG	254.569344	208.2253399	368.869983	430.8786199	62.91457731	111119.3352
16-Jun-11 11:59:00	253.4349976	206.3812256	402.342957	422.9266357	105.5631104	110554.7188
16-Jun-11 12:00:00	253.5400085	206.2744141	403.010559	383.8603516	107.3473129	110477.0313
16-Jun-11 12:01:00	253.3299866	207.0983887	404.078674	378.4262695	1.676517248	110688.2734
16-Jun-11 12:02:00	253.4000092	207.9681396	404.719543	425.4527283	3.463298321	110992.7656
16-Jun-11 12:03:00	253.3999939	206.3278198	404.639435	456.8233032	5.258196831	110658.5547
16-Jun-11 12:04:00	253.2468719	206.1027527	405.360413	445.9552002	7.043424129	110298.375
16-Jun-11 12:05:00	253.4524994	207.7239838	405.627441	372.0229187	8.863577843	111075.3281
16-Jun-11 12:06:00	253.0325165	207.7049255	405.173492	378.7493896	10.66083717	111125.7188
16-Jun-11 12:07:00	251.5843658	205.7098389	405.627441	436.6292114	12.42287064	110192.7109
16-Jun-11 12:08:00	251.9168854	205.1528931	406.094727	365.2303772	14.19999409	110058.0391
16-Jun-11 12:09:00	252.4462433	205.2825928	406.108093	319.9589844	16.0017643	109879.6563
16-Jun-11 12:10:00	253.3299866	205.2368164	406.695557	350.3161621	17.75495911	109848.6719
16-Jun-11 12:11:00	253.7937469	206.5185547	406.428528	396.2411194	19.53485107	110327.9688

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 12:12:00	253.8724976	207.1327209	405.927856	437.5765381	21.35131836	110533.2813
16-Jun-11 12:13:00	253.3387451	207.4798584	405.947876	446.1607666	23.11993217	110903.1484
16-Jun-11 12:14:00	251.7550049	206.6558838	405.89447	422.662262	24.90443802	110816.3281
16-Jun-11 12:15:00	251.6149902	204.9316406	405.89447	366.8826294	26.72067642	109819.8359
16-Jun-11 12:16:00	252.0656281	204.2602539	405.927856	344.2138672	28.46623039	109673.7031
16-Jun-11 12:17:00	253.1549988	205.9844971	406.027985	320.3261414	30.26969147	110175.9688
16-Jun-11 12:18:00	253.3387451	206.3774109	405.927856	396.1603088	32.04984283	110532.0859
16-Jun-11 12:19:00	252.6606293	206.4880371	406.128113	460.8106384	33.84211731	110742.2891
16-Jun-11 12:20:00	253.3168793	206.8847656	406.3284	427.890686	35.63389206	110607.9375
16-Jun-11 12:21:00	252.0218811	206.5605164	406.695557	414.0192261	37.39310455	110704.9219
16-Jun-11 12:22:00	251.8444519	204.9384003	407.229614	371.6671753	39.18615341	109997.3672
16-Jun-11 12:23:00	252	205.2368164	406.962585	335.9232788	40.98308182	109601.7266
16-Jun-11 12:24:00	251.0856323	205.5648804	406.962585	326.7514954	42.76149368	110229.3047
16-Jun-11 12:25:00	252.7524872	205.2177429	406.461914	353.2314453	44.53106308	109859.9531
16-Jun-11 12:26:00	252.6999817	205.6030273	406.428528	414.8783569	46.3182373	110044.1719
16-Jun-11 12:27:00	253.0149994	206.0455322	405.787659	384.9471436	48.10011673	110330.5781
16-Jun-11 12:28:00	252.1575012	206.6863861	405.360413	377.9269409	49.88663483	110656.0938
16-Jun-11 12:29:00	252.2974854	206.5261841	405.533966	397.4454041	51.67662811	110500.9141
16-Jun-11 12:30:00	252.2644348	205.1113586	405.89447	397.2544861	53.45934677	109968.3984
16-Jun-11 12:31:00	252.8050079	205.6526184	405.72757	358.8417358	55.23543549	110046.5469
16-Jun-11 12:32:00	252	205.9692383	405.627441	357.2481995	57.00405884	110380.1563
16-Jun-11 12:33:00	250.9762268	206.3049316	406.128113	371.5896606	58.80711746	110702.4219
16-Jun-11 12:34:00	250.6174927	203.7986755	406.348419	404.5243225	60.58982086	109430.3906
16-Jun-11 12:35:00	251.6538849	203.8703003	406.161499	340.916748	62.35723495	109201.0078
16-Jun-11 12:36:00	251.4049988	204.9621582	406.228271	296.710144	64.12971497	109675.3438
16-Jun-11 12:37:00	251.3427887	205.0095978	405.627441	321.5826721	65.9076004	110060.4141
16-Jun-11 12:38:00	252.2450104	205.8242798	405.627441	390.2122192	67.70029449	110184.5391
16-Jun-11 12:39:00	253.0966644	204.6773224	405.627441	427.3130188	69.46126556	109368.0313
16-Jun-11 12:40:00	252.1399994	204.8706055	405.14679	374.3433838	71.23284149	109788.2344
16-Jun-11 12:41:00	251.9649963	205.413147	404.612732	339.7026367	73.0113678	109929.1016
16-Jun-11 12:42:00	251.8031311	206.2171936	405.226898	376.9649658	74.79371643	110324.4531
16-Jun-11 12:43:00	251.4312439	206.2744141	405.627441	415.1133728	76.58078766	110573.2188
16-Jun-11 12:44:00	250.5105591	205.0401459	405.657104	400.4985657	78.36691284	110283.8516
16-Jun-11 12:45:00	250.5299988	203.7414551	405.89447	350.9297485	80.16688538	109495.5781
16-Jun-11 12:46:00	250.9237366	204.3174744	405.994598	307.688324	81.9466095	109741.9531
16-Jun-11 12:47:00	251.6937561	204.3365479	406.161499	320.3481445	83.6908493	109581.7109
16-Jun-11 12:48:00	252.7218628	205.1681519	406.895813	372.6985168	85.46440125	109841.9453
16-Jun-11 12:49:00	252.8225098	206.1676025	406.061371	394.8605652	87.22596741	110275.9375
16-Jun-11 12:50:00	251.8211212	206.1625214	405.360413	406.6147156	89.01300812	110538.2266
16-Jun-11 12:51:00	251.4312439	205.8357239	405.567352	396.6743164	90.78791809	110364.0547

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CT B FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 12:52:00	250.9577637	204.4976196	405.194275	387.0978699	92.59106445	109595.4297
16-Jun-11 12:53:00	251.2299957	205.5992126	405.280304	317.3374023	94.37017822	109965.7891
16-Jun-11 12:54:00	251.0025024	204.7943115	405.760956	310.5302124	96.12086487	109975.3672
16-Jun-11 12:55:00	251.2737732	203.8406372	405.473907	354.0098267	97.90086365	109515
16-Jun-11 12:56:00	250.8143768	204.6073914	405.89447	359.7449341	99.67138672	109933.25
16-Jun-11 12:57:00	252.0612488	205.0613403	406.094727	328.4037781	101.4726563	109853.3359
16-Jun-11 12:58:00	250.7137604	204.3060303	406.128113	347.4669189	103.2582626	109850.8359
16-Jun-11 12:59:00	251.4225006	205.4237366	406.161499	340.9387512	105.0625763	110022.4297
16-Jun-11 13:00:00	252.3062439	204.6798706	406.695557	371.6484375	106.811264	109639.7109
16-Jun-11 13:01:00	253.0849915	205.5114746	406.428528	376.8695068	1.625910878	109777.1172
16-Jun-11 13:02:00	251.4360962	205.5386047	406.131836	386.484314	3.405560732	110132.7266
16-Jun-11 13:03:00	251.1716614	205.9488831	405.360413	378.6906433	5.210175991	110461.1484
16-Jun-11 13:04:00	250.9499817	204.2297058	405.627441	365.1716309	6.990317345	109634.4375
16-Jun-11 13:05:00	250.4988861	203.9923706	405.194275	352.7573547	8.748827934	109516.4297
16-Jun-11 13:06:00	250.8450012	204.901123	405.627441	300.5580139	10.54772949	110024.8594
16-Jun-11 13:07:00	250.6875	204.5806885	405.89447	338.0969238	12.30500221	109842.2656
16-Jun-11 13:08:00	250.683136	203.8406219	405.954559	367.3085327	14.10213947	109545.5
16-Jun-11 13:09:00	250.8012543	204.3746948	405.660828	346.1965637	15.84494209	109808.375
16-Jun-11 13:10:00	251.2737579	205.0613403	405.89447	320.5464478	17.65434074	110090.7031
16-Jun-11 13:11:00	251.1031189	205.1071167	406.061371	350.5364685	19.40548134	110131.8906
16-Jun-11 13:12:00	250.9106293	203.9588928	406.428528	366.4273071	21.21047211	109399.4375
16-Jun-11 13:13:00	250.8756256	205.1719666	406.161499	338.5374756	22.97867966	109710.5156
16-Jun-11 13:14:00	251.0287323	205.3131104	405.89447	317.8147278	24.76027298	110095.2188
16-Jun-11 13:15:00	250.6466522	204.9146729	405.651184	348.6190186	26.54044724	109885.3984
16-Jun-11 13:16:00	250.8362579	204.3937683	405.10675	373.4621887	28.31488228	109635.6328
16-Jun-11 13:17:00	250.8756256	203.8444519	404.56601	345.5430298	30.05643845	109440.1719
16-Jun-11 13:18:00	251.9105682	205.3792114	404.559326	313.5409546	31.84742165	109987
16-Jun-11 13:19:00	251.2387695	205.3283691	405.307007	351.6379395	33.61186981	110280.2422
16-Jun-11 13:20:00	251.5406189	204.6836853	405.173492	384.3449707	35.42446899	110006.0391
16-Jun-11 13:21:00	251.3855591	204.2297363	405.627441	381.4647827	37.19891357	109705.5938
16-Jun-11 13:22:00	250.9850006	205.2062988	405.538422	325.2510376	38.95659637	110243.4141
16-Jun-11 13:23:00	250.7399902	205.0842285	405.89447	341.680481	40.75857925	110170.1953
16-Jun-11 13:24:00	250.6699829	204.1610718	405.961243	362.2269592	42.53642273	109598.7578
16-Jun-11 13:25:00	250.4075012	204.4433594	406.695557	355.7208252	44.29312134	109690.2969
16-Jun-11 13:26:00	250.6612549	204.4624329	405.70755	322.0811768	46.08511353	109809.3125
16-Jun-11 13:27:00	250.4162445	204.1877747	405.594055	345.2859802	47.85754395	109751.7734
16-Jun-11 13:28:00	250.5518799	204.1954041	405.447205	347.9222107	49.63093567	109551.7188
16-Jun-11 13:29:00	250.9193726	203.9054871	404.893127	341.9962158	51.40261459	109276.4609
16-Jun-11 13:30:00	250.3549957	203.8330078	404.559326	351.3148193	53.14001465	109419.8281
16-Jun-11 13:31:00	251.4137573	204.8591614	405.14679	316.8453979	54.94329071	109773.0703

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 13:32:00	250.5562439	204.9621582	405.360413	361.0813904	56.72200394	110145.6719
16-Jun-11 13:33:00	250.359375	204.7943115	405.660828	389.5440063	58.50411224	110101.2188
16-Jun-11 13:34:00	250.0050049	203.4057617	405.827698	385.5198975	60.25530243	109253.0156
16-Jun-11 13:35:00	250.2368774	203.8291931	405.994598	316.3460999	62.04545593	109560.7422
16-Jun-11 13:36:00	250.420639	204.9621582	405.694214	301.1087646	63.82138824	109981.1641
16-Jun-11 13:37:00	250.2368774	203.5964966	406.3284	360.5453491	65.59729767	109382.1875
16-Jun-11 13:38:00	250.3374939	204.1000366	406.228271	368.46875	67.36741638	109582.3594
16-Jun-11 13:39:00	250.2850037	204.5349121	406.161499	344.1477661	69.14247131	109729.5156
16-Jun-11 13:40:00	250.8274994	202.4177551	405.794342	343.2739258	70.91105652	108783.5547
16-Jun-11 13:41:00	250.2149963	203.4851074	405.274963	321.2601929	72.68543243	109141.9063
16-Jun-11 13:42:00	250.5737457	203.8520813	405.14679	297.3563232	74.44223022	109499.4375
16-Jun-11 13:43:00	250.5606232	204.4509888	404.826355	338.8018494	76.21585846	109745.125
16-Jun-11 13:44:00	250.7477875	204.7146301	405.14679	368.9974976	78.01062775	109988.7734
16-Jun-11 13:45:00	250.0400085	203.9397888	405.200195	368.0428467	79.7727356	109908.3281
16-Jun-11 13:46:00	249.9612579	203.1425476	405.33371	335.0934448	81.54421997	109221.5469
16-Jun-11 13:47:00	250.5183258	204.5756073	405.289215	304.2981873	83.31399536	109632.875
16-Jun-11 13:48:00	250.8275146	204.4891357	405.600739	321.8829346	85.10348511	109916.0469
16-Jun-11 13:49:00	250.9412384	204.7943115	405.360413	372.0669556	86.86772156	109978.7031
16-Jun-11 13:50:00	250.0837402	204.649353	405.89447	404.5169678	88.64331055	109764.1953
16-Jun-11 13:51:00	249.9525146	203.436264	405.760956	346.2920532	90.43050385	109387.4063
16-Jun-11 13:52:00	249.9962463	203.1997681	405.360413	317.4916382	92.18249512	109215.8516
16-Jun-11 13:53:00	250.2368774	203.7567139	405.14679	303.4659424	93.9546051	109623.7891
16-Jun-11 13:54:00	250.9033356	204.2195587	405.039978	341.7587585	95.72451019	109656.8047
16-Jun-11 13:55:00	250.6466827	205.1554413	404.488129	394.2583923	97.50875092	109900.2578
16-Jun-11 13:56:00	250.7750092	204.5043945	404.826355	370.2312012	99.3062973	109590.1875
16-Jun-11 13:57:00	250.5387421	203.855896	405.14679	349.4936829	101.0548553	109672.2266
16-Jun-11 13:58:00	250.4599915	204.6264648	405.627441	319.330719	102.8238297	109917.8828
16-Jun-11 13:59:00	250.0516663	204.2195587	405.467224	336.2170105	104.6125946	109822.3516
16-Jun-11 14:00:00	250.2324982	202.9670715	405.660828	359.8991699	93.08522797	109124.3125
16-Jun-11 14:01:00	250.140625	203.4210205	405.861084	317.3447571	1.647969246	109380.5156
R3 AVG	251.3019309	204.8659233	405.741657	358.2200844	56.86163529	109884.0359
16-Jun-11 14:02:00	251.0375061	204.7332764	406.027985	310.6917419	3.39041996	109704.1719
16-Jun-11 14:03:00	251.2037506	205.5458069	405.921173	368.3145447	5.196691513	110066.3281
16-Jun-11 14:04:00	249.8474884	203.8711548	405.89447	404.5316467	6.945156574	109726.7891
16-Jun-11 14:05:00	250.4425049	202.5970459	405.387115	367.8519592	8.743572235	108795.5156
16-Jun-11 14:06:00	250.7881165	203.3294678	404.866394	311.4040527	10.50600815	109124.5078
16-Jun-11 14:07:00	250.735611	204.2335205	404.826355	295.5792236	12.27443314	109510.9141
16-Jun-11 14:08:00	251.1468811	204.7027588	404.846375	344.0743713	14.01830482	109748.3047
16-Jun-11 14:09:00	250.8318787	205.480957	405.14679	393.8471985	15.82673836	110111.4922

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 14:10:00	250.8955688	204.0296783	405.864807	412.9005737	17.60212898	109511.3906
16-Jun-11 14:11:00	250.6272125	204.7756653	405.746124	373.997467	19.37977982	109936.1875
16-Jun-11 14:12:00	250.4031372	204.8439026	405.827698	340.4541321	21.15827942	109969.5
16-Jun-11 14:13:00	250.0050049	202.2766113	405.89447	356.895752	22.93015289	109069.2734
16-Jun-11 14:14:00	250.1450043	203.4171753	406.114777	351.1753235	24.6935482	109195.5313
16-Jun-11 14:15:00	249.4761047	203.714325	406.547211	329.519928	26.46265793	109586.3281
16-Jun-11 14:16:00	249.7818756	203.6346436	405.89447	327.3022766	28.23430443	109245.7969
16-Jun-11 14:17:00	249.7600098	202.734375	405.680847	349.5524292	29.99795914	109052.7656
16-Jun-11 14:18:00	250.2587433	203.5049133	405.307007	326.1860962	31.76421356	109583.4844
16-Jun-11 14:19:00	250.4162598	204.0428009	404.846375	329.5126038	33.53627777	109693.9531
16-Jun-11 14:20:00	250.1450043	204.8095703	404.612732	374.284668	35.31370926	109980.5859
16-Jun-11 14:21:00	250.4075012	202.6199341	405.066681	393.5534668	37.08624649	108879.8984
16-Jun-11 14:22:00	249.9306183	202.4749756	405.280304	359.039978	38.84348679	108785.1094
16-Jun-11 14:23:00	250.1061096	203.2124786	405.111176	290.3035278	40.60722351	109299.6797
16-Jun-11 14:24:00	250.5261078	203.74823	405.312927	305.1793823	42.37576675	109487.625
16-Jun-11 14:25:00	249.6724854	204.18396	405.360413	372.3166504	44.14975739	109792.3281
16-Jun-11 14:26:00	250.25	204.3518066	405.680847	382.0195618	45.92642212	109751.3359
16-Jun-11 14:27:00	250.0050049	202.5512695	405.627441	392.5547485	47.68792343	108880.0469
16-Jun-11 14:28:00	250.5343628	203.2913208	405.594055	291.9296265	49.42101669	109176.3516
16-Jun-11 14:29:00	250.2499847	203.8749695	405.226898	300.5726624	51.20740509	109453.2969
16-Jun-11 14:30:00	250.4949951	204.9316406	404.559326	366.295166	52.96158218	109698.0859
16-Jun-11 14:31:00	249.9087524	203.6727905	404.545959	400.5442505	54.7321167	109269.4688
16-Jun-11 14:32:00	251.3000183	204.2602539	404.425812	341.2692261	56.50148773	109500.0625
16-Jun-11 14:33:00	250.1294403	204.6264648	404.618652	333.5212097	58.28264999	109851.9609
16-Jun-11 14:34:00	251.566864	204.6264648	404.826355	344.4048157	60.05440903	109698.6172
16-Jun-11 14:35:00	250.4288788	203.7211151	405.004364	393.1226501	61.8260231	109587.0547
16-Jun-11 14:36:00	251.8133392	205.480957	405.217987	347.6138306	63.60277557	109946.5313
16-Jun-11 14:37:00	251.9649963	205.4945221	405.360413	362.6463318	65.38130951	110019.375
16-Jun-11 14:38:00	252.7262573	205.1681519	406.161499	405.5230103	67.19015503	110015.1484
16-Jun-11 14:39:00	251.4356232	206.0188293	406.3284	406.7420044	68.97060394	110346.7266
16-Jun-11 14:40:00	251.1172333	205.0130157	406.131836	387.2610474	70.75473022	110054.1797
16-Jun-11 14:41:00	250.8177948	203.7719727	405.89447	375.9360657	72.54930115	109343.2422
16-Jun-11 14:42:00	252.2275085	204.7180176	405.387115	336.1876526	74.31060028	109509.25
16-Jun-11 14:43:00	252.7131042	206.1790466	405.580688	361.3310547	76.10070038	109855.9375
16-Jun-11 14:44:00	250.1931305	205.5763245	405.14679	438.1125488	77.8526001	110099.8281
16-Jun-11 14:45:00	250.4075012	204.0008545	405.226898	408.5337524	79.63195038	109543.1719
16-Jun-11 14:46:00	250.2188873	204.1381836	405.579956	355.7077637	81.40750885	109595.3281
16-Jun-11 14:47:00	250.901886	205.103302	405.627441	304.8832092	83.17648315	109801.25
16-Jun-11 14:48:00	250.359375	203.2646179	405.794342	354.7001038	84.97367096	109254.1406
16-Jun-11 14:49:00	251.1950073	204.4281006	405.89447	355.0452271	86.7134552	109534.1563

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 14:50:00	251.6344452	204.9960632	405.835144	367.0914917	88.49472046	109919.8438
16-Jun-11 14:51:00	250.3681183	205.0918579	406.128113	393.9500122	90.27169037	110104.5
16-Jun-11 14:52:00	250.4774933	203.1311035	405.627441	405.1852112	92.07380676	109144.125
16-Jun-11 14:53:00	250.0006256	202.8564453	405.660828	337.3479004	93.83638763	109052.5547
16-Jun-11 14:54:00	250.5649872	203.9932251	405.200195	287.4869385	95.60456085	109463.3984
16-Jun-11 14:55:00	250.4774933	204.0466309	404.826355	331.8991394	97.36053467	109582.0625
16-Jun-11 14:56:00	250.1975098	204.9240112	404.606049	377.9710083	99.14794922	109920.875
16-Jun-11 14:57:00	250.9499817	202.3376465	405.14679	408.2987671	100.8943176	108652.8047
16-Jun-11 14:58:00	249.5893707	202.188858	405.026611	354.7808838	102.6819458	108722.1875
16-Jun-11 14:59:00	250.035614	203.3065796	405.280304	296.5632629	104.4449615	109241.1094
16-Jun-11 15:00:00	251.1949921	204.7180176	405.14679	316.3020325	106.2140656	109569.7109
16-Jun-11 15:01:00	250.9616699	204.7247925	405.627441	398.5795288	1.648878694	109781.1406
16-Jun-11 15:02:00	252.0175018	205.557251	405.89447	417.4338379	3.43380022	110065.9844
16-Jun-11 15:03:00	251.3918762	206.2095642	405.89447	423.2717285	5.214195251	110192.6953
16-Jun-11 15:04:00	250.4444427	204.7180176	405.657104	408.4750366	6.991991997	109881.8125
16-Jun-11 15:05:00	250.2062531	203.2417297	405.360413	348.7006226	8.764688492	109155.9219
16-Jun-11 15:06:00	250.1450043	204.0313721	404.986572	329.5786743	10.5320797	109535.3984
16-Jun-11 15:07:00	250.6218872	204.0809631	404.799652	343.6411133	12.30228996	109637.1875
16-Jun-11 15:08:00	249.8649902	203.2150269	405.133423	396.211731	14.07411003	109326.5313
16-Jun-11 15:09:00	250.1712494	204.1839447	405.447205	375.2539673	15.84541416	109618.0078
16-Jun-11 15:10:00	249.8922272	203.5753021	405.419739	371.3734436	17.59408379	109359.1797
16-Jun-11 15:11:00	249.6418762	203.4477234	405.393799	342.4882202	19.38373184	109217.7578
16-Jun-11 15:12:00	250.1625061	203.4210052	405.760956	324.3208923	21.15275955	109239.875
16-Jun-11 15:13:00	249.7600098	203.6613464	405.627441	341.6731262	22.92130661	109570.4141
16-Jun-11 15:14:00	250.8712463	202.9251099	405.89447	364.7236938	24.68965149	109054.5859
16-Jun-11 15:15:00	251.0375061	203.6651611	405.89447	374.8427429	26.45214462	109080.2266
16-Jun-11 15:16:00	251.2124939	204.6455078	405.393799	362.5794373	28.22120667	109619.6641
16-Jun-11 15:17:00	251.7550049	205.0537109	405.533966	395.9033203	29.99489975	109902.9219
16-Jun-11 15:18:00	251.3262482	205.5458069	404.946533	435.9022217	31.7738266	110109.5859
16-Jun-11 15:19:00	250.2149963	205.0537109	404.559326	428.0375366	33.55485153	109997.5547
16-Jun-11 15:20:00	249.6374969	202.7572632	404.412476	379.7480774	35.32243347	108952.4453
16-Jun-11 15:21:00	250.0400085	203.7109375	404.826355	316.8307495	37.08860016	109519.5391
16-Jun-11 15:22:00	249.8610992	203.5651245	405.123047	316.9808655	38.86121368	109448.0156
16-Jun-11 15:23:00	249.4362488	203.3218384	405.14679	386.7462158	40.63287735	109207.4063
16-Jun-11 15:24:00	249.4887543	202.734375	405.026611	375.7312927	42.39518738	109094.1953
16-Jun-11 15:25:00	249.8912506	202.8602448	405.527313	332.3104248	44.15895844	108990.5938
16-Jun-11 15:26:00	250.2631226	204.1496277	405.647461	329.2996216	45.92486954	109281.8125
16-Jun-11 15:27:00	249.4187469	203.7414551	405.393799	357.1160583	47.69914246	109371.6328
16-Jun-11 15:28:00	249.1650085	203.2684326	405.493927	369.3793335	49.47964478	109302.2891
16-Jun-11 15:29:00	249.5149994	201.9485474	405.320374	359.8477173	51.24780655	108736.7734

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRS G B NH3 IN	PWC2_ANG_CT B FUEL OIL CURR	PWC2_ANG_FO FL W
16-Jun-11 15:30:00	250.3822174	203.1819611	404.796692	302.1311035	52.99011993	109208.9922
16-Jun-11 15:31:00	249.9000092	203.8253784	404.238892	327.6547546	54.75531006	109453.8906
16-Jun-11 15:32:00	250.0166626	203.9313354	404.32196	387.691864	56.54539108	109595.3438
16-Jun-11 15:33:00	249.6277618	202.8361053	404.950958	424.0232544	58.29431915	109121.8281
16-Jun-11 15:34:00	250.6787567	203.9588928	405.153473	344.6177368	60.0645752	109334.375
16-Jun-11 15:35:00	250.2106171	204.2983856	404.846375	346.5637512	61.8620224	109692.1406
16-Jun-11 15:36:00	250.5066681	204.0466309	405.360413	389.6566467	63.61735535	109511.1172
16-Jun-11 15:37:00	249.7249908	203.8635254	405.360413	428.0375366	65.40433502	109174.1797
16-Jun-11 15:38:00	249.8737488	203.5354614	405.574036	366.3685913	67.149086	109405.0547
16-Jun-11 15:39:00	250.5387421	202.9518127	405.694214	330.0119324	68.93922424	109013.1641
16-Jun-11 15:40:00	250.0575104	203.0776978	405.360413	346.7032471	70.67195129	109195.5859
16-Jun-11 15:41:00	250.0749817	204.0466309	405.312927	358.5993652	72.44033051	109463.2109
16-Jun-11 15:42:00	249.7031097	204.0504456	405.113403	383.2287903	74.21220398	109604.0313
16-Jun-11 15:43:00	249.0366821	202.7852325	404.470306	378.8473206	75.99208832	109077.8906
16-Jun-11 15:44:00	249.2350006	202.4258118	404.535583	353.2143555	77.74695587	108828.1641
16-Jun-11 15:45:00	249.5888824	201.8866577	404.921295	304.4874573	79.52367401	108793.4922
16-Jun-11 15:46:00	249.4100037	202.4597168	405.093384	304.6114807	81.27720642	109086.4063
16-Jun-11 15:47:00	250.5868835	203.8215637	405.173492	347.2026367	83.05931854	109458.3281
16-Jun-11 15:48:00	251.2037506	203.7567139	405.360413	417.5953369	84.82636261	109255.7969
16-Jun-11 15:49:00	251.2572174	204.3823242	405.360413	413.409729	86.58328247	109588.4609
16-Jun-11 15:50:00	250.063324	204.6875	405.98349	386.5822449	88.3531189	109768.8828
16-Jun-11 15:51:00	249.9000092	202.6123047	405.627441	391.5560913	90.14530945	109105.9297
16-Jun-11 15:52:00	249.6199951	203.1768799	405.360413	365.3405151	91.91046143	109249.4375
16-Jun-11 15:53:00	250.0574951	203.894043	405.14679	328.9324646	93.66569519	109496.2188
16-Jun-11 15:54:00	250.079361	202.6885986	404.559326	349.4055786	95.4475708	109014.0547
16-Jun-11 15:55:00	250.5999908	203.1005859	404.292297	372.1551208	97.20950317	109081.4688
16-Jun-11 15:56:00	251.1556244	204.5005646	404.926483	339.0735474	98.97537231	109440.1328
16-Jun-11 15:57:00	251.1162415	204.6722412	405.066681	386.7682495	100.7410202	109769.4453
16-Jun-11 15:58:00	250.5912628	205.2024536	405.14679	429.8146057	102.5265961	110070.4844
16-Jun-11 15:59:00	249.3925018	204.5196533	405.253601	402.6004028	104.3068695	109953.3203
16-Jun-11 16:00:00	248.9462433	200.9872437	405.360413	369.8640137	106.0722427	108389.25
16-Jun-11 16:01:00	249.0911102	201.9002228	405.627441	286.236969	1.638620615	108709.6172
16-Jun-11 16:02:00	249.1999817	202.91745	405.89447	272.0072937	3.401046515	109282.2109
16-Jun-11 16:03:00	249.375	203.093811	405.568115	341.5499268	5.162210464	109310.0156
16-Jun-11 16:04:00	249.2743835	202.5016632	405.360413	387.9064636	6.935899258	109035.1719
16-Jun-11 16:05:00	249.2831268	202.4482727	404.726227	352.4457092	8.695308685	108824.9453
16-Jun-11 16:06:00	249.1300049	202.734375	404.559326	296.739502	10.4575386	109241.4219
16-Jun-11 16:07:00	250.0837555	203.3981323	404.372406	319.1658936	12.22594833	109268.6563
16-Jun-11 16:08:00	250.0924988	202.9975891	404.499237	385.3363037	13.9899435	109153.25
16-Jun-11 16:09:00	250.363739	203.6956787	404.626099	387.8110046	15.72777271	109497.2578

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B	GPWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 16:10:00	250.1100006	203.8024902	404.826355	361.3604736	17.50024986	109687.7344
16-Jun-11 16:11:00	250.1493835	204.4395294	405.360413	371.9274597	19.27773094	109823.375
16-Jun-11 16:12:00	249.2466736	202.9785156	405.360413	384.4085999	21.04854012	109341.5
16-Jun-11 16:13:00	249.2427826	202.3817291	405.627441	330.9102783	22.81249619	109111.6484
16-Jun-11 16:14:00	250.1450043	202.4597168	405.360413	317.7119141	24.6030426	108734.5781
16-Jun-11 16:15:00	249.3049927	202.9581757	405.734253	333.3580627	26.3453331	109149.5625
16-Jun-11 16:16:00	249.7600098	203.6499023	405.627441	362.1241455	28.10381508	109367.5938
16-Jun-11 16:17:00	249.5368805	202.9670715	405.360413	393.6709595	29.87064552	109077.0703
16-Jun-11 16:18:00	249.5762482	203.0776672	405.080017	362.5941467	31.63585091	109183.7656
16-Jun-11 16:19:00	249.5500183	203.2836914	404.826355	354.1020508	33.45484924	109325.5625
16-Jun-11 16:20:00	249.3399963	202.5512695	404.319	348.9356079	35.19721222	108914.7109
16-Jun-11 16:21:00	249.2525024	202.532196	404.792969	340.659729	36.98931885	109074.1172
16-Jun-11 16:22:00	249.3006287	202.5512695	404.833008	333.8304749	38.72954178	109014.3281
16-Jun-11 16:23:00	249.1693726	202.6428223	405.226898	340.9975586	40.48766327	109102.2813
16-Jun-11 16:24:00	249.4537506	203.0166626	405.226898	334.5721436	42.28281784	109033.5
16-Jun-11 16:25:00	248.9200134	201.9714355	405.360413	367.1763306	44.01412964	109009.4141
16-Jun-11 16:26:00	249.598114	203.150177	405.360413	334.7116394	45.7766037	109152.3984
16-Jun-11 16:27:00	249.3575134	203.4667969	405.89447	346.2185669	47.56690216	109231.1406
16-Jun-11 16:28:00	249.4449921	202.3986816	405.627441	357.4832153	49.31099701	108930.4688
16-Jun-11 16:29:00	249.3399963	202.406311	405.560669	367.0441895	51.07802582	108972.125
16-Jun-11 16:30:00	249.6025085	203.4820557	405.253601	325.4958191	52.83623505	109178.3906
16-Jun-11 16:31:00	249.4362488	202.9747009	405.10675	350.9550476	54.60167694	109056.0313
16-Jun-11 16:32:00	250.0924835	202.387207	404.826355	352.4530029	56.36500168	108879.7266
16-Jun-11 16:33:00	249.8183289	203.2769165	405.360413	356.7782593	58.15794373	109133.2266
16-Jun-11 16:34:00	250.2412567	204.1000061	405.627441	355.5739746	59.92704773	109682.3594
16-Jun-11 16:35:00	250.5299988	203.6499023	405.89447	368.4100342	61.66990662	109431.3203
16-Jun-11 16:36:00	249.5733337	203.8330078	405.80545	380.4334412	63.46118164	109579.7734
16-Jun-11 16:37:00	249.1766663	203.2124786	405.538422	373.7363586	65.22188568	109338.8359
16-Jun-11 16:38:00	249.1650085	202.0324707	406.161499	335.1596069	67.00193024	108702.8203
16-Jun-11 16:39:00	250.3783264	202.7106323	406.131836	301.7394409	68.75862885	108803.6641
16-Jun-11 16:40:00	250.3243713	203.5202026	405.627441	341.7685547	70.49846649	109288.7969
16-Jun-11 16:41:00	250.6524963	204.3136597	405.427185	404.715271	72.29808807	109592.875
16-Jun-11 16:42:00	250.4949951	203.7490845	405.33371	426.8185425	74.06887817	109545.4688
16-Jun-11 16:43:00	250.3316803	203.8669128	404.612732	389.5064697	75.82549286	109384.9063
16-Jun-11 16:44:00	249.7162476	204.0771484	404.35907	349.3321533	77.57919312	109514.9375
16-Jun-11 16:45:00	249.0206299	202.2003174	404.612732	357.4611511	79.3747406	108897.9063
16-Jun-11 16:46:00	249.2306213	202.8335571	405.026611	327.7868958	81.13881683	109100.7813
16-Jun-11 16:47:00	249.2087555	202.4368286	404.579346	322.0738525	82.89266205	109081.9531
16-Jun-11 16:48:00	249.6199951	202.8869629	404.078674	322.2354126	84.63777161	108914.7656
16-Jun-11 16:49:00	249.9350128	203.0433655	403.958496	348.4803467	86.41131592	109045

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CT B FUEL OIL CURR	PWC2_ANG_FO FL W
16-Jun-11 16:50:00	249.5149994	203.5430908	403.811646	357.7034607	88.19623566	109311.8438
16-Jun-11 16:51:00	249.6549988	203.8024902	403.544556	382.3328857	89.93872833	109539.5078
16-Jun-11 16:52:00	249.2437439	202.1621704	403.811646	376.9869995	91.7309494	108834.8203
16-Jun-11 16:53:00	249.4668732	202.8793335	404.292297	316.6838684	93.493927	109099.8438
16-Jun-11 16:54:00	249.3224945	203.604126	404.612732	330.3130493	95.26100922	109411.7813
16-Jun-11 16:55:00	249.1737366	202.9022217	404.826355	356.8810425	97.02925873	109045.6797
16-Jun-11 16:56:00	249.2525024	202.7801361	405.360413	354.3403015	98.78940582	108945.9688
16-Jun-11 16:57:00	250.3943939	203.4515381	405.89447	318.3287964	100.5533676	109091.4844
16-Jun-11 16:58:00	250.3287506	203.1311035	405.921173	351.2120361	102.3162155	109017.8672
16-Jun-11 16:59:00	250.5825043	203.9093018	405.387115	378.4263	104.0838928	109452.3438
16-Jun-11 17:00:00	250.4162598	204.3746948	404.866394	400.6617737	105.8566895	109637.4688
16-Jun-11 17:01:00	249.8922272	204.2263336	405.14679	393.8733215	1.680562735	109638.2422
16-Jun-11 17:02:00	249.1431274	202.1087646	404.626099	379.527771	3.422406912	108788.5156
16-Jun-11 17:03:00	249.3400116	202.9988556	404.737335	308.5279236	5.184775829	109154.3047
16-Jun-11 17:04:00	249.6899872	202.8869629	405.360413	301.6741638	6.952837944	109264.0703
16-Jun-11 17:05:00	249.5456238	202.6847839	405.026611	345.8294067	8.744683266	109002.2422
16-Jun-11 17:06:00	250.0793762	203.8368225	405.280304	347.1585388	10.49957561	109329.0859
16-Jun-11 17:07:00	249.7366791	203.7550201	405.312927	361.3147888	12.25168514	109581.6406
16-Jun-11 17:08:00	249.7366791	202.500412	405.657104	371.5366211	14.02214718	108974.2422
16-Jun-11 17:09:00	250.1100006	203.4858704	405.794342	348.0177002	15.78596687	109213.9531
16-Jun-11 17:10:00	250.0356293	204.1191101	405.814362	337.6342773	17.58569336	109535.0859
16-Jun-11 17:11:00	249.7687531	203.4820557	405.360413	351.6672974	19.32510376	109294.1016
16-Jun-11 17:12:00	250.0050049	202.9479828	405.493927	359.8036804	21.10515785	108909.1719
16-Jun-11 17:13:00	249.4362488	202.9937439	404.946533	338.023468	22.85393524	109295.9141
16-Jun-11 17:14:00	250.3068848	203.9665222	404.592712	332.1047974	24.62345123	109555.7891
16-Jun-11 17:15:00	249.8688812	203.4261017	404.292297	379.7153931	26.40633011	109256.3516
16-Jun-11 17:16:00	249.4799957	203.8330078	405.14679	360.2589722	28.15883636	109708.9063
16-Jun-11 17:17:00	249.0950012	201.9408875	405.360413	355.1920776	29.93115234	108926.5391
16-Jun-11 17:18:00	249.5193634	202.2460938	405.627441	338.0748901	31.70196533	108748.4688
16-Jun-11 17:19:00	249.4799957	202.9937744	405.560669	313.2912903	33.48343658	109192.8359
16-Jun-11 17:20:00	249.9656219	204.1686707	405.594055	327.1260376	35.22776031	109502.3438
16-Jun-11 17:21:00	250.3783264	202.5105743	405.80545	384.349823	36.98960495	108773.0547
16-Jun-11 17:22:00	250.7050171	203.6956787	405.14679	379.0430908	38.75295639	109340.6641
16-Jun-11 17:23:00	250.3768768	204.2068176	405.173492	350.0077515	40.55297852	109532.0078
16-Jun-11 17:24:00	251.4399872	204.3212891	404.826355	359.4805908	42.3262825	109464.0234
16-Jun-11 17:25:00	251.2037506	204.1915894	404.559326	406.4042053	44.07256317	109431.4766
16-Jun-11 17:26:00	250.8406219	204.6455383	404.392426	405.4642639	45.83898544	109837.5
16-Jun-11 17:27:00	249.9700012	204.8400879	405.360413	397.7832031	47.64727783	110185.9922
16-Jun-11 17:28:00	249.2174988	202.5512695	405.373779	400.2358398	49.42192459	109070.3672
16-Jun-11 17:29:00	249.265625	202.3986816	405.280304	327.0966492	51.15481186	108966.1875

Unit 2B Emissions Testing

	Combustor Inlet Pressure B psig	CT B Load MW	ST Load MW	Ammonia Mass Flow CT B PPH	CT B Fuel Oil Flow current hour lb/hr	CT B Fuel Oil Flow lb/hr
	PWC2_ANG_COMB SHELL P	PWC2_ANG_CT-B G	PWC2_ANG	PWC2_ANG_HRSG B NH3 IN	PWC2_ANG_CTB FUEL OIL CURR	PWC2_ANG_FO FLW
16-Jun-11 17:30:00	249.4187469	203.1005554	405.594055	287.0316772	52.94940948	109354.7266
16-Jun-11 17:31:00	249.8474884	202.6046753	405.29364	315.1784668	54.71775436	108875.5156
16-Jun-11 17:32:00	249.0950012	202.8717041	404.719543	350.1398926	56.49233627	109108.9688
16-Jun-11 17:33:00	250.1537628	203.6727905	404.138763	347.834137	58.24652481	109302.9609
16-Jun-11 17:34:00	249.9787598	202.5665283	404.212189	354.0465698	60.00637436	108859.3281
16-Jun-11 17:35:00	250.2149963	203.565979	403.878418	319.9296265	61.79899979	109266.4453
16-Jun-11 17:36:00	250.1056061	203.7490845	404.078674	337.1349487	63.56885147	109659.75
16-Jun-11 17:37:00	251.1075134	204.0618896	403.811646	392.4960327	65.34033966	109349.375
16-Jun-11 17:38:00	251.1293793	204.3327332	404.579346	411.7280884	67.11216736	109781.8203
16-Jun-11 17:39:00	250.4833374	205.0333405	404.838196	396.7649231	68.88380432	110001.2891
16-Jun-11 17:40:00	249.5927734	202.5003967	404.826355	385.4529724	70.65245819	109157.8125
16-Jun-11 17:41:00	249.2350006	203.3294678	404.866394	346.6077881	72.43206787	109399.8438
16-Jun-11 17:42:00	249.5762482	203.2646179	405.594055	306.696991	74.20152283	109334.2422
16-Jun-11 17:43:00	249.4974976	202.4902344	405.680847	317.8294067	75.96541595	109003.9609
16-Jun-11 17:44:00	249.6768799	203.4667664	405.360413	328.5579834	77.73033905	109273.7031
16-Jun-11 17:45:00	249.7288818	204.0873108	405.360413	350.9036255	79.50093079	109563.2344
16-Jun-11 17:46:00	249.6900024	202.520752	405.253601	374.7546387	81.26631165	108845.9375
16-Jun-11 17:47:00	249.6725006	203.2417297	404.866394	332.1268616	83.03019714	109138.3359
16-Jun-11 17:48:00	249.9350128	203.3616791	404.618652	319.2915344	84.79833984	109201.6563
16-Jun-11 17:49:00	250.0924988	203.4210205	404.692841	354.4871216	86.56462097	109106.2734
16-Jun-11 17:50:00	250.6087646	203.8024902	405.026611	372.5809937	88.30265808	109438.6016
16-Jun-11 17:51:00	250.8362579	204.3022156	405.200195	364.0848389	90.07555389	109747.1172
16-Jun-11 17:52:00	250.3156281	205.2749634	405.393799	396.1309814	91.85327911	109956.0859
16-Jun-11 17:53:00	249.7774963	202.6351929	405.89447	390.8070679	93.62391663	108839.6328
16-Jun-11 17:54:00	250.9631348	203.7757874	405.627441	337.8031616	95.40617371	109282.4688
16-Jun-11 17:55:00	250.0749817	204.3518066	405.627441	320.7667236	97.18710327	109684.9531
16-Jun-11 17:56:00	250.2937469	204.6188354	405.89447	372.3460083	98.93328857	109843.6094
16-Jun-11 17:57:00	249.6199951	202.5512695	405.493927	407.9169006	100.7015991	108931.7109
16-Jun-11 17:58:00	249.5718689	203.3714294	405.594055	339.0368652	102.4917145	109288.3438
16-Jun-11 17:59:00	250.0983276	203.4226837	404.861969	301.8373413	104.2358627	109303.0781
16-Jun-11 18:00:00	249.7075043	202.9556274	404.826355	325.9364319	66.19612885	109115.9453

APPENDIX E
ANALYTICAL DATA

Source Testing and Consulting Services, Inc.

1100 Purple Glory Drive
Apex, NC 27502

Mitsubishi - Unit 2B

Analytical Report
(0711-35A)

EPA CTM-027

Ammonia



Enthalpy Analytical, Inc.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com

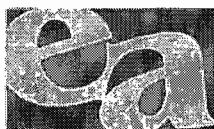
2202 Ellis Road Durham, NC 27703 - 5518

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains ??? pages.

Report Issued: xx/xx/xxxx



Summary of Results



Company	STACS, Inc.
Analyst	KHB
Parameters	EPA CTM-027

Client #	Mitsubishi: Unit 2B
Job #	0711-35
# Samples	3 runs & 2 blanks

Compound	Sample ID / Catch Weight (ug)		
Ammonia	Base R1 627	Base R2 694	Base R3 601
Ammonia	Blank H2O 2.80 J	Blank H2SO4 4.92 J	

Results



Company	STACS, Inc.
Analyst	KHB
Parameters	EPA CTM-027

Client #	Mitsubishi: Unit 2B
Job #	0711-35
# Samples	3 runs

MDL 0.0118 (ug/mL)
 LOQ 0.235 (ug/mL)
 Compound Ammonia

Lower Curve Limit 0.235 (ug/mL)
 Upper Curve Limit 11.1 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
Base R1 Imp 1-2	086-5501.D	086-5502.D	HPLC59PG110.M	4.73	4.72	0.1	1.66	1.66	0.0	1.66	1	375	624	
Base R1 Imp 3	087-5601.D	087-5602.D	HPLC59PG110.M	4.71	4.72	0.1	0.0202	0.0192	2.5	0.0197	1	162	3.18	J
													627	
Base R2 Imp 1-2	088-5701.D	088-5702.D	HPLC59PG110.M	4.72	4.73	0.2	1.96	1.98	0.6	1.97	1	351	692	
Base R2 Imp 3	089-5801.D	089-5802.D	HPLC59PG110.M	4.71	4.71	0.1	0.0166	0.0142	8.0	0.0154	1	152	2.34	J
													694	
Base R3 Imp 1-2	090-5901.D	090-5902.D	HPLC59PG110.M	4.72	4.73	0.1	1.51	1.51	0.1	1.51	1	397	599	
Base R3 Imp 3	091-6001.D	091-6002.D	HPLC59PG110.M	4.71	4.71	0.0	0.0131	0.0139	3.0	0.0135	1	135	1.82	J
													601	
RB / 0.04N H2SO4	049-1101.D	049-1102.D	HPLC59PG110.M	4.74	4.73	0.2	0.0334	0.0418	11.2	0.0376	1	1.00	0.0376	J
MS / Base R1 Imp 1-2	092-6101.D	092-6102.D	HPLC59PG110.M	4.73	4.73	0.0	6.08	6.10	0.2	6.09	1	0.525	3.20	
													Spike Amount (ug)	2.36
													Native Amount (ug)	0.832
													Spike Recovery (%)	100%
MSD / Base R1 Imp 1-2	093-6201.D	093-6202.D	HPLC59PG110.M	4.73	4.73	0.0	6.05	6.05	0.0	6.05	1	0.525	3.18	
													Spike Amount (ug)	2.36
													Native Amount (ug)	0.832
													Spike Recovery (%)	99.4%
HPLC59pg108 #SS	048-1001.D	048-1002.D	HPLC59PG110.M	4.74	4.74	0.1	5.47	5.49	0.1	5.48	1	1.00	5.48	
													Tag Amount (ug)	5.55
													Recovery (%)	98.7%

Company	STACS, Inc.
Analyst	KHB
Parameters	EPA CTM-027

Client #	Mitsubishi: Unit 2
Job #	0711-35
# Samples	2 blanks

MDL 0.0118 (ug/mL)
 LOQ 0.235 (ug/mL)
 Compound Ammonia

Lower Curve Limit 0.235 (ug/mL)
 Upper Curve Limit 11.1 (ug/mL)

Sample ID	Lab ID # 1	Lab ID # 2	Analysis Method	Ret Time (min)	Ret Time (min)	% Diff Ret	Conc # 1 (ug/mL)	Conc # 2 (ug/mL)	% Diff Conc	Avg Conc (ug/mL)	DF	Vol (mL)	Catch Weight (ug)	Qual
Blank H2O	051-3201.D	051-3202.D	HPLC59PG118.M	4.78	4.78	0.0	0.0248	0.0183	15.0	0.0216	1	130	2.80	J
Blank H2SO4	052-3301.D	052-3302.D	HPLC59PG118.M	4.72	4.71	0.3	0.0208	0.0351	25.6	0.0279	1	176	4.92	J
RB / 0.04N H2SO4	049-1001.D	049-1002.D	HPLC59PG118.M	4.76	4.75	0.1	0.0299	0.0539	28.6	0.0419	1	1.00	0.0419	J
HPLC59pg118 #SS	048-0901.D	048-0902.D	HPLC59PG118.M	4.76	4.77	0.1	5.36	5.31	0.4	5.34	1	1.00	5.34	
													Tag Amount (ug)	5.55
													Recovery (%)	96.1%

Narrative Summary



Enthalpy Analytical Narrative Summary

Company	STACS, Inc.
Analyst	KHB
Parameters	EPA CTM-027

Client #	Mitsubishi: Unit 2B
Job #	0711-35
# Samples	3 runs and 2 blanks

Custody Heather Tarjeft received the samples on 6/20/11 and Lindsey Chatterton received two blank samples on 7/6/11, after being relinquished by Source Testing and Consulting Services, Inc. The samples were received at 3.3°C and 24.8°C, respectively, in good condition. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, Inc.

Analysis The samples were analyzed for ammonia using the analytical procedures in EPA Conditional Test Method 027, Procedure for Collection and Analysis of Ammonia in Stationary Sources.

The samples were analyzed following the procedures in Section 4.2, Sample Analysis.

Proportional aliquots were taken and combined for a single analysis for *Impinger 1* and *Impinger 2*.

The Agilent Model 1100, High Performance Liquid Chromatograph ("Curly") was equipped with a Dionex CD20 Conductivity Detector and a Dionex Ion Pac CS12, 4 x 250 mm (S/N 009567) column.

Calibration The calibration curve is located in the back of this report and referenced in the Analysis Method column on the Detailed Results page.

For each calibration curve used, the first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amount/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.

Chromatographic Conditions The acquisition method (AMMONIA.M) is included in the Calibration Curve Chromatograms section of this report.

QC Notes As required in section 4.2.3, Quality Control and Quality Assurance Enthalpy periodically analyzes independently prepared standards and blank checks reagents.

Matrix spike analyses were performed in duplicate (MS and MSD) on sample *Base R1 Imp 1-2*. The recovery values were 100% and 99.4%.



Enthalpy Analytical Narrative Summary (continued)

QC Notes (continued)

All sample preparation and analytical holding times specified in the method were met. In Section 4.1, Sample Preparation, the specified analytical holding time is two weeks from sampling date.

Reporting Notes

These analyses met the requirements of the NELAC Standard. Any deviations from the requirements of the reference method and/or the NELAC Standard have been previously noted in this narrative. The results presented in this report are representative of the samples as provided to the laboratory.



General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc. data reports, unless specifically noted otherwise.

- The acronym **MDL** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym **LOQ** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym **ND** following a value indicates a non-detect or analytical result below the MDL.
- The letter **J** following a value indicates an analytical result between the MDL and the LOQ. A J flag indicates that the laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter **E** following a value indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- The acronym **DF** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of **MS** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. This shows what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).
- The addition of **MSD** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as an MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of **LD** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of **AD** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.
- The Sample ID **LCS** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two extra spikes are prepared. The extras (randomly chosen) are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection and/or sample transport.



General Reporting Notes

(continued)

- **Significant Figures:** Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits.
- **Manual Integration:** The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations. The peak was *not integrated* by the software "NI", the peak was *integrated incorrectly* by the software "II" or the *wrong peak* was integrated by the software "WP". These codes will accompany the analyst's manual integration stamp placed next to the compound name.



Sample Custody



Source Testing And Consulting Services, Inc.

1100 Purple Glory Drive
 Apex, NC 27502
 PH: (919) 387-2200
 FAX: (919) 387-2222

CHAIN-OF-CUSTODY RECORD

Mitsubishi unit 2B

STACS Contact Person <u>Bill Mayhew</u> Laboratory Name _____ Lab. Address _____ City _____ State _____ Zip _____ Lab. Phone _____ FAX _____ Collected by (signature): _____	Project Info: P.O. # _____ Project # _____ Project Name _____	Turn Around Time: <input type="checkbox"/> Normal <input type="checkbox"/> Rush _____ (specify)
--	--	--

Date	Field Sample ID	Analysis/Comments
	<i>Base run-1 1st imp</i>	<i>NH₃</i>
	<i>2nd imp</i>	
	<i>3rd imp</i>	
	<i>Base run-2 1st imp</i>	
	<i>2nd imp</i>	
	<i>3rd imp</i>	
	<i>Base run-3 1st imp</i>	
	<i>2nd imp</i>	
	<i>3rd imp</i>	
Relinquished by: (Signature) _____ Date _____		Additional Notes: <i>Temp = 3.3 Raytek gun #2</i> <i>Relinquish 6/20/11</i> <i>Robert M 6/20/11</i> <i>3:25pm</i>
Relinquished by: (Signature) _____ Date _____		

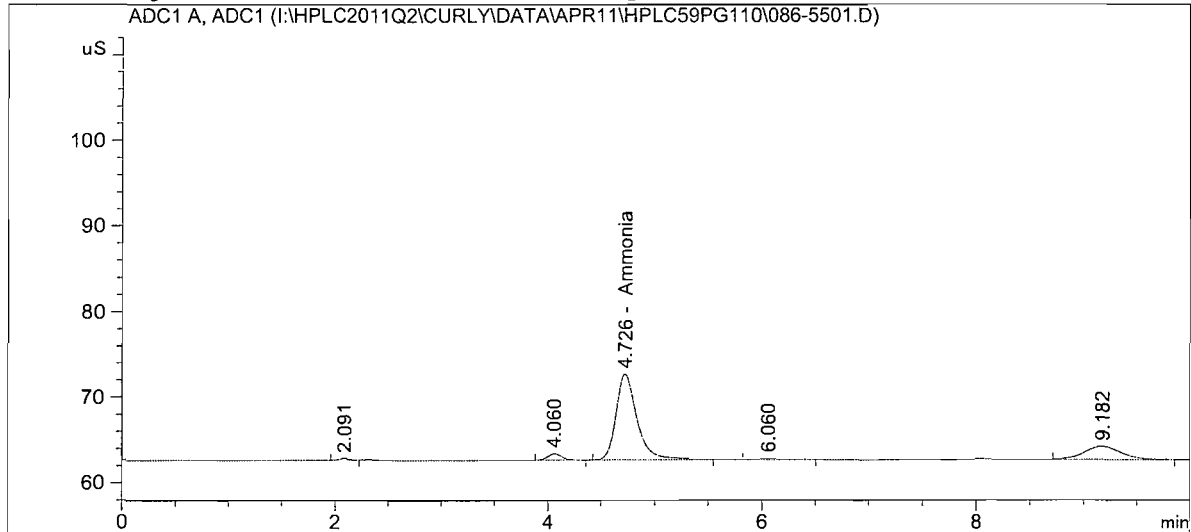
Sample Chromatograms



Sample Name: Base R1 Imp 1-2 0611-140

```
=====
Acq. Operator   : KHB                               Seq. Line :   55
Acq. Instrument : Curly                             Location  : Vial 86
Injection Date  : 6/22/2011 1:06:53 PM             Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



External Standard Report

```
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.726	BB	134.98633	1.23235e-2	1.66350		Ammonia

Totals : 1.66350

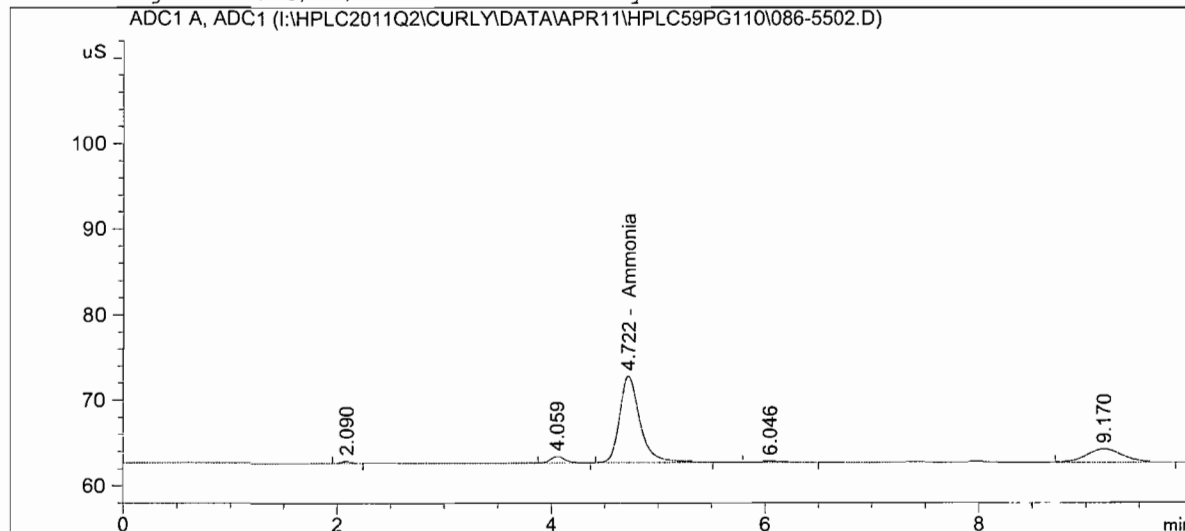
*** End of Report ***

Sample Name: Base R1 Imp 1-2 0611-140

```

=====
Acq. Operator   : KHB                      Seq. Line :   55
Acq. Instrument : Curly                   Location  : Vial 86
Injection Date  : 6/22/2011 1:18:18 PM    Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method    : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed   : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed   : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

=====
Sorted By      :      Signal
Calib. Data Modified :      Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    :      1.0000
Dilution:      :      1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

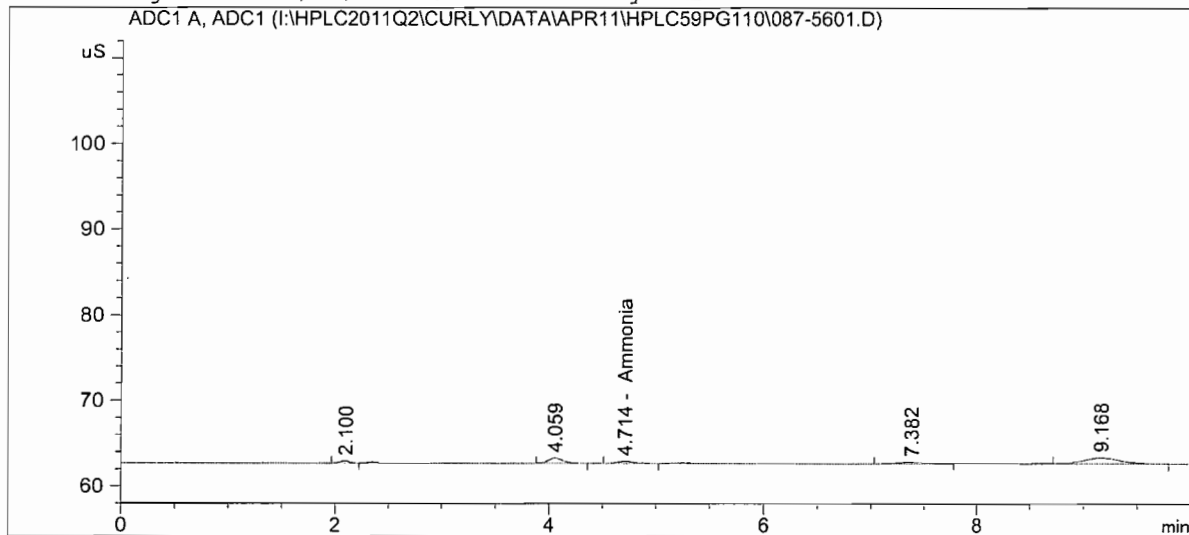
RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.722	BB	134.97116	1.23233e-2	1.66329		Ammonia

Totals : 1.66329

*** End of Report ***


```
=====
Acq. Operator   : KHB                               Seq. Line : 56
Acq. Instrument : Curly                             Location  : Vial 87
Injection Date  : 6/22/2011 1:30:26 PM             Inj       : 1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



External Standard Report

```
=====
Sorted By       : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:     : 1.0000
Dilution:       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.714	BB	2.63306	7.65581e-3	2.01582e-2		Ammonia

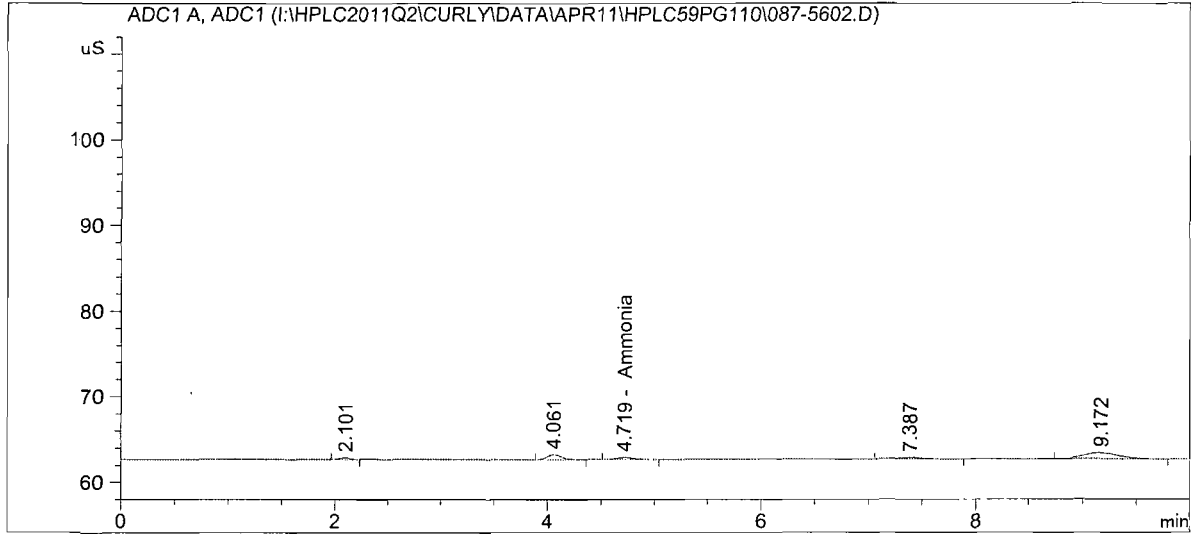
Totals : 2.01582e-2

*** End of Report ***

```

=====
Acq. Operator   : KHB                      Seq. Line :   56
Acq. Instrument : Curly                   Location  : Vial 87
Injection Date  : 6/22/2011 1:42:12 PM    Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
  
```



External Standard Report

```

=====
Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: ADC1 A, ADC1

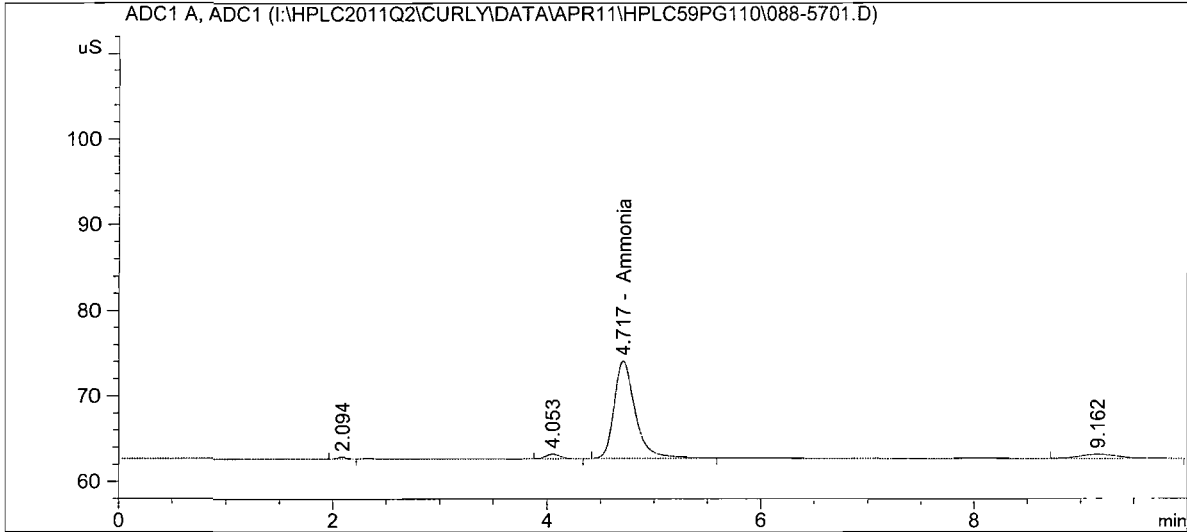
RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.719	BB	2.50498	7.65581e-3	1.91777e-2		Ammonia

Totals : 1.91777e-2

*** End of Report ***

```
=====
Acq. Operator   : KHB                      Seq. Line :   57
Acq. Instrument : Curly                    Location  : Vial 88
Injection Date  : 6/22/2011 1:54:01 PM     Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.717	BB	155.53880	1.25917e-2	1.95851		Ammonia

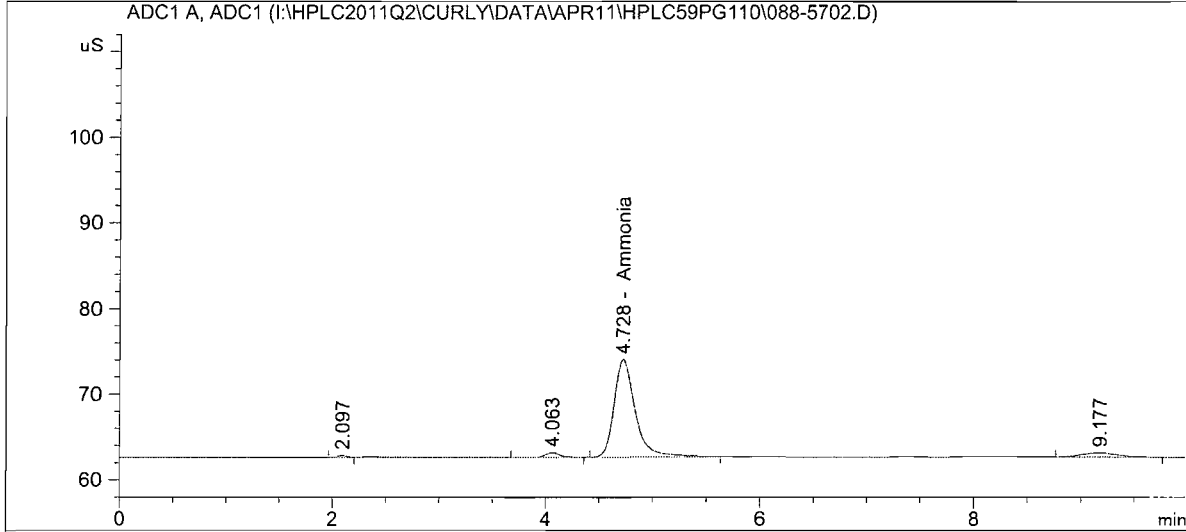
Totals : 1.95851

```
=====
*** End of Report ***
=====
```

Sample Name: Base R2 Imp 1-2 0611-140

```
=====
Acq. Operator   : KHB                               Seq. Line : 57
Acq. Instrument : Curly                             Location  : Vial 88
Injection Date  : 6/22/2011 2:05:48 PM             Inj       : 2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



External Standard Report

```
Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.728	BB	157.26645	1.26125e-2	1.98353		Ammonia

Totals : 1.98353

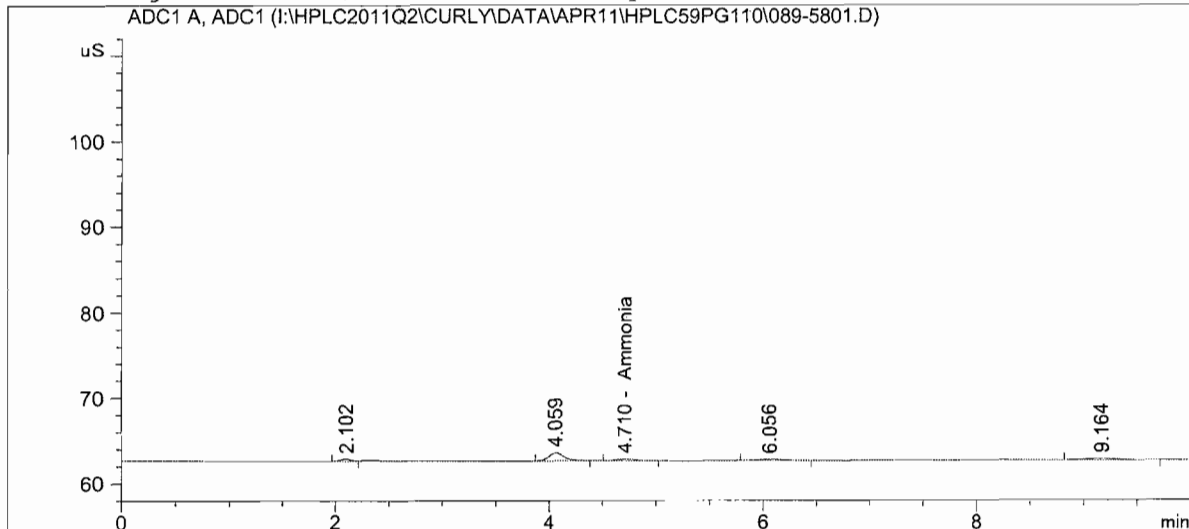
*** End of Report ***

Sample Name: Base R2 3rd Imp 0611-140

```

=====
Acq. Operator   : KHB                      Seq. Line :   58
Acq. Instrument : Curly                    Location  : Vial 89
Injection Date  : 6/22/2011 2:17:33 PM     Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

=====
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

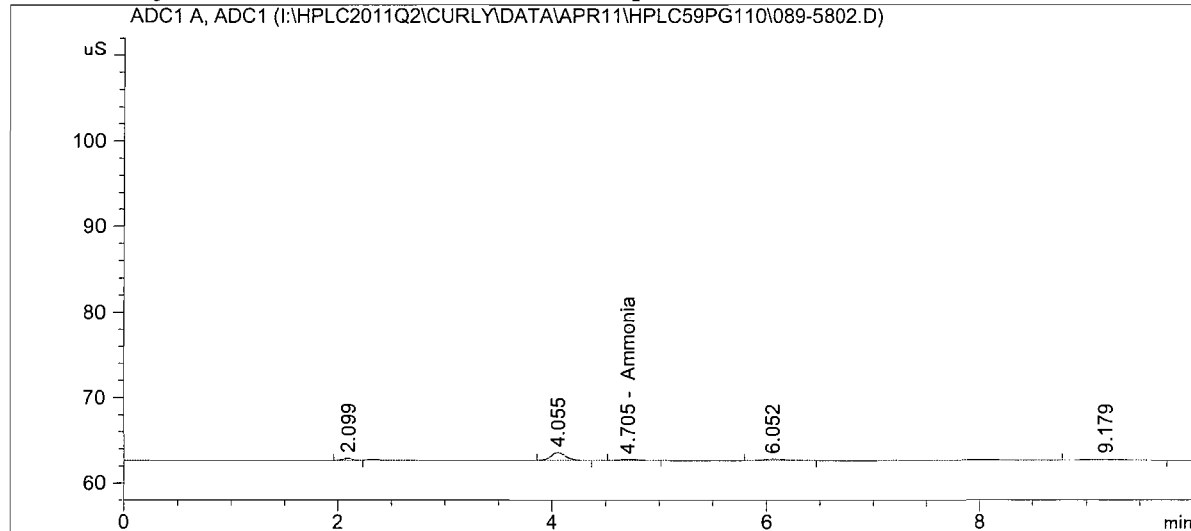
RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.710	BB	2.17411	7.65581e-3	1.66446e-2		Ammonia

Totals : 1.66446e-2

*** End of Report ***

```
=====
Acq. Operator   : KHB                               Seq. Line :   58
Acq. Instrument : Curly                             Location  : Vial 89
Injection Date  : 6/22/2011 2:29:18 PM             Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



=====
External Standard Report
=====

```
Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:     : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.705	BB	1.85188	7.65581e-3	1.41776e-2		Ammonia

Totals : 1.41776e-2

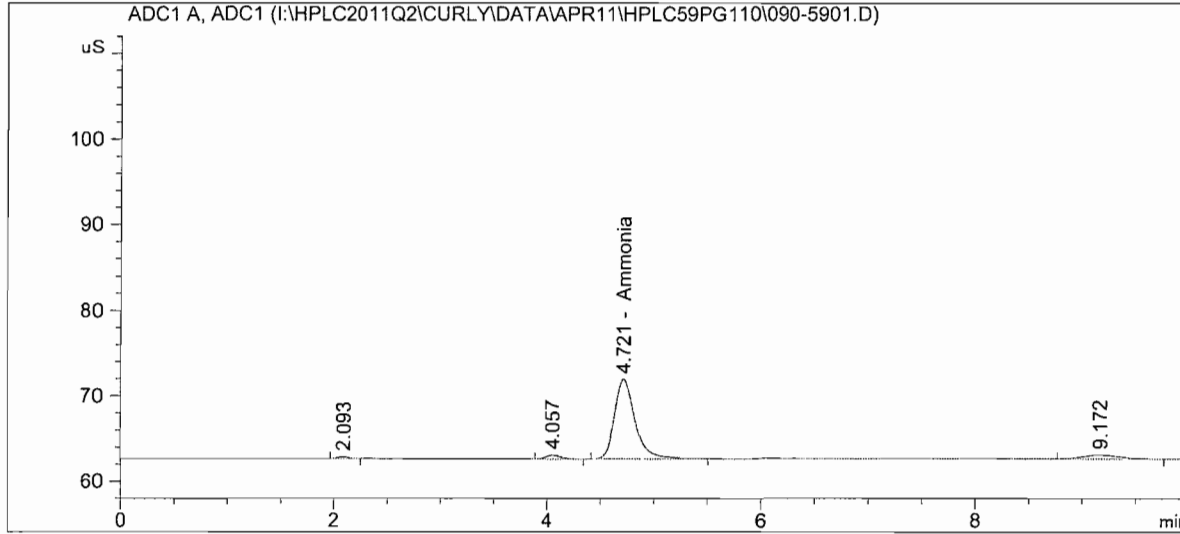
=====
*** End of Report ***
=====

Sample Name: Base R3 Imp 1-2 0611-140

```

=====
Acq. Operator   : KHB                      Seq. Line : 59
Acq. Instrument : Curly                   Location  : Vial 90
Injection Date  : 6/22/2011 2:41:04 PM    Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

=====
Sorted By       : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:     : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.721	BB	124.02049	1.21597e-2	1.50805		Ammonia

Totals : 1.50805

*** End of Report ***

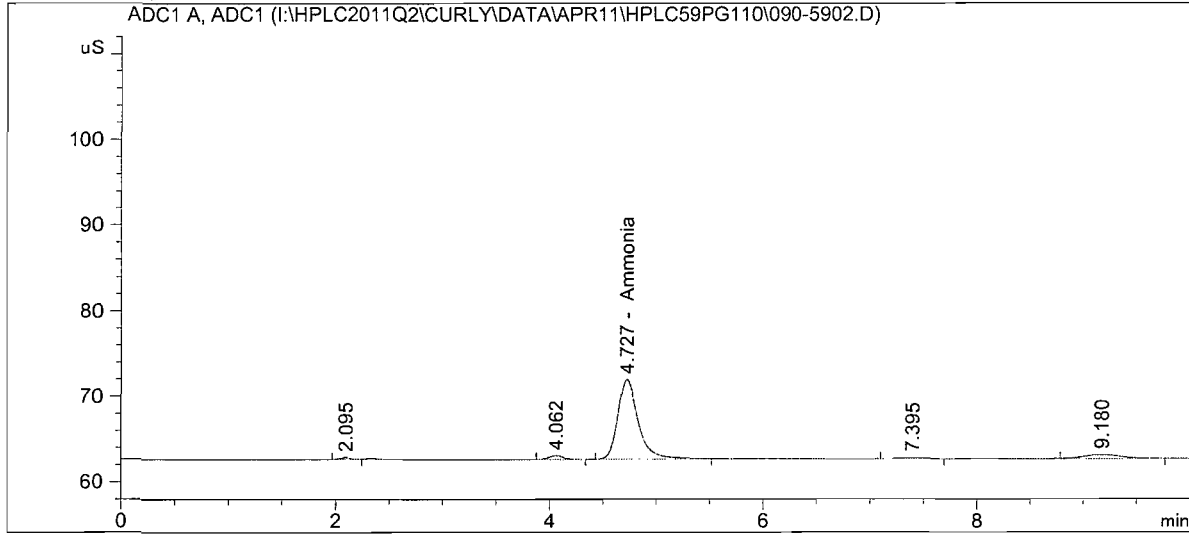
Sample Name: Base R3 Imp 1-2 0611-140

```

=====
Acq. Operator   : KHB                      Seq. Line :   59
Acq. Instrument : Curly                    Location  : Vial 90
Injection Date  : 6/22/2011 2:52:52 PM    Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.727	BB	124.21297	1.21627e-2	1.51077		Ammonia

Totals : 1.51077

```

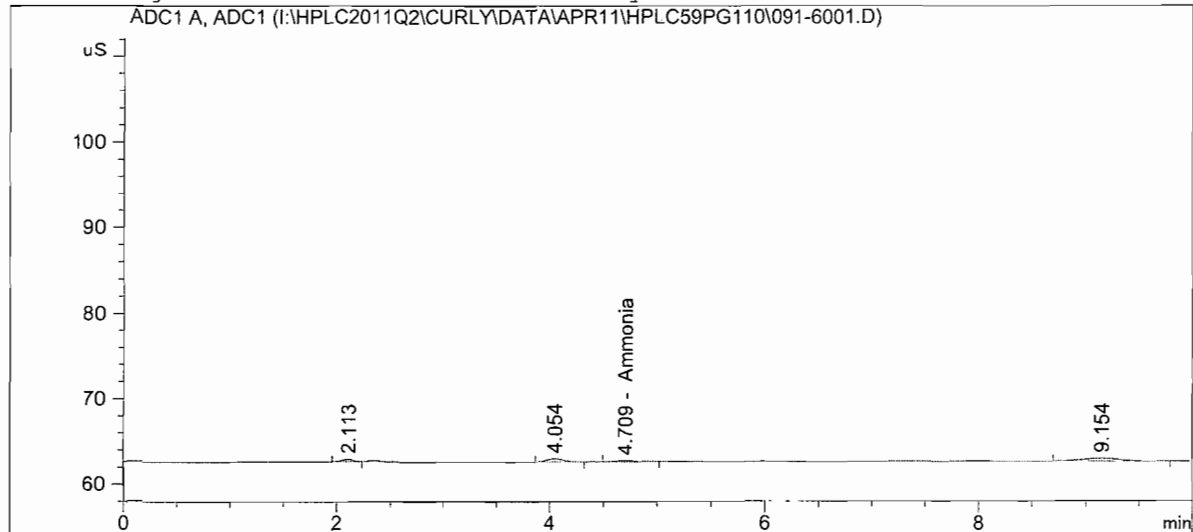
=====
*** End of Report ***
=====

```


Sample Name: Base R3 3rd Imp 0611-140

```
=====
Acq. Operator   : KHB                      Seq. Line : 60
Acq. Instrument : Curly                    Location  : Vial 91
Injection Date  : 6/22/2011 3:04:38 PM    Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



External Standard Report

```
=====
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.709	BB	1.70493	7.65581e-3	1.30527e-2		Ammonia

Totals : 1.30527e-2

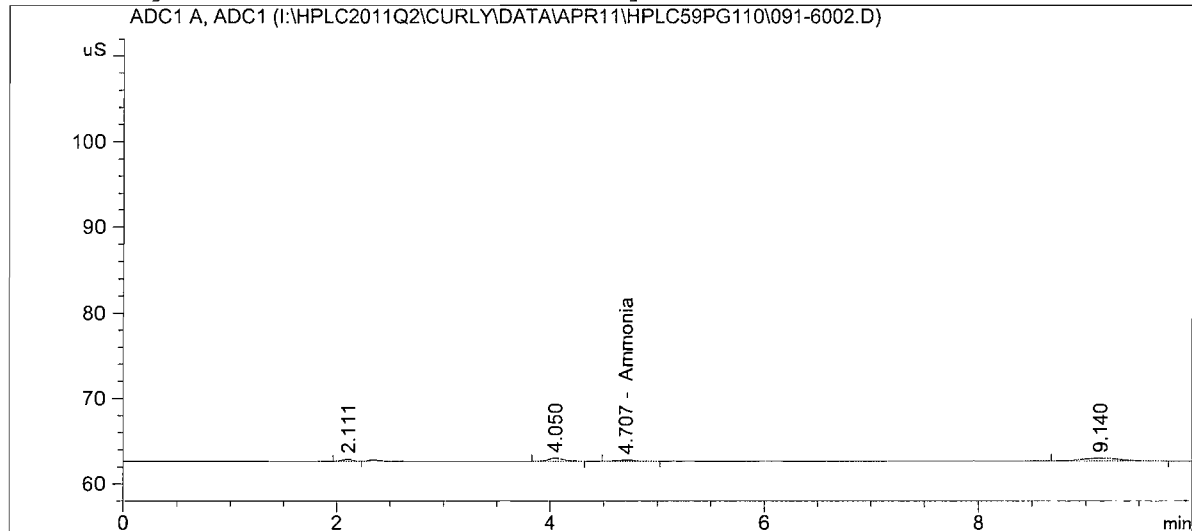
*** End of Report ***

Sample Name: Base R3 3rd Imp 0611-140

```

=====
Acq. Operator   : KHB                      Seq. Line :   60
Acq. Instrument : Curly                    Location  : Vial 91
Injection Date  : 6/22/2011 3:16:01 PM     Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.707	BB	1.81067	7.65581e-3	1.38622e-2		Ammonia

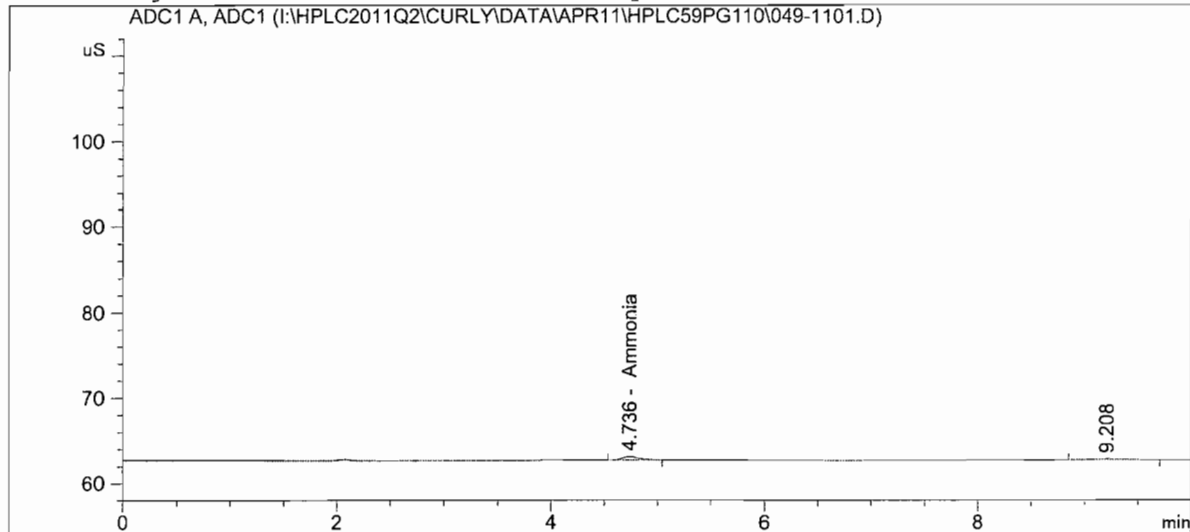
Totals : 1.38622e-2

*** End of Report ***

Sample Name: RB/0.04N H2SO4

```
=====
Acq. Operator   : KHB                      Seq. Line : 11
Acq. Instrument : Curly                    Location  : Vial 49
Injection Date  : 6/21/2011 7:50:45 PM     Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

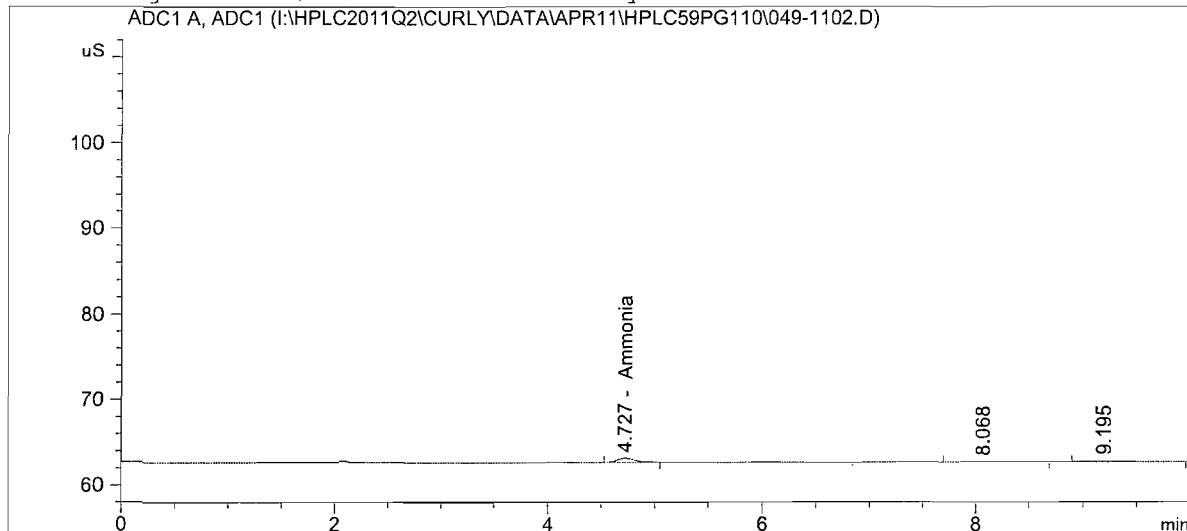
RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.736	BB	4.35671	7.65581e-3	3.33541e-2		Ammonia

Totals : 3.33541e-2

```
=====
*** End of Report ***
=====
```

=====
Acq. Operator : KHB Seq. Line : 11
Acq. Instrument : Curly Location : Vial 49
Injection Date : 6/21/2011 8:02:28 PM Inj : 2
 Inj Volume : 25.000 µl

Acq. Method : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed : 6/22/2011 12:42:22 PM by KHB



=====
External Standard Report
=====

Sorted By : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.727	BB	5.45421	7.65581e-3	4.17564e-2		Ammonia

Totals : 4.17564e-2

=====
*** End of Report ***
=====

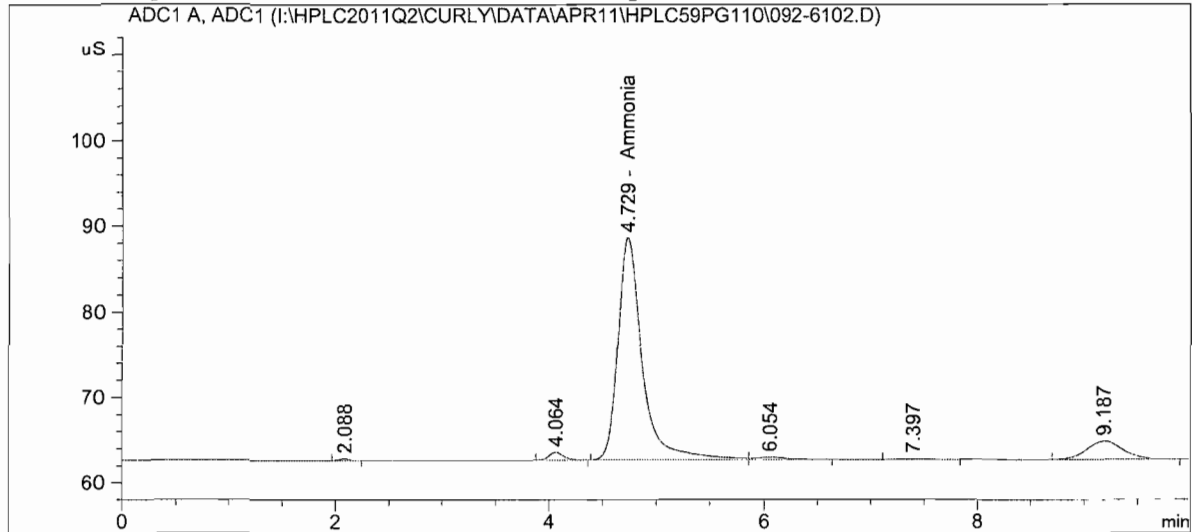
Sample Name: MS/Base R1 Imp 1-2 0611-140

```

=====
Acq. Operator   : KHB                               Seq. Line :   61
Acq. Instrument : Curly                             Location  : Vial 92
Injection Date  : 6/22/2011 3:39:34 PM              Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By      :      Signal
Calib. Data Modified :      Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    :      1.0000
Dilution:     :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.729	BB	408.59265	1.49339e-2	6.10190		Ammonia

```
Totals :                               6.10190
```

```

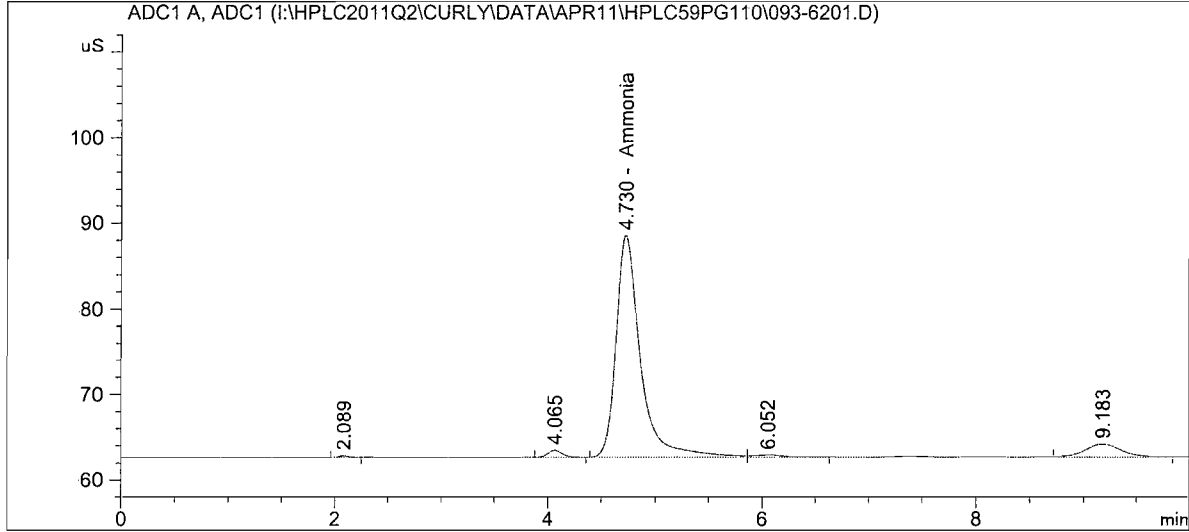
=====
*** End of Report ***
=====

```

Sample Name: MSD/Base R1 Imp 1-2 0611-140

```
=====
Acq. Operator   : KHB                      Seq. Line : 62
Acq. Instrument : Curly                    Location  : Vial 93
Injection Date  : 6/22/2011 3:51:44 PM     Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:         : 1.0000
Dilution:           : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.730	BB	405.92752	1.49085e-2	6.05175		Ammonia

Totals : 6.05175

```
=====
*** End of Report ***
=====
```

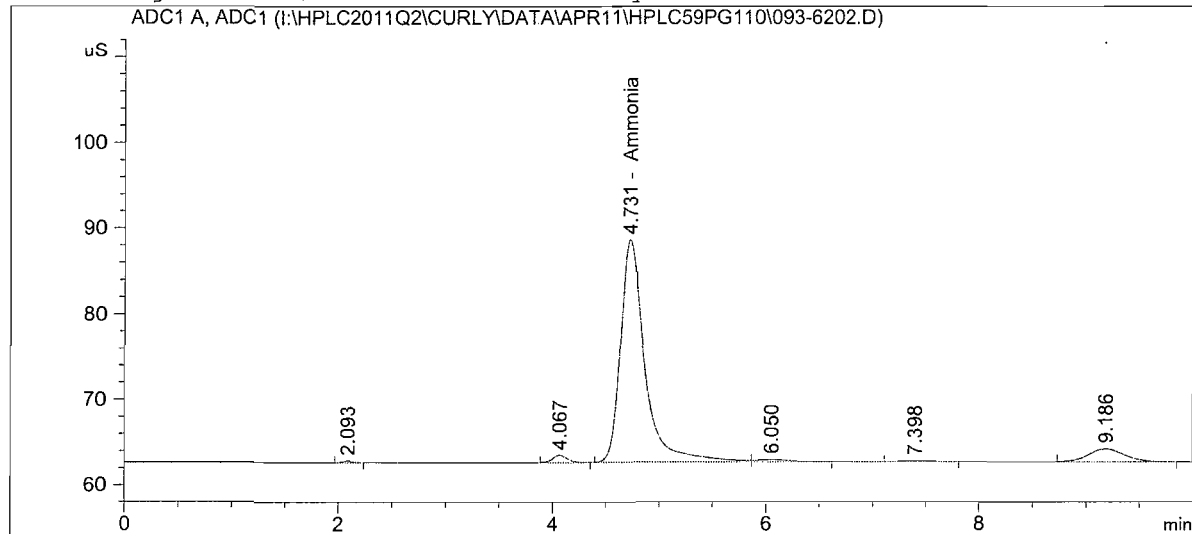
Sample Name: MSD/Base R1 Imp 1-2 0611-140

```

=====
Acq. Operator   : KHB                               Seq. Line :   62
Acq. Instrument : Curly                             Location  : Vial 93
Injection Date  : 6/22/2011 4:03:38 PM             Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method    : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed   : 6/2/2011 10:10:26 AM by EO
Analysis Method: I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed   : 6/22/2011 12:42:22 PM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.731	BB	405.92120	1.49084e-2	6.05164		Ammonia

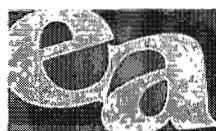
Totals : 6.05164

```

=====
*** End of Report ***
=====

```


Calibration Curve Chromatograms



=====
 Calibration Table
 =====

Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM

Rel. Reference Window : 10.000 %
 Abs. Reference Window : 0.000 min
 Rel. Non-ref. Window : 10.000 %
 Abs. Non-ref. Window : 0.000 min
 Uncalibrated Peaks : not reported
 Partial Calibration : Yes, identified peaks are recalibrated
 Correct All Ret. Times: No, only for identified peaks

Curve Type : Quadratic
 Origin : Connected
 Weight : Linear (Resp)

Recalibration Settings:
 Average Response : Average all calibrations
 Average Retention Time: Floating Average New 75%

Calibration Report Options :
 Printout of recalibrations within a sequence:
 Calibration Table after Recalibration
 Normal Report after Recalibration
 If the sequence is done with bracketing:
 Results of first cycle (ending previous bracket)

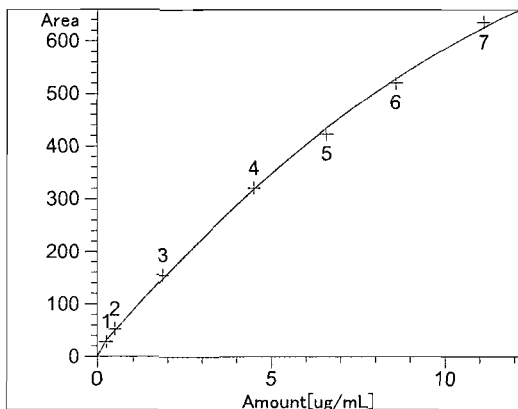
Signal 1: ADC1 A, ADC1

RetTime [min]	Lvl Sig	Amount [ug/mL]	Area	Amt/Area	Ref Grp Name
4.744	1	2.35000e-1	28.04186	8.38033e-3	Ammonia
	2	4.70000e-1	51.83914	9.06651e-3	
	3	1.85100	155.31668	1.19176e-2	
	4	4.49500	320.62538	1.40195e-2	
	5	6.58600	422.77527	1.55780e-2	
	6	8.58200	520.53262	1.64870e-2	
	7	11.10600	635.42056	1.74782e-2	

=====
 Peak Sum Table
 =====

No Entries in table
 =====

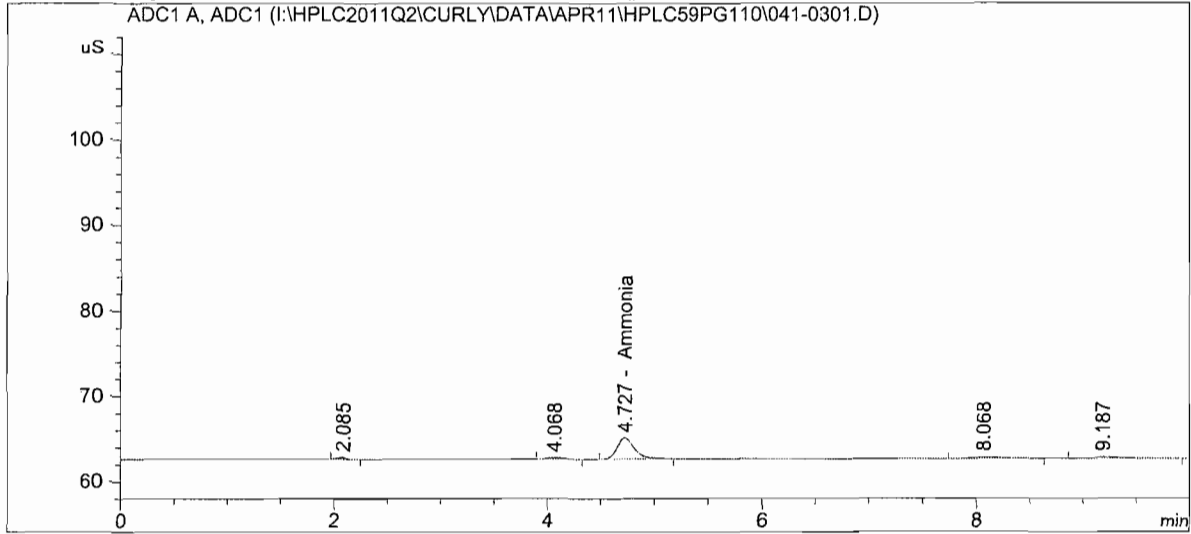
=====
Calibration Curves
=====



Ammonia at exp. RT: 4.744
ADC1 A, ADC1
Correlation: 0.99952
Residual Std. Dev.: 8.42614
Formula: $y = ax^2 + bx + c$
a: -1.93656
b: 76.68347
c: 12.78197
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.54094
Level 3 : 0.180546
Level 4 : 0.08746
Level 5 : 0.066328
Level 6 : 0.053871
Level 7 : 0.044131

```
=====
Acq. Operator   : KHB                      Seq. Line :    3
Acq. Instrument : Curly                    Location  : Vial 41
Injection Date  : 6/21/2011 4:42:42 PM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



External Standard Report

```
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.727	BB	27.79602	7.65581e-3	2.12801e-1		Ammonia

Totals : 2.12801e-1

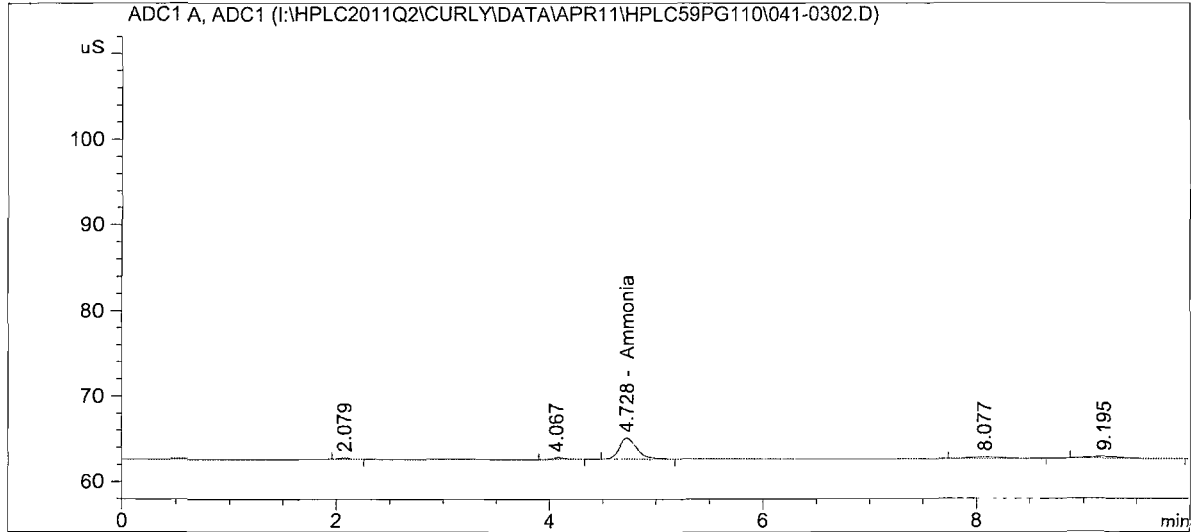
*** End of Report ***

Sample Name: HPLC59pg108 #1

```

=====
Acq. Operator   : KHB                      Seq. Line :    3
Acq. Instrument : Curly                    Location  : Vial 41
Injection Date  : 6/21/2011 4:54:23 PM     Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method    : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed   : 6/2/2011 10:10:26 AM by EO
Analysis Method: I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed   : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

=====
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.728	BB	28.28770	7.65581e-3	2.16565e-1		Ammonia

Totals : 2.16565e-1

*** End of Report ***

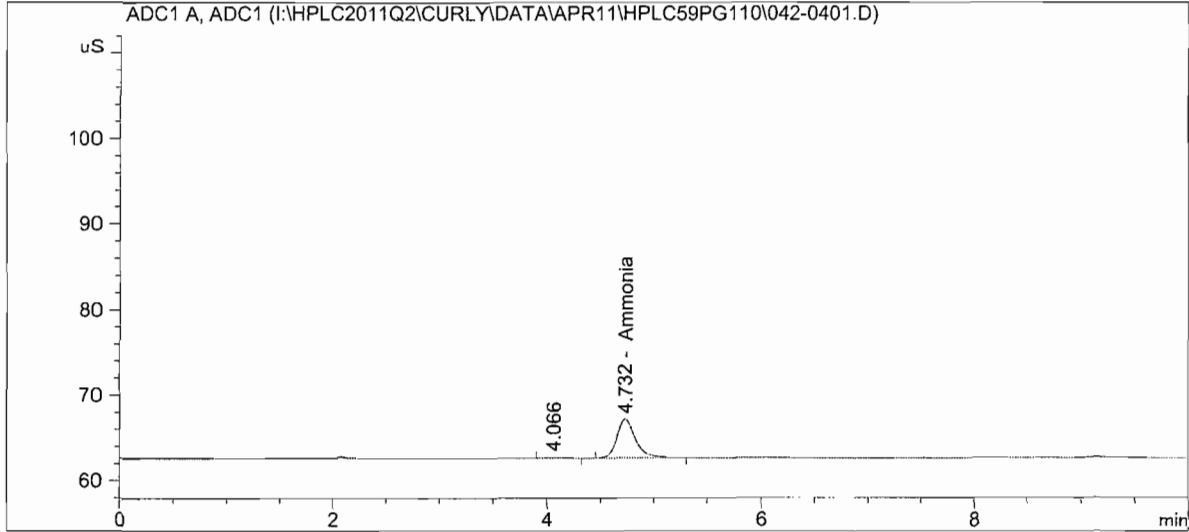
Sample Name: HPLC59pg108 #2

```

=====
Acq. Operator   : KHB                      Seq. Line :    4
Acq. Instrument : Curly                    Location  : Vial 42
Injection Date  : 6/21/2011 5:06:08 PM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method  : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB

```



```

=====
External Standard Report
=====

```

```

Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.732	BB	54.38245	1.01161e-2	5.50139e-1		Ammonia

Totals : 5.50139e-1

```

=====
*** End of Report ***
=====

```

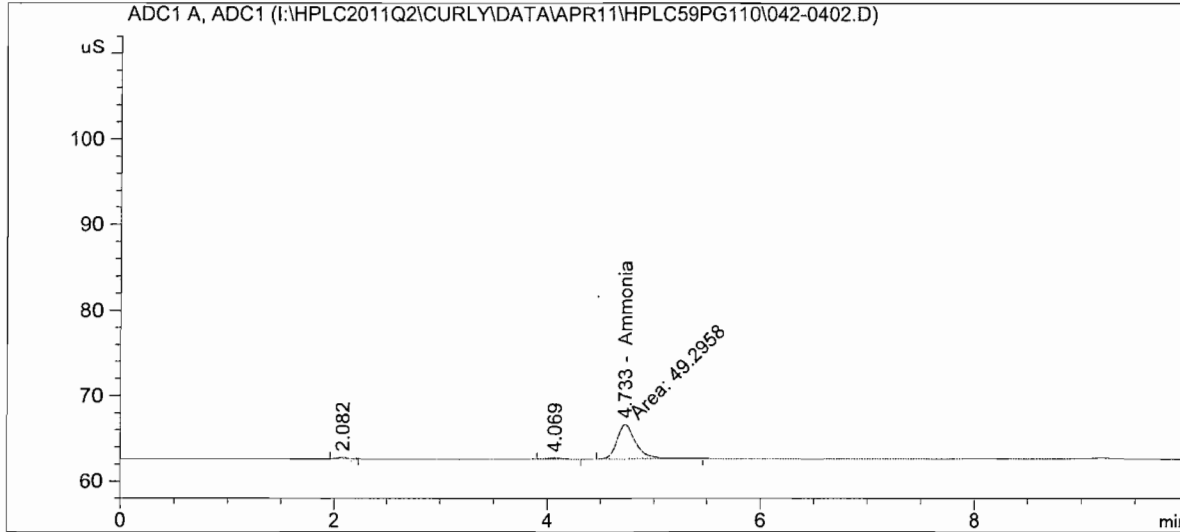
Sample Name: HPLC59pg108 #2

```

=====
Acq. Operator   : KHB                      Seq. Line :    4
Acq. Instrument : Curly                    Location  : Vial 42
Injection Date  : 6/21/2011 5:17:55 PM     Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.733	MM	49.29583	9.77834e-3	4.82031e-1		Ammonia

Manual Int. "II" (KHB)

```
Totals :                               4.82031e-1
```

```

=====
*** End of Report ***
=====

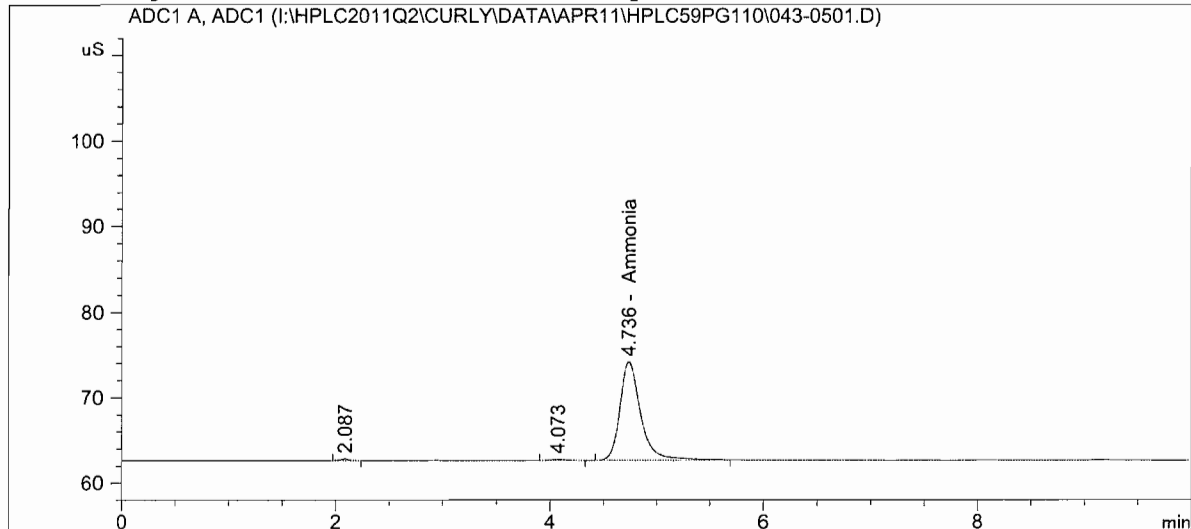
```

Sample Name: HPLC59pg108 #3

```

=====
Acq. Operator   : KHB                               Seq. Line :    5
Acq. Instrument : Curly                             Location  : Vial 43
Injection Date  : 6/21/2011 5:29:42 PM             Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

=====
Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.736	BB	155.30370	1.25889e-2	1.95510		Ammonia

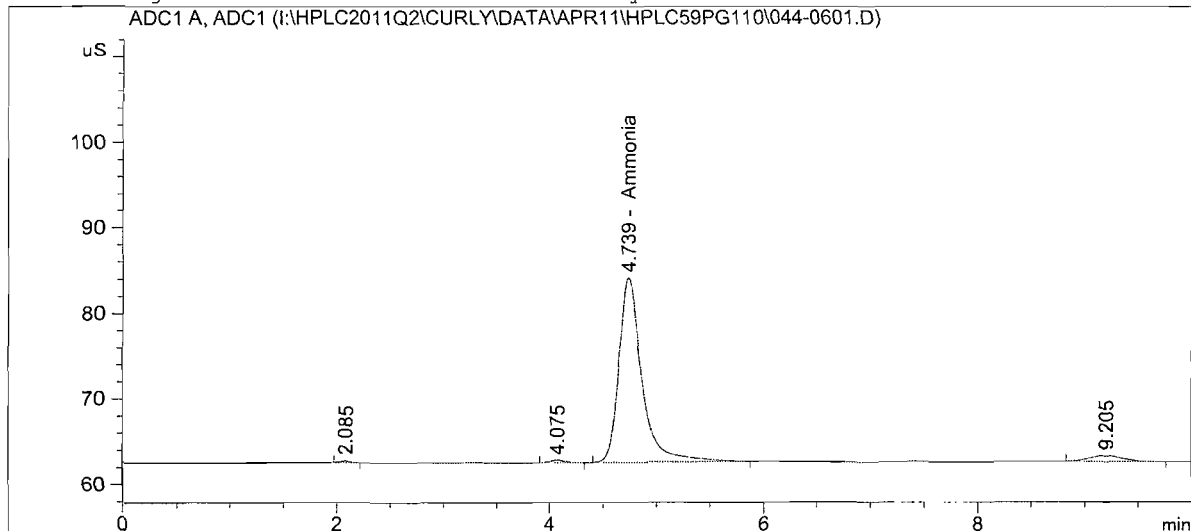
Totals : 1.95510

*** End of Report ***

Sample Name: HPLC59pg108 #4

```
=====
Acq. Operator   : KHB                               Seq. Line :    6
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/21/2011 5:53:15 PM              Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution           : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.739	BB	320.86340	1.41416e-2	4.53753		Ammonia

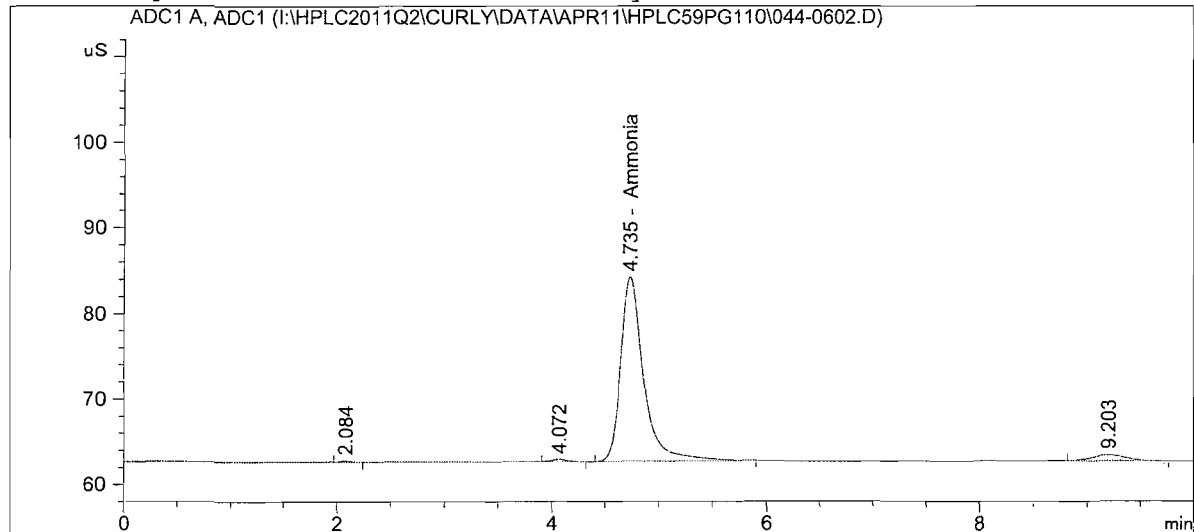
Totals : 4.53753

```
=====
*** End of Report ***
=====
```

Sample Name: HPLC59pg108 #4

```
=====
Acq. Operator   : KHB                               Seq. Line :    6
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/21/2011 6:04:59 PM             Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



External Standard Report

```
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.735	BB	320.38736	1.41375e-2	4.52948		Ammonia

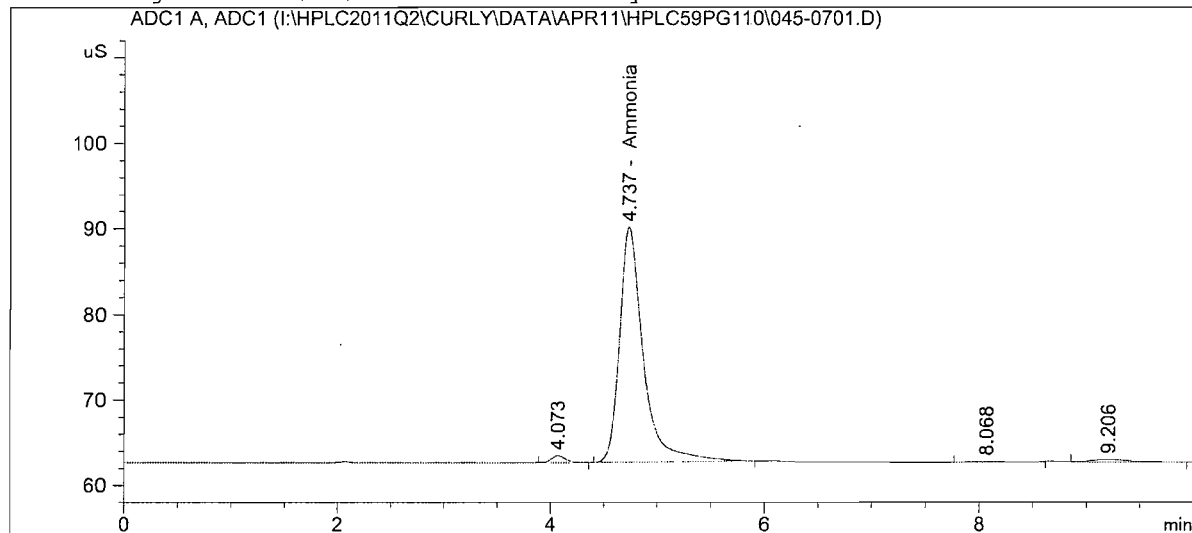
Totals : 4.52948

*** End of Report ***

Sample Name: HPLC59pg108 #5

```
=====
Acq. Operator   : KHB                      Seq. Line :    7
Acq. Instrument : Curly                    Location  : Vial 45
Injection Date  : 6/21/2011 6:16:51 PM     Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By       : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:      : 1.0000
Dilution:        : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.737	BB	422.65753	1.50705e-2	6.36964		Ammonia

```
Totals :                               6.36964
```

```
=====
*** End of Report ***
```

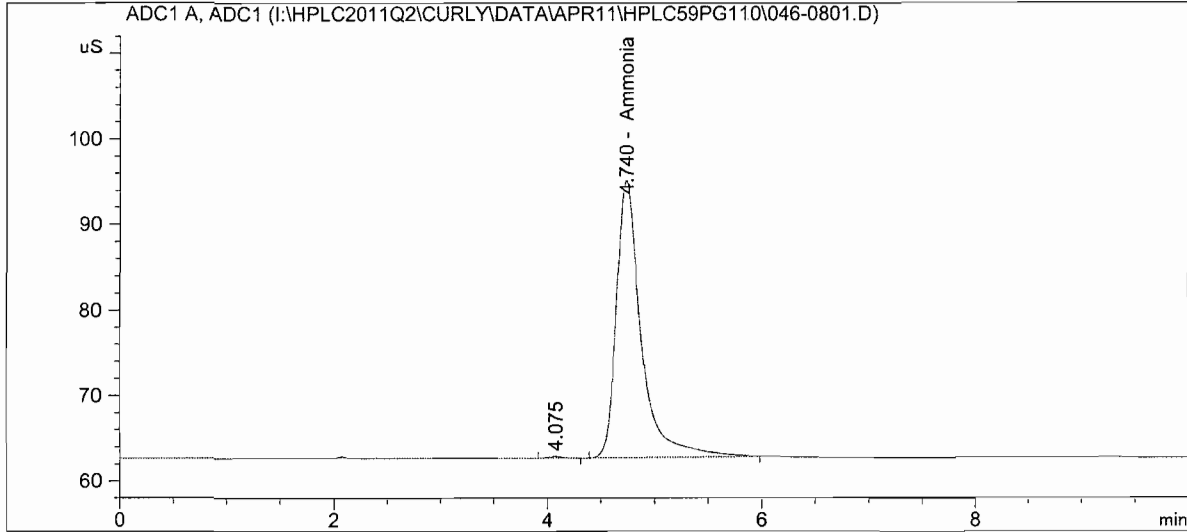

Sample Name: HPLC59pg108 #6

```

=====
Acq. Operator   : KHB                               Seq. Line :    8
Acq. Instrument : Curly                             Location  : Vial 46
Injection Date  : 6/21/2011 6:39:59 PM             Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB

```



```

=====
External Standard Report
=====

```

```

Sorted By       : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:     : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.740	BB	520.17706	1.61439e-2	8.39768		Ammonia

```
Totals :                               8.39768
```

```

=====
*** End of Report ***

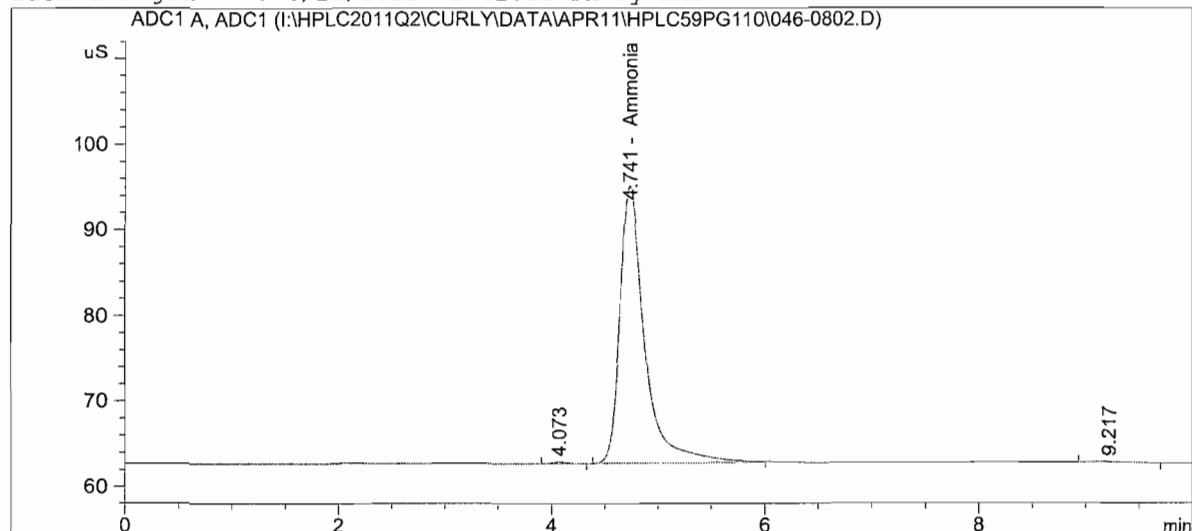
```

Sample Name: HPLC59pg108 #6

```

=====
Acq. Operator   : KHB                               Seq. Line :    8
Acq. Instrument : Curly                             Location  : Vial 46
Injection Date  : 6/21/2011 6:52:07 PM             Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

=====
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.741	BB	520.88818	1.61528e-2	8.41379		Ammonia

Totals : 8.41379

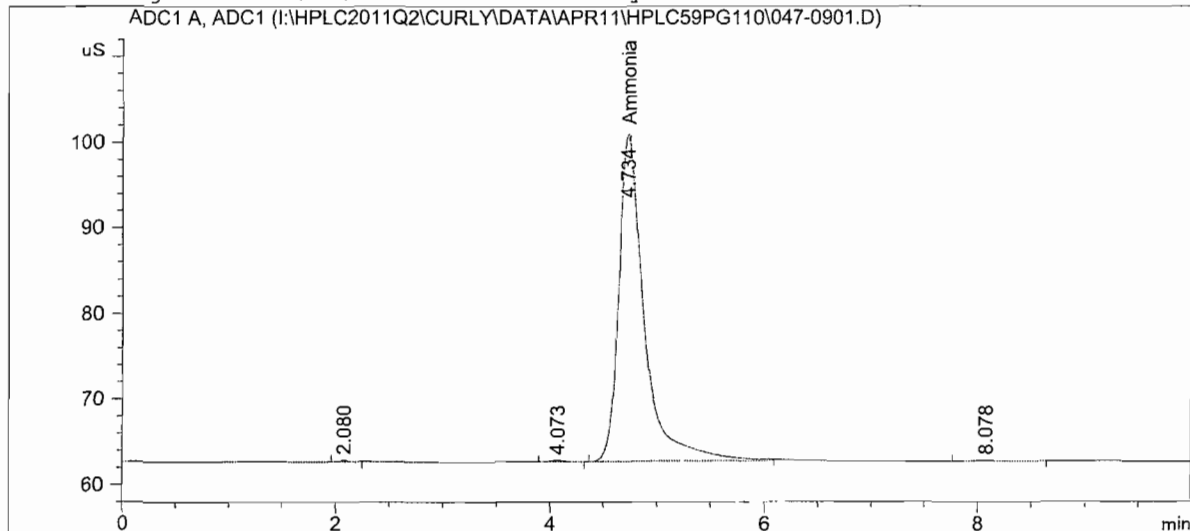
*** End of Report ***

Sample Name: HPLC59pg108 #7

```

=====
Acq. Operator   : KHB                               Seq. Line :    9
Acq. Instrument : Curly                             Location  : Vial 47
Injection Date  : 6/21/2011 7:03:50 PM             Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.734	BB	631.24402	1.78636e-2	11.27628		Ammonia

Totals : 11.27628

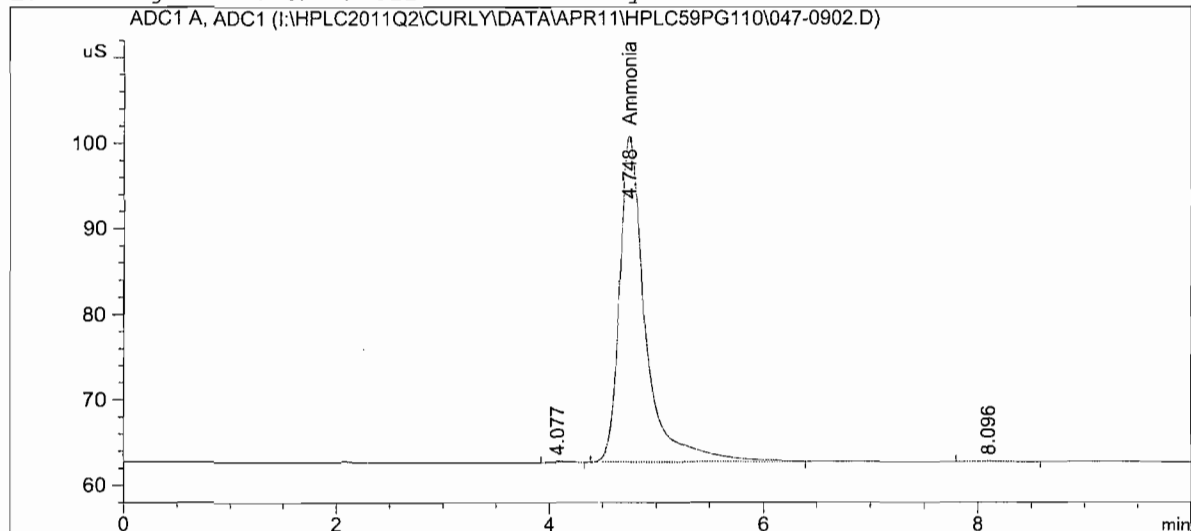
*** End of Report ***

Sample Name: HPLC59pg108 #7

```

=====
Acq. Operator   : KHB                               Seq. Line :    9
Acq. Instrument : Curly                             Location  : Vial 47
Injection Date  : 6/21/2011 7:15:34 PM             Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.748	BB	639.59711	1.80320e-2	11.53320		Ammonia

Totals : 11.53320

*** End of Report ***

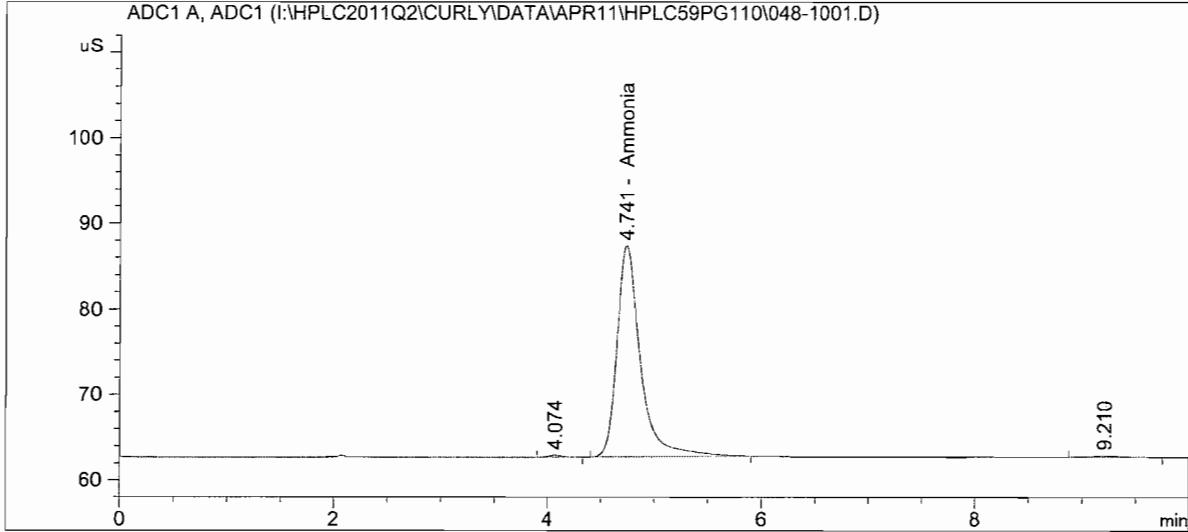
Sample Name: HPLC59pg108 #SS

```

=====
Acq. Operator   : KHB                               Seq. Line :   10
Acq. Instrument : Curly                             Location  : Vial 48
Injection Date  : 6/21/2011 7:27:17 PM              Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method    : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed   : 6/2/2011 10:10:26 AM by EO
Analysis Method: I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed   : 6/22/2011 12:42:22 PM by KHB

```



```

=====
External Standard Report
=====

```

```

Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.741	BB	374.52618	1.46161e-2	5.47413		Ammonia

```
Totals :                               5.47413
```

```

=====
*** End of Report ***

```

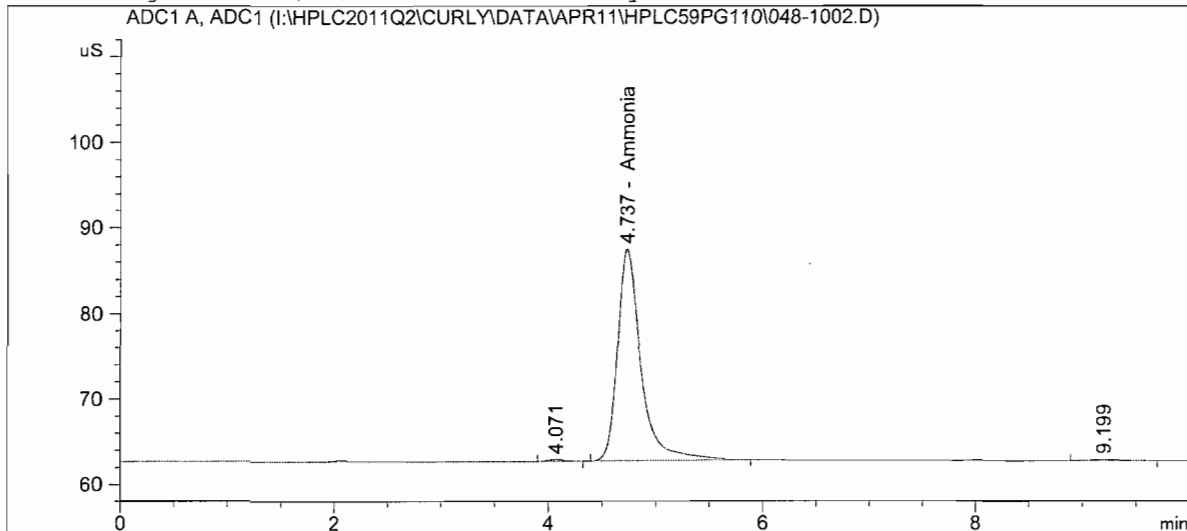
Sample Name: HPLC59pg108 #SS

```

=====
Acq. Operator   : KHB                               Seq. Line :   10
Acq. Instrument : Curly                             Location  : Vial 48
Injection Date  : 6/21/2011 7:39:00 PM             Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB

```



```

=====
External Standard Report
=====

```

```

Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.737	BB	375.22891	1.46225e-2	5.48680		Ammonia

```
Totals :                               5.48680
```

```

=====
*** End of Report ***
=====

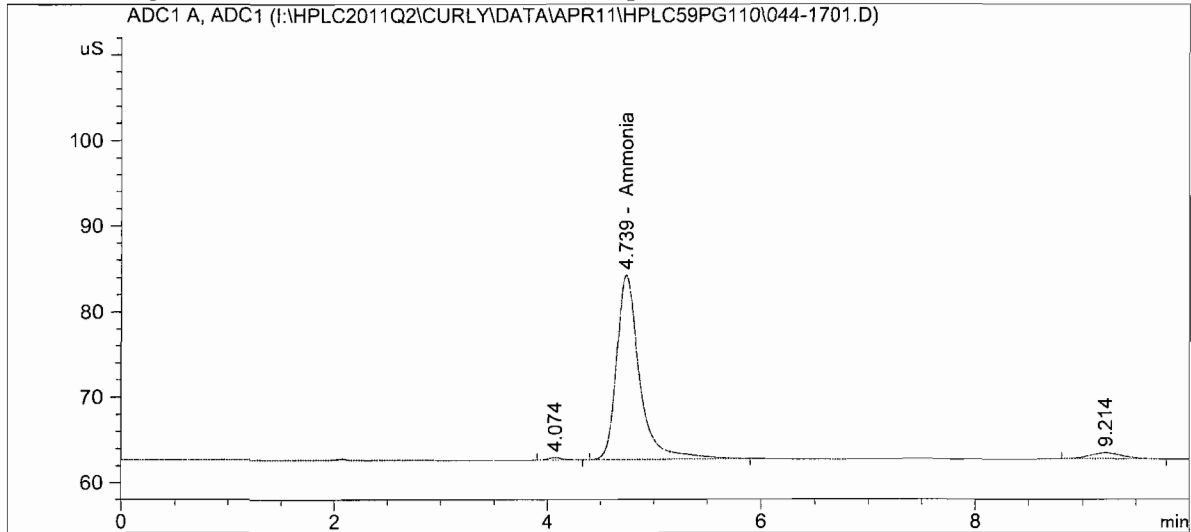
```

Sample Name: HPLC59pg108 #4

```

=====
Acq. Operator   : KHB                               Seq. Line : 17
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/21/2011 10:11:45 PM             Inj       : 1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

=====
Sorted By       : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:     : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.739	BB	322.08740	1.41522e-2	4.55825		Ammonia

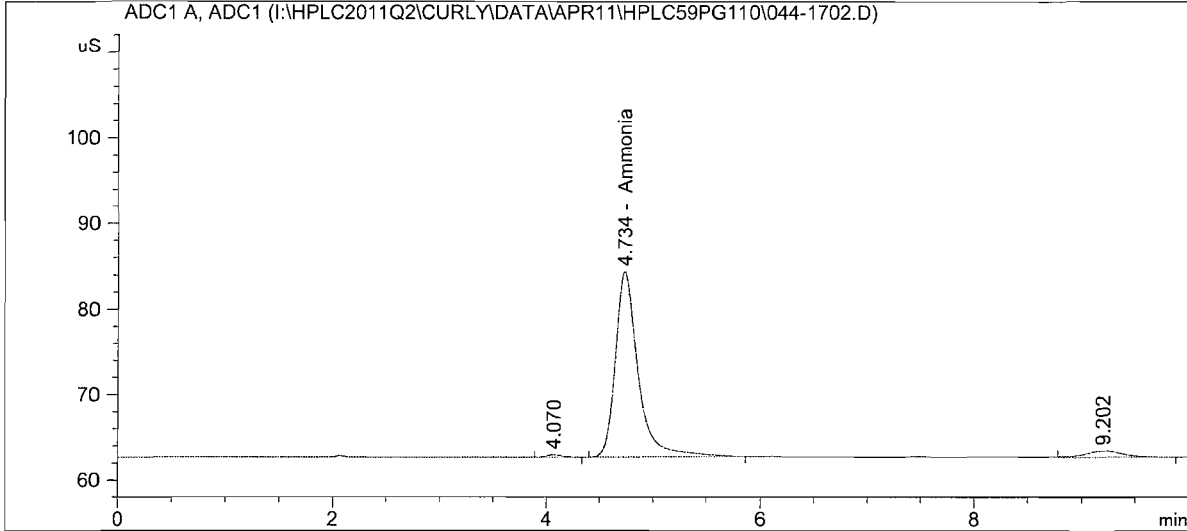
Totals : 4.55825

*** End of Report ***

Sample Name: HPLC59pg108 #4

```
=====
Acq. Operator   : KHB                               Seq. Line : 17
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/21/2011 10:23:09 PM            Inj       : 2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



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=====
External Standard Report
=====
```

```
Sorted By       : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:     : 1.0000
Dilution:       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.734	BB	321.06458	1.41434e-2	4.54093		Ammonia

Totals : 4.54093

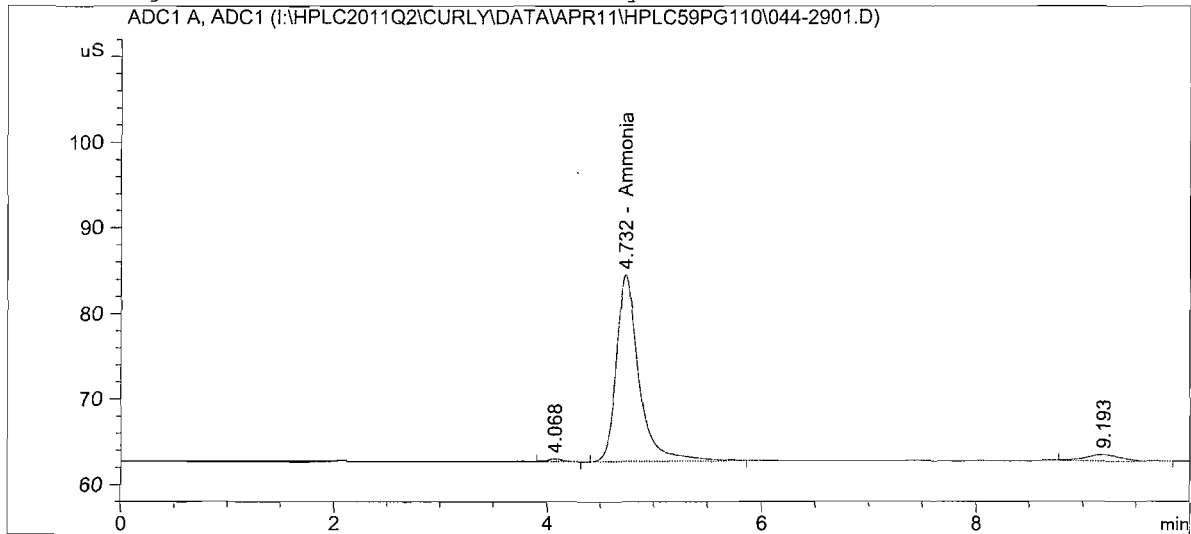
```
=====
*** End of Report ***
=====
```

Sample Name: HPLC59pg108 #4

```

=====
Acq. Operator   : KHB                      Seq. Line :   29
Acq. Instrument : Curly                   Location  : Vial 44
Injection Date  : 6/22/2011 2:54:18 AM    Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

=====
Sorted By       : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:     : 1.0000
Dilution:       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp Name
4.732	BB	320.85367	1.41415e-2	4.53737	Ammonia

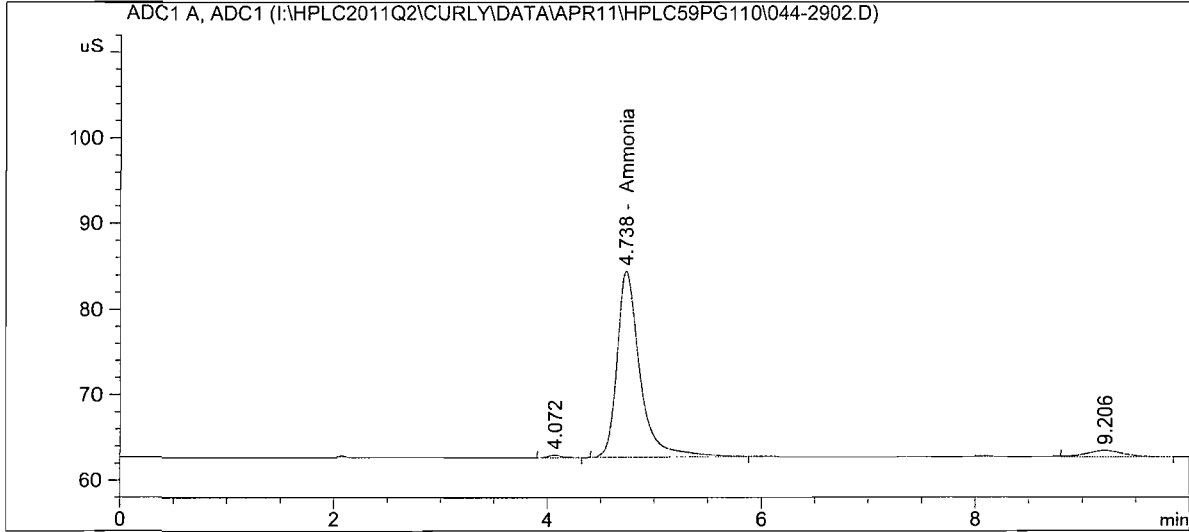
Totals : 4.53737

*** End of Report ***

```

=====
Acq. Operator   : KHB                      Seq. Line :   29
Acq. Instrument : Curly                    Location  : Vial 44
Injection Date  : 6/22/2011 3:06:02 AM    Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
  
```



External Standard Report

```

Sorted By       : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:     : 1.0000
Dilution:       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.738	BB	321.70190	1.41489e-2	4.55172		Ammonia

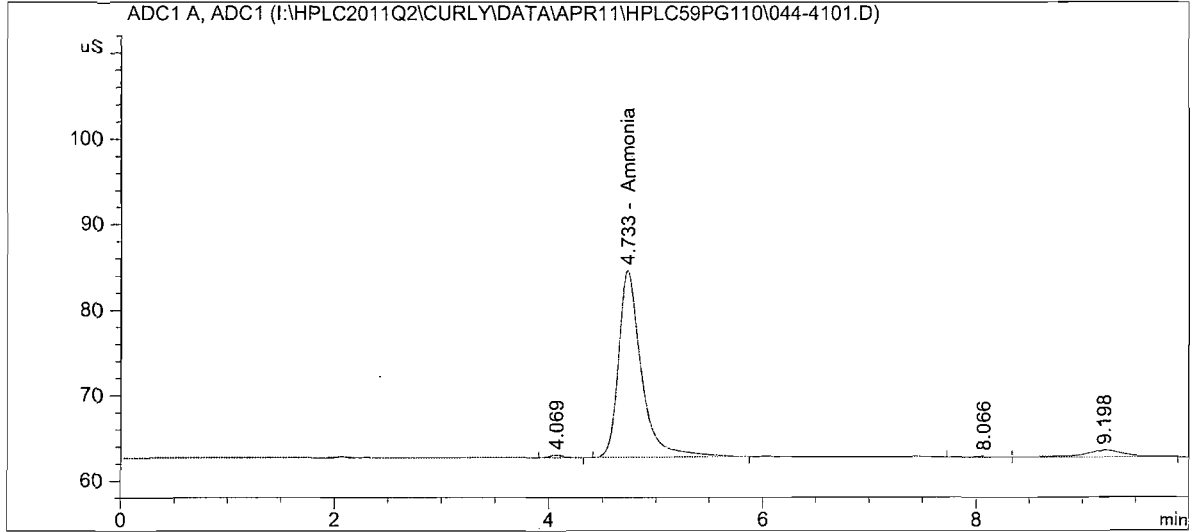
Totals : 4.55172

*** End of Report ***

Sample Name: HPLC59pg108 #4

```
=====
Acq. Operator   : KHB                               Seq. Line :   41
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/22/2011 7:37:06 AM             Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method    : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed   : 6/2/2011 10:10:26 AM by EO
Analysis Method: I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed   : 6/22/2011 12:42:22 PM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified: Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.733	BB	323.19186	1.41618e-2	4.57697		Ammonia

Totals : 4.57697

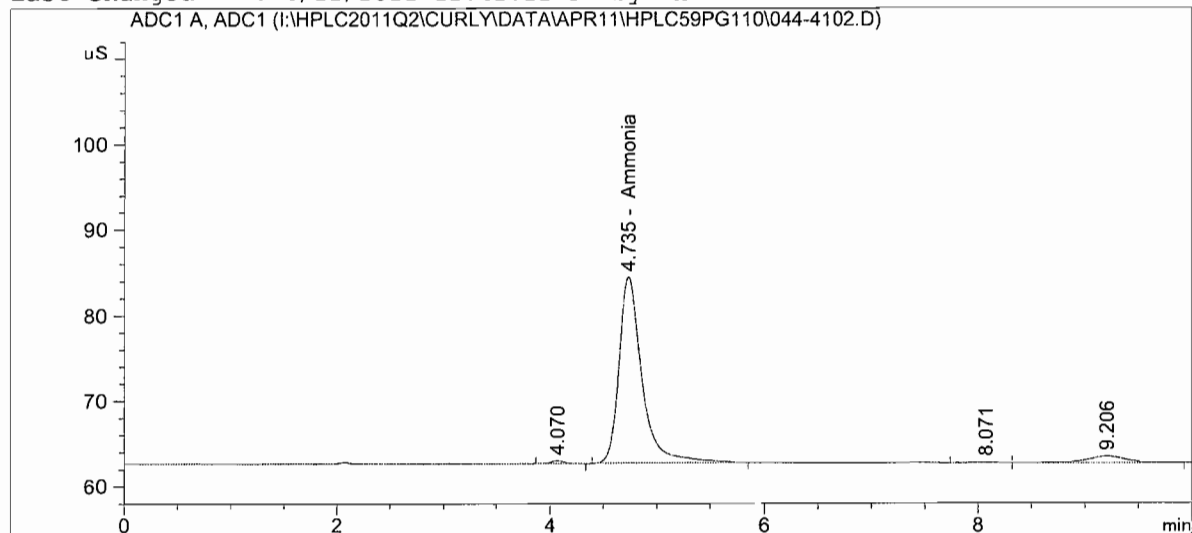
```
=====
*** End of Report ***
```


Sample Name: HPLC59pg108 #4

```

=====
Acq. Operator   : KHB                               Seq. Line : 41
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/22/2011 7:48:54 AM             Inj       : 2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
    
```



External Standard Report

```

Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.735	BB	323.06540	1.41607e-2	4.57483		Ammonia

Totals : 4.57483

*** End of Report ***

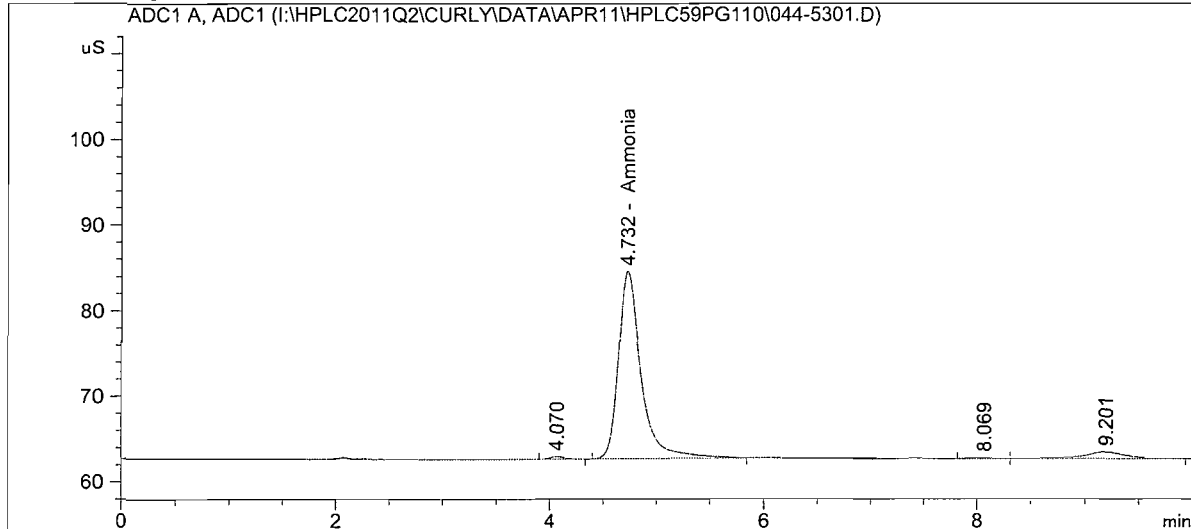
Sample Name: HPLC59pg108 #4

```

=====
Acq. Operator   : KHB                               Seq. Line :   53
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/22/2011 12:19:44 PM           Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By      : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.732	BB	322.98047	1.41600e-2	4.57339		Ammonia

```
Totals :                               4.57339
```

```

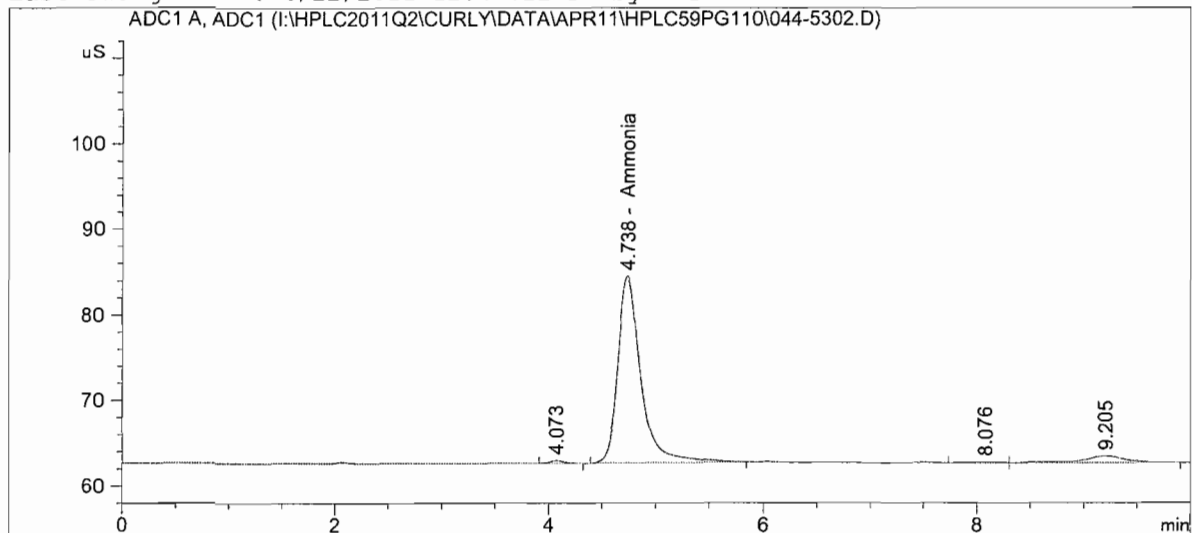
=====
*** End of Report ***
=====

```

Sample Name: HPLC59pg108 #4

```
=====
Acq. Operator   : KHB                               Seq. Line :   53
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/22/2011 12:31:26 PM           Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 6/2/2011 10:10:26 AM by EO
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed    : 6/22/2011 12:42:22 PM by KHB
=====
```



External Standard Report

```
Sorted By           : Signal
Calib. Data Modified : Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

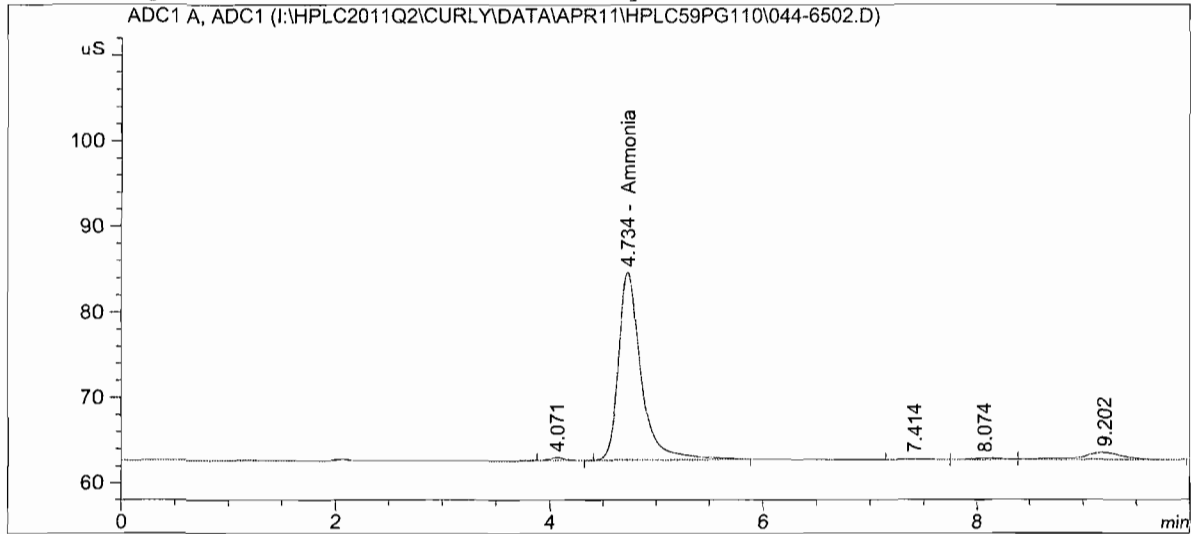
RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.738	BB	323.72818	1.41664e-2	4.58607		Ammonia

Totals : 4.58607

*** End of Report ***


```
=====
Acq. Operator   : KHB                               Seq. Line :   65
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 6/22/2011 5:14:06 PM             Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method    : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed   : 6/2/2011 10:10:26 AM by EO
Analysis Method: I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG110.M
Last changed   : 6/22/2011 12:42:22 PM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified: Wednesday, June 22, 2011 12:42:18 PM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.734	BB	324.69656	1.41748e-2	4.60252		Ammonia

Totals : 4.60252

```
=====
*** End of Report ***
```

method: C:\HPLC2010Q4\CURLY\METHODS\AMMONIA.M
Modified on: 2/14/2011 at 4:56:34 PM

Method Information

Method: C:\HPLC2010Q4\CURLY\METHODS\AMMONIA.M
Modified: 2/14/2011 at 4:56:34 PM

Column: Dionex IonPac CS12 (250 mm x 4 mm)
Mobile Phase: 0.02 N MethaneSulfonic Acid
Detection: Suppressed Conductivity
Flow Rate: 1.0 mL/min
Temp: 30C

=====

ANALOG DIGITAL CONVERTER

=====

Signal 1

Description:	Dionex ED40
Source:	Signal
Unit:	uS
Units/Volt:	1000.000
Peakwidth (Data Rate):	0.053 Min (5.00 Hz)
Stop Time:	No Limit
Data Storage:	All

Start Signal Source: External Device Will Start 35900

Timed Event Table:
<no events>

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
====	=====	=====	=====	=====	=====	=====

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
28	Vial 65	R5 Imp 3 0611-152	AMMONIA	2	Sample	
29	Vial 44	HPLC59pg108 #4	AMMONIA	2	Sample	
30	Vial 45	HPLC59pg108 #5	AMMONIA	2	Sample	
31	Vial 66	R6 Imp 1&2 0611-152	AMMONIA	2	Sample	
32	Vial 67	R6 Imp 3 0611-152	AMMONIA	2	Sample	
33	Vial 68	R7 Imp 1&2 0611-152	AMMONIA	2	Sample	
34	Vial 69	R7 Imp 3 0611-152	AMMONIA	2	Sample	
35	Vial 70	R8 Imp 1&2 0611-152	AMMONIA	2	Sample	
36	Vial 71	R8 Imp 3 0611-152	AMMONIA	2	Sample	
37	Vial 72	R9 Imp 1&2 0611-152	AMMONIA	2	Sample	
38	Vial 73	R9 Imp 3 0611-152	AMMONIA	2	Sample	
39	Vial 74	R10 Imp 1&2 0611-152	AMMONIA	2	Sample	
40	Vial 75	R10 Imp 3 0611-152	AMMONIA	2	Sample	
41	Vial 44	HPLC59pg108 #4	AMMONIA	2	Sample	
42	Vial 45	HPLC59pg108 #5	AMMONIA	2	Sample	
43	Vial 76	R11 Imp 1&2 0611-152	AMMONIA	2	Sample	
44	Vial 77	R11 Imp 3 0611-152	AMMONIA	2	Sample	
45	Vial 78	R12 Imp 1&2 0611-152	AMMONIA	2	Sample	
46	Vial 79	R12 Imp 3 0611-152	AMMONIA	2	Sample	
47	Vial 80	H2SO4 Blk 0611-152	AMMONIA	2	Sample	
48	Vial 81	DI Blk 0611-152	AMMONIA	2	Sample	
49	Vial 82	MS/R1 Imp 1&2 0611-152	AMMONIA	2	Sample	
50	Vial 83	MSD/R1 Imp 1&2 0611-152	AMMONIA	2	Sample	
51	Vial 84	MS/R1 Imp 3 0611-152	AMMONIA	2	Sample	
52	Vial 85	MSD/R1 Imp 3 0611-152	AMMONIA	2	Sample	
53	Vial 44	HPLC59pg108 #4	AMMONIA	2	Sample	
54	Vial 45	HPLC59pg108 #5	AMMONIA	2	Sample	

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
55	Vial 86	Base R1 Imp 1-2 1-140	061 AMMONIA	2	Sample	
56	Vial 87	Base R1 3rd Imp 1-140	061 AMMONIA	2	Sample	
57	Vial 88	Base R2 Imp 1-2 1-140	061 AMMONIA	2	Sample	
58	Vial 89	Base R2 3rd Imp 1-140	061 AMMONIA	2	Sample	
59	Vial 90	Base R3 Imp 1-2 1-140	061 AMMONIA	2	Sample	
60	Vial 91	Base R3 3rd Imp 1-140	061 AMMONIA	2	Sample	
61	Vial 92	MS/Base R1 Imp 1-2 0611-140	AMMONIA	2	Sample	
62	Vial 93	MSD/Base R1 Imp 1-2 0611-140	AMMONIA	2	Sample	
63	Vial 56	R1 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
64	Vial 58	R2 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
65	Vial 44	HPLC59pg108 #4	AMMONIA	2	Sample	
66	Vial 45	HPLC59pg108 #5	AMMONIA	2	Sample	
67	Vial 48	HPLC59pg108 #SS	AMMONIA	2	Sample	
68	Vial 49	RB/0.04N H2SO4	AMMONIA	2	Sample	
69	Vial 60	R3 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
70	Vial 62	R4 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
71	Vial 64	R5 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
72	Vial 66	R6 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
73	Vial 68	R7 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
74	Vial 70	R8 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
75	Vial 72	R9 Imp 1&2*20 152	0611- AMMONIA	2	Sample	
76	Vial 74	R10 Imp 1&2*20 -152	0611 AMMONIA	2	Sample	

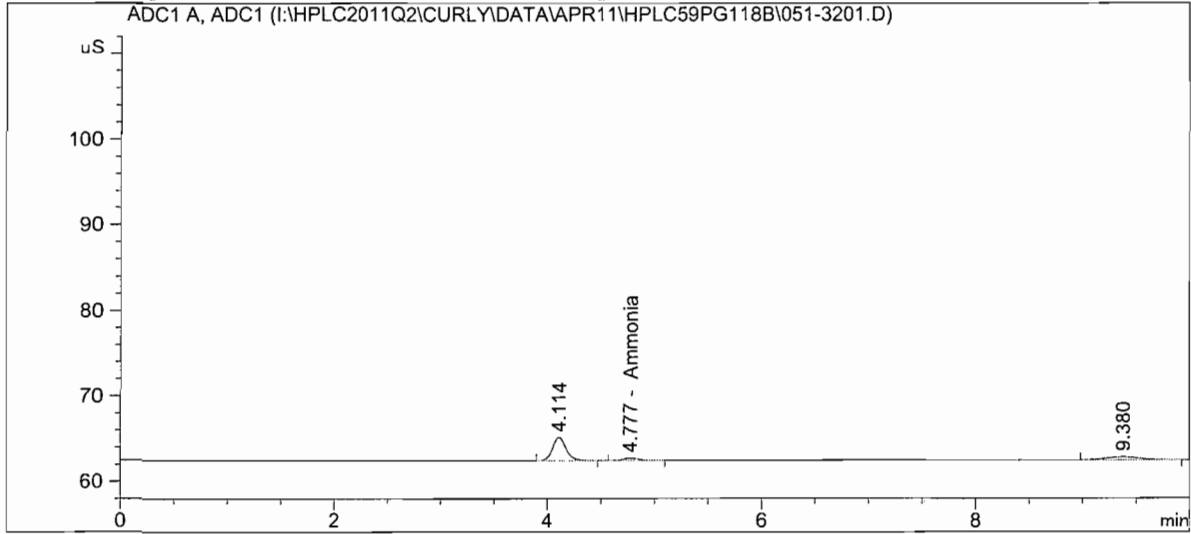
77	Vial 76	R11 Imp 1&2*20 -152	0611 AMMONIA	2	Sample
78	Vial 78	R12 Imp 1&2*20 -152	0611 AMMONIA	2	Sample
79	Vial 44	HPLC59pg108 #4	AMMONIA	2	Sample
80	Vial 45	HPLC59pg108 #5	AMMONIA	2	Sample
81	Vial 94	MS/R1 Imp 1&2 152	0611- AMMONIA	2	Sample
82	Vial 95	MSD/R1 Imp 1&2 -152	0611 AMMONIA	2	Sample
83	Vial 44	HPLC59pg108 #4	AMMONIA	2	Sample
84	Vial 45	HPLC59pg108 #5	AMMONIA	2	Sample

Sample Chromatograms



```
=====
Acq. Operator   : KHB                      Seq. Line : 32
Acq. Instrument : Curly                    Location  : Vial 51
Injection Date  : 7/8/2011 9:05:32 AM      Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

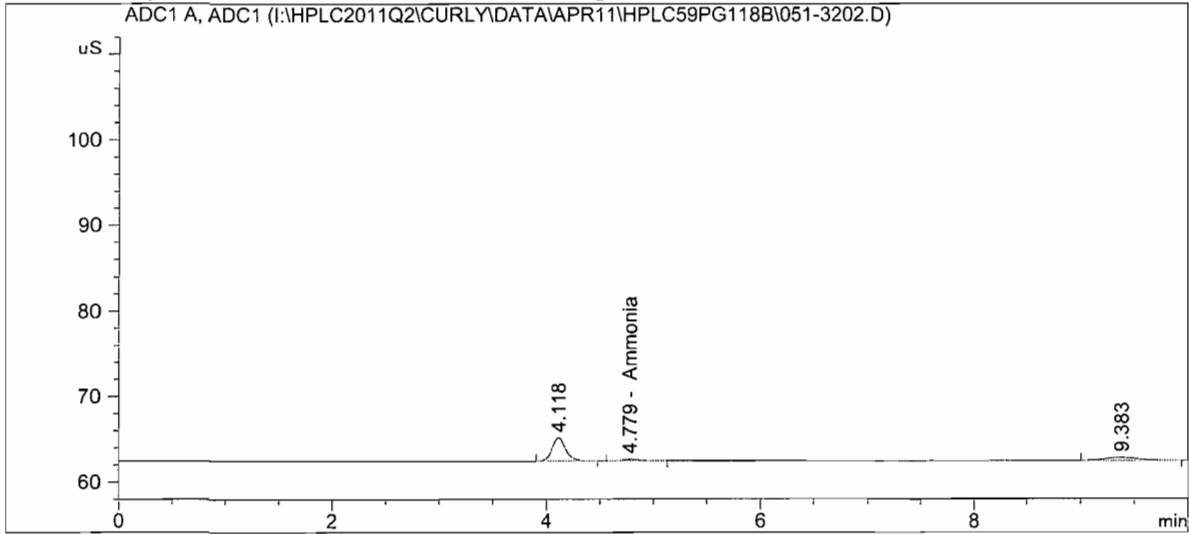
RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.777	BB	2.88613	8.59882e-3	2.48173e-2		Ammonia

Totals : 2.48173e-2

```
=====
*** End of Report ***
=====
```

```
=====
Acq. Operator   : KHB                      Seq. Line : 32
Acq. Instrument : Curly                    Location  : Vial 51
Injection Date  : 7/8/2011 9:17:15 AM      Inj       : 2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.779	BB	2.13125	8.59882e-3	1.83262e-2		Ammonia

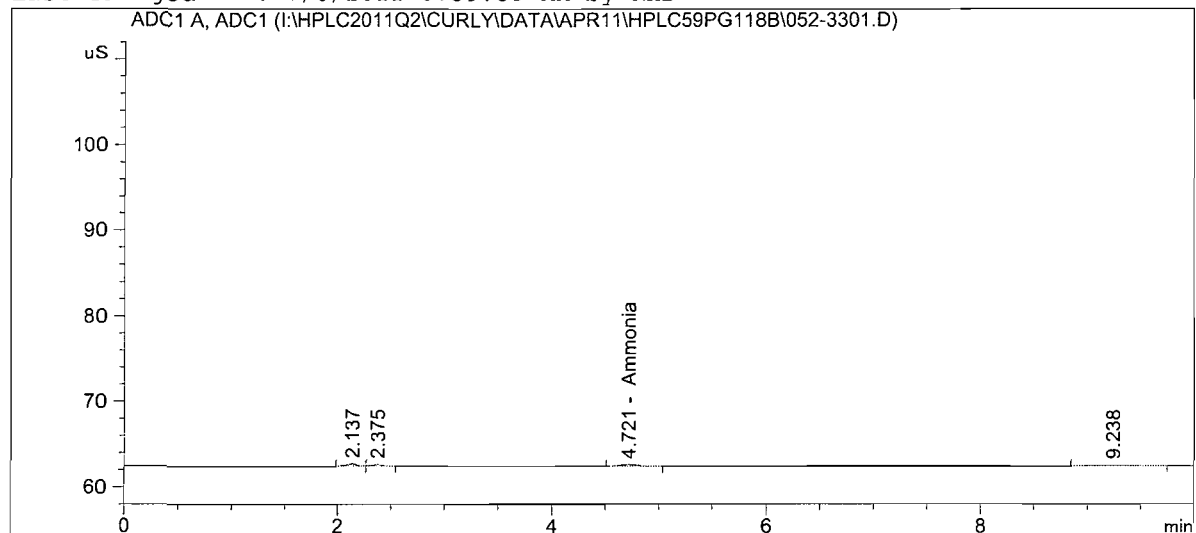
Totals : 1.83262e-2

```
=====
*** End of Report ***
=====
```

Sample Name: Blank H2SO4 0711-35

```
=====
Acq. Operator   : KHB                      Seq. Line :   33
Acq. Instrument : Curly                    Location  : Vial 52
Injection Date  : 7/8/2011 9:29:00 AM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By      :      Signal
Calib. Data Modified :      Friday, July 08, 2011 8:59:34 AM
Multiplier:      :      1.0000
Dilution:      :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.721	BB	2.41649	8.59882e-3	2.07790e-2		Ammonia

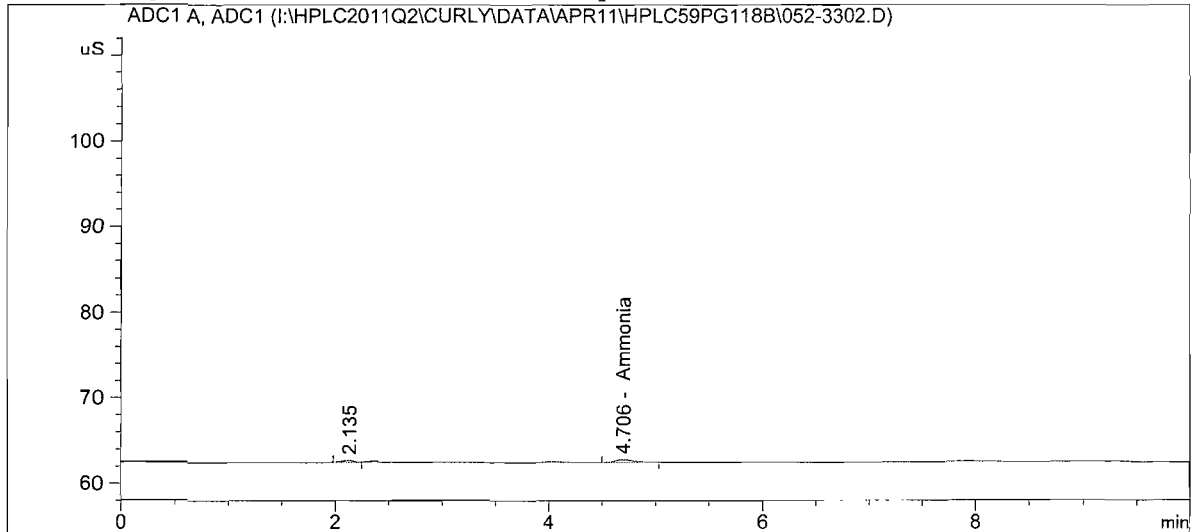
Totals : 2.07790e-2

```
=====
*** End of Report ***
=====
```

Sample Name: Blank H2SO4 0711-35

```
=====
Acq. Operator   : KHB                      Seq. Line :   33
Acq. Instrument : Curly                    Location  : Vial 52
Injection Date  : 7/8/2011 9:40:35 AM      Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



External Standard Report

```
Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.706	BB	4.08281	8.59882e-3	3.51073e-2		Ammonia

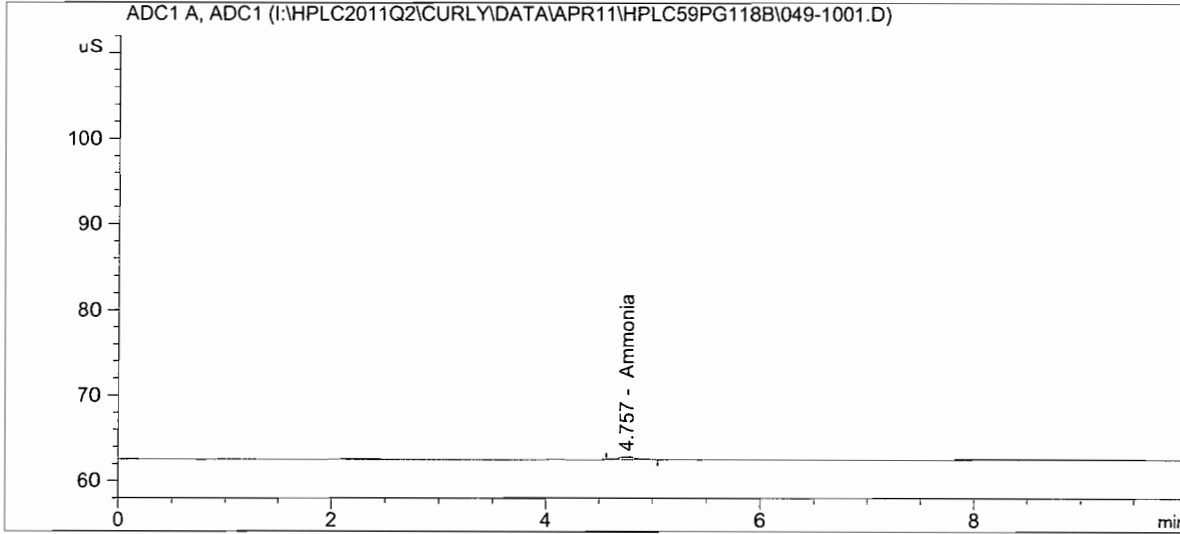
Totals : 3.51073e-2

*** End of Report ***

Sample Name: RB/0.04N H2SO4

```
=====
Acq. Operator   : KHB                      Seq. Line : 10
Acq. Instrument : Curly                    Location  : Vial 49
Injection Date  : 7/7/2011 4:57:56 PM      Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified: Friday, July 08, 2011 8:59:34 AM
Multiplier:         : 1.0000
Dilution:           : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp Name
4.757	BB	3.47937	8.59882e-3	2.99185e-2	Ammonia

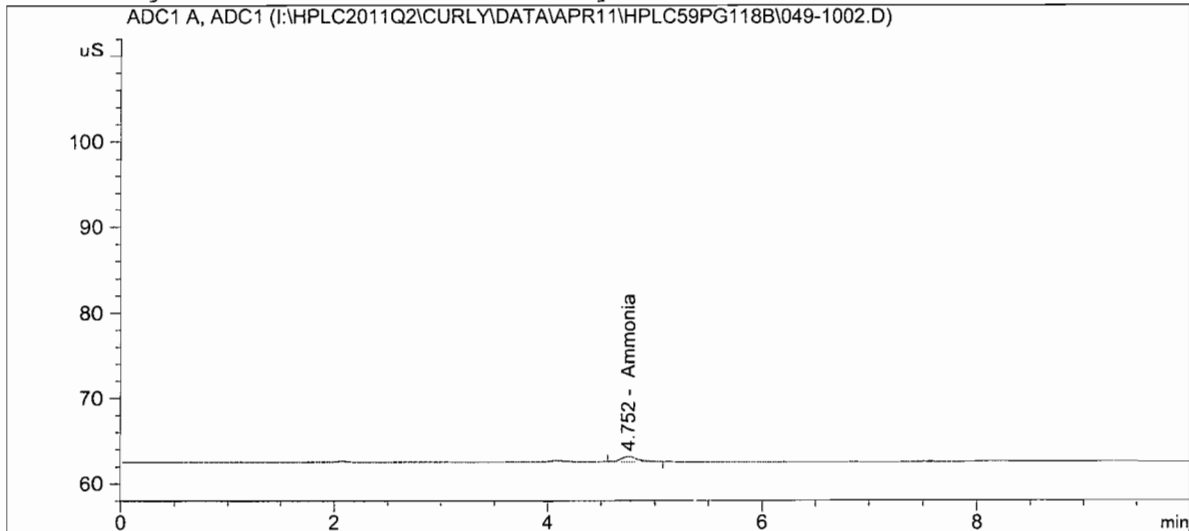
Totals : 2.99185e-2

```
=====
*** End of Report ***
=====
```


Sample Name: RB/0.04N H2SO4

```
=====
Acq. Operator   : KHB                               Seq. Line :   10
Acq. Instrument : Curly                             Location  : Vial 49
Injection Date  : 7/7/2011 5:09:40 PM              Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



External Standard Report

```
=====
Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.752	BB	6.27176	8.59882e-3	5.39297e-2		Ammonia

Totals : 5.39297e-2

*** End of Report ***

Calibration Curve Chromatograms



=====
Calibration Table
=====

Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM

Rel. Reference Window : 10.000 %
Abs. Reference Window : 0.000 min
Rel. Non-ref. Window : 10.000 %
Abs. Non-ref. Window : 0.000 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Quadratic
Origin : Connected
Weight : Linear (Resp)

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

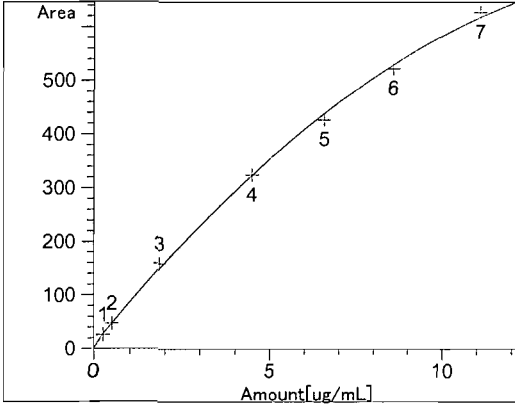
Signal 1: ADC1 A, ADC1

RetTime [min]	Lvl Sig	Amount [ug/mL]	Area	Amt/Area	Ref Grp Name
4.768	1	2.35000e-1	25.76349	9.12144e-3	Ammonia
	2	4.70000e-1	46.89942	1.00214e-2	
	3	1.85100	158.70357	1.16633e-2	
	4	4.49500	324.33163	1.38593e-2	
	5	6.58600	426.61195	1.54379e-2	
	6	8.58200	521.96188	1.64418e-2	
	7	11.10600	626.88852	1.77161e-2	

=====
Peak Sum Table
=====

No Entries in table
=====

=====
Calibration Curves
=====



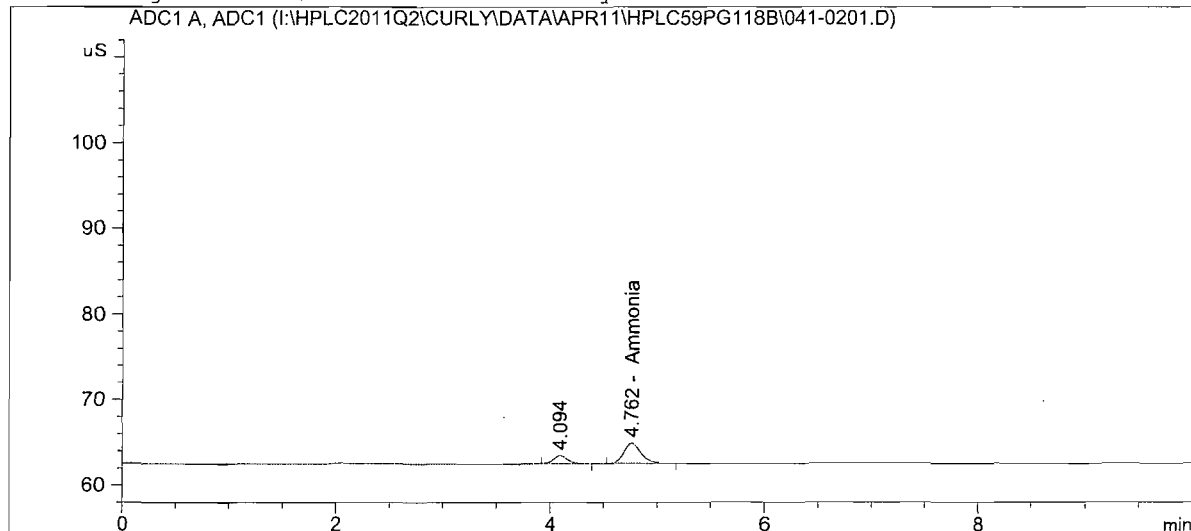
Ammonia at exp. RT: 4.768
ADC1 A, ADC1
Correlation: 0.99959
Residual Std. Dev.: 8.42931
Formula: $y = ax^2 + bx + c$
a: -2.29274
b: 80.29299
c: 8.58711
x: Amount
y: Area
Calibration Level Weights:
Level 1 : 1
Level 2 : 0.549335
Level 3 : 0.162337
Level 4 : 0.079436
Level 5 : 0.060391
Level 6 : 0.049359
Level 7 : 0.041097

Sample Name: HPLC59pg118 #1

```

=====
Acq. Operator   : KHB                               Seq. Line :    2
Acq. Instrument : Curly                             Location  : Vial 41
Injection Date  : 7/7/2011 1:49:39 PM              Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
    
```



External Standard Report

```

Sorted By           :      Signal
Calib. Data Modified :      Friday, July 08, 2011 8:59:34 AM
Multiplier          :              1.0000
Dilution            :              1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.762	BB	25.84820	8.59882e-3	2.22264e-1		Ammonia

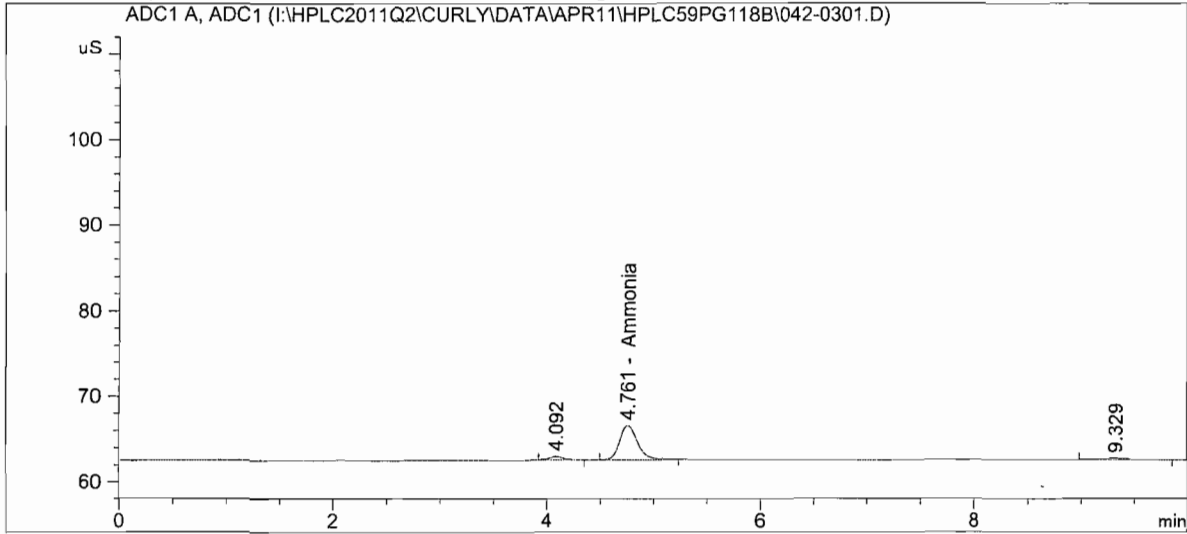
Totals : 2.22264e-1

*** End of Report ***

Sample Name: HPLC59pg118 #2

```
=====
Acq. Operator   : KHB                               Seq. Line :    3
Acq. Instrument : Curly                             Location  : Vial 42
Injection Date  : 7/7/2011 2:13:06 PM              Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



External Standard Report

```
Sorted By      :      Signal
Calib. Data Modified :      Friday, July 08, 2011 8:59:34 AM
Multiplier:      :      1.0000
Dilution:       :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.761	BB	46.31725	1.02853e-2	4.76386e-1		Ammonia

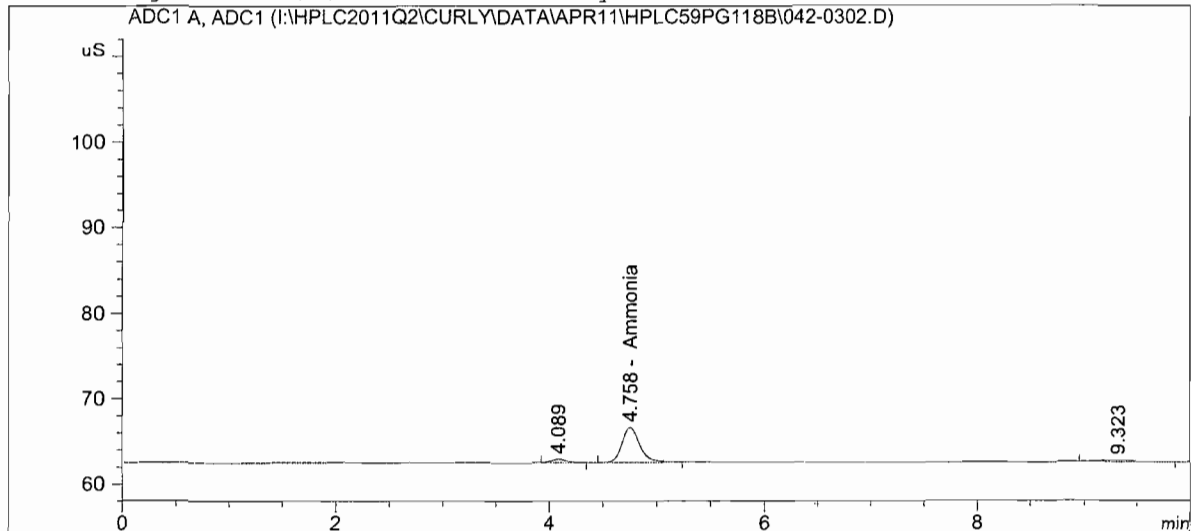
Totals : 4.76386e-1

*** End of Report ***

Sample Name: HPLC59pg118 #2

```
=====
Acq. Operator   : KHB                      Seq. Line :    3
Acq. Instrument : Curly                    Location  : Vial 42
Injection Date  : 7/7/2011 2:24:50 PM      Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By           : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.758	BB	47.48160	1.03472e-2	4.91299e-1		Ammonia

Totals : 4.91299e-1

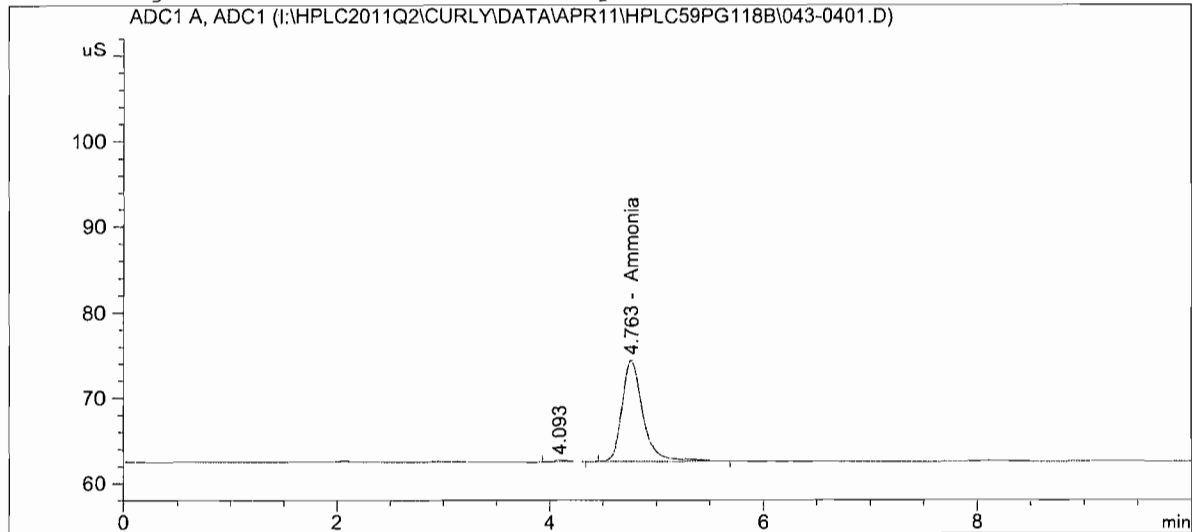
```
=====
*** End of Report ***
=====
```


Sample Name: HPLC59pg118 #3

```

=====
Acq. Operator   : KHB                      Seq. Line :    4
Acq. Instrument : Curly                    Location  : Vial 43
Injection Date  : 7/7/2011 2:36:32 PM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
    
```



External Standard Report

```

Sorted By           : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.763	BB	159.32607	1.24932e-2	1.99050		Ammonia

Totals : 1.99050

*** End of Report ***

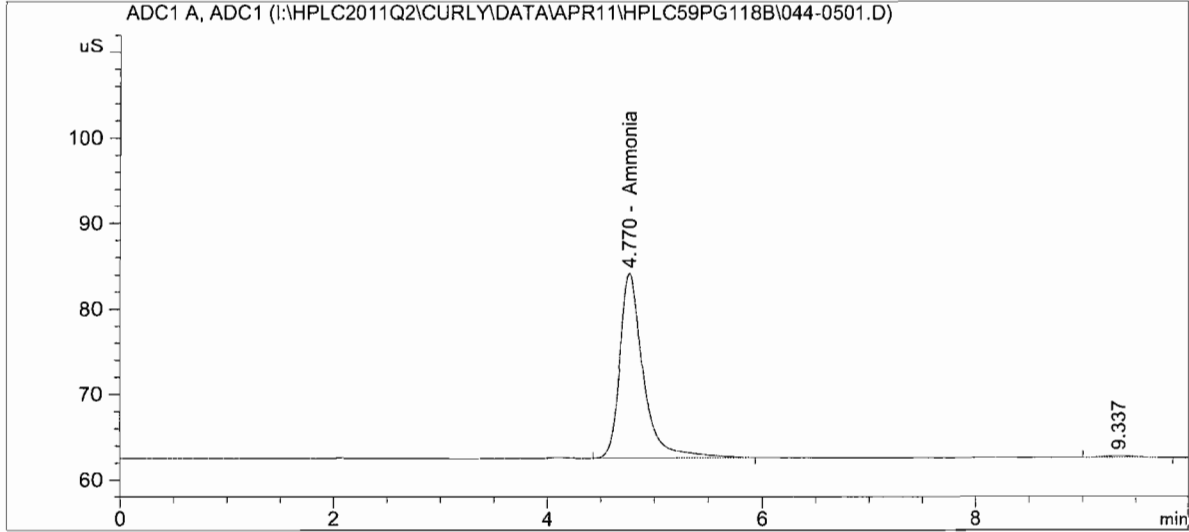
Sample Name: HPLC59pg118 #4

```

=====
Acq. Operator   : KHB                      Seq. Line :    5
Acq. Instrument : Curly                    Location  : Vial 44
Injection Date  : 7/7/2011 3:00:02 PM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method  : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.770	BB	326.28537	1.39361e-2	4.54715		Ammonia

```
Totals :                               4.54715
```

```

=====
*** End of Report ***
=====

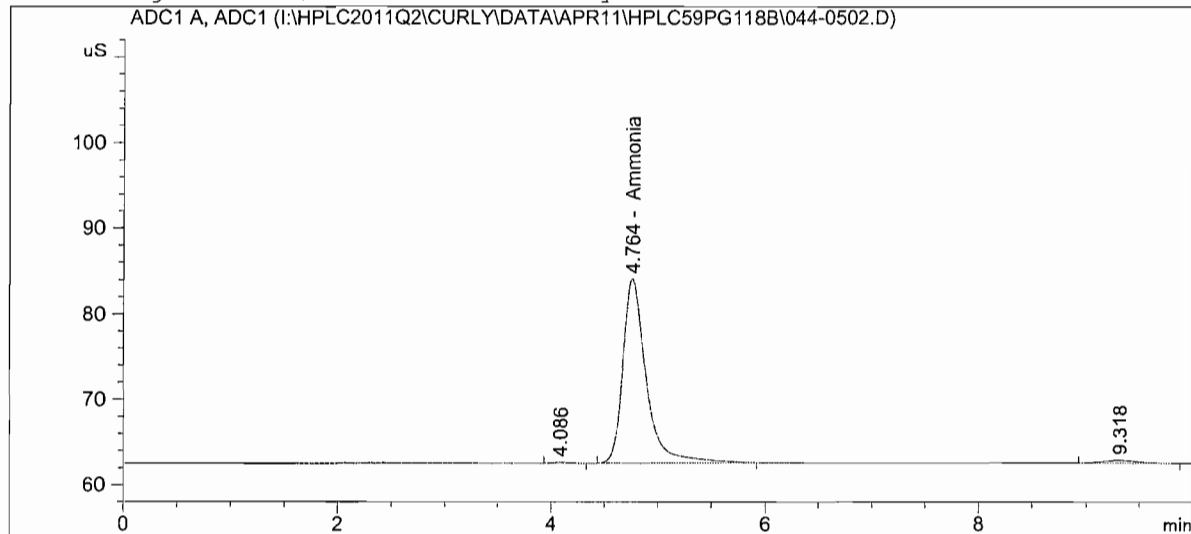
```

Sample Name: HPLC59pg118 #4

```

=====
Acq. Operator   : KHB                               Seq. Line :    5
Acq. Instrument : Curly                             Location  : Vial 44
Injection Date  : 7/7/2011 3:12:09 PM              Inj       :    2
                                                    Inj Volume: 25.000 µl

Acq. Method    : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed   : 7/6/2011 9:21:02 AM by KHB
Analysis Method: I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed   : 7/8/2011 8:59:39 AM by KHB
    
```



External Standard Report

```

Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.764	BB	322.37790	1.39016e-2	4.48158		Ammonia

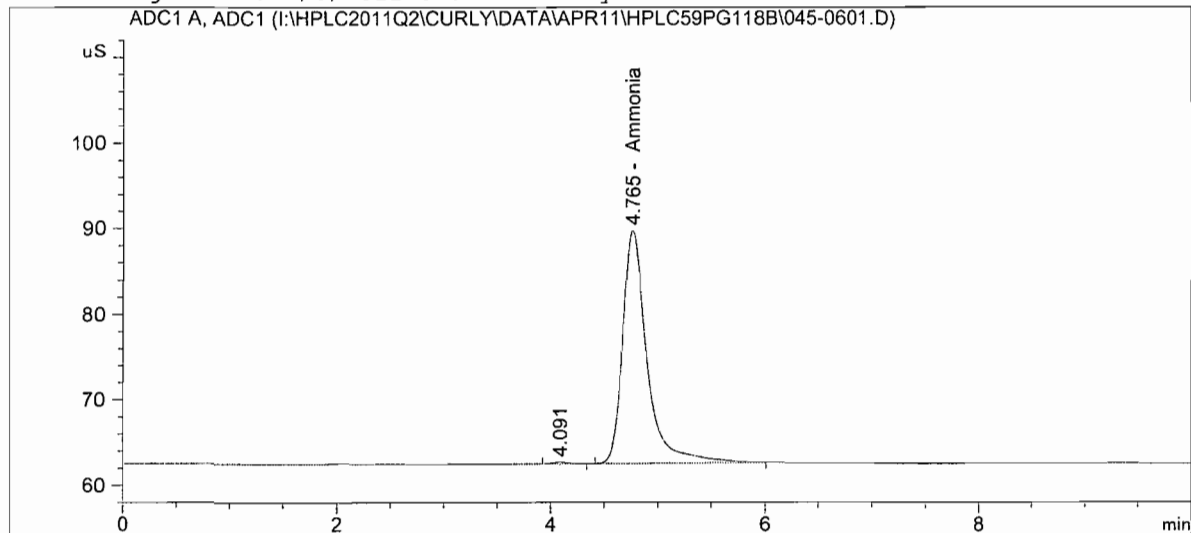
Totals : 4.48158

*** End of Report ***

Sample Name: HPLC59pg118 #5

```
=====
Acq. Operator   : KHB                               Seq. Line :    6
Acq. Instrument : Curly                             Location  : Vial 45
Injection Date  : 7/7/2011 3:23:59 PM              Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



External Standard Report

```
Sorted By           : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.765	BB	426.72321	1.49141e-2	6.36417		Ammonia

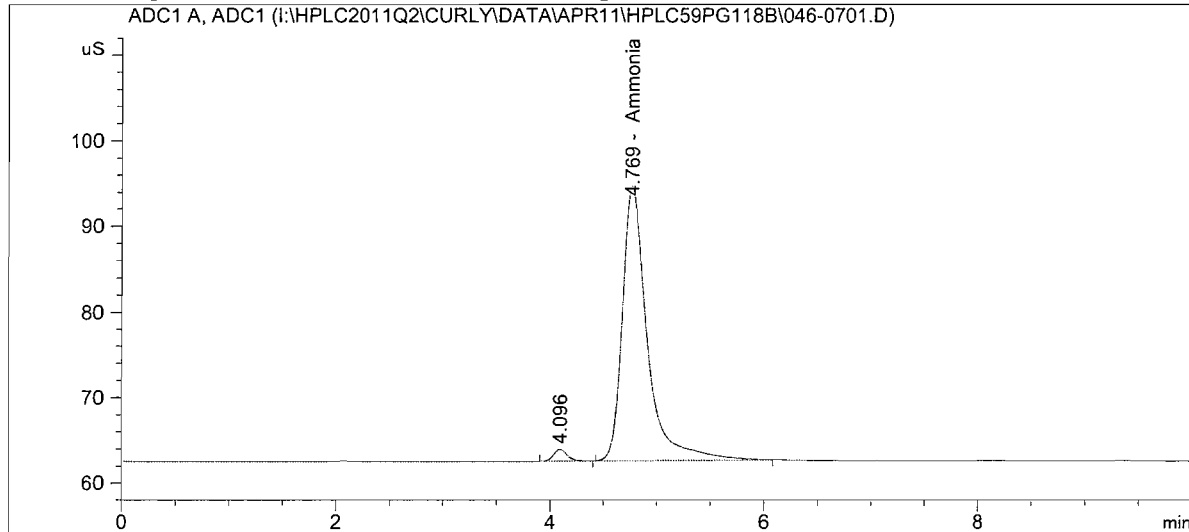
Totals : 6.36417

*** End of Report ***

Sample Name: HPLC59pg118 #6

```
=====
Acq. Operator   : KHB                      Seq. Line :    7
Acq. Instrument : Curly                    Location  : Vial 46
Injection Date  : 7/7/2011 3:47:28 PM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



External Standard Report

```
Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.769	BB	521.21552	1.61136e-2	8.39864		Ammonia

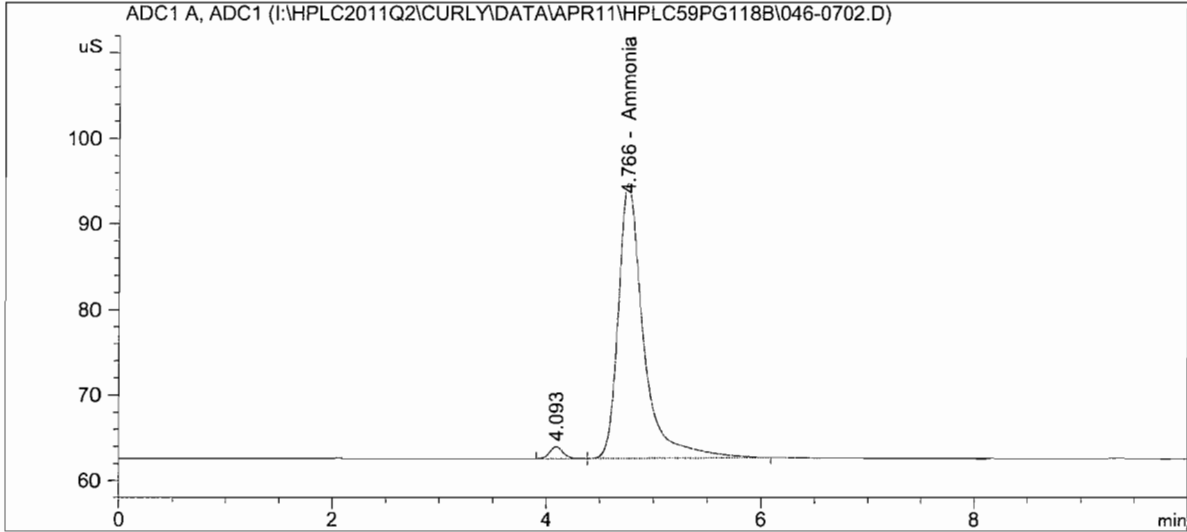
Totals : 8.39864

*** End of Report ***

Sample Name: HPLC59pg118 #6

```
=====
Acq. Operator   : KHB                      Seq. Line :    7
Acq. Instrument : Curly                    Location  : Vial 46
Injection Date  : 7/7/2011 3:59:10 PM      Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



```
=====
External Standard Report
=====
```

```
Sorted By      :      Signal
Calib. Data Modified :      Friday, July 08, 2011 8:59:34 AM
Multiplier:    :      1.0000
Dilution:      :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.766	VB	522.70825	1.61360e-2	8.43444		Ammonia

```
Totals :                               8.43444
```

```
=====
*** End of Report ***
=====
```

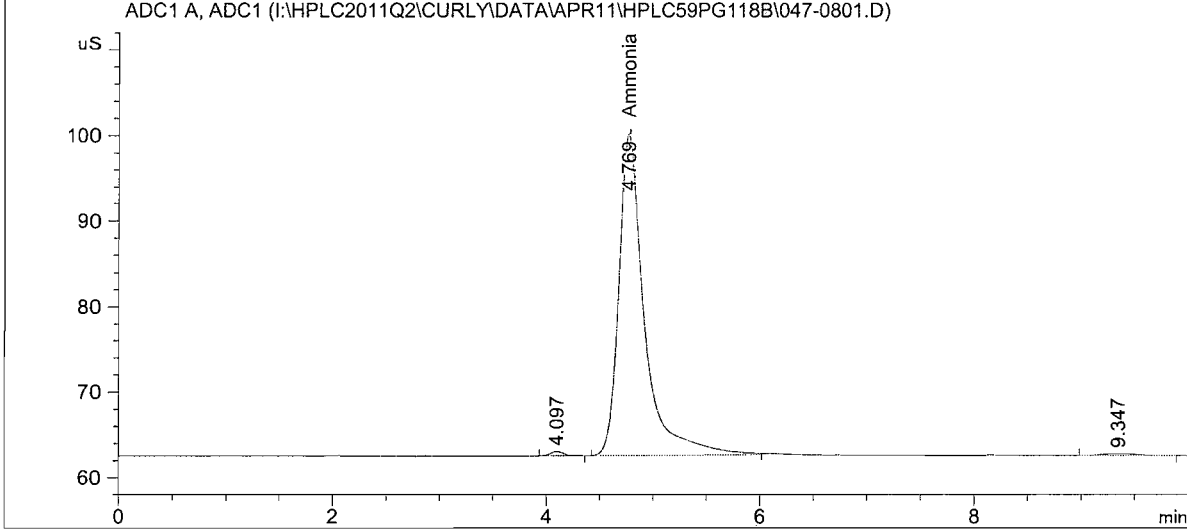

Sample Name: HPLC59pg118 #7

```

=====
Acq. Operator   : KHB                      Seq. Line :    8
Acq. Instrument : Curly                   Location  : Vial 47
Injection Date  : 7/7/2011 4:10:58 PM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.769	BB	627.88354	1.82661e-2	11.46896		Ammonia

```
Totals :                               11.46896
```

```

=====
*** End of Report ***
=====

```

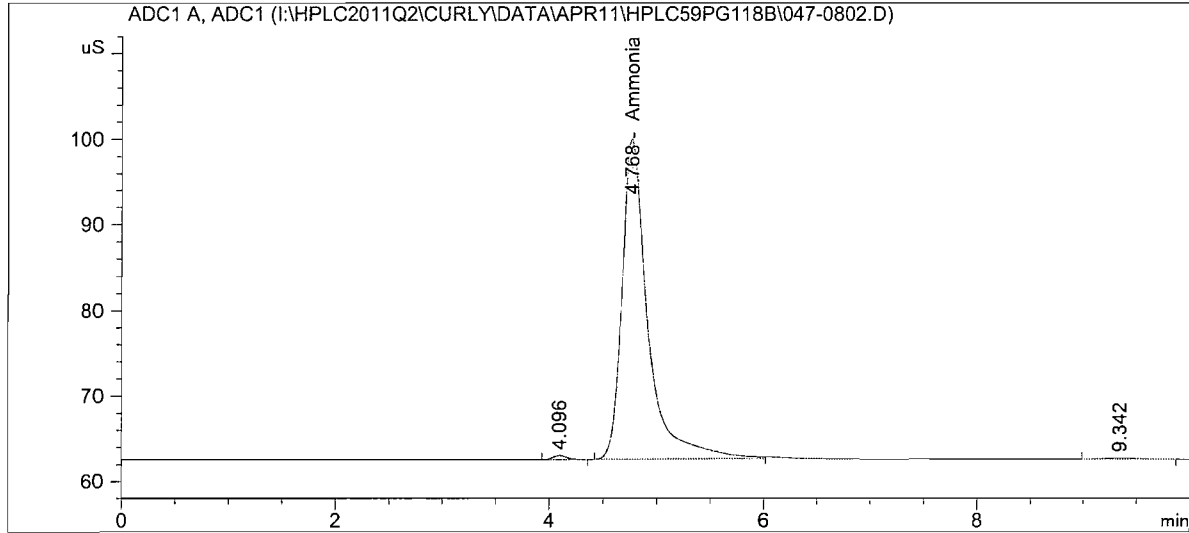
Sample Name: HPLC59pg118 #7

```

=====
Acq. Operator   : KHB                      Seq. Line :    8
Acq. Instrument : Curly                   Location  : Vial 47
Injection Date  : 7/7/2011 4:22:41 PM      Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB

```



```

=====
External Standard Report
=====

```

```

Sorted By      :      Signal
Calib. Data Modified :      Friday, July 08, 2011 8:59:34 AM
Multiplier:    :      1.0000
Dilution:      :      1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.768	BB	625.89349	1.82100e-2	11.39755		Ammonia

```
Totals :                               11.39755
```

```

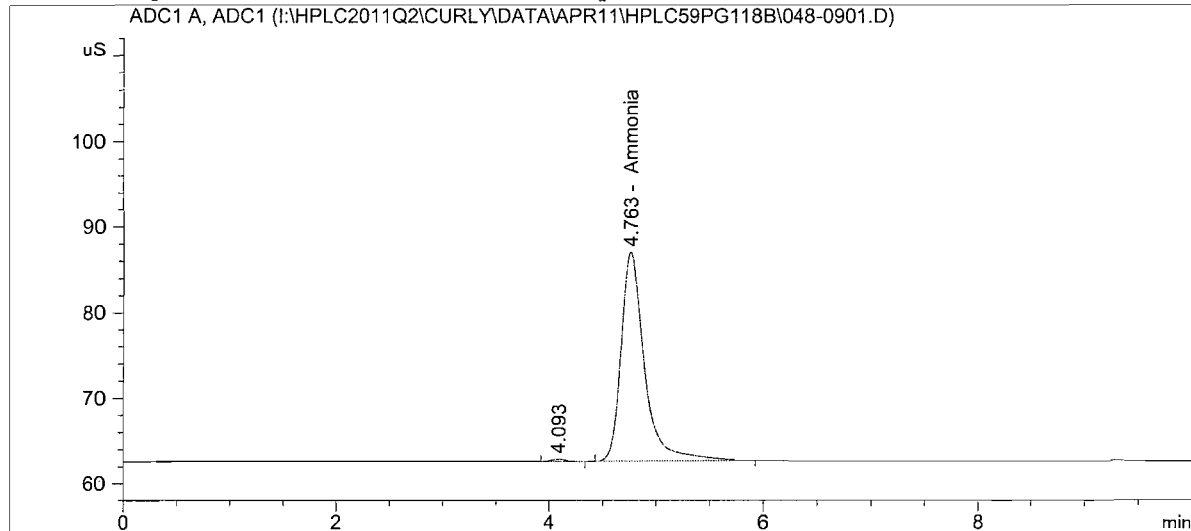
=====
*** End of Report ***

```

Sample Name: HPLC59pg118 #SS

```
=====
Acq. Operator   : KHB                               Seq. Line :    9
Acq. Instrument : Curly                             Location  : Vial 48
Injection Date  : 7/7/2011 4:34:27 PM              Inj       :    1
                                                    Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



External Standard Report

```
Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.763	BB	372.99570	1.43657e-2	5.35834		Ammonia

Totals : 5.35834

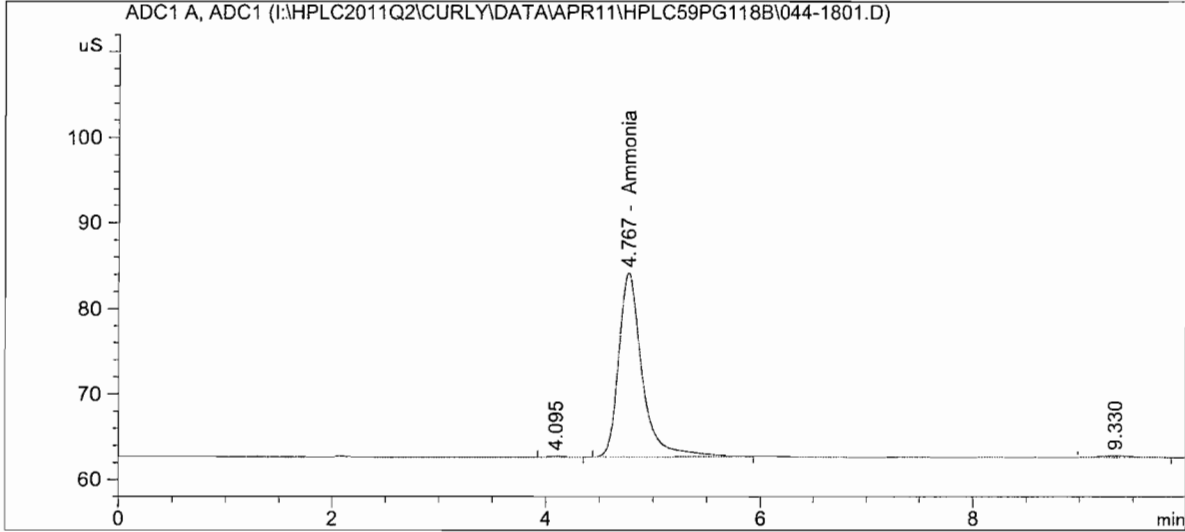
*** End of Report ***

Sample Name: HPLC59pg118 #4

```

=====
Acq. Operator   : KHB                      Seq. Line : 18
Acq. Instrument : Curly                    Location  : Vial 44
Injection Date  : 7/7/2011 8:06:37 PM      Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
    
```



External Standard Report

```

Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

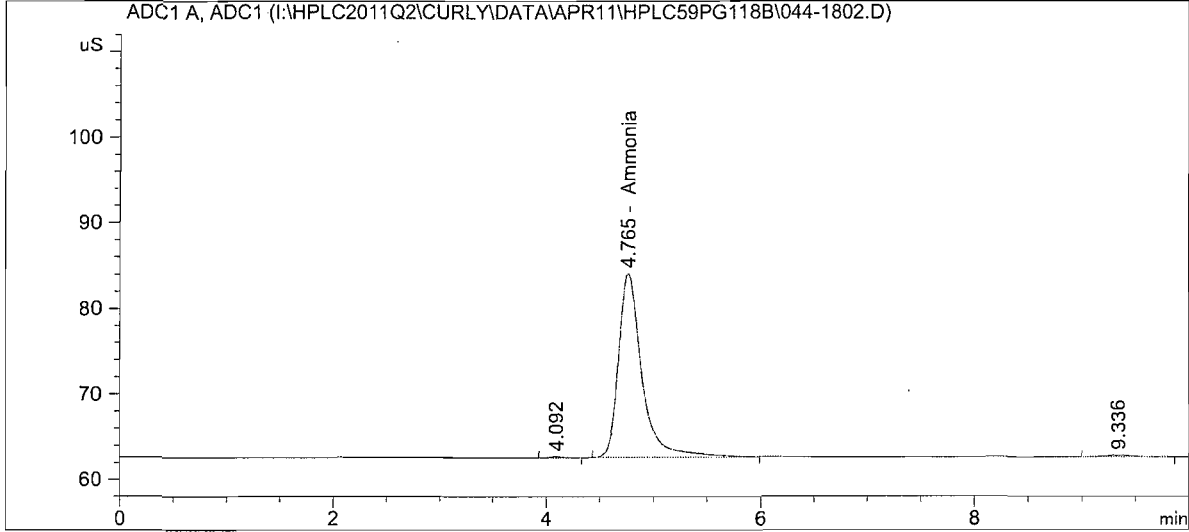
RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.767	BB	322.99069	1.39070e-2	4.49184		Ammonia

Totals : 4.49184

*** End of Report ***

```
=====
Acq. Operator   : KHB                      Seq. Line : 18
Acq. Instrument : Curly                    Location  : Vial 44
Injection Date  : 7/7/2011 8:18:23 PM      Inj       : 2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====
```



External Standard Report

```
Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.765	BB	324.89865	1.39239e-2	4.52384		Ammonia

Totals : 4.52384

*** End of Report ***

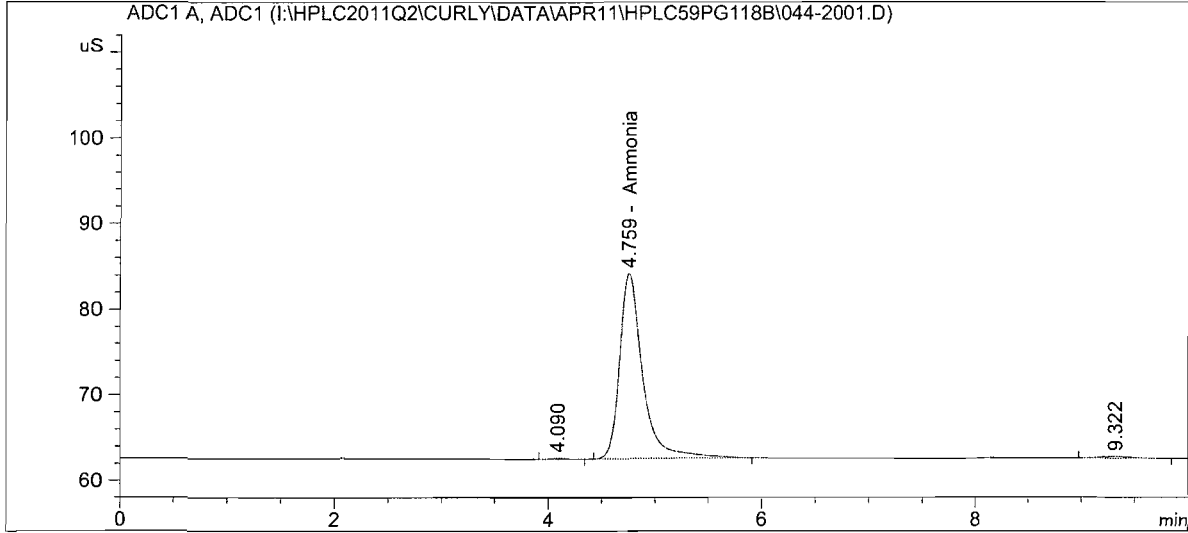
Sample Name: HPLC59pg118 #4

```

=====
Acq. Operator   : KHB                      Seq. Line : 20
Acq. Instrument : Curly                    Location  : Vial 44
Injection Date  : 7/7/2011 8:53:41 PM      Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By           : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.759	BB	323.03073	1.39074e-2	4.49251		Ammonia

```
Totals :                               4.49251
```

```

=====
*** End of Report ***
=====

```

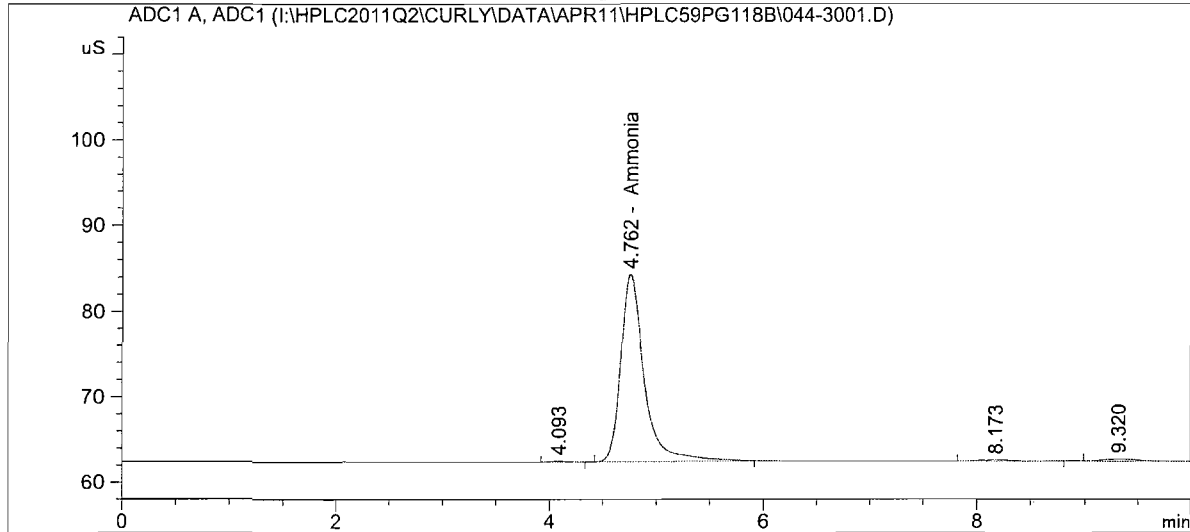

Sample Name: HPLC59pg118 #4

```

=====
Acq. Operator   : KHB                      Seq. Line : 30
Acq. Instrument : Curly                    Location  : Vial 44
Injection Date  : 7/8/2011 8:18:35 AM      Inj       : 1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By           : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.762	BB	329.58981	1.39654e-2	4.60286		Ammonia

```
Totals :                               4.60286
```

```

=====
*** End of Report ***
=====

```

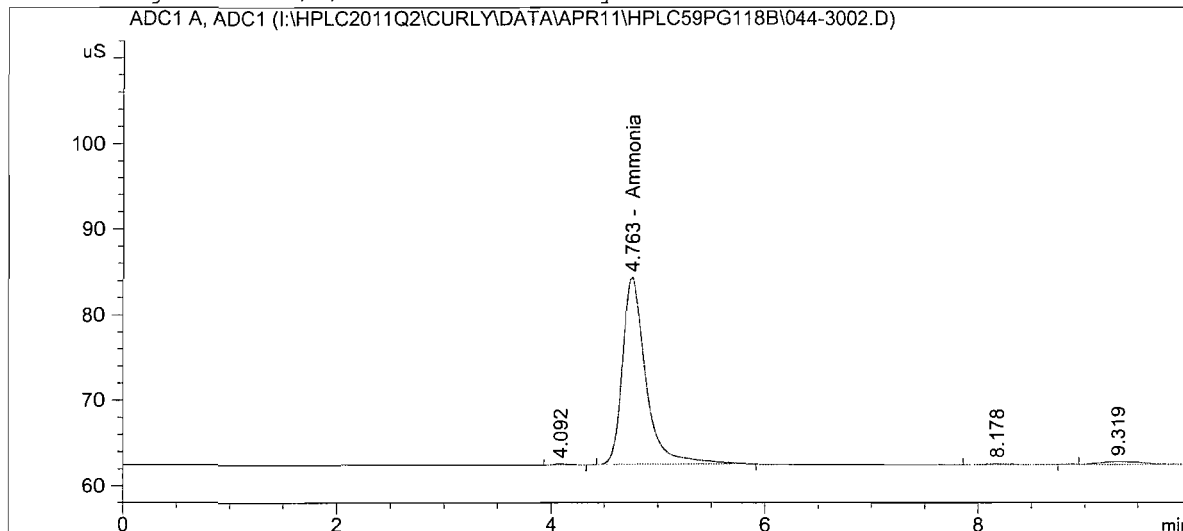
Sample Name: HPLC59pg118 #4

```

=====
Acq. Operator   : KHB                      Seq. Line :   30
Acq. Instrument : Curly                    Location  : Vial 44
Injection Date  : 7/8/2011 8:30:18 AM      Inj       :    2
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
=====

```



```

=====
External Standard Report
=====

```

```

Sorted By      : Signal
Calib. Data Modified : Friday, July 08, 2011 8:59:34 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.763	BB	328.88934	1.39592e-2	4.59103		Ammonia

```
Totals :                               4.59103
```

```

=====
*** End of Report ***
=====

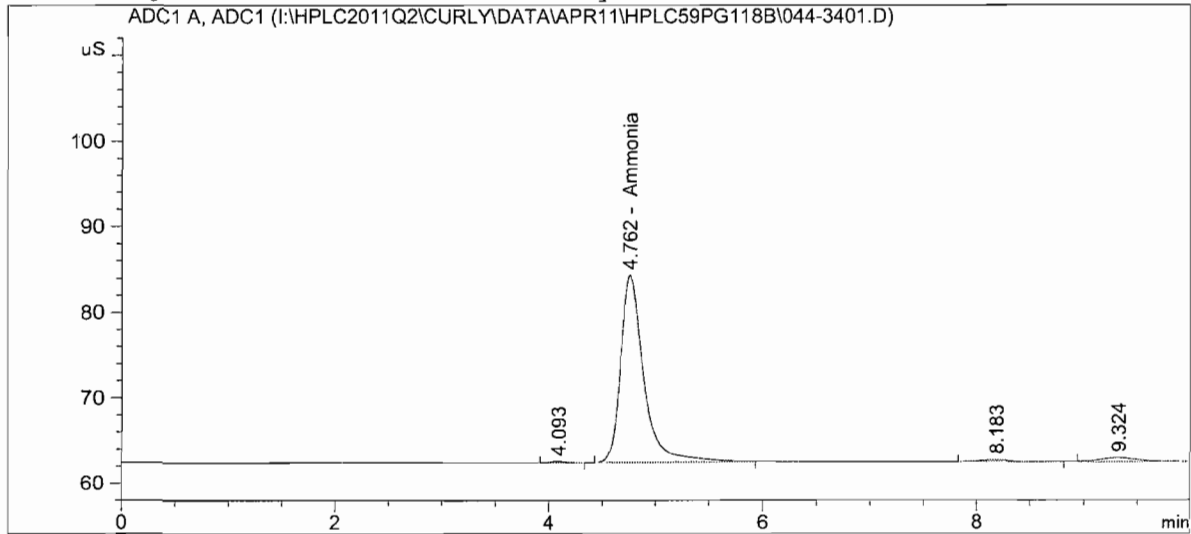
```

Sample Name: HPLC59pg118 #4

```

=====
Acq. Operator   : KHB                      Seq. Line :   34
Acq. Instrument : Curly                    Location  : Vial 44
Injection Date  : 7/8/2011 9:52:33 AM      Inj       :    1
                                           Inj Volume: 25.000 µl

Acq. Method     : H:\HPLC2011Q1\CURLY\METHODS\AMMONIA.M
Last changed    : 7/6/2011 9:21:02 AM by KHB
Analysis Method : I:\HPLC2011Q2\CURLY\METHODS\HPLC59PG118.M
Last changed    : 7/8/2011 8:59:39 AM by KHB
    
```



External Standard Report

```

Sorted By          :      Signal
Calib. Data Modified :      Friday, July 08, 2011 8:59:34 AM
Multiplier         :          1.0000
Dilution           :          1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: ADC1 A, ADC1

RetTime [min]	Type	Area [uS*s]	Amt/Area	Amount [ug/mL]	Grp	Name
4.762	BB	329.51532	1.39648e-2	4.60160		Ammonia

Totals : 4.60160

*** End of Report ***

method: C:\HPLC2010Q4\CURLY\METHODS\AMMONIA.M
Modified on: 2/14/2011 at 4:56:34 PM

Method Information

Method: C:\HPLC2010Q4\CURLY\METHODS\AMMONIA.M
Modified: 2/14/2011 at 4:56:34 PM

Column: Dionex IonPac CS12 (250 mm x 4 mm)
Mobile Phase: 0.02 N MethaneSulfonic Acid
Detection: Suppressed Conductivity
Flow Rate: 1.0 mL/min
Temp: 30C

=====

ANALOG DIGITAL CONVERTER

=====

Signal 1

Description:	Dionex ED40
Source:	Signal
Unit:	uS
Units/Volt:	1000.000
Peakwidth (Data Rate):	0.053 Min (5.00 Hz)
Stop Time:	No Limit
Data Storage:	All

Start Signal Source: External Device Will Start 35900

Timed Event Table:
<no events>

Sequence Table:

Method and Injection Info Part:

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
====	=====	=====	=====	=====	=====	=====
1	Vial 49	RB/0.04N H2SO4	AMMONIA	1	Sample	
2	Vial 41	HPLC59pg118 #1	AMMONIA	2	Sample	
3	Vial 42	HPLC59pg118 #2	AMMONIA	2	Sample	
4	Vial 43	HPLC59pg118 #3	AMMONIA	2	Sample	
5	Vial 44	HPLC59pg118 #4	AMMONIA	2	Sample	
6	Vial 45	HPLC59pg118 #5	AMMONIA	2	Sample	
7	Vial 46	HPLC59pg118 #6	AMMONIA	2	Sample	
8	Vial 47	HPLC59pg118 #7	AMMONIA	2	Sample	
9	Vial 48	HPLC59pg118 #SS	AMMONIA	2	Sample	
10	Vial 49	RB/0.04N H2SO4	AMMONIA	2	Sample	
11	Vial 81	R1 Imp 1 0611-192	AMMONIA	2	Sample	
12	Vial 82	R1 Imp 2&3 0611-192	AMMONIA	2	Sample	
13	Vial 83	R2 Imp 1 0611-192	AMMONIA	2	Sample	
14	Vial 84	R2 Imp 2&3 0611-192	AMMONIA	2	Sample	
15	Vial 85	H2SO4 Blank 0611-192	AMMONIA	2	Sample	
16	Vial 86	MS/R1 Imp 1 0611-192	AMMONIA	2	Sample	
17	Vial 87	MSD/R1 Imp 1 0611-192	AMMONIA	2	Sample	
18	Vial 44	HPLC59pg118 #4	AMMONIA	2	Sample	
19	Vial 45	HPLC59pg118 #5	AMMONIA	2	Sample	
20	Vial 44	HPLC59pg118 #4	AMMONIA	2	Sample	
21	Vial 45	HPLC59pg118 #5	AMMONIA	2	Sample	
22	Vial 91	NH3-3 oil no ducts R 1*10 0611-195	AMMONIA	2	Sample	
23	Vial 92	NH3-3 oil no ducts R 2*10 0611-195	AMMONIA	2	Sample	
24	Vial 93	NH3-3 oil no ducts R 3*10 0611-195	AMMONIA	2	Sample	

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
25	Vial 94	NH3-3 w/ducts R1*10 0611-195	AMMONIA	2	Sample	
26	Vial 95	NH3-3 w/ducts R2*10 0611-195	AMMONIA	2	Sample	
27	Vial 96	NH3-3 w/ducts R3*10 0611-195	AMMONIA	2	Sample	
28	Vial 97	MS/NH3-3 oil no duct s R1 0611-195	AMMONIA	2	Sample	
29	Vial 98	MSD/NH3-3 oil no duc ts R1 0611-195	AMMONIA	2	Sample	
30	Vial 44	HPLC59pg118 #4	AMMONIA	2	Sample	
31	Vial 45	HPLC59pg118 #5	AMMONIA	2	Sample	
32	Vial 51	Blank H2O 0711-35	AMMONIA	2	Sample	
33	Vial 52	Blank H2SO4 0711-35	AMMONIA	2	Sample	
34	Vial 44	HPLC59pg118 #4	AMMONIA	2	Sample	
35	Vial 45	HPLC59pg118 #5	AMMONIA	2	Sample	
36	Vial 53	Whitefield NH3-1 07 11-21	AMMONIA	2	Sample	
37	Vial 54	Whitefield NH3-2 07 11-21	AMMONIA	2	Sample	
38	Vial 55	Whitefield NH3-3 07 11-21	AMMONIA	2	Sample	
39	Vial 56	MS/Whitefield NH3-1 0711-21	AMMONIA	2	Sample	
40	Vial 57	MSD/Whitefield NH3-1 0711-21	AMMONIA	2	Sample	
41	Vial 58	Bethlehem NH3-1 071 1-22	AMMONIA	2	Sample	
42	Vial 59	Bethlehem NH3-2 071 1-22	AMMONIA	2	Sample	
43	Vial 60	Bethlehem NH3-3 071 1-22	AMMONIA	2	Sample	
44	Vial 61	NH3-Blank 0711-22	AMMONIA	2	Sample	
45	Vial 62	MS/Bethlehem NH3-1 0711-22	AMMONIA	2	Sample	
46	Vial 44	HPLC59pg118 #4	AMMONIA	2	Sample	
47	Vial 45	HPLC59pg118 #5	AMMONIA	2	Sample	

Line	Location	SampleName DataFile	Method AutoBalance	Inj LimsID	SampleType	InjVolume
48	Vial 63	MSD/Bethlehem NH3-1 0711-22	AMMONIA	2	Sample	
49	Vial 64	Indeck-NH3-1 0711-2 3	AMMONIA	2	Sample	
50	Vial 65	Indeck-NH3-2 0711-2 3	AMMONIA	2	Sample	
51	Vial 66	Indeck-NH3-3 0711-2 3	AMMONIA	2	Sample	
52	Vial 67	Indeck-NH3-4 0711-2 3	AMMONIA	2	Sample	
53	Vial 68	Indeck-NH3-5 0711-2 3	AMMONIA	2	Sample	
54	Vial 69	Indeck-NH3-6 0711-2 3	AMMONIA	2	Sample	
55	Vial 70	Indeck-NH3-7 0711-2 3	AMMONIA	2	Sample	
56	Vial 71	Indeck-NH3-8 0711-2 3	AMMONIA	2	Sample	
57	Vial 72	Indeck-NH3-9 0711-2 3	AMMONIA	2	Sample	
58	Vial 44	HPLC59pg118 #4	AMMONIA	2	Sample	
59	Vial 45	HPLC59pg118 #5	AMMONIA	2	Sample	
60	Vial 73	MS/Indeck-NH3-1 071 1-23	AMMONIA	2	Sample	
61	Vial 74	MSD/Indeck-NH3-1 07 11-23	AMMONIA	2	Sample	
62	Vial 44	HPLC59pg118 #4	AMMONIA	2	Sample	
63	Vial 45	HPLC59pg118 #5	AMMONIA	2	Sample	

APPENDIX F
PROJECT PARTICIPANTS

PROJECT PARTICIPANTS

STACS

Bill Mayhew	Project Manager
Geoff Johnson	CEMS Specialist
Chuck Sneeringer	Senior Engineer
Lee Garcia	Scientist/Analysis
Joshua Gelston	Scientist
Justin Watson	Chief Technician
Murphy Turner	Chief Technician
Kevin Liang	QA Engineer
Aaron Harden	Contract Administrator/ Document Coordinator

Black & Veatch Energy

Bill Stevenson	Test Coordinator
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Florida Power & Light

Dave Fawcett	Environmental & Water Management Leader
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Mitsubishi Power Systems Americas

Jason Richardson	Applications & Performance Test Engineer
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