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SOURCE TEST REPORT
2024 COMPLIANCE/RATA TESTING
SILICON VALLEY POWER
DONALD VON RAESFELD FACILITY (NO. 14991)
UNITS 1 (S-1/2) & 2 (S-3/4)
SANTA CLARA, CALIFORNIA

Prepared For:

Silicon Valley Power
850 Duane Avenue
Santa Clara, CA 95054

For Submittal To:

Bay Area Air Quality Management District
San Francisco, California

California Energy Commission
Sacramento, California

Prepared By:

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Antioch, CA 94509

Document Number:	**W005AS-042969-RT-3582R2 (NST-9563 & 9564)**
Test Dates:	**July 15-19, 2024**
Resubmittal Date:	**September 13, 2024**

REVIEW AND CERTIFICATION

All work, calculations, and other activities and tasks performed and presented in this document were carried out by me or under my direction and supervision. I hereby certify that, to the best of my knowledge, Montrose operated in conformance with the requirements of the Montrose Quality Management System and ASTM D7036-04 during this test project.

Signature: Dan Duncan for NP Date: 09 / 16 / 2024

Name: Nishad Patel Title: Field Project Manager

I have reviewed, technically and editorially, details, calculations, results, conclusions, and other appropriate written materials contained herein. I hereby certify that, to the best of my knowledge, the presented material is authentic, accurate, and conforms to the requirements of the Montrose Quality Management System and ASTM D7036-04.

Signature:  Date: 09 / 16 / 2024

Name: Patrick Switzer Title: Reporting / QC Specialist

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1.0 INTRODUCTION

1.1 SUMMARY OF TEST PROGRAM

Silicon Valley Power (SVP) contracted Montrose Air Quality Services, LLC (Montrose) to perform a compliance emissions test program on the Donald Van Raesfeld Power Plant located in Santa Clara, California. In addition, a CEMS RATA was conducted on the sources listed in Tables 1-1 and 1-2. The compliance tests were conducted to determine compliance with the source testing limitations of the Bay Area Air Quality Management District (BAAQMD) Permit to Operate (PTO) for Plant No. 14991. The RATA was conducted to determine compliance with the RA requirements listed in Appendix B of 40 CFR 60.

The specific objectives were to:

- Measure emissions of O_2, CO_2, CO, NO_X, SO_2, NH_3, PM, POC, methane, and ethane, fuel sulfur
- Determine the RA for the O_2, CO, & NO_X CEMS
- Conduct the test program with a focus on safety

Montrose performed the tests to measure the emission parameters listed in Tables 1-1 and 1-2.

Table 1-1
Summary of Test Program

Unit ID / Source Name	Activity / Parameters	Test Methods
Units 1 & 2	Velocity/Volumetric Flow Rate	EPA 1 & 2
Units 1 & 2	O_2, CO_2	EPA 3A
Units 1 & 2	Moisture	EPA 4
Units 1 & 2	Total Particulate Matter	EPA 5/202
Units 1 & 2	NO_x	EPA 7E
Units 1 & 2	CO	EPA 10
Units 1 & 2	Precursor Organic Compounds (POC)	EPA 25a/EPA 18
Units 1 & 2	NH_3	BAAQMD ST-1B
Units 1 & 2	Fuel Sulfur (to calculate SO_2)	ASTM D5504
Units 1 & 2	Emission Rates	EPA 19
Units 1 & 2	Fuel Composition, HHV, Fd	ASTM D1945, D3588

Table 1-2
Test Schedule

Proposed Test Dates	Activity/ Parameters	No. of Runs	Duration (Minutes)
Monday afternoon July 15, 2024	DVR Unit 1; Base Load O_2, CO_2, H_2O, Vol. Flow Rate NH_3	 3 3	 30 30
Tuesday July 16, 2024	DVR Unit 1; Maximum Load O_2, CO, NO_X TPM for PM_{10} POC, NH_3 CO_2, H_2O, Vol. Flow Rate Fuel Samples (for SO_2 etc.)	 9 (up to 12) 3 3 w/ TPM 3	 21 120 30 120 Grab
Wednesday morning July 17, 2024	DVR Unit 1; Minimum Load O_2, CO_2, H_2O, Vol. Flow Rate CO, NH_3	 3 3	 30 30
Wednesday afternoon July 17, 2024	DVR Unit 2; Base Load O_2, CO_2, H_2O, Vol. Flow Rate NH_3	 3 3	 30 30
Thursday July 18, 2024	DVR Unit 2; Maximum Load O_2, CO, NO_X TPM for PM_{10} POC, NH_3 CO_2, H_2O, Vol. Flow Rate Fuel Samples (for SO_2 etc.)	 9 (up to 12) 3 3 w/ TPM 3	 21 120 30 120 Grab
Friday morning July 19, 2024	DVR Unit 2; Minimum Load O_2, CO_2, H_2O, Vol. Flow Rate CO, NH_3	 3 3	 30 30

To simplify this report, a list of Units and Abbreviations is included in Appendix D.1. Throughout this report, chemical nomenclature, acronyms, and reporting units are not defined. Please refer to the list for specific details.

This report presents the test results and supporting data, descriptions of the testing procedures, descriptions of the facility and sampling locations, and a summary of the quality assurance procedures used by Montrose. The average emission test results are summarized and compared to their respective permit limits in Tables 1-2 through 1-6. The RA test results are summarized in Table 1-7. Detailed results for individual test runs can be found in Section 4.0. All supporting data can be found in the appendices.

The testing was conducted by the Montrose personnel listed in Table 1-8. The tests were conducted according to the test notification (protocol) dated June 26, 2024 that was submitted to

and approved by the Bay Area Air Quality Management District (BAAQMD). NST-9563 and 9564 were issued by the BAAQMD for this test program.

TABLE 1-2
SUMMARY OF AVERAGE COMPLIANCE RESULTS
UNITS 1 (S-1/2) & 2 (S-3/4), MAXIMUM LOAD
JULY 16 & 18, 2024

Parameter	Unit 1 (S-1/2)	Unit 2 (S-3/4)	Permit Limit
Date:	7/16/24	7/18/24	--
Process Data:			
Heat input, MMBtu/hr	564.6	561.1	--
Fuel flow rate, scfh	537,713	534,337	--
Power generation, MW	72	71	--
Fuel sulfur, gr/100scf	0.140	0.193	--
Flue Gas:			
O_2, % volume dry	13.1	12.9	--
CO_2, % volume dry	4.5	4.6	--
Volumetric flow rate, dscfm	212,332	206,439	--
CO Emissions:			
ppm volume dry	1.2	1.2	--
ppm @ 15% O_2	0.9	0.9	4.0
lb/hr	1.1	1.1	5.47
NO_X Emissions:			
ppm volume dry	2.5	2.5	--
ppm @ 15% O_2	1.9	1.8	2.0
lb/hr	3.8	3.6	4.49
SO_2 Emissions:			
lb/hr as SO_2	0.21	0.29	0.41
lb/MMBtu	0.0004	0.0005	0.000676
POC Emissions (as Methane):			
ppmvd	2.0 ±1	2.0 ±1	--
ppmvd @ 15% O_2	1.5 ±0.8	1.5 ±0.8	2.0
lb/hr	1.0 ±0.5	1.0 ±0.5	1.56
lb/MMBtu	0.0019 ±0.0005	0.0019 ±0.0005	0.00255

TABLE 1-3
SUMMARY OF AVERAGE COMPLIANCE RESULTS
UNITS 1 (S-1/2) & 2 (S-3/4), MAXIMUM LOAD
JULY 16 & 18, 2024

Parameter	Unit 1 (S-1/2)	Unit 2 (S-3/4)	Permit Limit
Date:	7/16/24	7/18/24	--
Process Data:			
Heat input, MMBtu/hr	566.4	561.9	--
Power generation, MW	72	71	--
Flue Gas:			
O_2, % volume dry	13.1	12.8	--
CO_2, % volume dry	4.5	4.6	--
flue gas temperature, °F	234	240	--
moisture content, % volume	12.2	12.4	
volumetric flow rate, dscfm	206,835	246,347	
PM Emissions:			
gr/dscf	0.0004	0.0004	--
tolerance, gr/dscf	± 0.0004	± 0.0004	
lb/hr	0.7	0.8	4.3[1]
lb/day	15	18	--

Notes: [1] Limit applies when duct burners are on.

TABLE 1-4
SUMMARY OF AVERAGE COMPLIANCE RESULTS
UNITS 1 (S-1/2) & 2 (S-3/4)
JULY 15-19, 2024

Parameter	Unit 1 (S-1/2)	Unit 2 (S-3/4)	Permit Limit
MIN LOAD			
Process Data:			
Heat input, MMBtu/hr	276.8	280.7	--
Fuel flow rate, scfh	263,610	267,300	--
Power generation, MW	33.0	33.0	--
Flue Gas:			
O_2, % volume dry	15.7	15.6	--
Volumetric flow rate, dscfm	158,103	157,219	--
NH_3 Emissions:			
ppm volume dry	2.8	2.8	--
ppm @ 15% O_2	3.2	3.2	10
BASE LOAD			
Process Data:			
Heat input, MMBtu/hr	473.6	468.8	--
Fuel flow rate, scfh	451,057	446,450	--
Power generation, MW	63	61	--
Flue Gas:			
O_2, % volume dry	14.4	14.3	--
Volumetric flow rate, dscfm	215,413	210,851	--
NH_3 Emissions:			
ppm volume dry	4.7	3.8	--
ppm @ 15% O_2	4.3	3.5	10
MAX LOAD			
Process Data:			
Heat input, MMBtu/hr	564.6	561.1	--
Fuel flow rate, scfh	537,713	534,337	--
Power generation, MW	72	71	--
Flue Gas:			
O_2, % volume dry	13.1	12.9	--
Volumetric flow rate, dscfm	212,332	206,439	--
NH_3 Emissions:			
ppm volume dry	3.3	3.5	--
ppm @ 15% O_2	2.5	2.5	10

TABLE 1-5
SUMMARY OF AMMONIA CORRECTION FACTOR RESULTS
UNITS 1 (S-1/2) & 2 (S-3/4)
JULY 15-19, 2024

Parameter	Unit 1 (S-1/2)	Unit 2 (S-3/4)
Ammonia Correction Factors:		
Min load	0.249	0.352
Base load	0.370	0.357
Max load	0.195	0.228

TABLE 1-6
SUMMARY OF AVERAGE COMPLIANCE RESULTS
UNITS 1 (S-1/2) & 2 (S-3/4), MINIMUM LOAD
JULY 17 & 19, 2024

Parameter	Unit 1 (S-1/2)	Unit 2 (S-3/4)	Permit Limit
Process Data:			
Heat input, MMBtu/hr	276.8	280.7	--
Fuel flow rate, kscfh	263,610	267,300	--
Power generation, MW	33.0	33.0	--
Flue Gas:			
O_2, % volume dry	15.7	15.6	--
CO_2, % volume dry	3.0	3.1	--
volumetric flow rate, dscfm	158,103	157,219	--
CO Emissions:			
ppm volume dry	1.1	0.7	--
ppm @ 15% O_2	1.2	0.7	4.0
lb/hr	0.74	0.4	5.47
lb/MMBtu	0.0027	0.0016	--

TABLE 1-7
SUMMARY OF PART 60/75 RA TEST RESULTS -
UNITS 1 (S-1/2) & 2 (S-3/4)
JULY 16 & 18, 2024

CEMS Parameter	Unit 1 Results	Unit 2 Results	Performance Specification Part 60	Performance Specification Part 75	Performance Specification Incentive Program
Outlet O_2 Analyzer:					
% volume dry	0.1[a]	0.1[a]	1.0	1.0	0.7
Outlet NO_X Analyzer:					
ppm volume dry	3.9[b]	5.4[b]	20	--	--
ppm @ 15% O_2	4.3[b]	3.2[b]	20	--	--
lb/hr as NO_2	7.4[b]	8.3[b]	20	--	--
lb/MMBtu as NO_2	4.9[b]	5.2[b]	20	--	--
lb/MMBtu as NO_2	<0.1[b]	5.3[b]	--	10.0	7.5
Bias Adjustment Factor	1.000	1.000	--	--	--
Load, MW	73	71	--	--	--
Outlet CO Analyzer:					
ppm volume dry	0.1[e]	0.1[e]	5	--	--
ppm @ 15% O_2	2.3[c]	0.1[e]	5	--	--
lb/hr	1.7[c]	0.9[c]	5	--	--

Note: Compliance with Part 75 NO_X accuracy is based on lb/MMBtu, not ppm or lb/hr.
The RATA test results are calculated based on the best 9 of the available test runs performed.

[a] % O_2 (based on actual difference between analyzer readings).
[b] % of the mean value of the RM test data.
[c] % of the applicable standard (emission limit).
[d] absolute difference between the RM and CEMS
[e] absolute difference (in terms of either ppm or the equivalent in lb/hr) between the RM and CEMS plus the confidence coefficient
[f] actual difference between analyzer readings (alternate if lb/MMBtu does not pass 10% criteria).

1.2 KEY PERSONNEL

A list of project participants is included below:

Facility Information

Source Location:	Silicon Valley Power Donald Von Raesfeld Power Plant 850 Duane Avenue Santa Clara, California 95054	
Project Contact:	Melissa Meslo	Valentina Guzman
Role:	Staff Aide II	Electric Division Manager
Company:	Silicon Valley Power	Silicon Valley Power
Telephone:	408-497-4485	408-615-6633
Email:	MMeslo@SantaClaraCA.gov	vguzman@svpower.com

Agency Information

Regulatory Agency:	Bay Area Air Quality Management District	
Agency Contact:	Marco Hernandez	Gloria Espena
Telephone:	415-749-5112	415-749-4725
Email:	MHernandez@baaqmd.com	GEspena@baaqmd.gov

Testing Company Information

Testing Firm:	Montrose Air Quality Services, LLC	
Contact:	Nishad Patel	Kevin Crosby
Title:	Client Project Manager	VP, Technical
Telephone:	925-470-4504	925-680-4337
Email:	npatel@montrose-env.com	kcrosby@montrose-env.com

Laboratory Information

Laboratory:	Antioch MAQS
City, State:	Antioch, CA
Method:	EPA 5/202, BAAQMD ST-1B
Laboratory:	Enthalpy Analytical
City, State:	Orange, CA
Methods:	EPA 18/18M (TO-12)
Laboratory:	Atmospheric Analysis & Consulting, Inc.
City, State:	Ventura, CA
Methods:	ASTM D-3588, & D-5504

Test personnel and observers are summarized in Table 1-8.

TABLE 1-8
TEST PERSONNEL AND OBSERVERS

Name	Affiliation	Role/Responsibility
Nishad Patel	Montrose	Project Manager/Trailer operator
Edgar Garcia Christopher Alvarado	Montrose	Sample train operator/Project support
Gabriella Gomez	Montrose	Sample recovery
Dan Duncan	Montrose	Calculations and report preparation
Melissa Meslo	SV Power	Observer/Test Coordinator
Justin Webb	SV Power	Observer
None	BAAQMD	Observer

2.0 PLANT AND SAMPLING LOCATION DESCRIPTIONS

2.1 PROCESS DESCRIPTION, OPERATION, AND CONTROL EQUIPMENT

The SVP DVR Power Plant is located at 850 Duane Avenue, in Santa Clara, California. The facility includes two 473.7 MMBtu/hr General Electric LM6000 PC Sprint turbine engines, each with a 136.9 MMBtu/hr heat recovery steam generator (HSRG).

2.2 CEMS DESCRIPTION

All flue gas pollutant and diluent measurements are made on a dry basis. Effluent gas from the sampling location is filtered and transported through a heated sample line to the sample conditioning system in the main analyzer cabinet. The sample conditioning system again filters the effluent gas and a chilled condenser removes the moisture. The dry, particulate-free effluent gas is then routed to the analyzers. The analog outputs of the analyzers and certain plant inputs are transmitted to a system controller.

The units operate in combined cycle mode and are equipped with water injection and selective catalytic reduction (SCR) systems for emissions control. Two dry extractive continuous emissions monitoring systems (CEMS) measure O_2, CO and NO_X emissions at the stack of each unit. O_2 and NO_X concentrations are also measured at the SCR inlet to provide process data. Detailed information for each analyzer is provided in Table 2-1 below.

The CEMS analyzers are presented in Table 2-1.

TABLE 2-1
CEMS INFORMATION

Analyzer Type	Manufacturer	Model No.	Range	Serial No.
Unit #1:				
SCR NO_X	Thermo Scientific	42iQ LS	0-100	1192494172
SCR CO	Thermo Scientific	48iQ	0-100	1192494174
Stack NO_X	Thermo Scientific	42iQ LS	0-100	1192494171
Stack CO	Thermo Scientific	48iQ	0-100	1192494173
Unit #2:				
SCR NO_X	Thermo Scientific	42iQ LS	0-100	1192494168
SCR CO	Thermo Scientific	48iQ	0-100	1192494169
Stack NO_X	Thermo Scientific	42iQ LS	0-100	1192494167
Stack CO	Thermo Scientific	48iQ	0-100	1192494170

2.3 FLUE GAS SAMPLING LOCATIONS

Information regarding the sampling locations is presented in Table 2-2.

TABLE 2-2
SAMPLING LOCATIONS

Sampling Location	Stack Inside Diameter (in.)	Distance from Nearest Disturbance		Number of Traverse Points
		Downstream EPA "B" (in./dia.)	Upstream EPA "A" (in./dia.)	
Units 1 & 2 Exhaust Ducts	120	340 / 2.8	74 / 0.6	Isokinetic: 24 (6/port); Gaseous: 3

Sample locations were verified in the field to conform to EPA Method 1. Acceptable cyclonic flow conditions were confirmed prior to testing using EPA Method 1, Section 11.4. See Appendix A.1 for more information.

2.4 OPERATING CONDITIONS AND PROCESS DATA

Emission tests were performed while the source/units and air pollution control devices were operating at the conditions required by the permit. The units were tested when operating at greater than 90% capacity.

Plant personnel established the test conditions and collected all applicable unit-operating data. Montrose monitored the collection of process data and provided additional data collection as necessary to document operation. Data collected includes the following parameters:

- Plant CEMS data
- Fuel flow rate
- Fuel meter calibration data
- Heat input rate

3.0 SAMPLING AND ANALYTICAL PROCEDURES

3.1 TEST METHODS

The test methods for this test program were presented previously in Table 1-1. Additional information regarding specific applications or modifications to standard procedures is presented below.

3.1.1 EPA Method 1, Sample and Velocity Traverses for Stationary Sources

EPA Method 1 is used to assure that representative samples or measurements of volumetric flow rate were obtained by dividing the cross-section of the stack or duct into equal areas, and then locating a traverse point within each of the equal areas. Acceptable sample locations were located at least two stack or duct equivalent diameters downstream from a flow disturbance and one-half equivalent diameter upstream from a flow disturbance. An EPA Method 1 diagram is included in the Appendix A.

3.1.2 EPA Method 2, Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)

EPA Method 2 is used to measure the gas velocity using an S-type pitot tube connected to a pressure measurement device, and to measure the gas temperature using a calibrated thermocouple connected to a thermocouple indicator. The measurements were made at traverse points specified by EPA Method 1. The molecular weight of the gas stream was determined from independent measurements of O_2, CO_2, and moisture. The stack gas volumetric flow rate was calculated using the measured average velocity head, the area of the duct at the measurement plane, the measured average temperature, the measured duct static pressure, the molecular weight of the gas stream, and the measured moisture.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - S-type pitot tube coefficient was 0.84
- Quality control procedures for this method included:
  - Pre- and post-test leak checks of the pitot tube lines
  - Pitot tubes are examined before and after each use to confirm that they were in alignment
  - Stack gas temperatures thermocouples are checked using EPA Alternate Method 011 (ALT-011). A single-point calibration was performed using a NIST-traceable thermometer. Temperatures must agree within ± 2°F.

3.1.3 EPA Method 4, Determination of Moisture Content in Stack Gas

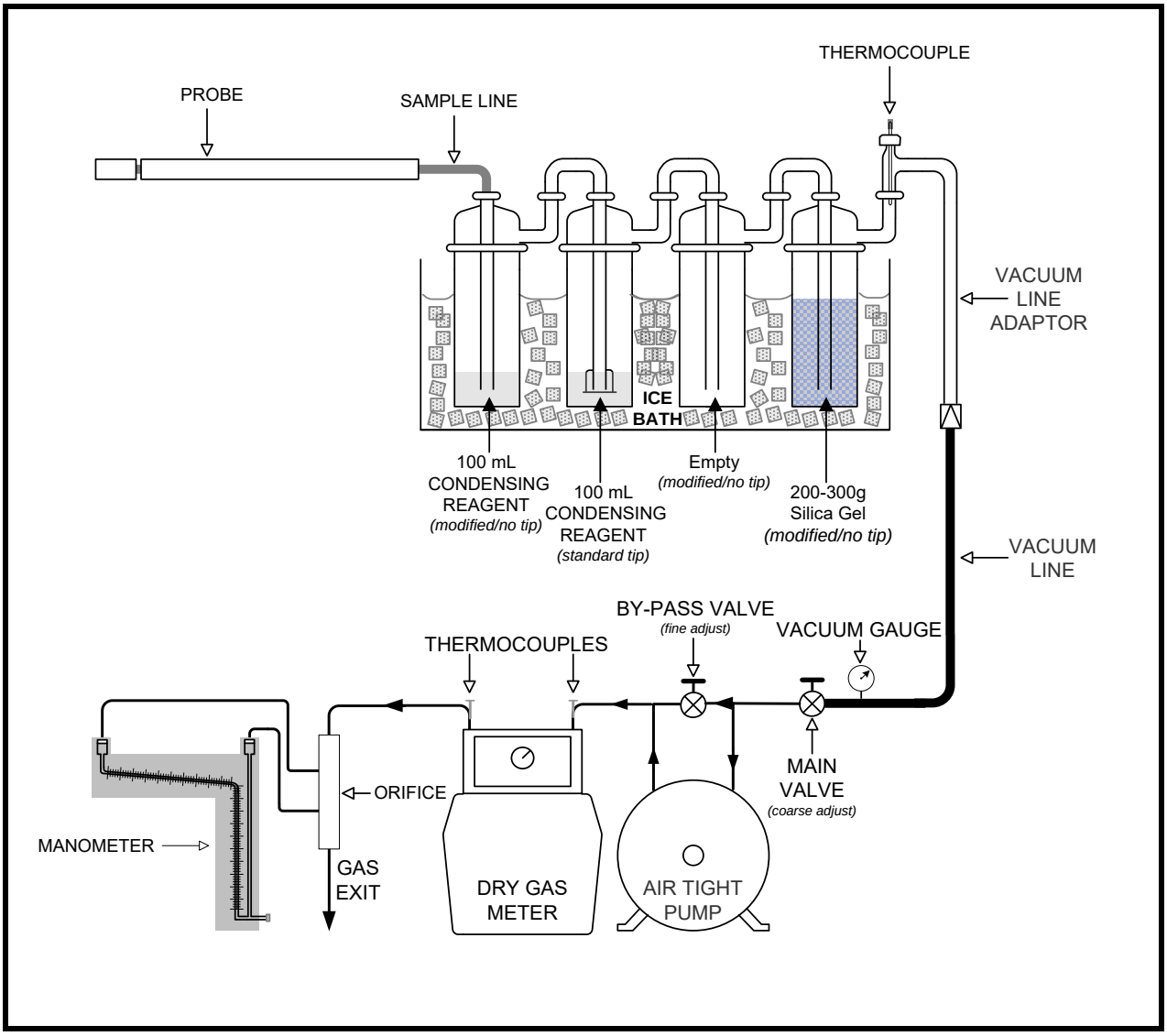
Stack gas moisture content was determined using EPA Method 4 in conjunction with every particulate test run/wet chemical test run. Moisture was removed using a series of pre-weighed impingers containing methodology-specific liquids and silica gel immersed in an ice water bath. The impingers were weighed after each run to determine the percent moisture.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - o Condensed water was measured gravimetrically
  - o Moisture sampling was performed as part of the pollutant sample trains

The typical sampling system is detailed in Figure 3-1.

FIGURE 3-1
EPA METHOD 4(DETACHED) SAMPLING TRAIN



3.1.4 EPA Method 19, Determination of Particulate Matter, Sulfur Dioxide, and Nitrogen Oxide Emission Rates

EPA Method 19 is a manual method used to determine PM, SO_2, and NO_x emission rates. This method provided data reduction procedures, but does not include any sample collection or analysis procedures.

EPA Method 19 was also used to calculate mass emission rates in units of lb/MMBtu. EPA Method 19, Table 19-2 contains a list of assigned fuel factors for different types of fuels, which can be used for these calculations.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - F factor is the oxygen-based F factor, dry basis (F_d)
  - F factor is the published source-based F factor in EPA Method 19, Table 19
  - Heat Input Data: Heat input data supplied by client DAS
  - Higher Heating Value Source: Supplied by client

3.1.5 Gaseous Emissions (EPA Methods 3A, 7E, and 10)

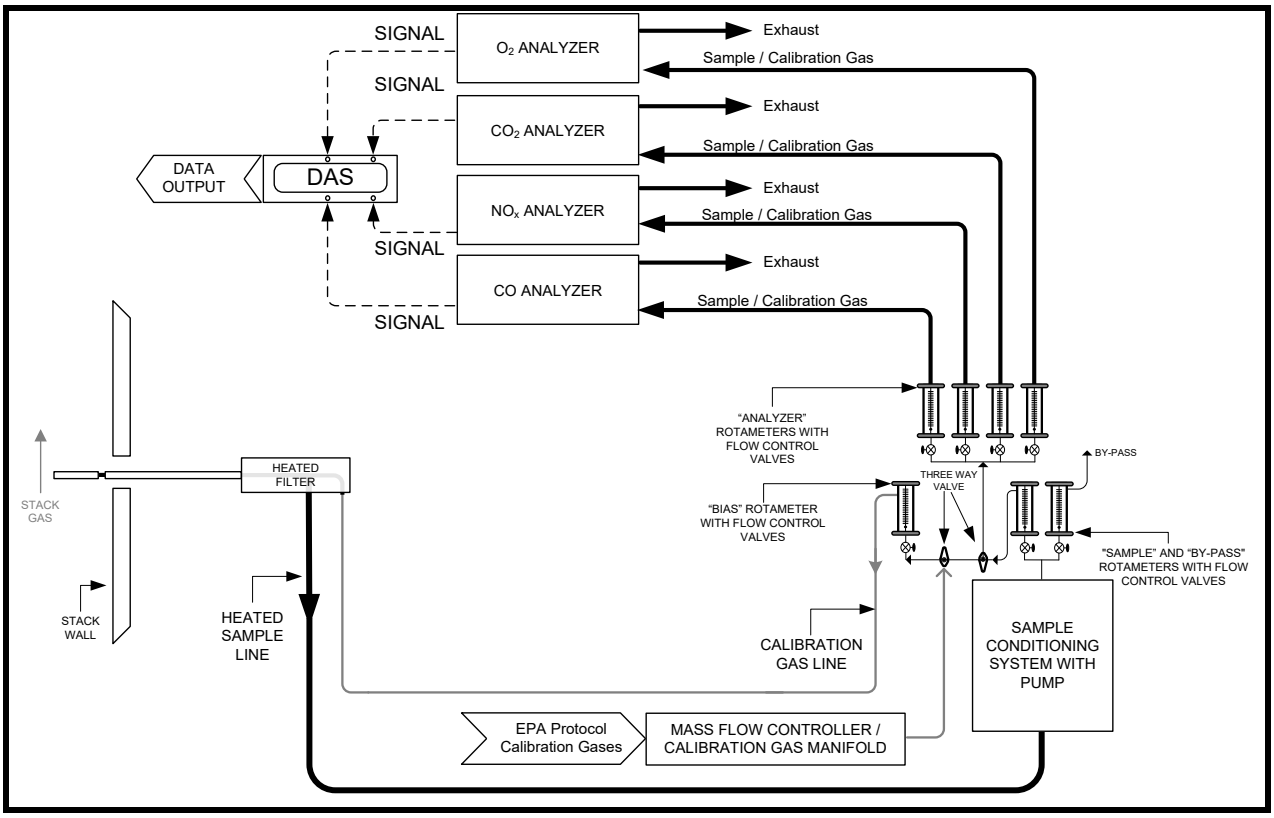
Concentrations of O_2, CO_2, NO_x, and CO were measured simultaneously using EPA Methods 3A, 7E, and 10, which are instrumental test methods. Conditioned gas was sent to a series of analyzers to measure the gaseous emission concentrations. The performance requirements of the method were met to validate the data.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - No filter is used since low PM is expected
  - A dry extractive sampling system is used to report emissions on a dry basis
  - A paramagnetic analyzer is used to measure O_2
  - A nondispersive infrared analyzer is used to measure CO_2
  - A chemiluminescent analyzer is used to measure NO_x
  - A gas filter correlation nondispersive infrared analyzer is used to measure CO
  - Calibration span values are 25% O_2, 10% CO_2, 6 ppmvd NO_x, and 10 ppmvd CO

The typical sampling system is detailed in Figure 3-2.

FIGURE 3-2
EPA METHODS 3A (O_2/CO_2), 7E, 10 SAMPLING



3.1.6 EPA Method 5/202, Determination of Particulate Matter from Stationary Sources

Emissions of total particulate matter (PM) were measured using a combination of EPA Methods 5 and 202.

EPA Method 5 is a manual, isokinetic method used to measure FPM emissions. The samples were analyzed gravimetrically. This method was performed in conjunction with EPA Methods 1 through 4. The stack gas was sampled through a nozzle, probe, filter, and impinger train. FPM results are reported in emission concentration and emission rate units.

The CPM was collected in dry impingers after filterable PM has been collected on a filter maintained as specified in either Method 5 of Appendix A-3 to 40 CFR 60, Method 17 of Appendix A-6 to 40 CFR 60, or Method 201A of Appendix M to 40 CFR 51. The organic and aqueous fractions of the impingers and an out-of-stack CPM filter were then taken to dryness and weighed. The total of the impinger fractions and the CPM filter represents the CPM. Compared to the version of Method 202 that was promulgated on December 17, 1991, this method eliminates the use of water as the collection media in impingers and includes the addition of a condenser followed by a water dropout impinger immediately after the final in-stack or heated filter. This method also includes the addition of one modified Greenburg Smith impinger (backup impinger) and a CPM filter following the water dropout impinger.

CPM was collected in the water dropout impinger, the modified Greenburg Smith impinger, and the CPM filter of the sampling train as described in this method. The impinger contents were purged with nitrogen immediately after sample collection to remove dissolved SO_2 gases from the impinger. The CPM filter was extracted with water and hexane. The impinger solution was then extracted with hexane. The organic and aqueous fractions were dried and the residues are weighed. The total of the aqueous and organic fractions represents the CPM.

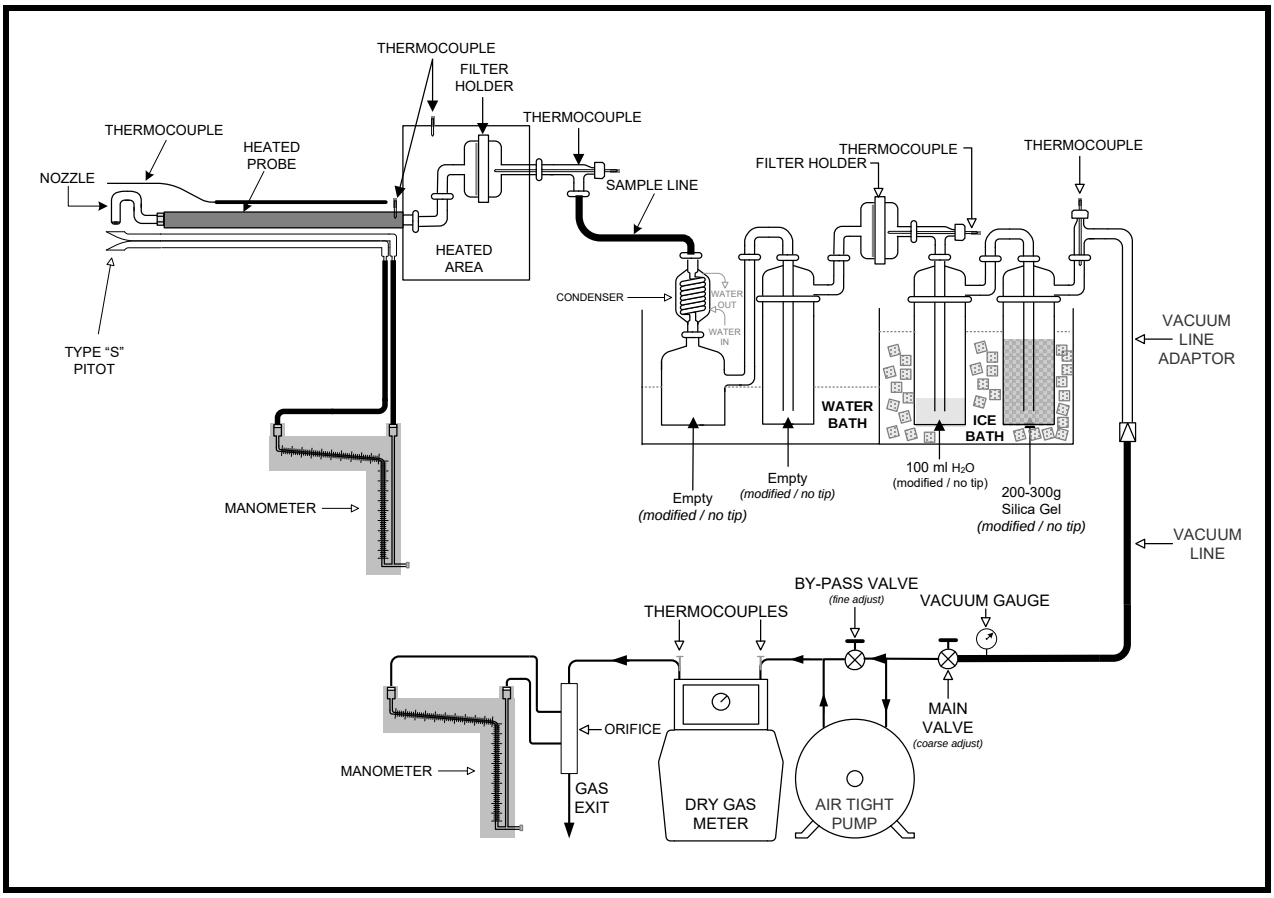
The potential artifacts from SO_2 were reduced using a condenser and water dropout impinger to separate CPM from reactive gases. No water was added to the impingers prior to the start of sampling. To improve the collection efficiency of CPM, an additional filter (the “CPM filter”) was placed between the second and third

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - As an alternative to baking glassware, a field train proof blank sample was recovered
  - The post-test nitrogen purge was performed by passing nitrogen through the train under pressure
  - Condensed water was measured gravimetrically
- Method Exceptions:
  - N/A
- Target Sample Duration: 120 minutes
- Target Sample Volume: 66 dscf
- Analytical Laboratory: Montrose – Antioch, CA

The typical sampling system is detailed in Figure 3-3.

FIGURE 3-3
EPA METHOD 5/202 (DETACHED) SAMPLING TRAIN



3.1.7 Bay Area AQMD Method ST-1B, Ammonia Integrated Sampling

BAAQMD ST-1B is a manual, non-isokinetic method used to measure ammonia emissions. The stack gas was sampled through a glass probe and a Greenberg-Smith impinger train consisting of four impingers. The first two impingers were filled with a solution of 0.1 normal (0.1N) hydrochloric acid which absorbed the ammonia. The third impinger was empty. A final impinger contains silica gel to ensure the stack gas was dry before entering the test meter. The method specifies the use of an ion selective electrode (ISE) to detect ammonia in the samples.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - o N/A
- Method Exceptions:
  - o N/A
- Target Sample Duration: 30 minutes
- Maximum Sample Rate: 0.75 cfm
- Analytical Laboratory: Montrose, Antioch, CA

3.1.8 EPA Method 18, Measurement of Precursor Organic Gases, Methane and Ethane Emissions by Gas Chromatography

EPA Method 18 is used to measure gaseous organic compounds from stationary sources. The major organic components of a gas mixture were separated by gas chromatography (GC) and are individually quantified using a flame ionization detector (FID), photoionization detector (PID), electron capture detector (ECD), or other appropriate detection principles. The retention times of each separated component were compared with those of known compounds under identical conditions. The GC analyst confirmed the identity and approximate concentrations of the organic emission components beforehand. With this information, the analyst then prepared or purchased commercially available standard mixtures to calibrate the GC under conditions identical to those of the samples. The analyst also determined the need for sample dilution to avoid detector saturation, gas stream filtration to eliminate particulate matter, and prevention of moisture condensation.

Pertinent information regarding the performance of the method is presented below:

- Method Exceptions:
  - No pre-survey samples were collected. The sampling and analysis techniques of EPA Compendium Method TO-12 were used as a protocol for Method 18 in order to provide low detection limits
    - Kevin Crosby and Marco Hernandez had a conversation on July 27, 2020 about the technical approach for measurement of POC emissions in this case. Mr. Hernandez agreed verbally that the test team may sample into canisters for analysis using EPA Method TO-12 to determine compliance with the permit limits for the DVR Power Plant.
- Sampling Media: Samples were collected in Summa Canisters
- Target Analytes: Methane, Ethane, Total non-methane, non-ethane hydrocarbons excluding exempt compounds as defined by BAAQMD
- Target Sample Duration: 30 minutes
- Analytical Laboratory: Analysis & Consulting, Inc. - Ventura, CA

3.1.9 EPA Performance Specification 3, Specifications and Test Procedures for O2 Continuous Monitoring Systems in Stationary Sources

This specification is for evaluating acceptability of O_2 continuous emission monitoring systems (CEMS) at the time of installation or soon after and whenever specified in an applicable subpart of the regulations. This specification applies to O_2 monitors that are not included under Performance Specification 2 (PS 2).

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - N/A
- Method Exceptions:
  - N/A

3.1.10 EPA Performance Specification 2, Specifications and Test Procedures for NO_X for Continuous Emission Monitoring Systems in Stationary Sources

This specification is for evaluating the acceptability of NO_X continuous emission monitoring systems (CEMS) at the time of installation or soon after and whenever specified in the regulations. The CEMS may include, for certain stationary sources, a diluent (O_2 or CO_2) monitor.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - N/A
- Method Exceptions:
  - N/A

3.1.11 EPA Performance Specification 4A, Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources

This specification is for evaluating the acceptability of carbon monoxide (CO) continuous emission monitoring systems (CEMS) at the time of installation or soon after and whenever specified in an applicable subpart of the regulations. This specification was developed primarily for CEMS that comply with low emission standards (less than 200 ppmv).

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - N/A
- Method Exceptions:
  - N/A

3.1.12 ASTM Method D5504, Fuel Sulfur Emissions

ASTM Method D5504 is an instrumental method used to measure the sulfur content in gaseous fuels. The method can be used on many types of fuels such as natural gas, digester gas, landfill gas, refinery fuel gas, and others. Sample is typically collected in a bag or evacuated canister and then shipped to a laboratory where it is analyzed using gas chromatography and appropriate detectors.

Three samples from each turbine's natural gas fuel supply pipeline were collected into Summa canisters the day of maximum load testing for each unit. The results were used with fuel flow rates in calculation of SO_2 emissions assuming that all fuel sulfur was converted to SO_2 emissions.

If a fuel sample became compromised in any way (i.e. leakage, air dilution, problems with the laboratory analysis), MAQS used the gas analysis from the other samples as both units were fed through the same fuel supply.

Pertinent information regarding the performance of the method is presented below:

- Analytical Method: ASTM D-5504

- Sample Containers: Silco lined (glass lined) Summa Canisters
- Analytical Laboratory: Atmospheric Analysis and Consulting Inc.- Ventura, CA

3.1.13 EPA Method ALT-009, Alternative Method 5 Post-Test Calibration

EPA Approved Alternative Method 009 (ALT-009) is used as an alternative to a two-point post-test meter box calibration. This procedure uses a calculation to check the meter box calibration factor rather than requiring a physical post-test meter box calibration using a standard dry gas meter. The average calculated meter box percent (%) error must result in a percent error within ±5% of Y. If not, a full calibration is performed, and the results are presented using the Y factor that yields the highest emissions.

3.1.14 EPA Method ALT-011, Alternative Method 2 Thermocouple Calibration

EPA Approved Alternative Method 011 (ALT-011) is used as an alternative to the EPA Method 2 two-point thermocouple calibration. This procedure involves a single-point in-field check using a reference thermometer to confirm that the thermocouple system is operating properly. The temperatures of the thermocouple and reference thermometers shall agree to within ±2 °F.

3.2 PROCESS TEST METHODS

The test plan did not require that process samples be collected during this test program; therefore, no process sample data are presented in this test report.

4.0 TEST DISCUSSION AND RESULTS

4.1 FIELD TEST DEVIATIONS AND EXCEPTIONS

The following field deviations or exceptions from the test plan or test methods occurred during this test program:

Some of the fuel samples had detectable concentrations of oxygen and slightly elevated concentrations of nitrogen, which has been assumed to be present due to intrusion of a small amount of air during sample collection. Therefore, stoichiometric concentrations of nitrogen due to dilution were subtracted, the remaining concentrations were normalized, and fuel statistics (e.g. Fd, HHV) were calculated based on the corrected results.

4.2 PRESENTATION OF RESULTS

The average results are compared to the permit limits in Tables 1-2 through 1-6. The results of individual compliance test runs performed are presented in Tables 4-1 through 4-5 (Unit 1) and Tables 4-15 through 4-19 (Unit 2). The RA results are compared to the regulatory requirements in Table 1-7. The results of individual RATA test runs performed are presented in Tables 4-6 through 4-14 (Unit 1) and Tables 4-20 through 4-28 (Unit 2). Emissions are reported in units consistent with those in the applicable regulations or requirements. Additional information is included in the appendices as presented in the Table of Contents.

TABLE 4-1
PARTICULATE MATTER EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 1

Run Number	1-PM-1	2-PM-1	3-PM-1	Average
Date	7/16/24	7/16/24	7/16/24	--
Time	0755-1006	1105-1312	1335-1542	--
Process Data:				
Heat input, MMBtu/hr	563.6	566.9	568.6	566.4
Power generation, MW	72	72	73	72
Flue Gas Parameters				
O_2, % volume dry	13.1	13.1	13.1	13.1
CO_2, % volume dry	4.5	4.5	4.5	4.5
flue gas temperature, °F	232	236	233	234
moisture content, % volume	12.5	12.4	11.6	12.2
volumetric flow rate, dscfm	205,166	205,577	209,761	206,835
PM Emissions				
gr/dscf	0.0004	0.0004	0.0004	0.0004
tolerance, gr/dscf	± 0.0004	± 0.0004	± 0.0004	± 0.0004
lb/hr	0.6	0.7	0.6	0.7
lb/day	15	16	15	15

Note: Heat input data is calculated based on reported fuel flow rates and the higher heating value of a fuel sample.

TABLE 4-2
CO & NH_3 EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 1 – MIN LOAD

Run Number	7-NH3-1-MIN	8-NH3-1-MIN	9-NH3-1-MIN	Average
Date	7/17/24	7/17/24	7/17/24	--
Time	0727-0757	0804-0834	0843-0913	--
Process Data:				
Heat input, MMBtu/hr	276.5	277.0	276.9	276.8
Fuel flow rate, scfh	263,310	263,770	263,750	263,610
Power generation, MW	21.0	21.0	21.0	21.0
Flue Gas Parameters				
O_2, % volume dry	15.7	15.8	15.7	15.7
CO_2, % volume dry	3.0	3.0	3.0	3.0
volumetric flow rate, dscfm	156,500	159,529	158,281	158,103
CO Emissions				
ppmvd	1.1	1.0	1.1	1.1
ppmvd @ 15% O_2	1.3	1.2	1.2	1.2
lb/hr	0.76	0.71	0.75	0.74
lb/MMBtu	0.0028	0.0026	0.0027	0.0027
Ammonia Emissions				
ppmvd	2.8	3.0	2.8	2.8
ppmvd @ 15% O_2	3.2	3.4	3.2	3.2
lb/hr	1.2	1.3	1.2	1.2
lb/MMBtu	0.0043	0.0046	0.0043	0.0044

Note: Heat input data is calculated based on reported fuel flow rates and the higher heating value of a fuel sample.

TABLE 4-3
AMMONIA EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 1 – BASE LOAD

Run Number	1-NH3-1-BASE	2-NH3-1-BASE	3-NH3-1-BASE	Average
Date	7/15/24	7/15/24	7/15/24	--
Time	1225-1255	1305-1335	1342-1412	--
Process Data:				
Heat input, MMBtu/hr	474.0	473.5	473.3	473.6
Fuel flow rate, scfh	451,430	450,990	450,750	451,057
Power generation, MW	63	63	63	63
Flue Gas Parameters				
O_2, % volume dry	14.4	14.4	14.4	14.4
CO_2, % volume dry	3.8	3.8	3.8	3.8
volumetric flow rate, dscfm	215,592	215,381	215,267	215,413
Ammonia Emissions				
ppmvd	4.3	5.1	4.8	4.7
ppmvd @ 15% O_2	3.9	4.7	4.3	4.3
lb/hr	2.4	2.9	2.7	2.7
lb/MMBtu	0.0052	0.0063	0.0059	0.0058

Note: Heat input data is calculated based on reported fuel flow rates and the higher heating value of a fuel sample.

TABLE 4-4
AMMONIA, CO, NO_X & SO_2 EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 1 – MAX LOAD

Run Number	1-NH3-1-MAX	2-NH3-1-MAX	3-NH3-1-MAX	Average
Date	7/16/24	7/16/24	7/16/24	--
Time	0938-1008	1027-1057	1123-1153	--
Process Data:				
Heat input, MMBtu/hr	564.2	564.4	565.2	564.6
Fuel flow rate, scfh	537,310	537,570	538,260	537,713
Power generation, MW	72	72	72	72
Fuel sulfur, gr/100scf	0.140	0.140	0.140	0.140
Flue Gas Parameters				
O_2, % volume dry	13.1	13.1	13.1	13.1
CO_2, % volume dry	4.5	4.5	4.5	4.5
volumetric flow rate, dscfm	211,811	212,727	212,456	212,332
Ammonia Emissions				
ppmvd	3.0	3.3	3.5	3.3
ppmvd @ 15% O_2	2.3	2.5	2.6	2.5
lb/hr	1.7	1.8	1.9	1.8
lb/MMBtu	0.0031	0.0034	0.0035	0.0033
CO Emissions				
ppmvd	1.2	1.2	1.2	1.2
ppmvd @ 15% O_2	0.9	0.9	0.9	0.9
lb/hr	1.1	1.1	1.1	1.1
lb/MMBtu	0.0020	0.0020	0.0020	0.0020
NO_X Emissions				
ppmvd	2.5	2.7	2.5	2.5
ppmvd @ 15% O_2	1.9	2.0	1.9	1.9
lb/hr	3.7	4.0	3.8	3.8
lb/MMBtu	0.0068	0.0073	0.0068	0.0070
SO_2 Emissions				
ppmvd	0.10	0.10	0.10	0.10
ppmvd @ 15% O_2	0.08	0.08	0.08	0.08
lb/hr	0.21	0.21	0.22	0.21
lb/MMBtu	0.0004	0.0004	0.0004	0.0004

Note: Heat input data is calculated based on reported fuel flow rates and the higher heating value of a fuel sample.

TABLE 4-5
POC EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 1 – MAX LOAD

Run Number	1-NH3-1-MAX	2-NH3-1-MAX	3-NH3-1-MAX	Average
Date	7/16/24	7/16/24	7/16/24	--
Time	0932-1002	1021-1051	1117-1147	--
Process Data:				
Heat input, MMBtu/hr	564.2	564.4	565.2	564.6
Fuel flow rate, scfh	537,310	537,570	538,260	537,713
Power generation, MW	72	72	72	72
Flue Gas Parameters				
O_2, % volume dry	13.1	13.1	13.1	13.1
CO_2, % volume dry	4.5	4.5	4.5	4.5
volumetric flow rate, dscfm	211,811	212,727	212,456	212,332
THC as methane, ppmvd	3.755	3.937	2.837	3.510
Methane, ppmvd	3.754	3.938	2.836	3.509
Ethane, ppmvd as methane	<0.5	<0.5	<0.5	<0.5
POC Emissions (as Methane)				
ppmvd	2.0 ± 1	2.0 ± 1	2.0 ± 1	2.0 ± 1
ppmvd @ 15% O_2	1.5 ± 0.8	1.5 ± 0.8	1.5 ± 0.8	1.5 ± 0.8
lb/hr	1.1 ± 0.5	1.1 ± 0.5	1.1 ± 0.5	1.1 ± 0.5
lb/MMBtu	0.0019 ± 0.0005	0.0019 ± 0.0005	0.0019 ± 0.0005	0.0019 ± 0.0005

Note: Heat input data is calculated based on reported fuel flow rates and the higher heating value of a fuel sample.

TABLE 4-6
OXYGEN (PERCENT VOL. DRY) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	13.1	13.0	0.1	Y	72
2	7/16/24	0938-1008	13.1	13.0	0.1	Y	72
3	7/16/24	1027-1057	13.1	13.0	0.1	N	72
4	7/16/24	1123-1153	13.1	13.0	0.1	Y	72
5	7/16/24	1203-1224	13.1	13.0	0.1	Y	72
6	7/16/24	1240-1301	13.0	13.0	0.0	Y	73
7	7/16/24	1307-1328	13.1	13.0	0.1	Y	73
8	7/16/24	1338-1359	13.1	13.0	0.1	Y	73
9	7/16/24	1406-1427	13.1	13.0	0.1	Y	73
10	7/16/24	1439-1500	13.1	13.0	0.1	Y	73
Averages			13.1	13.0	0.1		73

Standard Deviation	0.012	
Confidence Coefficient (CC)	0.009	
Unit load	73	MW
RA based on absolute difference	0.1	%

TABLE 4-7
CO (PPM VOL. DRY) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	1.1	1.1	0.0	Y	72
2	7/16/24	0938-1008	1.2	1.0	0.2	N	72
3	7/16/24	1027-1057	1.2	1.1	0.1	Y	72
4	7/16/24	1123-1153	1.2	1.1	0.1	Y	72
5	7/16/24	1203-1224	1.2	1.1	0.1	Y	72
6	7/16/24	1240-1301	1.2	1.1	0.1	Y	73
7	7/16/24	1307-1328	1.2	1.1	0.1	Y	73
8	7/16/24	1338-1359	1.2	1.1	0.1	Y	73
9	7/16/24	1406-1427	1.2	1.1	0.1	Y	73
10	7/16/24	1439-1500	1.2	1.1	0.1	Y	73
Averages			1.2	1.1	0.1		73

Standard Deviation	0.024	
Confidence Coefficient (CC)	0.018	
Unit load	73	MW
RA based on difference plus the CC	0.1	ppmvd

TABLE 4-8
CO (PPM @ 15% O_2) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	0.87	0.81	0.06	Y	72
2	7/16/24	0938-1008	0.89	0.77	0.12	N	72
3	7/16/24	1027-1057	0.88	0.79	0.09	Y	72
4	7/16/24	1123-1153	0.89	0.82	0.07	Y	72
5	7/16/24	1203-1224	0.90	0.82	0.08	Y	72
6	7/16/24	1240-1301	0.91	0.82	0.09	Y	73
7	7/16/24	1307-1328	0.90	0.82	0.08	Y	73
8	7/16/24	1338-1359	0.91	0.82	0.09	Y	73
9	7/16/24	1406-1427	0.91	0.82	0.09	Y	73
10	7/16/24	1439-1500	0.92	0.82	0.10	Y	73
Averages			0.90	0.82	0.08		73

Applicable Standard (AS)	4.0	ppm @ 15% O_2
Standard Deviation	0.014	
Confidence Coefficient (CC)	0.011	
Unit load	73	MW
RA based on AS	2.3	%

TABLE 4-9
CO (LB/HR) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	1.06	1.00	0.06	Y	72
2	7/16/24	0938-1008	1.09	0.99	0.10	Y	72
3	7/16/24	1027-1057	1.08	0.99	0.09	Y	72
4	7/16/24	1123-1153	1.09	1.01	0.08	Y	72
5	7/16/24	1203-1224	1.10	1.01	0.09	Y	72
6	7/16/24	1240-1301	1.12	1.03	0.09	Y	73
7	7/16/24	1307-1328	1.11	1.03	0.08	Y	73
8	7/16/24	1338-1359	1.12	1.02	0.10	N	73
9	7/16/24	1406-1427	1.12	1.03	0.09	Y	73
10	7/16/24	1439-1500	1.14	1.04	0.10	Y	73
Averages			1.10	1.01	0.09		72

Applicable Standard (AS)	5.47	lb/hr
Standard Deviation	0.013	
Confidence Coefficient (CC)	0.010	
Unit load	72	MW
RA based on AS	1.7	%

TABLE 4-10
NOX (PPM VOL. DRY) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	2.6	2.4	0.2	Y	72
2	7/16/24	0938-1008	2.5	2.4	0.1	Y	72
3	7/16/24	1027-1057	2.7	2.4	0.3	N	72
4	7/16/24	1123-1153	2.5	2.4	0.1	Y	72
5	7/16/24	1203-1224	2.4	2.4	0.0	Y	72
6	7/16/24	1240-1301	2.5	2.4	0.1	Y	73
7	7/16/24	1307-1328	2.4	2.4	0.0	Y	73
8	7/16/24	1338-1359	2.5	2.4	0.1	Y	73
9	7/16/24	1406-1427	2.4	2.4	0.0	Y	73
10	7/16/24	1439-1500	2.5	2.4	0.1	Y	73
Averages			2.5	2.4	0.1		73

Standard Deviation	0.052	
Confidence Coefficient (CC)	0.040	
Unit load	73	MW
RA based on mean RM value	3.9	%

TABLE 4-11
NOX (PPM @ 15% O_2) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	1.93	1.80	0.13	Y	72
2	7/16/24	0938-1008	1.86	1.80	0.06	Y	72
3	7/16/24	1027-1057	2.01	1.80	0.21	N	72
4	7/16/24	1123-1153	1.87	1.80	0.07	Y	72
5	7/16/24	1203-1224	1.77	1.80	-0.03	Y	72
6	7/16/24	1240-1301	1.84	1.80	0.04	Y	73
7	7/16/24	1307-1328	1.84	1.80	0.04	Y	73
8	7/16/24	1338-1359	1.84	1.80	0.04	Y	73
9	7/16/24	1406-1427	1.83	1.80	0.03	Y	73
10	7/16/24	1439-1500	1.84	1.80	0.04	Y	73
Averages			1.85	1.80	0.05		73

Applicable Standard (AS)	2.0	ppm @ 15% O_2
Standard Deviation	0.041	
Confidence Coefficient (CC)	0.032	
Unit load	73	MW
RA based on mean RM value	4.3	%

TABLE 4-12
NOX (LB/HR) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	3.86	3.94	-0.08	Y	72
2	7/16/24	0938-1008	3.75	3.95	-0.20	Y	72
3	7/16/24	1027-1057	4.04	3.95	0.09	Y	72
4	7/16/24	1123-1153	3.76	3.96	-0.20	Y	72
5	7/16/24	1203-1224	3.57	3.96	-0.39	N	72
6	7/16/24	1240-1301	3.73	3.98	-0.25	Y	73
7	7/16/24	1307-1328	3.72	3.98	-0.26	Y	73
8	7/16/24	1338-1359	3.73	3.98	-0.25	Y	73
9	7/16/24	1406-1427	3.71	3.98	-0.27	Y	73
10	7/16/24	1439-1500	3.73	3.98	-0.25	Y	73
Averages			3.78	3.97	-0.19		73

Applicable Standard (AS)	4.49	lb/hr
Standard Deviation	0.120	
Confidence Coefficient (CC)	0.092	
Unit load	73	MW
RA based on mean RM value	7.4	%

TABLE 4-13
NOX (LB/MMBTU) PART 60 RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	0.007	0.007	0.000	Y	72
2	7/16/24	0938-1008	0.007	0.007	0.000	Y	72
3	7/16/24	1027-1057	0.007	0.007	0.000	Y	72
4	7/16/24	1123-1153	0.007	0.007	0.000	Y	72
5	7/16/24	1203-1224	0.006	0.007	-0.001	N	72
6	7/16/24	1240-1301	0.007	0.007	0.000	Y	73
7	7/16/24	1307-1328	0.007	0.007	0.000	Y	73
8	7/16/24	1338-1359	0.007	0.007	0.000	Y	73
9	7/16/24	1406-1427	0.007	0.007	0.000	Y	73
10	7/16/24	1439-1500	0.007	0.007	0.000	Y	73
Averages			0.00683	0.00700	-0.00017		73

Standard Deviation	0.00021	
Confidence Coefficient (CC)	0.00017	
Unit load	73	MW
RA based on mean RM value	4.9	%

TABLE 4-14
NOX (LB/MMBTU) PART 75 (EDR) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/16/24	0829-0910	0.007	0.007	0.000	Y	72
2	7/16/24	0938-1008	0.007	0.007	0.000	Y	72
3	7/16/24	1027-1057	0.007	0.007	0.000	Y	72
4	7/16/24	1123-1153	0.007	0.007	0.000	Y	72
5	7/16/24	1203-1224	0.006	0.007	-0.001	N	72
6	7/16/24	1240-1301	0.007	0.007	0.000	Y	73
7	7/16/24	1307-1328	0.007	0.007	0.000	Y	73
8	7/16/24	1338-1359	0.007	0.007	0.000	Y	73
9	7/16/24	1406-1427	0.007	0.007	0.000	Y	73
10	7/16/24	1439-1500	0.007	0.007	0.000	Y	73
Averages			0.007000	0.007000	0.000000		73

Standard Deviation	0.000000	
Confidence Coefficient (CC)	0.000000	
Bias Adjustment Factor (BAF)	1.000	units
Unit load	73	MW
RA based on mean RM value	<0.1	%

TABLE 4-15
PARTICULATE MATTER EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 2

Run Number	1-PM-2	2-PM-2	3-PM-2	Average
Date	7/18/24	7/18/24	7/18/24	--
Time	0745-0951	1032-1238	1315-1524	--
Process Data:				
Heat input, MMBtu/hr	560.3	561.3	564.2	561.9
Power generation, MW	71	71	71	71
Flue Gas Parameters				
O_2, % volume dry	12.8	12.9	12.8	12.8
CO_2, % volume dry	4.5	4.6	4.7	4.6
flue gas temperature, °F	237	241	243	240
moisture content, % volume	12.1	12.6	12.7	12.4
volumetric flow rate, dscfm	245,300	248,283	245,458	246,347
PM Emissions				
gr/dscf	0.0004	0.0004	0.0004	0.0004
tolerance, gr/dscf	± 0.0004	± 0.0004	± 0.0004	± 0.0004
lb/hr	0.8	0.8	0.8	0.8
lb/day	19	18	18	18

Note: Power generated during the period

TABLE 4-16
AMMONIA EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 2 – MIN LOAD

Run Number	7-NH3-2-MIN	8-NH3-2-MIN	9-NH3-2-MIN	Average
Date	7/19/23	7/19/23	7/19/23	--
Time	0722-0752	0846-0916	0924-0954	--
Process Data:				
Heat input, MMBtu/hr	282.2	280.0	279.8	280.7
Fuel flow rate, scfh	268,790	266,640	266,470	267,300
Power generation, MW	33.0	33.0	33.0	33.0
Flue Gas Parameters				
O_2, % volume dry	15.6	15.7	15.7	15.6
CO_2, % volume dry	3.1	3.1	3.1	3.1
volumetric flow rate, dscfm	156,606	157,725	157,325	157,219
CO Emissions				
ppmvd	0.8	0.6	0.6	0.7
ppmvd @ 15% O_2	0.9	0.6	0.6	0.7
lb/hr	0.5	0.4	0.4	0.4
lb/MMBtu	0.0020	0.0014	0.0014	0.0016
Ammonia Emissions				
ppmvd	3.0	2.9	2.6	2.8
ppmvd @ 15% O_2	3.3	3.3	2.9	3.2
lb/hr	1.2	1.2	1.1	1.2
lb/MMBtu	0.0045	0.0044	0.0039	0.0043

TABLE 4-17
AMMONIA EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 2 – BASE LOAD

Run Number	1-NH3-2-BASE	2-NH3-2-BASE	3-NH3-2-BASE	Average
Date	7/17/24	7/17/24	7/17/24	--
Time	1020-1050	1056-1126	1132-1202	--
Process Data:				
Heat input, MMBtu/hr	469.0	468.7	468.7	468.8
Fuel flow rate, scfh	446,640	446,350	446,360	446,450
Power generation, MW	61.0	61.0	61.0	61.0
Flue Gas Parameters				
O_2, % volume dry	14.4	14.3	14.3	14.3
CO_2, % volume dry	3.8	3.8	3.8	3.8
volumetric flow rate, dscfm	211,155	210,696	210,701	210,851
Ammonia Emissions				
ppmvd	3.8	3.7	4.0	3.8
ppmvd @ 15% O_2	3.4	3.3	3.6	3.5
lb/hr	2.1	2.1	2.3	2.1
lb/MMBtu	0.0046	0.0045	0.0049	0.0047

TABLE 4-18
AMMONIA, CO, NO_X & SO_2 EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 2 – MAX LOAD

Run Number	4-NH3-2-MAX	5-NH3-2-MAX	6-NH3-2-MAX	Average
Date	7/18/24	7/18/24	7/18/24	--
Time	0939-1009	1035-1105	1114-1144	--
Process Data:				
Heat input, MMBtu/hr	560.6	561.2	561.4	561.1
Fuel flow rate, scfh	533,910	534,440	534,660	534,337
Power generation, MW	71.0	71.0	71.0	71.0
Fuel sulfur, gr/100scf	0.193	0.193	0.193	0.193
Flue Gas Parameters				
O_2, % volume dry	12.8	12.9	12.9	12.9
CO_2, % volume dry	4.5	4.7	4.6	4.6
volumetric flow rate, dscfm	204,738	207,247	207,332	206,439
Ammonia Emissions				
ppmvd	3.5	3.1	3.8	3.5
ppmvd @ 15% O_2	2.5	2.3	2.8	2.5
lb/hr	1.9	1.7	2.1	1.9
lb/MMBtu	0.0034	0.0031	0.0038	0.0034
CO Emissions				
ppmvd	1.2	1.2	1.2	1.2
ppmvd @ 15% O_2	0.9	0.9	0.9	0.9
lb/hr	1.1	1.1	1.1	1.1
lb/MMBtu	0.0020	0.0019	0.0019	0.0019
NO_X Emissions				
ppmvd	2.4	2.5	2.5	2.5
ppmvd @ 15% O_2	1.7	1.9	1.8	1.8
lb/hr	3.5	3.7	3.7	3.6
lb/MMBtu	0.0064	0.0067	0.0067	0.0066
SO_2 Emissions				
ppmvd	0.14	0.14	0.14	0.14
ppmvd @ 15% O_2	0.11	0.11	0.11	0.11
lb/hr	0.29	0.29	0.29	0.29
lb/MMBtu	0.0005	0.0005	0.0005	0.0005

TABLE 4-19
POC EMISSIONS RESULTS -
SV POWER – DVR POWER PLANT
TURBINE UNIT 2 – MAX LOAD

Run Number	1-POC-2	2-POC-2	3-POC-2	Average
Date	7/18/24	7/18/24	7/18/24	--
Time	0939-1009	1035-1105	1114-1144	--
Process Data:				
Heat input, MMBtu/hr	560.6	561.2	561.4	561.1
Fuel flow rate, scfh	533,910	534,440	534,660	534,337
Power generation, MW	71.0	71.0	71.0	71.0
Flue Gas Parameters				
O_2, % volume dry	12.8	12.9	12.9	12.9
CO_2, % volume dry	4.5	4.7	4.6	4.6
volumetric flow rate, dscfm	204,738	207,247	207,332	206,439
THC as methane, ppmvd	21.269	18.012	18.488	19.256
Methane, ppmvd	21.257	17.990	18.499	19.249
Ethane, ppmvd as methane	<0.5	<0.5	<0.5	<0.5
POC Emissions (as Methane)				
ppmvd	2.0 ± 1	2.0 ± 1	2.0 ± 1	2.0 ± 1
ppmvd @ 15% O_2	1.5 ± 0.8	1.5 ± 0.8	1.5 ± 0.8	1.5 ± 0.8
lb/hr	1.1 ± 0.5	1.1 ± 0.5	1.1 ± 0.5	1.1 ± 0.5
lb/MMBtu	0.0019 ± 0.0005	0.0019 ± 0.0005	0.0019 ± 0.0005	0.0019 ± 0.0005

Note: Heat input data is calculated based on reported fuel flow rates and the higher heating value of a fuel sample.

TABLE 4-20
OXYGEN (PERCENT VOL. DRY) RATA RESULTS -
TURBINE UNIT 2

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	12.8	13.0	-0.2	Y	71
2	7/18/24	0939-1009	12.8	13.0	-0.2	N	71
3	7/18/24	1035-1105	12.9	13.0	-0.1	Y	71
4	7/18/24	1114-1144	12.9	13.0	-0.1	Y	71
5	7/18/24	1153-1214	12.9	13.0	-0.1	Y	71
6	7/18/24	1221-1242	12.9	13.0	-0.1	Y	71
7	7/18/24	1253-1314	12.9	12.9	0.0	Y	71
8	7/18/24	1321-1342	12.8	12.9	-0.1	Y	71
9	7/18/24	1350-1411	12.8	12.9	-0.1	Y	71
10	7/18/24	1419-1440	12.8	12.9	-0.1	Y	71
Averages			12.9	13.0	-0.1		71

Standard Deviation	0.037	
Confidence Coefficient (CC)	0.029	
Unit load	71	MW
RA based on absolute difference	0.1	%

TABLE 4-21
CO (PPM VOL. DRY) RATA RESULTS -
TURBINE UNIT 2

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	1.4	1.1	0.3	N	71
2	7/18/24	0939-1009	1.2	1.1	0.1	Y	71
3	7/18/24	1035-1105	1.2	1.1	0.1	Y	71
4	7/18/24	1114-1144	1.2	1.1	0.1	Y	71
5	7/18/24	1153-1214	1.2	1.1	0.1	Y	71
6	7/18/24	1221-1242	1.2	1.1	0.1	Y	71
7	7/18/24	1253-1314	1.2	1.1	0.1	Y	71
8	7/18/24	1321-1342	1.2	1.1	0.1	Y	71
9	7/18/24	1350-1411	1.2	1.1	0.1	Y	71
10	7/18/24	1419-1440	1.2	1.2	0.0	Y	71
Averages			1.2	1.1	0.1		71

Standard Deviation	0.034	
Confidence Coefficient (CC)	0.026	
Unit load	71	MW
RA based on difference plus the CC	0.1	ppm

TABLE 4-22
CO (PPM @ 15% O_2) RATA RESULTS -
TURBINE UNIT 2

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	1.06	0.82	0.24	N	71
2	7/18/24	0939-1009	0.89	0.82	0.07	Y	71
3	7/18/24	1035-1105	0.87	0.81	0.06	Y	71
4	7/18/24	1114-1144	0.87	0.81	0.06	Y	71
5	7/18/24	1153-1214	0.86	0.81	0.05	Y	71
6	7/18/24	1221-1242	0.86	0.82	0.04	Y	71
7	7/18/24	1253-1314	0.90	0.83	0.07	Y	71
8	7/18/24	1321-1342	0.90	0.83	0.07	Y	71
9	7/18/24	1350-1411	0.88	0.82	0.06	Y	71
10	7/18/24	1419-1440	0.90	0.84	0.06	Y	71
Averages			0.88	0.82	0.06		71

Applicable Standard (AS)	4.0	ppm @ 15% O_2
Standard Deviation	0.011	
Confidence Coefficient (CC)	0.009	
Unit load	71	MW
RA based on difference plus the CC	0.1	ppm @ 15% O_2

TABLE 4-23
CO (LB/HR) RATA RESULTS -
TURBINE UNIT 2

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	1.29	1.02	0.27	N	71
2	7/18/24	0939-1009	1.09	1.04	0.05	Y	71
3	7/18/24	1035-1105	1.06	1.01	0.05	Y	71
4	7/18/24	1114-1144	1.06	1.01	0.05	Y	71
5	7/18/24	1153-1214	1.05	1.02	0.03	Y	71
6	7/18/24	1221-1242	1.05	1.02	0.03	Y	71
7	7/18/24	1253-1314	1.10	1.06	0.04	Y	71
8	7/18/24	1321-1342	1.10	1.05	0.05	Y	71
9	7/18/24	1350-1411	1.08	1.05	0.03	Y	71
10	7/18/24	1419-1440	1.10	1.07	0.03	Y	71
Averages			1.08	1.04	0.04		71

Applicable Standard (AS)	5.47	lb/hr
Standard Deviation	0.010	
Confidence Coefficient (CC)	0.008	
Unit load	71	MW
RA based on AS	0.9	%

TABLE 4-24
NOX (PPM VOL. DRY) RATA RESULTS -
TURBINE UNIT 2

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	2.3	2.4	-0.1	Y	71
2	7/18/24	0939-1009	2.4	2.4	0.0	Y	71
3	7/18/24	1035-1105	2.5	2.4	0.1	Y	71
4	7/18/24	1114-1144	2.5	2.4	0.1	Y	71
5	7/18/24	1153-1214	2.5	2.4	0.1	Y	71
6	7/18/24	1221-1242	2.5	2.4	0.1	N	71
7	7/18/24	1253-1314	2.5	2.4	0.1	Y	71
8	7/18/24	1321-1342	2.5	2.4	0.1	Y	71
9	7/18/24	1350-1411	2.5	2.4	0.1	Y	71
10	7/18/24	1419-1440	2.5	2.4	0.1	Y	71
Averages			2.5	2.4	0.1		71

Standard Deviation	0.085	
Confidence Coefficient (CC)	0.065	
Unit load	71	MW
RA based on mean RM value	5.4	%

TABLE 4-25
NOX (PPM @ 15% O_2) RATA RESULTS -
TURBINE UNIT 2

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	1.66	1.80	-0.14	Y	71
2	7/18/24	0939-1009	1.75	1.80	-0.05	Y	71
3	7/18/24	1035-1105	1.85	1.80	0.05	Y	71
4	7/18/24	1114-1144	1.84	1.80	0.04	Y	71
5	7/18/24	1153-1214	1.85	1.80	0.05	Y	71
6	7/18/24	1221-1242	1.87	1.80	0.07	N	71
7	7/18/24	1253-1314	1.86	1.81	0.05	Y	71
8	7/18/24	1321-1342	1.83	1.81	0.02	Y	71
9	7/18/24	1350-1411	1.82	1.80	0.02	Y	71
10	7/18/24	1419-1440	1.84	1.80	0.04	Y	71
Averages			1.81	1.80	0.01		71

Applicable Standard (AS)	2.0	ppm @ 15% O_2
Standard Deviation	0.065	
Confidence Coefficient (CC)	0.050	
Unit load	71	MW
RA based on mean RM value	3.2	%

TABLE 4-26
NOX (LB/HR) RATA RESULTS -
TURBINE UNIT 2

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	3.32	3.92	-0.60	N	71
2	7/18/24	0939-1009	3.50	3.92	-0.42	Y	71
3	7/18/24	1035-1105	3.72	3.93	-0.21	Y	71
4	7/18/24	1114-1144	3.69	3.93	-0.24	Y	71
5	7/18/24	1153-1214	3.72	3.93	-0.21	Y	71
6	7/18/24	1221-1242	3.74	3.93	-0.19	Y	71
7	7/18/24	1253-1314	3.74	3.94	-0.20	Y	71
8	7/18/24	1321-1342	3.69	3.95	-0.26	Y	71
9	7/18/24	1350-1411	3.67	3.95	-0.28	Y	71
10	7/18/24	1419-1440	3.71	3.95	-0.24	Y	71
Averages			3.69	3.94	-0.25		71

Applicable Standard (AS)	4.49	lb/hr
Standard Deviation	0.069	
Confidence Coefficient (CC)	0.053	
Unit load	71	MW
RA based on mean RM value	8.3	%

TABLE 4-27
NOX (LB/MMBTU) PART 60 RATA RESULTS -
TURBINE UNIT 2

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	0.006	0.007	-0.001	N	71
2	7/18/24	0939-1009	0.006	0.007	-0.001	Y	71
3	7/18/24	1035-1105	0.007	0.007	0.000	Y	71
4	7/18/24	1114-1144	0.007	0.007	0.000	Y	71
5	7/18/24	1153-1214	0.007	0.007	0.000	Y	71
6	7/18/24	1221-1242	0.007	0.007	0.000	Y	71
7	7/18/24	1253-1314	0.007	0.007	0.000	Y	71
8	7/18/24	1321-1342	0.007	0.007	0.000	Y	71
9	7/18/24	1350-1411	0.007	0.007	0.000	Y	71
10	7/18/24	1419-1440	0.007	0.007	0.000	Y	71
Averages			0.00700	0.00700	-0.00011		71

Standard Deviation	0.00033	
Confidence Coefficient (CC)	0.00026	
Unit load	71	MW
RA based on mean RM value	5.2	%

TABLE 4-28
NOX (LB/MMBTU) PART 75 (EDR) RATA RESULTS -
TURBINE UNIT 1

Run #	Date	Time	RM	CEMS	Difference	Run Used (Y or N)	Unit Load (MW)
1	7/18/24	0825-0906	0.006	0.007	-0.001	N	71
2	7/18/24	0939-1009	0.006	0.007	-0.001	Y	71
3	7/18/24	1035-1105	0.007	0.007	0.000	Y	71
4	7/18/24	1114-1144	0.007	0.007	0.000	Y	71
5	7/18/24	1153-1214	0.007	0.007	0.000	Y	71
6	7/18/24	1221-1242	0.007	0.007	0.000	Y	71
7	7/18/24	1253-1314	0.007	0.007	0.000	Y	71
8	7/18/24	1321-1342	0.007	0.007	0.000	Y	71
9	7/18/24	1350-1411	0.007	0.007	0.000	Y	71
10	7/18/24	1419-1440	0.007	0.007	0.000	Y	71
Averages			0.006889	0.007000	-0.000111		71

Standard Deviation	0.000333	
Confidence Coefficient (CC)	0.000256	
Bias Adjustment Factor (BAF)	1.000	
Unit load	71	MW
RA based on mean RM value	5.3	%

5.0 INTERNAL QA/QC ACTIVITIES

Table 5-1 presents a summary of the gas cylinder information.

TABLE 5-1
PART 75 GAS CYLINDER INFORMATION

Gas Type	Gas Level	Gas Concentration	Vendor ID (PGVP ID#)	Cylinder ID	Expiration Date
O_2, Balance N_2	Mid	11.61%	B72023	CC31354	05/15/2031
	High	21.12%	B72023	CC323781	05/23/2031
NO_X, Balance N_2	Mid	2.488 ppm	B72023	CC754521	11/27/2026
	High	5.074 ppm	B32023	CC191010	05/26/2026
N_2	Zero	0%	B72024	XC014765B	06/12/2032

5.1 QA/QC AUDITS

The meter boxes and sampling trains used during sampling performed within the requirements of their respective methods. All post-test leak checks, minimum metered volumes, minimum sample durations, and percent isokinetics met the applicable QA/QC criteria, except where noted in Section 5.2.

EPA Method 3A, 7E, and 10 calibration audits were all within the measurement system performance specifications for the calibration drift checks, system calibration bias checks, and calibration error checks, except where noted in Section 5.2.

The NO_2 to NO converter efficiency checks of each/the analyzer were conducted per the procedures in EPA Method 7E, Section 8.2.4. The conversion efficiencies met the criteria, except where noted in Section 5.2.

EPA Method 5 analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met, except if noted in Section 5.2. An EPA Method 5 reagent blank was analyzed. The maximum allowable amount that can be subtracted is 0.001% of the weight of the acetone blank. The blank did not exceed the maximum residue allowed.

EPA Method 202 analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met, except where noted in Section 5.2. An EPA Method 202 Field Train Recovery Blank (FTRB) was performed for each source category. The maximum allowable amount that can be subtracted is 0.002 g (2.0 mg). EPA Method 18 analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met.

EPA Method 18 analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met.

BAAQMD Method ST-1B analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met.

ASTM Methods D-3588 and D-5504 analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met.

5.2 QA/QC DISCUSSION

All QA/QC criteria were met during this test program.

5.3 QUALITY STATEMENT

Montrose is qualified to conduct this test program and has established a quality management system that led to accreditation with ASTM Standard D7036-04 (Standard Practice for Competence of Air Emission Testing Bodies). Montrose participates in annual functional assessments for conformance with D7036-04 which are conducted by the American Association for Laboratory Accreditation (A2LA). All testing performed by Montrose is supervised on site by at least one Qualified Individual (QI) as defined in D7036-04 Section 8.3.2. Data quality objectives for estimating measurement uncertainty within the documented limits in the test methods are met by using approved test protocols for each project as defined in D7036-04 Sections 7.2.1 and 12.10. Additional quality assurance information is included in the report appendices. The content of this report is modeled after the EPA Emission Measurement Center Guideline Document (GD-043).

APPENDIX A
FIELD DATA AND CALCULATIONS

Appendix A.1
Sampling Locations

MONTROSE AIR QUALITY SERVICES

EPA METHOD 1 FIELD DATA

Project Information

Client / Facility	SVP DVR	Date	7/15/24
Source / Location	Unit 1	Data taken by	NP/EG/SF

Circular/Elliptical Duct Measurements

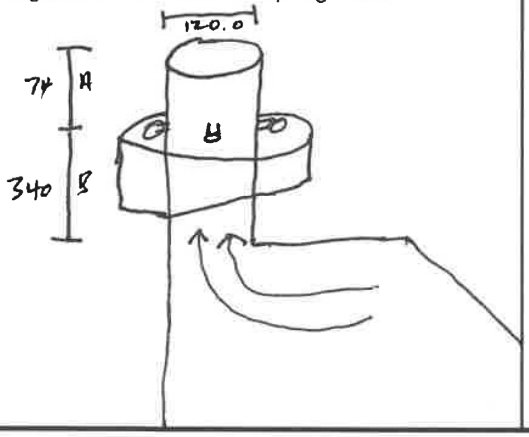
	Port 1	Port 2	Port 3	Port 4
Far wall to outside of port distance, in.:	129.5	129.5	129.5	129.5
Port length, in. (confirm flush with inside wall):	9.5	9.5	9.5	9.5
Duct inner diameter, in.:	120.0	120.0	120.0	120.0
Port diameter, in.:	6.0	6.0	6.0	6.0
Upstream distance (A), in.:	74.0			
Downstream distance (B), in.:	340.0			
Number of ports (must be 90° to each other):	4			

Duct Parameters

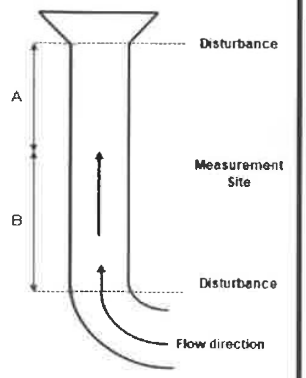
Material (steel, fiberglass, PVC)	Steel	Cyclonic flow expected?	NO
Type of port (flange, npt nipple, etc.)	Flange	Pitot ID	101-NB-6
Orientation (vertical, horizontal, if diagonal specify angle)	Vertical	Manometer ID	CB-18
Elevation of ports above ground, ft.	~100 Ft	Angle finder / protractor ID	DPR-OAK-4

Traverse point	Outside port distance, in.	Null angle, α
6	52.2	2
5	39.5	4
4	30.7	3
3	23.7	2
2	17.5	2
1	12.0	5
6		7
5		2
4		4
3		2
2		0
1		4
6		3
5		5
4		7
3		2
2		3
1		2
6		1
5		1
4		5
3		4
2		2
1		4
Average of absolute α		3.1

Diagram of duct and sampling location

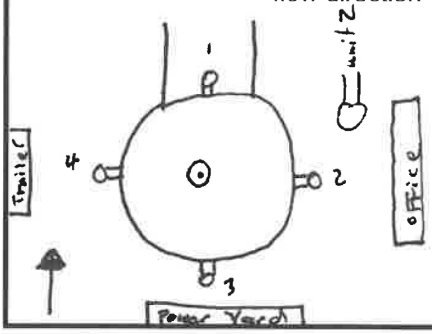


Example:

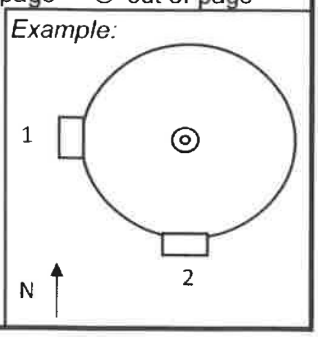


Cross-section sketch showing port locations and numbering

Label the following: port number 1, 2, etc.
north direction or other landmark
flow direction - ⊗ into page ⊙ out of page



Example:



*For stacks having diameters greater than 24 in., no traverse points shall be within 1.00 in. of the stack walls; and for stack diameters equal to or less than 24 in., no traverse points shall be located within 0.50 in. - EPA Method 1 section 11.3.1 & 11.3.2

**If schematics are unavailable, internal width can be estimated by measuring the portion of the port length not visible on the outside of the duct, which would be an estimate of the insulation thickness. Double this distance and subtract it from the outside width.

MONTROSE AIR QUALITY SERVICES

EPA METHOD 1 FIELD DATA

Project Information

Client / Facility	SVP DVR	Date	7/17/24
Source / Location	Unit 2	Data taken by	NP/EG/SF

Circular/Elliptical Duct Measurements

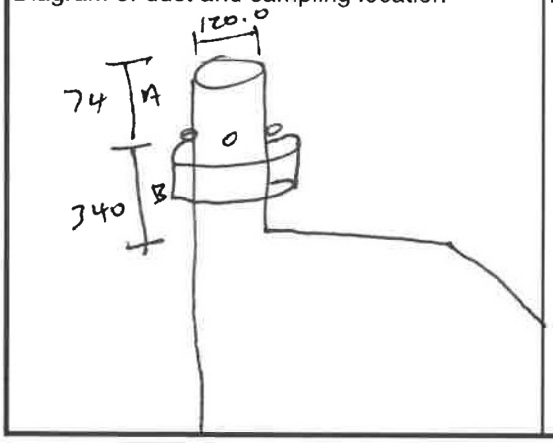
	Port 1	Port 2	Port 3	Port 4
Far wall to outside of port distance, in.:	129.5	129.5	129.5	129.5
Port length, in. (confirm flush with inside wall):	9.5	9.5	9.5	9.5
Duct inner diameter, in.:	120.0	120.0	120.0	120.0
Port diameter, in.:	6.0	6.0	6.0	6.0
Upstream distance (A), in.:	74.0			
Downstream distance (B), in.:	340.0			
Number of ports (must be 90° to each other):	4			

Duct Parameters

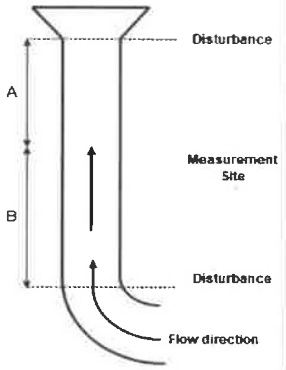
Material (steel, fiberglass, PVC)	steel	Cyclonic flow expected?	NO
Type of port (flange, npt nipple, etc.)	Flange	Pitot ID	101-NP-6
Orientation (vertical, horizontal, if diagonal specify angle)	Vertical	Manometer ID	CB-18
Elevation of ports above ground, ft.	~100FT	Angle finder / protractor ID	DIA-ONLE-4

Traverse point	Outside port distance, in.	Null angle, α
6	53.2	3
5	39.5	0
4	30.7	2
3	23.7	5
2	17.5	6
1	12.0	2
6		3
5		4
4		5
3		0
2		0
1		1
6		3
5		7
4		2
3		5
2		4
1		3
6		0
5		2
4		1
3		5
2		1
1		0
Average of absolute α		2.4

Diagram of duct and sampling location

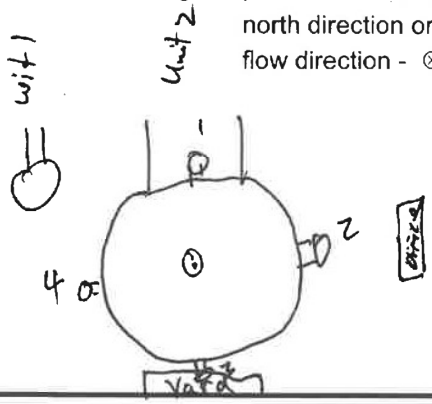


Example:

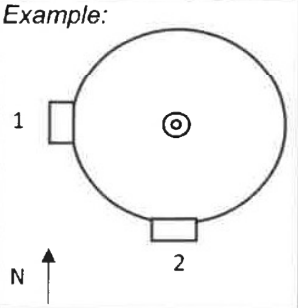


Cross-section sketch showing port locations and numbering

Label the following: port number 1, 2, etc.
north direction or other landmark
flow direction - ⊗ into page ⊙ out of page



Example:



*For stacks having diameters greater than 24 in., no traverse points shall be within 1.00 in. of the stack walls; and for stack diameters equal to or less than 24 in., no traverse points shall be located within 0.50 in. - EPA Method 1 section 11.3.1 & 11.3.2

**If schematics are unavailable, internal width can be estimated by measuring the portion of the port length not visible on the outside of the duct, which would be an estimate of the insulation thickness. Double this distance and subtract it from the outside width.

Appendix A.2
Particulate Matter Data Sheets

MONTROSE AIR QUALITY SERVICES

Sample Recovery & Calibration Check Datasheet

Page 1 of 1

Project Information

Date 7/16/24 Project # 042969

Customer / Facility S.V.P.

Unit ID / Sample Location Unit 1 Max

Run # 1-3 EPA 5/202 Operator NPIEG/SF/GG

Equipment Identification

Ref. Thermometer T-4

Hygrometer T-4

Field Balance 23-AB-OAK-T4

Check Weights WS-5

Calipers T4

Balance Audit (Field balance must be within 0.5g of check weight mass)

Date 7/16/24

Standard mass, g 500

Field balance mass, g 499.9

Ambient Conditions (Mobile Lab)

Relative humidity, % —

Temperature, °F 70

Mobile lab # T4

Moisture Determination

	Contents	Run1 Initial	Run1 Final	Run1 Net	Run 2 Initial	Run 2 Final	Run 2 Net	Run 3 Initial	Run 3 Final	Run 3 Net
Knockout	MT	415.8	599.4	183.6	368.6	543.4	174.8	347.5	498.5	151.0
Impinger 1	MT	556.6	559.8	3.2	566.3	571.1	4.8	547.6	567.5	19.9
Impinger 2	DIH_2O	659.8	678.3	18.5	659.2	685.5	26.3	649.1	668.7	19.6
Impinger 3	SG	816.6	841.9	25.3	860.6	889.0	28.4	975.9	1001.1	25.2
Impinger 4										
Impinger 5										
Impinger 6										
Impinger 7										
Impinger 8										
Silica Gel										
Line Rinse	LR			-20			-20			-20
Train Net Gain (Vlc)				210.6			214.3			195.7

Nozzle Measurements (Difference between any two measurements must not be more than 0.004 in (0.1 mm))

Nozzle 1 diameters 0.200 D1 0.200 D2 0.200 D3 0.200 Average

Nozzle 2 diameters ____ D1 ____ D2 ____ D3 ____ Average

Nozzle 3 diameters ____ D1 ____ D2 ____ D3 ____ Average

Nozzle Material ☐ quartz ☑ glass ☐ steel ☐ titanium ☐ inconel ☐ other ____

Probe Type ☑ heated ☐ unheated ☐ air-cooled ☐ water-cooled ☐ other ____

Probe Liner ☐ quartz ☑ glass ☐ steel ☐ Teflon ☐ other ____

Filter Information

Front Half: ☐ quartz fiber ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☑ other Teflon backed

Filter Number: Run 1: 3820 Run 2: 4409 Run 3: 4984 Run ____

Back Half: ☐ quartz fiber ☐ glass fiber ☑ Teflon ☐ Teflon/quartz ☐ other ____

Reagent Information

Type	Lot Number
Type I H_2O	R000706
Acetone	R000738
Hexanes	R000750

Sample Observations

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____

Checked by: ____ Team Leader: ____

001AS-QMS-FM-226

MONTROSE AIR QUALITY SERVICES

EPA Method 202 Purge Information

Page 1 of 1

Project Information		**Equipment Identification**	
Date	7/16/24	Project #	042969
Customer / Facility	SVP DVR		
Unit ID / Sample Location	Unit 1 Max load		
Run #	1-3-PM-1	Operator	NP, EG, SF
N_2 Cylinder	XC014 76515		
Thermocouple IDs			
CPM Filter Exit	8929		
Impinger Exit	Trailer 4		

Run 1

Start Time: 1030

Elapsed Time min	Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F
0	14	72	72
15	14	72	72
30	14	71	71
45	14	72	72
60	14	72	72

Stop Time: 1130

Water added for purge? Y ☐ N ☑

Run 2

Start Time: 1340

Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F
14	72	72
14	71	71
14	71	71
14	71	71
14	72	72

Stop Time: 1440

Water added for purge? Y ☐ N ☑

Run 3

Start Time: 1605

Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F
14	72	72
14	71	71
14	72	72
14	72	72
14	72	72

Stop Time: 1705

Water added for purge? Y ☐ N ☑

Run _____

Start Time:

Elapsed Time min	Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F
0			
15			
30			
45			
60			

Stop Time:

Water added for purge? Y ☐ N ☐

Run _____

Start Time:

Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F

Stop Time:

Water added for purge? Y ☐ N ☐

Note:

- Was water added to dropout impinger for purge: check yes or no
- If water was added, input amount on Sample Recovery Sheet for Moisture Determination 001AS-QMS-FM-226
- Flow meter range must be at least 14 liters/minute
- CPM Filter Exit temp must be between 65 -85 °F
- Impinger Exit temp must be <68°F
- Impinger Exit temp is not required if impingers were weighed prior to purge

QA/QC Check: Completeness ___ Legibility ___ Accuracy ___ Specifications ___

Checked by: _____ Data Custodian: _____ 001AS-QMS-FM-227

MONTROSE AIR QUALITY SERVICES

EIA Method 5/202 Field Datasheet (Isokinetic)

Page 1 of 1

Project Information

Date 7-16-24 Project # proj-042969

Customer/Facility SVP. SVR

Unit ID/Sample Location Unit 1/Mix

Run # 1-PM-1 Operator E.C.

Sampling Conditions

Static Pressure, in. H_2O -.84 Ambient Temp, °F 64°

Barometric Pressure, in. Hg 30.00 Ref. Barometer ID Local

Wind Speed / Direction NW 0-5 MPH Precipitation, Y / (N) type —

Probe / Filter Temp Range, °F ±25-248

Sampling Equipment IDs

Meterbox ID CB-15

Umbilical ID UL-206

Nozzle ID 229-200-N

Pitot / Probe ID 101-NP-6

Manometer ID CD-18

Sensitivity 0.01

Calibration

Meterbox Y 0.990

Meterbox ΔH@, in. H_2O 1.945

Nozzle diameter, Dn, in. 0.200

Pitot coefficient, Cp 0.84

Manometer zero and level ☑ yes

K-Factor 1.70

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 3.6	☐ @	☑ @ 3.2
Pitot (-), pass @ in. H_2O	☑ @ 3.5	☐ @	☑ @ 3.1
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	0.004 @ 9	@	0.003 @ 9
Intermediate leak check volume, ft^3	/	/	/

ALT 011

TC ID:	Ambient °F	Ref. °F
Stack		
Probe	SEC	
Filter Box		
Filter Exit	Run	
Meter outlet		
Impinger Exit	3	
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp °F Box	Filter Temp °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	Pump Vacuum, in. Hg
6	0	7:55	784.533	1.9	2.28	2.3	231	242	250	251	48		80	5
5	5	8:00	788.71	1.7	2.04	2.0	230	249	240	254	49		80	5
4	10	8:05	792.32	1.8	2.16	2.2	231	248	246	250	59		84	5
3	15	8:10	796.25	1.8	2.16	2.2	231	249	252	251	60		85	4
2	20	8:15	801.17	1.3	1.56	1.6	230	250	250	251	61		86	4
1	25	8:20	804.01	1.3	1.56	1.6	231	250	246	253	62		87	4
PC/6	30	8:25/8:30	807.509	1.8	2.16	2.2	233	255	258	253	58		87	5
5	35	8:35	811.38	1.9	2.28	2.3	233	248	247	254	59		87	6
4	40	8:40	815.37	1.8	2.16	2.2	232	251	252	255	60		88	6
3	45	8:45	819.52	1.7	2.04	2.0	231	247	244	252	62		89	6
2	50	8:50	823.54	1.8	2.16	2.2	231	250	245	249	63		90	6
1	55	8:55	828.30	1.5	1.8	1.6	230	250	253	255	60		91	5
PC/6	60	9:00/9:04	831.501	.96	1.15	1.2	232	248	245	252	56		92	4
5	65	9:09	834.64	.36	0.432	.43	233	252	246	252	57		92	3
4	70	9:14	836.71	.37	0.44	.44	233	244	245	249	57		93	3
3	75	9:19	838.48	.38	0.456	.47	233	251	252	249	57		93	3
2	80	9:24	840.62	.40	0.48	.48	234	248	247	249	58		93	3
1	85	9:29	842.38	.39	0.468	.47	234	243	240	249	58		91	3
PC/6	90	9:34/9:36	844.82	1.0	1.2	1.2	235	256	255	246	58		89	3
5	95	9:41	847.28	.50	0.6	.60	234	260	257	243	57		87	3
4	100	9:46	849.67	.38	0.456	.47	234	252	254	246	58		86	3
3	105	9:51	851.41	.37	0.44	.44	233	248	247	249	59		85	3
2	110	9:56	853.16	.38	0.456	.47	233	243	252	250	58		84	3
1	115	10:01	855.03	.39	0.468	.47	233	249	250	251	58		84	3
Cal	120	10:06	856.834											
Averages			72.301	0.9844	—	1.309	232.3						87.6	

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

001AS-QMS-FM-225

1.323

Edits - D. Duncan, 7/22/24

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

Page 1 of 1

Project Information
Date 7-16-24 Project # 042969
Customer/Facility S.V.P. DVR
Unit ID/Sample Location Unit 1 Mex
Run # 2-PM-1 Operator E.G.

Sampling Conditions
Static Pressure, in. H_2O -.84 Ambient Temp, °F 73°
Barometric Pressure, in. Hg 30.00 Ref. Barometer ID
Wind Speed / Direction NW 9 mph Precipitation, Y (N) type —
Probe / Filter Temp Range, °F

ALT 011

TC ID:	Ambient °F	Ref. °F
Stack	Stc	
Probe		
Filter Box	Run	
Filter Exit		
Meter outlet	3	
Impinger Exit		
Other		

Ref. Thermometer ID
Continuity Check ☐ Continuity w/ Proper Polarity
Notes:

Sampling Equipment IDs
Meterbox ID CB-14
Umbilical ID UL-20C
Nozzle ID 229-206-A
Pitot / Probe ID 101-UP-C
Manometer ID CB-14
Sensitivity 0.01

Calibration
Meterbox Y 0.990
Meterbox ΔH@, in. H_2O 1.945
Nozzle diameter, Dn, in. 0.200
Pitot coefficient, Cp 0.84
Manometer zero and level ☑ yes
K-Factor 1.20

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 3.6	☐ @	☑ @
Pitot (-), pass @ in. H_2O	☑ @ 3.7	☐ @	☑ @
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	0.001@ 9	@	0.001 @ 10
Intermediate leak check volume, ft^3			

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit 202	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	cpm filter	Pump Vacuum, in. Hg
6	0	11:05	863.571	1.0	1.2	1.2	235	250	249	249	63		74	69	3
5	5	11:10	866.78	.50	0.6	.60	238	256	248	248	57		74	68	3
4	10	11:15	869.79	.38	0.456	.46	238	254	255	249	58		73	68	3
3	15	11:20	871.81	.36	0.432	.43	237	250	265	250	60		75	68	3
2	20	11:25	873.72	.41	0.492	49	238	250	254	248	58		77	68	3
1	25	11:30	875.35	.38	0.456	.46	237	248	247	247	58		78	68	3
PC/6	30	1133/1132	877.143	.97	1.16	1.2	238	249	255	243	55		79	68	3.4
5	35	1142	880.69	.40	0.50	.50	238	248	253	240	55		79	68	3.3
4	40	1147	882.78	.32	0.44	.44	237	251	259	255	54		80	69	3
3	45	1152	884.48	.34	0.408	.41	238	255	251	249	54		80	69	3
2	50	1157	886.42	.40	0.48	.48	238	249	250	246	54		80	70	3
1	55	1202	888.0	.39	0.468	.47	238	249	249	246	61		80	70	3
PC/6	60	1207/1210	889.815	2.0	2.4	2.4	237	249	254	249	56		80	73	5
5	65	1215	893.63	1.7	2.04	2.0	234	251	257	251	56		81	73	5
4	70	1220	897.91	1.9	2.28	2.3	233	253	257	253	59		82	76	5
3	75	1225	901.73	1.6	1.92	1.9	234	245	248	248	61		83	76	5
2	80	1230	905.55	1.7	2.04	2.0	234	248	245	245	63		83	71	5
1	85	1235	909.39	1.5	1.8	1.8	234	249	250	251	64		84	74	5
PC/6	90	1239/1242	913.032	1.9	2.28	2.3	234	247	251	247	65		83	75	5
5	95	1247	917.16	1.9	2.28	2.3	234	253	250	248	64		83	76	5
4	100	1252	921.13	1.6	1.92	2.0	234	245	255	249	62		83	75	5
3	105	1257	925.72	1.7	2.04	2.0	235	246	250	250	62		84	76	5
2	110	1302	929.01	1.7	2.04	2.0	234	255	250	248	63		83	76	5
1	115	1307	932.74	1.3	1.95	2.0	235	247	248	250	63		84	75	5
end	120	1312	936.628												
Averages			73.057	0.9921	—	1.320	235.9						80.4		

QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By ____ Team Leader ____

80.2

1.343 Edits - D. Duncan, 7/22/24

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

Page 1 of 1

Project Information

Date 7-16-24 Project # 042969

Customer/Facility SVP DJR

Unit ID/Sample Location Unit 1 / Main

Run # 3-PM-1-1 Operator Cdg.

Sampling Conditions

Static Pressure, in. H_2O -84 Ambient Temp, °F 74

Barometric Pressure, in. Hg 30.00 Ref. Barometer ID

Wind Speed / Direction ~15 mph Precipitation, Y / N, type —

Probe / Filter Temp Range, °F 248 ± 25

ALT 011	TC ID:	Ambient °F	Ref. °F
Stack	101-NP-6	73	73.1
Probe	101-NP-6	73	73.2
Filter Box	CB-7	73	73.2
Filter Exit	202TC #2	73	73.3
Meter outlet	CB-18	73	73.2
Impinger Exit	GN17	73	73.2
Other	—	—	—

Ref. Thermometer ID Trailer 4

Continuity Check ☑ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-18

Umbilical ID UL-206

Nozzle ID 274-200-A

Pitot / Probe ID 101-NP-6

Manometer ID CB-18

Sensitivity 0.01

Calibration

Meterbox Y 0.990

Meterbox ΔH@, in. H_2O 1.945

Nozzle diameter, Dn, in. 0.200

Pitot coefficient, Cp 0.84

Manometer zero and level ☑ yes

K-Factor 1.20

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 3.6	☐ @	☑ @ 3.5
Pitot (-), pass @ in. H_2O	☑ @ 3.5	☐ @	☑ @ 3.7
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	0.991 @ 10	@	0.991 @ 11
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	cpm filter	Pump Vacuum, in. Hg
6	0	13:35	937.518	2.0	2.4	2.4	234	249	250	253	58	—	79	68	5
5	5	13:40	942.69	1.8	2.16	2.2	234	249	249	250	55	—	77	68	5
4	10	13:45	945.38	1.8	2.16	2.2	234	250	252	249	53	—	80	68	5
3	15	13:50	949.67	1.6	1.92	2.0	234	248	249	249	53	—	80	68	5
2	20	13:55	953.52	1.7	2.04	2.0	233	247	255	248	55	—	81	68	5
1	25	14:00	957.54	1.3	1.56	1.6	234	249	253	250	56	—	81	68	5
PC/6	30	14:05	960.719	1.9	2.28	2.3	233	250	249	248	57	—	81	69	5
5	35	1412	964.77	1.8	2.16	2.2	233	245	251	252	56	—	82	69	5
4	40	1417	968.92	1.9	2.28	2.3	233	250	250	251	57	—	82	70	5
3	45	1422	972.85	1.9	2.28	2.3	234	249	255	250	57	—	82	72	5
2	50	1427	976.96	1.8	2.16	2.2	233	256	258	248	55	—	82	68	5
1	55	1432	980.94	1.6	1.92	2.0	233	252	250	249	54	—	83	68	5
PC/6	60	1437/1440	884.888	.99	1.164	1.2	234	255	251	248	56	—	82	68	3
5	65	1445	988.51	.38	0.456	.46	233	248	250	249	57	—	82	68	3
4	70	1450	990.20	.37	0.444	.44	233	251	252	249	57	—	82	68	3
3	75	1455	992.07	.36	0.432	.43	233	256	255	250	56	—	81	68	3
2	80	1500	993.85	.40	0.48	.48	234	248	248	253	57	—	81	68	3
1	85	1505	995.58	.42	0.50	.50	232	253	254	248	57	—	81	68	3
PC/6	90	1510/1512	997.660	1.0	1.2	1.2	233	248	248	251	59	—	81	68	4
5	95	1517	000.32	.50	0.6	.60	233	249	251	251	58	—	81	68	3
4	100	1522	002.53	.40	0.48	.48	232	255	265	248	57	—	81	68	3
3	105	1527	004.36	.41	0.492	.49	233	247	249	248	59	—	81	69	3
2	110	1532	006.25	.37	0.44	.44	233	252	255	252	58	—	81	69	3
1	115	1537	007.99	.35	0.42	.42	233	255	252	250	60	—	81	69	3
end	120	1542	009.706												
Averages			72.188	1.0231	—	1.369	233.3						81.0		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

001AS-QMS-FM-225

1.0134 1.369 Edits - D. Duncan, 7/22/24

W005AS-042969-RT-3582R2

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MONTROSE AIR QUALITY SERVICES

Sample Recovery & Calibration Check Datasheet

Page 1 of 1

Project Information		Equipment Identification	
Date	7/1	Ref. Thermometer	T-4
Project #	042969	Hygrometer	T-4
Customer / Facility	S.N.P OVR	Field Balance	23-AB-OAK-T4
Unit ID / Sample Location	UNIT 2	Check Weights	WS-5
Run #	1-3 EPA 5/202	Calipers	T-4
Operator	NP/EG/SF/GG		

Balance Audit (Field balance must be within 0.5g of check weight mass)				Ambient Conditions (Mobile Lab)	
Date	7/16/24	7/17/24		Relative humidity, %	—
Standard mass, g	500	500		Temperature, °F	70
Field balance mass, g	499.9	499.9		Mobile lab #	Trailer 4

Moisture Determination

		Run1			Run 2			Run 3			
	Contents	Initial	Final	Net	Initial	Final	Net	Initial	Final	Net	
Knockout	MT	417.5	500.6	149.1	370.2	547.0	176.8	349.0	531.5	182.5	
Impinger 1	MT	558.6	573.1	14.5	567.8	578.3	10.5	548.4	~~680.9~~	9.0	557.4
Impinger 2	DI H_2O	677.6	712.3	34.7	685.5	704.0	18.5	667.6	680.9	13.3	
Impinger 3	SG	841.3	863.3	22.0	889.0	916.4	27.4	1000.2	1033.5	33.3	
Impinger 4											
Impinger 5											
Impinger 6											
Impinger 7											
Impinger 8											
Silica Gel											
Line Rinse	LR	-20					-20			-20	
Train Net Gain (Vlc)				200.3			213.2			218.1	

Nozzle Measurements (Difference between any two measurements must not be more than 0.004 in (0.1 mm)) Edits - D. Duncan, 7/22/24

Nozzle 1 diameters	0.184	D1	0.184	D2	0.184	D3	0.184	Average
Nozzle 2 diameters		D1		D2		D3		Average
Nozzle 3 diameters		D1		D2		D3		Average

Nozzle Material ☐ quartz ☑ glass ☐ steel ☐ titanium ☐ inconel ☐ other _____

Probe Type ☑ heated ☐ unheated ☐ air-cooled ☐ water-cooled ☐ other _____

Probe Liner ☑ quartz ☐ glass ☐ steel ☐ Teflon ☐ other _____

Filter Information

Front Half: ☐ quartz fiber ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☑ other Teflon backed

Filter Number: Run 1: 4966 Run 2: 4252 Run 3: 4999 Run FB 4262

Back Half: ☐ quartz fiber ☐ glass fiber ☑ Teflon ☐ Teflon/quartz ☐ other _____

Reagent Information		Sample Observations
Type	Lot Number	
Type 1 H_2O	R000740	
Acetone	R000738	
Hexanes	R000750	

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____

Checked by: _____ Team Leader: _____

001AS-QMS-FM-226

MONTROSE AIR QUALITY SERVICES

EPA Method 202 Purge Information

Page 1 of 1

Project Information		Equipment Identification	
Date	7/18/24	N_2 Cylinder	XC 014765B
Project #	042969	Thermocouple IDs	
Customer / Facility	SVP DVR	CPM Filter Exit	8529
Unit ID / Sample Location	Unit 2 max load	Impinger Exit	Trailer 4
Run #	1-3-PM-2	Operator	NP, SF

Run 1 — Start Time: 1020

Elapsed Time min	Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F
0	14	73	73
15	14	72	72
30	14	73	73
45	14	73	73
60	14	73	73

Stop Time: 1120

Water added for purge? Y ☐ N ☑

Run 2 — Start Time: 1315

Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F
14	72	72
14	72	72
14	72	72
14	72	72
14	72	72

Stop Time: 1415

Water added for purge? Y ☐ N ☑

Run 3 — Start Time: 1600

Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F
14	74	74
14	74	74
14	74	74
14	74	74
14	74	74

Stop Time: 1700

Water added for purge? Y ☐ N ☑

Run ____ — Start Time:

Elapsed Time min	Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F
0			
15			
30			
45			
60			

Stop Time:

Water added for purge? Y ☐ N ☐

Run ____ — Start Time:

Nitrogen Flow Rate LPM	CPM Filter Exit Temp °F	Impinger Exit Temp °F

Stop Time:

Water added for purge? Y ☐ N ☐

Note:
- Was water added to dropout impinger for purge: check yes or no
- If water was added, input amount on Sample Recovery Sheet for Moisture Determination 001AS-QMS-FM-226
- Flow meter range must be at least 14 liters/minute
- CPM Filter Exit temp must be between 65 -85 °F
- Impinger Exit temp must be <68°F
- Impinger Exit temp is not required if impingers were weighed prior to purge

QA/QC Check: Completeness ___ Legibility ___ Accuracy ___ Specifications ___

Checked by: _____ Data Custodian: _____ 001AS-QMS-FM-227

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

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Project Information

Date 7/18/24 Project # Prog-042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location Unit #2 MAX

Run # 1-PM-2 Operator E.G.

Sampling Conditions

Static Pressure, in. H_2O .20 Ambient Temp, °F 64°

Barometric Pressure, in. Hg 29.99 Ref. Barometer ID

Wind Speed / Direction NNW 0.5 mph Precipitation, Y (N), type N/A

Probe / Filter Temp Range, °F 248 25

Sampling Equipment IDs

Meterbox ID CB18

Umbilical ID UL-256

Nozzle ID 4-184-6

Pitot / Probe ID 101-NP-6

Manometer ID C3-18

Sensitivity 0.01

Calibration

Meterbox Y 0.990

Meterbox ΔH@, in. H_2O 1.945

Nozzle diameter, Dn, in. 0.184

Pitot coefficient, Cp 0.84

Manometer zero and level ☑ yes

K-Factor 0.65

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 3.8	☐ @	☑ @ 3.7
Pitot (-), pass @ in. H_2O	☑ @ 3.6	☐ @	☑ @ 3.5
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	0.001 @ 8	@	0.000 @ 9
Intermediate leak check volume, ft^3	/	/	/

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe	See	
Filter Box		
Filter Exit	Run	
Meter outlet		
Impinger Exit	3	
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	CPM g/1 hr	Pump Vacuum, in. Hg
6	0	745	012.616	1.4	1.19	1.2	237	255	255	260	50	—	76	74	5
5	5	750	015.72	.97	0.824	.82	239	255	256	254	50	—	78	73	3
4	10	755	018.13	.95	0.807	.81	240	255	250	245	50	—	80	71	3
3	15	800	020.51	1.1	0.935	.94	239	254	249	248	51	—	81	71	3
2	20	805	023.14	1.1	0.935	.94	241	255	250	249	52	—	81	71	3
1	25	810	025.76	1.0	0.85	.85	235	254	250	253	52	—	81	74	3
PC/6	30	819/819	028.197	461.4	1.18	1.2	242	253	249	251	52	—	81	76	4
5	35	822	030.97	1.2	1.07	1.0	240	255	250	251	52	—	81	75	4
4	40	827	033.73	.93	0.790	.74	237	253	250	252	53	—	81	75	3
3	45	832	036.17	.94	0.799	.80	237	255	251	251	55	—	81	72	3
2	50	839	038.59	1.0	0.85	.85	235	254	251	253	55	—	81	71	3
1	55	842	041.12	1.1	0.935	.94	240	254	250	252	55	—	81	71	3
PC/6	60	849/849	043.710	1.9	1.615	1.6	238	254	250	254	56	—	80	71	5
5	65	854	046.41	1.9	1.615	1.6	237	254	250	256	55	—	81	74	5
4	70	859	050.11	1.8	1.53	1.5	236	252	249	254	56	—	82	77	5
3	75	904	053.54	2.0	1.7	1.7	232	254	244	251	56	—	82	77	5
2	80	909	057.1	1.6	1.36	1.4	233	255	252	257	61	—	83	78	5
1	85	914	060.42	1.3	1.105	1.1	237	254	249	251	58	—	83	79	4
PC/6	90	919/919	063.301	1.6	1.36	1.4	239	255	250	255	60	—	82	78	5
5	95	926	066.863	1.9	1.615	1.6	239	254	251	254	62	—	83	80	5
4	100	931	070.07	1.9	1.615	1.6	237	255	252	250	62	—	83	82	5
3	105	936	073.26	1.8	1.53	1.5	234	253	250	252	60	—	84	83	5
2	110	941	076.81	1.9	1.615	1.6	234	254	250	254	63	—	84	82	5
1	115	946	080.20	1.6	1.36	1.4	233	253	247	244	63	—	84	83	5
end	120	951	083.483												
Averages			70.867	1.4079		1.214	237.1					—	81.4		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By ____ Team Leader ____

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

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Project Information

Date 7-18-24 Project # Prog-042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location Unit #1 ~~MAIN~~

Run # 2-pm-2 Operator E.G.

Sampling Conditions

Static Pressure, in. H_2O -.20 Ambient Temp, °F 77°

Barometric Pressure, in. Hg 29.99 Ref. Barometer ID

Wind Speed / Direction 8 7 mph Precipitation, Y / N, type N/A

Probe / Filter Temp Range, °F 248 ± 25

Sampling Equipment IDs

Meterbox ID CB-18

Umbilical ID UL-20C

Nozzle ID 4-184-~~B~~

Pitot / Probe ID 101-NP6

Manometer ID CB-18

Sensitivity 0.01

Calibration

Meterbox Y 0.990

Meterbox ΔH@, in. H_2O 1.945

Nozzle diameter, Dn, in. 0.184

Pitot coefficient, Cp 0.84

Manometer zero and level ☑ yes

K-Factor 0.85

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 3.8	☐ @	☑ @ 3.7
Pitot (-), pass @ in. H_2O	☑ @ 3.7	☐ @	☑ @ 3.8
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	0.001 @ 9	@	0.001 @ 10
Intermediate leak check volume, ft^3	/	/	/

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe	See	
Filter Box		
Filter Exit	Run	
Meter outlet		
Impinger Exit	3	
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	cpm filter	Pump Vacuum, in. Hg
6	0	10:32	098.712	1.9	1.615	1.6	242	249	246	249	54	—	83	69	5
5	5	10:37	102.31	1.9	1.615	1.6	^240	253	255	245	55	—	83	69	5
4	10	10:42	105.40	1.8	1.53	1.5	243	256	250	247	55	—	83	69	5
3	15	10:47	108.73	2.0	1.7	1.7	242	251	247	245	52	—	83	68	5
2	20	10:52	112.15	1.5	1.275	1.3	238	255	256	245	51	—	84	69	5
1	25	10:57	115.40	1.3	1.10	1.1	236	257	255	245	53	—	84	69	5
PC/6	30	1102/1104	118.326	1.8	1.53	1.5	243	255	257	246	48	—	84	68	5
5	35	1109	121.84	2.1	1.785	1.8	245	255	246	249	50	—	84	69	5
4	40	1114	125.27	1.8	1.53	1.5	244	251	247	247	50	—	85	70	5
3	45	1119	128.36	1.9	1.615	1.6	243	251	247	245	51	—	85	70	5
2	50	1124	131.84	2.0	1.7	1.7	239	255	256	245	51	—	85	72	5
1	55	1129	135.54	1.6	1.36	1.4	237	254	264	249	51	—	84	75	5
PC/6	60	1134/1136	138.749	1.5	1.27	1.3	245	246	248	247	52	—	85	75	5
5	65	1141	142.07	.94	0.799	.80	242	246	256	248	53	—	86	74	3
4	70	1146	144.49	.99	0.841	.84	246	246	245	244	54	—	86	76	3
3	75	1151	146.88	1.2	1.02	1.0	240	256	251	253	52	—	85	77	4
2	80	1156	149.75	1.0	0.85	0.85	237	253	248	253	52	—	86	74	3
1	85	1201	152.17	1.0	0.85	0.85	236	254	258	252	53	—	85	71	3
PC/6	90	1206/1208	154.703	1.7	1.445	1.4	245	259	245	250	50	—	85	68	4
5	95	1213	158.62	1.5	1.615	1.6	243	260	262	254	49	—	84	68	3
4	100	1218	161.41	0.93	0.79	.79	244	251	248	254	50	—	86	69	3
3	105	1223	163.65	0.98	0.833	.83	238	251	249	253	51	—	86	68	3
2	110	1228	166.11	1.0	0.85	.85	235	255	248	250	54	—	86	68	3
1	115	1233	168.67	1.0	0.85	.85	233	252	250	248	55	—	85	64	3
end	120	1238	171.187										86	70	3
Averages			72.475	1.4589	—	1.266	240.7						84.8		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By ____ Team Leader ____

Edits - D. Duncan, 7/22/24

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

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Project Information

Date 07/18/24 Project # 042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location UNIT #2 / MAX LOAD

Run # 3-PM-2 Operator SF

Sampling Conditions

Static Pressure, in. H_2O -.20 Ambient Temp, °F 78

Barometric Pressure, in. Hg 29.99 Ref. Barometer ID

Wind Speed / Direction W 6 MPH Precipitation, Y / N, type NA

Probe / Filter Temp Range, °F 250 +/- 25

ALT 011	TC ID:	Ambient °F	Ref. °F
Stack	101-NP-6	82	82.1
Probe	101-NP-6	82	82.2
Filter Box	CB-7	82	82.2
Filter Exit	~~TC#2~~	~~83~~	~~82.2~~
Meter outlet	CB-16	83	83.1
Impinger Exit	GM17	83	83.2
Other	—	—	—

Ref. Thermometer ID Cole 4

Continuity Check ☑ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-18

Umbilical ID UC-206

Nozzle ID 4-184-G

Pitot / Probe ID 101-NP-6

Manometer ID CB-18

Sensitivity 0.01

Calibration

Meterbox Y 0.990

Meterbox ΔH@, in. H_2O 1.945

Nozzle diameter, Dn, in. 0.184

Pitot coefficient, Cp 0.84

Manometer zero and level ☑ yes

K-Factor 0.85

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 6	☐ @	☑ @ 5
Pitot (-), pass @ in. H_2O	☑ @ 5	☐ @	☑ @ 7
Pitot visual inspection	☐ pass	☐ pass	☑ pass
Nozzle visual inspection	☐ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	0.001 @ 8"
Intermediate leak check volume, ft^3	/	/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp °F Box	Filter Temp °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	CPM	Pump Vacuum, in. Hg
6	0	~~1315~~	184.080	1.7	1.44	1.4	243	245	249	240	51	—	85	68	5
5	5	1320	187.285	1.8	1.53	1.5	241	249	251	249	52	—	85	68	5
4	10	1325	190.615	1.8	1.53	1.5	243	250	248	246	52	—	86	69	5
3	15	1330	193.955	1.9	1.61	1.6	244	251	246	243	52	—	86	70	5
2	20	1335	197.275	1.6	1.36	1.4	240	255	247	241	53	—	87	71	5
1	25	1340	200.270	1.3	1.10	1.1	237	253	250	245	54	—	87	71	4
PC/6	30	1345/1348	203.580	1.7	1.44	1.4	245	249	245	243	52	—	87	71	5
5	35	1353	206.830	2.0	1.70	1.7	245	244	250	239	52	—	86	71	5
4	40	1358	210.290	1.9	1.61	1.6	244	249	247	240	53	—	86	70	5
3	45	1403	213.820	1.9	1.61	1.6	243	248	250	241	53	—	86	71	5
2	50	1408	217.325	1.8	1.53	1.5	245	251	255	245	54	—	86	70	5
1	55	1413	220.690	1.5	1.27	1.3	243	249	253	241	55	—	86	71	4
PC/6	60	1418/1421	223.845	1.4	1.19	1.2	241	250	252	239	55	—	86	72	4
5	65	1426	226.920	.93	0.79	0.79	245	247	255	234	54	—	85	71	3
4	70	1431	229.400	.94	0.79	.79	244	249	250	240	54	—	85	72	3
3	75	1436	231.855	1.0	0.85	.85	244	250	253	244	54	—	84	73	4
2	80	1441	234.415	1.1	0.93	.93	243	252	251	241	54	—	84	73	4
1	85	1446	237.075	1.1	0.93	.93	244	249	252	242	55	—	84	72	4
PC/6	90	1451/1454	239.735	1.8	1.53	1.5	244	251	249	240	55	—	83	72	5
5	95	1459	243.105	1.9	1.61	1.6	242	250	250	243	55	—	83	73	5
4	100	1504	246.520	.94	0.79	.79	243	252	250	241	56	—	83	72	4
3	105	1509	249.645	.97	0.82	0.82	245	254	254	246	55	—	83	72	3
2	110	1514	252.140	1.1	0.93	.93	244	250	251	247	55	—	83	71	5
1	115	1519	254.755	1.0	0.85	.85	244	251	252	242	55	—	83	72	4
END	120	1524	257.405	—	—	—	—	—	—	—	—	—	—	—	—
				1.4350		1.233									
Averages			73.325	~~1.435~~	—	~~1.242~~	243.2						85.0	—	

QA/QC Check: Completeness ___ Legibility ___ Accuracy ___ Specifications ___ Checked By ___ Team Leader ___

Edits - D. Duncan, 7/22/24

Appendix A.3
Ammonia Data Sheets

MONTROSE AIR QUALITY SERVICES

Sample Recovery & Calibration Check Datasheet

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Project Information

Date 7/15-16/24 Project # -042969

Customer / Facility S.V.P DVR

Unit ID / Sample Location Unit 1 Base / Max

Run # 1-3 NH3 - (Base) Operator NP/EG/SF/GG

4-6 NH3 - (MAX)

Equipment Identification

Ref. Thermometer T-4

Hygrometer T-4

Field Balance 23-AB-OAK-T4

Check Weights WS-5

Calipers T-4

Balance Audit (Field balance must be within 0.5g of check weight mass)

Date	7/15/24	7/16/24	
Standard mass, g	500.0	500.0	
Field balance mass, g	500.1	500.1	

Ambient Conditions (Mobile Lab)

Relative humidity, % —

Temperature, °F 74

Mobile lab # Trailer 4

Moisture Determination 1-NH3-1-BASE 2-NH3-1-BASE 3-NH3-1-BASE

	Contents	Run1 Initial	Run1 Final	Run1 Net	Run 2 Initial	Run 2 Final	Run 2 Net	Run 3 Initial	Run 3 Final	Run 3 Net
Knockout	0.1N HCl	655.8	724.3	68.5	656.7	697.2	40.5	660.6	711.5	50.9
Impinger 1	0.1N HCl	659.9	654.2	-5.7	653.1	661.7	8.6	664.1	666.2	2.1
Impinger 2	MT	550.0	546.9	-3.1	546.3	550.6	4.3	540.5	542.2	1.7
Impinger 3	S.G.	~~942.3~~	1078.5	9.1	788.2	794.9	6.7	908.7	916.4	7.7
Impinger 4		1019.4	Total →	68.8		Total →	60.1		Total →	62.4
Impinger 5	4-NH3-1-MAX				5-NH3-1-MAX			6-NH3-1-MAX		
Impinger 6	0.1N HCl	655.2	714.5	59.3	647.1	708.8	61.7	663.9	~~724.4~~	~~731.3~~ 671.6
Impinger 7	0.1N HCl	655.6	656.7	1.1	663.2	666.0	1.8	666.6	667.4	0.9
Impinger 8	MT	546.9	547.4	0.5	550.6	552.0	1.4	542.2	541.3	-0.9
Silica Gel	S.G	~~942.3~~ 1028.5	1033.6	5.1	~~788.2~~ 794.9	805.9	11.0	~~908.7~~ 916.4	922.1	5.7
Line Rinse		1028.5			794.9			916.4		
Train Net Gain (Vlc)				66.0			75.9			66.1

60.5

Nozzle Measurements (Difference between any two measurements must not be more than 0.004 in (0.1 mm))

Nozzle 1 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle 2 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle 3 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle Material ☐ quartz ☐ glass ☐ steel ☐ titanium ☐ inconel ☐ other _____

Probe Type ☐ heated ☐ unheated ☐ air-cooled ☐ water-cooled ☐ other _____

Probe Liner ☐ quartz ☑ glass ☐ steel ☐ Teflon ☐ other _____

Filter Information

Front Half: ☐ quartz fiber ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☐ other _____

Filter Number: Run 1: _____ Run 2: _____ Run 3: _____ Run ___: _____

Back Half: ☐ quartz fiber ☑ glass fiber ☐ Teflon ☐ Teflon/quartz ☐ other _____

Reagent Information

Type	Lot Number
0.1N HCl	HCl: R0006694/01000308
Type I H2O	R000740

Sample Observations

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____

Checked by: _____ Team Leader: _____

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MONTROSE AIR QUALITY SERVICES

Sample Recovery & Calibration Check Datasheet

Page 1 of 1

Project Information

Date 7/17/24 Project # 042969

Customer / Facility SVP DVR

Unit ID / Sample Location Unit 1 MIN

Run # 7-9 NH3 -1- MIN Operator NP/EG/SF/GG

Equipment Identification

Ref. Thermometer T-4

Hygrometer T-4

Field Balance 23-AB-OAK-T4

Check Weights WS-5

Calipers T-4

Balance Audit (Field balance must be within 0.5g of check weight mass)

Date	7/16/24	7/17/24	
Standard mass, g	500.0	500.0	
Field balance mass, g	500.1	499.9	

Ambient Conditions (Mobile Lab)

Relative humidity, %

Temperature, °F 70

Mobile lab # Trailer 4

Moisture Determination

	Contents	7-NH3-1-MIN Run1 Initial	Final	Net	8-NH3-1-MIN Run 2 Initial	Final	Net	9-NH3-1-MIN Run 3 Initial	Final 9/16	Net
Knockout	0.1NHCl	659.4	697.8	38.4	649.0	687.7	38.7	663.2	701.3	38.1
Impinger 1	0.1NHCl	654.5	655.5	1.0	660.9	662.0	1.1	666.7	668.2	1.5
Impinger 2	M.T	547.4	547.4	0	552.0	553.0	1.0	541.3	542.8	1.5
Impinger 3	S.G.	1033.6	1039.8	6.2	795.0	801.7	6.7	922.1	928.2	6.1
Impinger 4										
Impinger 5										
Impinger 6										
Impinger 7										
Impinger 8										
Silica Gel										
Line Rinse										
Train Net Gain (Vlc)				45.6			47.5			47.2

Nozzle Measurements (Difference between any two measurements must not be more than 0.004 in (0.1 mm))

Nozzle 1 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle 2 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle 3 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle Material ☐ quartz ☐ glass ☑ steel ☐ titanium ☐ inconel ☐ other _____

Probe Type ☐ heated ☐ unheated ☐ air-cooled ☐ water-cooled ☐ other _____

Probe Liner ☐ quartz ☐ glass ☐ steel ☐ Teflon ☐ other _____

Filter Information

Front Half: ☐ quartz fiber ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☐ other _____

Filter Number: Run 1: _____ Run 2: _____ Run 3: _____ Run ___: _____

Back Half: ☐ quartz fiber ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☐ other _____

Reagent Information

Type	Lot Number
0.1N HCl	HCl: R000694/01000300
Type 1 H_2O	R000706

Sample Observations

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____

Checked by: _____ Team Leader: _____

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MONTROSE AIR QUALITY SERVICES

BAAQMD Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 7-15-24 Project # Prg-042969

Customer/Facility SVP DVR

Unit ID/Sample Location Unit 1 – Base

Run # 1-N 1-3-BSU Operator F.C.

Sampling Conditions

Static Pressure, in. H_2O ✓ Ambient Temp, °F 75°

Barometric Pressure, in. Hg 30.03 Ref. Barometer ID local

Wind Speed / Direction 8 mph Precipitation, Y / N Type —

Probe / Filter Temp Range, °F N/A

ALT 011 TC ID: | Ambient °F | Ref. °F

Stack

Probe SCC

Filter Box

Filter Exit F; AQ1

Meter outlet

Impinger Exit RUN

Other

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID —

Nozzle ID —

Pitot / Probe ID —

Manometer ID CB-22

Sensitivity 0.01

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. —

Pitot coefficient, Cp —

Manometer zero and level ☑ yes

K-Factor —

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @	☑ @	☑ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 10	@	0.001 @ 11
Intermediate leak check volume, ft^3	/	/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	12:25	823.111	—	1.80	1.8	—	—	—	—	58	—	70	—	5
2	10	12:35	930.92	—	1.80	1.8	—	—	—	—	56	—	70	—	5
3	20	12:45	838.65	—	1.80	1.8	—	—	—	—	57	—	71	—	5
End	30	12:55	846.088												
Averages			22.977		1.80	✓							70.33		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

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MONTROSE AIR QUALITY SERVICES

BAAQMD Method ST-1B Field Datasheet (Isokinetic)

Project Information
Date 7/15/24 Project # Proj-042969.
Customer/Facility SVP DVR
Unit ID/Sample Location Unit 1 BASE
Run # 2-NH3-3hr Operator E.C.

Sampling Conditions
Static Pressure, in. H_2O —
Ambient Temp, °F 77°
Barometric Pressure, in. Hg 30.03
Ref. Barometer ID local
Wind Speed / Direction ↘ 8 mph
Precipitation, Y (N) type —
Probe / Filter Temp Range, °F —

ALT 011

TC ID:	Ambient °F	Ref. °F
Stack		
Probe	5	C
Filter Box		
Filter Exit	5	ind
Meter outlet		
Impinger Exit	RW	
Other		

Ref. Thermometer ID
Continuity Check ☐ Continuity w/ Proper Polarity
Notes:

Sampling Equipment IDs
Meterbox ID CB-22
Umbilical ID —
Nozzle ID —
Pitot / Probe ID —
Manometer ID CB-22
Sensitivity 0.01

Calibration
Meterbox Y 0.992
Meterbox ΔH@, in. H_2O 1.834
Nozzle diameter, Dn, in. /
Pitot coefficient, Cp /
Manometer zero and level ☑ yes
K-Factor —

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @	☑ @	☑ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 10	@	0.001 @ 11
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	13:05	846.169	—	1.80	1.8	—	—	—	—	59	—	73	—	4
2	10	13:15	854.04	—	1.80	1.8	—	—	—	—	59	—	73	—	4
3	20	13:25	862.47	—	1.80	1.8	—	—	—	—	60	—	74	—	4
End	30	13:35	869.423												
Averages			23.254		1.80	/							73.33		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

MONTROSE AIR QUALITY SERVICES

3AHQMD Method ST1B Field Datasheet (Isokinetic)

Project Information

Date 7/15/24 Project # Proj 042969

Customer/Facility SVP DVR

Unit ID/Sample Location Unit 1 - Base

Run # 3-NH3-1BASE Operator E.C.

Sampling Conditions

Static Pressure, in. H_2O — Ambient Temp, °F 97°

Barometric Pressure, in. Hg 30.03 Ref. Barometer ID local

Wind Speed / Direction ↘ 8-10 mph Precipitation, Y / N, type —

Probe / Filter Temp Range, °F

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID —

Nozzle ID —

Pitot / Probe ID —

Manometer ID CB-22

Sensitivity 0.01

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.83H

Nozzle diameter, Dn, in. —

Pitot coefficient, Cp —

Manometer zero and level ☑ yes

K-Factor

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @	☑ @	☑ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.003 @ 8	@	6.001 @ 9
Intermediate leak check volume, ft^3		/	/

ALT 011

	TC ID:	Ambient °F	Ref. °F
Stack	—	—	—
Probe	—	—	—
Filter Box	—	—	—
Filter Exit	—	—	—
Meter outlet	CB-22	77	77.3
Impinger Exit	CSN#4	72	77.2
Other	—	—	—

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	1342	869.655	—	1.80	1.8	—	—	—	—	60	—	75	—	5
2	10	1352	877.42	—	1.80	1.8	—	—	—	—	58	—	76	—	5
3	20	1402	884.84	—	1.80	1.8	—	—	—	—	60	—	76	—	5
end	30	1412	892.315												
Averages			22.660		1.80	—							75.67		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

MONTROSE AIR QUALITY SERVICES

BAAQMD Method ST-13 Field Datasheet (Isokinetic)

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Project Information

Date 07/16/24 Project # Prog-042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location Unit # 1 MAX

Run # 4-MS-1-MAX Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 70

Barometric Pressure, in. Hg 30.00 Ref. Barometer ID local

Wind Speed / Direction — Precipitation, Y / N, type NA

Probe / Filter Temp Range, °F NA

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe	STC	
Filter Box		
Filter Exit	RM	
Meter outlet		
Impinger Exit	3	
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID —

Nozzle ID —

Pitot / Probe ID SS

Manometer ID CB22

Sensitivity 0.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.634

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp ~~SF~~ NA

Manometer zero and level ☑ yes

K-Factor ~~NA~~

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☒ @	☐ @	☒ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	@
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	0938	893.420	—	1.80	1.8	—	—	—	—	45	—	74		5
2	10	0948	901.000	—	1.8	1.8	—	—	—	—	44	—	74		5
3	20	0958	908.435	—	1.8	1.8	—	—	—	—	45	—	74		5
end	30	1008	915.825	—	—	—	—	—	—	—	—	—	—	—	—
Averages			22.405			1.80							74.0		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

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MONTROSE AIR QUALITY SERVICES

BAAQMD Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 07/16/24 Project # Prog-042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location Unit #1 MAX

Run # S-NH3-1-MAX Operator

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 70

Barometric Pressure, in. Hg 30.00 Ref. Barometer ID local

Wind Speed / Direction NA Precipitation, Y / N, type N

Probe / Filter Temp Range, °F NA

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID S5

Manometer ID CB-22

Sensitivity 0.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	0.001 @ 8"
Intermediate leak check volume, ft^3	/	/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH		Stack Temp, °F	Probe Temp, °F	Filter Temp, °F		Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F			Pump Vacuum, in. Hg
					Target	Actual			Box	Exit		Inlet	Outlet		
1	0	1027	917.670	—	1.8	1.8	—	—	—	—	45	—	70		5
2	10	1037	925.945	—	1.8	1.8	—	—	—	—	45	—	72		5
3	20	1047	934.220	—	1.8	1.8	—	—	—	—	46	—	72		5
END	30	1057	942.495	—	—	—	—	—	—	—	—	—	—	—	—
Averages			24.825	—	c	1.80	—							71.3	

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

MONTROSE AIR QUALITY SERVICES

BAAQMD Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 07/16/24 Project # Prog-042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location Unit #1 - MAX

Run # 6-NH3-1-MA Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 71

Barometric Pressure, in. Hg 30.00 Ref. Barometer ID Local

Wind Speed / Direction NA Precipitation, Y / N, type N

Probe / Filter Temp Range, °F NA

ALT 011

	TC ID:	Ambient °F	Ref. °F
Stack	NA	NA	NA
Probe	NA	NA	NA
Filter Box	NA	NA	NA
Filter Exit	NA	NA	NA
Meter outlet	CB-22	72	72
Impinger Exit	TSN-18	95	45
Other			

Ref. Thermometer ID

Continuity Check ☑ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID CB-22

Sensitivity 0.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	6.001 @ 15"	— @ —	0.001 @ 8"

Intermediate leak check volume, ft^3 / /

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH		Stack Temp, °F	Probe Temp, °F	Filter Temp, °F		Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F			Pump Vacuum, in. Hg
					Target	Actual			Box	Exit		Inlet	Outlet		
1	0	1123	942.550	—	1.8	1.8	—	—	—	—	43	—	71		5
2	10	1133	950.260	—	1.8	1.8	—	—	—	—	44	—	72		5
3	20	1143	957.870	—	1.8	1.8	—	—	—	—	44	—	72		5
END	30	1153	965.360	—	—	—	—	—	—	—	—	—	—	—	—
Averages			22.810		—	1.80							71.7		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

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MONTROSE AIR QUALITY SERVICES

EPA Method ST1B Field Datasheet (Isokinetic)

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Project Information

Date 7/17/24 Project # Prog-042969

Customer/Facility S.V.P. DVR - MIN LOAD

Unit ID/Sample Location Unit # 1

Run # 7-NH3-1-Mid Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 60

Barometric Pressure, in. Hg 30.06 Ref. Barometer ID NA

Wind Speed / Direction NW 4 MPH Precipitation, Y / N, type N

Probe / Filter Temp Range, °F NA

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other	SEE LAST PAGE	

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID CB-22

Sensitivity 2.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.634

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.000 @ 15"	@	0.001 @ 8"

Intermediate leak check volume, ft^3 / /

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	0727	965.745	—	1.8	1.8	—	—	—	—	42	—	60		5
2	10	0737	973.460	—	1.8	1.8	—	—	—	—	42	—	61		5
3	20	0747	981.175	—	1.8	1.8	—	—	—	—	43	—	63		5
END	30	0757	988.890	—	—	—	—	—	—	—	—	—	—		—
Averages			23.145			1.80							61.3		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

001AS-QMS-FM-225

Edits - D. Duncan, 7/22/24

MONTROSE AIR QUALITY SERVICES

EPA Method 5T 1B Field Datasheet (Isokinetic)

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Project Information

Date 7/17/24 Project # Prog-042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location Unit #1 MIN LOAD

Run # 8-WH-1-Min Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 60

Barometric Pressure, in. Hg 30.06 Ref. Barometer ID NA

Wind Speed / Direction NW 3 MPH Precipitation, Y / N, type NA

Probe / Filter Temp Range, °F NA

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID CB-22

Sensitivity 0.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001@ 15"	@	0.001@ 8"
Intermediate leak check volume, ft^3		/	/

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	0804	989.145	—	1.8	1.8	—	—	—	—	44	—	65		5
2	10	0814	996.970	—	1.8	1.8	—	—	—	—	44	—	66		5
3	20	0824	1004.795	—	1.8	1.8	—	—	—	—	44	—	67		5
END	30	0834	1012.620	—	—	—	—	—	—	—	—	—	—	—	—
Averages			23.475			1.80							66.0		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

001AS-QMS-FM-225

Edits - D. Duncan, 7/22/24

MONTROSE AIR QUALITY SERVICES

EPA Method ST-1 B Field Datasheet (Isokinetic)

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Project Information
Date 7/17/24 Project # Prog-042969
Customer/Facility S.V.P. DVR
Unit ID/Sample Location Unit #1 / MIN LOAD
Run # 9-NH3-1 Operator SF

Sampling Conditions
Static Pressure, in. H_2O NA Ambient Temp, °F 62
Barometric Pressure, in. Hg 30.06 Ref. Barometer ID NA
Wind Speed / Direction NW 3 MPH Precipitation, Y / N, type NA
Probe / Filter Temp Range, °F NA

ALT 011

	TC ID:	Ambient °F	Ref. °F
Stack	—	—	—
Probe	—	—	—
Filter Box	—	—	—
Filter Exit	—	—	—
Meter outlet			
Impinger Exit			
Other			

Ref. Thermometer ID
Continuity Check ☐ Continuity w/ Proper Polarity
Notes:

Sampling Equipment IDs
Meterbox ID CB-22
Umbilical ID NA
Nozzle ID NA
Pitot / Probe ID SS
Manometer ID CB-22
Sensitivity 0.0

Calibration
Meterbox Y 0.992
Meterbox ΔH@, in. H_2O 1.834
Nozzle diameter, Dn, in. NA
Pitot coefficient, Cp NA
Manometer zero and level ☑ Yes
K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	0.001 @ 8"
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH		Stack Temp, °F	Probe Temp, °F	Filter Temp, °F		Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F			Pump Vacuum, in. Hg
					Target	Actual			Box	Exit		Inlet	Outlet		
1	0	0843	012.820	—	1.8	1.8	—	—	—	—	44	—	65		5
2	10	0853	020.480	—	1.8	1.8	—	—	—	—	44	—	66		5
3	20	0903	028.140	—	1.8	1.8	—	—	—	—	44	—	67		5
END	30	0913	035.800	—	—	—	—	—	—	—	—	—	—	—	—
Averages			22.980			1.80							66.0		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

MONTROSE AIR QUALITY SERVICES

Sample Recovery & Calibration Check Datasheet

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Project Information

Date 7/17/24 - 7/18/24 Project # 042969

Customer / Facility S.V.P. ONR

Unit ID / Sample Location Unit 2 BASE / Max

Run # 1-3-NH3-2-Base Operator NP EG ISE IGG

4-6-NH3-2-MAX

Equipment Identification

Ref. Thermometer T-4

Hygrometer T-4

Field Balance 23-AB-OAK-74

Check Weights WS-5

Calipers T-4

Balance Audit (Field balance must be within 0.5g of check weight mass)

Date	7/17/24	7/18/24	
Standard mass, g	500	500	
Field balance mass, g	499.9	499.9	

Ambient Conditions (Mobile Lab)

Relative humidity, %

Temperature, °F 70

Mobile lab # Trailer 4

Moisture Determination

	Contents	Run1 1-NH3-2-BASE Initial	Run1 Final	Run1 Net	Run 2 2-NH3-2-Base Initial	Run 2 Final	Run 2 Net	Run 3 3-NH3-2-Base Initial	Run 3 Final	Run 3 Net
Knockout	0.1NHCl	657.6	709.0	51.4	648.2	703.5	55.3	661.9	715.0	53.1
Impinger 1	0.1NHCl	653.3	653.2	-0.1	661.8	662.0	0.2	665.5	665.3	-0.2
Impinger 2	MT	542.4	548.4	6.0	553.0	553.2	0.2	542.8	542.2	-0.6
Impinger 3	SG	1039.8	1046.3	6.5	801.7	806.2	4.5	928.2	933.3	5.1
Impinger 4			Total →	63.8		Total →	60.2		Total →	57.4
Impinger 5		4-NH3-2-Max			5-NH3-2-Max			6-NH3-2-MAX		
Impinger 6	0.1NHCl	657.9	717.9	60.0	648.1	700.0	51.9	660.3	715.0	54.7
Impinger 7	0.1NHCl	655.1	656.1	1.0	660.8	662.1	1.3	665.2	667.5	2.3
Impinger 8	MT	548.4	549.0	0.6	553.2	553.9	0.7	542.2	545.1	2.9
Silica Gel		1046.3	1052.8	6.5	806.2	812.8	6.6	933.3	941.2	7.9
Line Rinse										
Train Net Gain (Vlc)				68.1			60.5			67.8

Nozzle Measurements (Difference between any two measurements must not be more than 0.004 in (0.1 mm))

Nozzle 1 diameters ____ D1 ____ D2 ____ D3 ____ Average

Nozzle 2 diameters ____ D1 ____ D2 ____ D3 ____ Average

Nozzle 3 diameters ____ D1 ____ D2 ____ D3 ____ Average

Nozzle Material ☐ quartz ☐ glass ☐ steel ☐ titanium ☐ inconel ☐ other ____

Probe Type ☐ heated ☐ unheated ☐ air-cooled ☐ water-cooled ☐ other ____

Probe Liner ☐ quartz ☐ glass ☐ steel ☐ Teflon ☐ other ____

Filter Information

Front Half: ☐ quartz filter ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☐ other ____

Filter Number: Run 1: ____ Run 2: ____ Run 3: ____ Run ____

Back Half: ☐ quartz fiber ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☐ other ____

Reagent Information

Type	Lot Number
0.1NHCl	HCl: R000694 / DI000300
Type IH2O	R000740

Sample Observations

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____

Checked by: ____ Team Leader: ____

001AS-QMS-FM-226

MONTROSE AIR QUALITY SERVICES

Sample Recovery & Calibration Check Datasheet

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Project Information

Date 07/19/24 Project # 042969

Customer / Facility SVP DVR

Unit ID / Sample Location Unit 2 Min Load

Run # 7-9-NH3-2-Min Operator NP, EG, SF

Equipment Identification

Ref. Thermometer T-4

Hygrometer T-4

Field Balance 23-AB-0AH-T4

Check Weights WS-5

Calipers T-4

Balance Audit (Field balance must be within 0.5g of check weight mass)

Date	7/19/24		
Standard mass, g	500.0		
Field balance mass, g	499.9		

Ambient Conditions (Mobile Lab)

Relative humidity, % ~

Temperature, °F 69

Mobile lab # Tr-4

Moisture Determination 7-NH3-2-MIN 8-NH3-2-MIN 9-NH3-2-MIN

	Contents	Run1 Initial	Run1 Final	Run1 Net	Run 2 Initial	Run 2 Final	Run 2 Net	Run 3 Initial	Run 3 Final	Run 3 Net
Knockout	0.1NHCl	656.9	697.8	40.9	659.6	690.8	31.2	646.7	679.9	33.2
Impinger 1	0.1NHCl	655.5	655.6	0.1	604.5	607.0	2.5	600.5	603.0	2.5
Impinger 2	MT	549.0	550.7	1.7	545.1	546.4	1.3	551.4	551.9	0.5
Impinger 3	Dry	1052.8	1059.9	7.1	941.2	950.3	9.1	793.4	798.9	5.5
Impinger 4										
Impinger 5										
Impinger 6										
Impinger 7										
Impinger 8										
Silica Gel										
Line Rinse										
Train Net Gain (Vlc)				49.8			44.1			41.7

Nozzle Measurements (Difference between any two measurements must not be more than 0.004 in (0.1 mm))

Nozzle 1 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle 2 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle 3 diameters _____ D1 _____ D2 _____ D3 _____ Average

Nozzle Material ☐ quartz ☐ glass ☐ steel ☐ titanium ☐ inconel ☐ other _____

Probe Type ☐ heated ☐ unheated ☐ air-cooled ☐ water-cooled ☐ other _____

Probe Liner ☐ quartz ☐ glass ☐ steel ☐ Teflon ☐ other _____

Filter Information

Front Half: ☒ quartz fiber ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☐ other _____

Filter Number: Run 1: _____ Run 2: _____ Run 3: _____ Run _____

Back Half: ☐ quartz fiber ☐ glass fiber ☐ Teflon ☐ Teflon/quartz ☐ other _____

Reagent Information

Type	Lot Number
0.1N HCl	HCl R000694/R000708
Type 1 H2O	R000740

Sample Observations

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____

Checked by: _____ Team Leader: _____

001AS-QMS-FM-226

MONTROSE AIR QUALITY SERVICES

EPA Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 07/10/24 Project # PROJ-042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location UNIT #2 / BASELOAD

Run # 1-NH3-2-Base Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 70

Barometric Pressure, in. Hg 30.06 Ref. Barometer ID NA

Wind Speed / Direction 6 MPH NW Precipitation, Y / N, type N

Probe / Filter Temp Range, °F NA

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other	SE	3
Ref. Thermometer ID		

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID CB-22

Sensitivity 0.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.004 @ 15"	@	0.001 @ 8"
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	1020	036.205	—	1.8	1.8	—	—	—	—	41	—	68		5
2	10	1030	043.610	—	1.8	1.8	—	—	—	—	41	—	68		5
3	20	1040	051.010	—	1.8	1.8	—	—	—	—	42	—	68		5
END	30	1050	058.415	—	—	—	—	—	—	—	—	—	—		—
Averages			22.210			1.80							68		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

MONTROSE AIR QUALITY SERVICES

EPA Method ST-1B Field Datasheet (Isokinetic)

Project Information

Date 07/16/24 Project # 042969
Customer/Facility S.V.P. DVR
Unit ID/Sample Location UNIT #2 / BASE LOAD
Run # 2-NH₂-2-B Operator SP

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 71
Barometric Pressure, in. Hg 30.06 Ref. Barometer ID NA
Wind Speed / Direction 5 MPH NW Precipitation, Y / N, type NA
Probe / Filter Temp Range, °F NA

ALT 011 TC ID: | Ambient °F | Ref. °F

Stack
Probe
Filter Box
Filter Exit
Meter outlet
Impinger Exit
Other SEE R-3
Ref. Thermometer ID
Continuity Check ☐ Continuity w/ Proper Polarity

Sampling Equipment IDs

Meterbox ID CB-22
Umbilical ID NA
Nozzle ID NA
Pitot / Probe ID S5
Manometer ID CB-22
Sensitivity 0.0

Calibration

Meterbox Y 0.992
Meterbox ΔH@, in. H_2O 1.834
Nozzle diameter, Dn, in. NA
Pitot coefficient, Cp NA
Manometer zero and level ☑ yes
K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	0.002 @ 7
Intermediate leak check volume, ft^3	/	/	/

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	1056	058.530	—	1.8	1.8	—	—	—	—	41	—	68		5
2	10	1106	066.165	—	1.8	1.8	—	—	—	—	42	—	68		5
3	20	1116	073.795	—	1.8	1.8	—	—	—	—	43	—	69		5
END	30	1126	081.430	—	—	—	—	—	—	—	—	—	—	—	—
Averages			22.900			1.80							68.3		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

MONTROSE AIR QUALITY SERVICES

EPA Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 07/16/24 Project # 042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location UNIT #2 / BASE LOAD

Run # 3-NH3-2-Base Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 7

Barometric Pressure, in. Hg 30.06 Ref. Barometer ID NA

Wind Speed / Direction 5 MPH NW Precipitation, Y / N, type NA

Probe / Filter Temp Range, °F NA

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack NA	—	—
Probe NA	—	—
Filter Box NA	—	—
Filter Exit NA	—	—
Meter outlet CB-22		
Impinger Exit CSN-18		
Other		

Ref. Thermometer ID

Continuity Check - ☑ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID CB-22

Sensitivity 0.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	0.002 @ 7
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	1132	081.670	—	1.8	1.8	—	—	—	—	43	—	67		5
2	10	1142	089.120	—	1.8	1.8	—	—	—	—	43	—	68		5
3	20	1152	096.570	—	1.8	1.8	—	—	—	—	44	—	68		5
END	30	1202	104.025	—	—	—	—	—	—	—	—	—	—	—	—
Averages			22.355			1.80							68.0		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

MONTROSE AIR QUALITY SERVICES

EPA Method ST-18 Field Datasheet (Isokinetic)

Project Information

Date 07/18/24 Project # 042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location UNIT #2 / MAX LOAD

Run # 4-NH3-2 Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 77

Barometric Pressure, in. Hg 29.99 Ref. Barometer ID NA

Wind Speed / Direction ____ Precipitation, Y / N, type N

Probe / Filter Temp Range, °F NA

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		

Ref. Thermometer ID ____

☐ Continuity Check ☐ Continuity w/ Proper Polarity

Notes: ____

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID CB-22

Sensitivity 0.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	0.001 @ 8"
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	0939	104.140	—	1.8	1.8	—	—	—	—	44	—	73		5
2	10	0949	111.645	—	1.8	1.8	—	—	—	—	46	—	74		5
3	20	0957	119.265	—	1.8	1.8	—	—	—	—	46	—	75		5
END	30	1009	127.000	—	—	—	—	—	—	—	—	—	—	—	—
Averages			22.860			1.80							74		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By ____ Team Leader ____

MONTROSE AIR QUALITY SERVICES

EPA Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 07/18/24 Project # 042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location UNIT #2 / MAX LOAD

Run # 5-NH3-2 Operator SP

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 77

Barometric Pressure, in. Hg 29.99 Ref. Barometer ID NA

Wind Speed / Direction 4MPH NW Precipitation, Y / type N

Probe / Filter Temp Range, °F NA

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID 16B-22

Sensitivity 0.0

Calibration

Meterbox Y -0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @1.5"	@	0.00@ 8"
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	1035	127.475	—	1.8	1.8	—	—	—	—	45	—	74		5
2	10	1045	135.365	—	1.8	1.8	—	—	—	—	46	—	75		5
3	20	1055	143.255	—	1.8	1.8	—	—	—	—	47	—	76		5
END	30	1105	151.145	—	—	—	—	—	—	—	—	—	—	—	—
Averages			23.670			1.80							75		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

001AS-QMS-FM-225

MONTROSE AIR QUALITY SERVICES

EPA Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 07/18/24 Project # 042969

Customer/Facility S.V.P. OJC

Unit ID/Sample Location UNIT #2 /MAX LOAD

Run # 6-NH3-2 Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 78

Barometric Pressure, in. Hg 29.99 Ref. Barometer ID NA

Wind Speed / Direction 4 MPH NW Precipitation, Y / N, type N

Probe / Filter Temp Range, °F NA

ALT 011

TC ID:	Ambient °F	Ref. °F
Stack	—	—
Probe	—	—
Filter Box	—	—
Filter Exit	—	—
Meter outlet CB-22		
Impinger Exit CBN-8		
Other		

Ref. Thermometer ID

Continuity Check ☑ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-22

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID CB-22

Sensitivity 0.0

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.834

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.011 @ 15"	@	0.001 @ 8"
Intermediate leak check volume, ft^3	/	/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	1114	151.350	—	1.8	1.8	—	—	—	—	43	—	77		5
2	10	1124	158.740	—	1.8	1.8	—	—	—	—	43	—	77		5
3	20	1134	166.080	—	1.8	1.8	—	—	—	—	44	—	78		5
END	30	1144	173.525	—	—	—	—	—	—	—	—	—	—		—
Averages			22.175			1.80							77.3		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

MONTROSE AIR QUALITY SERVICES

BAAQMD EPA Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 07/19/24 Project # 042969
Customer/Facility S.V.P. DVR
Unit ID/Sample Location UNIT #2 / MIN LOAD
Run # 1-NH3-2-Mid Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 62
Barometric Pressure, in. Hg 30.01 Ref. Barometer ID local
Wind Speed / Direction 1 mph SW Precipitation, Y / N, type N
Probe / Filter Temp Range, °F NA

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		2-3
Filter Exit		
Meter outlet		
Impinger Exit		
Other		

Ref. Thermometer ID
Continuity Check ☐ Continuity w/ Proper Polarity
Notes:

Sampling Equipment IDs

Meterbox ID CB-18
Umbilical ID NA
Nozzle ID NA
Pitot / Probe ID SS
Manometer ID CB-18
Sensitivity 0.001

Calibration

Meterbox Y 0.998
Meterbox ΔH@, in. H_2O 1.945
Nozzle diameter, Dn, in. NA
Pitot coefficient, Cp NA
Manometer zero and level ☑ yes
K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☑ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	.001 @ 15"	@	.001 @ 8"
Intermediate leak check volume, ft^3		/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	0722	258.515	—	1.8	1.8	—	—	—	—	43	—	84		5
2	10	0732	265.965	—	1.8	1.8	—	—	—	—	44	—	86		5
3	20	0742	273.415	—	1.8	1.8	—	—	—	—	44	—	88		5
END	30	0752	280.890	—	—	—	—	—	—	—	—	—	—	—	—
Averages			272.355										87.67		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

001AS-QMS-FM-225

MONTROSE AIR QUALITY SERVICES

BAAQMD Method ST-1B Field Datasheet (Isokinetic)

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Project Information

Date 6/19/24 Project # 042-969

Customer/Facility SVP DVR

Unit ID/Sample Location Unit 2 Mid load

Run # B-NH3-2-Mid Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 69

Barometric Pressure, in. Hg 30.01 Ref. Barometer ID

Wind Speed / Direction 2 MPH SW Precipitation, Y/N, type

Probe / Filter Temp Range, °F NA

ALT 011

	TC ID:	Ambient °F	Ref. °F
Stack	NA	—	—
Probe	NA	—	—
Filter Box	NA	—	—
Filter Exit	NA	—	—
Meter outlet	NA	—	—
Impinger Exit	NA	—	—
Other			

Ref. Thermometer ID

Continuity Check ☑ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CB-18

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID SS

Manometer ID CB-18

Sensitivity 0.001

Calibration

Meterbox Y 0.992

Meterbox ΔH@, in. H_2O 1.945

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☑ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	0.001 @ 9
Intermediate leak check volume, ft^3	/	/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	0846	307.685	—	1.8	1.8	—	—	—	—	45	—	98		5
2	10	0856	315.445	—	1.8	1.8	—	—	—	—	46	—	100		5
3	20	0906	323.205	—	1.8	1.5	—	—	—	—	46	—	102		5
END	30	0916	330.965	—	—	—	—	—	—	—	—	—	—		—
Averages			23.280										100		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

001AS-QMS-FM-225

MONTROSE AIR QUALITY SERVICES

BAAQMD ~~EPA~~ Method ST-1b Field Datasheet (Isokinetic)

Project Information

Date 7/19/24 Project # 042969

Customer/Facility S.V.P. DVR

Unit ID/Sample Location UNIT #2/ MIN LOAD

Run # 9 Operator SF

Sampling Conditions

Static Pressure, in. H_2O NA Ambient Temp, °F 78

Barometric Pressure, in. Hg 30.01 Ref. Barometer ID local

Wind Speed / Direction 3 MPH SW Precipitation, Y / N type

Probe / Filter Temp Range, °F NA

Sampling Equipment IDs

Meterbox ID CB-18

Umbilical ID NA

Nozzle ID NA

Pitot / Probe ID 35

Manometer ID CB-18

Sensitivity 0.0

Calibration

Meterbox Y 0.990

Meterbox ΔH@, in. H_2O 1.945

Nozzle diameter, Dn, in. NA

Pitot coefficient, Cp NA

Manometer zero and level ☑ yes

K-Factor NA

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot (-), pass @ in. H_2O	☐ @	☐ @	☐ @
Pitot visual inspection	☐ pass	☐ pass	☐ pass
Nozzle visual inspection	☐ pass	☐ pass	☐ pass
Meter, cfm @ in. Hg	0.001 @ 15"	@	0.001 @ 8"
Intermediate leak check volume, ft^3	/	/	

ALT 011

	TC ID:	Ambient °F	Ref. °F
Stack	NA	—	—
Probe	NA	—	—
Filter Box	NA	—	—
Filter Exit	NA	—	—
Meter outlet	CB-18	84	84.1
Impinger Exit	CWS-1	84	84.1
Other			

Ref. Thermometer ID Trailer 4

Continuity Check ☑ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet		Pump Vacuum, in. Hg
1	0	0924	331.130	—	1.8	1.5	—	—	—	—	45	—	98		5
2	10	0934	337.090	—	1.8	1.5	—	—	—	—	46	—	99		5
3	20	0944	347.050	—	1.8	1.8	—	—	—	—	47	—	101		5
END	30	0954	355.010	—	—	—	—	—	—	—	—	—	—	—	—
Averages			23.880										99.3		

QA/QC Check: Completeness ____ Legibility ____ Accuracy ____ Specifications ____ Checked By _____ Team Leader _____

Appendix A.4
Instrumental Test Method Data

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 1 Average Results
12:19:00 - 12:49:00

	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
Jul 15 2024	12:20:00	14.23	3.745						
Jul 15 2024	12:21:00	14.24	3.741						
Jul 15 2024	12:22:00	14.25	3.743						
Jul 15 2024	12:23:00	14.25	3.739						
Jul 15 2024	12:24:00	14.25	3.743						
Jul 15 2024	12:25:00	14.25	3.741						
Jul 15 2024	12:26:00	14.25	3.743						
Jul 15 2024	12:27:00	14.26	3.740						
Jul 15 2024	12:28:00	14.25	3.741						
Jul 15 2024	12:29:00	14.25	3.740						
End of port 1 point 1									
Jul 15 2024	12:30:00	14.25	3.742						
Jul 15 2024	12:31:00	14.25	3.743						
Jul 15 2024	12:32:00	14.25	3.740						
Jul 15 2024	12:33:00	14.26	3.742						
Jul 15 2024	12:34:00	14.25	3.741						
Jul 15 2024	12:35:00	14.25	3.744						
Jul 15 2024	12:36:00	14.26	3.739						
Jul 15 2024	12:37:00	14.25	3.741						
Jul 15 2024	12:38:00	14.25	3.738						
Jul 15 2024	12:39:00	14.26	3.738						
End of port 1 point 2									
Jul 15 2024	12:40:00	14.27	3.737						
Jul 15 2024	12:41:00	14.26	3.738						
Jul 15 2024	12:42:00	14.25	3.740						
Jul 15 2024	12:43:00	14.26	3.737						
Jul 15 2024	12:44:00	14.26	3.743						
Jul 15 2024	12:45:00	14.26	3.738						
Jul 15 2024	12:46:00	14.26	3.742						
Jul 15 2024	12:47:00	14.25	3.740						
Jul 15 2024	12:48:00	14.25	3.742						
Jul 15 2024	12:49:00	14.26	3.739						
End of port 1 point 3									

	Average:	14.25	3.741						
	Max:	14.27	3.745						
	Min:	14.23	3.737						

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)						
1	1	14.25	3.742						
1	2	14.26	3.741						
1	3	14.25	3.741						
	Strat diff:	0.007	0.001						
	Strat %:	0.047	0.018						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 1 Post run bias
12:19:00 - 12:49:00

	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
	25A or 7E:	7E	7E						

Run summary data									
	Raw Avg:	14.25	3.741						
	Max:	14.27	3.745						
	Min:	14.23	3.737						

Cylinder Concentrations									
	Zero:	0.000	0.000						
	Low:								
	Mid:	11.61	3.985						
	High:	21.12	8.376						

Calibration Readings									
	Zero reading:	-0.014	-0.002						
	Low reading:								
	Mid reading:	11.55	3.980						
	High reading:	21.07	8.375						

EPA Method 7E Error Calculations									
Zero %Err:	**<2.0**	-0.066	-0.024						
Mid %Err:	**<2.0**	-0.284	-0.060						
High %Err:	**<2.0**	-0.237	-0.012						

Initial Bias Data									
	Zero reading:	0.029	-0.007						
	Span reading:	11.49	3.949						
Zero % bias:	**<5.0**	0.204	-0.060						
Span % bias:	**<5.0**	-0.284	-0.370						

Final Bias Data									
	Zero reading:	0.035	0.010						
	Span reading:	11.51	3.927						
Zero % bias:	**<5.0**	0.232	0.143						
Span % bias:	**<5.0**	-0.189	-0.633						
Zero % drift:	**<3.0**	0.028	0.203						
Span % drift:	**<3.0**	0.095	0.263						

Bias Corrected Averages									
	Cor Avg:	14.39	3.786						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 2 Average Results - RUN 2 1305-1335 12:59:00 - 13:29:00									
	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
Jul 15 2024	13:00:00	14.27	3.734						
Jul 15 2024	13:01:00	14.27	3.734						
Jul 15 2024	13:02:00	14.26	3.732						
Jul 15 2024	13:03:00	14.27	3.731						
Jul 15 2024	13:04:00	14.26	3.731						
Jul 15 2024	13:05:00	14.26	3.731						
Jul 15 2024	13:06:00	14.26	3.734						
Jul 15 2024	13:07:00	14.26	3.731						
Jul 15 2024	13:08:00	14.26	3.733						
Jul 15 2024	13:09:00	14.26	3.733						
End of port 1 point 1									
Jul 15 2024	13:10:00	14.26	3.734						
Jul 15 2024	13:11:00	14.27	3.734						
Jul 15 2024	13:12:00	14.27	3.731						
Jul 15 2024	13:13:00	14.26	3.733						
Jul 15 2024	13:14:00	14.26	3.730						
Jul 15 2024	13:15:00	14.26	3.731						
Jul 15 2024	13:16:00	14.27	3.728						
Jul 15 2024	13:17:00	14.26	3.729						
Jul 15 2024	13:18:00	14.26	3.728						
Jul 15 2024	13:19:00	14.26	3.731						
End of port 1 point 2									
Jul 15 2024	13:20:00	14.26	3.727						
Jul 15 2024	13:21:00	14.26	3.728						
Jul 15 2024	13:22:00	14.26	3.727						
Jul 15 2024	13:23:00	14.26	3.727						
Jul 15 2024	13:24:00	14.26	3.725						
Jul 15 2024	13:25:00	14.26	3.723						
Jul 15 2024	13:26:00	14.26	3.726						
Jul 15 2024	13:27:00	14.26	3.722						
Jul 15 2024	13:28:00	14.26	3.726						
Jul 15 2024	13:29:00	14.26	3.721						
End of port 1 point 3									
	Average:	14.26	3.730						
	Max:	14.27	3.734						
	Min:	14.26	3.721						

Stratification Results									
Port	**Point**	O2 (OX-10)	CO2 (CD-10)						
1	1	14.26	3.732						
1	2	14.27	3.730						
1	3	14.26	3.725						
	Strat diff:	0.007	0.003						
	Strat %:	0.047	0.107						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 2 Post run bias - RUN 2 1305-1335
12:59:00 - 13:29:00

	Name:	O2 (OX-10)	CO2 (CD-10)
	Make/Model:		
	25A or 7E:	7E	7E

Run summary data			
	Raw Avg:	14.26	3.730
	Max:	14.27	3.734
	Min:	14.26	3.721

Cylinder Concentrations			
	Zero:	0.000	0.000
	Low:		
	Mid:	11.61	3.985
	High:	21.12	8.376

Calibration Readings			
	Zero reading:	-0.014	-0.002
	Low reading:		
	Mid reading:	11.55	3.980
	High reading:	21.07	8.375

EPA Method 7E Error Calculations			
Zero %Err:	**<2.0**	-0.066	-0.024
Mid %Err:	**<2.0**	-0.284	-0.060
High %Err:	**<2.0**	-0.237	-0.012

Initial Bias Data			
	Zero reading:	0.035	0.010
	Span reading:	11.51	3.927
Zero % bias:	**<5.0**	0.232	0.143
Span % bias:	**<5.0**	-0.189	-0.633

Final Bias Data			
	Zero reading:	0.065	0.024
	Span reading:	11.52	3.924
Zero % bias:	**<5.0**	0.374	0.310
Span % bias:	**<5.0**	-0.142	-0.669
Zero % drift:	**<3.0**	0.142	0.167
Span % drift:	**<3.0**	0.047	0.036

Bias Corrected Averages			
	Cor Avg:	14.39	3.786

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 3 Average Results - RUN 3 1342-1412
13:36:00 - 14:06:00

	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
Jul 15 2024	13:37:00	14.26	3.716						
Jul 15 2024	13:38:00	14.27	3.715						
Jul 15 2024	13:39:00	14.27	3.721						
Jul 15 2024	13:40:00	14.26	3.719						
Jul 15 2024	13:41:00	14.26	3.720						
Jul 15 2024	13:42:00	14.26	3.715						
Jul 15 2024	13:43:00	14.27	3.720						
Jul 15 2024	13:44:00	14.26	3.718						
Jul 15 2024	13:45:00	14.26	3.720						
Jul 15 2024	13:46:00	14.27	3.721						
End of port 1 point 1									
Jul 15 2024	13:47:00	14.26	3.720						
Jul 15 2024	13:48:00	14.27	3.723						
Jul 15 2024	13:49:00	14.26	3.727						
Jul 15 2024	13:50:00	14.26	3.723						
Jul 15 2024	13:51:00	14.26	3.717						
Jul 15 2024	13:52:00	14.27	3.720						
Jul 15 2024	13:53:00	14.26	3.714						
Jul 15 2024	13:54:00	14.26	3.719						
Jul 15 2024	13:55:00	14.26	3.715						
Jul 15 2024	13:56:00	14.26	3.718						
End of port 1 point 2									
Jul 15 2024	13:57:00	14.26	3.718						
Jul 15 2024	13:58:00	14.27	3.717						
Jul 15 2024	13:59:00	14.27	3.718						
Jul 15 2024	14:00:00	14.27	3.716						
Jul 15 2024	14:01:00	14.26	3.721						
Jul 15 2024	14:02:00	14.26	3.716						
Jul 15 2024	14:03:00	14.26	3.717						
Jul 15 2024	14:04:00	14.27	3.714						
Jul 15 2024	14:05:00	14.26	3.717						
Jul 15 2024	14:06:00	14.27	3.713						
End of port 1 point 3									

	Average:	14.26	3.718						
	Max:	14.27	3.727						
	Min:	14.26	3.713						

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)						
1	1	14.27	3.719						
1	2	14.26	3.719						
1	3	14.26	3.716						
	Strat diff:	0.007	0.001						
	Strat %:	0.047	0.054						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 3 Post run bias - RUN 3 1342-1412
13:36:00 - 14:06:00

	Name:	O2 (OX-10)	CO2 (CD-10)
	Make/Model:		
	25A or 7E:	7E	7E

Run summary data			
	Raw Avg:	14.26	3.718
	Max:	14.27	3.727
	Min:	14.26	3.713

Cylinder Concentrations			
	Zero:	0.000	0.000
	Low:		
	Mid:	11.61	3.985
	High:	21.12	8.376

Calibration Readings			
	Zero reading:	-0.014	-0.002
	Low reading:		
	Mid reading:	11.55	3.980
	High reading:	21.07	8.375

EPA Method 7E Error Calculations			
Zero %Err:	**<2.0**	-0.066	-0.024
Mid %Err:	**<2.0**	-0.284	-0.060
High %Err:	**<2.0**	-0.237	-0.012

Initial Bias Data			
	Zero reading:	0.065	0.024
	Span reading:	11.52	3.924
Zero % bias:	**<5.0**	0.374	0.310
Span % bias:	**<5.0**	-0.142	-0.669

Final Bias Data			
	Zero reading:	0.092	0.027
	Span reading:	11.52	3.892
Zero % bias:	**<5.0**	0.502	0.346
Span % bias:	**<5.0**	-0.142	-1.051
Zero % drift:	**<3.0**	0.128	0.036
Span % drift:	**<3.0**	0.000	0.382

Bias Corrected Averages			
	Cor Avg:	14.39	3.790

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 36	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 2	Points per port: 6	DAQ Device: DT9803(01)

Run 1 Average Results - RUN 1 0829-0910

08:23:00 - 09:03:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 16 2024	08:24:00	12.92	4.441	1.278	2.714				
Jul 16 2024	08:25:00	12.92	4.443	1.289	2.705				
Jul 16 2024	08:26:00	12.92	4.441	1.282	2.706				
End of port 1 point 1									
Jul 16 2024	08:27:00	12.92	4.442	1.300	2.476				
Jul 16 2024	08:28:00	12.94	4.438	1.284	2.283				
Jul 16 2024	08:29:00	12.94	4.443	1.318	2.300				
End of port 1 point 2									
Jul 16 2024	08:30:00	12.93	4.444	1.319	2.046				
Jul 16 2024	08:31:00	12.93	4.447	1.323	1.750				
Jul 16 2024	08:32:00	12.93	4.447	1.307	1.777				
End of port 1 point 3									
Jul 16 2024	08:33:00	12.94	4.449	1.328	1.751				
Jul 16 2024	08:34:00	12.94	4.446	1.349	1.737				
Jul 16 2024	08:35:00	12.95	4.443	1.347	1.734				
End of port 1 point 4									
Jul 16 2024	08:36:00	12.96	4.440	1.295	2.202				
Jul 16 2024	08:37:00	12.97	4.440	1.278	2.384				
Jul 16 2024	08:38:00	12.97	4.442	1.275	2.386				
End of port 1 point 5									
Jul 16 2024	08:39:00	12.96	4.440	1.288	2.398				
Jul 16 2024	08:40:00	12.96	4.446	1.278	2.359				
Jul 16 2024	08:41:00	12.97	4.447	1.283	2.442				
End of port 1 point 6									
Jul 16 2024	08:46:00	12.96	4.456	1.366	2.603				
Jul 16 2024	08:47:00	12.95	4.456	1.352	2.573				
Jul 16 2024	08:48:00	12.95	4.460	1.351	2.606				
End of port 2 point 1									
Jul 16 2024	08:49:00	12.97	4.458	1.350	2.551				
Jul 16 2024	08:50:00	12.97	4.451	1.361	2.487				
Jul 16 2024	08:51:00	12.95	4.463	1.363	2.575				
End of port 2 point 2									
Jul 16 2024	08:52:00	12.91	4.485	1.300	1.660				
Jul 16 2024	08:53:00	12.92	4.486	1.303	1.554				
Jul 16 2024	08:54:00	12.92	4.482	1.288	1.561				
End of port 2 point 3									
Jul 16 2024	08:55:00	12.87	4.515	1.213	2.053				
Jul 16 2024	08:56:00	12.86	4.525	1.155	2.261				
Jul 16 2024	08:57:00	12.86	4.527	1.124	2.684				
End of port 2 point 4									
Jul 16 2024	08:58:00	12.86	4.520	1.044	3.390				
Jul 16 2024	08:59:00	12.87	4.523	1.063	3.323				
Jul 16 2024	09:00:00	12.87	4.522	1.042	3.291				
End of port 2 point 5									
Jul 16 2024	09:01:00	12.87	4.519	1.062	3.257				
Jul 16 2024	09:02:00	12.86	4.523	1.067	3.285				
Jul 16 2024	09:03:00	12.86	4.523	1.059	3.198				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 36	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 2	Points per port: 6	DAQ Device: DT9803(01)

End of port 2 point 6

	Average:	12.92	4.469	1.258	2.418				
	Max:	12.97	4.527	1.366	3.390				
	Min:	12.86	4.438	1.042	1.554				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.91	4.440	1.290	2.695				
1	2	12.93	4.444	1.302	2.298				
1	3	12.93	4.446	1.316	1.772				
1	4	12.95	4.445	1.343	1.738				
1	5	12.98	4.444	1.271	2.400				
1	6	12.96	4.445	1.298	2.388				
2	1	12.96	4.456	1.336	2.595				
2	2	12.95	4.459	1.373	2.457				
2	3	12.92	4.485	1.284	1.560				
2	4	12.86	4.523	1.111	2.623				
2	5	12.87	4.526	1.038	3.294				
2	6	12.88	4.521	1.075	3.209				
	Strat diff:	0.055	0.057	0.120	0.875				
	Strat %:	0.503	1.264	9.570	8.430				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 36	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 2	Points per port: 6	DAQ Device: DT9803(01)

Run 1 Post run bias - RUN 1 0829-0910

08:23:00 - 09:03:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.92	4.469	1.258	2.418				
	Max:	12.97	4.527	1.366	3.390				
	Min:	12.86	4.438	1.042	1.554				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010				
	Low reading:								
	Mid reading:	11.53	3.954	2.589	2.545				
	High reading:	21.02	8.397	5.061	5.067				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197				
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123				
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138				
	Initial Bias Data								
	Zero reading:	0.030	-0.046	0.050	0.002				
	Span reading:	11.50	3.934	2.655	2.371				
Zero % bias:	**<5.0**	0.237	0.287	0.573	-0.158				
Span % bias:	**<5.0**	-0.142	-0.239	1.305	-3.429				
	Final Bias Data								
	Zero reading:	0.028	-0.051	0.086	0.002				
	Span reading:	11.44	3.951	2.655	2.341				
Zero % bias:	**<5.0**	0.227	0.227	1.285	-0.158				
Span % bias:	**<5.0**	-0.426	-0.036	1.305	-4.021				
Zero % drift:	**<3.0**	0.010	0.060	0.712	0.000				
Span % drift:	**<3.0**	0.284	0.203	0.000	0.591				
	Bias Corrected Averages								
	Cor Avg:	13.08	4.511	1.148	2.554				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 2 Average Results - RUN 2 0938-1008

09:32:00 - 10:02:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
Jul 16 2024	09:33:00	12.91	4.493	1.268	2.669	3.094	3.101		
Jul 16 2024	09:34:00	12.90	4.492	1.273	2.670	3.760	3.753		
Jul 16 2024	09:35:00	12.91	4.493	1.246	2.708	3.344	3.333		
Jul 16 2024	09:36:00	12.91	4.491	1.238	2.682	3.106	3.116		
Jul 16 2024	09:37:00	12.90	4.496	1.256	2.718	2.953	2.955		
Jul 16 2024	09:38:00	12.91	4.494	1.270	2.737	3.184	3.179		
Jul 16 2024	09:39:00	12.91	4.495	1.267	2.689	3.474	3.469		
Jul 16 2024	09:40:00	12.91	4.492	1.255	2.705	3.548	3.552		
Jul 16 2024	09:41:00	12.91	4.495	1.253	2.712	3.420	3.418		
Jul 16 2024	09:42:00	12.90	4.494	1.256	2.666	3.350	3.351		
End of port 1 point 1									
Jul 16 2024	09:43:00	12.93	4.485	1.273	2.509	3.517	3.515		
Jul 16 2024	09:44:00	12.93	4.477	1.288	2.415	3.411	3.403		
Jul 16 2024	09:45:00	12.93	4.476	1.300	2.404	3.405	3.405		
Jul 16 2024	09:46:00	12.93	4.477	1.306	2.443	3.242	3.235		
Jul 16 2024	09:47:00	12.92	4.479	1.306	2.461	3.085	3.088		
Jul 16 2024	09:48:00	12.93	4.480	1.290	2.472	3.168	3.153		
Jul 16 2024	09:49:00	12.93	4.482	1.274	2.454	3.107	3.104		
Jul 16 2024	09:50:00	12.94	4.479	1.270	2.354	3.106	3.109		
Jul 16 2024	09:51:00	12.94	4.470	1.302	2.233	3.197	3.204		
Jul 16 2024	09:52:00	12.94	4.473	1.303	2.269	3.254	3.247		
End of port 1 point 2									
Jul 16 2024	09:53:00	12.94	4.472	1.299	2.252	3.229	3.236		
Jul 16 2024	09:54:00	12.94	4.472	1.293	2.276	3.227	3.219		
Jul 16 2024	09:55:00	12.95	4.471	1.289	2.237	3.337	3.336		
Jul 16 2024	09:56:00	12.95	4.468	1.300	1.908	3.486	3.478		
Jul 16 2024	09:57:00	12.94	4.472	1.299	1.800	3.591	3.582		
Jul 16 2024	09:58:00	12.94	4.470	1.303	1.793	3.370	3.377		
Jul 16 2024	09:59:00	12.96	4.467	1.310	1.826	3.383	3.388		
Jul 16 2024	10:00:00	12.96	4.467	1.302	1.833	3.164	3.170		
Jul 16 2024	10:01:00	12.95	4.469	1.307	1.806	3.166	3.171		
Jul 16 2024	10:02:00	12.96	4.465	1.320	1.812	3.087	3.080		
End of port 1 point 3									
	Average:	12.93	4.480	1.284	2.350	3.292	3.291		
	Max:	12.96	4.496	1.320	2.737	3.760	3.753		
	Min:	12.90	4.465	1.238	1.793	2.953	2.955		

Stratification Results

Port	Point	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
1	1	12.91	4.494	1.251	2.700	3.338	3.342		
1	2	12.93	4.474	1.284	2.383	3.230	3.232		
1	3	12.95	4.469	1.307	1.946	3.249	3.249		
	Strat diff:	0.020	0.015	0.026	0.357	0.066	0.068		
	Strat %:	0.155	0.335	2.317	16.94	2.007	2.067		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 2 Post run bias - RUN 2 0938-1008

09:32:00 - 10:02:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E	25A	25A		
Run summary data									
	Raw Avg:	12.93	4.480	1.284	2.350	3.292	3.291		
	Max:	12.96	4.496	1.320	2.737	3.760	3.753		
	Min:	12.90	4.465	1.238	1.793	2.953	2.955		
Cylinder Concentrations									
	Zero:	0.000	0.000	0.000	0.000	0.000	0.000		
	Low:					2.978	2.978		
	Mid:	11.61	3.985	2.496	2.488	5.119	5.119		
	High:	21.12	8.376	5.059	5.074	8.535	8.535		
Calibration Readings									
	Zero reading:	-0.020	-0.070	0.021	0.010	0.001	-0.004		
	Low reading:					2.966	2.958		
	Mid reading:	11.53	3.954	2.589	2.545	5.067	5.091		
	High reading:	21.02	8.397	5.061	5.067	8.503	8.484		
EPA Method 7E Error Calculations									
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197	N/A	N/A		
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123	N/A	N/A		
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138	N/A	N/A		
EPA Method 25A Error Calculations									
Zero %Err:	**N/A**	N/A	N/A	N/A	N/A	0.001	-0.004		
Low %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	-0.012	-0.020		
Mid %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	-0.052	-0.028		
High %Err:	**N/A**	N/A	N/A	N/A	N/A	-0.032	-0.051		
Initial Bias Data									
	Zero reading:	0.030	-0.046	0.050	0.002	0.001	-0.004		
	Span reading:	11.50	3.934	2.655	2.371	5.067	5.091		
Zero % bias:	**<5.0**	0.237	0.287	0.573	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-0.142	-0.239	1.305	-3.429	N/A	N/A		
Final Bias Data									
	Zero reading:	0.037	-0.042	0.092	0.002	0.064	0.033		
	Span reading:	11.49	3.939	2.625	2.348	5.070	5.051		
Zero % bias:	**<5.0**	0.270	0.334	1.403	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-0.189	-0.179	0.712	-3.883	N/A	N/A		
Zero % drift:	**<3.0**	0.033	0.047	0.830	0.000	N/A	N/A		
Span % drift:	**<3.0**	0.047	0.060	0.593	0.454	N/A	N/A		
Zero drift:	**<3.0% span**	N/A	N/A	N/A	N/A	-0.063	-0.037		
Span drift:	**<3.0% span**	N/A	N/A	N/A	N/A	-0.003	0.040		
Bias Corrected Averages									
	Cor Avg:	13.06	4.529	1.179	2.478	3.292	3.291		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 3 Average Results - RUN 3 1027-1057
10:21:00 - 10:51:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
Jul 16 2024	10:22:00	12.94	4.468	1.283	2.662	3.308	3.307		
Jul 16 2024	10:23:00	12.93	4.473	1.262	2.630	3.346	3.342		
Jul 16 2024	10:24:00	12.94	4.469	1.263	2.568	3.308	3.313		
Jul 16 2024	10:25:00	12.93	4.473	1.289	2.656	3.394	3.395		
Jul 16 2024	10:26:00	12.94	4.476	1.280	2.632	3.485	3.486		
Jul 16 2024	10:27:00	12.94	4.472	1.259	2.644	3.453	3.460		
Jul 16 2024	10:28:00	12.93	4.474	1.267	2.662	3.386	3.386		
Jul 16 2024	10:29:00	12.93	4.475	1.274	2.611	3.402	3.400		
Jul 16 2024	10:30:00	12.93	4.474	1.281	2.638	3.319	3.317		
Jul 16 2024	10:31:00	12.93	4.471	1.277	2.642	3.345	3.348		
End of port 1 point 1									
Jul 16 2024	10:32:00	12.93	4.475	1.265	2.617	3.344	3.344		
Jul 16 2024	10:33:00	12.93	4.473	1.278	2.634	3.217	3.211		
Jul 16 2024	10:34:00	12.93	4.475	1.278	2.633	3.278	3.291		
Jul 16 2024	10:35:00	12.93	4.471	1.277	2.587	3.977	3.974		
Jul 16 2024	10:36:00	12.94	4.473	1.266	2.609	3.460	3.468		
Jul 16 2024	10:37:00	12.94	4.468	1.267	2.623	3.436	3.434		
Jul 16 2024	10:38:00	12.94	4.468	1.285	2.593	3.340	3.336		
Jul 16 2024	10:39:00	12.94	4.466	1.276	2.606	3.280	3.282		
Jul 16 2024	10:40:00	12.93	4.467	1.274	2.637	3.372	3.367		
Jul 16 2024	10:41:00	12.93	4.471	1.269	2.604	3.414	3.408		
End of port 1 point 2									
Jul 16 2024	10:42:00	12.94	4.467	1.289	2.445	3.411	3.408		
Jul 16 2024	10:43:00	12.95	4.463	1.284	2.287	3.606	3.606		
Jul 16 2024	10:44:00	12.95	4.462	1.298	2.253	3.700	3.714		
Jul 16 2024	10:45:00	12.94	4.465	1.283	2.283	3.672	3.673		
Jul 16 2024	10:46:00	12.95	4.463	1.311	2.288	3.749	3.739		
Jul 16 2024	10:47:00	12.95	4.464	1.298	2.269	3.561	3.572		
Jul 16 2024	10:48:00	12.95	4.466	1.300	2.271	3.479	3.475		
Jul 16 2024	10:49:00	12.95	4.467	1.290	2.263	3.309	3.302		
Jul 16 2024	10:50:00	12.94	4.470	1.306	2.302	3.264	3.269		
Jul 16 2024	10:51:00	12.95	4.466	1.304	2.303	3.527	3.529		
End of port 1 point 3									
	Average:	12.94	4.470	1.281	2.515	3.438	3.439		
	Max:	12.95	4.476	1.311	2.662	3.977	3.974		
	Min:	12.93	4.462	1.259	2.253	3.217	3.211		

Stratification Results

Port	Point	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
1	1	12.94	4.472	1.262	2.633	3.373	3.371		
1	2	12.93	4.472	1.272	2.608	3.415	3.409		
1	3	12.95	4.465	1.301	2.266	3.550	3.553		
	Strat diff:	0.010	0.002	0.023	0.131	0.104	0.109		
	Strat %:	0.077	0.104	1.773	9.445	3.018	3.155		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 3 Post run bias - RUN 3 1027-1057
10:21:00 - 10:51:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E	25A	25A		
	Run summary data								
	Raw Avg:	12.94	4.470	1.281	2.515	3.438	3.439		
	Max:	12.95	4.476	1.311	2.662	3.977	3.974		
	Min:	12.93	4.462	1.259	2.253	3.217	3.211		
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000	0.000	0.000		
	Low:					2.978	2.978		
	Mid:	11.61	3.985	2.496	2.488	5.119	5.119		
	High:	21.12	8.376	5.059	5.074	8.535	8.535		
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010	0.001	-0.004		
	Low reading:					2.966	2.958		
	Mid reading:	11.53	3.954	2.589	2.545	5.067	5.091		
	High reading:	21.02	8.397	5.061	5.067	8.503	8.484		
EPA Method 7E Error Calculations									
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197	N/A	N/A		
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123	N/A	N/A		
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138	N/A	N/A		
EPA Method 25A Error Calculations									
Zero %Err:	**N/A**	N/A	N/A	N/A	N/A	0.001	-0.004		
Low %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	-0.012	-0.020		
Mid %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	-0.052	-0.028		
High %Err:	**N/A**	N/A	N/A	N/A	N/A	-0.032	-0.051		
Initial Bias Data									
	Zero reading:	0.037	-0.042	0.092	0.002	0.064	0.033		
	Span reading:	11.49	3.939	2.625	2.348	5.070	5.051		
Zero % bias:	**<5.0**	0.270	0.334	1.403	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-0.189	-0.179	0.712	-3.883	N/A	N/A		
Final Bias Data									
	Zero reading:	0.047	-0.043	0.098	0.002	0.002	0.006		
	Span reading:	11.48	3.944	2.631	2.354	5.003	5.011		
Zero % bias:	**<5.0**	0.317	0.322	1.522	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-0.237	-0.119	0.830	-3.764	N/A	N/A		
Zero % drift:	**<3.0**	0.047	0.012	0.119	0.000	N/A	N/A		
Span % drift:	**<3.0**	0.048	0.060	0.118	0.119	N/A	N/A		
Zero drift:	**<3.0% span**	N/A	N/A	N/A	N/A	0.062	0.027		
Span drift:	**<3.0% span**	N/A	N/A	N/A	N/A	0.067	0.040		
Bias Corrected Averages									
	Cor Avg:	13.09	4.514	1.169	2.662	3.438	3.439		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 4 Average Results - RUN 4 1123-1153

11:17:00 - 11:47:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
Jul 16 2024	11:18:00	12.92	4.480	1.291	2.388	2.928	2.930		
Jul 16 2024	11:19:00	12.92	4.476	1.278	2.400	2.870	2.870		
Jul 16 2024	11:20:00	12.93	4.478	1.278	2.393	3.063	3.066		
Jul 16 2024	11:21:00	12.93	4.475	1.269	2.383	3.208	3.209		
Jul 16 2024	11:22:00	12.93	4.474	1.289	2.395	3.302	3.305		
Jul 16 2024	11:23:00	12.93	4.473	1.310	2.357	3.182	3.181		
Jul 16 2024	11:24:00	12.93	4.475	1.286	2.338	2.960	2.961		
Jul 16 2024	11:25:00	12.93	4.476	1.289	2.350	2.937	2.937		
Jul 16 2024	11:26:00	12.92	4.474	1.274	2.305	2.885	2.878		
Jul 16 2024	11:27:00	12.93	4.477	1.269	2.336	2.583	2.591		
End of port 1 point 1									
Jul 16 2024	11:28:00	12.92	4.473	1.274	2.360	2.390	2.381		
Jul 16 2024	11:29:00	12.93	4.479	1.286	2.352	2.187	2.196		
Jul 16 2024	11:30:00	12.93	4.476	1.287	2.397	2.254	2.250		
Jul 16 2024	11:31:00	12.93	4.477	1.292	2.324	2.223	2.218		
Jul 16 2024	11:32:00	12.92	4.480	1.274	2.312	2.184	2.179		
Jul 16 2024	11:33:00	12.93	4.479	1.267	2.344	2.197	2.187		
Jul 16 2024	11:34:00	12.93	4.477	1.264	2.336	2.182	2.189		
Jul 16 2024	11:35:00	12.93	4.479	1.270	2.323	2.110	2.105		
Jul 16 2024	11:36:00	12.92	4.484	1.291	2.387	2.337	2.336		
Jul 16 2024	11:37:00	12.92	4.483	1.288	2.366	2.292	2.293		
End of port 1 point 2									
Jul 16 2024	11:38:00	12.92	4.481	1.284	2.336	2.409	2.407		
Jul 16 2024	11:39:00	12.93	4.476	1.289	2.330	2.369	2.363		
Jul 16 2024	11:40:00	12.93	4.482	1.281	2.360	2.187	2.186		
Jul 16 2024	11:41:00	12.93	4.476	1.275	2.350	2.165	2.167		
Jul 16 2024	11:42:00	12.92	4.482	1.273	2.384	2.102	2.101		
Jul 16 2024	11:43:00	12.93	4.477	1.281	2.297	2.230	2.225		
Jul 16 2024	11:44:00	12.93	4.477	1.292	2.245	2.092	2.093		
Jul 16 2024	11:45:00	12.93	4.478	1.274	2.236	2.070	2.075		
Jul 16 2024	11:46:00	12.92	4.479	1.283	2.220	2.283	2.290		
Jul 16 2024	11:47:00	12.92	4.482	1.292	2.240	2.640	2.630		
End of port 1 point 3									
	Average:	12.93	4.478	1.282	2.338	2.494	2.493		
	Max:	12.93	4.484	1.310	2.400	3.302	3.305		
	Min:	12.92	4.473	1.264	2.220	2.070	2.075		

Stratification Results

Port	Point	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
1	1	12.93	4.477	1.282	2.361	2.924	2.925		
1	2	12.93	4.479	1.276	2.347	2.227	2.215		
1	3	12.93	4.480	1.278	2.295	2.207	2.204		
	Strat diff:	0.000	0.001	0.003	0.027	0.471	0.477		
	Strat %:	0.000	0.037	0.261	1.685	9.201	9.967		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 4 Post run bias - RUN 4 1123-1153

11:17:00 - 11:47:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E	25A	25A		
	Run summary data								
	Raw Avg:	12.93	4.478	1.282	2.338	2.494	2.493		
	Max:	12.93	4.484	1.310	2.400	3.302	3.305		
	Min:	12.92	4.473	1.264	2.220	2.070	2.075		
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000	0.000	0.000		
	Low:					2.978	2.978		
	Mid:	11.61	3.985	2.496	2.488	5.119	5.119		
	High:	21.12	8.376	5.059	5.074	8.535	8.535		
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010	0.001	-0.004		
	Low reading:					2.966	2.958		
	Mid reading:	11.53	3.954	2.589	2.545	5.067	5.091		
	High reading:	21.02	8.397	5.061	5.067	8.503	8.484		
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197	N/A	N/A		
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123	N/A	N/A		
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138	N/A	N/A		
	EPA Method 25A Error Calculations								
Zero %Err:	**N/A**	N/A	N/A	N/A	N/A	0.001	-0.004		
Low %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	-0.012	-0.020		
Mid %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	-0.052	-0.028		
High %Err:	**N/A**	N/A	N/A	N/A	N/A	-0.032	-0.051		
	Initial Bias Data								
	Zero reading:	0.047	-0.043	0.098	0.002	0.002	0.006		
	Span reading:	11.48	3.944	2.631	2.354	5.003	5.011		
Zero % bias:	**<5.0**	0.317	0.322	1.522	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-0.237	-0.119	0.830	-3.764	N/A	N/A		
	Final Bias Data								
	Zero reading:	0.057	-0.049	0.051	0.002	0.046	-0.067		
	Span reading:	11.50	3.933	2.631	2.336	4.874	4.851		
Zero % bias:	**<5.0**	0.365	0.251	0.593	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-0.142	-0.251	0.830	-4.119	N/A	N/A		
Zero % drift:	**<3.0**	0.048	0.071	0.929	0.000	N/A	N/A		
Span % drift:	**<3.0**	0.095	0.132	0.000	0.355	N/A	N/A		
Zero drift:	**<3.0% span**	N/A	N/A	N/A	N/A	-0.044	0.073		
Span drift:	**<3.0% span**	N/A	N/A	N/A	N/A	0.129	0.160		
	Bias Corrected Averages								
	Cor Avg:	13.07	4.525	1.179	2.481	2.494	2.493		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 5 Average Results - RUN 5 1203-1224

11:57:00 - 12:18:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 16 2024	11:58:00	12.94	4.477	1.294	2.176				
Jul 16 2024	11:59:00	12.93	4.476	1.265	2.213				
Jul 16 2024	12:00:00	12.94	4.477	1.253	2.190				
Jul 16 2024	12:01:00	12.93	4.473	1.267	2.220				
Jul 16 2024	12:02:00	12.93	4.480	1.279	2.186				
Jul 16 2024	12:03:00	12.93	4.475	1.278	2.241				
Jul 16 2024	12:04:00	13.10	4.439	1.275	2.171				
End of port 1 point 1									
Jul 16 2024	12:05:00	13.25	4.263	1.263	2.074				
Jul 16 2024	12:06:00	12.95	4.482	1.286	2.197				
Jul 16 2024	12:07:00	12.94	4.484	1.279	2.229				
Jul 16 2024	12:08:00	12.95	4.482	1.284	2.218				
Jul 16 2024	12:09:00	12.93	4.487	1.281	2.145				
Jul 16 2024	12:10:00	12.94	4.487	1.269	2.200				
Jul 16 2024	12:11:00	12.93	4.491	1.273	2.221				
End of port 1 point 2									
Jul 16 2024	12:12:00	12.94	4.489	1.274	2.227				
Jul 16 2024	12:13:00	12.93	4.492	1.291	2.208				
Jul 16 2024	12:14:00	12.93	4.492	1.299	2.194				
Jul 16 2024	12:15:00	12.93	4.494	1.295	2.200				
Jul 16 2024	12:16:00	12.93	4.494	1.300	2.224				
Jul 16 2024	12:17:00	12.94	4.495	1.288	2.226				
Jul 16 2024	12:18:00	12.93	4.496	1.285	2.232				
End of port 1 point 3									

	Average:	12.96	4.473	1.280	2.200				
	Max:	13.25	4.496	1.300	2.241				
	Min:	12.93	4.263	1.253	2.074				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	13.04	4.444	1.264	2.192				
1	2	12.93	4.488	1.288	2.199				
1	3	12.93	4.494	1.292	2.219				
	Strat diff:	0.073	0.019	0.011	0.016				
	Strat %:	0.566	0.700	1.353	0.711				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 5 Post run bias - RUN 5 1203-1224
11:57:00 - 12:18:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.96	4.473	1.280	2.200				
	Max:	13.25	4.496	1.300	2.241				
	Min:	12.93	4.263	1.253	2.074				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010				
	Low reading:								
	Mid reading:	11.53	3.954	2.589	2.545				
	High reading:	21.02	8.397	5.061	5.067				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197				
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123				
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138				
	Initial Bias Data								
	Zero reading:	0.057	-0.049	0.051	0.002				
	Span reading:	11.50	3.933	2.631	2.336				
Zero % bias:	**<5.0**	0.365	0.251	0.593	-0.158				
Span % bias:	**<5.0**	-0.142	-0.251	0.830	-4.119				
	Final Bias Data								
	Zero reading:	0.086	-0.032	0.075	0.001				
	Span reading:	11.54	3.947	2.577	2.324				
Zero % bias:	**<5.0**	0.502	0.454	1.067	-0.177				
Span % bias:	**<5.0**	0.047	-0.084	-0.237	-4.356				
Zero % drift:	**<3.0**	0.137	0.203	0.474	0.019				
Span % drift:	**<3.0**	0.189	0.167	1.067	0.237				
	Bias Corrected Averages								
	Cor Avg:	13.07	4.519	1.195	2.349				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 6 Average Results - RUN 6 1240-1301

12:34:00 - 12:55:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 16 2024	12:35:00	12.92	4.508	1.296	2.312				
Jul 16 2024	12:36:00	12.92	4.507	1.309	2.331				
Jul 16 2024	12:37:00	12.92	4.508	1.300	2.293				
Jul 16 2024	12:38:00	12.91	4.508	1.285	2.274				
Jul 16 2024	12:39:00	12.92	4.511	1.301	2.332				
Jul 16 2024	12:40:00	12.91	4.513	1.303	2.310				
Jul 16 2024	12:41:00	12.93	4.512	1.305	2.292				
End of port 1 point 1									
Jul 16 2024	12:42:00	12.92	4.512	1.308	2.305				
Jul 16 2024	12:43:00	12.91	4.511	1.318	2.276				
Jul 16 2024	12:44:00	12.92	4.515	1.300	2.304				
Jul 16 2024	12:45:00	12.92	4.512	1.297	2.275				
Jul 16 2024	12:46:00	12.92	4.517	1.294	2.278				
Jul 16 2024	12:47:00	12.92	4.514	1.294	2.314				
Jul 16 2024	12:48:00	12.92	4.517	1.298	2.313				
End of port 1 point 2									
Jul 16 2024	12:49:00	12.91	4.514	1.309	2.283				
Jul 16 2024	12:50:00	12.92	4.520	1.316	2.322				
Jul 16 2024	12:51:00	12.92	4.522	1.308	2.309				
Jul 16 2024	12:52:00	12.92	4.524	1.297	2.253				
Jul 16 2024	12:53:00	12.92	4.524	1.313	2.288				
Jul 16 2024	12:54:00	12.92	4.522	1.301	2.312				
Jul 16 2024	12:55:00	12.92	4.526	1.292	2.324				
End of port 1 point 3									

	Average:	12.92	4.515	1.302	2.300				
	Max:	12.93	4.526	1.318	2.332				
	Min:	12.91	4.507	1.285	2.253				

Stratification Results

Port	Point	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.91	4.510	1.303	2.300				
1	2	12.92	4.516	1.300	2.299				
1	3	12.92	4.523	1.301	2.307				
	Strat diff:	0.003	0.007	0.002	0.005				
	Strat %:	0.052	0.148	0.128	0.217				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 6 Post run bias - RUN 6 1240-1301
12:34:00 - 12:55:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.92	4.515	1.302	2.300				
	Max:	12.93	4.526	1.318	2.332				
	Min:	12.91	4.507	1.285	2.253				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010				
	Low reading:								
	Mid reading:	11.53	3.954	2.589	2.545				
	High reading:	21.02	8.397	5.061	5.067				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197				
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123				
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138				
	Initial Bias Data								
	Zero reading:	0.086	-0.032	0.075	0.001				
	Span reading:	11.54	3.947	2.577	2.324				
Zero % bias:	**<5.0**	0.502	0.454	1.067	-0.177				
Span % bias:	**<5.0**	0.047	-0.084	-0.237	-4.356				
	Final Bias Data								
	Zero reading:	0.076	-0.021	0.098	0.002				
	Span reading:	11.49	3.957	2.618	2.335				
Zero % bias:	**<5.0**	0.455	0.585	1.522	-0.158				
Span % bias:	**<5.0**	-0.189	0.036	0.573	-4.139				
Zero % drift:	**<3.0**	0.047	0.131	0.455	0.019				
Span % drift:	**<3.0**	0.236	0.120	0.810	0.217				
	Bias Corrected Averages								
	Cor Avg:	13.04	4.549	1.208	2.456				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 7 Average Results - RUN 7 1307-1328

13:01:00 - 13:22:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 16 2024	13:02:00	12.93	4.523	1.288	2.299				
Jul 16 2024	13:03:00	12.93	4.527	1.284	2.311				
Jul 16 2024	13:04:00	12.92	4.526	1.311	2.298				
Jul 16 2024	13:05:00	12.92	4.527	1.279	2.339				
Jul 16 2024	13:06:00	12.92	4.527	1.288	2.294				
Jul 16 2024	13:07:00	12.92	4.525	1.292	2.261				
Jul 16 2024	13:08:00	12.92	4.530	1.296	2.324				
End of port 1 point 1									
Jul 16 2024	13:09:00	12.92	4.523	1.286	2.281				
Jul 16 2024	13:10:00	12.93	4.530	1.293	2.252				
Jul 16 2024	13:11:00	12.92	4.527	1.303	2.280				
Jul 16 2024	13:12:00	12.92	4.532	1.284	2.298				
Jul 16 2024	13:13:00	12.92	4.528	1.279	2.351				
Jul 16 2024	13:14:00	12.93	4.531	1.294	2.287				
Jul 16 2024	13:15:00	12.93	4.531	1.312	2.283				
End of port 1 point 2									
Jul 16 2024	13:16:00	12.92	4.530	1.288	2.302				
Jul 16 2024	13:17:00	12.92	4.532	1.309	2.301				
Jul 16 2024	13:18:00	12.92	4.527	1.300	2.281				
Jul 16 2024	13:19:00	12.92	4.530	1.300	2.297				
Jul 16 2024	13:20:00	12.92	4.529	1.292	2.300				
Jul 16 2024	13:21:00	12.93	4.530	1.285	2.313				
Jul 16 2024	13:22:00	12.92	4.529	1.313	2.293				
End of port 1 point 3									

	Average:	12.92	4.528	1.294	2.297				
	Max:	12.93	4.532	1.313	2.351				
	Min:	12.92	4.523	1.279	2.252				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.93	4.527	1.291	2.299				
1	2	12.93	4.529	1.296	2.295				
1	3	12.92	4.530	1.300	2.301				
	Strat diff:	0.003	0.001	0.004	0.003				
	Strat %:	0.052	0.037	0.360	0.145				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 7 Post run bias - RUN 7 1307-1328

13:01:00 - 13:22:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.92	4.528	1.294	2.297				
	Max:	12.93	4.532	1.313	2.351				
	Min:	12.92	4.523	1.279	2.252				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010				
	Low reading:								
	Mid reading:	11.53	3.954	2.589	2.545				
	High reading:	21.02	8.397	5.061	5.067				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197				
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123				
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138				
	Initial Bias Data								
	Zero reading:	0.076	-0.021	0.098	0.002				
	Span reading:	11.49	3.957	2.618	2.335				
Zero % bias:	**<5.0**	0.455	0.585	1.522	-0.158				
Span % bias:	**<5.0**	-0.189	0.036	0.573	-4.139				
	Final Bias Data								
	Zero reading:	0.070	-0.016	0.062	0.002				
	Span reading:	11.49	3.962	2.613	2.348				
Zero % bias:	**<5.0**	0.426	0.645	0.810	-0.158				
Span % bias:	**<5.0**	-0.189	0.096	0.474	-3.883				
Zero % drift:	**<3.0**	0.029	0.060	0.712	0.000				
Span % drift:	**<3.0**	0.000	0.060	0.099	0.256				
	Bias Corrected Averages								
	Cor Avg:	13.06	4.555	1.195	2.441				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 8 Average Results - RUN 8 1338-1359

13:32:00 - 13:53:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 16 2024	13:33:00	12.92	4.531	1.305	2.301				
Jul 16 2024	13:34:00	12.92	4.529	1.274	2.342				
Jul 16 2024	13:35:00	12.92	4.529	1.306	2.330				
Jul 16 2024	13:36:00	12.91	4.531	1.287	2.287				
Jul 16 2024	13:37:00	12.91	4.531	1.289	2.317				
Jul 16 2024	13:38:00	12.92	4.530	1.287	2.313				
Jul 16 2024	13:39:00	12.92	4.531	1.282	2.278				
End of port 1 point 1									
Jul 16 2024	13:40:00	12.92	4.526	1.299	2.318				
Jul 16 2024	13:41:00	12.92	4.530	1.302	2.302				
Jul 16 2024	13:42:00	12.92	4.524	1.295	2.279				
Jul 16 2024	13:43:00	12.92	4.527	1.293	2.313				
Jul 16 2024	13:44:00	12.92	4.525	1.308	2.315				
Jul 16 2024	13:45:00	12.92	4.523	1.286	2.284				
Jul 16 2024	13:46:00	12.92	4.522	1.299	2.302				
End of port 1 point 2									
Jul 16 2024	13:47:00	12.92	4.524	1.292	2.313				
Jul 16 2024	13:48:00	12.92	4.526	1.288	2.292				
Jul 16 2024	13:49:00	12.92	4.522	1.297	2.328				
Jul 16 2024	13:50:00	12.91	4.524	1.308	2.322				
Jul 16 2024	13:51:00	12.91	4.521	1.320	2.307				
Jul 16 2024	13:52:00	12.92	4.526	1.320	2.342				
Jul 16 2024	13:53:00	12.91	4.520	1.296	2.337				
End of port 1 point 3									

	Average:	12.92	4.526	1.297	2.311				
	Max:	12.92	4.531	1.320	2.342				
	Min:	12.91	4.520	1.274	2.278				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.92	4.531	1.291	2.314				
1	2	12.92	4.523	1.296	2.300				
1	3	12.91	4.520	1.299	2.319				
	Strat diff:	0.003	0.006	0.004	0.008				
	Strat %:	0.052	0.140	0.335	0.476				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 8 Post run bias - RUN 8 1338-1359

13:32:00 - 13:53:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.92	4.526	1.297	2.311				
	Max:	12.92	4.531	1.320	2.342				
	Min:	12.91	4.520	1.274	2.278				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010				
	Low reading:								
	Mid reading:	11.53	3.954	2.589	2.545				
	High reading:	21.02	8.397	5.061	5.067				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197				
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123				
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138				
	Initial Bias Data								
	Zero reading:	0.070	-0.016	0.062	0.002				
	Span reading:	11.49	3.962	2.613	2.348				
Zero % bias:	**<5.0**	0.426	0.645	0.810	-0.158				
Span % bias:	**<5.0**	-0.189	0.096	0.474	-3.883				
	Final Bias Data								
	Zero reading:	0.082	-0.023	0.050	0.002				
	Span reading:	11.50	3.967	2.631	2.347				
Zero % bias:	**<5.0**	0.483	0.561	0.573	-0.158				
Span % bias:	**<5.0**	-0.142	0.155	0.830	-3.902				
Zero % drift:	**<3.0**	0.057	0.084	0.237	0.000				
Span % drift:	**<3.0**	0.047	0.059	0.356	0.019				
	Bias Corrected Averages								
	Cor Avg:	13.06	4.547	1.207	2.449				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 9 Average Results - RUN 9 1406-1427

14:00:00 - 14:21:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 16 2024	14:01:00	12.89	4.514	1.285	2.317				
Jul 16 2024	14:02:00	12.90	4.512	1.297	2.304				
Jul 16 2024	14:03:00	12.91	4.514	1.308	2.315				
Jul 16 2024	14:04:00	12.91	4.512	1.294	2.297				
Jul 16 2024	14:05:00	12.90	4.518	1.303	2.288				
Jul 16 2024	14:06:00	12.90	4.517	1.288	2.328				
Jul 16 2024	14:07:00	12.91	4.518	1.299	2.318				
End of port 1 point 1									
Jul 16 2024	14:08:00	12.90	4.516	1.303	2.269				
Jul 16 2024	14:09:00	12.90	4.514	1.293	2.308				
Jul 16 2024	14:10:00	12.90	4.514	1.304	2.337				
Jul 16 2024	14:11:00	12.90	4.512	1.288	2.297				
Jul 16 2024	14:12:00	12.91	4.512	1.279	2.296				
Jul 16 2024	14:13:00	12.91	4.510	1.317	2.303				
Jul 16 2024	14:14:00	12.90	4.513	1.313	2.290				
End of port 1 point 2									
Jul 16 2024	14:15:00	12.91	4.511	1.321	2.358				
Jul 16 2024	14:16:00	12.92	4.515	1.318	2.302				
Jul 16 2024	14:17:00	12.90	4.514	1.332	2.311				
Jul 16 2024	14:18:00	12.91	4.519	1.331	2.351				
Jul 16 2024	14:19:00	12.91	4.518	1.308	2.322				
Jul 16 2024	14:20:00	12.92	4.514	1.299	2.275				
Jul 16 2024	14:21:00	12.91	4.516	1.312	2.326				
End of port 1 point 3									

	Average:	12.91	4.514	1.304	2.310				
	Max:	12.92	4.519	1.332	2.358				
	Min:	12.89	4.510	1.279	2.269				

Stratification Results

Port	Point	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.90	4.516	1.294	2.300				
1	2	12.90	4.512	1.303	2.316				
1	3	12.90	4.515	1.315	2.335				
	Strat diff:	0.000	0.002	0.011	0.018				
	Strat %:	0.000	0.052	0.844	0.777				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 9 Post run bias - RUN 9 1406-1427

14:00:00 - 14:21:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.91	4.514	1.304	2.310				
	Max:	12.92	4.519	1.332	2.358				
	Min:	12.89	4.510	1.279	2.269				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010				
	Low reading:								
	Mid reading:	11.53	3.954	2.589	2.545				
	High reading:	21.02	8.397	5.061	5.067				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197				
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123				
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138				
	Initial Bias Data								
	Zero reading:	0.082	-0.023	0.050	0.002				
	Span reading:	11.50	3.967	2.631	2.347				
Zero % bias:	**<5.0**	0.483	0.561	0.573	-0.158				
Span % bias:	**<5.0**	-0.142	0.155	0.830	-3.902				
	Final Bias Data								
	Zero reading:	0.047	-0.046	0.091	0.002				
	Span reading:	11.48	3.954	2.595	2.371				
Zero % bias:	**<5.0**	0.317	0.287	1.384	-0.158				
Span % bias:	**<5.0**	-0.237	0.000	0.119	-3.429				
Zero % drift:	**<3.0**	0.166	0.274	0.811	0.000				
Span % drift:	**<3.0**	0.095	0.155	0.711	0.473				
	Bias Corrected Averages								
	Cor Avg:	13.05	4.537	1.211	2.436				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 10 Average Results - RUN 10 1439-1500

14:33:00 - 14:54:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 16 2024	14:34:00	12.91	4.518	1.289	2.321				
Jul 16 2024	14:35:00	12.92	4.513	1.305	2.299				
Jul 16 2024	14:36:00	12.92	4.518	1.308	2.316				
Jul 16 2024	14:37:00	12.91	4.515	1.310	2.323				
Jul 16 2024	14:38:00	12.92	4.518	1.295	2.291				
Jul 16 2024	14:39:00	12.91	4.517	1.308	2.359				
Jul 16 2024	14:40:00	12.91	4.520	1.300	2.334				
End of port 1 point 1									
Jul 16 2024	14:41:00	12.90	4.518	1.290	2.309				
Jul 16 2024	14:42:00	12.90	4.518	1.302	2.323				
Jul 16 2024	14:43:00	12.91	4.518	1.310	2.281				
Jul 16 2024	14:44:00	12.91	4.518	1.304	2.279				
Jul 16 2024	14:45:00	12.91	4.517	1.291	2.334				
Jul 16 2024	14:46:00	12.91	4.513	1.298	2.300				
Jul 16 2024	14:47:00	12.92	4.516	1.305	2.282				
End of port 1 point 2									
Jul 16 2024	14:48:00	12.91	4.514	1.299	2.310				
Jul 16 2024	14:49:00	12.92	4.515	1.302	2.338				
Jul 16 2024	14:50:00	12.92	4.514	1.306	2.317				
Jul 16 2024	14:51:00	12.91	4.515	1.312	2.307				
Jul 16 2024	14:52:00	12.91	4.517	1.321	2.294				
Jul 16 2024	14:53:00	12.91	4.518	1.310	2.321				
Jul 16 2024	14:54:00	12.91	4.515	1.329	2.306				
End of port 1 point 3									

	Average:	12.91	4.516	1.304	2.312				
	Max:	12.92	4.520	1.329	2.359				
	Min:	12.90	4.513	1.289	2.279				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.91	4.517	1.302	2.300				
1	2	12.92	4.518	1.299	2.302				
1	3	12.91	4.518	1.319	2.299				
	Strat diff:	0.007	0.000	0.012	0.002				
	Strat %:	0.052	0.015	0.944	0.072				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 10 Post run bias - RUN 10 1439-1500

14:33:00 - 14:54:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.91	4.516	1.304	2.312				
	Max:	12.92	4.520	1.329	2.359				
	Min:	12.90	4.513	1.289	2.279				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	-0.020	-0.070	0.021	0.010				
	Low reading:								
	Mid reading:	11.53	3.954	2.589	2.545				
	High reading:	21.02	8.397	5.061	5.067				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	-0.095	-0.836	0.415	0.197				
Mid %Err:	**<2.0**	-0.379	-0.370	1.838	1.123				
High %Err:	**<2.0**	-0.473	0.251	0.040	-0.138				
	Initial Bias Data								
	Zero reading:	0.047	-0.046	0.091	0.002				
	Span reading:	11.48	3.954	2.595	2.371				
Zero % bias:	**<5.0**	0.317	0.287	1.384	-0.158				
Span % bias:	**<5.0**	-0.237	0.000	0.119	-3.429				
	Final Bias Data								
	Zero reading:	0.067	-0.016	0.044	0.002				
	Span reading:	11.49	3.963	2.577	2.329				
Zero % bias:	**<5.0**	0.412	0.645	0.455	-0.158				
Span % bias:	**<5.0**	-0.189	0.107	-0.237	-4.257				
Zero % drift:	**<3.0**	0.095	0.358	0.929	0.000				
Span % drift:	**<3.0**	0.048	0.107	0.356	0.828				
	Bias Corrected Averages								
	Cor Avg:	13.06	4.542	1.225	2.448				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 1 Average Results - RUN 1 0727-0757

07:21:00 - 07:51:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
Jul 17 2024	07:22:00	15.42	2.939	1.266					
Jul 17 2024	07:23:00	15.42	2.940	1.253					
Jul 17 2024	07:24:00	15.42	2.937	1.248					
Jul 17 2024	07:25:00	15.42	2.937	1.235					
Jul 17 2024	07:26:00	15.42	2.936	1.256					
Jul 17 2024	07:27:00	15.42	2.934	1.262					
Jul 17 2024	07:28:00	15.42	2.933	1.253					
Jul 17 2024	07:29:00	15.42	2.929	1.273					
Jul 17 2024	07:30:00	15.41	2.932	1.277					
Jul 17 2024	07:31:00	15.41	2.928	1.273					
End of port 1 point 1									
Jul 17 2024	07:32:00	15.42	2.930	1.289					
Jul 17 2024	07:33:00	15.43	2.925	1.264					
Jul 17 2024	07:34:00	15.42	2.924	1.268					
Jul 17 2024	07:35:00	15.42	2.923	1.271					
Jul 17 2024	07:36:00	15.43	2.924	1.274					
Jul 17 2024	07:37:00	15.42	2.923	1.277					
Jul 17 2024	07:38:00	15.42	2.921	1.279					
Jul 17 2024	07:39:00	15.42	2.920	1.269					
Jul 17 2024	07:40:00	15.43	2.919	1.271					
Jul 17 2024	07:41:00	15.42	2.919	1.276					
End of port 1 point 2									
Jul 17 2024	07:42:00	15.42	2.916	1.285					
Jul 17 2024	07:43:00	15.43	2.916	1.277					
Jul 17 2024	07:44:00	15.43	2.914	1.277					
Jul 17 2024	07:45:00	15.42	2.917	1.282					
Jul 17 2024	07:46:00	15.43	2.914	1.294					
Jul 17 2024	07:47:00	15.44	2.914	1.282					
Jul 17 2024	07:48:00	15.42	2.912	1.280					
Jul 17 2024	07:49:00	15.43	2.911	1.296					
Jul 17 2024	07:50:00	15.43	2.914	1.292					
Jul 17 2024	07:51:00	15.41	2.909	1.276					
End of port 1 point 3									

	Average:	15.42	2.924	1.273					
	Max:	15.44	2.940	1.296					
	Min:	15.41	2.909	1.235					

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
1	1	15.42	2.934	1.274					
1	2	15.42	2.923	1.271					
1	3	15.42	2.914	1.287					
	Strat diff:	0.000	0.010	0.010					
	Strat %:	0.000	0.353	0.757					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 1 Post run bias - RUN 1 0727-0757
07:21:00 - 07:51:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
	25A or 7E:	7E	7E	7E					
	Run summary data								
	Raw Avg:	15.42	2.924	1.273					
	Max:	15.44	2.940	1.296					
	Min:	15.41	2.909	1.235					
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000					
	Low:								
	Mid:	11.61	3.985	2.496					
	High:	21.12	8.376	5.059					
	Calibration Readings								
	Zero reading:	0.002	0.003	0.001					
	Low reading:								
	Mid reading:	11.52	3.980	2.583					
	High reading:	21.05	8.383	5.073					
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.009	0.036	0.020					
Mid %Err:	**<2.0**	-0.426	-0.060	1.720					
High %Err:	**<2.0**	-0.331	0.084	0.277					
	Initial Bias Data								
	Zero reading:	0.054	0.017	0.080					
	Span reading:	11.49	3.944	2.589					
Zero % bias:	**<5.0**	0.246	0.167	1.562					
Span % bias:	**<5.0**	-0.142	-0.430	0.119					
	Final Bias Data								
	Zero reading:	-0.089	-0.035	0.213					
	Span reading:	11.32	3.869	2.703					
Zero % bias:	**<5.0**	-0.431	-0.454	4.191					
Span % bias:	**<5.0**	-0.947	-1.325	2.372					
Zero % drift:	**<3.0**	0.677	0.621	2.629					
Span % drift:	**<3.0**	0.805	0.895	2.253					
	Bias Corrected Averages								
	Cor Avg:	15.69	2.985	1.125					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 2 Average Results - RUN 2 0804-0834

07:58:00 - 08:28:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
Jul 17 2024	07:59:00	15.43	2.912	1.249					
Jul 17 2024	08:00:00	15.42	2.909	1.267					
Jul 17 2024	08:01:00	15.43	2.914	1.271					
Jul 17 2024	08:02:00	15.41	2.911	1.254					
Jul 17 2024	08:03:00	15.42	2.915	1.245					
Jul 17 2024	08:04:00	15.43	2.910	1.238					
Jul 17 2024	08:05:00	15.42	2.913	1.238					
Jul 17 2024	08:06:00	15.43	2.910	1.234					
Jul 17 2024	08:07:00	15.42	2.912	1.221					
Jul 17 2024	08:08:00	15.42	2.910	1.232					
End of port 1 point 1									
Jul 17 2024	08:09:00	15.42	2.909	1.235					
Jul 17 2024	08:10:00	15.43	2.912	1.233					
Jul 17 2024	08:11:00	15.42	2.910	1.224					
Jul 17 2024	08:12:00	15.43	2.912	1.231					
Jul 17 2024	08:13:00	15.42	2.909	1.220					
Jul 17 2024	08:14:00	15.43	2.908	1.212					
Jul 17 2024	08:15:00	15.44	2.900	1.230					
Jul 17 2024	08:16:00	15.43	2.902	1.222					
Jul 17 2024	08:17:00	15.43	2.901	1.233					
Jul 17 2024	08:18:00	15.43	2.900	1.226					
End of port 1 point 2									
Jul 17 2024	08:19:00	15.43	2.898	1.237					
Jul 17 2024	08:20:00	15.44	2.898	1.244					
Jul 17 2024	08:21:00	15.43	2.898	1.239					
Jul 17 2024	08:22:00	15.44	2.895	1.238					
Jul 17 2024	08:23:00	15.43	2.897	1.224					
Jul 17 2024	08:24:00	15.43	2.894	1.223					
Jul 17 2024	08:25:00	15.43	2.895	1.231					
Jul 17 2024	08:26:00	15.43	2.892	1.225					
Jul 17 2024	08:27:00	15.43	2.893	1.229					
Jul 17 2024	08:28:00	15.42	2.893	1.229					
End of port 1 point 3									

	Average:	15.43	2.904	1.234					
	Max:	15.44	2.915	1.271					
	Min:	15.41	2.892	1.212					

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
1	1	15.43	2.913	1.244					
1	2	15.42	2.906	1.224					
1	3	15.43	2.896	1.237					
	Strat diff:	0.003	0.008	0.009					
	Strat %:	0.043	0.310	0.891					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 2 Post run bias - RUN 2 0804-0834
07:58:00 - 08:28:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
	25A or 7E:	7E	7E	7E					
	Run summary data								
	Raw Avg:	15.43	2.904	1.234					
	Max:	15.44	2.915	1.271					
	Min:	15.41	2.892	1.212					
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000					
	Low:								
	Mid:	11.61	3.985	2.496					
	High:	21.12	8.376	5.059					
	Calibration Readings								
	Zero reading:	0.002	0.003	0.001					
	Low reading:								
	Mid reading:	11.52	3.980	2.583					
	High reading:	21.05	8.383	5.073					
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.009	0.036	0.020					
Mid %Err:	**<2.0**	-0.426	-0.060	1.720					
High %Err:	**<2.0**	-0.331	0.084	0.277					
	Initial Bias Data								
	Zero reading:	-0.089	-0.035	0.213					
	Span reading:	11.32	3.869	2.703					
Zero % bias:	**<5.0**	-0.431	-0.454	4.191					
Span % bias:	**<5.0**	-0.947	-1.325	2.372					
	Final Bias Data								
	Zero reading:	-0.064	-0.036	0.213					
	Span reading:	11.35	3.845	2.667					
Zero % bias:	**<5.0**	-0.313	-0.466	4.191					
Span % bias:	**<5.0**	-0.805	-1.612	1.660					
Zero % drift:	**<3.0**	0.118	0.012	0.000					
Span % drift:	**<3.0**	0.142	0.287	0.712					
	Bias Corrected Averages								
	Cor Avg:	15.78	3.009	1.031					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 3 Average Results - RUN 3 0843-0913

08:37:00 - 09:07:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
Jul 17 2024	08:38:00	15.41	2.880	1.250					
Jul 17 2024	08:39:00	15.41	2.880	1.256					
Jul 17 2024	08:40:00	15.41	2.879	1.259					
Jul 17 2024	08:41:00	15.41	2.880	1.258					
Jul 17 2024	08:42:00	15.40	2.878	1.256					
Jul 17 2024	08:43:00	15.40	2.883	1.267					
Jul 17 2024	08:44:00	15.41	2.878	1.279					
Jul 17 2024	08:45:00	15.42	2.879	1.282					
Jul 17 2024	08:46:00	15.41	2.877	1.280					
Jul 17 2024	08:47:00	15.40	2.879	1.279					
End of port 1 point 1									
Jul 17 2024	08:48:00	15.41	2.877	1.260					
Jul 17 2024	08:49:00	15.41	2.882	1.289					
Jul 17 2024	08:50:00	15.41	2.880	1.277					
Jul 17 2024	08:51:00	15.41	2.880	1.268					
Jul 17 2024	08:52:00	15.41	2.880	1.287					
Jul 17 2024	08:53:00	15.41	2.879	1.270					
Jul 17 2024	08:54:00	15.41	2.882	1.277					
Jul 17 2024	08:55:00	15.40	2.879	1.283					
Jul 17 2024	08:56:00	15.41	2.880	1.295					
Jul 17 2024	08:57:00	15.41	2.879	1.281					
End of port 1 point 2									
Jul 17 2024	08:58:00	15.42	2.883	1.287					
Jul 17 2024	08:59:00	15.41	2.883	1.285					
Jul 17 2024	09:00:00	15.43	2.884	1.275					
Jul 17 2024	09:01:00	15.41	2.882	1.279					
Jul 17 2024	09:02:00	15.41	2.883	1.282					
Jul 17 2024	09:03:00	15.41	2.882	1.268					
Jul 17 2024	09:04:00	15.41	2.884	1.267					
Jul 17 2024	09:05:00	15.41	2.886	1.272					
Jul 17 2024	09:06:00	15.41	2.883	1.312					
Jul 17 2024	09:07:00	15.42	2.885	1.277					
End of port 1 point 3									

	Average:	15.41	2.881	1.275					
	Max:	15.43	2.886	1.312					
	Min:	15.40	2.877	1.250					

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
1	1	15.41	2.880	1.259					
1	2	15.41	2.882	1.281					
1	3	15.41	2.884	1.277					
	Strat diff:	0.000	0.002	0.009					
	Strat %:	0.000	0.069	1.048					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 1 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 3 Post run bias - RUN 3 0843-0913
08:37:00 - 09:07:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
	25A or 7E:	7E	7E	7E					
	Run summary data								
	Raw Avg:	15.41	2.881	1.275					
	Max:	15.43	2.886	1.312					
	Min:	15.40	2.877	1.250					
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000					
	Low:								
	Mid:	11.61	3.985	2.496					
	High:	21.12	8.376	5.059					
	Calibration Readings								
	Zero reading:	0.002	0.003	0.001					
	Low reading:								
	Mid reading:	11.52	3.980	2.583					
	High reading:	21.05	8.383	5.073					
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.009	0.036	0.020					
Mid %Err:	**<2.0**	-0.426	-0.060	1.720					
High %Err:	**<2.0**	-0.331	0.084	0.277					
	Initial Bias Data								
	Zero reading:	-0.064	-0.036	0.213					
	Span reading:	11.35	3.845	2.667					
Zero % bias:	**<5.0**	-0.313	-0.466	4.191					
Span % bias:	**<5.0**	-0.805	-1.612	1.660					
	Final Bias Data								
	Zero reading:	-0.082	-0.056	0.200					
	Span reading:	11.34	3.852	2.667					
Zero % bias:	**<5.0**	-0.398	-0.704	3.934					
Span % bias:	**<5.0**	-0.852	-1.528	1.660					
Zero % drift:	**<3.0**	0.085	0.238	0.257					
Span % drift:	**<3.0**	0.047	0.084	0.000					
	Bias Corrected Averages								
	Cor Avg:	15.74	2.995	1.084					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 4 Average Results - RUN 1 1020-1050
10:14:00 - 10:44:00

	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
Jul 17 2024	10:15:00	14.01	3.679						
Jul 17 2024	10:16:00	14.02	3.675						
Jul 17 2024	10:17:00	14.02	3.675						
Jul 17 2024	10:18:00	14.02	3.670						
Jul 17 2024	10:19:00	14.02	3.672						
Jul 17 2024	10:20:00	14.02	3.673						
Jul 17 2024	10:21:00	14.02	3.670						
Jul 17 2024	10:22:00	14.01	3.671						
Jul 17 2024	10:23:00	14.02	3.665						
Jul 17 2024	10:24:00	14.01	3.667						
End of port 1 point 1									
Jul 17 2024	10:25:00	14.01	3.665						
Jul 17 2024	10:26:00	14.02	3.668						
Jul 17 2024	10:27:00	14.03	3.663						
Jul 17 2024	10:28:00	14.03	3.661						
Jul 17 2024	10:29:00	14.03	3.660						
Jul 17 2024	10:30:00	14.05	3.657						
Jul 17 2024	10:31:00	14.04	3.660						
Jul 17 2024	10:32:00	14.03	3.658						
Jul 17 2024	10:33:00	14.03	3.658						
Jul 17 2024	10:34:00	14.02	3.658						
End of port 1 point 2									
Jul 17 2024	10:35:00	14.02	3.660						
Jul 17 2024	10:36:00	14.02	3.656						
Jul 17 2024	10:37:00	14.01	3.659						
Jul 17 2024	10:38:00	14.01	3.659						
Jul 17 2024	10:39:00	14.01	3.660						
Jul 17 2024	10:40:00	14.02	3.658						
Jul 17 2024	10:41:00	14.02	3.657						
Jul 17 2024	10:42:00	14.01	3.659						
Jul 17 2024	10:43:00	14.02	3.657						
Jul 17 2024	10:44:00	14.01	3.657						
End of port 1 point 3									

	Average:	14.02	3.664						
	Max:	14.05	3.679						
	Min:	14.01	3.656						

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)						
1	1	14.02	3.672						
1	2	14.03	3.659						
1	3	14.02	3.659						
	Strat diff:	0.007	0.009						
	Strat %:	0.048	0.237						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 4 Post run bias - RUN 1 1020-1050
10:14:00 - 10:44:00

	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
	25A or 7E:	7E	7E						

Run summary data									
	Raw Avg:	14.02	3.664						
	Max:	14.05	3.679						
	Min:	14.01	3.656						

Cylinder Concentrations									
	Zero:	0.000	0.000						
	Low:								
	Mid:	11.61	3.985						
	High:	21.12	8.376						

Calibration Readings									
	Zero reading:	0.002	0.003						
	Low reading:								
	Mid reading:	11.52	3.980						
	High reading:	21.05	8.383						

EPA Method 7E Error Calculations									
Zero %Err:	**<2.0**	0.009	0.036						
Mid %Err:	**<2.0**	-0.426	-0.060						
High %Err:	**<2.0**	-0.331	0.084						

Initial Bias Data									
	Zero reading:	-0.082	-0.056						
	Span reading:	11.34	3.852						
Zero % bias:	**<5.0**	-0.398	-0.704						
Span % bias:	**<5.0**	-0.852	-1.528						

Final Bias Data									
	Zero reading:	-0.093	-0.053						
	Span reading:	11.31	3.819						
Zero % bias:	**<5.0**	-0.450	-0.669						
Span % bias:	**<5.0**	-0.994	-1.922						
Zero % drift:	**<3.0**	0.052	0.035						
Span % drift:	**<3.0**	0.142	0.394						

Bias Corrected Averages									
	Cor Avg:	14.35	3.809						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 5 Average Results - RUN 2 1056-1126
10:50:00 - 11:20:00

	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
Jul 17 2024	10:51:00	14.00	3.660						
Jul 17 2024	10:52:00	14.00	3.658						
Jul 17 2024	10:53:00	14.02	3.660						
Jul 17 2024	10:54:00	14.00	3.658						
Jul 17 2024	10:55:00	14.01	3.662						
Jul 17 2024	10:56:00	14.00	3.659						
Jul 17 2024	10:57:00	14.00	3.661						
Jul 17 2024	10:58:00	14.01	3.661						
Jul 17 2024	10:59:00	14.01	3.666						
Jul 17 2024	11:00:00	14.01	3.666						
End of port 1 point 1									
Jul 17 2024	11:01:00	14.00	3.661						
Jul 17 2024	11:02:00	14.02	3.657						
Jul 17 2024	11:03:00	14.00	3.661						
Jul 17 2024	11:04:00	13.99	3.662						
Jul 17 2024	11:05:00	14.01	3.660						
Jul 17 2024	11:06:00	14.01	3.663						
Jul 17 2024	11:07:00	14.01	3.661						
Jul 17 2024	11:08:00	14.00	3.667						
Jul 17 2024	11:09:00	14.00	3.666						
Jul 17 2024	11:10:00	14.00	3.666						
End of port 1 point 2									
Jul 17 2024	11:11:00	13.99	3.674						
Jul 17 2024	11:12:00	14.01	3.668						
Jul 17 2024	11:13:00	13.99	3.667						
Jul 17 2024	11:14:00	13.99	3.666						
Jul 17 2024	11:15:00	14.00	3.670						
Jul 17 2024	11:16:00	13.99	3.669						
Jul 17 2024	11:17:00	13.99	3.672						
Jul 17 2024	11:18:00	13.99	3.669						
Jul 17 2024	11:19:00	14.00	3.672						
Jul 17 2024	11:20:00	13.98	3.669						
End of port 1 point 3									

	Average:	14.00	3.664						
	Max:	14.02	3.674						
	Min:	13.98	3.657						

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)						
1	1	14.01	3.661						
1	2	14.00	3.661						
1	3	14.00	3.669						
	Strat diff:	0.007	0.005						
	Strat %:	0.048	0.146						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 5 Post run bias - RUN 2 1056-1126
10:50:00 - 11:20:00

	Name:	O2 (OX-10)	CO2 (CD-10)
	Make/Model:		
	25A or 7E:	7E	7E

Run summary data			
	Raw Avg:	14.00	3.664
	Max:	14.02	3.674
	Min:	13.98	3.657

Cylinder Concentrations			
	Zero:	0.000	0.000
	Low:		
	Mid:	11.61	3.985
	High:	21.12	8.376

Calibration Readings			
	Zero reading:	0.002	0.003
	Low reading:		
	Mid reading:	11.52	3.980
	High reading:	21.05	8.383

EPA Method 7E Error Calculations			
Zero %Err:	**<2.0**	0.009	0.036
Mid %Err:	**<2.0**	-0.426	-0.060
High %Err:	**<2.0**	-0.331	0.084

Initial Bias Data			
	Zero reading:	-0.093	-0.053
	Span reading:	11.31	3.819
Zero % bias:	**<5.0**	-0.450	-0.669
Span % bias:	**<5.0**	-0.994	-1.922

Final Bias Data			
	Zero reading:	-0.128	-0.047
	Span reading:	11.32	3.840
Zero % bias:	**<5.0**	-0.616	-0.597
Span % bias:	**<5.0**	-0.947	-1.671
Zero % drift:	**<3.0**	0.166	0.072
Span % drift:	**<3.0**	0.047	0.251

Bias Corrected Averages			
	Cor Avg:	14.34	3.815

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 6 Average Results - RUN 3 1132-1202
11:26:00 - 11:56:00

	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
Jul 17 2024	11:27:00	13.99	3.662						
Jul 17 2024	11:28:00	13.99	3.666						
Jul 17 2024	11:29:00	13.99	3.666						
Jul 17 2024	11:30:00	13.99	3.669						
Jul 17 2024	11:31:00	13.99	3.666						
Jul 17 2024	11:32:00	13.98	3.669						
Jul 17 2024	11:33:00	14.00	3.671						
Jul 17 2024	11:34:00	13.99	3.669						
Jul 17 2024	11:35:00	13.98	3.672						
Jul 17 2024	11:36:00	13.98	3.667						
End of port 1 point 1									
Jul 17 2024	11:37:00	13.99	3.670						
Jul 17 2024	11:38:00	13.98	3.666						
Jul 17 2024	11:39:00	13.99	3.668						
Jul 17 2024	11:40:00	13.99	3.665						
Jul 17 2024	11:41:00	13.98	3.667						
Jul 17 2024	11:42:00	13.98	3.665						
Jul 17 2024	11:43:00	13.98	3.665						
Jul 17 2024	11:44:00	14.00	3.662						
Jul 17 2024	11:45:00	14.00	3.662						
Jul 17 2024	11:46:00	13.98	3.666						
End of port 1 point 2									
Jul 17 2024	11:47:00	13.99	3.665						
Jul 17 2024	11:48:00	13.99	3.671						
Jul 17 2024	11:49:00	13.98	3.665						
Jul 17 2024	11:50:00	13.99	3.666						
Jul 17 2024	11:51:00	13.99	3.665						
Jul 17 2024	11:52:00	13.99	3.666						
Jul 17 2024	11:53:00	13.99	3.664						
Jul 17 2024	11:54:00	13.98	3.668						
Jul 17 2024	11:55:00	13.99	3.670						
Jul 17 2024	11:56:00	13.99	3.666						
End of port 1 point 3									

	Average:	13.99	3.667						
	Max:	14.00	3.672						
	Min:	13.98	3.662						

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)						
1	1	13.98	3.667						
1	2	13.99	3.665						
1	3	13.99	3.666						
	Strat diff:	0.003	0.001						
	Strat %:	0.048	0.027						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 BASE
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 6 Post run bias - RUN 3 1132-1202
11:26:00 - 11:56:00

	Name:	O2 (OX-10)	CO2 (CD-10)						
	Make/Model:								
	25A or 7E:	7E	7E						

Run summary data									
	Raw Avg:	13.99	3.667						
	Max:	14.00	3.672						
	Min:	13.98	3.662						

Cylinder Concentrations									
	Zero:	0.000	0.000						
	Low:								
	Mid:	11.61	3.985						
	High:	21.12	8.376						

Calibration Readings									
	Zero reading:	0.002	0.003						
	Low reading:								
	Mid reading:	11.52	3.980						
	High reading:	21.05	8.383						

EPA Method 7E Error Calculations									
Zero %Err:	**<2.0**	0.009	0.036						
Mid %Err:	**<2.0**	-0.426	-0.060						
High %Err:	**<2.0**	-0.331	0.084						

Initial Bias Data									
	Zero reading:	-0.128	-0.047						
	Span reading:	11.32	3.840						
Zero % bias:	**<5.0**	-0.616	-0.597						
Span % bias:	**<5.0**	-0.947	-1.671						

Final Bias Data									
	Zero reading:	-0.141	-0.037						
	Span reading:	11.29	3.842						
Zero % bias:	**<5.0**	-0.677	-0.478						
Span % bias:	**<5.0**	-1.089	-1.648						
Zero % drift:	**<3.0**	0.061	0.119						
Span % drift:	**<3.0**	0.142	0.023						

Bias Corrected Averages									
	Cor Avg:	14.34	3.806						

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 36	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 2	Points per port: 6	DAQ Device: DT9803(01)

Run 1 Average Results - RUN 1 0825-0906

08:19:00 - 09:00:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 18 2024	08:20:00	12.63	4.385	0.974	2.031				
Jul 18 2024	08:21:00	12.64	4.385	0.962	2.044				
Jul 18 2024	08:22:00	12.63	4.384	0.962	2.027				
End of port 1 point 1									
Jul 18 2024	08:23:00	12.62	4.386	1.005	1.772				
Jul 18 2024	08:24:00	12.63	4.391	1.052	1.605				
Jul 18 2024	08:25:00	12.62	4.388	1.055	1.622				
End of port 1 point 2									
Jul 18 2024	08:26:00	12.61	4.392	1.080	1.633				
Jul 18 2024	08:27:00	12.61	4.401	1.245	1.623				
Jul 18 2024	08:28:00	12.61	4.395	1.271	1.636				
End of port 1 point 3									
Jul 18 2024	08:29:00	12.58	4.407	1.384	1.842				
Jul 18 2024	08:30:00	12.57	4.419	1.940	2.398				
Jul 18 2024	08:31:00	12.56	4.417	1.907	2.424				
End of port 1 point 4									
Jul 18 2024	08:32:00	12.56	4.417	1.939	2.440				
Jul 18 2024	08:33:00	12.58	4.415	1.944	2.620				
Jul 18 2024	08:34:00	12.58	4.410	1.924	2.708				
End of port 1 point 5									
Jul 18 2024	08:35:00	12.57	4.407	1.906	2.688				
Jul 18 2024	08:36:00	12.57	4.414	1.924	2.701				
Jul 18 2024	08:37:00	12.58	4.409	1.959	2.686				
End of port 1 point 6									
Jul 18 2024	08:43:00	12.67	4.345	1.611	2.169				
Jul 18 2024	08:44:00	12.67	4.347	1.607	2.171				
Jul 18 2024	08:45:00	12.67	4.342	1.629	2.182				
End of port 2 point 1									
Jul 18 2024	08:46:00	12.67	4.344	1.630	2.163				
Jul 18 2024	08:47:00	12.67	4.343	1.650	2.135				
Jul 18 2024	08:48:00	12.60	4.379	1.885	1.956				
End of port 2 point 2									
Jul 18 2024	08:49:00	12.60	4.384	1.844	1.952				
Jul 18 2024	08:50:00	12.58	4.398	1.657	1.965				
Jul 18 2024	08:51:00	12.57	4.402	1.654	1.977				
End of port 2 point 3									
Jul 18 2024	08:52:00	12.57	4.400	1.679	1.982				
Jul 18 2024	08:53:00	12.57	4.404	1.674	1.984				
Jul 18 2024	08:54:00	12.57	4.405	1.682	1.999				
End of port 2 point 4									
Jul 18 2024	08:55:00	12.57	4.404	1.655	1.967				
Jul 18 2024	08:56:00	12.55	4.407	1.572	2.261				
Jul 18 2024	08:57:00	12.54	4.416	1.304	2.718				
End of port 2 point 5									
Jul 18 2024	08:58:00	12.55	4.418	1.286	2.706				
Jul 18 2024	08:59:00	12.56	4.410	1.062	2.974				
Jul 18 2024	09:00:00	12.55	4.409	1.030	3.014				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 36	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 2	Points per port: 6	DAQ Device: DT9803(01)

End of port 2 point 6

	Average:	12.60	4.394	1.515	2.188				
	Max:	12.67	4.419	1.959	3.014				
	Min:	12.54	4.342	0.962	1.605				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.61	4.382	0.952	2.039				
1	2	12.62	4.392	1.048	1.617				
1	3	12.61	4.397	1.228	1.638				
1	4	12.57	4.416	1.852	2.405				
1	5	12.57	4.414	1.944	2.627				
1	6	12.56	4.408	1.918	2.705				
2	1	12.67	4.344	1.622	2.164				
2	2	12.63	4.361	1.753	2.054				
2	3	12.58	4.397	1.714	1.974				
2	4	12.57	4.406	1.672	1.989				
2	5	12.53	4.408	1.442	2.452				
2	6	12.55	4.413	1.106	2.956				
	Strat diff:	0.081	0.021	0.423	0.738				
	Strat %:	0.642	1.157	9.934	8.415				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 36	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 2	Points per port: 6	DAQ Device: DT9803(01)

Run 1 Post run bias - RUN 1 0825-0906

08:19:00 - 09:00:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.60	4.394	1.515	2.188				
	Max:	12.67	4.419	1.959	3.014				
	Min:	12.54	4.342	0.962	1.605				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010				
	Low reading:								
	Mid reading:	11.57	3.978	2.589	2.557				
	High reading:	21.03	8.378	5.043	5.073				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197				
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360				
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020				
	Initial Bias Data								
	Zero reading:	0.024	0.001	0.110	0.002				
	Span reading:	11.50	3.947	2.636	2.396				
Zero % bias:	**<5.0**	0.009	0.024	2.372	-0.158				
Span % bias:	**<5.0**	-0.331	-0.370	0.929	-3.173				
	Final Bias Data								
	Zero reading:	-0.158	-0.101	0.025	0.002				
	Span reading:	11.27	3.784	2.511	2.408				
Zero % bias:	**<5.0**	-0.852	-1.194	0.692	-0.158				
Span % bias:	**<5.0**	-1.421	-2.316	-1.542	-2.937				
Zero % drift:	**<3.0**	0.861	1.218	1.680	0.000				
Span % drift:	**<3.0**	1.089	1.946	2.471	0.236				
	Bias Corrected Averages								
	Cor Avg:	12.84	4.523	1.442	2.266				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 6	DAQ Device: DT9803(01)

Run 2 Average Results - RUN 2 0939-1009

09:33:00 - 10:03:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
Jul 18 2024	09:34:00	12.58	4.399	1.556	1.975	24.71	24.71		
Jul 18 2024	09:35:00	12.58	4.404	1.517	1.975	25.83	25.91		
Jul 18 2024	09:36:00	12.58	4.404	1.561	2.001	26.24	26.34		
Jul 18 2024	09:37:00	12.58	4.405	1.536	1.998	24.81	24.71		
Jul 18 2024	09:38:00	12.58	4.403	1.510	1.986	24.71	24.66		
End of port 1 point 1									
Jul 18 2024	09:39:00	12.58	4.403	1.568	1.989	23.80	23.74		
Jul 18 2024	09:40:00	12.58	4.407	1.537	2.004	25.26	25.24		
Jul 18 2024	09:41:00	12.58	4.407	1.592	1.973	29.34	29.32		
Jul 18 2024	09:42:00	12.58	4.409	1.588	2.005	25.53	25.52		
Jul 18 2024	09:43:00	12.57	4.406	1.542	2.006	24.86	24.88		
End of port 1 point 2									
Jul 18 2024	09:44:00	12.58	4.408	1.552	1.978	26.72	26.67		
Jul 18 2024	09:45:00	12.58	4.405	1.555	2.007	24.29	24.15		
Jul 18 2024	09:46:00	12.58	4.407	1.505	1.968	23.87	23.76		
Jul 18 2024	09:47:00	12.57	4.406	1.481	1.965	24.66	24.56		
Jul 18 2024	09:48:00	12.58	4.410	1.562	1.966	25.16	25.16		
End of port 1 point 3									
Jul 18 2024	09:49:00	12.58	4.410	1.536	1.994	26.76	26.76		
Jul 18 2024	09:50:00	12.56	4.412	1.565	1.981	24.76	24.77		
Jul 18 2024	09:51:00	12.56	4.415	1.458	1.973	23.83	23.84		
Jul 18 2024	09:52:00	12.57	4.412	1.460	1.969	21.30	21.40		
Jul 18 2024	09:53:00	12.57	4.416	1.446	1.979	21.94	22.01		
End of port 1 point 4									
Jul 18 2024	09:54:00	12.55	4.414	1.361	2.054	17.17	17.19		
Jul 18 2024	09:55:00	12.55	4.423	1.021	2.694	6.848	6.876		
Jul 18 2024	09:56:00	12.57	4.416	0.760	2.982	4.585	4.538		
Jul 18 2024	09:57:00	12.56	4.420	0.758	2.978	4.732	4.679		
Jul 18 2024	09:58:00	12.56	4.418	0.749	3.008	4.628	4.674		
End of port 1 point 5									
Jul 18 2024	09:59:00	12.58	4.419	0.737	3.009	4.718	4.717		
Jul 18 2024	10:00:00	12.57	4.417	0.738	2.973	4.369	4.318		
Jul 18 2024	10:01:00	12.57	4.414	0.741	3.003	4.713	4.729		
Jul 18 2024	10:02:00	12.57	4.417	0.718	3.005	4.147	4.099		
Jul 18 2024	10:03:00	12.57	4.417	0.758	3.023	4.453	4.493		
End of port 1 point 6									

	Average:	12.57	4.411	1.299	2.281	18.62	18.61		
	Max:	12.58	4.423	1.592	3.023	29.34	29.32		
	Min:	12.55	4.399	0.718	1.965	4.147	4.099		

Stratification Results

Port	Point	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
1	1	12.59	4.406	1.525	1.984	27.76	27.69		
1	2	12.58	4.406	1.562	1.992	26.84	26.87		
1	3	12.59	4.406	1.529	1.983	24.12	24.00		
1	4	12.57	4.414	1.486	1.981	22.33	22.54		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 6	DAQ Device: DT9803(01)

1	5	12.54	4.419	0.882	2.838	6.776	6.679		
1	6	12.57	4.415	0.729	3.001	4.384	4.395		
	Strat diff:	0.017	0.008	0.277	0.705	9.058	8.994		
	Strat %:	0.265	0.181	43.29	30.68	76.56	76.49		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 6	DAQ Device: DT9803(01)

Run 2 Post run bias - RUN 2 0939-1009
09:33:00 - 10:03:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E	25A	25A		
	Run summary data								
	Raw Avg:	12.57	4.411	1.299	2.281	18.62	18.61		
	Max:	12.58	4.423	1.592	3.023	29.34	29.32		
	Min:	12.55	4.399	0.718	1.965	4.147	4.099		
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000	0.000	0.000		
	Low:					29.85	29.85		
	Mid:	11.61	3.985	2.496	2.488	49.56	49.56		
	High:	21.12	8.376	5.059	5.074	85.01	85.01		
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010	0.287	0.104		
	Low reading:					30.11	29.84		
	Mid reading:	11.57	3.978	2.589	2.557	50.81	50.00		
	High reading:	21.03	8.378	5.043	5.073	85.11	85.24		
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197	N/A	N/A		
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360	N/A	N/A		
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020	N/A	N/A		
	EPA Method 25A Error Calculations								
Zero %Err:	**N/A**	N/A	N/A	N/A	N/A	0.287	0.104		
Low %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	0.260	-0.010		
Mid %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	1.250	0.440		
High %Err:	**N/A**	N/A	N/A	N/A	N/A	0.100	0.230		
	Initial Bias Data								
	Zero reading:	0.024	0.001	0.110	0.002	0.287	0.104		
	Span reading:	11.50	3.947	2.636	2.396	50.81	50.00		
Zero % bias:	**<5.0**	0.009	0.024	2.372	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-0.331	-0.370	0.929	-3.173	N/A	N/A		
	Final Bias Data								
	Zero reading:	-0.101	-0.064	0.032	0.002	-0.143	-0.183		
	Span reading:	11.28	3.788	2.516	2.341	48.75	48.72		
Zero % bias:	**<5.0**	-0.582	-0.752	0.830	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-1.373	-2.268	-1.443	-4.257	N/A	N/A		
Zero % drift:	**<3.0**	0.591	0.776	1.542	0.000	N/A	N/A		
Span % drift:	**<3.0**	1.042	1.898	2.372	1.084	N/A	N/A		
Zero drift:	**<3.0% span**	N/A	N/A	N/A	N/A	0.430	0.287		
Span drift:	**<3.0% span**	N/A	N/A	N/A	N/A	2.060	1.280		
	Bias Corrected Averages								
	Cor Avg:	12.81	4.540	1.224	2.396	18.62	18.61		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 6	DAQ Device: DT9803(01)

Run 3 Average Results - RUN 3 1035-1105

10:29:00 - 10:59:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
Jul 18 2024	10:30:00	12.57	4.435	1.176	2.383	14.81	14.86		
Jul 18 2024	10:31:00	12.57	4.434	1.183	2.389	16.00	16.11		
Jul 18 2024	10:32:00	12.55	4.435	1.195	2.357	16.45	16.30		
Jul 18 2024	10:33:00	12.56	4.434	1.193	2.374	15.34	15.36		
Jul 18 2024	10:34:00	12.57	4.434	1.166	2.391	15.15	15.14		
End of port 1 point 1									
Jul 18 2024	10:35:00	12.58	4.436	1.169	2.388	15.64	15.61		
Jul 18 2024	10:36:00	12.56	4.431	1.177	2.401	15.53	15.47		
Jul 18 2024	10:37:00	12.56	4.435	1.161	2.369	15.21	15.10		
Jul 18 2024	10:38:00	12.57	4.431	1.145	2.400	15.53	15.64		
Jul 18 2024	10:39:00	12.56	4.433	1.168	2.369	15.01	14.93		
End of port 1 point 2									
Jul 18 2024	10:40:00	12.57	4.433	1.159	2.355	16.02	15.94		
Jul 18 2024	10:41:00	12.55	4.435	1.186	2.381	16.61	16.48		
Jul 18 2024	10:42:00	12.56	4.433	1.192	2.369	16.87	16.90		
Jul 18 2024	10:43:00	12.56	4.430	1.182	2.374	16.19	16.18		
Jul 18 2024	10:44:00	12.56	4.431	1.170	2.384	16.93	16.97		
End of port 1 point 3									
Jul 18 2024	10:45:00	12.54	4.432	1.168	2.362	16.09	16.05		
Jul 18 2024	10:46:00	12.55	4.434	1.209	2.374	16.79	16.85		
Jul 18 2024	10:47:00	12.56	4.431	1.191	2.378	16.51	16.64		
Jul 18 2024	10:48:00	12.57	4.434	1.203	2.373	16.21	16.20		
Jul 18 2024	10:49:00	12.56	4.430	1.182	2.372	15.94	15.97		
End of port 1 point 4									
Jul 18 2024	10:50:00	12.56	4.434	1.175	2.366	15.69	15.65		
Jul 18 2024	10:51:00	12.55	4.429	1.180	2.373	17.16	17.28		
Jul 18 2024	10:52:00	12.55	4.426	1.198	2.367	16.49	16.43		
Jul 18 2024	10:53:00	12.56	4.427	1.192	2.380	15.65	15.47		
Jul 18 2024	10:54:00	12.56	4.429	1.168	2.370	16.03	15.97		
End of port 1 point 5									
Jul 18 2024	10:55:00	12.55	4.433	1.182	2.392	16.17	16.19		
Jul 18 2024	10:56:00	12.54	4.431	1.189	2.384	16.44	16.32		
Jul 18 2024	10:57:00	12.54	4.432	1.171	2.370	15.68	15.57		
Jul 18 2024	10:58:00	12.56	4.430	1.172	2.371	16.87	16.80		
Jul 18 2024	10:59:00	12.55	4.433	1.186	2.376	16.52	16.39		
End of port 1 point 6									

	Average:	12.56	4.432	1.180	2.376	16.05	16.03		
	Max:	12.58	4.436	1.209	2.401	17.16	17.28		
	Min:	12.54	4.426	1.145	2.355	14.81	14.86		

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
1	1	12.58	4.434	1.192	2.385	14.89	14.79		
1	2	12.56	4.434	1.141	2.391	15.56	15.50		
1	3	12.56	4.431	1.197	2.392	15.18	15.08		
1	4	12.57	4.433	1.208	2.373	16.07	16.18		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 6	DAQ Device: DT9803(01)

1	5	12.56	4.429	1.181	2.362	16.37	16.40		
1	6	12.55	4.434	1.171	2.384	16.75	16.72		
	Strat diff:	0.017	0.002	0.026	0.011	0.947	0.942		
	Strat %:	0.133	0.079	3.441	0.805	5.990	6.264		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 6	DAQ Device: DT9803(01)

Run 3 Post run bias - RUN 3 1035-1105
10:29:00 - 10:59:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E	25A	25A		
	Run summary data								
	Raw Avg:	12.56	4.432	1.180	2.376	16.05	16.03		
	Max:	12.58	4.436	1.209	2.401	17.16	17.28		
	Min:	12.54	4.426	1.145	2.355	14.81	14.86		
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000	0.000	0.000		
	Low:					29.85	29.85		
	Mid:	11.61	3.985	2.496	2.488	49.56	49.56		
	High:	21.12	8.376	5.059	5.074	85.01	85.01		
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010	0.287	0.104		
	Low reading:					30.11	29.84		
	Mid reading:	11.57	3.978	2.589	2.557	50.81	50.00		
	High reading:	21.03	8.378	5.043	5.073	85.11	85.24		
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197	N/A	N/A		
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360	N/A	N/A		
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020	N/A	N/A		
	EPA Method 25A Error Calculations								
Zero %Err:	**N/A**	N/A	N/A	N/A	N/A	0.287	0.104		
Low %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	0.260	-0.010		
Mid %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	1.250	0.440		
High %Err:	**N/A**	N/A	N/A	N/A	N/A	0.100	0.230		
	Initial Bias Data								
	Zero reading:	-0.101	-0.064	0.032	0.002	-0.143	-0.183		
	Span reading:	11.28	3.788	2.516	2.341	48.75	48.72		
Zero % bias:	**<5.0**	-0.582	-0.752	0.830	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-1.373	-2.268	-1.443	-4.257	N/A	N/A		
	Final Bias Data								
	Zero reading:	-0.113	-0.088	0.008	0.002	0.061	-0.085		
	Span reading:	11.31	3.783	2.456	2.365	48.94	48.84		
Zero % bias:	**<5.0**	-0.639	-1.039	0.356	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-1.231	-2.328	-2.629	-3.784	N/A	N/A		
Zero % drift:	**<3.0**	0.057	0.287	0.474	0.000	N/A	N/A		
Span % drift:	**<3.0**	0.142	0.060	1.186	0.473	N/A	N/A		
Zero drift:	**<3.0% span**	N/A	N/A	N/A	N/A	-0.204	-0.098		
Span drift:	**<3.0% span**	N/A	N/A	N/A	N/A	-0.190	-0.120		
	Bias Corrected Averages								
	Cor Avg:	12.90	4.652	1.174	2.512	16.05	16.03		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 4 Average Results - RUN 4 1114-1144

11:08:00 - 11:38:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
Jul 18 2024	11:09:00	12.56	4.416	1.154	2.387	14.53	14.53		
Jul 18 2024	11:10:00	12.57	4.420	1.163	2.360	15.94	15.97		
Jul 18 2024	11:11:00	12.57	4.417	1.162	2.361	15.53	15.58		
Jul 18 2024	11:12:00	12.58	4.417	1.186	2.350	16.15	16.24		
Jul 18 2024	11:13:00	12.57	4.419	1.185	2.342	16.97	16.90		
Jul 18 2024	11:14:00	12.57	4.418	1.164	2.378	15.47	15.48		
Jul 18 2024	11:15:00	12.58	4.419	1.164	2.360	15.32	15.30		
Jul 18 2024	11:16:00	12.58	4.419	1.179	2.366	16.71	16.71		
Jul 18 2024	11:17:00	12.56	4.426	1.215	2.367	17.19	17.10		
Jul 18 2024	11:18:00	12.58	4.422	1.177	2.331	15.84	15.77		
End of port 1 point 1									
Jul 18 2024	11:19:00	12.57	4.428	1.177	2.360	15.80	15.88		
Jul 18 2024	11:20:00	12.57	4.426	1.153	2.371	15.62	15.66		
Jul 18 2024	11:21:00	12.57	4.428	1.167	2.363	16.89	16.82		
Jul 18 2024	11:22:00	12.57	4.428	1.178	2.385	15.77	15.82		
Jul 18 2024	11:23:00	12.57	4.433	1.173	2.390	15.72	15.80		
Jul 18 2024	11:24:00	12.56	4.434	1.177	2.358	15.87	15.83		
Jul 18 2024	11:25:00	12.56	4.435	1.176	2.365	17.10	17.14		
Jul 18 2024	11:26:00	12.55	4.436	1.223	2.391	17.79	17.77		
Jul 18 2024	11:27:00	12.56	4.433	1.181	2.353	14.49	14.59		
Jul 18 2024	11:28:00	12.56	4.435	1.194	2.366	17.28	17.26		
End of port 1 point 2									
Jul 18 2024	11:29:00	12.56	4.434	1.177	2.388	16.07	16.10		
Jul 18 2024	11:30:00	12.57	4.434	1.217	2.360	17.25	17.23		
Jul 18 2024	11:31:00	12.58	4.433	1.194	2.362	16.08	16.19		
Jul 18 2024	11:32:00	12.57	4.437	1.203	2.363	16.19	16.19		
Jul 18 2024	11:33:00	12.57	4.432	1.193	2.352	16.18	16.12		
Jul 18 2024	11:34:00	12.57	4.436	1.188	2.379	16.29	16.31		
Jul 18 2024	11:35:00	12.56	4.437	1.176	2.378	15.87	15.83		
Jul 18 2024	11:36:00	12.57	4.440	1.182	2.363	15.72	15.67		
Jul 18 2024	11:37:00	12.56	4.440	1.177	2.350	15.86	15.85		
Jul 18 2024	11:38:00	12.56	4.441	1.192	2.376	16.19	16.29		
End of port 1 point 3									
	Average:	12.57	4.429	1.182	2.366	16.12	16.13		
	Max:	12.58	4.441	1.223	2.391	17.79	17.77		
	Min:	12.55	4.416	1.153	2.331	14.49	14.53		

Stratification Results

Port	Point	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
1	1	12.57	4.421	1.176	2.358	15.96	15.91		
1	2	12.55	4.433	1.183	2.380	15.58	15.62		
1	3	12.57	4.435	1.185	2.373	16.12	16.20		
	Strat diff:	0.007	0.005	0.004	0.010	0.233	0.290		
	Strat %:	0.106	0.196	0.451	0.520	1.930	1.823		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 4 Post run bias - RUN 4 1114-1144
11:08:00 - 11:38:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)	THC (VO 20)	CH3 (VO14)		
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E	25A	25A		
	Run summary data								
	Raw Avg:	12.57	4.429	1.182	2.366	16.12	16.13		
	Max:	12.58	4.441	1.223	2.391	17.79	17.77		
	Min:	12.55	4.416	1.153	2.331	14.49	14.53		
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000	0.000	0.000		
	Low:					29.85	29.85		
	Mid:	11.61	3.985	2.496	2.488	49.56	49.56		
	High:	21.12	8.376	5.059	5.074	85.01	85.01		
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010	0.287	0.104		
	Low reading:					30.11	29.84		
	Mid reading:	11.57	3.978	2.589	2.557	50.81	50.00		
	High reading:	21.03	8.378	5.043	5.073	85.11	85.24		
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197	N/A	N/A		
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360	N/A	N/A		
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020	N/A	N/A		
	EPA Method 25A Error Calculations								
Zero %Err:	**N/A**	N/A	N/A	N/A	N/A	0.287	0.104		
Low %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	0.260	-0.010		
Mid %Err:	**5% of cyl**	N/A	N/A	N/A	N/A	1.250	0.440		
High %Err:	**N/A**	N/A	N/A	N/A	N/A	0.100	0.230		
	Initial Bias Data								
	Zero reading:	-0.113	-0.088	0.008	0.002	0.061	-0.085		
	Span reading:	11.31	3.783	2.456	2.365	48.94	48.84		
Zero % bias:	**<5.0**	-0.639	-1.039	0.356	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-1.231	-2.328	-2.629	-3.784	N/A	N/A		
	Final Bias Data								
	Zero reading:	-0.059	-0.060	0.025	0.002	-0.339	-0.253		
	Span reading:	11.30	3.801	2.498	2.353	49.12	48.86		
Zero % bias:	**<5.0**	-0.384	-0.704	0.692	-0.158	N/A	N/A		
Span % bias:	**<5.0**	-1.278	-2.113	-1.799	-4.021	N/A	N/A		
Zero % drift:	**<3.0**	0.255	0.335	0.336	0.000	N/A	N/A		
Span % drift:	**<3.0**	0.047	0.215	0.830	0.236	N/A	N/A		
Zero drift:	**<3.0% span**	N/A	N/A	N/A	N/A	0.400	0.168		
Span drift:	**<3.0% span**	N/A	N/A	N/A	N/A	-0.180	-0.020		
	Bias Corrected Averages								
	Cor Avg:	12.90	4.642	1.182	2.495	16.12	16.13		

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 5 Average Results - RUN 5 1153-1204
11:47:00 - 12:08:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 18 2024	11:48:00	12.58	4.443	1.138	2.375				
Jul 18 2024	11:49:00	12.59	4.444	1.170	2.371				
Jul 18 2024	11:50:00	12.60	4.448	1.189	2.340				
Jul 18 2024	11:51:00	12.60	4.445	1.144	2.359				
Jul 18 2024	11:52:00	12.60	4.451	1.151	2.350				
Jul 18 2024	11:53:00	12.60	4.443	1.152	2.344				
Jul 18 2024	11:54:00	12.60	4.449	1.191	2.350				
End of port 1 point 1									
Jul 18 2024	11:55:00	12.61	4.448	1.179	2.357				
Jul 18 2024	11:56:00	12.61	4.450	1.180	2.355				
Jul 18 2024	11:57:00	12.60	4.452	1.169	2.342				
Jul 18 2024	11:58:00	12.60	4.456	1.173	2.370				
Jul 18 2024	11:59:00	12.60	4.459	1.181	2.356				
Jul 18 2024	12:00:00	12.60	4.461	1.133	2.372				
Jul 18 2024	12:01:00	12.59	4.467	1.170	2.383				
End of port 1 point 2									
Jul 18 2024	12:02:00	12.59	4.463	1.176	2.343				
Jul 18 2024	12:03:00	12.60	4.467	1.187	2.359				
Jul 18 2024	12:04:00	12.59	4.466	1.166	2.361				
Jul 18 2024	12:05:00	12.60	4.468	1.172	2.353				
Jul 18 2024	12:06:00	12.60	4.463	1.172	2.329				
Jul 18 2024	12:07:00	12.60	4.466	1.154	2.361				
Jul 18 2024	12:08:00	12.60	4.468	1.141	2.345				
End of port 1 point 3									

	Average:	12.60	4.456	1.166	2.356				
	Max:	12.61	4.468	1.191	2.383				
	Min:	12.58	4.443	1.133	2.329				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.60	4.447	1.159	2.360				
1	2	12.59	4.459	1.157	2.364				
1	3	12.59	4.465	1.189	2.348				
	Strat diff:	0.007	0.008	0.021	0.007				
	Strat %:	0.053	0.224	1.769	0.396				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 5 Post run bias - RUN 5 1153-1204

11:47:00 - 12:08:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.60	4.456	1.166	2.356				
	Max:	12.61	4.468	1.191	2.383				
	Min:	12.58	4.443	1.133	2.329				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010				
	Low reading:								
	Mid reading:	11.57	3.978	2.589	2.557				
	High reading:	21.03	8.378	5.043	5.073				
EPA Method 7E Error Calculations									
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197				
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360				
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020				
Initial Bias Data									
	Zero reading:	-0.059	-0.060	0.025	0.002				
	Span reading:	11.30	3.801	2.498	2.353				
Zero % bias:	**<5.0**	-0.384	-0.704	0.692	-0.158				
Span % bias:	**<5.0**	-1.278	-2.113	-1.799	-4.021				
Final Bias Data									
	Zero reading:	-0.090	-0.062	0.020	0.002				
	Span reading:	11.35	3.841	2.433	2.318				
Zero % bias:	**<5.0**	-0.530	-0.728	0.593	-0.158				
Span % bias:	**<5.0**	-1.042	-1.636	-3.084	-4.710				
Zero % drift:	**<3.0**	0.146	0.024	0.099	0.000				
Span % drift:	**<3.0**	0.236	0.477	1.285	0.690				
Bias Corrected Averages									
	Cor Avg:	12.91	4.637	1.168	2.510				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 6 Average Results - RUN 6 1221 1242

12:15:00 - 12:36:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 18 2024	12:16:00	12.57	4.480	1.136	2.404				
Jul 18 2024	12:17:00	12.57	4.481	1.142	2.406				
Jul 18 2024	12:18:00	12.57	4.482	1.156	2.354				
Jul 18 2024	12:19:00	12.58	4.478	1.144	2.380				
Jul 18 2024	12:20:00	12.58	4.481	1.151	2.359				
Jul 18 2024	12:21:00	12.58	4.482	1.124	2.379				
Jul 18 2024	12:22:00	12.58	4.485	1.164	2.426				
End of port 1 point 1									
Jul 18 2024	12:23:00	12.57	4.487	1.127	2.349				
Jul 18 2024	12:24:00	12.57	4.486	1.169	2.400				
Jul 18 2024	12:25:00	12.57	4.489	1.179	2.390				
Jul 18 2024	12:26:00	12.57	4.484	1.152	2.414				
Jul 18 2024	12:27:00	12.56	4.492	1.150	2.414				
Jul 18 2024	12:28:00	12.57	4.490	1.174	2.422				
Jul 18 2024	12:29:00	12.56	4.499	1.142	2.388				
End of port 1 point 2									
Jul 18 2024	12:30:00	12.55	4.496	1.144	2.412				
Jul 18 2024	12:31:00	12.54	4.499	1.165	2.427				
Jul 18 2024	12:32:00	12.54	4.505	1.155	2.438				
Jul 18 2024	12:33:00	12.53	4.506	1.164	2.418				
Jul 18 2024	12:34:00	12.53	4.512	1.193	2.434				
Jul 18 2024	12:35:00	12.53	4.510	1.177	2.436				
Jul 18 2024	12:36:00	12.53	4.512	1.188	2.388				
End of port 1 point 3									

	Average:	12.56	4.492	1.157	2.402				
	Max:	12.58	4.512	1.193	2.438				
	Min:	12.53	4.478	1.124	2.349				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.57	4.480	1.152	2.380				
1	2	12.57	4.491	1.145	2.392				
1	3	12.54	4.508	1.162	2.420				
	Strat diff:	0.010	0.015	0.009	0.023				
	Strat %:	0.159	0.334	0.781	0.945				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 6 Post run bias - RUN 6 1221 1242

12:15:00 - 12:36:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.56	4.492	1.157	2.402				
	Max:	12.58	4.512	1.193	2.438				
	Min:	12.53	4.478	1.124	2.349				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010				
	Low reading:								
	Mid reading:	11.57	3.978	2.589	2.557				
	High reading:	21.03	8.378	5.043	5.073				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197				
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360				
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020				
	Initial Bias Data								
	Zero reading:	-0.090	-0.062	0.020	0.002				
	Span reading:	11.35	3.841	2.433	2.318				
Zero % bias:	**<5.0**	-0.530	-0.728	0.593	-0.158				
Span % bias:	**<5.0**	-1.042	-1.636	-3.084	-4.710				
	Final Bias Data								
	Zero reading:	-0.082	-0.050	0.020	0.001				
	Span reading:	11.28	3.835	2.486	2.396				
Zero % bias:	**<5.0**	-0.492	-0.585	0.593	-0.177				
Span % bias:	**<5.0**	-1.373	-1.707	-2.036	-3.173				
Zero % drift:	**<3.0**	0.038	0.143	0.000	0.019				
Span % drift:	**<3.0**	0.331	0.071	1.048	1.537				
	Bias Corrected Averages								
	Cor Avg:	12.88	4.654	1.163	2.536				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 7 Average Results - RUN 7 1253 1314

12:47:00 - 13:08:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 18 2024	12:48:00	12.52	4.520	1.206	2.465				
Jul 18 2024	12:49:00	12.53	4.524	1.166	2.462				
Jul 18 2024	12:50:00	12.52	4.521	1.200	2.418				
Jul 18 2024	12:51:00	12.51	4.523	1.231	2.447				
Jul 18 2024	12:52:00	12.52	4.524	1.238	2.443				
Jul 18 2024	12:53:00	12.53	4.522	1.228	2.426				
Jul 18 2024	12:54:00	12.53	4.523	1.211	2.455				
End of port 1 point 1									
Jul 18 2024	12:55:00	12.52	4.523	1.234	2.455				
Jul 18 2024	12:56:00	12.52	4.522	1.220	2.457				
Jul 18 2024	12:57:00	12.53	4.519	1.243	2.444				
Jul 18 2024	12:58:00	12.53	4.520	1.262	2.447				
Jul 18 2024	12:59:00	12.53	4.518	1.220	2.417				
Jul 18 2024	13:00:00	12.52	4.521	1.232	2.451				
Jul 18 2024	13:01:00	12.53	4.517	1.225	2.427				
End of port 1 point 2									
Jul 18 2024	13:02:00	12.51	4.522	1.209	2.465				
Jul 18 2024	13:03:00	12.51	4.531	1.204	2.447				
Jul 18 2024	13:04:00	12.51	4.523	1.207	2.426				
Jul 18 2024	13:05:00	12.50	4.525	1.238	2.418				
Jul 18 2024	13:06:00	12.50	4.525	1.239	2.435				
Jul 18 2024	13:07:00	12.50	4.525	1.217	2.438				
Jul 18 2024	13:08:00	12.50	4.523	1.217	2.430				
End of port 1 point 3									

	Average:	12.52	4.522	1.221	2.442				
	Max:	12.53	4.531	1.262	2.465				
	Min:	12.50	4.517	1.166	2.417				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.53	4.522	1.191	2.451				
1	2	12.52	4.520	1.237	2.449				
1	3	12.50	4.522	1.209	2.437				
	Strat diff:	0.013	0.001	0.025	0.005				
	Strat %:	0.133	0.029	2.035	0.354				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 7 Post run bias - RUN 7 1253 1314

12:47:00 - 13:08:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.52	4.522	1.221	2.442				
	Max:	12.53	4.531	1.262	2.465				
	Min:	12.50	4.517	1.166	2.417				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010				
	Low reading:								
	Mid reading:	11.57	3.978	2.589	2.557				
	High reading:	21.03	8.378	5.043	5.073				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197				
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360				
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020				
	Initial Bias Data								
	Zero reading:	-0.082	-0.050	0.020	0.001				
	Span reading:	11.28	3.835	2.486	2.396				
Zero % bias:	**<5.0**	-0.492	-0.585	0.593	-0.177				
Span % bias:	**<5.0**	-1.373	-1.707	-2.036	-3.173				
	Final Bias Data								
	Zero reading:	-0.073	-0.029	0.008	0.016				
	Span reading:	11.28	3.856	2.468	2.420				
Zero % bias:	**<5.0**	-0.450	-0.334	0.356	0.118				
Span % bias:	**<5.0**	-1.373	-1.457	-2.392	-2.700				
Zero % drift:	**<3.0**	0.042	0.251	0.237	0.295				
Span % drift:	**<3.0**	0.000	0.250	0.356	0.473				
	Bias Corrected Averages								
	Cor Avg:	12.88	4.679	1.223	2.523				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 8 Average Results - RUN 8 1321-1342

13:15:00 - 13:36:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 18 2024	13:16:00	12.47	4.519	1.236	2.444				
Jul 18 2024	13:17:00	12.46	4.521	1.253	2.480				
Jul 18 2024	13:18:00	12.47	4.529	1.250	2.467				
Jul 18 2024	13:19:00	12.46	4.526	1.252	2.465				
Jul 18 2024	13:20:00	12.46	4.526	1.250	2.456				
Jul 18 2024	13:21:00	12.47	4.520	1.258	2.438				
Jul 18 2024	13:22:00	12.46	4.524	1.224	2.438				
End of port 1 point 1									
Jul 18 2024	13:23:00	12.48	4.519	1.232	2.454				
Jul 18 2024	13:24:00	12.48	4.521	1.223	2.427				
Jul 18 2024	13:25:00	12.47	4.522	1.254	2.454				
Jul 18 2024	13:26:00	12.46	4.526	1.246	2.468				
Jul 18 2024	13:27:00	12.46	4.527	1.241	2.459				
Jul 18 2024	13:28:00	12.47	4.525	1.235	2.451				
Jul 18 2024	13:29:00	12.46	4.523	1.224	2.445				
End of port 1 point 2									
Jul 18 2024	13:30:00	12.48	4.524	1.234	2.431				
Jul 18 2024	13:31:00	12.48	4.523	1.223	2.442				
Jul 18 2024	13:32:00	12.47	4.522	1.235	2.446				
Jul 18 2024	13:33:00	12.46	4.525	1.241	2.437				
Jul 18 2024	13:34:00	12.47	4.523	1.251	2.442				
Jul 18 2024	13:35:00	12.46	4.524	1.245	2.442				
Jul 18 2024	13:36:00	12.47	4.525	1.244	2.433				
End of port 1 point 3									

	Average:	12.47	4.524	1.241	2.449				
	Max:	12.48	4.529	1.258	2.480				
	Min:	12.46	4.519	1.223	2.427				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.47	4.523	1.225	2.460				
1	2	12.48	4.525	1.235	2.463				
1	3	12.48	4.522	1.249	2.431				
	Strat diff:	0.003	0.002	0.013	0.012				
	Strat %:	0.053	0.037	1.025	0.829				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 8 Post run bias - RUN 8 1321-1342
13:15:00 - 13:36:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.47	4.524	1.241	2.449				
	Max:	12.48	4.529	1.258	2.480				
	Min:	12.46	4.519	1.223	2.427				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010				
	Low reading:								
	Mid reading:	11.57	3.978	2.589	2.557				
	High reading:	21.03	8.378	5.043	5.073				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197				
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360				
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020				
	Initial Bias Data								
	Zero reading:	-0.073	-0.029	0.008	0.016				
	Span reading:	11.28	3.856	2.468	2.420				
Zero % bias:	**<5.0**	-0.450	-0.334	0.356	0.118				
Span % bias:	**<5.0**	-1.373	-1.457	-2.392	-2.700				
	Final Bias Data								
	Zero reading:	-0.157	-0.067	0.051	0.002				
	Span reading:	11.29	3.843	2.516	2.444				
Zero % bias:	**<5.0**	-0.848	-0.788	1.206	-0.158				
Span % bias:	**<5.0**	-1.326	-1.612	-1.443	-2.227				
Zero % drift:	**<3.0**	0.398	0.454	0.850	0.276				
Span % drift:	**<3.0**	0.047	0.155	0.949	0.473				
	Bias Corrected Averages								
	Cor Avg:	12.82	4.675	1.228	2.505				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 9 Average Results - RUN 9 1350 1401

13:44:00 - 14:05:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 18 2024	13:45:00	12.47	4.529	1.269	2.464				
Jul 18 2024	13:46:00	12.46	4.530	1.254	2.443				
Jul 18 2024	13:47:00	12.47	4.531	1.294	2.456				
Jul 18 2024	13:48:00	12.47	4.534	1.258	2.428				
Jul 18 2024	13:49:00	12.46	4.539	1.260	2.466				
Jul 18 2024	13:50:00	12.47	4.532	1.240	2.478				
Jul 18 2024	13:51:00	12.46	4.538	1.273	2.419				
End of port 1 point 1									
Jul 18 2024	13:52:00	12.46	4.536	1.282	2.445				
Jul 18 2024	13:53:00	12.46	4.542	1.253	2.456				
Jul 18 2024	13:54:00	12.47	4.541	1.243	2.415				
Jul 18 2024	13:55:00	12.46	4.542	1.253	2.462				
Jul 18 2024	13:56:00	12.45	4.541	1.279	2.440				
Jul 18 2024	13:57:00	12.46	4.541	1.256	2.470				
Jul 18 2024	13:58:00	12.46	4.545	1.255	2.467				
End of port 1 point 2									
Jul 18 2024	13:59:00	12.46	4.534	1.252	2.410				
Jul 18 2024	14:00:00	12.46	4.539	1.282	2.426				
Jul 18 2024	14:01:00	12.47	4.536	1.305	2.439				
Jul 18 2024	14:02:00	12.46	4.537	1.262	2.429				
Jul 18 2024	14:03:00	12.45	4.534	1.227	2.412				
Jul 18 2024	14:04:00	12.45	4.537	1.277	2.444				
Jul 18 2024	14:05:00	12.46	4.541	1.282	2.405				
End of port 1 point 3									
	Average:	12.46	4.537	1.265	2.442				
	Max:	12.47	4.545	1.305	2.478				
	Min:	12.45	4.529	1.227	2.405				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.45	4.535	1.274	2.446				
1	2	12.47	4.540	1.257	2.440				
1	3	12.45	4.535	1.266	2.429				
	Strat diff:	0.013	0.003	0.008	0.008				
	Strat %:	0.107	0.073	0.685	0.383				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 9 Post run bias - RUN 9 1350 1401

13:44:00 - 14:05:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.46	4.537	1.265	2.442				
	Max:	12.47	4.545	1.305	2.478				
	Min:	12.45	4.529	1.227	2.405				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010				
	Low reading:								
	Mid reading:	11.57	3.978	2.589	2.557				
	High reading:	21.03	8.378	5.043	5.073				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197				
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360				
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020				
	Initial Bias Data								
	Zero reading:	-0.157	-0.067	0.051	0.002				
	Span reading:	11.29	3.843	2.516	2.444				
Zero % bias:	**<5.0**	-0.848	-0.788	1.206	-0.158				
Span % bias:	**<5.0**	-1.326	-1.612	-1.443	-2.227				
	Final Bias Data								
	Zero reading:	-0.131	-0.049	0.092	0.002				
	Span reading:	11.26	3.874	2.547	2.420				
Zero % bias:	**<5.0**	-0.724	-0.573	2.016	-0.158				
Span % bias:	**<5.0**	-1.468	-1.242	-0.830	-2.700				
Zero % drift:	**<3.0**	0.124	0.215	0.810	0.000				
Span % drift:	**<3.0**	0.142	0.370	0.613	0.473				
	Bias Corrected Averages								
	Cor Avg:	12.81	4.675	1.211	2.498				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 10 Average Results - RUN 10 1419 1440

14:13:00 - 14:34:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
Jul 18 2024	14:14:00	12.43	4.527	1.263	2.454				
Jul 18 2024	14:15:00	12.43	4.533	1.297	2.445				
Jul 18 2024	14:16:00	12.44	4.530	1.320	2.482				
Jul 18 2024	14:17:00	12.43	4.533	1.313	2.446				
Jul 18 2024	14:18:00	12.43	4.535	1.328	2.467				
Jul 18 2024	14:19:00	12.44	4.532	1.276	2.477				
Jul 18 2024	14:20:00	12.44	4.534	1.281	2.448				
End of port 1 point 1									
Jul 18 2024	14:21:00	12.44	4.531	1.297	2.419				
Jul 18 2024	14:22:00	12.45	4.533	1.299	2.484				
Jul 18 2024	14:23:00	12.44	4.529	1.277	2.455				
Jul 18 2024	14:24:00	12.43	4.533	1.272	2.443				
Jul 18 2024	14:25:00	12.44	4.532	1.324	2.473				
Jul 18 2024	14:26:00	12.43	4.536	1.258	2.451				
Jul 18 2024	14:27:00	12.43	4.535	1.288	2.455				
End of port 1 point 2									
Jul 18 2024	14:28:00	12.43	4.537	1.298	2.456				
Jul 18 2024	14:29:00	12.44	4.535	1.300	2.433				
Jul 18 2024	14:30:00	12.44	4.532	1.263	2.468				
Jul 18 2024	14:31:00	12.43	4.531	1.289	2.464				
Jul 18 2024	14:32:00	12.44	4.528	1.308	2.438				
Jul 18 2024	14:33:00	12.44	4.533	1.335	2.433				
Jul 18 2024	14:34:00	12.45	4.527	1.303	2.464				
End of port 1 point 3									

	Average:	12.44	4.532	1.295	2.455				
	Max:	12.45	4.537	1.335	2.484				
	Min:	12.43	4.527	1.258	2.419				

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
1	1	12.44	4.531	1.292	2.455				
1	2	12.43	4.532	1.295	2.453				
1	3	12.44	4.531	1.293	2.449				
	Strat diff:	0.003	0.001	0.002	0.003				
	Strat %:	0.054	0.015	0.129	0.136				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MAX
Run Length: 21	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 10 Post run bias - RUN 10 1419 1440

14:13:00 - 14:34:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)	NOX (NO-2)				
	Make/Model:								
	25A or 7E:	7E	7E	7E	7E				
	Run summary data								
	Raw Avg:	12.44	4.532	1.295	2.455				
	Max:	12.45	4.537	1.335	2.484				
	Min:	12.43	4.527	1.258	2.419				
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000	0.000				
	Low:								
	Mid:	11.61	3.985	2.496	2.488				
	High:	21.12	8.376	5.059	5.074				
	Calibration Readings								
	Zero reading:	0.022	-0.001	-0.010	0.010				
	Low reading:								
	Mid reading:	11.57	3.978	2.589	2.557				
	High reading:	21.03	8.378	5.043	5.073				
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.104	-0.012	-0.198	0.197				
Mid %Err:	**<2.0**	-0.189	-0.084	1.838	1.360				
High %Err:	**<2.0**	-0.426	0.024	-0.316	-0.020				
	Initial Bias Data								
	Zero reading:	-0.131	-0.049	0.092	0.002				
	Span reading:	11.26	3.874	2.547	2.420				
Zero % bias:	**<5.0**	-0.724	-0.573	2.016	-0.158				
Span % bias:	**<5.0**	-1.468	-1.242	-0.830	-2.700				
	Final Bias Data								
	Zero reading:	-0.147	-0.038	0.062	0.001				
	Span reading:	11.25	3.857	2.559	2.437				
Zero % bias:	**<5.0**	-0.800	-0.442	1.423	-0.177				
Span % bias:	**<5.0**	-1.515	-1.445	-0.593	-2.365				
Zero % drift:	**<3.0**	0.076	0.131	0.593	0.019				
Span % drift:	**<3.0**	0.047	0.203	0.237	0.335				
	Bias Corrected Averages								
	Cor Avg:	12.82	4.664	1.228	2.515				

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 1 Average Results - RUN 1 0722 0752

07:16:00 - 07:46:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
Jul 19 2024	07:17:00	15.29	2.999	0.751					
Jul 19 2024	07:18:00	15.28	3.003	0.759					
Jul 19 2024	07:19:00	15.28	3.000	0.773					
Jul 19 2024	07:20:00	15.28	3.002	0.778					
Jul 19 2024	07:21:00	15.28	2.999	0.778					
Jul 19 2024	07:22:00	15.28	2.999	0.794					
Jul 19 2024	07:23:00	15.28	3.000	0.790					
Jul 19 2024	07:24:00	15.28	2.998	0.785					
Jul 19 2024	07:25:00	15.27	3.002	0.795					
Jul 19 2024	07:26:00	15.27	2.998	0.797					
End of port 1 point 1									
Jul 19 2024	07:27:00	15.27	3.001	0.805					
Jul 19 2024	07:28:00	15.26	2.999	0.801					
Jul 19 2024	07:29:00	15.26	3.001	0.805					
Jul 19 2024	07:30:00	15.26	3.001	0.799					
Jul 19 2024	07:31:00	15.25	3.005	0.812					
Jul 19 2024	07:32:00	15.25	3.002	0.831					
Jul 19 2024	07:33:00	15.24	3.003	0.831					
Jul 19 2024	07:34:00	15.25	3.003	0.837					
Jul 19 2024	07:35:00	15.24	3.004	0.838					
Jul 19 2024	07:36:00	15.24	3.007	0.842					
End of port 1 point 2									
Jul 19 2024	07:37:00	15.24	3.006	0.847					
Jul 19 2024	07:38:00	15.24	3.009	0.858					
Jul 19 2024	07:39:00	15.23	3.009	0.864					
Jul 19 2024	07:40:00	15.24	3.011	0.852					
Jul 19 2024	07:41:00	15.23	3.007	0.854					
Jul 19 2024	07:42:00	15.23	3.009	0.846					
Jul 19 2024	07:43:00	15.23	3.008	0.854					
Jul 19 2024	07:44:00	15.23	3.008	0.846					
Jul 19 2024	07:45:00	15.22	3.008	0.864					
Jul 19 2024	07:46:00	15.25	3.007	0.861					
End of port 1 point 3									

	Average:	15.26	3.004	0.818					
	Max:	15.29	3.011	0.864					
	Min:	15.22	2.998	0.751					

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
1	1	15.28	3.000	0.788					
1	2	15.25	3.002	0.817					
1	3	15.23	3.008	0.860					
	Strat diff:	0.027	0.005	0.038					
	Strat %:	0.175	0.155	4.665					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 1 Post run bias - RUN 1 0722 0752

07:16:00 - 07:46:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
	25A or 7E:	7E	7E	7E					

Run summary data									
	Raw Avg:	15.26	3.004	0.818					
	Max:	15.29	3.011	0.864					
	Min:	15.22	2.998	0.751					

Cylinder Concentrations									
	Zero:	0.000	0.000	0.000					
	Low:								
	Mid:	11.61	3.985	2.496					
	High:	21.12	8.376	5.059					

Calibration Readings									
	Zero reading:	0.042	-0.005	-0.046					
	Low reading:								
	Mid reading:	11.53	3.966	2.552					
	High reading:	21.10	8.351	5.031					

EPA Method 7E Error Calculations									
Zero %Err:	**<2.0**	0.199	-0.060	-0.909					
Mid %Err:	**<2.0**	-0.379	-0.227	1.107					
High %Err:	**<2.0**	-0.095	-0.298	-0.553					

Initial Bias Data									
	Zero reading:	0.041	0.022	0.026					
	Span reading:	11.46	3.942	2.588					
Zero % bias:	**<5.0**	-0.005	0.322	1.423					
Span % bias:	**<5.0**	-0.331	-0.287	0.712					

Final Bias Data									
	Zero reading:	-0.065	-0.002	0.002					
	Span reading:	11.27	3.881	2.420					
Zero % bias:	**<5.0**	-0.507	0.036	0.949					
Span % bias:	**<5.0**	-1.231	-1.015	-2.609					
Zero % drift:	**<3.0**	0.502	0.286	0.474					
Span % drift:	**<3.0**	0.900	0.728	0.168					

Bias Corrected Averages									
	Cor Avg:	15.58	3.058	0.806					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 2 Average Results - RUN 2 0801 0831

07:55:00 - 08:25:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
Jul 19 2024	07:56:00	15.24	3.014	0.585					
Jul 19 2024	07:57:00	15.24	3.007	0.573					
Jul 19 2024	07:58:00	15.24	3.012	0.591					
Jul 19 2024	07:59:00	15.24	3.008	0.581					
Jul 19 2024	08:00:00	15.24	3.009	0.561					
Jul 19 2024	08:01:00	15.24	3.004	0.580					
Jul 19 2024	08:02:00	15.24	3.005	0.575					
Jul 19 2024	08:03:00	15.24	3.003	0.570					
Jul 19 2024	08:04:00	15.23	3.005	0.574					
Jul 19 2024	08:05:00	15.24	3.004	0.544					
End of port 1 point 1									
Jul 19 2024	08:06:00	15.24	3.001	0.610					
Jul 19 2024	08:07:00	15.24	3.003	0.595					
Jul 19 2024	08:08:00	15.24	2.999	0.619					
Jul 19 2024	08:09:00	15.23	3.001	0.588					
Jul 19 2024	08:10:00	15.23	2.997	0.599					
Jul 19 2024	08:11:00	15.23	2.996	0.599					
Jul 19 2024	08:12:00	15.23	2.994	0.573					
Jul 19 2024	08:13:00	15.23	2.993	0.620					
Jul 19 2024	08:14:00	15.24	2.992	0.596					
Jul 19 2024	08:15:00	15.24	2.991	0.591					
End of port 1 point 2									
Jul 19 2024	08:16:00	15.24	2.987	0.567					
Jul 19 2024	08:17:00	15.24	2.985	0.586					
Jul 19 2024	08:18:00	15.24	2.986	0.588					
Jul 19 2024	08:19:00	15.24	2.983	0.574					
Jul 19 2024	08:20:00	15.25	2.990	0.595					
Jul 19 2024	08:21:00	15.24	2.994	0.582					
Jul 19 2024	08:22:00	15.24	2.998	0.594					
Jul 19 2024	08:23:00	15.25	2.990	0.587					
Jul 19 2024	08:24:00	15.24	2.994	0.569					
Jul 19 2024	08:25:00	15.24	2.990	0.605					
End of port 1 point 3									

	Average:	15.24	2.998	0.586					
	Max:	15.25	3.014	0.620					
	Min:	15.23	2.983	0.544					

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
1	1	15.24	3.007	0.555					
1	2	15.24	2.996	0.601					
1	3	15.24	2.991	0.572					
	Strat diff:	0.000	0.009	0.025					
	Strat %:	0.000	0.300	4.340					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 2 Post run bias - RUN 2 0801 0831

07:55:00 - 08:25:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
	25A or 7E:	7E	7E	7E					
				Run summary data					
	Raw Avg:	15.24	2.998	0.586					
	Max:	15.25	3.014	0.620					
	Min:	15.23	2.983	0.544					
				Cylinder Concentrations					
	Zero:	0.000	0.000	0.000					
	Low:								
	Mid:	11.61	3.985	2.496					
	High:	21.12	8.376	5.059					
				Calibration Readings					
	Zero reading:	0.042	-0.005	-0.046					
	Low reading:								
	Mid reading:	11.53	3.966	2.552					
	High reading:	21.10	8.351	5.031					
				EPA Method 7E Error Calculations					
Zero %Err:	**<2.0**	0.199	-0.060	-0.909					
Mid %Err:	**<2.0**	-0.379	-0.227	1.107					
High %Err:	**<2.0**	-0.095	-0.298	-0.553					
				Initial Bias Data					
	Zero reading:	-0.065	-0.002	0.002					
	Span reading:	11.27	3.881	2.420					
Zero % bias:	**<5.0**	-0.507	0.036	0.949					
Span % bias:	**<5.0**	-1.231	-1.015	-2.609					
				Final Bias Data					
	Zero reading:	-0.091	-0.038	-0.028					
	Span reading:	11.28	3.868	2.384					
Zero % bias:	**<5.0**	-0.630	-0.394	0.356					
Span % bias:	**<5.0**	-1.184	-1.170	-3.321					
Zero % drift:	**<3.0**	0.123	0.430	0.593					
Span % drift:	**<3.0**	0.047	0.155	0.712					
				Bias Corrected Averages					
	Cor Avg:	15.66	3.088	0.619					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 3 Average Results - RUN 2 0846 0916

08:40:00 - 09:10:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
Jul 19 2024	08:41:00	15.23	2.991	0.546					
Jul 19 2024	08:42:00	15.23	2.995	0.565					
Jul 19 2024	08:43:00	15.23	2.992	0.558					
Jul 19 2024	08:44:00	15.23	2.996	0.562					
Jul 19 2024	08:45:00	15.23	2.996	0.564					
Jul 19 2024	08:46:00	15.24	2.997	0.565					
Jul 19 2024	08:47:00	15.24	3.001	0.556					
Jul 19 2024	08:48:00	15.24	2.997	0.554					
Jul 19 2024	08:49:00	15.23	2.999	0.567					
Jul 19 2024	08:50:00	15.24	2.998	0.583					
End of port 1 point 1									
Jul 19 2024	08:51:00	15.23	3.001	0.580					
Jul 19 2024	08:52:00	15.22	2.997	0.593					
Jul 19 2024	08:53:00	15.23	2.999	0.577					
Jul 19 2024	08:54:00	15.23	2.997	0.582					
Jul 19 2024	08:55:00	15.23	2.996	0.576					
Jul 19 2024	08:56:00	15.23	2.994	0.589					
Jul 19 2024	08:57:00	15.22	2.996	0.572					
Jul 19 2024	08:58:00	15.22	2.996	0.577					
Jul 19 2024	08:59:00	15.22	2.998	0.583					
Jul 19 2024	09:00:00	15.23	3.000	0.576					
End of port 1 point 2									
Jul 19 2024	09:01:00	15.22	2.996	0.556					
Jul 19 2024	09:02:00	15.23	3.000	0.575					
Jul 19 2024	09:03:00	15.23	2.999	0.575					
Jul 19 2024	09:04:00	15.22	2.999	0.591					
Jul 19 2024	09:05:00	15.21	2.999	0.583					
Jul 19 2024	09:06:00	15.20	3.007	0.574					
Jul 19 2024	09:07:00	15.22	3.000	0.579					
Jul 19 2024	09:08:00	15.21	2.999	0.574					
Jul 19 2024	09:09:00	15.21	2.998	0.573					
Jul 19 2024	09:10:00	15.22	2.995	0.579					
End of port 1 point 3									

	Average:	15.23	2.998	0.573					
	Max:	15.24	3.007	0.593					
	Min:	15.20	2.991	0.546					

Stratification Results

Port	**Point**	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
1	1	15.23	2.996	0.570					
1	2	15.23	2.997	0.575					
1	3	15.21	2.999	0.574					
	Strat diff:	0.007	0.002	0.002					
	Strat %:	0.088	0.056	0.524					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 3 Post run bias - RUN 2 0846 0916

08:40:00 - 09:10:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
	25A or 7E:	7E	7E	7E					
	Run summary data								
	Raw Avg:	15.23	2.998	0.573					
	Max:	15.24	3.007	0.593					
	Min:	15.20	2.991	0.546					
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000					
	Low:								
	Mid:	11.61	3.985	2.496					
	High:	21.12	8.376	5.059					
	Calibration Readings								
	Zero reading:	0.042	-0.005	-0.046					
	Low reading:								
	Mid reading:	11.53	3.966	2.552					
	High reading:	21.10	8.351	5.031					
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.199	-0.060	-0.909					
Mid %Err:	**<2.0**	-0.379	-0.227	1.107					
High %Err:	**<2.0**	-0.095	-0.298	-0.553					
	Initial Bias Data								
	Zero reading:	-0.091	-0.038	-0.028					
	Span reading:	11.28	3.868	2.384					
Zero % bias:	**<5.0**	-0.630	-0.394	0.356					
Span % bias:	**<5.0**	-1.184	-1.170	-3.321					
	Final Bias Data								
	Zero reading:	-0.114	-0.030	0.056					
	Span reading:	11.25	3.871	2.492					
Zero % bias:	**<5.0**	-0.739	-0.299	2.016					
Span % bias:	**<5.0**	-1.326	-1.134	-1.186					
Zero % drift:	**<3.0**	0.109	0.096	1.660					
Span % drift:	**<3.0**	0.142	0.036	2.135					
	Bias Corrected Averages								
	Cor Avg:	15.66	3.095	0.576					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 4 Average Results - RUN 3 0924 0954

09:18:00 - 09:48:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
Jul 19 2024	09:19:00	15.21	2.990	0.600					
Jul 19 2024	09:20:00	15.22	2.993	0.597					
Jul 19 2024	09:21:00	15.21	2.991	0.588					
Jul 19 2024	09:22:00	15.21	2.994	0.579					
Jul 19 2024	09:23:00	15.22	2.992	0.569					
Jul 19 2024	09:24:00	15.20	2.997	0.571					
Jul 19 2024	09:25:00	15.21	2.995	0.562					
Jul 19 2024	09:26:00	15.21	2.995	0.559					
Jul 19 2024	09:27:00	15.21	2.994	0.590					
Jul 19 2024	09:28:00	15.21	2.992	0.584					
End of port 1 point 1									
Jul 19 2024	09:29:00	15.22	2.991	0.596					
Jul 19 2024	09:30:00	15.22	2.988	0.592					
Jul 19 2024	09:31:00	15.22	2.989	0.598					
Jul 19 2024	09:32:00	15.22	2.986	0.595					
Jul 19 2024	09:33:00	15.22	2.987	0.588					
Jul 19 2024	09:34:00	15.22	2.982	0.583					
Jul 19 2024	09:35:00	15.22	2.986	0.580					
Jul 19 2024	09:36:00	15.23	2.981	0.579					
Jul 19 2024	09:37:00	15.22	2.985	0.586					
Jul 19 2024	09:38:00	15.21	2.986	0.581					
End of port 1 point 2									
Jul 19 2024	09:39:00	15.21	2.983	0.579					
Jul 19 2024	09:40:00	15.21	2.982	0.594					
Jul 19 2024	09:41:00	15.22	2.981	0.598					
Jul 19 2024	09:42:00	15.22	2.983	0.604					
Jul 19 2024	09:43:00	15.22	2.977	0.590					
Jul 19 2024	09:44:00	15.22	2.980	0.591					
Jul 19 2024	09:45:00	15.21	2.976	0.592					
Jul 19 2024	09:46:00	15.22	2.981	0.580					
Jul 19 2024	09:47:00	15.21	2.979	0.586					
Jul 19 2024	09:48:00	15.21	2.980	0.585					
End of port 1 point 3									

	Average:	15.22	2.987	0.586					
	Max:	15.23	2.997	0.604					
	Min:	15.20	2.976	0.559					

Stratification Results

Port	Point	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
1	1	15.21	2.992	0.573					
1	2	15.22	2.986	0.587					
1	3	15.21	2.979	0.601					
	Strat diff:	0.007	0.006	0.014					
	Strat %:	0.044	0.223	2.385					

MAQDAQ 1.0			
Project Name: SVP DVR	Project Number: PROJ-042969	CEMS Operator: N.PATEL	Unit/Condition: UNIT 2 MIN
Run Length: 30	Record Interval: 6	Average Interval: 60	Triplicate Sampling: False
Traverse: True	Ports: 1	Points per port: 3	DAQ Device: DT9803(01)

Run 4 Post run bias - RUN 3 0924 0954

09:18:00 - 09:48:00

	Name:	O2 (OX-10)	CO2 (CD-10)	CO (CO21)					
	Make/Model:								
	25A or 7E:	7E	7E	7E					
	Run summary data								
	Raw Avg:	15.22	2.987	0.586					
	Max:	15.23	2.997	0.604					
	Min:	15.20	2.976	0.559					
	Cylinder Concentrations								
	Zero:	0.000	0.000	0.000					
	Low:								
	Mid:	11.61	3.985	2.496					
	High:	21.12	8.376	5.059					
	Calibration Readings								
	Zero reading:	0.042	-0.005	-0.046					
	Low reading:								
	Mid reading:	11.53	3.966	2.552					
	High reading:	21.10	8.351	5.031					
	EPA Method 7E Error Calculations								
Zero %Err:	**<2.0**	0.199	-0.060	-0.909					
Mid %Err:	**<2.0**	-0.379	-0.227	1.107					
High %Err:	**<2.0**	-0.095	-0.298	-0.553					
	Initial Bias Data								
	Zero reading:	-0.114	-0.030	0.056					
	Span reading:	11.25	3.871	2.492					
Zero % bias:	**<5.0**	-0.739	-0.299	2.016					
Span % bias:	**<5.0**	-1.326	-1.134	-1.186					
	Final Bias Data								
	Zero reading:	-0.112	0.017	-0.010					
	Span reading:	11.28	3.867	2.450					
Zero % bias:	**<5.0**	-0.729	0.263	0.712					
Span % bias:	**<5.0**	-1.184	-1.182	-2.016					
Zero % drift:	**<3.0**	0.010	0.561	1.304					
Span % drift:	**<3.0**	0.142	0.048	0.830					
	Bias Corrected Averages								
	Cor Avg:	15.65	3.078	0.574					

Appendix A.5
Particulate Matter Calculations/Results

SOURCE TEST DATA SUMMARY

Client				SV Power	
Unit / Location				Unit 1	
A (stack area), ft^2				78.540	
T_{ref} (reference temperature), °F				70	
Test number	1-PM-1	2-PM-1	3-PM-1	Average	FB
Date	7/16/24	7/16/24	7/16/24	--	--
Start / Stop time	0755-1006	1105-1312	1335-1542	--	--
Process Data					
Unit Load, MW	72	72	73	72	
Heat Input, MMBtu/hr	563.6	566.9	568.6	566.4	
Meter box number	CB-18	CB-18	CB-18	--	
C_p (pitot coefficient), dimensionless	0.84	0.84	0.84	0.84	0.84
Y (meter calibration factor), dimensionless	0.990	0.990	0.990	0.990	0.990
Θ (sample time), min	120	120	120	120	120
Nozzle diameter, in	0.200	0.200	0.200	0.200	0.2000
P_{bar} (barometric pressure), in Hg	30.00	30.00	30.00	30.00	30.0000
V_m (meter box volume), acf	72.301	73.057	72.188	72.515	72.5153
V_{lc} (impinger liquid volume), ml	210.6	214.3	195.7	206.9	206.8667
T_m (meter temperature), °F	87.6	80.2	81.0	82.9	82.9444
ΔH (meter pressure), in. H_2O	1.323	1.343	1.369	1.345	1.3449
ΔP (velocity head), in. H2O	0.9844	0.9921	1.0134	0.9966	0.9966
P_g (static pressure), in. Hg	0.84	0.84	0.84	0.84	0.8400
T_s (stack temperature), °F	232.3	235.9	233.3	234	233.8194
$\%O_2$ (oxygen stack gas), % volume dry	13.1	13.1	13.1	13.1	13.1000
$\%CO_2$ (carbon dioxide stack gas), % volume dry	4.5	4.5	4.5	4.5	4.5000
m_f (F½ particulate matter catch - filter), mg	<0.28	<0.28	<0.28	<0.28	<0.28
m_a (F½ particulate matter catch - acetone rinse), mg	<0.11	<0.11	<0.11	<0.11	<0.11
m_{cpm} (B½ particulate matter catch - total condensible, blank corrected), mg.	<1.24	1.34	<1.24	1.27	<1.24
m_n (total particulate matter catch), mg	<1.63	1.73	<1.63	1.66	<1.63
1a $V_{m(std)}$ (standard sample volume), dscf	69.685	71.389	70.430	70.501	70.501
1b $V_{w(std)}$ (water vapor volume), scf	9.970	10.145	9.264	9.793	9.793
1c B_{ws} (moisture fraction), non-dimensional	0.1252	0.1244	0.1162	0.1219	0.122
Moisture, %	12.5	12.4	11.6	12.2	12.2
1d MW_{dry} (stack gas molecular weight), dry	29.244	29.244	29.244	29.244	29.244
1e MW_{wet} (stack gas molecular weight), wet	27.837	27.845	27.937	27.873	27.873
1f P_s (absolute stack pressure), in Hg	30.062	30.062	30.062	30.062	30.062
1g V_s (stack gas velocity), ft/sec	64.699	65.113	65.571	65.128	65.128
1h Q (stack flow rate), acfm	304,886	306,838	308,996	306,907	306907
1i Q_{ws} (stack flow rate), wscfm	234,519	234,790	237,352	235,554	235554
1j Q_{ds} (stack flow rate), dscfm	205,166	205,577	209,761	206,835	206835
1k I (isokinetic ratio), %	101.9	104.2	100.8	102.3	102.3
3a G (F½ grain loading), gr/dscf	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
3c M (F½ mass emissions), lb/hr	<0.15	<0.15	<0.15	<0.15	<0.15
M (F½ mass emissions), lb/day	<3.6	<3.6	<3.7	<3.6	<3.6
3a G (B½ grain loading), gr/dscf	<0.0003	0.0003	<0.0003	0.0003	<0.0003
3c M (B½ mass emissions), lb/hr	<0.48	0.51	<0.49	0.49	<0.48
M (B½ mass emissions), lb/day	<11.6	12.2	<11.7	11.9	<11.5
3a G (total grain loading), gr/dscf	<0.0004	0.0004	<0.0004	0.0004	<0.0004
3c M (total mass emissions), lb/hr	<0.63	0.66	<0.64	0.65	<0.63
M (total mass emissions), lb/day	<15.2	15.8	<15.4	15.5	<15.2

SOURCE TEST DATA SUMMARY

Client				SV Power	
Unit / Location				Unit 2	
A (stack area), ft^2				78.540	
T_{ref} (reference temperature), °F				70	
Test number	1-PM-2	2-PM-2	3-PM-2	Average	FB
Date	7/18/24	7/18/24	7/18/24	--	--
Start / Stop time	0745-0951	1032-1238	1315-1524	--	--
Process Data					
Unit Load, MW	71	71	71	71	
Heat Input, MMBtu/hr	560.3	561.3	564.2	561.9	
Meter box number	CB-18	CB-18	CB-18	--	
C_p (pitot coefficient), dimensionless	0.84	0.84	0.84	0.84	0.84
Y (meter calibration factor), dimensionless	0.990	0.990	0.990	0.990	0.990
Θ (sample time), min	120	120	120	120	120
Nozzle diameter, in	0.184	0.184	0.184	0.184	0.184
P_{bar} (barometric pressure), in Hg	29.99	29.99	29.99	29.99	29.99
V_m (meter box volume), acf	70.867	72.475	73.325	72.222	72.222
V_{lc} (impinger liquid volume), ml	200.3	213.2	218.1	210.5	210.5
T_m (meter temperature), °F	81.4	84.8	85.0	83.7	83.7
ΔH (meter pressure), in. H_2O	1.209	1.261	1.233	1.234	1.234
ΔP (velocity head), in. H2O	1.4029	1.4589	1.4350	1.4323	1.4323
P_g (static pressure), in. Hg	0.2	0.2	0.2	0.20	0.20
T_s (stack temperature), °F	237.1	240.7	243.2	240	240.3
$\%O_2$ (oxygen stack gas), % volume dry	12.8	12.9	12.8	12.8	12.8
$\%CO_2$ (carbon dioxide stack gas), % volume dry	4.5	4.6	4.7	4.6	4.6
m_f (F½ particulate matter catch - filter), mg	0.33	<0.28	0.30	0.30	<0.28
m_a (F½ particulate matter catch - acetone rinse), mg	<0.11	<0.11	<0.11	<0.11	<0.11
m_{cpm} (B½ particulate matter catch - total condensible, blank corrected), m	<1.24	<1.24	<1.24	<1.24	<1.24
m_n (total particulate matter catch), mg	1.68	<1.63	1.65	1.65	1.63
1a $V_{m(std)}$ (standard sample volume), dscf	69.044	70.187	70.978	70.070	70.070
1b $V_{w(std)}$ (water vapor volume), scf	9.482	10.093	10.325	9.966	9.966
1c B_{ws} (moisture fraction), non-dimensional	0.1207	0.1257	0.1270	0.1245	0.124
Moisture, %	12.1	12.6	12.7	12.4	12.4
1d MW_{dry} (stack gas molecular weight), dry	29.232	29.252	29.264	29.249	29.249
1e MW_{wet} (stack gas molecular weight), wet	27.876	27.837	27.834	27.849	27.849
1f P_s (absolute stack pressure), in Hg	30.005	30.005	30.005	30.005	30.005
1g V_s (stack gas velocity), ft/sec	77.651	79.444	78.935	78.677	78.677
1h Q (stack flow rate), acfm	365,925	374,371	371,973	370,756	370,756
1i Q_{ws} (stack flow rate), wscfm	278,987	283,984	281,162	281,378	281,378
1j Q_{ds} (stack flow rate), dscfm	245,300	248,283	245,458	246,347	246,347
1k I (isokinetic ratio), %	99.8	100.2	102.5	100.8	100.8
3a G (F½ grain loading), gr/dscf	0.0001	<0.0001	0.0001	0.0001	0.0001
3c M (F½ mass emissions), lb/hr	0.2	<0.2	0.2	0.2	0.2
M (F½ mass emissions), lb/day	5	<4	5	5	4
3a G (B½ grain loading), gr/dscf	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
3c M (B½ mass emissions), lb/hr	<0.6	<0.6	<0.6	<0.6	<0.6
M (B½ mass emissions), lb/day	<14	<14	<14	<14	<14
3a G (total grain loading), gr/dscf	0.0004	<0.0004	0.0004	0.0004	0.0004
3c M (total mass emissions), lb/hr	0.8	<0.8	0.8	0.8	0.8
M (total mass emissions), lb/day	19	<18	18	18	18

Appendix A.6
Ammonia and Gaseous Calculations/Results

SOURCE TEST DATA SUMMARY

Client				SV Power
Unit / Location				Unit #1
Reference temperature, °F				70
Test number	7-NH3-1-MIN	8-NH3-1-MIN	9-NH3-1-MIN	Average
Date	7/17/24	7/17/24	7/17/24	--
Start / Stop time	0727-0757	0804-0834	0843-0913	--
FUEL DATA				
Fuel "F" factor @ 68°F, dscf/MMBtu	8,615	8,615	8,615	8,615
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,648	8,648	8,648	8,648
Fuel higher heating value (HHV), Btu/scf	1,028	1,028	1,028	1,028
Fuel flow, scfh	263,310	263,770	263,750	263,610
Heat Input, MMBtu/hr	276.5	277.0	276.9	276.8
Unit Load, MW	33.0	33.0	33.0	33.0
SAMPLE TRAIN DATA				
Meter box number/ID	CB-22	CB-22	CB-22	--
Meter calibration, Yd	0.992	0.992	0.992	0.992
Barometric pressure, in Hg	30.06	30.06	30.06	30.06
Meter box volume, acf	23.145	23.475	22.980	23.200
Impinger liquid volume, ml	45.6	47.5	47.2	46.8
Meter temperature, °F	61.3	66.0	66.0	64.4
Meter pressure, (Delta H) iwg	1.800	1.800	1.800	1.800
ANALYZER DATA				
O_2, % volume dry	15.69	15.78	15.74	15.7
CO_2, % volume dry	2.985	3.009	2.995	3.0
CO emissions, ppm volume dry	1.125	1.031	1.084	1.080
VOLUMETRIC FLOW RATE				
1a Standard sample volume, dscf	23.554	23.678	23.179	23.470
Standard sample volume, dscf @ 70F	23.549	23.673	23.173	23.465
1b Water vapor volume, scf	2.1582	2.2481	2.2339	2.2134
1c Moisture fraction, nondimensional	0.0839	0.0867	0.0879	0.0862
1d Stack gas molecular weight, dry	29.105	29.113	29.109	29.109
1e Stack gas molecular weight, wet	28.173	28.149	28.132	28.151
1f Absolute stack pressure, in Hg	30.060	30.060	30.060	30.060
Stack flow rate - based on fuel, dscfm	156,500	159,529	158,281	158,103
NH_3 ION SELECTIVE ELECTRODE				
Audit sample concentration (measured), ppm	9.72	9.72	9.72	9.72
Audit sample concentration (actual), ppm	10.00	10.00	10.00	10.00
Audit sample, % recovery	97.2	97.2	97.2	97.2
Sample volume - fraction 1 - (total), ml	166.3	164.1	177.8	169.4
Sample concentration - fraction 1 - (measured), ppm	7.85	8.53	7.21	7.86
Sample volume - fraction 2 - (total), ml	137.5	141.0	164.1	147.5
Sample concentration - fraction 2 - (measured), ppm	<0.5	<0.5	<0.5	<0.5
Mass of ammonia, mg	1.31	1.40	1.28	1.33
EMISSIONS				
CO concentrations, ppm volume dry	1.1	1.0	1.1	1.1
2b CO concentrations, ppm @ 15% O_2 dry	1.3	1.2	1.2	1.2
2e CO mass emissions, lb/hr	0.76	0.71	0.75	0.74
2f CO mass emissions, lb/MMBtu	0.0028	0.0026	0.0027	0.0027
NH_3 concentrations, ppm volume dry	2.8	3.0	2.8	2.8
2b NH_3 concentrations, ppm @ 15% O_2 dry	3.2	3.4	3.2	3.2
2e NH_3 mass emissions, lb/hr	1.2	1.3	1.2	1.2
2f NH_3 mass emissions, lb/MMBtu	0.0043	0.0046	0.0043	0.0044

RELATIVE ACCURACY TEST AUDIT DETERMINATION
SV POWER
TURBINE #1

Test No.	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Run 9	Run 10	Average
Date	7/16/24	7/16/24	7/16/24	7/16/24	7/16/24	7/16/24	7/16/24	7/16/24	7/16/24	7/16/24	Runs 1-10
Start Time	0829-0910	0938-1008	1027-1057	1123-1153	1203-1224	1240-1301	1307-1328	1338-1359	1406-1427	1439-1500	--
Reference temperature, °F	70	70	70	70	70	70	70	70	70	70	**70**
Unit load, MW	72	72	72	72	72	73	73	73	73	73	**72.5**
Unit fuel flow @ 60 °F, scfh	536,160	537,310	537,570	538,260	539,040	541,130	541,180	541,630	541,550	541,350	**539,518**
Unit Heat Input, MMBtu/hr	563.0	564.2	564.4	565.2	566.0	568.2	568.2	568.7	568.6	568.4	**566**
"F_d" factor @ 68 °F, dscf/MMBtu	8,615	8,615	8,615	8,615	8,615	8,615	8,615	8,615	8,615	8,615	**8,615**
"F_d" factor @ T_{ref} °F, dscf/MMBtu	8,648	8,648	8,648	8,648	8,648	8,648	8,648	8,648	8,648	8,648	**8,648**
HHV @ 60 °F, btu/scf	1,026	1,026	1,026	1,026	1,026	1,026	1,026	1,026	1,026	1,026	**1,026**
Stack flow rate - based on fuel, dscfm	211,898	211,811	212,727	212,456	212,764	212,774	213,337	213,514	213,210	213,404	**212,790**
Stack flow rate - based on fuel, dscfm	211,898	211,811	212,727	212,456	212,764	212,774	213,337	213,514	213,210	213,404	212,790
O_2, % volume dry	13.08	13.06	13.09	13.07	13.07	13.04	13.06	13.06	13.05	13.06	**13.06**
CO_2, % volume dry	4.511	4.529	4.514	4.525	4.519	4.549	4.555	4.547	4.537	4.542	**4.53**
CO, ppm volume dry	1.148	1.179	1.169	1.179	1.195	1.208	1.195	1.207	1.211	1.225	**1.192**
CO, ppm dry @ 15% O_2	0.87	0.89	0.88	0.89	0.90	0.91	0.90	0.91	0.91	0.92	**0.90**
CO, lb/hr	1.06	1.09	1.08	1.09	1.10	1.12	1.11	1.12	1.12	1.14	**1.10**
CO, lb/day (24 hours)	25.4	26.0	25.9	26.1	26.5	26.8	26.6	26.9	26.9	27.3	**26.4**
CO, lb/MMBtu	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	**0.002**
NO_X, ppm volume dry	2.554	2.478	2.662	2.481	2.349	2.456	2.441	2.449	2.436	2.448	**2.475**
NO_X, ppm dry @ 15% O_2	1.93	1.86	2.01	1.87	1.77	1.84	1.84	1.84	1.83	1.84	**1.86**
NO_X, lb/hr as NO_2	3.86	3.75	4.04	3.76	3.57	3.73	3.72	3.73	3.71	3.73	**3.76**
NO_X, lb/day (24 hours) as NO_2	92.7	89.9	97.0	90.3	85.6	89.5	89.2	89.6	89.0	89.5	**90.2**
NO_X, lb/MMBtu as NO_2	0.007	0.007	0.007	0.007	0.006	0.007	0.007	0.007	0.007	0.007	**0.007**
SO_2, gr/100 scf	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	**0.140**
SO_2, ppm volume dry	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	**0.10**
SO_2, ppm dry @ 15% O_2	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	**0.08**
SO_2, lb/hr	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.22	**0.22**
SO_2, lb/day (24 hours)	5.1	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	**5.2**
SO_2, lb/MMBtu	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	**0.0004**

GASEOUS EMISSIONS COMPLIANCE
SV POWER
TURBINE #1

Test No.	Compliance Run 1 Run 2	Compliance Run 2 Run 3	Compliance Run 3 Run 4	Average
Date	07/16/24	07/16/24	07/16/24	--
Start Time	0938-1008	1027-1057	1123-1153	--
Unit load, MW	72.0	72.0	72.0	**72.0**
Unit fuel flow @ 60 °F, scfh	537,310	537,570	538,260	**537,713**
Unit Heat Input, MMBtu/hr	564.2	564.4	565.2	**564.6**
O2, % volume dry	13.1	13.1	13.1	**13.1**
CO2, % volume dry	4.5	4.5	4.5	**4.5**
Stack flow rate - based on fuel, dscfm	211,811	212,727	212,456	**212,332**
CO, ppm volume dry	1.2	1.2	1.2	**1.2**
CO, ppm dry @ 15% O2	0.9	0.9	0.9	**0.9**
CO, lb/hr	1.1	1.1	1.1	**1.1**
CO, lb/MMBtu	0.0020	0.0020	0.0020	**0.0020**
NOX, ppm volume dry	2.5	2.7	2.5	**2.5**
NOX, ppm dry @ 15% O2	1.9	2.0	1.9	**1.9**
NOX, lb/hr as NO2	3.7	4.0	3.8	**3.8**
NOX, lb/MMBtu as NO2	0.0068	0.0073	0.0068	**0.0070**
SO2, gr/100 scf	0.14	0.14	0.14	**0.14**
SO2, ppm volume dry	0.10	0.10	0.10	**0.10**
SO2, ppm dry @ 15% O2	0.08	0.08	0.08	**0.08**
SO2, lb/hr	0.21	0.21	0.22	**0.21**
SO2, lb/MMBtu	0.0004	0.0004	0.0004	**0.0004**

SOURCE TEST DATA SUMMARY

Client				SV Power, DVR Facility
Unit / Location				Unit #1
Reference temperature, °F				70
Test number	1-POC-1	2-POC-1	3-POC-1	Average
Date	7/16/24	7/16/24	7/16/24	--
Start / Stop time	0932-1002	1021-1051	1117-1147	--
FUEL DATA				
Fuel "F" factor @ 68°F, dscf/MMBtu	8,615	8,615	8,615	8,615
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,648	8,648	8,648	8,648
ANALYZER AND LABORATORY DATA				
O_2, % volume dry	13.06	13.09	13.07	13.1
CO_2, % volume dry	4.529	4.514	4.525	4.5
THC emissions as methane, ppm volume wet	3.292	3.438	2.494	3.075
Methane, ppm volume wet from analyzer	3.291	3.439	2.493	3.074
Laboratory analysis results:				
Ethane, ppm volume dry as carbon	<0.5	<0.5	<0.5	<0.5
VOLUMETRIC FLOW RATE				
1c Moisture fraction, nondimensional	0.1233	0.1268	0.1210	0.1237
Stack flow rate - based on fuel, dscfm	211,811	212,727	212,456	212,332
EMISSIONS				
THC concentrations, ppm volume dry as methar	3.755	3.937	2.837	3.510
2a THC concentrations, ppm volume wet as methai	3.292	3.438	2.494	3.075
Methane, ppm volume dry from analyzer	3.754	3.938	2.836	3.509
POC conc. (THC-methane) , ppm volume dry	0.001	-0.001	0.001	0.0
2c POC concentrations, reporting limit ppm vol. dr	*2.0*	*2.0*	*2.0*	*2.0*
2b POC concentrations, ppm @ 15% O2 dry	*1.5*	*1.5*	*1.5*	*1.5*
2e POC mass emissions, lb/hr as Methane	*1.1*	*1.1*	*1.1*	*1.1*
2f POC mass emissions, lb/MMBtu as Methane	*0.0019*	*0.0019*	*0.0019*	*0.0019*

Note(s): Volume flow rates were determined from EPA Method 19 data collected during the RATA tests.
Moisture contents were determined from EPA 4 / BAAQMD ST-1B data collected simultaneously with the EPA 25A and EPA 18 data.
Methane results are from FID analyzer with non-methane cutter.
Results in italics are below the reporting limit and are expressed at the reporting limit.

SOURCE TEST DATA SUMMARY

Client				SV Power
Unit / Location				Unit #1
Reference temperature, °F				70
Test number	4-NH3-MAX	5-NH3-MAX	6-NH3-MAX	Average
Date	7/16/24	7/16/24	7/16/24	--
Start / Stop time	0938-1008	1027-1057	1123-1153	--
FUEL DATA				
Fuel "F" factor @ 68°F, dscf/MMBtu	8,615	8,615	8,615	8,615
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,648	8,648	8,648	8,648
Fuel higher heating value (HHV), Btu/scf	1,026	1,026	1,026	1,026
Fuel flow, scfh	537,310	537,570	538,260	537,713
Fuel Heat Input, MMBtu/hr	564.2	564.4	565.2	564.6
Unit Load, MW	72.0	72.0	72.0	72.0
SAMPLE TRAIN DATA				
Meter box number/ID	CB-22	CB-22	CB-22	--
Meter calibration, Yd	0.992	0.992	0.992	0.992
Barometric pressure, in Hg	30.00	30.00	30.00	30.00
Meter box volume, acf	22.405	24.825	22.810	23.347
Impinger liquid volume, ml	66.0	75.9	66.1	69.3
Meter temperature, °F	74.0	71.3	71.7	72.3
Meter pressure, (Delta H) iwg	1.800	1.800	1.800	1.800
ANALYZER DATA				
O_2, % volume dry	13.1	13.1	13.1	13.1
CO_2, % volume dry	4.5	4.5	4.5	4.5
VOLUMETRIC FLOW RATE				
1a Standard sample volume, dscf	22.216	24.739	22.717	23.224
Standard sample volume, dscf @ 70F	22.211	24.733	22.712	23.219
1b Water vapor volume, scf	3.1237	3.5922	3.1284	3.2814
1c Moisture fraction, nondimensional	0.1233	0.1268	0.1210	0.1237
1d Stack gas molecular weight, dry	29.247	29.245	29.247	29.246
1e Stack gas molecular weight, wet	27.861	27.819	27.885	27.855
1f Absolute stack pressure, in Hg	30.000	30.000	30.000	30.000
Stack flow rate - based on fuel, dscfm	211,811	212,727	212,456	212,332
NH_3 ION SELECTIVE ELECTRODE				
Audit sample concentration (measured), ppm	9.72	9.72	9.72	9.72
Audit sample concentration (actual), ppm	10.00	10.00	10.00	10.00
Audit sample, % recovery	97.2	97.2	97.2	97.2
Sample volume - fraction 1 - (total), ml	184.8	203.8	194.4	194.3
Sample concentration - fraction 1 - (measured),	7.23	7.95	8.07	7.75
Sample volume - fraction 2 - (total), ml	141.4	139.6	136.9	139.3
Sample concentration - fraction 2 - (measured),	<0.5	<0.5	<0.5	<0.5
Mass of ammonia, mg	1.34	1.62	1.57	1.51
EMISSIONS				
NH_3 concentrations, ppm volume dry	3.0	3.3	3.5	3.3
2b NH_3 concentrations, ppm @ 15% O_2 dry	2.3	2.5	2.6	2.5
2e NH_3 mass emissions, lb/hr	1.7	1.8	1.9	1.8
2f NH_3 mass emissions, lb/MMBtu	0.0031	0.0034	0.0035	0.0033

Note(s):

SOURCE TEST DATA SUMMARY

Client				SV Power
Unit / Location				Unit #1
Reference temperature, °F				70
Test number	1-NH3-1-BASE	2-NH3-1-BASE	3-NH3-1-BASE	Average
Date	7/15/24	7/15/24	7/15/24	--
Start / Stop time	1225-1255	1305-1335	1342-1412	--
FUEL DATA				
Fuel "F" factor @ 68°F, dscf/MMBtu	8,616	8,616	8,616	8,616
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,649	8,649	8,649	8,649
Fuel higher heating value (HHV), Btu/scf	1,032	1,032	1,032	1,032
Fuel flow, scfh	451,430	450,990	450,750	451,057
Fuel Heat Input, MMBtu/hr	474.0	473.5	473.3	473.6
Unit Load, MW	63.0	63.0	63.0	63.0
SAMPLE TRAIN DATA				
Meter box number/ID	CB-22	CB-22	CB-22	--
Meter calibration, Yd	0.992	0.992	0.992	0.992
Barometric pressure, in Hg	30.03	30.03	30.03	30.03
Meter box volume, acf	22.977	23.254	22.660	22.964
Impinger liquid volume, ml	68.8	60.1	62.4	63.8
Meter temperature, °F	70.3	73.3	75.7	73.1
Meter pressure, (Delta H) iwg	1.800	1.800	1.800	1.800
ANALYZER DATA				
O_2, % volume dry	14.4	14.4	14.4	14.4
CO_2, % volume dry	3.8	3.8	3.8	3.8
VOLUMETRIC FLOW RATE				
1a Standard sample volume, dscf	22.963	23.109	22.421	22.831
Standard sample volume, dscf @ 70F	22.958	23.104	22.416	22.826
1b Water vapor volume, scf	3.2562	2.8444	2.9533	3.0180
1c Moisture fraction, nondimensional	0.1242	0.1096	0.1164	0.1167
1d Stack gas molecular weight, dry	29.181	29.181	29.182	29.182
1e Stack gas molecular weight, wet	27.793	27.956	27.881	27.876
1f Absolute stack pressure, in Hg	30.030	30.030	30.030	30.030
Stack flow rate - based on fuel, dscfm	215,592	215,381	215,267	215,413
NH_3 ION SELECTIVE ELECTRODE				
Audit sample concentration (measured), ppm	9.72	9.72	9.72	9.72
Audit sample concentration (actual), ppm	10.00	10.00	10.00	10.00
Audit sample, % recovery	97.2	97.2	97.2	97.2
Sample volume - fraction 1 - (total), ml	208.8	165.2	176.8	183.6
Sample concentration - fraction 1 - (measured),	9.34	14.3	12.1	11.9
Sample volume - fraction 2 - (total), ml	125.3	126.9	132.4	128.2
Sample concentration - fraction 2 - (measured),	<0.5	<0.5	<0.5	<0.5
Mass of ammonia, mg	1.95	2.36	2.14	2.15
EMISSIONS				
NH_3 concentrations, ppm volume dry	4.3	5.1	4.8	4.7
2b NH_3 concentrations, ppm @ 15% O_2 dry	3.9	4.7	4.3	4.3
2e NH_3 mass emissions, lb/hr	2.4	2.9	2.7	2.7
2f NH_3 mass emissions, lb/MMBtu	0.0052	0.0063	0.0059	0.0058

Note(s):

Ammonia Slip Calculation, Unit 1
Calculations used by SV Power
Typical values input to test the calculations

8/9/2024
Dan Duncan
MAQS

INPUTS		Min load	Base load	Max load	Min load	Base load	Max load
Variable	**Units**	**33 MW**	**63 MW**	**74 MW**	**33 MW**	**63 MW**	**74 MW**
GASFLOW	Hscf/hr	2636.1	4510.6	5377.1	2636.1	4510.6	5377.1
GASGCV	Btu/scf	1015.0	1015.0	1015.0	1015.0	1015.0	1015.0
FUEL FACT	dscf/MMBtu @0%O2	8710.0	8710.0	8710.0	8710.0	8710.0	8710.0
NH3FLOW	lb/hr	69.7	114.4	126.0	69.7	114.4	126.0
NH3 fraction	lb NH3 / lb solution	0.19	0.19	0.19	0.19	0.19	0.19
SCRNOX	ppm vol dry	22.3	28.0	28.4	22.3	28.0	28.4
STKNOX	ppm vol dry	1.6	2.0	2.4	1.6	2.0	2.4
STKO2	% volume dry	15.7	14.3	13.0	15.7	14.3	13.0
CALCULATED VALUES							
Value	**Units**						
UNITHEAT	MMBtu/hr	267.6	457.8	545.8	267.6	457.8	545.8
FLOWSCFH	dscf/hr	9,366,752	12,627,508	12,576,338	9,366,752	12,627,508	12,576,338
TEGASFLW	lbmoles/hr	24,295	32,753	32,620	24,295	32,753	32,620
NH3MOLE	lbmoles/hr	0.7794	1.2782	1.4082	0.7794	1.2782	1.4082
Reacted NOX	lbmoles/hr	0.5037	0.8527	0.8481	0.5037	0.8527	0.8481
CORRFACT	unitless	0.91	0.66	0.35	*1.00*	*1.00*	*1.00*
NH3 slip	ppmvd @ 15% O2	11.66	7.64	4.45			
Using correction factor of 1.0					*12.87*	*11.61*	*12.82*
Measured NH3 slip @ 15% O2		**3.2**	**4.3**	**2.5**	**3.2**	**4.3**	**2.5**
New correction factor					0.249	0.370	0.195

SOURCE TEST DATA SUMMARY

Client				SV Power
Unit / Location				Unit #2
Reference temperature, °F				70
Test number	1-NH3-2-Base	2-NH3-2-Base	3-NH3-2-Base	Average
Date	7/17/24	7/17/24	7/17/24	--
Start / Stop time	1020-1050	1056-1126	1132-1202	--
FUEL DATA				
Fuel "F" factor @ 68°F, dscf/MMBtu	8,615	8,615	8,615	8,615
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,648	8,648	8,648	8,648
Fuel higher heating value (HHV), Btu/scf	1,028	1,028	1,028	1,028
Fuel flow, scfh	446,640	446,350	446,360	446,450
Fuel Heat Input, MMBtu/hr	469.0	468.7	468.7	468.8
Unit Load, MW	61.0	61.0	61.0	61.0
SAMPLE TRAIN DATA				
Meter box number/ID	CB-22	CB-22	CB-22	--
Meter calibration, Yd	0.992	0.992	0.992	0.992
Barometric pressure, in Hg	30.06	30.06	30.06	30.06
Meter box volume, acf	22.210	22.900	22.355	22.488
Impinger liquid volume, ml	63.8	60.2	57.4	60.5
Meter temperature, °F	68.0	68.3	68.0	68.1
Meter pressure, (Delta H) iwg	1.80	1.80	1.80	1.800
ANALYZER DATA				
O_2, % volume dry	14.35	14.34	14.34	14.3
CO_2, % volume dry	3.809	3.815	3.806	3.8
VOLUMETRIC FLOW RATE				
1a Standard sample volume, dscf	22.317	22.996	22.463	22.592
Standard sample volume, dscf @ 70F	22.312	22.991	22.458	22.587
1b Water vapor volume, scf	3.0196	2.8492	2.7167	2.8618
1c Moisture fraction, nondimensional	0.1192	0.1102	0.1079	0.1124
1d Stack gas molecular weight, dry	29.183	29.184	29.183	29.183
1e Stack gas molecular weight, wet	27.851	27.951	27.976	27.926
1f Absolute stack pressure, in Hg	30.060	30.060	30.060	30.060
Stack flow rate - based on fuel, dscfm	211,155	210,696	210,701	210,851
NH_3 ION SELECTIVE ELECTRODE				
Audit sample concentration (measured), ppm	9.72	9.72	9.72	9.72
Audit sample concentration (actual), ppm	10.00	10.00	10.00	10.00
Audit sample, % recovery	97.2	97.2	97.2	97.2
Sample volume - fraction 1 - (total), ml	198.5	191.6	196.8	195.6
Sample concentration - fraction 1 - (measured),	8.46	8.9	9.2	8.9
Sample volume - fraction 2 - (total), ml	142.0	137.5	138.7	139.4
Sample concentration - fraction 2 - (measured),	<0.5	<0.5	<0.5	<0.5
Mass of ammonia, mg	1.68	1.71	1.81	1.73
EMISSIONS				
NH_3 concentrations, ppm volume dry	3.8	3.7	4.0	3.8
2b NH_3 concentrations, ppm @ 15% O_2 dry	3.4	3.3	3.6	3.5
2e NH_3 mass emissions, lb/hr	2.1	2.1	2.3	2.1
2f NH_3 mass emissions, lb/MMBtu	0.0046	0.0045	0.0049	0.0047

Note(s):

RELATIVE ACCURACY TEST AUDIT DETERMINATION
SV POWER
UNIT #2

Test No. Date Start Time	Run 1 7/18/24 0825-0906	Run 2 7/18/24 0939-1009	Run 3 7/18/24 1035-1105	Run 4 7/18/24 1114-1144	Run 5 7/18/24 1153-1214	Run 6 7/18/24 1221-1242	Run 7 7/18/24 1253-1314	Run 8 7/18/24 1321-1342	Run 9 7/18/24 1350-1411	Run 10 7/18/24 1419-1440	Average Runs 1-10 --
Reference temperature, °F	70	70	70	70	70	70	70	70	70	70	**70**
Unit load, MW	71	71	71	71	71	71	71	71	71	71	**71**
Unit fuel flow @ 60 °F, scfh	533,230	533,910	534,440	534,660	534,360	534,880	536,280	536,880	537,380	537,820	**535,384**
Unit Heat Input, MMBtu/hr	559.9	560.6	561.2	561.4	561.1	561.6	563.1	563.7	564.2	564.7	**562.2**
"F_d" factor @ 68 °F, dscf/MMBtu	8,614	8,614	8,614	8,614	8,614	8,614	8,614	8,614	8,614	8,614	**8,614**
"F_d" factor @ T_{ref} °F, dscf/MMBtu	8,647	8,647	8,647	8,647	8,647	8,647	8,647	8,647	8,647	8,647	**8,647**
HHV @ 60 °F, btu/scf	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	**1,030**
Stack flow rate - based on fuel, dscfm	205,238	204,738	207,247	207,332	207,475	206,900	207,442	206,132	206,069	206,493	**206,507**
Stack flow rate - based on fuel, dscfm	205,238	204,738	207,247	207,332	207,475	206,900	207,442	206,132	206,069	206,493	206,507
O_2, % volume dry	12.84	12.81	12.90	12.90	12.91	12.88	12.88	12.82	12.81	12.82	**12.86**
CO_2, % volume dry	4.523	4.540	4.652	4.642	4.637	4.654	4.679	4.675	4.675	4.664	**4.63**
CO, ppm volume dry	1.442	1.224	1.174	1.182	1.168	1.163	1.223	1.228	1.211	1.228	**1.224**
CO, ppm dry @ 15% O_2	1.06	0.89	0.87	0.87	0.86	0.86	0.90	0.90	0.88	0.90	**0.90**
CO, lb/hr	1.29	1.09	1.06	1.06	1.05	1.05	1.10	1.10	1.08	1.10	**1.10**
CO, lb/day (24 hours)	30.9	26.1	25.4	25.6	25.3	25.1	26.5	26.4	26.0	26.4	**26.4**
CO, lb/MMBtu	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	**0.002**
NO_X, ppm volume dry	2.266	2.396	2.512	2.495	2.510	2.536	2.523	2.505	2.498	2.515	**2.476**
NO_X, ppm dry @ 15% O_2	1.66	1.75	1.85	1.84	1.85	1.87	1.86	1.83	1.82	1.84	**1.82**
NO_X, lb/hr as NO_2	3.32	3.50	3.72	3.69	3.72	3.74	3.74	3.69	3.67	3.71	**3.65**
NO_X, lb/day (24 hours) as NO_2	79.7	84.0	89.2	88.6	89.2	89.9	89.6	88.4	88.2	89.0	**87.6**
NO_X, lb/MMBtu as NO_2	0.006	0.006	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	**0.007**
SO_2, gr/100 scf	0.193	0.193	0.193	0.193	0.193	0.193	0.193	0.193	0.193	0.193	**0.193**
SO_2, ppm volume dry	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	**0.14**
SO_2, ppm dry @ 15% O_2	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	**0.11**
SO_2, lb/hr	0.29	0.29	0.29	0.29	0.29	0.29	0.30	0.30	0.30	0.30	**0.29**
SO_2, lb/MMBtu	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	**0.0005**

GASEOUS EMISSIONS COMPLIANCE
SV POWER
UNIT #2

Test No.	Compliance Run 1 Run 2	Compliance Run 2 Run 3	Compliance Run 3 Run 4	Average
Date	07/18/24	07/18/24	07/18/24	--
Start Time	0939-1009	1035-1105	1114-1144	--
Unit load, MW	71.0	71.0	71.0	**71.0**
Unit fuel flow @ 60 °F, scfh	533,910	534,440	534,660	**534,337**
Unit Heat Input, MMBtu/hr	560.6	561.2	561.4	**561.1**
O2, % volume dry	12.8	12.9	12.9	**12.9**
CO2, % volume dry	4.5	4.7	4.6	**4.6**
Stack flow rate - based on fuel, dscfm	204,738	207,247	207,332	**206,439**
CO, ppm volume dry	1.2	1.2	1.2	**1.2**
CO, ppm dry @ 15% O2	0.9	0.9	0.9	**0.9**
CO, lb/hr	1.1	1.1	1.1	**1.1**
CO, lb/MMBtu	0.0020	0.0019	0.0019	**0.0019**
NOX, ppm volume dry	2.4	2.5	2.5	**2.5**
NOX, ppm dry @ 15% O2	1.7	1.9	1.8	**1.8**
NOX, lb/hr as NO2	3.5	3.7	3.7	**3.6**
NOX, lb/MMBtu as NO2	0.0064	0.0067	0.0067	**0.0066**
SO2, gr/100 scf	0.19	0.19	0.19	**0.19**
SO2, ppm volume dry	0.14	0.14	0.14	**0.14**
SO2, ppm dry @ 15% O2	0.11	0.11	0.11	**0.11**
SO2, lb/hr	0.29	0.29	0.29	**0.29**
SO2, lb/MMBtu	0.0005	0.0005	0.0005	**0.0005**

SOURCE TEST DATA SUMMARY

Client				SV Power, DVR Facility
Unit / Location				Unit #2
Reference temperature, °F				70
Test number	1-POC-2	2-POC-2	3-POC-2	Average
Date	7/18/24	7/18/24	7/18/24	--
Start / Stop time	0939-1009	1035-1105	1114-1144	--
FUEL DATA				
Fuel "F" factor @ 68°F, dscf/MMBtu	8,614	8,614	8,614	8,614
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,647	8,647	8,647	8,647
ANALYZER AND LABORATORY DATA				
O_2, % volume dry	12.81	12.90	12.90	12.9
CO_2, % volume dry	4.540	4.652	4.642	4.6
THC emissions as methane, ppm volume wet	18.62	16.05	16.12	16.9
Methane, ppm volume wet from analyzer	18.61	16.03	16.13	16.9
Laboratory analysis results:				
Ethane, ppm volume dry as carbon	<0.5	<0.5	<0.5	<0.5
VOLUMETRIC FLOW RATE				
1c Moisture fraction, nondimensional	0.1245	0.1089	0.1281	0.1205
Stack flow rate - based on fuel, dscfm	204,738	207,247	207,332	206,439
EMISSIONS				
THC concentrations, ppm volume dry as methar	21.269	18.012	18.488	19.256
2a THC concentrations, ppm volume wet as methai	18.620	16.050	16.120	16.930
Methane, ppm volume dry from analyzer	21.257	17.990	18.499	19.249
POC conc. (THC-methane) , ppm volume dry	0.011	0.022	-0.011	0.0
POC concentrations, reporting limit ppm vol. dr	*2.0*	*2.0*	*2.0*	*2.0*
2b POC concentrations, ppm @ 15% O2 dry	*1.5*	*1.5*	*1.5*	*1.5*
2e POC mass emissions, lb/hr as Methane	*1.0*	*1.0*	*1.0*	*1.0*
2f POC mass emissions, lb/MMBtu as Methane	*0.0019*	*0.0019*	*0.0019*	*0.0019*

Note(s): Volume flow rates were determined from EPA Method 19 data collected during the RATA tests.
Moisture contents were determined from BAAQMD ST-1B data collected simultaneously with the EPA 25A and EPA 18 data.
Methane results are from FID analyzer with non-methane cutter.
Results in italics are below the reporting limit and are expressed at the reporting limit.

SOURCE TEST DATA SUMMARY

Client				SV Power
Unit / Location				Unit #2
Reference temperature, °F				70
Test number	1-NH3-2-MAX	2-NH3-2-MAX	3-NH3-2-MAX	Average
Date	7/18/24	7/18/24	7/18/24	--
Start / Stop time	0939-1009	1035-1105	1114-1144	--
FUEL DATA				
Fuel "F" factor @ 68°F, dscf/MMBtu	8,614	8,614	8,614	8,614
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,647	8,647	8,647	8,647
Fuel higher heating value (HHV), Btu/scf	1,030	1,030	1,030	1,030
Fuel flow, scfh	533,910	534,440	534,660	534,337
Fuel Heat Input, MMBtu/hr	560.6	561.2	561.4	561.1
Unit Load, MW	71.0	71.0	71.0	71.0
SAMPLE TRAIN DATA				
Meter box number/ID	CB-22	CB-22	CB-22	--
Meter calibration, Yd	0.992	0.992	0.992	0.992
Barometric pressure, in Hg	29.99	29.99	29.99	29.99
Meter box volume, acf	22.860	23.670	22.175	22.902
Impinger liquid volume, ml	68.1	60.5	67.8	65.5
Meter temperature, °F	74.0	75.0	77.3	75.4
Meter pressure, (Delta H) iwg	1.80	1.80	1.80	1.800
ANALYZER DATA				
O_2, % volume dry	12.8	12.9	12.9	12.9
CO_2, % volume dry	4.5	4.7	4.6	4.6
VOLUMETRIC FLOW RATE				
1a Standard sample volume, dscf	22.659	23.419	21.844	22.641
Standard sample volume, dscf @ 70F	22.654	23.413	21.839	22.636
1b Water vapor volume, scf	3.2231	2.8634	3.2089	3.0984
1c Moisture fraction, nondimensional	0.1245	0.1089	0.1281	0.1205
1d Stack gas molecular weight, dry	29.232	29.268	29.252	29.251
1e Stack gas molecular weight, wet	27.834	28.040	27.811	27.895
1f Absolute stack pressure, in Hg	29.990	29.990	29.990	29.990
Stack flow rate - based on fuel, dscfm	204,738	207,247	207,332	206,439
NH_3 ION SELECTIVE ELECTRODE				
Audit sample concentration (measured), ppm	9.72	9.72	9.72	9.72
Audit sample concentration (actual), ppm	10.00	10.00	10.00	10.00
Audit sample, % recovery	97.2	97.2	97.2	97.2
Sample volume - fraction 1 - (total), ml	204.3	184.1	172.7	187.0
Sample concentration - fraction 1 - (measured),	7.65	7.88	9.65	8.39
Sample volume - fraction 2 - (total), ml	145.9	129.5	128.3	134.6
Sample concentration - fraction 2 - (measured),	<0.5	<0.5	<0.5	<0.5
Mass of ammonia, mg	1.56	1.45	1.67	1.56
EMISSIONS				
NH_3 concentrations, ppm volume dry	3.5	3.1	3.8	3.5
2b NH_3 concentrations, ppm @ 15% O_2 dry	2.5	2.3	2.8	2.5
2e NH_3 mass emissions, lb/hr	1.9	1.7	2.1	1.9
2f NH_3 mass emissions, lb/MMBtu	0.0034	0.0031	0.0038	0.0034

Note(s):

SOURCE TEST DATA SUMMARY

Client				SV Power
Unit / Location				Unit #2
Reference temperature, °F				70
Test number	7-NH3-2-MIN	8-NH3-2-MIN	9-NH3-2-MIN	Average
Date	7/19/23	7/19/23	7/19/23	--
Start / Stop time	0722-0752	0846-0916	0924-0954	--
FUEL DATA				
Fuel "F" factor @ 68°F, dscf/MMBtu	8,615	8,615	8,615	8,615
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,648	8,648	8,648	8,648
Fuel higher heating value (HHV), Btu/scf	1,029	1,029	1,029	1,029
Fuel flow, scfh	268,790	266,640	266,470	267,300
Fuel Heat Input, MMBtu/hr	282.2	280.0	279.8	280.7
Unit Load, MW	33	33	33	33
SAMPLE TRAIN DATA				
Meter box number/ID	CB-18	CB-18	CB-18	--
Meter calibration, Yd	0.990	0.990	0.990	0.990
Barometric pressure, in Hg	30.01	30.01	30.01	30.01
Meter box volume, acf	22.355	23.280	23.880	23.172
Impinger liquid volume, ml	49.8	44.1	41.7	45.2
Meter temperature, °F	87.7	100.0	99.3	95.7
Meter pressure, (Delta H) iwg	1.80	1.80	1.80	1.800
ANALYZER DATA				
O_2, % volume dry	15.58	15.66	15.65	15.6
CO_2, % volume dry	3.058	3.095	3.078	3.1
CO emissions, ppm volume dry	0.806	0.576	0.574	0.652
VOLUMETRIC FLOW RATE				
1a Standard sample volume, dscf	21.577	21.975	22.568	22.040
Standard sample volume, dscf @ 70F	21.572	21.970	22.563	22.035
1b Water vapor volume, scf	2.3570	2.0872	1.9736	2.1393
1c Moisture fraction, nondimensional	0.0985	0.0867	0.0804	0.0885
1d Stack gas molecular weight, dry	29.112	29.122	29.118	29.118
1e Stack gas molecular weight, wet	28.018	28.157	28.224	28.133
1f Absolute stack pressure, in Hg	30.010	30.010	30.010	30.010
Stack flow rate - based on fuel, dscfm	156,606	157,725	157,325	157,219
NH_3 ION SELECTIVE ELECTRODE				
Audit sample concentration (measured), ppm	9.72	9.72	9.72	9.72
Audit sample concentration (actual), ppm	10.00	10.00	10.00	10.00
Audit sample, % recovery	97.2	97.2	97.2	97.2
Sample volume - fraction 1 - (total), ml	176.3	154.7	132.3	154.4
Sample concentration - fraction 1 - (measured),	7.36	8.19	8.80	8.12
Sample volume - fraction 2 - (total), ml	130.3	127.7	158.5	138.8
Sample concentration - fraction 2 - (measured),	<0.5	<0.5	<0.5	<0.5
Mass of ammonia, mg	1.30	1.27	1.16	1.24
EMISSIONS				
CO concentrations, ppm volume dry	0.8	0.6	0.6	0.7
2b CO concentrations, ppm @ 15% O_2 dry	0.9	0.6	0.6	0.7
2e CO mass emissions, lb/hr	0.5	0.4	0.4	0.4
2f CO mass emissions, lb/MMBtu	0.0020	0.0014	0.0014	0.0016
NH_3 concentrations, ppm volume dry	3.0	2.9	2.6	2.8
2b NH_3 concentrations, ppm @ 15% O_2 dry	3.3	3.3	2.9	3.2
2e NH_3 mass emissions, lb/hr	1.2	1.2	1.1	1.2
2f NH_3 mass emissions, lb/MMBtu	0.0045	0.0044	0.0039	0.0043

Note(s):

Ammonia Slip Calculation, Unit 2
Calculations used by SV Power
Typical values input to test the calculations

8/9/2024
Dan Duncan
MAQS

INPUTS		**33 MW**	**62 MW**	**73 MW**	**33 MW**	**62 MW**	**73 MW**
Variable	**Units**	**Min**	**Base**	**Max**	**Min**	**Base**	**Max**
GASFLOW	Hscf/hr	2673.0	4464.5	5343.4	2673.0	4464.5	5343.4
GASGCV	Btu/scf	1015.0	1015.0	1015.0	1015.0	1015.0	1015.0
FUEL FACT	dscf/MMBtu @0%O2	8710.0	8710.0	8710.0	8710.0	8710.0	8710.0
NH3FLOW	lb/hr	64.4	107.8	117.7	64.4	107.8	117.7
NH3 fraction	lb NH3 / lb solution	0.19	0.19	0.19	0.19	0.19	0.19
SCRNOX	ppm vol dry	23.8	28.2	28.3	23.8	28.2	28.3
STKNOX	ppm vol dry	1.6	2.0	2.4	1.6	2.0	2.4
STKO2	% volume dry	15.5	14.3	13.0	15.5	14.3	13.0
CALCULATED VALUES							
Value	**Units**						
UNITHEAT	MMBtu/hr	271.3	453.1	542.4	271.3	453.1	542.4
FLOWSCFH	dscf/hr	9,089,983	12,498,543	12,497,363	9,089,983	12,498,543	12,497,363
TEGASFLW	lbmoles/hr	23,578	32,419	32,416	23,578	32,419	32,416
NH3MOLE	lbmoles/hr	0.7201	1.2048	1.3151	0.7201	1.2048	1.3151
Reacted NOX	lbmoles/hr	0.5226	0.8494	0.8396	0.5226	0.8494	0.8396
CORRFACT	unitless	0.91	0.67	0.36	*1.00*	*1.00*	*1.00*
NH3 slip	ppmvd @ 15% O2	8.24	6.58	3.96			
Using correction factor of 1.0					*9.10*	*9.80*	*10.96*
Measured NH3 slip @ 15% O2		**3.2**	**3.5**	**2.5**	**3.2**	**3.5**	**2.5**
New correction factor					0.352	0.357	0.228