Valley Comfort Systems, Inc.

AKA: Blaze King Industries, Inc.

Project # 24-274
Model: KE40
Type: Catalytic Wood Fired Heater
March 22, 2024
Revision: 4/17/24

ASTM E2780 Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters
EPA Test Method 28R for Certification and Auditing of Wood Heaters

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Revision Summary

Date: March 22, 2024– Original Issue

Rev1: 4/17/2024

- Updated manual to include Co / Smoke Detector language.

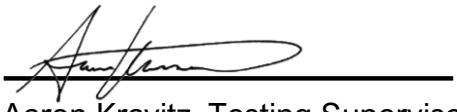
Contents

Affidavit

PFS-TECO was contracted by Valley Comfort Systems, Inc. (Valley Comfort), also known as Blaze King Industries, Inc. (Blaze King) to provide testing services for the KE40 Catalytic Wood-Fired Room Heater per EPA Method 28R, *Certification and Auditing of Wood Heaters*. All testing and associated procedures were conducted at PFS-TECO's Portland Laboratory beginning on 3/11/2024 and ending on 3/15/2024. PFS-TECO's Portland Laboratory is located at 11785 SE Highway 212 – Suite 305, Clackamas, Oregon 97015. Testing procedures followed EPA Method 28R and ASTM E2780, *Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters*. Particulate sampling was performed per ASTM E2515, *Standard Test Method for Determination of Particulate Matter Emissions Collected by a Dilution Tunnel*.

PFS-TECO is accredited by the U.S. Environmental Protection Agency for the certification and auditing of wood heaters pursuant to subpart AAA of 40 CFR Part 60, New Source Performance Standards for Residential Wood Heaters and subpart QQQQ of 40 CFR Part 60, Standards of Performance for New Hydronic Heaters and Forced Air Furnaces, Methods 28R, 28WHH, 28 WHH-PTS, and all methods listed in Sections 60.534 and 60.5476. PFS-TECO holds EPA Accreditation Certificate Numbers 4 and 4M (mobile). PFS-TECO is accredited by IAS to ISO 17020:2012 "Criteria for Bodies Performing Inspections", and ISO 17025:2017 "Requirements for Testing Laboratories." PFS-TECO is also accredited by Standards Council of Canada to ISO 17065:2012 "Requirements for Bodies Operating Product Certification Systems."

The following people were associated with the testing, analysis and report writing associated with this project.



Aaron Kravitz, Testing Supervisor

Introduction

Blaze King contracted with PFS-TECO to perform EPA certification testing on the KE40 Wood-Fired Room Heater. All testing was performed at PFS-TECO's Portland Laboratory. All testing was performed by Aaron Kravitz.

Notes

- Prior to start of testing, 50 hours of conditioning was performed by the manufacturer at a medium burn setting in accordance with ASTM E2780.
- Prior to start of testing, the dilution tunnel was cleaned with a steel brush.
- A separate, independent, third filter train was utilized to determine 1st hour emissions for all test runs.
- A total of 6 test runs were completed in accordance with EPA Method 28R. 1 at the maximum burn rate category, 1 at the medium high burn rate category, 1 at the medium low burn rate category, 1 at the low burn rate category, and 2 fan confirmation tests, the first of which missed the medium low burn rate requirement (it was a medium high instead), so a second test was performed, which did meet the medium low burn rate category requirement. All 6 test runs met validity requirements, and all but the fan confirmation test are included in the weighted average. See Run Narrative section for further detail on each run.
- All Filters and O- rings were weighed in pairs.

Wood Heater Identification and Testing

- Appliance Tested: ***KE40***
- Serial Number: ***PFS Tracking Number 184***
- *Manufacturer:* ***Valley Comfort AKA Blaze King***
- Catalyst: ***Yes***
- Heat exchange blower: ***Optional***
- Type: ***Wood Stove***
- Style: ***Free Standing Wood Stove***
- Date Received: ***Wednesday, February 14, 2024***
- Testing Period – Start: ***Monday, March 11, 2024***
  Finish: ***Friday, March 15, 2024***
- Test Location: ***PFS TECO***
  11785 SE Hwy 212
  Clackamas, OR 97015
- Elevation: ***~131 Feet above sea level***
- Test Technician(s): ***Aaron Kravitz***
- Observers: ***Aaron Saxton of Valley Comfort***

Test Procedures and Equipment

All Sampling and analytical procedures were performed by Aaron Kravitz. All procedures used are directly from ASTM E2780 and ASTM E2515. See the list below for equipment used. See Appendix C submitted with this report for calibration data.

Equipment List:

Equipment ID#	Equipment Description
50	Digiweigh DWP12i Platform Scale
53	APEX XC-60-ED Digital Emissions Sampling Box A
54	APEX XC-60-ED Digital Emissions Sampling Box B
203	APEX XC-50-DIR Digital Emissions Sampling Box C
55	Apex Ambient Air Sample Box
57	California Analytical ZRE CO2/CO/O2 IR ANALYZER
94	Moisture meter calibration block
95	Anemometer
97	10 lb audit weight
107	Sartorius Analytical Balance
109A/B	Troemner 100mg/200mg Audit Weights
111	Microtector
115	Delmhorst Wood Moisture Meter
189	Mettler 3'x3' floor scale w/digital weight indicator
207	Dewalt Tape Measure
208	Digital Calipers
215	Temperature Logger
CC505834	Gas Analyzer Calibration Span Gas
CC139173	Gas Analyzer Calibration Mid Gas

Results

A total of 6 test runs were performed on the KE40. Runs #5 & #6, fan confirmation tests, were not used in any weighted average results calculations. The weighted average emissions rate for the 4 run test series was measured to be **1.0 g/hr** with a Higher Heating Value efficiency of **81%.** The average CO emission rate for the 4 tests was **0.49 g/min.** The Blaze King KE40 Wood-Fired Room Heater meets the 2020 cribwood PM emission standard of ≤ 2.0 g/hr per CFR 40 part 60, §60.532 (b).

Detailed individual run data can be found in Appendix A submitted with this report.

Summary Table

	Cat. 1 ≤0.80 kg/hr	Cat. 2 0.80 - 1.25 kg/hr	Cat. 3 1.25 - 1.90 kg/hr	Cat. 4 Max Burn Rate	Fan Confirmation (Cat. 3)*	Fan Confirmation (Cat. 2)*
Date	3/11/2024	3/12/2024	3/13/2024	3/13/2024	3/14/2024	3/15/2024
Run Number	1	2	4	3	5	6
Emission Rate (g/hr)	1.07	0.28	1.26	1.75	0.57	0.47
Burn Rate (kg/hr)	1.10	0.68	1.59	2.67	1.31	0.98
Heat Output (Btu/hr)	16,577	10,392	24,255	38,516	20,336	15,290
Overall Efficiency (% HHV)	80.4%	82.1%	81.1%	76.9%	82.6%	82.8%
CO Emissions (g/MJ Output)	2.23	0.32	0.58	1.44	0.59	0.16
CO Emissions (g/kg Dry Fuel)	35.46	5.21	9.32	22.01	9.59	2.67
CO Emissions (g/min)	0.65	0.06	0.25	0.98	0.21	0.04
Emissions – 1st hr (g/hr)	5.09	2.61	5.30	4.18	3.64	3.04
Weighted particulate emission average of 4 test runs: 1.0 grams per hour.						
Weighted average HHV efficiency of 4 test runs: 81%.						
Average CO Emissions Rate: 0.49 g/min						

*Fan Confirmation tests not included in weighted average calculations.

Test Run Narrative

Run 1

Run 1 was performed on 3/11/2024 as a category 2 test, per EPA Method 28R. The total test time was 610 minutes. The particulate emissions rate for the test was 1.1 g/hr, the burn rate was 1.10 kg/hr with an HHV efficiency of 80.4%. All test results were appropriate and valid. There were no anomalies and all test criteria were met.

Run 2

Run 2 was performed on 3/12/2024 as a category 1 test, per EPA Method 28R. The total test time was 949 minutes. The particulate emissions rate for the test was 0.28 g/hr, the burn rate was 0.68 kg/hr with an HHV efficiency of 82.1%. All test results were appropriate and valid. There were no anomalies and all test criteria were met.

Run 3

Run 3 was performed on 3/13/2024 as a category 4 test, per EPA Method 28R. The total test time was 238 minutes. The particulate emissions rate for the test was 1.7 g/hr, the burn rate was 2.67 kg/hr with an HHV efficiency of 76.9%. All test results were appropriate and valid. There were no anomalies and all test criteria were met.

Run 4

Run 4 was performed on 3/13/2024 as a category 3 test, per EPA Method 28R. The total test time was 400 minutes. The particulate emissions rate for the test was 1.3 g/hr, the burn rate was 1.59 kg/hr with an HHV efficiency of 81.1%. All test results were appropriate and valid. There were no anomalies and all test criteria were met.

Run 5

Run 5 was performed on 3/14/2024 as an attempted category 2 fan confirmation test, per EPA Method 28R. The total test time was 487 minutes. The particulate emissions rate for the test was 0.57 g/hr, the burn rate was 1.31 kg/hr with an HHV efficiency of 82.6%. All test results were appropriate and valid. There were no anomalies and all test criteria were met. As the burn rate places this run in category 3, it is not acceptable as a fan confirmation test. This test run is not included in the weighted average calculations presented in the results summary.

Run 6

Run 6 was performed on 3/15/2024 as a category 2 fan confirmation test, per EPA Method 28R. The total test time was 658 minutes. The particulate emissions rate for the test was 0.47 g/hr, the burn rate was 0.98 kg/hr with an HHV efficiency of 82.8%. All test results were appropriate and valid. There were no anomalies and all test criteria were met. Since the particulate emissions rate is within 1.0 g/hr of the other category 2 test (run 1, 1.1

g/hr) the blower is determined not to have a significant impact on emissions performance and may therefore be approved as an optional accessory. This test run is not included in the weighted average calculations presented in the results summary.

Test Conditions Summary

Testing conditions for all runs fell within allowable specifications of the ASTM 2780 and ASTM E2515. A summary of facility conditions, fuel burned, and run times are listed below.

Run	Ambient (°F)		Relative Humidity (%)		Average Barometric Pressure (In. Hg.)	Preburn Fuel Weight (lbs)	Test Fuel Weight (lbs)	Test Fuel Moisture (%DB)	Test Run Time (Min)
	Pre	Post	Pre	Post					
1	67	65.1	32.1	36.9	29.68	26.61	29.98	21.8	610
2	67	63.2	33.2	30.1	30.04	26.19	28.58	21.7	949
3	69	71.5	28.9	24.1	30.27	26.87	28.99	24.2	238
4	67	64.4	25.1	25.5	30.30	25.73	28.85	23.4	400
5	68	69	26.4	22.2	30.16	25.53	28.17	20.1	487
6	70	68.1	20.6	23.4	29.99	25.67	28.68	20.7	658

Appliance Operation and Test Settings

The appliance was operated according to procedures as described in the Operations Manual, found in Appendix B submitted with this report. Detailed run information can be found in Appendix A submitted with this report.

Settings & Run Notes

	Pre-Burn Air Setting	Test Run Air and Fan Settings
Run 1	Air control knob set to 80º	Air control knob set to 80º, fan on medium low
Run 2	Air control knob set to 95º	Air control knob set to 95º, fan on low
Run 3	Air control knob fully open	Air control knob fully open, fan on high
Run 4	Air control knob set to 60º	Air control knob set to 60º, fan on medium high
Run 5	Air control knob set to 60º	Air control knob set to 60º, fan off
Run 6	Air control knob set to 75º	Air control knob set to 75º, fan off

Appliance Description

Model(s): KE40

Appliance Type: Catalytic Wood-Fired Room Heater

Total/Usable Firebox Volume: 4.35 ft^3

Air Introduction System Primary Air enters the firebox from the rear bottom of the appliance and is channeled up the back and to the front of the appliance via tubes located in the firebox. Air then flows into the firebox down through the air wash. No secondary or pilot air ports are utilized in the design. Primary air is controlled via a control knob located on the side of the appliance, towards the back of the unit, which turns clockwise from fully closed to fully open. Dimensions on all these features can be found in Appendix D.

Baffles: A 5.5" wide, 0.135" thick Stainless-Steel smoke baffle hangs behind the combustor.

Catalytic Combustor: Certification testing was performed with a Applied Ceramics ceramic combustor (Manufacturer Part No. 115-1510-C2). The combustor measures 10.65" by 4.95" by 2.0".

Refractory Insulation: The firebox is lined with 1" thick firebrick.

Flue Outlet: 8 inch exhaust outlet located on the top of the appliance.

Fan: A variable speed convection fan is mounted to the front of the appliance.

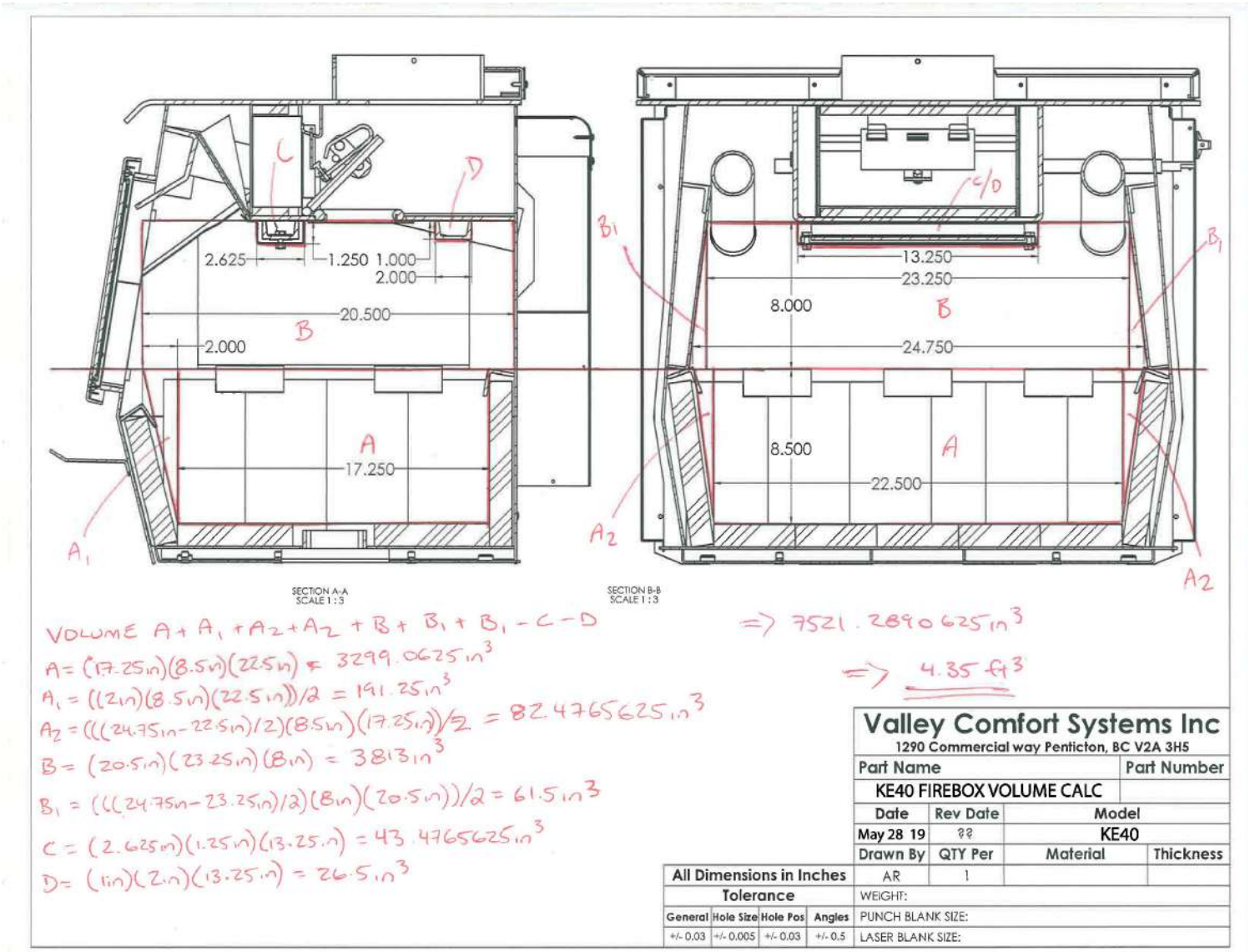
Appliance design drawings can be found in Appendix D submitted with the CBI copy of this report.

KE40 Unit Dimensions (with pedestal base)

Height	Width	Depth	Firebox Volume
38.375"	31"	29.875"	4.35ft^3

Firebox Volume Calculation

Total Firebox Volume = Usable Firebox Volume



Appliance Front

Appliance Rear

Appliance Left

Appliance Right

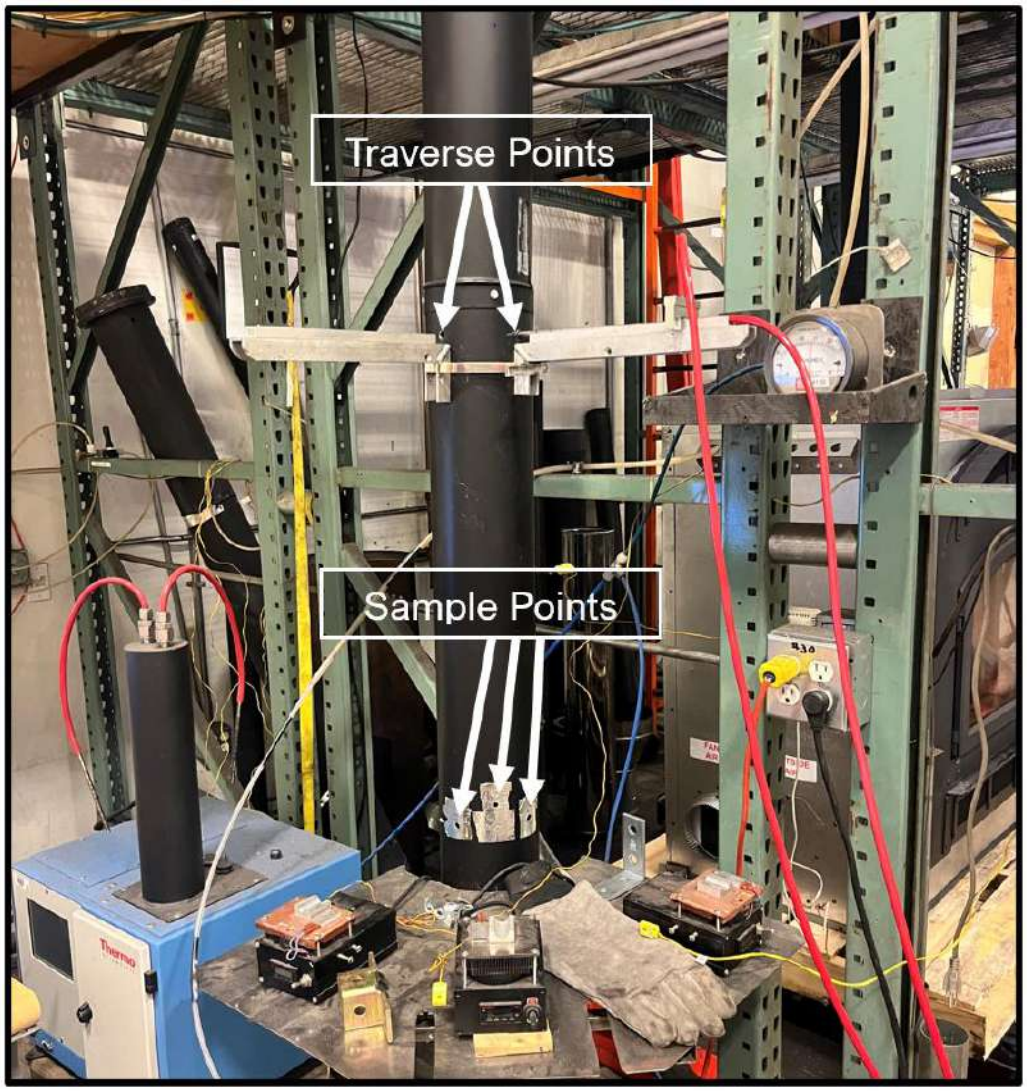
Test Fuel Properties

Test fuel used was Douglas Fir dimensional lumber, air-dried to the specified moisture content range. A typical fuel load is pictured below:

Typical Fuel Load

Sampling Locations and Descriptions

Sample ports are located 14 feet downstream from any disturbances and 2 feet upstream from any disturbances. Flow rate traverse data was collected 12 feet downstream from any disturbances and 4 feet upstream from any disturbances. (See below).



Sampling Methods

ASTM E2515 was used in collecting particulate samples. The dilution tunnel is 6 inches in diameter. All sampling conditions per ASTM E2515 were followed. No alternate procedures were used.

Analytical Methods Description

All sample recovery and analysis procedures followed ASTM E2515 procedures. At the end of each test run, filters, O-Rings and probes were removed from their housings dessicated for a minimum of 24 hours, and then weighed in pairs at 6 hour intervals to a constant weight per ASTM E2515-11 Section 10.

Calibration, Quality Control and Assurances

Calibration procedures and results were conducted per EPA Method 28R and ASTM E2515-11. Test method quality control procedures (leak checks, volume meter checks, stratification checks, proportionality results) followed the procedures outlined.

Appliance Sealing and Storage

Upon completion of testing, the appliance was secured with metal strapping and the seal below was applied, the appliance was then returned to the manufacturer's location at: 146 A Street, Walla Wala, Washington 99362, for archival.

Sealing Label

ATTENTION:

THIS SEAL IS NOT TO BE BROKEN WITHOUT PRIOR AUTHORIZATION FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.

THIS APPLIANCE HAS BEEN SEALED INACCORDANCE WITH REQUIREMNTS OF 40CFR PART 60 SUBPART AAA §60.535 (a)(2)(vii)

REPORT #_____ DATE SEALED_____

MANUFACTURER_____ MODEL #_____

Sealed Unit

List of Appendices

The following appendices have been submitted electronically in conjunction with this report:

Appendix A – Low Burn Justification, Test Run Data, Technician Notes, and Sample Analysis

Appendix B – Labels and Manuals

Appendix C –Equipment Calibration Records

Appendix D – Design Drawings (CBI Report Only)

Appendix E – Manufacturer QAP (CBI Report Only)

EPA Method 28R Weighted Average Emissions

Client: Blaze King
Stove Model: KE40
Test Dates: 3/11/24 - 3/13/24
Job Number: 24-274

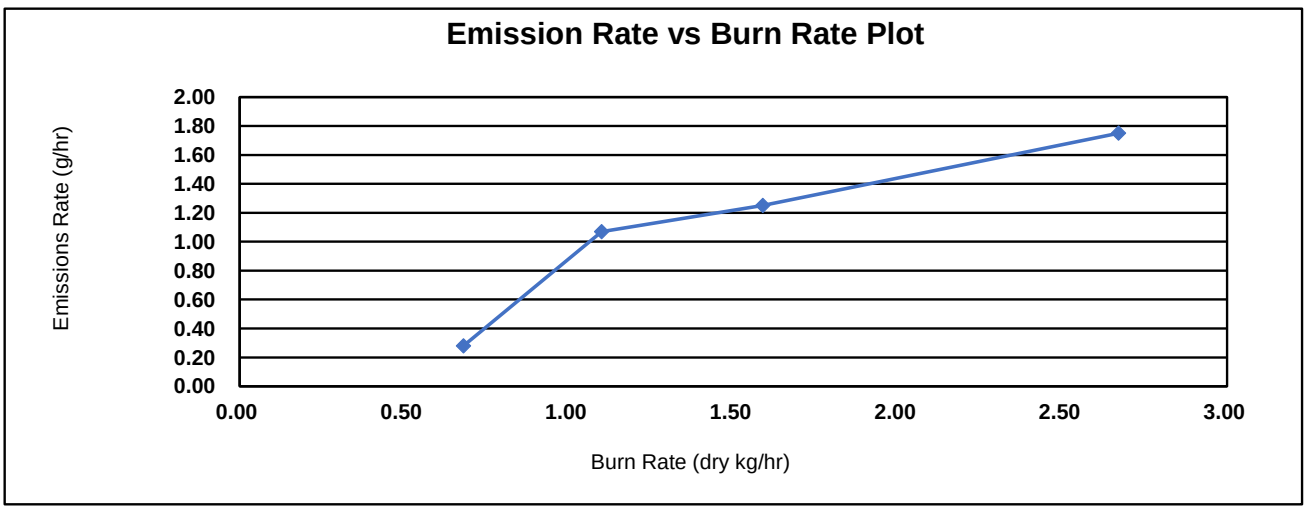
Signature/Date: 3/18/2024

Weighted Average Particulate Emissions (g/hr):	**1.0**
Weighted Average HHV Efficiency (%):	**80.6%**
Weighted Average LHV Efficiency (%):	**87.1%**
Average CO Emissions (g/min):	**0.49**

Individual Run Summaries

Run Number:	2	Run Number:	1
Burn Rate (dry kg/hr):	0.68	Burn Rate (dry kg/hr):	1.10
Emissions Rate (g/hr):	0.28	Emissions Rate (g/hr):	1.07
HHV Efficiency (%):	82.1%	HHV Efficiency (%):	80.4%
LHV Efficiency (%):	88.7%	LHV Efficiency (%):	86.9%
Weighting Percentage (%):	25.04%	Weighting Percentage (%):	35.78%

Run Number:	4	Run Number:	3
Burn Rate (dry kg/hr):	1.59	Burn Rate (dry kg/hr):	2.67
Emissions Rate (g/hr):	1.25	Emissions Rate (g/hr):	1.75
HHV Efficiency (%):	81.1%	HHV Efficiency (%):	76.9%
LHV Efficiency (%):	87.6%	LHV Efficiency (%):	83.1%
Weighting Percentage (%):	28.07%	Weighting Percentage (%):	11.11%



WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 1 Data Summary

Client:	Blaze King
Model:	KE40
Job #:	24-274
Tracking #:	184
Test Date:	3/11/2024

Technician Signature

3/20/2024
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Burn Rate (kg/hr):	1.10

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	51.778	112.921	109.366	8.600
Average Gas Velocity in Dilution Tunnel (ft/sec)	19.5			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	13038.5			
Average Gas Meter Temperature (°F)	65.5	88.2	92.8	76.1
Total Sample Volume (dscf)	52.259	109.202	104.924	8.452
Average Tunnel Temperature (°F)	81.3			
Total Time of Test (min)	610			
Total Particulate Catch (mg)	0.0	8.7	8.8	3.3
Particulate Concentration, dry-standard (g/dscf)	0.0000000	0.0000797	0.0000839	0.0003904
Total PM Emissions (g)	0.00	10.56	11.12	5.09
Particulate Emission Rate (g/hr)	0.00	1.04	1.09	5.09
Emissions Factor (g/kg)	-	0.94	0.99	-
Difference from Average Total Particulate Emissions (g)	-	0.28	0.28	-
Difference from Average Total Particulate Emissions (%)	-	2.6%	2.6%	
Difference from Average Emissions Factor (g/kg)	-	0.02	0.02	-

Final Average Results	
Total Particulate Emissions (g)	10.84
Particulate Emission Rate (g/hr)	1.07
Emissions Factor (g/kg)	0.97
HHV Efficiency (%)	80.4%
LHV Efficiency (%)	86.9%
CO Emissions (g/min)	0.65

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	74.7	OK
Face Velocity	< 30 ft/min	10.2	OK
Leakage Rate	Less than 4% of average sample rate	0.001 cfm	OK
Ambient Temp	55-90 °F	Min:64.7/Max:66.9	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	25.5	OK

B415.1 Efficiency Results

Manufacturer:	Blaze King
Model:	KE40
Date:	03/11/24
Run:	1
Control #:	24-274
Test Duration:	610
Output Category:	2

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	80.4%	86.9%
Combustion Efficiency	97.7%	97.7%
Heat Transfer Efficiency	82.3%	88.9%

Output Rate (kJ/h)	17,475	16,577	**(Btu/h)**
Burn Rate (kg/h)	1.10	2.42	**(lb/h)**
Input (kJ/h)	21,736	20,619	**(Btu/h)**

Test Load Weight (dry kg)	11.16	24.59	**dry lb**
MC wet (%)	17.88		
MC dry (%)	21.78		
Particulate (g)	10.84		
CO (g)	396		
Test Duration (h)	10.17		

Emissions	**Particulate**	**CO**
g/MJ Output	0.06	2.23
g/kg Dry Fuel	0.97	35.46
g/h	1.07	38.90
g/min	0.02	0.65
lb/MM Btu Output	0.14	5.17

Air/Fuel Ratio (A/F)	12.72

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	19.00	21.2	2x4	19.00	23.3
2x4	19.00	22.5	2x4	19.00	20.4
2x4	19.00	23.0	2x4	19.00	21.5
2x4	19.00	22.7	2x4	19.00	23.8
2x4	19.00	24.5			
2x4	19.00	24.4			1.6
2x4	19.00	23.3			
2x4	19.00	24.5			
Total Fuel Weight (lbs):		26.61	Average Moisture (%DB):		21.3

Firebox Volume (ft^3):	4.35
Total 2x4 Crib Weight, with spacers (lbs):	0.00
Total 4x4 Crib Weight, with spacers (lbs):	29.98
Total Wet Fuel Weight, with spacers (lbs):	29.98

Coal Bed Range (20-25%):
Min (lbs): 6.00
Max (lbs): 7.50

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	19.00	4.92	24.5	24.9	19.3	4.00
4x4	19.00	4.61	19.9	20.3	23.8	3.80
4x4	19.00	4.43	23.2	19.1	24.3	3.63
4x4	19.00	4.89	24.7	19.8	20.0	4.02
4x4	19.00	4.83	19.8	21.1	23.5	3.98
4x4	19.00	4.63	19.6	22.2	22.0	3.82
					Total Dry Weight, no spacers (lbs):	23.25
					Total Dry Weight, with spacers (lbs):	24.74

Spacer Moisture Readings (%DB)

11.5	13.4	12.2					
10.8	13.2	12.9					
10.5	12.8						
11.5	10.8						
11.6	11.9						
12.9	12.5						
13.7	10.4						
13.8	12.0						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	28.8	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	6.89	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	Blaze King	Job #:	24-274
Model:	KE40	Tracking #:	184
Run #:	1	Technician:	AK
Test Start Time:	14:59	Date:	3/11/2024

Total Sampling Time (min):	610	
Recording Interval (min):	1	
Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.005	(B)
Meter Box γ Factor:	1.004	(C)
Meter Box γ Factor:	1.013	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	29.62	29.74	29.68
Relative Humidity (%)	32.1	36.9	
Room Air Velocity (ft/min)	<50	<50	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		51.778	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	3/8/2024
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test		
(A)	0.000	0.001	cfm @	-8 in. Hg
(B)	0.000	0.000	cfm @	-8 in. Hg
(C)	0.000	0.000	cfm @	-9 in. Hg
(Ambient)	0.000	0.000	cfm @	-13 in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.074	67
2	0.092	67
3	0.092	67
4	0.064	67
5	0.070	67
6	0.096	67
7	0.094	67
8	0.076	67
Center	0.096	67

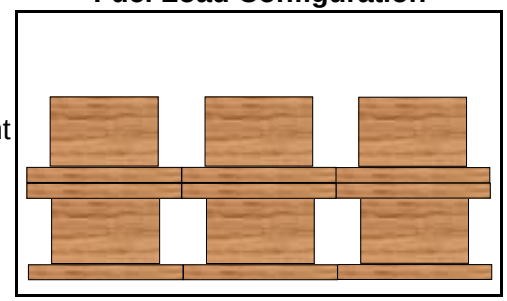
Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	6	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.1963	ft^2
V_{strav}:	19.04	ft/sec
V_{scent}:	20.62	ft/sec
F_p:	0.923	[ratio]
Initial Tunnel Flow:	218.1	scf/min

Static Pressure: -0.170 in. H_2O

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Front



Firebox Back

Firebox Side View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	21.8

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	7.01	-0.058	634	615	428	651	477	560.9	431	68
1	6.93	-0.058	635	616	433	656	480	563.8	363	68
2	6.90	-0.053	630	611	432	657	483	562.5	323	68
3	6.85	-0.051	623	604	429	656	485	559.4	300	68
4	6.84	-0.048	615	596	426	654	487	555.5	282	68
5	6.80	-0.047	606	587	422	651	488	550.7	267	68
6	6.79	-0.044	597	578	416	646	489	545.3	257	68
7	6.75	-0.044	588	569	411	642	490	539.8	247	68
8	6.72	-0.041	579	560	405	636	490	534.1	240	68
9	6.71	-0.039	570	552	400	631	489	528.4	233	68
10	6.69	-0.039	561	544	395	625	489	522.7	228	68
11	6.66	-0.038	553	536	390	617	488	516.7	223	68
12	6.65	-0.036	545	528	385	610	487	511.0	219	68
13	6.63	-0.038	537	520	380	603	487	505.3	215	68
14	6.62	-0.036	529	513	375	595	485	499.6	211	68
15	6.59	-0.036	522	506	370	588	484	493.9	206	68
16	6.57	-0.033	515	499	366	580	483	488.4	203	68
17	6.56	-0.035	509	492	361	573	481	483.3	200	68
18	6.52	-0.033	502	486	356	565	480	477.8	198	68
19	6.51	-0.033	496	480	352	560	478	473.0	196	68
20	6.50	-0.031	490	474	347	554	477	468.4	193	68
21	6.47	-0.031	484	468	343	548	475	463.7	191	68
22	6.45	-0.032	479	462	339	543	474	459.1	188	68
23	6.45	-0.032	473	456	335	537	472	454.6	185	68
24	6.44	-0.030	467	451	331	532	470	450.1	182	68
25	6.42	-0.029	462	446	327	526	469	445.7	179	68
26	6.42	-0.029	457	440	323	520	467	441.2	176	68
27	6.41	-0.028	452	435	319	513	465	436.7	175	68
28	6.40	-0.027	446	430	315	507	463	432.4	172	68
29	6.40	-0.028	441	425	311	501	462	428.1	171	68
30	6.38	-0.027	437	420	308	495	460	423.9	170	68
31	6.39	-0.026	432	416	304	488	458	419.6	169	67
32	6.38	-0.026	427	411	301	481	457	415.3	167	68
33	6.37	-0.027	423	406	298	476	455	411.4	165	67
34	6.36	-0.025	418	402	294	469	453	407.2	163	67
35	6.37	-0.024	414	397	291	462	452	403.2	162	67
36	6.37	-0.023	410	393	288	456	450	399.1	159	67
37	6.36	-0.025	405	388	285	449	448	395.2	157	67
38	6.35	-0.023	401	384	281	443	447	391.2	156	67
39	6.37	-0.023	397	380	278	437	445	387.4	155	67
40	6.36	-0.023	393	376	275	430	443	383.5	152	67
41	6.36	-0.022	389	372	272	423	442	379.5	151	67
42	6.35	-0.021	385	368	269	417	440	375.8	149	67
43	6.37	-0.023	382	364	266	411	439	372.2	148	67
44	6.36	-0.022	378	360	264	405	437	368.6	147	67

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	6.35	-0.022	374	356	261	399	435	365.2	146	67
46	6.37	-0.019	371	352	258	394	434	361.8	146	67
47	6.36	-0.022	368	348	256	388	432	358.4	148	67
48	6.36	-0.025	364	345	253	383	430	355.1	151	67
49	6.35	-0.023	361	341	251	378	429	351.9	152	67
50	6.36	-0.021	358	338	248	374	427	348.9	154	67
51	6.35	-0.022	355	335	246	370	425	346.0	157	67
52	6.34	-0.024	352	331	244	366	423	343.4	160	67
53	6.33	-0.024	350	329	242	363	422	340.9	163	67
54	6.32	-0.022	348	326	240	360	420	338.6	165	67
55	6.31	-0.024	346	323	239	358	418	336.9	168	67
56	6.29	-0.026	345	321	238	357	417	335.4	170	67
57	6.27	-0.025	345	319	237	355	415	334.1	172	67
58	6.25	-0.024	345	316	236	354	414	333.1	175	67
59	6.23	-0.026	345	314	236	354	413	332.3	178	67
60	6.22	-0.026	346	313	235	353	412	331.8	180	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.096	0.00	72	0.1		29.94		95	234	70	67
1	0.085	0.085	0.096	2.98	72	1.0	-	29.92	-0.02	117	264	73	67
2	0.258	0.173	0.096	3.05	72	1.1	-	29.89	-0.03	96	228	72	67
3	0.428	0.170	0.097	3.07	72	1.1	-	29.85	-0.04	89	212	72	67
4	0.601	0.173	0.099	3.10	72	1.1	-	29.81	-0.04	85	207	72	67
5	0.777	0.176	0.098	3.10	72	1.1	-	29.78	-0.03	84	205	72	67
6	0.950	0.173	0.097	3.11	72	1.0	-	29.72	-0.06	83	207	72	67
7	1.121	0.171	0.097	3.12	72	1.0	-	29.68	-0.04	83	210	72	67
8	1.296	0.175	0.098	3.15	72	1.0	-	29.61	-0.07	82	214	72	66
9	1.473	0.177	0.097	3.17	73	1.1	-	29.56	-0.05	82	217	72	66
10	1.649	0.176	0.097	3.17	73	1.1	93	29.51	-0.05	82	221	72	66
11	1.822	0.173	0.097	3.18	73	1.1	-	29.45	-0.06	82	226	72	66
12	1.999	0.177	0.098	3.20	73	1.1	-	29.38	-0.07	83	229	72	66
13	2.177	0.178	0.097	3.21	73	1.1	-	29.33	-0.05	83	232	72	66
14	2.354	0.177	0.098	3.22	74	1.1	-	29.28	-0.05	83	234	72	66
15	2.529	0.175	0.098	3.25	74	1.1	-	29.23	-0.05	83	237	72	66
16	2.706	0.177	0.098	3.25	74	1.1	-	29.16	-0.07	83	239	72	66
17	2.886	0.180	0.099	3.24	74	1.1	-	29.11	-0.05	83	239	72	66
18	3.066	0.180	0.098	3.26	74	1.1	-	29.03	-0.08	83	241	73	66
19	3.245	0.179	0.099	3.27	75	1.1	-	28.97	-0.06	83	242	72	66
20	3.422	0.177	0.098	3.28	75	1.1	99	28.90	-0.07	83	243	73	66
21	3.600	0.178	0.098	3.28	75	1.1	-	28.86	-0.04	83	243	73	66
22	3.780	0.180	0.098	3.26	75	1.1	-	28.79	-0.07	83	245	73	66
23	3.959	0.179	0.099	3.26	76	1.1	-	28.72	-0.07	84	246	73	66
24	4.138	0.179	0.098	3.27	76	1.1	-	28.66	-0.06	84	247	73	66
25	4.315	0.177	0.097	3.29	76	1.1	-	28.59	-0.07	84	247	73	66
26	4.495	0.180	0.098	3.29	77	1.1	-	28.53	-0.06	84	249	73	66
27	4.676	0.181	0.100	3.29	77	1.1	-	28.45	-0.08	84	251	73	66
28	4.856	0.180	0.098	3.29	77	1.1	-	28.39	-0.06	84	252	73	66
29	5.034	0.178	0.099	3.29	77	1.1	-	28.31	-0.08	84	254	73	66
30	5.214	0.180	0.099	3.31	78	1.1	99	28.24	-0.07	84	254	73	66
31	5.395	0.181	0.099	3.31	78	1.1	-	28.17	-0.07	84	255	73	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	5.576	0.181	0.099	3.31	78	1.1	-	28.10	-0.07	84	258	73	66
33	5.757	0.181	0.099	3.32	78	1.1	-	28.04	-0.06	84	257	73	66
34	5.938	0.181	0.099	3.32	79	1.1	-	27.96	-0.08	84	259	73	66
35	6.117	0.179	0.099	3.33	79	1.1	-	27.88	-0.08	84	259	73	66
36	6.297	0.180	0.099	3.34	79	1.1	-	27.81	-0.07	85	260	73	66
37	6.480	0.183	0.100	3.33	79	1.1	-	27.73	-0.08	84	259	73	66
38	6.663	0.183	0.100	3.33	80	1.1	-	27.64	-0.09	85	262	73	66
39	6.844	0.181	0.098	3.33	80	1.1	-	27.57	-0.07	85	263	73	66
40	7.023	0.179	0.099	3.33	80	1.1	99	27.49	-0.08	85	266	73	66
41	7.204	0.181	0.099	3.33	80	1.1	-	27.41	-0.08	85	269	73	66
42	7.388	0.184	0.099	3.36	81	1.1	-	27.33	-0.08	85	271	73	66
43	7.572	0.184	0.099	3.35	81	1.1	-	27.24	-0.09	85	274	73	66
44	7.753	0.181	0.100	3.37	81	1.1	-	27.15	-0.09	86	276	73	66
45	7.934	0.181	0.100	3.35	81	1.1	-	27.06	-0.09	86	279	73	66
46	8.115	0.181	0.099	3.36	82	1.1	-	26.98	-0.08	86	280	73	66
47	8.296	0.181	0.099	3.36	82	1.1	-	26.89	-0.09	86	283	73	66
48	8.480	0.184	0.099	3.36	82	1.1	-	26.79	-0.10	86	284	73	66
49	8.665	0.185	0.100	3.37	82	1.1	-	26.71	-0.08	86	286	73	66
50	8.848	0.183	0.099	3.36	82	1.1	100	26.61	-0.10	86	287	73	66
51	9.028	0.180	0.099	3.37	83	1.2	-	26.51	-0.10	87	290	73	66
52	9.210	0.182	0.099	3.37	83	1.1	-	26.42	-0.09	87	289	73	66
53	9.394	0.184	0.099	3.37	83	1.1	-	26.33	-0.09	87	290	73	66
54	9.577	0.183	0.098	3.37	83	1.1	-	26.23	-0.10	87	292	74	66
55	9.762	0.185	0.100	3.38	83	1.1	-	26.14	-0.09	87	293	74	66
56	9.946	0.184	0.099	3.38	83	1.1	-	26.04	-0.10	87	294	73	66
57	10.126	0.180	0.099	3.39	84	1.2	-	25.95	-0.09	87	294	74	66
58	10.308	0.182	0.098	3.39	84	1.2	-	25.85	-0.10	87	295	74	66
59	10.493	0.185	0.099	3.39	84	1.1	-	25.75	-0.10	87	296	74	66
60	10.677	0.184	0.099	3.40	84	1.2	100	25.64	-0.11	87	295	74	66
61	10.862	0.185	0.098	3.39	84	1.1	-	25.55	-0.09	87	298	74	66
62	11.046	0.184	0.099	3.40	84	1.1	-	25.45	-0.10	87	298	74	66
63	11.227	0.181	0.098	3.39	85	1.1	-	25.34	-0.11	88	300	74	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	11.411	0.184	0.097	3.40	85	1.1	-	25.24	-0.10	88	300	74	66
65	11.594	0.183	0.099	3.40	85	1.2	-	25.13	-0.11	88	301	74	66
66	11.779	0.185	0.098	3.39	85	1.1	-	25.03	-0.10	88	302	74	66
67	11.965	0.186	0.097	3.38	85	1.2	-	24.93	-0.10	88	300	74	66
68	12.148	0.183	0.098	3.39	85	1.1	-	24.84	-0.09	88	302	74	66
69	12.331	0.183	0.097	3.40	85	1.2	-	24.74	-0.10	88	300	74	66
70	12.515	0.184	0.098	3.39	86	1.1	100	24.64	-0.10	88	300	74	66
71	12.697	0.182	0.099	3.41	86	1.2	-	24.55	-0.09	88	298	74	66
72	12.883	0.186	0.097	3.40	86	1.1	-	24.46	-0.09	88	297	74	66
73	13.069	0.186	0.099	3.40	86	1.2	-	24.36	-0.10	88	297	74	66
74	13.253	0.184	0.097	3.41	86	1.1	-	24.27	-0.09	88	295	74	66
75	13.438	0.185	0.098	3.40	86	1.1	-	24.18	-0.09	88	294	74	66
76	13.619	0.181	0.099	3.40	86	1.2	-	24.09	-0.09	88	292	74	66
77	13.802	0.183	0.097	3.40	86	1.2	-	24.00	-0.09	87	292	74	66
78	13.986	0.184	0.098	3.40	86	1.1	-	23.91	-0.09	87	290	74	66
79	14.174	0.188	0.097	3.40	87	1.1	-	23.82	-0.09	87	290	74	66
80	14.357	0.183	0.097	3.41	87	1.1	101	23.73	-0.09	87	289	74	66
81	14.544	0.187	0.098	3.43	87	1.1	-	23.64	-0.09	87	288	74	66
82	14.726	0.182	0.098	3.40	87	1.1	-	23.55	-0.09	87	288	74	66
83	14.910	0.184	0.097	3.41	87	1.2	-	23.46	-0.09	87	289	74	66
84	15.094	0.184	0.097	3.41	87	1.1	-	23.37	-0.09	87	290	74	66
85	15.280	0.186	0.097	3.41	87	1.1	-	23.27	-0.10	87	290	74	66
86	15.467	0.187	0.098	3.42	87	1.2	-	23.18	-0.09	87	290	74	66
87	15.651	0.184	0.098	3.42	87	1.1	-	23.08	-0.10	87	290	74	66
88	15.836	0.185	0.099	3.42	87	1.1	-	22.99	-0.09	87	291	74	66
89	16.017	0.181	0.098	3.42	87	1.1	-	22.90	-0.09	87	291	74	66
90	16.202	0.185	0.098	3.41	87	1.1	101	22.80	-0.10	87	291	74	66
91	16.389	0.187	0.098	3.42	87	1.1	-	22.71	-0.09	87	291	74	66
92	16.571	0.182	0.098	3.43	87	1.1	-	22.61	-0.10	87	291	74	66
93	16.757	0.186	0.099	3.41	88	1.1	-	22.52	-0.09	87	291	74	66
94	16.944	0.187	0.098	3.42	88	1.1	-	22.42	-0.10	87	292	74	66
95	17.129	0.185	0.097	3.43	88	1.1	-	22.33	-0.09	87	292	74	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	17.313	0.184	0.098	3.42	88	1.2	-	22.24	-0.09	87	292	74	66
97	17.496	0.183	0.099	3.42	88	1.1	-	22.13	-0.11	87	292	74	66
98	17.683	0.187	0.099	3.42	88	1.2	-	22.04	-0.09	87	292	74	66
99	17.868	0.185	0.097	3.41	88	1.2	-	21.96	-0.08	87	291	74	66
100	18.051	0.183	0.098	3.42	88	1.1	100	21.86	-0.10	87	290	74	66
101	18.240	0.189	0.098	3.43	88	1.1	-	21.77	-0.09	87	290	74	66
102	18.422	0.182	0.097	3.42	88	1.1	-	21.69	-0.08	87	289	74	66
103	18.608	0.186	0.097	3.41	88	1.1	-	21.59	-0.10	87	288	74	66
104	18.791	0.183	0.098	3.43	88	1.2	-	21.51	-0.08	87	287	74	66
105	18.979	0.188	0.098	3.42	88	1.2	-	21.41	-0.10	87	286	74	66
106	19.165	0.186	0.098	3.43	88	1.2	-	21.34	-0.07	87	286	74	66
107	19.350	0.185	0.097	3.42	88	1.1	-	21.26	-0.08	87	284	74	66
108	19.536	0.186	0.098	3.43	89	1.1	-	21.16	-0.10	86	284	74	66
109	19.719	0.183	0.096	3.44	89	1.1	-	21.08	-0.08	87	283	74	66
110	19.904	0.185	0.097	3.42	89	1.1	101	20.99	-0.09	87	283	74	66
111	20.089	0.185	0.098	3.43	89	1.1	-	20.90	-0.09	87	281	74	66
112	20.276	0.187	0.098	3.43	89	1.1	-	20.83	-0.07	86	281	74	66
113	20.463	0.187	0.098	3.43	89	1.2	-	20.73	-0.10	86	279	74	66
114	20.648	0.185	0.097	3.42	89	1.2	-	20.64	-0.09	86	279	74	66
115	20.833	0.185	0.098	3.42	89	1.1	-	20.57	-0.07	86	278	74	66
116	21.016	0.183	0.097	3.43	89	1.2	-	20.48	-0.09	86	276	74	66
117	21.202	0.186	0.098	3.42	89	1.2	-	20.40	-0.08	86	274	74	66
118	21.387	0.185	0.096	3.43	89	1.2	-	20.33	-0.07	86	274	74	66
119	21.573	0.186	0.099	3.43	89	1.1	-	20.24	-0.09	86	274	74	66
120	21.761	0.188	0.098	3.42	89	1.2	101	20.15	-0.09	86	273	74	66
121	21.946	0.185	0.098	3.44	89	1.1	-	20.08	-0.07	86	271	74	66
122	22.132	0.186	0.098	3.44	89	1.2	-	20.00	-0.08	85	269	74	66
123	22.315	0.183	0.098	3.45	89	1.2	-	19.93	-0.07	85	267	74	66
124	22.501	0.186	0.098	3.43	89	1.2	-	19.85	-0.08	85	267	74	66
125	22.686	0.185	0.098	3.44	89	1.1	-	19.78	-0.07	85	266	74	66
126	22.873	0.187	0.098	3.44	89	1.1	-	19.70	-0.08	85	266	74	66
127	23.061	0.188	0.099	3.44	89	1.1	-	19.64	-0.06	85	265	74	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	23.243	0.182	0.097	3.45	89	1.2	-	19.57	-0.07	85	263	74	66
129	23.432	0.189	0.096	3.43	89	1.1	-	19.50	-0.07	85	263	73	66
130	23.615	0.183	0.097	3.44	89	1.2	101	19.43	-0.07	85	262	73	66
131	23.801	0.186	0.098	3.44	89	1.1	-	19.35	-0.08	85	264	73	66
132	23.986	0.185	0.097	3.44	89	1.1	-	19.28	-0.07	85	264	73	66
133	24.173	0.187	0.098	3.45	89	1.2	-	19.20	-0.08	85	265	73	66
134	24.361	0.188	0.098	3.44	89	1.2	-	19.13	-0.07	85	266	73	66
135	24.546	0.185	0.098	3.43	89	1.1	-	19.05	-0.08	85	266	73	66
136	24.732	0.186	0.099	3.43	90	1.2	-	18.99	-0.06	85	268	73	66
137	24.915	0.183	0.098	3.45	89	1.2	-	18.91	-0.08	85	268	73	66
138	25.101	0.186	0.098	3.44	90	1.1	-	18.82	-0.09	85	271	73	66
139	25.285	0.184	0.097	3.43	90	1.1	-	18.73	-0.09	85	272	73	66
140	25.469	0.184	0.099	3.44	90	1.1	100	18.65	-0.08	85	275	73	66
141	25.660	0.191	0.097	3.44	90	1.1	-	18.56	-0.09	85	278	73	66
142	25.845	0.185	0.097	3.44	90	1.1	-	18.47	-0.09	85	279	73	66
143	26.032	0.187	0.096	3.44	90	1.2	-	18.39	-0.08	85	280	73	66
144	26.215	0.183	0.098	3.44	90	1.2	-	18.29	-0.10	85	280	73	66
145	26.401	0.186	0.098	3.44	90	1.1	-	18.21	-0.08	85	279	73	66
146	26.585	0.184	0.097	3.43	90	1.2	-	18.12	-0.09	85	278	73	66
147	26.773	0.188	0.099	3.43	90	1.1	-	18.03	-0.09	85	277	73	66
148	26.960	0.187	0.097	3.45	90	1.1	-	17.95	-0.08	85	274	73	66
149	27.146	0.186	0.098	3.43	90	1.1	-	17.87	-0.08	85	270	73	66
150	27.333	0.187	0.097	3.44	90	1.2	101	17.78	-0.09	85	268	73	66
151	27.515	0.182	0.097	3.44	90	1.2	-	17.70	-0.08	84	264	73	66
152	27.701	0.186	0.098	3.43	90	1.2	-	17.62	-0.08	84	262	73	66
153	27.886	0.185	0.098	3.45	90	1.1	-	17.55	-0.07	84	259	73	66
154	28.074	0.188	0.098	3.44	90	1.2	-	17.47	-0.08	84	256	73	66
155	28.258	0.184	0.099	3.43	90	1.1	-	17.40	-0.07	84	254	73	66
156	28.447	0.189	0.098	3.44	90	1.2	-	17.34	-0.06	84	249	73	66
157	28.633	0.186	0.098	3.43	90	1.1	-	17.27	-0.07	84	248	73	66
158	28.817	0.184	0.097	3.43	90	1.1	-	17.20	-0.07	84	246	73	66
159	29.003	0.186	0.099	3.42	90	1.2	-	17.13	-0.07	84	242	73	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	29.187	0.184	0.098	3.44	90	1.1	100	17.06	-0.07	84	240	73	66
161	29.375	0.188	0.099	3.43	90	1.1	-	17.01	-0.05	83	239	73	66
162	29.561	0.186	0.098	3.45	90	1.1	-	16.95	-0.06	83	237	73	66
163	29.749	0.188	0.097	3.44	90	1.1	-	16.88	-0.07	83	237	73	66
164	29.934	0.185	0.098	3.43	90	1.1	-	16.83	-0.05	83	235	73	66
165	30.119	0.185	0.097	3.44	90	1.2	-	16.75	-0.08	83	232	73	66
166	30.304	0.185	0.097	3.44	90	1.2	-	16.69	-0.06	83	232	73	66
167	30.488	0.184	0.095	3.43	90	1.1	-	16.63	-0.06	83	231	73	66
168	30.677	0.189	0.099	3.42	90	1.2	-	16.58	-0.05	83	231	73	66
169	30.863	0.186	0.098	3.44	90	1.1	-	16.51	-0.07	83	230	73	66
170	31.051	0.188	0.098	3.44	90	1.1	100	16.45	-0.06	83	231	73	66
171	31.236	0.185	0.098	3.45	90	1.2	-	16.38	-0.07	83	231	73	66
172	31.422	0.186	0.096	3.44	90	1.1	-	16.32	-0.06	83	230	73	66
173	31.605	0.183	0.097	3.45	90	1.2	-	16.25	-0.07	83	230	73	66
174	31.791	0.186	0.098	3.44	90	1.1	-	16.18	-0.07	82	230	73	66
175	31.978	0.187	0.099	3.44	90	1.2	-	16.12	-0.06	83	230	73	66
176	32.164	0.186	0.099	3.45	90	1.2	-	16.06	-0.06	83	231	73	66
177	32.353	0.189	0.097	3.43	90	1.1	-	15.98	-0.08	83	229	73	66
178	32.538	0.185	0.097	3.45	90	1.1	-	15.91	-0.07	82	229	73	66
179	32.725	0.187	0.099	3.44	90	1.2	-	15.84	-0.07	83	229	73	66
180	32.908	0.183	0.099	3.45	90	1.1	100	15.78	-0.06	82	228	73	66
181	33.094	0.186	0.098	3.43	90	1.2	-	15.70	-0.08	82	229	73	66
182	33.279	0.185	0.097	3.44	90	1.1	-	15.64	-0.06	82	230	73	66
183	33.467	0.188	0.098	3.44	90	1.2	-	15.57	-0.07	82	229	73	66
184	33.655	0.188	0.098	3.45	90	1.2	-	15.50	-0.07	83	228	73	66
185	33.841	0.186	0.099	3.45	90	1.1	-	15.44	-0.06	82	228	73	66
186	34.028	0.187	0.098	3.45	90	1.1	-	15.37	-0.07	82	229	72	66
187	34.211	0.183	0.097	3.44	90	1.1	-	15.30	-0.07	82	229	72	66
188	34.397	0.186	0.097	3.44	90	1.1	-	15.22	-0.08	82	227	72	66
189	34.582	0.185	0.097	3.46	90	1.2	-	15.16	-0.06	82	228	72	66
190	34.770	0.188	0.098	3.44	90	1.2	100	15.10	-0.06	82	227	72	66
191	34.956	0.186	0.099	3.44	90	1.1	-	15.03	-0.07	82	226	72	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	35.144	0.188	0.098	3.44	90	1.1	-	14.96	-0.07	82	226	72	66
193	35.330	0.186	0.097	3.45	90	1.1	-	14.90	-0.06	82	228	72	66
194	35.514	0.184	0.098	3.45	90	1.1	-	14.83	-0.07	82	228	72	66
195	35.700	0.186	0.098	3.45	90	1.2	-	14.78	-0.05	82	227	72	66
196	35.884	0.184	0.099	3.45	90	1.2	-	14.70	-0.08	82	227	72	66
197	36.073	0.189	0.098	3.45	90	1.1	-	14.64	-0.06	82	228	72	66
198	36.259	0.186	0.098	3.46	90	1.2	-	14.59	-0.05	82	228	72	66
199	36.447	0.188	0.099	3.44	90	1.2	-	14.52	-0.07	82	227	72	66
200	36.633	0.186	0.097	3.46	90	1.1	100	14.46	-0.06	82	227	72	66
201	36.819	0.186	0.099	3.45	90	1.1	-	14.39	-0.07	82	228	72	66
202	37.002	0.183	0.097	3.44	90	1.2	-	14.33	-0.06	82	228	72	66
203	37.188	0.186	0.099	3.44	90	1.1	-	14.27	-0.06	81	227	72	66
204	37.375	0.187	0.098	3.45	90	1.1	-	14.21	-0.06	81	226	72	66
205	37.562	0.187	0.097	3.44	90	1.2	-	14.16	-0.05	81	227	72	66
206	37.750	0.188	0.098	3.44	90	1.1	-	14.09	-0.07	82	226	72	66
207	37.936	0.186	0.097	3.44	90	1.2	-	14.03	-0.06	82	226	72	66
208	38.122	0.186	0.098	3.43	90	1.1	-	13.98	-0.05	81	226	72	66
209	38.306	0.184	0.099	3.45	90	1.2	-	13.92	-0.06	81	225	72	66
210	38.492	0.186	0.098	3.44	90	1.1	100	13.87	-0.05	81	225	72	66
211	38.677	0.185	0.098	3.45	90	1.1	-	13.81	-0.06	82	225	72	66
212	38.865	0.188	0.099	3.44	90	1.2	-	13.75	-0.06	82	225	72	66
213	39.052	0.187	0.098	3.45	90	1.1	-	13.69	-0.06	81	226	72	65
214	39.239	0.187	0.099	3.45	90	1.2	-	13.63	-0.06	82	226	72	66
215	39.426	0.187	0.098	3.47	90	1.1	-	13.59	-0.04	81	225	72	66
216	39.609	0.183	0.098	3.44	90	1.1	-	13.52	-0.07	82	224	72	66
217	39.796	0.187	0.097	3.44	90	1.2	-	13.47	-0.05	82	225	72	66
218	39.980	0.184	0.097	3.45	90	1.2	-	13.42	-0.05	81	225	72	66
219	40.168	0.188	0.097	3.44	90	1.1	-	13.37	-0.05	82	225	72	66
220	40.355	0.187	0.097	3.46	90	1.2	100	13.31	-0.06	82	224	72	66
221	40.543	0.188	0.097	3.44	90	1.1	-	13.26	-0.05	81	223	72	66
222	40.728	0.185	0.099	3.45	90	1.2	-	13.22	-0.04	81	222	72	66
223	40.914	0.186	0.097	3.44	90	1.1	-	13.16	-0.06	81	222	72	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	41.098	0.184	0.097	3.46	90	1.2	-	13.11	-0.05	81	222	72	66
225	41.284	0.186	0.098	3.44	90	1.1	-	13.06	-0.05	81	222	72	66
226	41.472	0.188	0.099	3.46	90	1.2	-	13.00	-0.06	81	221	72	66
227	41.658	0.186	0.097	3.44	90	1.1	-	12.96	-0.04	81	222	72	66
228	41.846	0.188	0.097	3.45	90	1.1	-	12.90	-0.06	81	221	72	66
229	42.032	0.186	0.098	3.45	90	1.1	-	12.86	-0.04	81	220	72	66
230	42.215	0.183	0.098	3.45	90	1.1	100	12.81	-0.05	81	221	72	66
231	42.402	0.187	0.099	3.46	90	1.1	-	12.75	-0.06	81	221	72	66
232	42.588	0.186	0.097	3.44	90	1.1	-	12.70	-0.05	81	221	72	66
233	42.773	0.185	0.098	3.44	90	1.2	-	12.65	-0.05	81	220	72	66
234	42.962	0.189	0.099	3.46	90	1.2	-	12.60	-0.05	81	219	72	66
235	43.149	0.187	0.097	3.46	90	1.2	-	12.56	-0.04	81	220	72	66
236	43.336	0.187	0.098	3.45	90	1.2	-	12.50	-0.06	81	219	72	66
237	43.523	0.187	0.098	3.45	90	1.2	-	12.47	-0.03	81	221	72	66
238	43.706	0.183	0.099	3.45	90	1.2	-	12.41	-0.06	81	221	72	66
239	43.893	0.187	0.099	3.45	90	1.1	-	12.35	-0.06	81	221	72	66
240	44.077	0.184	0.098	3.45	90	1.1	100	12.30	-0.05	81	221	72	66
241	44.265	0.188	0.097	3.44	90	1.1	-	12.26	-0.04	81	221	72	65
242	44.452	0.187	0.098	3.45	90	1.1	-	12.20	-0.06	81	222	72	66
243	44.640	0.188	0.097	3.45	90	1.2	-	12.16	-0.04	81	222	72	66
244	44.825	0.185	0.097	3.46	90	1.1	-	12.11	-0.05	81	222	72	66
245	45.011	0.186	0.098	3.45	90	1.1	-	12.06	-0.05	81	221	72	65
246	45.195	0.184	0.098	3.46	90	1.1	-	12.01	-0.05	81	222	72	65
247	45.381	0.186	0.098	3.45	90	1.2	-	11.96	-0.05	81	220	72	65
248	45.569	0.188	0.098	3.44	90	1.1	-	11.91	-0.05	81	222	72	65
249	45.755	0.186	0.098	3.45	90	1.1	-	11.87	-0.04	81	222	72	66
250	45.944	0.189	0.098	3.43	90	1.2	100	11.83	-0.04	81	220	72	65
251	46.129	0.185	0.098	3.45	90	1.2	-	11.78	-0.05	81	221	72	66
252	46.316	0.187	0.098	3.44	90	1.1	-	11.73	-0.05	81	220	72	65
253	46.500	0.184	0.098	3.46	90	1.2	-	11.69	-0.04	81	221	72	66
254	46.686	0.186	0.097	3.45	90	1.2	-	11.64	-0.05	81	222	72	65
255	46.871	0.185	0.097	3.45	90	1.2	-	11.59	-0.05	81	222	72	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	47.059	0.188	0.099	3.44	90	1.1	-	11.54	-0.05	81	221	72	65
257	47.246	0.187	0.097	3.46	90	1.1	-	11.49	-0.05	81	221	72	65
258	47.434	0.188	0.098	3.45	90	1.1	-	11.44	-0.05	81	221	72	65
259	47.620	0.186	0.097	3.44	90	1.2	-	11.40	-0.04	81	222	72	65
260	47.804	0.184	0.097	3.45	90	1.1	100	11.34	-0.06	81	222	72	65
261	47.991	0.187	0.097	3.45	90	1.1	-	11.30	-0.04	81	221	72	65
262	48.175	0.184	0.098	3.44	90	1.2	-	11.24	-0.06	81	223	72	65
263	48.363	0.188	0.096	3.45	90	1.1	-	11.19	-0.05	81	222	72	65
264	48.550	0.187	0.096	3.46	90	1.1	-	11.15	-0.04	81	223	72	65
265	48.738	0.188	0.099	3.44	90	1.1	-	11.10	-0.05	81	224	72	65
266	48.923	0.185	0.097	3.45	90	1.1	-	11.05	-0.05	81	222	72	65
267	49.110	0.187	0.097	3.44	90	1.2	-	10.99	-0.06	81	223	72	65
268	49.293	0.183	0.098	3.44	90	1.1	-	10.94	-0.05	81	223	72	65
269	49.479	0.186	0.097	3.44	90	1.1	-	10.89	-0.05	81	224	72	65
270	49.666	0.187	0.098	3.46	90	1.2	100	10.83	-0.06	81	223	72	65
271	49.853	0.187	0.097	3.45	90	1.1	-	10.79	-0.04	81	221	72	65
272	50.042	0.189	0.098	3.45	90	1.2	-	10.74	-0.05	81	222	72	65
273	50.227	0.185	0.097	3.46	90	1.2	-	10.68	-0.06	81	222	72	65
274	50.414	0.187	0.097	3.44	90	1.2	-	10.63	-0.05	81	222	72	65
275	50.598	0.184	0.098	3.46	90	1.1	-	10.58	-0.05	81	221	72	65
276	50.784	0.186	0.097	3.45	90	1.1	-	10.53	-0.05	81	222	72	65
277	50.969	0.185	0.098	3.46	90	1.2	-	10.48	-0.05	81	223	72	65
278	51.158	0.189	0.098	3.45	90	1.2	-	10.43	-0.05	81	222	72	65
279	51.344	0.186	0.098	3.44	90	1.2	-	10.37	-0.06	81	223	72	65
280	51.532	0.188	0.098	3.44	90	1.2	100	10.34	-0.03	81	222	72	65
281	51.718	0.186	0.097	3.45	90	1.1	-	10.28	-0.06	81	222	72	65
282	51.902	0.184	0.099	3.43	90	1.2	-	10.24	-0.04	81	221	72	65
283	52.088	0.186	0.098	3.45	90	1.1	-	10.18	-0.06	81	220	72	65
284	52.273	0.185	0.098	3.45	90	1.1	-	10.14	-0.04	81	220	72	65
285	52.461	0.188	0.097	3.43	90	1.2	-	10.08	-0.06	81	220	72	65
286	52.648	0.187	0.099	3.45	90	1.2	-	10.04	-0.04	81	219	72	65
287	52.836	0.188	0.099	3.44	90	1.1	-	10.00	-0.04	81	218	72	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	53.022	0.186	0.097	3.46	90	1.2	-	9.94	-0.06	81	218	72	65
289	53.208	0.186	0.096	3.46	90	1.2	-	9.90	-0.04	81	218	72	65
290	53.391	0.183	0.099	3.45	90	1.1	100	9.84	-0.06	81	216	72	65
291	53.577	0.186	0.098	3.44	90	1.1	-	9.81	-0.03	81	218	72	65
292	53.764	0.187	0.098	3.45	90	1.1	-	9.75	-0.06	81	217	72	65
293	53.951	0.187	0.097	3.44	90	1.2	-	9.70	-0.05	81	217	72	65
294	54.139	0.188	0.098	3.45	90	1.2	-	9.64	-0.06	81	216	72	65
295	54.325	0.186	0.098	3.45	90	1.2	-	9.60	-0.04	81	218	72	65
296	54.512	0.187	0.099	3.44	90	1.2	-	9.55	-0.05	81	217	72	65
297	54.695	0.183	0.097	3.46	90	1.2	-	9.50	-0.05	81	215	72	65
298	54.882	0.187	0.098	3.44	90	1.2	-	9.45	-0.05	81	215	72	65
299	55.067	0.185	0.098	3.46	90	1.1	-	9.40	-0.05	81	216	72	65
300	55.255	0.188	0.098	3.44	90	1.1	100	9.35	-0.05	81	216	72	65
301	55.441	0.186	0.097	3.45	90	1.2	-	9.30	-0.05	81	215	72	65
302	55.629	0.188	0.097	3.45	90	1.1	-	9.25	-0.05	81	214	72	65
303	55.815	0.186	0.097	3.46	90	1.2	-	9.20	-0.05	81	214	72	65
304	55.999	0.184	0.099	3.45	90	1.2	-	9.15	-0.05	81	214	72	65
305	56.185	0.186	0.099	3.45	90	1.1	-	9.10	-0.05	81	214	72	65
306	56.370	0.185	0.099	3.44	90	1.1	-	9.05	-0.05	81	214	72	65
307	56.558	0.188	0.098	3.44	90	1.2	-	9.00	-0.05	81	213	72	65
308	56.744	0.186	0.097	3.45	90	1.1	-	8.95	-0.05	81	214	72	65
309	56.933	0.189	0.098	3.44	90	1.1	-	8.90	-0.05	81	213	72	65
310	57.118	0.185	0.097	3.46	90	1.1	100	8.85	-0.05	80	213	72	65
311	57.305	0.187	0.098	3.45	90	1.1	-	8.79	-0.06	80	214	71	65
312	57.488	0.183	0.098	3.44	90	1.2	-	8.73	-0.06	81	213	72	65
313	57.674	0.186	0.098	3.44	90	1.1	-	8.68	-0.05	81	213	72	65
314	57.861	0.187	0.098	3.45	90	1.1	-	8.62	-0.06	81	213	72	66
315	58.048	0.187	0.097	3.44	90	1.1	-	8.57	-0.05	81	214	72	66
316	58.237	0.189	0.098	3.45	90	1.1	-	8.52	-0.05	81	213	71	66
317	58.422	0.185	0.099	3.45	90	1.2	-	8.46	-0.06	81	214	71	65
318	58.609	0.187	0.096	3.44	90	1.2	-	8.40	-0.06	81	215	71	65
319	58.792	0.183	0.098	3.45	90	1.2	-	8.34	-0.06	81	214	72	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	58.978	0.186	0.099	3.45	90	1.2	100	8.28	-0.06	81	215	72	65
321	59.163	0.185	0.099	3.46	90	1.2	-	8.21	-0.07	81	214	71	65
322	59.352	0.189	0.097	3.44	90	1.1	-	8.15	-0.06	81	215	71	65
323	59.538	0.186	0.099	3.45	90	1.1	-	8.09	-0.06	81	213	71	65
324	59.726	0.188	0.099	3.44	90	1.2	-	8.03	-0.06	80	216	71	65
325	59.912	0.186	0.098	3.46	90	1.1	-	7.96	-0.07	80	216	71	65
326	60.096	0.184	0.098	3.44	90	1.1	-	7.90	-0.06	80	217	71	66
327	60.282	0.186	0.098	3.44	90	1.2	-	7.84	-0.06	80	216	71	65
328	60.466	0.184	0.099	3.44	90	1.2	-	7.77	-0.07	80	215	71	66
329	60.654	0.188	0.096	3.45	90	1.1	-	7.70	-0.07	80	217	71	65
330	60.841	0.187	0.099	3.46	90	1.2	100	7.63	-0.07	80	218	71	65
331	61.029	0.188	0.096	3.44	90	1.1	-	7.55	-0.08	80	219	71	65
332	61.214	0.185	0.097	3.46	90	1.1	-	7.49	-0.06	81	219	71	65
333	61.400	0.186	0.099	3.44	90	1.2	-	7.41	-0.08	80	218	71	65
334	61.584	0.184	0.097	3.44	90	1.1	-	7.33	-0.08	81	218	71	65
335	61.770	0.186	0.097	3.44	90	1.1	-	7.27	-0.06	81	217	71	65
336	61.957	0.187	0.098	3.44	90	1.1	-	7.19	-0.08	81	217	71	65
337	62.144	0.187	0.098	3.44	90	1.1	-	7.12	-0.07	81	218	71	65
338	62.332	0.188	0.098	3.45	90	1.1	-	7.04	-0.08	80	219	71	65
339	62.518	0.186	0.097	3.45	90	1.2	-	6.97	-0.07	81	218	71	65
340	62.704	0.186	0.097	3.44	90	1.2	100	6.89	-0.08	81	218	71	65
341	62.888	0.184	0.098	3.46	90	1.2	-	6.82	-0.07	81	216	71	65
342	63.074	0.186	0.098	3.45	90	1.1	-	6.74	-0.08	81	216	71	65
343	63.259	0.185	0.098	3.45	90	1.1	-	6.67	-0.07	81	216	71	65
344	63.447	0.188	0.098	3.44	90	1.2	-	6.60	-0.07	81	215	71	65
345	63.634	0.187	0.099	3.45	90	1.1	-	6.52	-0.08	80	214	71	65
346	63.821	0.187	0.098	3.44	90	1.1	-	6.46	-0.06	80	213	71	65
347	64.008	0.187	0.097	3.45	90	1.2	-	6.39	-0.07	80	212	71	65
348	64.191	0.183	0.097	3.44	90	1.2	-	6.33	-0.06	80	211	71	65
349	64.378	0.187	0.098	3.44	90	1.2	-	6.28	-0.05	80	210	71	65
350	64.562	0.184	0.098	3.45	90	1.1	100	6.22	-0.06	80	208	71	65
351	64.751	0.189	0.098	3.43	90	1.2	-	6.17	-0.05	80	205	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	64.937	0.186	0.098	3.45	90	1.2	-	6.11	-0.06	80	204	71	65
353	65.125	0.188	0.097	3.45	90	1.1	-	6.07	-0.04	80	203	71	65
354	65.310	0.185	0.100	3.44	90	1.1	-	6.01	-0.06	79	202	71	65
355	65.496	0.186	0.099	3.43	90	1.1	-	5.97	-0.04	79	201	71	65
356	65.680	0.184	0.098	3.45	90	1.2	-	5.94	-0.03	79	199	71	65
357	65.865	0.185	0.096	3.45	90	1.1	-	5.90	-0.04	79	196	71	65
358	66.053	0.188	0.097	3.44	90	1.1	-	5.86	-0.04	79	195	71	65
359	66.239	0.186	0.097	3.44	90	1.1	-	5.82	-0.04	79	193	71	65
360	66.427	0.188	0.097	3.44	90	1.1	100	5.80	-0.02	79	191	71	65
361	66.613	0.186	0.098	3.46	90	1.2	-	5.76	-0.04	79	190	71	65
362	66.799	0.186	0.097	3.44	90	1.1	-	5.72	-0.04	79	188	71	65
363	66.982	0.183	0.098	3.45	90	1.1	-	5.70	-0.02	79	189	71	65
364	67.168	0.186	0.097	3.44	90	1.2	-	5.68	-0.02	79	187	71	65
365	67.354	0.186	0.096	3.45	90	1.1	-	5.65	-0.03	79	187	71	65
366	67.541	0.187	0.096	3.44	90	1.1	-	5.62	-0.03	78	185	71	65
367	67.730	0.189	0.098	3.44	90	1.2	-	5.60	-0.02	78	184	71	65
368	67.915	0.185	0.098	3.44	90	1.1	-	5.57	-0.03	78	183	71	65
369	68.102	0.187	0.099	3.44	90	1.1	-	5.55	-0.02	79	183	71	65
370	68.285	0.183	0.097	3.46	90	1.1	100	5.53	-0.02	78	181	71	65
371	68.471	0.186	0.097	3.44	90	1.1	-	5.51	-0.02	78	182	71	65
372	68.656	0.185	0.097	3.45	90	1.2	-	5.49	-0.02	78	181	71	65
373	68.844	0.188	0.097	3.43	90	1.2	-	5.47	-0.02	78	181	71	65
374	69.031	0.187	0.098	3.44	90	1.2	-	5.44	-0.03	78	180	71	65
375	69.217	0.186	0.097	3.44	90	1.2	-	5.43	-0.01	78	181	71	65
376	69.404	0.187	0.098	3.44	90	1.2	-	5.40	-0.03	78	180	71	65
377	69.587	0.183	0.096	3.44	90	1.2	-	5.39	-0.01	78	180	71	65
378	69.773	0.186	0.099	3.44	90	1.2	-	5.37	-0.02	78	180	71	65
379	69.958	0.185	0.097	3.45	90	1.2	-	5.35	-0.02	78	179	71	65
380	70.146	0.188	0.098	3.44	90	1.1	100	5.32	-0.03	78	178	71	65
381	70.332	0.186	0.097	3.45	90	1.1	-	5.31	-0.01	78	179	71	65
382	70.520	0.188	0.098	3.44	90	1.2	-	5.30	-0.01	78	178	71	65
383	70.705	0.185	0.098	3.44	90	1.2	-	5.28	-0.02	78	179	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	70.890	0.185	0.099	3.45	90	1.1	-	5.26	-0.02	78	179	71	65
385	71.075	0.185	0.098	3.44	90	1.2	-	5.24	-0.02	78	179	71	65
386	71.259	0.184	0.098	3.44	90	1.1	-	5.22	-0.02	78	179	71	65
387	71.448	0.189	0.096	3.44	90	1.1	-	5.20	-0.02	78	179	71	65
388	71.634	0.186	0.099	3.45	90	1.1	-	5.18	-0.02	78	180	71	65
389	71.822	0.188	0.098	3.44	90	1.1	-	5.15	-0.03	78	181	71	65
390	72.007	0.185	0.096	3.45	90	1.2	100	5.14	-0.01	78	182	71	65
391	72.193	0.186	0.098	3.44	90	1.1	-	5.11	-0.03	78	181	71	65
392	72.376	0.183	0.097	3.44	90	1.1	-	5.08	-0.03	78	182	71	65
393	72.562	0.186	0.099	3.43	90	1.2	-	5.07	-0.01	78	185	71	65
394	72.749	0.187	0.097	3.44	90	1.2	-	5.04	-0.03	79	185	71	65
395	72.935	0.186	0.098	3.43	90	1.2	-	5.02	-0.02	78	186	71	65
396	73.123	0.188	0.098	3.44	90	1.2	-	4.98	-0.04	78	186	71	65
397	73.309	0.186	0.098	3.46	90	1.1	-	4.96	-0.02	78	188	71	65
398	73.495	0.186	0.098	3.43	90	1.1	-	4.94	-0.02	78	189	71	65
399	73.678	0.183	0.096	3.46	90	1.1	-	4.91	-0.03	78	190	71	65
400	73.864	0.186	0.097	3.44	90	1.1	100	4.88	-0.03	78	191	71	65
401	74.050	0.186	0.098	3.45	90	1.1	-	4.84	-0.04	78	193	71	65
402	74.237	0.187	0.097	3.44	89	1.1	-	4.83	-0.01	78	194	71	65
403	74.425	0.188	0.097	3.45	89	1.2	-	4.79	-0.04	78	196	71	65
404	74.610	0.185	0.097	3.45	89	1.2	-	4.75	-0.04	78	197	71	65
405	74.797	0.187	0.097	3.43	89	1.2	-	4.74	-0.01	78	198	71	65
406	74.980	0.183	0.098	3.45	90	1.2	-	4.71	-0.03	78	198	71	65
407	75.166	0.186	0.097	3.43	90	1.1	-	4.68	-0.03	78	199	71	65
408	75.350	0.184	0.098	3.45	89	1.1	-	4.66	-0.02	79	200	71	65
409	75.538	0.188	0.097	3.44	89	1.1	-	4.62	-0.04	79	199	71	65
410	75.725	0.187	0.099	3.44	89	1.1	100	4.60	-0.02	79	201	71	65
411	75.911	0.186	0.098	3.43	89	1.1	-	4.57	-0.03	79	200	71	65
412	76.098	0.187	0.098	3.43	89	1.1	-	4.54	-0.03	79	200	71	65
413	76.281	0.183	0.099	3.43	89	1.1	-	4.51	-0.03	79	202	71	65
414	76.466	0.185	0.097	3.44	89	1.1	-	4.48	-0.03	79	202	71	65
415	76.651	0.185	0.098	3.44	89	1.2	-	4.46	-0.02	79	203	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
416	76.839	0.188	0.099	3.45	89	1.1	-	4.43	-0.03	79	203	71	65
417	77.025	0.186	0.098	3.44	89	1.2	-	4.40	-0.03	79	203	71	65
418	77.213	0.188	0.098	3.44	89	1.2	-	4.37	-0.03	79	203	71	65
419	77.399	0.186	0.098	3.46	89	1.1	-	4.35	-0.02	79	203	71	65
420	77.582	0.183	0.097	3.44	89	1.1	100	4.32	-0.03	79	203	71	65
421	77.768	0.186	0.099	3.43	89	1.2	-	4.29	-0.03	79	203	71	65
422	77.952	0.184	0.099	3.45	89	1.1	-	4.26	-0.03	79	202	71	65
423	78.140	0.188	0.095	3.44	89	1.2	-	4.23	-0.03	79	204	71	65
424	78.326	0.186	0.098	3.44	89	1.2	-	4.20	-0.03	79	203	71	65
425	78.514	0.188	0.098	3.43	89	1.1	-	4.17	-0.03	79	202	71	65
426	78.702	0.188	0.099	3.45	89	1.2	-	4.16	-0.01	79	202	71	65
427	78.884	0.182	0.098	3.44	89	1.1	-	4.12	-0.04	79	202	71	65
428	79.069	0.185	0.097	3.44	89	1.1	-	4.09	-0.03	79	200	71	65
429	79.253	0.184	0.099	3.44	89	1.1	-	4.07	-0.02	79	199	71	65
430	79.441	0.188	0.098	3.44	89	1.2	100	4.04	-0.03	79	199	71	65
431	79.627	0.186	0.097	3.44	89	1.2	-	4.03	-0.01	79	197	71	65
432	79.815	0.188	0.097	3.44	89	1.1	-	4.00	-0.03	79	198	71	65
433	80.000	0.185	0.097	3.44	89	1.2	-	3.97	-0.03	79	197	71	65
434	80.185	0.185	0.098	3.42	89	1.1	-	3.94	-0.03	79	196	71	65
435	80.370	0.185	0.098	3.44	89	1.2	-	3.91	-0.03	79	196	71	65
436	80.554	0.184	0.097	3.44	89	1.1	-	3.89	-0.02	79	196	71	65
437	80.742	0.188	0.098	3.45	89	1.1	-	3.87	-0.02	79	195	71	65
438	80.928	0.186	0.097	3.45	89	1.1	-	3.85	-0.02	79	195	71	65
439	81.116	0.188	0.097	3.45	89	1.1	-	3.83	-0.02	79	194	71	65
440	81.301	0.185	0.097	3.45	89	1.2	100	3.79	-0.04	79	194	71	65
441	81.490	0.189	0.096	3.45	89	1.2	-	3.77	-0.02	79	193	71	65
442	81.670	0.180	0.097	3.44	89	1.1	-	3.75	-0.02	79	192	71	65
443	81.860	0.190	0.098	3.44	89	1.2	-	3.73	-0.02	79	191	71	65
444	82.043	0.183	0.097	3.44	89	1.1	-	3.70	-0.03	79	190	71	65
445	82.229	0.186	0.097	3.43	89	1.1	-	3.68	-0.02	79	190	71	65
446	82.417	0.188	0.099	3.44	89	1.1	-	3.65	-0.03	79	190	71	65
447	82.605	0.188	0.098	3.44	89	1.2	-	3.64	-0.01	79	189	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
448	82.789	0.184	0.098	3.44	89	1.1	-	3.61	-0.03	79	189	71	65
449	82.971	0.182	0.098	3.44	89	1.1	-	3.60	-0.01	79	189	71	65
450	83.158	0.187	0.097	3.44	89	1.2	100	3.57	-0.03	79	189	71	65
451	83.344	0.186	0.097	3.46	89	1.1	-	3.54	-0.03	79	187	71	65
452	83.531	0.187	0.098	3.45	89	1.1	-	3.53	-0.01	79	188	71	65
453	83.719	0.188	0.098	3.45	89	1.2	-	3.50	-0.03	79	189	71	65
454	83.904	0.185	0.098	3.45	89	1.2	-	3.50	0.00	79	187	71	65
455	84.091	0.187	0.099	3.43	89	1.2	-	3.47	-0.03	79	185	71	65
456	84.274	0.183	0.098	3.45	89	1.2	-	3.44	-0.03	79	186	71	65
457	84.460	0.186	0.097	3.43	89	1.1	-	3.42	-0.02	79	185	71	65
458	84.645	0.185	0.099	3.45	89	1.1	-	3.40	-0.02	79	185	71	65
459	84.833	0.188	0.098	3.44	89	1.2	-	3.38	-0.02	79	186	71	65
460	85.020	0.187	0.098	3.45	89	1.1	100	3.36	-0.02	79	184	71	65
461	85.206	0.186	0.097	3.44	89	1.1	-	3.35	-0.01	79	185	71	65
462	85.393	0.187	0.098	3.45	89	1.1	-	3.32	-0.03	79	185	71	65
463	85.576	0.183	0.098	3.45	89	1.1	-	3.30	-0.02	79	185	71	65
464	85.762	0.186	0.097	3.44	89	1.1	-	3.29	-0.01	79	185	71	65
465	85.947	0.185	0.098	3.45	89	1.1	-	3.27	-0.02	79	183	71	65
466	86.135	0.188	0.097	3.44	89	1.2	-	3.25	-0.02	79	183	71	65
467	86.321	0.186	0.098	3.45	89	1.1	-	3.23	-0.02	79	183	71	65
468	86.509	0.188	0.097	3.44	89	1.2	-	3.22	-0.01	78	181	71	65
469	86.694	0.185	0.099	3.45	89	1.2	-	3.21	-0.01	78	182	71	65
470	86.879	0.185	0.097	3.45	89	1.1	100	3.18	-0.03	78	182	71	65
471	87.064	0.185	0.099	3.46	89	1.2	-	3.16	-0.02	78	183	71	65
472	87.248	0.184	0.099	3.44	89	1.1	-	3.15	-0.01	78	182	71	65
473	87.437	0.189	0.099	3.44	89	1.1	-	3.13	-0.02	78	182	71	65
474	87.623	0.186	0.098	3.46	89	1.1	-	3.11	-0.02	78	181	71	65
475	87.811	0.188	0.099	3.44	89	1.2	-	3.10	-0.01	78	181	71	65
476	87.996	0.185	0.099	3.45	89	1.2	-	3.09	-0.01	78	181	71	65
477	88.182	0.186	0.099	3.45	89	1.1	-	3.06	-0.03	78	181	71	65
478	88.366	0.184	0.098	3.45	89	1.2	-	3.04	-0.02	78	180	71	65
479	88.551	0.185	0.099	3.45	89	1.1	-	3.03	-0.01	78	180	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
480	88.739	0.188	0.098	3.45	89	1.2	100	3.01	-0.02	78	181	71	65
481	88.924	0.185	0.097	3.44	89	1.2	-	2.99	-0.02	78	182	71	65
482	89.113	0.189	0.099	3.45	89	1.1	-	2.97	-0.02	78	182	71	65
483	89.298	0.185	0.097	3.45	89	1.1	-	2.94	-0.03	78	183	71	65
484	89.488	0.190	0.098	3.44	89	1.1	-	2.93	-0.01	78	182	71	65
485	89.667	0.179	0.098	3.46	89	1.2	-	2.91	-0.02	78	183	71	65
486	89.853	0.186	0.099	3.44	89	1.2	-	2.89	-0.02	78	183	71	65
487	90.039	0.186	0.098	3.46	89	1.2	-	2.88	-0.01	78	183	71	65
488	90.226	0.187	0.098	3.46	89	1.1	-	2.86	-0.02	78	184	71	65
489	90.414	0.188	0.099	3.44	89	1.1	-	2.83	-0.03	78	184	71	65
490	90.600	0.186	0.098	3.45	89	1.2	100	2.82	-0.01	78	183	71	65
491	90.786	0.186	0.098	3.44	89	1.2	-	2.79	-0.03	78	185	71	65
492	90.970	0.184	0.098	3.45	89	1.1	-	2.77	-0.02	78	185	71	65
493	91.156	0.186	0.098	3.44	89	1.2	-	2.74	-0.03	78	184	71	65
494	91.340	0.184	0.097	3.45	89	1.2	-	2.73	-0.01	78	185	71	65
495	91.529	0.189	0.097	3.45	89	1.2	-	2.71	-0.02	78	186	71	65
496	91.715	0.186	0.098	3.45	89	1.2	-	2.69	-0.02	78	187	71	65
497	91.903	0.188	0.098	3.45	89	1.1	-	2.66	-0.03	78	188	71	65
498	92.089	0.186	0.098	3.45	89	1.2	-	2.64	-0.02	78	188	71	65
499	92.272	0.183	0.099	3.45	89	1.1	-	2.63	-0.01	78	188	71	65
500	92.458	0.186	0.098	3.45	89	1.2	100	2.61	-0.02	78	188	71	65
501	92.643	0.185	0.098	3.45	89	1.1	-	2.58	-0.03	78	188	71	65
502	92.831	0.188	0.098	3.45	89	1.1	-	2.56	-0.02	78	188	71	65
503	93.017	0.186	0.098	3.46	89	1.2	-	2.54	-0.02	78	190	71	65
504	93.205	0.188	0.098	3.46	89	1.2	-	2.51	-0.03	79	191	71	65
505	93.390	0.185	0.098	3.46	89	1.2	-	2.49	-0.02	78	191	71	65
506	93.576	0.186	0.098	3.45	89	1.2	-	2.47	-0.02	78	191	71	65
507	93.760	0.184	0.098	3.45	89	1.1	-	2.45	-0.02	78	190	71	65
508	93.945	0.185	0.098	3.44	89	1.2	-	2.42	-0.03	78	191	70	65
509	94.133	0.188	0.098	3.45	89	1.1	-	2.40	-0.02	79	192	70	65
510	94.319	0.186	0.099	3.45	89	1.1	100	2.38	-0.02	78	192	70	65
511	94.507	0.188	0.097	3.44	89	1.1	-	2.36	-0.02	78	192	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
512	94.692	0.185	0.099	3.45	89	1.2	-	2.32	-0.04	79	192	71	65
513	94.882	0.190	0.098	3.45	89	1.1	-	2.30	-0.02	79	193	71	65
514	95.061	0.179	0.099	3.44	89	1.1	-	2.28	-0.02	79	192	71	65
515	95.247	0.186	0.097	3.45	89	1.1	-	2.26	-0.02	79	192	71	65
516	95.434	0.187	0.097	3.45	89	1.2	-	2.23	-0.03	78	193	71	65
517	95.620	0.186	0.098	3.45	89	1.2	-	2.21	-0.02	79	193	71	65
518	95.809	0.189	0.097	3.44	89	1.1	-	2.19	-0.02	79	193	71	65
519	95.994	0.185	0.097	3.45	89	1.1	-	2.17	-0.02	79	193	71	65
520	96.180	0.186	0.098	3.44	89	1.2	100	2.14	-0.03	79	193	71	65
521	96.364	0.184	0.098	3.46	89	1.2	-	2.13	-0.01	78	194	71	65
522	96.550	0.186	0.097	3.44	89	1.2	-	2.10	-0.03	79	194	71	65
523	96.738	0.188	0.099	3.46	89	1.2	-	2.07	-0.03	79	194	71	65
524	96.923	0.185	0.098	3.44	89	1.1	-	2.05	-0.02	79	194	71	65
525	97.110	0.187	0.099	3.45	89	1.1	-	2.03	-0.02	79	193	71	65
526	97.296	0.186	0.099	3.45	89	1.2	-	2.00	-0.03	79	194	71	65
527	97.486	0.190	0.097	3.46	89	1.2	-	1.98	-0.02	78	193	71	65
528	97.669	0.183	0.098	3.45	89	1.1	-	1.96	-0.02	78	194	71	65
529	97.855	0.186	0.099	3.44	89	1.1	-	1.94	-0.02	79	194	71	65
530	98.039	0.184	0.098	3.45	89	1.1	100	1.91	-0.03	79	194	71	65
531	98.225	0.186	0.097	3.44	89	1.1	-	1.89	-0.02	79	193	71	65
532	98.411	0.186	0.099	3.44	89	1.2	-	1.87	-0.02	79	193	71	65
533	98.598	0.187	0.098	3.43	89	1.2	-	1.86	-0.01	79	194	71	65
534	98.785	0.187	0.100	3.44	89	1.2	-	1.82	-0.04	79	194	71	65
535	98.968	0.183	0.097	3.45	89	1.2	-	1.79	-0.03	79	194	71	65
536	99.154	0.186	0.099	3.44	89	1.2	-	1.76	-0.03	79	196	71	65
537	99.339	0.185	0.099	3.45	89	1.2	-	1.73	-0.03	79	197	71	65
538	99.527	0.188	0.098	3.44	89	1.1	-	1.70	-0.03	79	198	71	65
539	99.715	0.188	0.098	3.45	89	1.2	-	1.67	-0.03	79	197	71	65
540	99.901	0.186	0.097	3.45	89	1.2	100	1.65	-0.02	79	198	71	65
541	100.086	0.185	0.097	3.45	89	1.2	-	1.61	-0.04	79	198	71	65
542	100.272	0.186	0.098	3.44	89	1.2	-	1.59	-0.02	79	197	71	65
543	100.456	0.184	0.097	3.46	89	1.1	-	1.57	-0.02	79	198	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
544	100.641	0.185	0.097	3.45	89	1.1	-	1.54	-0.03	79	199	71	65
545	100.829	0.188	0.098	3.45	89	1.1	-	1.52	-0.02	79	198	71	65
546	101.015	0.186	0.098	3.45	89	1.1	-	1.48	-0.04	79	199	71	65
547	101.203	0.188	0.098	3.45	89	1.1	-	1.46	-0.02	79	199	71	65
548	101.388	0.185	0.098	3.46	89	1.1	-	1.44	-0.02	79	198	71	65
549	101.574	0.186	0.098	3.45	89	1.2	-	1.40	-0.04	79	199	71	65
550	101.757	0.183	0.097	3.44	89	1.2	100	1.38	-0.02	79	200	71	65
551	101.947	0.190	0.097	3.44	89	1.2	-	1.36	-0.02	79	199	71	65
552	102.132	0.185	0.098	3.44	89	1.2	-	1.33	-0.03	79	199	71	65
553	102.317	0.185	0.098	3.45	89	1.1	-	1.31	-0.02	79	199	71	65
554	102.505	0.188	0.098	3.45	89	1.2	-	1.28	-0.03	79	200	71	65
555	102.690	0.185	0.098	3.44	89	1.2	-	1.26	-0.02	79	200	71	65
556	102.877	0.187	0.098	3.45	89	1.1	-	1.22	-0.04	79	200	71	65
557	103.060	0.183	0.097	3.46	89	1.1	-	1.20	-0.02	79	200	71	65
558	103.246	0.186	0.098	3.45	89	1.2	-	1.18	-0.02	79	201	71	65
559	103.431	0.185	0.098	3.45	89	1.2	-	1.15	-0.03	79	199	71	65
560	103.619	0.188	0.097	3.44	89	1.1	101	1.12	-0.03	79	200	71	65
561	103.808	0.189	0.098	3.45	89	1.2	-	1.10	-0.02	79	200	71	65
562	103.993	0.185	0.098	3.45	89	1.1	-	1.08	-0.02	79	199	71	65
563	104.180	0.187	0.097	3.46	89	1.2	-	1.06	-0.02	79	200	71	65
564	104.367	0.187	0.098	3.44	89	1.2	-	1.02	-0.04	80	199	71	65
565	104.552	0.185	0.099	3.45	89	1.1	-	1.00	-0.02	79	200	71	65
566	104.734	0.182	0.099	3.45	89	1.2	-	0.98	-0.02	79	200	71	65
567	104.922	0.188	0.097	3.44	89	1.2	-	0.95	-0.03	79	199	71	65
568	105.108	0.186	0.099	3.45	89	1.2	-	0.93	-0.02	79	198	71	65
569	105.296	0.188	0.099	3.45	89	1.2	-	0.89	-0.04	79	199	71	65
570	105.481	0.185	0.097	3.45	89	1.1	101	0.88	-0.01	79	198	71	65
571	105.666	0.185	0.096	3.44	89	1.1	-	0.86	-0.02	79	200	71	65
572	105.851	0.185	0.097	3.45	89	1.1	-	0.83	-0.03	79	199	71	65
573	106.035	0.184	0.098	3.44	89	1.1	-	0.80	-0.03	79	199	71	65
574	106.224	0.189	0.097	3.44	89	1.1	-	0.76	-0.04	79	199	71	65
575	106.410	0.186	0.098	3.45	89	1.1	-	0.75	-0.01	79	198	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
576	106.598	0.188	0.099	3.44	89	1.1	-	0.72	-0.03	79	198	71	65
577	106.783	0.185	0.098	3.46	89	1.1	-	0.69	-0.03	79	195	71	65
578	106.969	0.186	0.098	3.44	89	1.2	-	0.67	-0.02	79	193	71	65
579	107.152	0.183	0.098	3.45	89	1.1	-	0.65	-0.02	79	192	71	65
580	107.338	0.186	0.099	3.44	89	1.1	100	0.62	-0.03	79	191	71	65
581	107.525	0.187	0.097	3.45	89	1.1	-	0.59	-0.03	79	190	71	65
582	107.711	0.186	0.097	3.44	89	1.2	-	0.58	-0.01	79	188	71	65
583	107.900	0.189	0.097	3.45	89	1.2	-	0.55	-0.03	79	188	71	65
584	108.085	0.185	0.097	3.45	89	1.1	-	0.53	-0.02	79	187	71	65
585	108.272	0.187	0.099	3.44	89	1.2	-	0.50	-0.03	79	186	71	65
586	108.455	0.183	0.097	3.47	89	1.2	-	0.48	-0.02	79	185	71	65
587	108.641	0.186	0.096	3.44	89	1.1	-	0.46	-0.02	79	185	71	65
588	108.826	0.185	0.097	3.44	89	1.1	-	0.44	-0.02	78	184	71	65
589	109.014	0.188	0.097	3.45	89	1.1	-	0.41	-0.03	79	183	71	65
590	109.202	0.188	0.098	3.45	89	1.2	100	0.40	-0.01	78	183	71	65
591	109.387	0.185	0.098	3.44	89	1.2	-	0.38	-0.02	79	183	71	65
592	109.575	0.188	0.098	3.44	89	1.2	-	0.36	-0.02	78	183	71	65
593	109.758	0.183	0.096	3.44	89	1.2	-	0.34	-0.02	78	182	71	65
594	109.944	0.186	0.098	3.44	89	1.2	-	0.31	-0.03	78	182	71	65
595	110.129	0.185	0.098	3.47	89	1.2	-	0.30	-0.01	78	181	71	65
596	110.317	0.188	0.098	3.45	89	1.2	-	0.28	-0.02	78	181	71	65
597	110.503	0.186	0.097	3.45	89	1.2	-	0.25	-0.03	78	181	71	65
598	110.691	0.188	0.098	3.44	89	1.1	-	0.23	-0.02	78	182	71	65
599	110.876	0.185	0.098	3.45	89	1.1	-	0.21	-0.02	78	181	71	65
600	111.060	0.184	0.098	3.45	89	1.2	100	0.19	-0.02	78	181	71	65
601	111.247	0.187	0.098	3.46	89	1.1	-	0.18	-0.01	78	181	71	65
602	111.431	0.184	0.098	3.45	89	1.1	-	0.15	-0.03	78	181	71	65
603	111.619	0.188	0.099	3.44	89	1.2	-	0.13	-0.02	78	182	71	65
604	111.805	0.186	0.097	3.46	89	1.1	-	0.11	-0.02	78	181	71	65
605	111.993	0.188	0.098	3.45	89	1.2	-	0.10	-0.01	78	182	71	65
606	112.178	0.185	0.097	3.46	89	1.2	-	0.06	-0.04	78	182	71	65
607	112.364	0.186	0.098	3.44	89	1.1	-	0.05	-0.01	78	182	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
608	112.548	0.184	0.097	3.46	89	1.1	-	0.03	-0.02	78	181	71	65
609	112.733	0.185	0.099	3.45	89	1.1	-	0.01	-0.02	78	182	71	65
610	112.921	0.188	0.098	3.45	89	1.2	100	0.00	-0.01	78	182	71	65
Avg/Tot	112.921	0.185	0.098	3.42	88.2	1.1	100			81.3	221.3	71.7	65.5

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		0.01	72	0.6		72	-0.032	4.27	0.103
1	0.089	0.089	3.10	72	2.0	-	74	-0.042	3.14	0.019
2	0.261	0.172	3.10	72	1.8	-	74	-0.032	1.58	0.068
3	0.434	0.173	3.10	72	1.8	-	74	-0.033	4.85	0.009
4	0.607	0.173	3.11	72	2.0	-	74	-0.033	5.25	0.012
5	0.777	0.170	3.11	72	2.0	-	73	-0.035	5.07	0.008
6	0.950	0.173	3.11	72	2.1	-	73	-0.036	4.94	0.007
7	1.124	0.174	3.13	73	1.8	-	73	-0.036	4.97	0.007
8	1.297	0.173	3.13	73	1.7	-	73	-0.036	5.21	0.008
9	1.467	0.170	3.12	73	1.6	-	73	-0.036	5.75	0.007
10	1.641	0.174	3.12	73	2.1	96	73	-0.038	5.74	0.011
11	1.815	0.174	3.12	73	2.1	-	73	-0.040	5.88	0.009
12	1.987	0.172	3.12	73	1.8	-	74	-0.038	5.79	0.009
13	2.158	0.171	3.13	74	1.8	-	74	-0.038	5.72	0.007
14	2.332	0.174	3.13	74	2.2	-	74	-0.039	5.71	0.008
15	2.507	0.175	3.13	74	2.0	-	74	-0.040	5.90	0.011
16	2.679	0.172	3.13	74	1.8	-	74	-0.040	6.01	0.006
17	2.850	0.171	3.14	75	1.7	-	74	-0.041	6.02	0.007
18	3.025	0.175	3.14	75	2.2	-	74	-0.039	5.99	0.009
19	3.200	0.175	3.14	75	1.6	-	74	-0.041	5.97	0.006
20	3.373	0.173	3.15	75	1.9	100	74	-0.040	6.05	0.009
21	3.545	0.172	3.15	76	2.2	-	74	-0.042	6.13	0.006
22	3.720	0.175	3.14	76	1.6	-	74	-0.042	6.20	0.011
23	3.895	0.175	3.15	76	2.0	-	74	-0.041	6.30	0.008
24	4.069	0.174	3.14	77	1.7	-	74	-0.041	6.41	0.006
25	4.241	0.172	3.15	77	1.9	-	74	-0.042	6.62	0.006
26	4.417	0.176	3.15	77	2.1	-	74	-0.042	6.67	0.008
27	4.593	0.176	3.16	78	1.6	-	74	-0.043	6.80	0.006
28	4.768	0.175	3.16	78	1.6	-	74	-0.042	6.89	0.006
29	4.940	0.172	3.17	78	1.8	-	74	-0.043	6.85	0.007
30	5.115	0.175	3.16	79	2.1	100	74	-0.044	6.96	0.009
31	5.291	0.176	3.16	79	1.9	-	74	-0.043	6.55	0.007

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	5.466	0.175	3.16	79	1.6	-	74	-0.043	6.78	0.010
33	5.640	0.174	3.16	80	1.7	-	74	-0.045	6.86	0.009
34	5.815	0.175	3.16	80	1.9	-	74	-0.044	6.86	0.011
35	5.991	0.176	3.16	80	2.2	-	74	-0.044	6.82	0.007
36	6.168	0.177	3.17	80	2.2	-	74	-0.045	7.04	0.010
37	6.342	0.174	3.17	81	1.7	-	74	-0.044	7.14	0.009
38	6.517	0.175	3.17	81	1.7	-	74	-0.045	7.32	0.011
39	6.694	0.177	3.18	81	2.2	-	74	-0.044	7.53	0.006
40	6.871	0.177	3.17	82	1.6	100	74	-0.045	7.66	0.008
41	7.047	0.176	3.18	82	2.1	-	74	-0.045	7.73	0.009
42	7.221	0.174	3.17	82	2.1	-	74	-0.046	7.73	0.012
43	7.397	0.176	3.17	83	1.9	-	74	-0.046	7.94	0.008
44	7.574	0.177	3.17	83	2.0	-	74	-0.049	7.97	0.009
45	7.751	0.177	3.17	83	2.1	-	74	-0.048	8.06	0.011
46	7.925	0.174	3.17	83	1.9	-	74	-0.048	8.10	0.007
47	8.102	0.177	3.18	84	1.7	-	74	-0.050	8.18	0.008
48	8.280	0.178	3.18	84	2.0	-	74	-0.050	8.16	0.007
49	8.458	0.178	3.18	84	1.9	-	74	-0.049	8.15	0.009
50	8.634	0.176	3.19	84	2.2	100	74	-0.049	8.24	0.010
51	8.808	0.174	3.18	85	1.6	-	74	-0.050	8.28	0.007
52	8.985	0.177	3.18	85	1.6	-	74	-0.049	8.23	0.010
53	9.163	0.178	3.18	85	2.1	-	74	-0.049	8.31	0.008
54	9.341	0.178	3.19	85	2.2	-	74	-0.050	8.30	0.010
55	9.518	0.177	3.19	86	2.1	-	74	-0.051	8.40	0.013
56	9.694	0.176	3.19	86	1.9	-	74	-0.050	8.60	0.014
57	9.872	0.178	3.19	86	1.9	-	74	-0.049	8.44	0.012
58	10.050	0.178	3.19	86	2.2	-	74	-0.051	8.61	0.010
59	10.228	0.178	3.19	87	2.0	-	75	-0.051	8.77	0.010
60	10.403	0.175	3.19	87	1.7	100	74	-0.051	8.81	0.012
61	10.581	0.178	3.19	87	2.1	-	75	-0.053	8.85	0.012
62	10.759	0.178	3.20	87	1.9	-	75	-0.051	9.09	0.012
63	10.939	0.180	3.20	87	1.8	-	75	-0.052	9.11	0.015

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	11.115	0.176	3.19	88	1.8	-	75	-0.051	9.21	0.014
65	11.291	0.176	3.19	88	1.8	-	75	-0.053	9.20	0.016
66	11.468	0.177	3.18	88	2.2	-	75	-0.051	9.19	0.014
67	11.647	0.179	3.19	88	1.8	-	75	-0.053	9.23	0.015
68	11.826	0.179	3.20	88	2.2	-	75	-0.050	9.00	0.014
69	12.004	0.178	3.20	89	1.6	-	75	-0.051	8.85	0.016
70	12.179	0.175	3.20	89	1.7	100	75	-0.052	8.91	0.012
71	12.357	0.178	3.19	89	2.1	-	75	-0.052	8.94	0.014
72	12.536	0.179	3.20	89	2.1	-	75	-0.051	8.77	0.013
73	12.715	0.179	3.20	89	1.7	-	75	-0.052	8.71	0.013
74	12.893	0.178	3.19	89	1.9	-	75	-0.051	8.64	0.011
75	13.069	0.176	3.20	90	2.2	-	75	-0.053	8.55	0.013
76	13.247	0.178	3.20	90	2.1	-	75	-0.049	8.61	0.012
77	13.426	0.179	3.19	90	1.7	-	75	-0.051	8.55	0.013
78	13.602	0.176	3.20	90	1.7	-	75	-0.049	8.59	0.010
79	13.783	0.181	3.19	90	2.2	-	75	-0.052	8.65	0.011
80	13.957	0.174	3.20	90	2.1	100	75	-0.050	8.62	0.012
81	14.138	0.181	3.20	91	1.8	-	75	-0.051	8.87	0.013
82	14.318	0.180	3.19	91	1.7	-	75	-0.051	8.88	0.009
83	14.498	0.180	3.20	91	2.2	-	75	-0.051	9.12	0.010
84	14.675	0.177	3.20	91	1.8	-	75	-0.051	9.13	0.012
85	14.853	0.178	3.21	91	1.7	-	75	-0.051	9.15	0.013
86	15.030	0.177	3.20	91	2.1	-	75	-0.050	9.27	0.011
87	15.210	0.180	3.21	91	1.9	-	75	-0.050	9.32	0.015
88	15.390	0.180	3.21	91	1.7	-	75	-0.050	9.49	0.015
89	15.568	0.178	3.21	92	1.7	-	75	-0.051	9.48	0.013
90	15.746	0.178	3.21	92	2.2	101	75	-0.050	9.64	0.013
91	15.924	0.178	3.20	92	1.7	-	75	-0.051	9.72	0.015
92	16.101	0.177	3.21	92	2.2	-	75	-0.052	9.74	0.016
93	16.280	0.179	3.21	92	1.8	-	75	-0.051	9.78	0.011
94	16.462	0.182	3.20	92	2.0	-	75	-0.050	9.76	0.012
95	16.639	0.177	3.22	92	2.2	-	75	-0.052	9.82	0.015

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	16.818	0.179	3.21	92	1.7	-	75	-0.052	9.87	0.011
97	16.998	0.180	3.21	92	2.0	-	75	-0.051	9.81	0.014
98	17.178	0.180	3.21	92	1.7	-	75	-0.050	9.90	0.015
99	17.357	0.179	3.21	92	1.9	-	75	-0.050	9.86	0.015
100	17.531	0.174	3.21	92	1.6	100	75	-0.051	9.83	0.013
101	17.712	0.181	3.20	93	1.6	-	75	-0.052	9.71	0.012
102	17.893	0.181	3.21	93	1.7	-	75	-0.052	9.69	0.013
103	18.073	0.180	3.21	93	2.2	-	75	-0.050	9.69	0.012
104	18.252	0.179	3.22	93	1.7	-	75	-0.049	9.65	0.012
105	18.429	0.177	3.21	93	1.6	-	75	-0.050	9.69	0.011
106	18.608	0.179	3.21	93	1.9	-	75	-0.049	9.61	0.013
107	18.789	0.181	3.21	93	2.1	-	75	-0.051	9.63	0.012
108	18.969	0.180	3.21	93	1.8	-	75	-0.052	9.56	0.012
109	19.147	0.178	3.21	93	1.7	-	75	-0.048	9.62	0.009
110	19.325	0.178	3.20	93	1.6	101	75	-0.049	9.57	0.012
111	19.504	0.179	3.21	93	2.2	-	75	-0.048	9.55	0.010
112	19.685	0.181	3.21	93	2.1	-	75	-0.050	9.62	0.011
113	19.864	0.179	3.21	93	2.0	-	75	-0.049	9.64	0.010
114	20.044	0.180	3.21	93	2.1	-	75	-0.049	9.86	0.009
115	20.222	0.178	3.21	93	1.9	-	75	-0.047	9.63	0.010
116	20.401	0.179	3.21	94	2.2	-	74	-0.045	9.51	0.011
117	20.581	0.180	3.21	94	1.6	-	74	-0.048	9.40	0.010
118	20.761	0.180	3.22	94	2.1	-	74	-0.048	9.23	0.008
119	20.941	0.180	3.21	94	2.1	-	74	-0.050	9.18	0.011
120	21.120	0.179	3.21	94	1.8	101	75	-0.048	9.14	0.009
121	21.298	0.178	3.22	94	1.9	-	74	-0.048	9.04	0.010
122	21.477	0.179	3.21	94	2.0	-	74	-0.046	8.99	0.011
123	21.658	0.181	3.22	94	1.6	-	74	-0.047	8.76	0.008
124	21.839	0.181	3.21	94	1.6	-	74	-0.048	8.70	0.011
125	22.018	0.179	3.22	94	1.7	-	74	-0.047	8.55	0.009
126	22.196	0.178	3.22	94	1.8	-	74	-0.047	8.57	0.009
127	22.375	0.179	3.21	94	2.1	-	74	-0.048	8.68	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	22.553	0.178	3.22	94	2.0	-	74	-0.048	8.64	0.010
129	22.737	0.184	3.22	94	2.1	-	74	-0.046	8.59	0.008
130	22.916	0.179	3.22	94	2.2	101	74	-0.046	8.62	0.010
131	23.094	0.178	3.22	94	2.1	-	74	-0.046	8.79	0.011
132	23.274	0.180	3.22	94	1.7	-	74	-0.047	8.83	0.011
133	23.454	0.180	3.22	94	2.0	-	74	-0.049	8.89	0.009
134	23.634	0.180	3.22	94	1.6	-	74	-0.047	8.96	0.009
135	23.814	0.180	3.22	94	2.2	-	74	-0.049	8.89	0.010
136	23.993	0.179	3.21	94	1.6	-	74	-0.048	9.10	0.008
137	24.172	0.179	3.22	94	1.6	-	74	-0.048	9.46	0.010
138	24.351	0.179	3.22	94	1.7	-	74	-0.047	10.15	0.008
139	24.532	0.181	3.21	95	1.9	-	74	-0.046	10.57	0.009
140	24.710	0.178	3.22	94	2.0	100	74	-0.049	10.74	0.010
141	24.893	0.183	3.22	95	2.0	-	74	-0.047	10.99	0.011
142	25.070	0.177	3.22	95	2.1	-	74	-0.048	11.15	0.013
143	25.249	0.179	3.21	95	2.1	-	74	-0.050	11.28	0.030
144	25.430	0.181	3.22	95	1.9	-	74	-0.049	11.31	0.081
145	25.612	0.182	3.22	95	1.7	-	74	-0.049	11.30	0.127
146	25.790	0.178	3.22	95	2.1	-	74	-0.050	11.32	0.187
147	25.968	0.178	3.21	95	1.7	-	74	-0.048	11.21	0.247
148	26.148	0.180	3.21	95	1.9	-	74	-0.050	11.07	0.312
149	26.329	0.181	3.22	95	2.2	-	74	-0.048	11.01	0.260
150	26.509	0.180	3.22	95	1.6	100	74	-0.047	10.91	0.223
151	26.689	0.180	3.21	95	1.6	-	74	-0.048	10.82	0.221
152	26.868	0.179	3.22	95	2.1	-	74	-0.047	10.73	0.251
153	27.047	0.179	3.21	95	1.6	-	74	-0.047	10.63	0.271
154	27.227	0.180	3.22	95	2.1	-	74	-0.046	10.64	0.331
155	27.404	0.177	3.21	95	1.6	-	74	-0.046	10.45	0.181
156	27.589	0.185	3.22	95	2.1	-	74	-0.045	10.28	0.128
157	27.768	0.179	3.22	95	1.8	-	74	-0.044	10.09	0.114
158	27.946	0.178	3.22	95	2.0	-	74	-0.044	9.98	0.072
159	28.125	0.179	3.21	95	2.2	-	74	-0.044	10.02	0.066

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1
Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	28.307	0.182	3.22	95	2.2	100	74	-0.044	9.94	0.086
161	28.488	0.181	3.22	95	2.1	-	74	-0.042	9.92	0.075
162	28.667	0.179	3.22	95	1.7	-	74	-0.040	9.90	0.057
163	28.845	0.178	3.21	95	1.7	-	74	-0.042	9.96	0.053
164	29.025	0.180	3.21	95	1.9	-	74	-0.045	9.92	0.051
165	29.206	0.181	3.22	95	1.7	-	74	-0.043	9.88	0.064
166	29.386	0.180	3.21	95	1.6	-	74	-0.044	9.90	0.085
167	29.567	0.181	3.22	95	2.1	-	73	-0.043	9.90	0.103
168	29.746	0.179	3.21	95	1.7	-	73	-0.040	10.00	0.138
169	29.924	0.178	3.22	95	2.1	-	73	-0.042	10.05	0.157
170	30.104	0.180	3.22	95	1.8	100	73	-0.040	10.04	0.197
171	30.285	0.181	3.21	95	2.0	-	73	-0.042	9.98	0.235
172	30.467	0.182	3.22	95	1.6	-	73	-0.043	10.03	0.275
173	30.646	0.179	3.21	95	2.0	-	73	-0.042	9.86	0.327
174	30.824	0.178	3.21	95	2.2	-	73	-0.042	9.91	0.380
175	31.004	0.180	3.21	95	1.9	-	73	-0.041	9.90	0.401
176	31.185	0.181	3.21	95	2.1	-	73	-0.044	9.83	0.515
177	31.365	0.180	3.21	95	1.7	-	73	-0.039	9.79	0.577
178	31.545	0.180	3.21	95	2.1	-	73	-0.042	9.75	0.662
179	31.725	0.180	3.22	95	2.1	-	73	-0.041	9.68	0.702
180	31.904	0.179	3.22	95	1.7	100	73	-0.042	9.59	0.864
181	32.083	0.179	3.22	95	1.8	-	73	-0.043	9.52	0.859
182	32.264	0.181	3.21	95	2.0	-	73	-0.043	9.57	0.877
183	32.446	0.182	3.22	95	1.6	-	73	-0.042	9.49	0.887
184	32.626	0.180	3.22	95	1.6	-	73	-0.040	9.41	0.896
185	32.803	0.177	3.22	95	1.7	-	73	-0.041	9.41	0.881
186	32.983	0.180	3.22	95	1.6	-	73	-0.042	9.40	0.886
187	33.164	0.181	3.22	95	2.0	-	73	-0.043	9.36	0.884
188	33.346	0.182	3.23	95	1.7	-	73	-0.042	9.36	0.854
189	33.525	0.179	3.22	95	2.0	-	73	-0.040	9.41	0.812
190	33.703	0.178	3.22	95	2.1	100	73	-0.041	9.36	0.822
191	33.883	0.180	3.21	95	2.1	-	73	-0.040	9.41	0.818

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	34.064	0.181	3.22	95	2.2	-	73	-0.044	9.36	0.810
193	34.244	0.180	3.22	95	1.7	-	73	-0.042	9.32	0.799
194	34.425	0.181	3.22	95	1.7	-	73	-0.042	9.35	0.770
195	34.605	0.180	3.22	95	1.7	-	73	-0.040	9.35	0.705
196	34.783	0.178	3.22	95	2.1	-	73	-0.041	9.37	0.697
197	34.962	0.179	3.22	95	1.7	-	73	-0.039	9.34	0.694
198	35.144	0.182	3.22	95	1.9	-	73	-0.042	9.38	0.626
199	35.326	0.182	3.22	95	2.0	-	73	-0.043	9.39	0.631
200	35.504	0.178	3.22	95	2.2	100	73	-0.041	9.41	0.662
201	35.683	0.179	3.22	95	1.6	-	73	-0.041	9.40	0.615
202	35.863	0.180	3.22	95	1.7	-	73	-0.041	9.40	0.603
203	36.045	0.182	3.22	95	2.0	-	73	-0.038	9.39	0.516
204	36.225	0.180	3.22	95	1.7	-	73	-0.039	9.41	0.430
205	36.405	0.180	3.22	95	1.8	-	73	-0.041	9.33	0.398
206	36.585	0.180	3.22	95	1.6	-	73	-0.041	9.32	0.313
207	36.763	0.178	3.23	95	1.9	-	73	-0.041	9.35	0.255
208	36.943	0.180	3.22	95	2.0	-	73	-0.038	9.36	0.219
209	37.124	0.181	3.22	95	1.9	-	73	-0.038	9.29	0.189
210	37.306	0.182	3.22	95	2.0	100	73	-0.039	9.28	0.178
211	37.485	0.179	3.22	95	2.1	-	73	-0.040	9.22	0.166
212	37.663	0.178	3.22	95	1.6	-	73	-0.037	9.16	0.142
213	37.843	0.180	3.22	95	2.1	-	73	-0.040	9.15	0.150
214	38.025	0.182	3.22	95	1.7	-	73	-0.040	9.08	0.159
215	38.205	0.180	3.22	95	1.8	-	73	-0.040	9.08	0.182
216	38.385	0.180	3.22	95	1.8	-	73	-0.040	9.06	0.165
217	38.565	0.180	3.22	95	2.0	-	73	-0.040	8.99	0.158
218	38.744	0.179	3.23	95	1.9	-	73	-0.038	8.94	0.161
219	38.924	0.180	3.22	95	2.0	-	73	-0.040	8.81	0.200
220	39.105	0.181	3.22	95	2.1	100	73	-0.042	8.80	0.190
221	39.287	0.182	3.22	95	1.7	-	73	-0.041	8.77	0.184
222	39.467	0.180	3.22	95	1.6	-	73	-0.039	8.66	0.168
223	39.644	0.177	3.22	95	2.0	-	73	-0.042	8.61	0.156

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	39.824	0.180	3.22	95	2.0	-	73	-0.039	8.70	0.111
225	40.006	0.182	3.22	95	2.1	-	73	-0.038	8.58	0.138
226	40.187	0.181	3.23	95	2.1	-	73	-0.039	8.54	0.156
227	40.367	0.180	3.22	95	1.9	-	73	-0.039	8.47	0.165
228	40.546	0.179	3.22	95	1.9	-	73	-0.039	8.47	0.152
229	40.725	0.179	3.22	95	2.1	-	73	-0.040	8.45	0.155
230	40.903	0.178	3.22	95	1.7	100	73	-0.040	8.45	0.116
231	41.086	0.183	3.22	95	2.1	-	73	-0.038	8.48	0.105
232	41.268	0.182	3.22	95	1.6	-	73	-0.039	8.39	0.111
233	41.448	0.180	3.23	95	2.1	-	73	-0.038	8.42	0.097
234	41.626	0.178	3.23	95	2.1	-	73	-0.038	8.42	0.111
235	41.805	0.179	3.22	95	1.8	-	73	-0.038	8.44	0.105
236	41.987	0.182	3.22	95	2.0	-	73	-0.039	8.51	0.115
237	42.169	0.182	3.22	95	2.1	-	73	-0.039	8.54	0.114
238	42.348	0.179	3.23	95	2.1	-	73	-0.037	8.52	0.129
239	42.527	0.179	3.22	95	2.1	-	73	-0.039	8.54	0.139
240	42.707	0.180	3.22	95	2.1	100	73	-0.038	8.50	0.131
241	42.887	0.180	3.22	95	1.6	-	73	-0.038	8.58	0.134
242	43.068	0.181	3.22	95	1.9	-	73	-0.037	8.50	0.129
243	43.249	0.181	3.22	95	1.9	-	73	-0.039	8.50	0.110
244	43.429	0.180	3.22	95	2.1	-	73	-0.036	8.90	0.103
245	43.607	0.178	3.22	95	1.9	-	73	-0.038	8.93	0.088
246	43.787	0.180	3.22	95	2.1	-	73	-0.037	8.91	0.083
247	43.969	0.182	3.22	95	1.8	-	73	-0.038	8.88	0.069
248	44.151	0.182	3.23	95	2.1	-	73	-0.040	8.88	0.056
249	44.330	0.179	3.23	95	1.7	-	73	-0.037	8.83	0.039
250	44.508	0.178	3.22	95	1.7	100	73	-0.037	8.82	0.045
251	44.688	0.180	3.22	95	2.1	-	73	-0.035	8.82	0.033
252	44.869	0.181	3.23	95	2.1	-	73	-0.036	8.80	0.023
253	45.050	0.181	3.22	95	2.1	-	73	-0.039	8.83	0.018
254	45.231	0.181	3.23	95	1.7	-	72	-0.038	8.88	0.015
255	45.411	0.180	3.22	95	2.0	-	72	-0.039	8.84	0.014

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	45.589	0.178	3.23	95	1.8	-	72	-0.039	8.78	0.015
257	45.769	0.180	3.22	95	1.6	-	73	-0.038	8.82	0.018
258	45.951	0.182	3.22	95	1.8	-	72	-0.039	8.79	0.018
259	46.133	0.182	3.22	95	2.0	-	72	-0.037	8.81	0.018
260	46.312	0.179	3.22	95	2.1	100	72	-0.039	8.84	0.020
261	46.490	0.178	3.23	95	1.7	-	72	-0.039	8.84	0.027
262	46.671	0.181	3.22	95	2.1	-	72	-0.037	8.91	0.039
263	46.852	0.181	3.23	95	1.6	-	72	-0.036	8.93	0.050
264	47.032	0.180	3.22	95	1.6	-	72	-0.039	8.89	0.047
265	47.214	0.182	3.22	95	1.6	-	72	-0.037	8.83	0.061
266	47.393	0.179	3.22	95	1.6	-	72	-0.035	8.91	0.112
267	47.571	0.178	3.22	95	2.1	-	72	-0.039	8.74	0.024
268	47.751	0.180	3.22	95	1.9	-	72	-0.039	8.55	0.013
269	47.933	0.182	3.22	95	1.8	-	72	-0.038	8.55	0.015
270	48.115	0.182	3.23	95	1.9	100	72	-0.037	8.56	0.011
271	48.294	0.179	3.23	95	1.8	-	72	-0.038	8.57	0.012
272	48.472	0.178	3.22	95	2.1	-	72	-0.037	8.61	0.013
273	48.653	0.181	3.22	95	1.8	-	72	-0.037	8.74	0.044
274	48.834	0.181	3.23	95	2.1	-	72	-0.040	8.87	0.116
275	49.015	0.181	3.23	95	1.9	-	72	-0.039	8.83	0.163
276	49.195	0.180	3.22	95	1.8	-	72	-0.039	8.86	0.144
277	49.375	0.180	3.22	95	1.7	-	72	-0.039	8.76	0.120
278	49.554	0.179	3.23	95	1.6	-	72	-0.038	8.83	0.100
279	49.733	0.179	3.22	95	2.1	-	72	-0.038	8.80	0.080
280	49.915	0.182	3.22	95	1.7	100	72	-0.037	8.74	0.079
281	50.097	0.182	3.23	95	1.8	-	72	-0.036	8.64	0.063
282	50.276	0.179	3.22	95	2.1	-	72	-0.039	8.68	0.052
283	50.454	0.178	3.21	95	1.6	-	72	-0.037	8.61	0.054
284	50.635	0.181	3.22	95	1.7	-	72	-0.037	8.56	0.058
285	50.816	0.181	3.22	95	1.6	-	72	-0.037	8.59	0.073
286	50.997	0.181	3.23	95	1.9	-	72	-0.037	8.56	0.087
287	51.177	0.180	3.22	95	2.0	-	72	-0.037	8.46	0.111

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	51.357	0.180	3.22	95	1.8	-	72	-0.038	8.43	0.123
289	51.536	0.179	3.23	95	1.8	-	72	-0.037	8.50	0.119
290	51.716	0.180	3.23	95	1.8	100	72	-0.038	8.45	0.146
291	51.897	0.181	3.22	95	2.0	-	72	-0.037	8.45	0.183
292	52.079	0.182	3.22	95	2.1	-	72	-0.036	8.46	0.213
293	52.258	0.179	3.23	95	2.1	-	72	-0.037	8.45	0.250
294	52.436	0.178	3.22	95	1.6	-	72	-0.038	8.47	0.256
295	52.617	0.181	3.22	95	1.7	-	72	-0.037	8.45	0.284
296	52.799	0.182	3.23	95	1.6	-	72	-0.035	8.40	0.293
297	52.979	0.180	3.23	95	1.7	-	72	-0.036	8.31	0.270
298	53.159	0.180	3.22	95	1.6	-	72	-0.037	8.33	0.311
299	53.339	0.180	3.22	95	1.9	-	72	-0.038	8.37	0.313
300	53.518	0.179	3.22	95	1.9	100	72	-0.038	8.35	0.297
301	53.698	0.180	3.22	95	2.1	-	72	-0.039	8.33	0.313
302	53.880	0.182	3.22	95	2.0	-	72	-0.038	8.38	0.280
303	54.061	0.181	3.22	95	1.6	-	72	-0.036	8.32	0.286
304	54.240	0.179	3.22	95	1.6	-	72	-0.037	8.38	0.322
305	54.419	0.179	3.22	95	1.9	-	72	-0.037	8.31	0.350
306	54.599	0.180	3.22	95	2.1	-	72	-0.036	8.24	0.385
307	54.781	0.182	3.22	95	2.1	-	72	-0.037	8.27	0.415
308	54.961	0.180	3.22	95	2.1	-	72	-0.037	8.25	0.415
309	55.141	0.180	3.22	95	2.1	-	72	-0.035	8.20	0.461
310	55.321	0.180	3.22	95	1.8	100	72	-0.038	8.20	0.523
311	55.501	0.180	3.22	95	2.0	-	72	-0.037	8.21	0.558
312	55.681	0.180	3.23	95	2.1	-	72	-0.038	8.21	0.605
313	55.862	0.181	3.22	95	2.0	-	72	-0.038	8.22	0.689
314	56.043	0.181	3.22	95	1.7	-	72	-0.037	8.29	0.737
315	56.223	0.180	3.22	95	1.7	-	72	-0.036	8.26	0.797
316	56.401	0.178	3.22	95	2.1	-	72	-0.038	8.37	0.843
317	56.582	0.181	3.22	95	1.9	-	72	-0.038	8.94	1.019
318	56.763	0.181	3.22	95	1.6	-	72	-0.038	8.98	1.067
319	56.943	0.180	3.22	95	2.1	-	72	-0.036	9.12	1.152

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	57.124	0.181	3.22	95	1.8	100	72	-0.038	9.16	1.237
321	57.304	0.180	3.22	95	1.7	-	72	-0.039	9.21	1.361
322	57.483	0.179	3.22	95	1.9	-	72	-0.036	9.22	1.482
323	57.663	0.180	3.22	95	2.1	-	72	-0.038	9.22	1.557
324	57.844	0.181	3.23	95	2.1	-	72	-0.038	9.28	1.678
325	58.026	0.182	3.22	95	1.8	-	72	-0.039	9.33	1.727
326	58.205	0.179	3.23	95	1.8	-	72	-0.038	9.38	1.888
327	58.383	0.178	3.22	95	1.6	-	72	-0.039	9.42	1.958
328	58.564	0.181	3.22	95	2.1	-	72	-0.040	9.41	2.059
329	58.745	0.181	3.22	95	1.9	-	72	-0.038	9.49	2.163
330	58.926	0.181	3.22	95	2.0	99	72	-0.039	9.47	2.295
331	59.106	0.180	3.21	95	1.8	-	72	-0.037	9.53	2.437
332	59.286	0.180	3.22	95	2.1	-	72	-0.038	9.67	2.579
333	59.465	0.179	3.23	95	2.1	-	72	-0.042	9.73	2.655
334	59.645	0.180	3.22	95	1.6	-	72	-0.039	9.67	2.853
335	59.826	0.181	3.22	95	2.0	-	72	-0.039	9.65	2.945
336	60.007	0.181	3.22	95	1.8	-	72	-0.039	9.61	3.086
337	60.187	0.180	3.23	95	2.0	-	72	-0.041	9.55	3.207
338	60.365	0.178	3.22	95	1.6	-	72	-0.040	9.52	3.284
339	60.545	0.180	3.22	95	2.1	-	72	-0.040	9.53	3.366
340	60.727	0.182	3.22	95	1.9	100	72	-0.040	9.49	3.479
341	60.908	0.181	3.22	95	1.6	-	72	-0.040	9.47	3.468
342	61.088	0.180	3.22	95	1.7	-	72	-0.039	9.49	3.527
343	61.267	0.179	3.22	95	1.6	-	72	-0.041	9.48	3.513
344	61.447	0.180	3.22	95	2.1	-	72	-0.038	9.43	3.587
345	61.626	0.179	3.22	95	1.8	-	72	-0.040	9.40	3.553
346	61.807	0.181	3.22	95	2.1	-	72	-0.039	9.37	3.530
347	61.989	0.182	3.22	95	2.1	-	72	-0.041	9.44	3.415
348	62.169	0.180	3.22	95	2.0	-	72	-0.037	9.33	3.294
349	62.347	0.178	3.23	95	2.0	-	72	-0.039	9.42	3.140
350	62.527	0.180	3.22	95	2.1	100	72	-0.040	9.42	2.957
351	62.709	0.182	3.22	95	1.7	-	72	-0.037	9.40	2.822

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	62.890	0.181	3.23	95	2.0	-	72	-0.036	9.56	2.641
353	63.069	0.179	3.22	95	1.9	-	72	-0.035	9.58	2.426
354	63.249	0.180	3.22	95	1.8	-	72	-0.036	9.70	2.187
355	63.428	0.179	3.22	95	1.6	-	72	-0.037	9.67	1.843
356	63.608	0.180	3.22	95	1.6	-	72	-0.037	9.85	1.642
357	63.789	0.181	3.22	95	1.9	-	72	-0.035	9.93	1.395
358	63.971	0.182	3.22	95	2.0	-	72	-0.033	10.01	1.195
359	64.151	0.180	3.22	95	1.8	-	72	-0.033	10.10	1.008
360	64.328	0.177	3.22	95	2.0	100	72	-0.033	10.15	0.861
361	64.508	0.180	3.22	95	1.8	-	72	-0.032	10.22	0.680
362	64.690	0.182	3.22	95	2.1	-	72	-0.032	10.20	0.537
363	64.871	0.181	3.23	95	2.1	-	72	-0.032	10.28	0.415
364	65.051	0.180	3.23	95	1.8	-	72	-0.033	10.31	0.286
365	65.229	0.178	3.22	95	1.8	-	72	-0.030	10.29	0.161
366	65.409	0.180	3.22	95	2.0	-	72	-0.030	10.30	0.116
367	65.590	0.181	3.23	95	1.6	-	72	-0.033	10.40	0.056
368	65.770	0.180	3.22	95	1.7	-	72	-0.030	10.39	0.034
369	65.952	0.182	3.23	95	1.7	-	72	-0.027	10.44	0.023
370	66.131	0.179	3.22	95	1.9	100	72	-0.030	10.41	0.017
371	66.309	0.178	3.22	95	1.9	-	72	-0.029	10.42	0.015
372	66.489	0.180	3.22	95	1.7	-	72	-0.027	10.41	0.013
373	66.671	0.182	3.22	95	1.6	-	72	-0.029	10.30	0.016
374	66.853	0.182	3.23	95	2.1	-	72	-0.028	10.09	0.011
375	67.032	0.179	3.22	95	1.9	-	72	-0.027	9.94	0.016
376	67.210	0.178	3.22	95	1.7	-	72	-0.030	9.77	0.015
377	67.390	0.180	3.22	95	1.6	-	72	-0.028	9.65	0.014
378	67.571	0.181	3.22	95	2.0	-	72	-0.029	9.58	0.012
379	67.752	0.181	3.23	95	2.2	-	72	-0.029	9.46	0.013
380	67.933	0.181	3.23	95	1.7	100	72	-0.027	9.46	0.015
381	68.112	0.179	3.22	95	2.1	-	72	-0.026	9.52	0.012
382	68.291	0.179	3.23	95	1.8	-	72	-0.028	9.47	0.014
383	68.471	0.180	3.23	95	1.9	-	72	-0.025	9.49	0.012

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	68.653	0.182	3.22	95	1.6	-	72	-0.029	9.45	0.012
385	68.834	0.181	3.22	95	2.0	-	72	-0.027	9.62	0.014
386	69.013	0.179	3.22	95	1.6	-	72	-0.030	9.70	0.013
387	69.191	0.178	3.22	95	1.6	-	72	-0.026	9.75	0.013
388	69.372	0.181	3.22	95	1.6	-	72	-0.029	9.83	0.013
389	69.553	0.181	3.23	95	1.6	-	72	-0.027	9.79	0.011
390	69.734	0.181	3.23	95	1.8	100	72	-0.027	9.96	0.015
391	69.914	0.180	3.22	95	1.9	-	72	-0.028	10.05	0.011
392	70.094	0.180	3.22	95	1.8	-	72	-0.028	10.09	0.013
393	70.273	0.179	3.23	95	1.7	-	72	-0.030	10.17	0.012
394	70.453	0.180	3.23	95	1.7	-	72	-0.028	10.23	0.015
395	70.634	0.181	3.23	95	2.1	-	72	-0.029	10.31	0.011
396	70.815	0.181	3.22	95	1.7	-	71	-0.030	10.32	0.012
397	70.995	0.180	3.23	95	2.1	-	71	-0.026	10.39	0.014
398	71.173	0.178	3.22	95	1.7	-	72	-0.030	10.74	0.013
399	71.353	0.180	3.22	95	2.1	-	72	-0.026	11.00	0.015
400	71.534	0.181	3.23	95	1.8	100	72	-0.028	11.02	0.016
401	71.715	0.181	3.22	95	2.2	-	72	-0.031	11.03	0.013
402	71.895	0.180	3.22	95	2.0	-	72	-0.028	11.07	0.011
403	72.075	0.180	3.23	95	1.9	-	71	-0.030	11.10	0.015
404	72.254	0.179	3.23	95	2.1	-	72	-0.030	11.15	0.012
405	72.434	0.180	3.23	95	2.0	-	72	-0.029	11.01	0.012
406	72.615	0.181	3.23	95	1.8	-	72	-0.031	10.97	0.014
407	72.796	0.181	3.23	95	1.6	-	72	-0.030	10.89	0.013
408	72.976	0.180	3.23	95	1.8	-	72	-0.031	11.02	0.012
409	73.154	0.178	3.23	95	1.8	-	72	-0.031	10.94	0.011
410	73.334	0.180	3.22	95	2.1	100	72	-0.029	10.95	0.014
411	73.516	0.182	3.22	95	2.1	-	72	-0.030	10.92	0.012
412	73.696	0.180	3.23	95	1.6	-	72	-0.032	10.89	0.013
413	73.876	0.180	3.21	95	1.7	-	72	-0.031	10.93	0.013
414	74.055	0.179	3.23	95	2.1	-	72	-0.031	10.97	0.010
415	74.235	0.180	3.22	95	1.7	-	71	-0.032	10.93	0.013

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
416	74.415	0.180	3.22	95	2.0	-	72	-0.032	10.85	0.012
417	74.595	0.180	3.23	95	1.8	-	72	-0.031	10.87	0.013
418	74.778	0.183	3.23	95	2.0	-	72	-0.031	10.93	0.014
419	74.958	0.180	3.23	95	2.2	-	72	-0.032	10.94	0.013
420	75.135	0.177	3.23	95	2.2	100	72	-0.034	10.94	0.012
421	75.314	0.179	3.22	95	1.9	-	72	-0.032	10.91	0.013
422	75.496	0.182	3.23	95	1.7	-	72	-0.031	10.91	0.014
423	75.678	0.182	3.23	95	1.7	-	72	-0.031	10.89	0.017
424	75.857	0.179	3.23	95	2.1	-	72	-0.033	10.91	0.013
425	76.036	0.179	3.23	95	1.6	-	72	-0.031	10.97	0.013
426	76.219	0.183	3.23	95	1.6	-	72	-0.031	10.94	0.012
427	76.396	0.177	3.23	95	1.6	-	72	-0.033	10.85	0.013
428	76.576	0.180	3.22	95	2.0	-	72	-0.033	10.78	0.013
429	76.758	0.182	3.22	95	2.2	-	72	-0.030	10.83	0.013
430	76.937	0.179	3.22	95	1.7	100	72	-0.031	10.81	0.012
431	77.115	0.178	3.22	94	1.9	-	72	-0.031	10.63	0.014
432	77.295	0.180	3.22	94	1.9	-	72	-0.029	10.76	0.015
433	77.477	0.182	3.22	94	1.6	-	72	-0.030	10.68	0.014
434	77.658	0.181	3.23	94	1.8	-	72	-0.032	10.57	0.011
435	77.837	0.179	3.23	94	1.8	-	72	-0.030	10.52	0.015
436	78.015	0.178	3.22	94	1.7	-	72	-0.031	10.54	0.014
437	78.196	0.181	3.22	94	2.1	-	72	-0.033	10.50	0.014
438	78.377	0.181	3.23	94	1.7	-	72	-0.031	10.47	0.014
439	78.557	0.180	3.23	94	1.7	-	72	-0.030	10.50	0.011
440	78.737	0.180	3.23	94	2.2	100	72	-0.030	10.42	0.014
441	78.921	0.184	3.22	94	2.1	-	72	-0.029	10.45	0.013
442	79.096	0.175	3.23	95	1.8	-	72	-0.031	10.38	0.017
443	79.278	0.182	3.22	94	2.2	-	72	-0.029	10.35	0.014
444	79.457	0.179	3.23	95	2.0	-	72	-0.029	10.37	0.017
445	79.638	0.181	3.22	94	2.0	-	72	-0.030	10.30	0.013
446	79.818	0.180	3.23	95	1.9	-	72	-0.030	10.27	0.011
447	79.999	0.181	3.22	94	1.6	-	72	-0.029	10.25	0.019

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
448	80.176	0.177	3.22	94	1.8	-	72	-0.029	10.18	0.016
449	80.357	0.181	3.23	95	2.2	-	72	-0.029	10.21	0.013
450	80.538	0.181	3.23	94	1.7	100	72	-0.028	10.15	0.014
451	80.717	0.179	3.23	94	1.7	-	72	-0.029	10.05	0.016
452	80.897	0.180	3.23	94	1.9	-	72	-0.029	10.02	0.017
453	81.077	0.180	3.23	94	1.7	-	72	-0.028	10.05	0.014
454	81.256	0.179	3.23	94	1.6	-	72	-0.030	10.07	0.013
455	81.437	0.181	3.22	94	1.7	-	72	-0.031	10.10	0.015
456	81.619	0.182	3.23	94	1.9	-	72	-0.030	9.99	0.013
457	81.799	0.180	3.23	94	2.0	-	72	-0.030	10.03	0.015
458	81.976	0.177	3.23	94	2.0	-	72	-0.030	9.98	0.014
459	82.156	0.180	3.23	94	2.1	-	72	-0.030	10.03	0.013
460	82.338	0.182	3.22	94	1.8	100	72	-0.031	10.03	0.015
461	82.519	0.181	3.23	94	1.6	-	72	-0.029	10.06	0.015
462	82.699	0.180	3.23	94	1.8	-	71	-0.029	10.01	0.012
463	82.878	0.179	3.23	94	2.0	-	72	-0.029	9.56	0.012
464	83.057	0.179	3.22	94	2.1	-	72	-0.028	9.30	0.015
465	83.237	0.180	3.22	94	1.7	-	71	-0.029	9.29	0.011
466	83.418	0.181	3.23	94	1.7	-	72	-0.031	9.32	0.013
467	83.600	0.182	3.23	94	1.8	-	72	-0.031	9.28	0.016
468	83.780	0.180	3.23	94	1.8	-	71	-0.028	9.24	0.013
469	83.957	0.177	3.23	94	2.1	-	71	-0.030	9.19	0.011
470	84.137	0.180	3.23	94	1.7	100	71	-0.027	9.19	0.014
471	84.319	0.182	3.23	94	2.1	-	71	-0.032	9.21	0.013
472	84.501	0.182	3.24	94	2.1	-	71	-0.030	9.22	0.014
473	84.680	0.179	3.24	94	2.1	-	71	-0.029	9.30	0.012
474	84.858	0.178	3.24	94	2.0	-	71	-0.029	9.30	0.014
475	85.038	0.180	3.23	94	2.1	-	71	-0.027	9.30	0.014
476	85.219	0.181	3.23	94	2.1	-	71	-0.027	9.35	0.012
477	85.400	0.181	3.23	94	1.6	-	71	-0.030	9.27	0.015
478	85.581	0.181	3.23	94	1.9	-	71	-0.029	9.40	0.013
479	85.761	0.180	3.23	94	1.6	-	71	-0.027	9.37	0.013

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
480	85.939	0.178	3.23	94	1.6	100	71	-0.028	9.43	0.015
481	86.118	0.179	3.22	94	2.1	-	71	-0.026	9.49	0.013
482	86.301	0.183	3.23	94	2.0	-	71	-0.027	9.48	0.016
483	86.482	0.181	3.23	94	1.8	-	71	-0.030	9.57	0.013
484	86.664	0.182	3.23	94	2.0	-	71	-0.028	9.54	0.013
485	86.839	0.175	3.23	94	1.7	-	71	-0.026	9.56	0.012
486	87.020	0.181	3.23	94	2.1	-	71	-0.027	9.61	0.012
487	87.201	0.181	3.23	94	1.7	-	71	-0.029	9.58	0.016
488	87.381	0.180	3.23	94	1.8	-	71	-0.028	9.65	0.011
489	87.562	0.181	3.23	94	1.6	-	71	-0.026	9.67	0.016
490	87.742	0.180	3.23	94	2.1	100	71	-0.027	9.70	0.014
491	87.920	0.178	3.24	94	2.0	-	71	-0.029	9.71	0.011
492	88.100	0.180	3.23	94	2.1	-	71	-0.030	9.68	0.014
493	88.282	0.182	3.23	94	1.8	-	71	-0.030	9.80	0.014
494	88.463	0.181	3.23	94	2.0	-	71	-0.031	9.84	0.015
495	88.642	0.179	3.23	94	1.8	-	71	-0.028	9.84	0.012
496	88.820	0.178	3.23	94	2.1	-	71	-0.028	9.83	0.013
497	89.001	0.181	3.23	94	2.1	-	71	-0.030	9.94	0.012
498	89.183	0.182	3.24	94	1.9	-	71	-0.029	9.93	0.011
499	89.363	0.180	3.24	94	1.8	-	71	-0.031	9.97	0.013
500	89.543	0.180	3.23	94	1.6	100	71	-0.029	9.98	0.016
501	89.723	0.180	3.23	94	2.1	-	71	-0.029	10.03	0.011
502	89.902	0.179	3.24	94	2.0	-	71	-0.029	10.04	0.015
503	90.082	0.180	3.24	94	2.1	-	71	-0.030	10.04	0.015
504	90.263	0.181	3.23	94	1.7	-	71	-0.029	10.08	0.012
505	90.445	0.182	3.23	94	1.8	-	71	-0.029	10.07	0.016
506	90.624	0.179	3.23	94	1.7	-	71	-0.028	10.08	0.013
507	90.802	0.178	3.23	94	2.1	-	71	-0.030	10.11	0.012
508	90.983	0.181	3.23	94	1.6	-	71	-0.029	10.12	0.015
509	91.164	0.181	3.23	94	1.9	-	71	-0.031	10.08	0.015
510	91.344	0.180	3.23	94	1.7	100	71	-0.029	10.25	0.011
511	91.525	0.181	3.23	94	2.0	-	71	-0.029	10.21	0.012

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1
Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
512	91.705	0.180	3.23	94	2.1	-	71	-0.029	10.36	0.013
513	91.886	0.181	3.23	94	1.9	-	71	-0.029	10.28	0.014
514	92.064	0.178	3.23	94	1.6	-	71	-0.031	10.25	0.012
515	92.244	0.180	3.23	94	2.1	-	71	-0.029	10.29	0.014
516	92.426	0.182	3.23	94	2.1	-	71	-0.031	10.26	0.013
517	92.606	0.180	3.24	94	1.8	-	71	-0.029	10.21	0.013
518	92.784	0.178	3.23	94	1.6	-	71	-0.030	10.25	0.014
519	92.964	0.180	3.23	94	1.9	-	71	-0.030	10.18	0.013
520	93.146	0.182	3.23	94	2.1	100	71	-0.033	10.17	0.014
521	93.326	0.180	3.23	94	1.9	-	71	-0.030	10.14	0.014
522	93.506	0.180	3.23	94	1.6	-	71	-0.031	10.20	0.015
523	93.690	0.184	3.23	94	1.6	-	71	-0.028	10.19	0.017
524	93.866	0.176	3.24	94	1.8	-	71	-0.029	10.24	0.016
525	94.046	0.180	3.23	94	1.8	-	71	-0.028	10.23	0.014
526	94.227	0.181	3.23	94	2.1	-	71	-0.030	10.23	0.014
527	94.412	0.185	3.23	94	2.1	-	71	-0.029	10.22	0.016
528	94.591	0.179	3.23	94	1.6	-	71	-0.030	10.25	0.015
529	94.769	0.178	3.23	94	1.7	-	71	-0.030	10.12	0.015
530	94.950	0.181	3.23	94	1.7	100	71	-0.030	10.16	0.014
531	95.128	0.178	3.23	94	2.1	-	71	-0.029	10.15	0.015
532	95.309	0.181	3.23	94	1.6	-	71	-0.031	10.02	0.017
533	95.489	0.180	3.23	94	2.0	-	71	-0.030	10.08	0.016
534	95.669	0.180	3.23	94	1.7	-	71	-0.031	10.26	0.014
535	95.848	0.179	3.23	94	1.8	-	71	-0.030	10.69	0.012
536	96.028	0.180	3.23	94	2.2	-	71	-0.030	10.94	0.017
537	96.209	0.181	3.23	94	2.1	-	71	-0.029	10.88	0.013
538	96.391	0.182	3.23	94	2.0	-	71	-0.031	10.82	0.016
539	96.573	0.182	3.23	94	2.1	-	71	-0.030	10.86	0.014
540	96.749	0.176	3.24	94	2.1	100	71	-0.030	10.85	0.018
541	96.929	0.180	3.23	94	1.9	-	71	-0.031	10.89	0.016
542	97.110	0.181	3.23	94	1.9	-	72	-0.031	10.91	0.014
543	97.291	0.181	3.23	94	2.1	-	72	-0.030	10.76	0.013

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1
Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
544	97.471	0.180	3.23	94	2.1	-	72	-0.029	10.75	0.020
545	97.651	0.180	3.23	95	2.1	-	72	-0.031	10.78	0.014
546	97.831	0.180	3.24	94	2.0	-	72	-0.031	10.63	0.018
547	98.010	0.179	3.23	94	1.9	-	72	-0.031	10.67	0.013
548	98.191	0.181	3.23	94	1.8	-	72	-0.032	10.62	0.017
549	98.373	0.182	3.23	94	1.8	-	72	-0.033	10.64	0.014
550	98.553	0.180	3.23	94	2.0	101	72	-0.031	10.63	0.016
551	98.734	0.181	3.23	94	2.0	-	72	-0.031	10.61	0.018
552	98.915	0.181	3.23	94	2.0	-	72	-0.033	10.55	0.014
553	99.093	0.178	3.23	94	1.8	-	72	-0.032	10.58	0.016
554	99.274	0.181	3.23	95	1.7	-	72	-0.029	10.68	0.016
555	99.454	0.180	3.23	95	2.0	-	72	-0.030	10.66	0.019
556	99.633	0.179	3.23	94	2.1	-	72	-0.032	10.59	0.016
557	99.813	0.180	3.23	95	1.8	-	72	-0.031	10.58	0.014
558	99.993	0.180	3.23	95	1.8	-	72	-0.033	10.58	0.013
559	100.174	0.181	3.23	95	2.1	-	72	-0.031	10.60	0.017
560	100.356	0.182	3.23	94	2.2	101	72	-0.033	10.61	0.015
561	100.538	0.182	3.23	95	2.1	-	72	-0.034	10.47	0.016
562	100.714	0.176	3.24	94	2.1	-	72	-0.031	10.53	0.019
563	100.893	0.179	3.23	94	1.8	-	72	-0.032	10.55	0.016
564	101.079	0.186	3.23	95	2.0	-	72	-0.033	10.59	0.017
565	101.259	0.180	3.23	95	1.8	-	72	-0.031	10.60	0.018
566	101.436	0.177	3.23	95	1.9	-	72	-0.030	10.61	0.017
567	101.616	0.180	3.23	94	2.0	-	72	-0.034	10.50	0.017
568	101.795	0.179	3.23	94	1.7	-	72	-0.032	10.52	0.016
569	101.975	0.180	3.23	95	1.9	-	72	-0.034	10.42	0.013
570	102.156	0.181	3.22	94	1.6	100	72	-0.032	10.46	0.015
571	102.338	0.182	3.23	95	2.1	-	72	-0.028	10.44	0.016
572	102.518	0.180	3.23	95	1.6	-	72	-0.031	10.54	0.059
573	102.696	0.178	3.23	95	2.1	-	72	-0.032	10.39	0.014
574	102.875	0.179	3.23	94	1.6	-	72	-0.030	10.26	0.017
575	103.058	0.183	3.23	95	1.7	-	72	-0.031	10.14	0.018

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
576	103.239	0.181	3.23	94	1.7	-	72	-0.031	9.93	0.015
577	103.419	0.180	3.23	94	1.7	-	72	-0.029	9.80	0.014
578	103.598	0.179	3.23	94	1.6	-	72	-0.030	9.85	0.014
579	103.777	0.179	3.22	94	1.6	-	72	-0.030	9.79	0.014
580	103.957	0.180	3.22	94	1.6	100	72	-0.034	9.74	0.013
581	104.138	0.181	3.22	95	2.1	-	72	-0.030	9.76	0.015
582	104.320	0.182	3.23	94	1.6	-	72	-0.030	9.75	0.013
583	104.501	0.181	3.24	94	1.6	-	72	-0.029	9.65	0.014
584	104.678	0.177	3.23	95	1.9	-	72	-0.029	9.70	0.011
585	104.858	0.180	3.23	94	2.1	-	72	-0.028	9.66	0.012
586	105.040	0.182	3.22	95	2.2	-	72	-0.029	9.55	0.015
587	105.221	0.181	3.24	95	1.6	-	72	-0.030	9.57	0.012
588	105.401	0.180	3.23	94	2.1	-	72	-0.030	9.63	0.016
589	105.580	0.179	3.23	95	1.8	-	72	-0.031	9.57	0.013
590	105.760	0.180	3.22	95	1.7	100	72	-0.028	9.54	0.013
591	105.940	0.180	3.23	95	1.9	-	72	-0.029	9.49	0.011
592	106.121	0.181	3.23	95	1.6	-	72	-0.029	9.48	0.012
593	106.302	0.181	3.23	94	2.1	-	72	-0.028	9.49	0.014
594	106.483	0.181	3.23	94	2.1	-	72	-0.028	9.44	0.015
595	106.660	0.177	3.23	94	2.1	-	72	-0.028	9.51	0.013
596	106.840	0.180	3.23	94	1.7	-	72	-0.025	9.49	0.014
597	107.022	0.182	3.23	95	2.0	-	72	-0.028	9.48	0.015
598	107.204	0.182	3.23	95	2.1	-	72	-0.028	9.49	0.016
599	107.383	0.179	3.24	95	2.1	-	72	-0.030	9.49	0.015
600	107.563	0.180	3.23	95	1.6	100	72	-0.029	9.54	0.012
601	107.742	0.179	3.23	95	1.6	-	72	-0.028	9.53	0.011
602	107.923	0.181	3.23	95	2.1	-	72	-0.027	9.57	0.012
603	108.104	0.181	3.23	94	1.7	-	72	-0.028	9.47	0.014
604	108.285	0.181	3.23	95	1.7	-	72	-0.029	9.49	0.014
605	108.466	0.181	3.24	94	1.7	-	72	-0.026	9.56	0.016
606	108.643	0.177	3.23	95	1.7	-	72	-0.027	9.49	0.014
607	108.823	0.180	3.23	95	2.1	-	72	-0.026	9.50	0.011

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
608	109.005	0.182	3.23	94	1.6	-	72	-0.028	9.55	0.013
609	109.187	0.182	3.24	95	1.7	-	72	-0.029	9.50	0.014
610	109.366	0.179	3.24	94	2.1	100	72	-0.028	9.49	0.013
Avg/Tot	109.366	0.179	3.21	92.8	1.9	100	72.5	-0.037	9.36	0.260

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	-0.001		0.00	71	0.0		70
1	0.112	0.113	0.92	71	1.5	-	71
2	0.250	0.138	0.93	70	1.6	-	71
3	0.387	0.137	0.93	70	1.5	-	71
4	0.526	0.139	0.94	71	1.7	-	71
5	0.664	0.138	0.93	71	1.5	-	71
6	0.805	0.141	0.95	71	1.7	-	71
7	0.943	0.138	0.95	71	1.5	-	71
8	1.082	0.139	0.95	71	1.5	-	71
9	1.224	0.142	0.96	71	1.6	-	71
10	1.365	0.141	0.96	72	1.7	97	71
11	1.505	0.140	0.97	72	1.5	-	71
12	1.648	0.143	0.97	72	1.7	-	71
13	1.789	0.141	0.97	72	1.6	-	71
14	1.930	0.141	0.97	72	1.7	-	71
15	2.073	0.143	0.98	72	1.5	-	71
16	2.215	0.142	0.98	73	1.6	-	71
17	2.348	0.133	0.97	73	1.8	-	71
18	2.490	0.142	0.98	73	1.5	-	71
19	2.632	0.142	0.97	73	1.6	-	71
20	2.773	0.141	0.97	74	1.7	99	71
21	2.917	0.144	0.98	74	1.6	-	71
22	3.059	0.142	0.98	74	1.6	-	71
23	3.201	0.142	0.97	74	1.7	-	71
24	3.343	0.142	0.98	74	1.6	-	71
25	3.488	0.145	0.99	74	1.7	-	71
26	3.631	0.143	0.99	75	1.6	-	71
27	3.774	0.143	0.98	75	1.7	-	71
28	3.917	0.143	0.99	75	1.7	-	71
29	4.061	0.144	1.00	76	1.7	-	71
30	4.206	0.145	1.00	76	1.6	100	71
31	4.350	0.144	0.99	77	1.8	-	71

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.494	0.144	0.99	77	1.8	-	71
33	4.638	0.144	0.99	77	1.7	-	71
34	4.783	0.145	1.00	77	1.7	-	71
35	4.929	0.146	1.01	78	1.8	-	71
36	5.074	0.145	1.01	78	1.6	-	71
37	5.220	0.146	1.01	78	1.7	-	71
38	5.365	0.145	1.01	79	1.7	-	71
39	5.510	0.145	1.00	79	1.6	-	71
40	5.656	0.146	1.01	79	1.6	101	71
41	5.802	0.146	1.01	80	1.8	-	71
42	5.949	0.147	1.02	80	1.7	-	71
43	6.096	0.147	1.02	80	1.7	-	71
44	6.242	0.146	1.02	80	1.8	-	71
45	6.389	0.147	1.02	80	1.7	-	71
46	6.535	0.146	1.01	80	1.8	-	71
47	6.682	0.147	1.02	80	1.8	-	71
48	6.829	0.147	1.01	80	1.8	-	71
49	6.976	0.147	1.01	81	1.7	-	71
50	7.123	0.147	1.01	80	1.7	101	71
51	7.269	0.146	1.02	80	1.8	-	71
52	7.417	0.148	1.02	81	1.7	-	71
53	7.565	0.148	1.03	81	1.8	-	71
54	7.713	0.148	1.03	81	1.6	-	71
55	7.861	0.148	1.03	81	1.6	-	71
56	8.008	0.147	1.03	81	1.7	-	71
57	8.156	0.148	1.03	81	1.6	-	71
58	8.304	0.148	1.03	82	1.6	-	71
59	8.452	0.148	1.03	82	1.6	-	71
60	8.599	0.147	1.03	82	1.6	102	72
Avg/Tot	8.600	0.143	0.97	76.1	1.6	100	71.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	346	309	234	354	411	330.7	555.8
1	344	305	234	353	410	329.3	532.1
2	341	301	221	349	410	324.5	516.5
3	337	297	211	346	410	319.9	510.2
4	333	292	204	343	409	316.1	520.7
5	328	288	198	341	409	312.7	540.6
6	324	283	194	341	409	309.9	561.2
7	319	279	190	340	408	307.3	579.0
8	316	275	187	340	408	305.2	596.0
9	312	271	184	341	408	303.2	612.7
10	309	268	182	344	407	301.8	629.7
11	306	264	180	348	407	300.7	645.3
12	302	261	178	350	406	299.4	655.7
13	299	258	177	353	406	298.3	658.9
14	296	255	176	355	405	297.3	657.2
15	293	252	175	357	405	296.1	653.4
16	290	250	174	357	404	295.1	650.9
17	288	248	173	358	404	294.1	649.7
18	286	246	173	359	404	293.4	649.5
19	284	245	172	359	403	292.7	649.4
20	283	243	172	360	403	292.1	650.1
21	281	242	171	360	403	291.5	651.3
22	280	241	171	361	402	291.0	652.7
23	279	240	171	361	402	290.5	654.2
24	277	240	171	361	401	290.0	656.5
25	276	239	171	362	401	289.8	659.9
26	275	239	171	363	401	289.6	663.9
27	274	239	172	364	401	289.7	669.0
28	273	239	172	365	400	289.7	674.9
29	272	239	173	366	400	289.9	680.7
30	271	239	173	367	400	290.0	685.7
31	271	239	172	368	400	289.9	687.4
32	270	239	173	370	400	290.2	687.4
33	269	239	172	371	400	290.2	687.0
34	268	239	172	373	399	290.3	687.6
35	268	239	171	372	399	289.8	690.0
36	267	240	170	374	399	290.2	694.3
37	267	240	170	376	399	290.2	699.1
38	266	240	169	377	399	290.4	706.7
39	266	241	169	379	400	290.8	716.3
40	265	241	169	381	400	291.4	727.3
41	265	242	169	384	400	292.1	738.0
42	265	243	169	387	400	292.9	747.6
43	265	243	170	390	400	293.7	756.1
44	265	244	170	393	401	294.5	764.9
45	265	245	170	397	401	295.6	773.0
46	266	246	171	401	401	296.8	780.1
47	266	246	171	404	401	297.8	785.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	266	247	172	407	402	298.9	789.8
49	267	248	173	411	402	300.1	793.7
50	267	249	173	414	402	301.2	797.1
51	268	250	174	417	403	302.2	800.1
52	268	251	175	420	403	303.4	802.9
53	269	253	175	422	403	304.4	805.1
54	269	254	176	425	404	305.5	807.1
55	270	255	176	428	404	306.6	809.7
56	271	256	177	430	404	307.6	813.0
57	271	257	178	433	405	308.8	816.9
58	272	258	179	435	405	309.8	820.5
59	273	260	179	438	406	311.1	824.9
60	274	261	180	441	406	312.3	830.4
61	275	262	181	443	406	313.4	836.3
62	275	264	181	446	407	314.7	842.7
63	276	265	182	449	407	315.9	849.5
64	277	266	183	453	408	317.2	856.3
65	278	267	184	456	408	318.7	862.1
66	279	269	185	459	408	319.9	865.4
67	280	270	186	463	409	321.4	866.9
68	280	271	186	466	409	322.7	867.0
69	281	272	187	469	410	323.8	865.5
70	282	273	188	470	410	324.7	862.9
71	283	274	188	472	410	325.7	860.5
72	284	275	189	474	411	326.7	858.9
73	285	276	190	475	411	327.5	856.6
74	286	277	191	476	412	328.2	853.8
75	286	278	191	477	412	328.8	850.7
76	287	279	192	478	412	329.5	847.8
77	288	279	193	478	413	330.0	844.7
78	289	280	193	478	413	330.5	842.4
79	289	281	194	478	413	330.9	840.5
80	290	281	194	478	413	331.4	839.6
81	290	282	195	478	414	331.9	839.9
82	291	283	196	479	414	332.3	841.7
83	292	283	196	479	414	332.9	845.1
84	293	284	197	480	414	333.6	848.5
85	294	285	197	481	415	334.3	850.5
86	294	286	198	482	415	335.0	853.5
87	295	287	199	484	415	335.8	857.4
88	296	287	199	486	415	336.6	861.5
89	297	288	200	488	416	337.6	865.2
90	298	289	201	490	416	338.4	869.3
91	299	290	201	492	416	339.5	873.5
92	299	290	202	494	416	340.4	877.6
93	300	291	203	497	416	341.4	882.2
94	301	292	203	499	416	342.5	886.2
95	302	293	204	502	417	343.5	889.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	303	294	205	505	417	344.6	892.6
97	304	295	205	507	417	345.5	894.6
98	305	296	206	508	417	346.2	895.4
99	305	297	206	511	417	347.3	895.2
100	306	298	207	514	417	348.3	894.0
101	307	299	207	515	417	349.0	893.4
102	307	299	208	517	417	349.7	893.9
103	308	300	208	519	417	350.4	893.5
104	309	301	209	520	417	351.0	893.1
105	309	302	209	521	417	351.6	892.5
106	310	302	209	522	417	352.0	892.4
107	310	303	210	523	418	352.8	892.3
108	311	304	211	524	418	353.3	891.7
109	311	305	212	524	418	353.8	890.9
110	312	305	212	524	418	354.2	889.4
111	312	306	213	525	418	354.6	886.8
112	313	307	213	525	418	355.0	885.4
113	313	307	214	525	418	355.4	885.1
114	314	308	214	525	418	356.0	880.4
115	315	310	215	526	418	356.5	873.3
116	315	311	215	525	418	356.8	866.8
117	316	312	215	525	418	357.2	862.6
118	317	313	216	524	418	357.4	859.5
119	317	314	216	524	418	357.8	857.2
120	318	315	216	524	418	357.9	854.0
121	319	315	216	523	418	358.0	850.8
122	319	316	216	522	417	358.1	848.3
123	320	317	216	520	417	358.0	846.1
124	320	317	216	521	416	358.2	844.4
125	321	318	216	520	416	358.1	843.4
126	321	318	216	519	415	357.9	843.7
127	321	318	216	518	415	357.6	844.3
128	321	318	216	517	414	357.3	845.0
129	321	318	216	515	413	356.8	846.5
130	321	318	217	515	413	356.6	848.9
131	321	319	217	514	412	356.4	852.1
132	321	319	217	513	411	356.1	855.6
133	321	319	217	513	411	356.1	860.0
134	320	320	217	513	410	356.0	865.2
135	320	320	217	514	409	356.0	871.2
136	320	320	217	514	409	356.0	876.7
137	319	321	217	516	408	356.1	887.8
138	318	321	217	518	408	356.4	908.1
139	318	321	217	523	407	357.3	934.7
140	318	322	217	529	407	358.5	959.0
141	317	322	218	537	407	360.1	979.1
142	317	323	218	545	406	361.7	994.0
143	317	323	219	554	406	363.7	1005.5

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	317	324	219	562	406	365.5	1014.2
145	317	324	220	570	406	367.4	1020.1
146	317	325	220	578	406	369.1	1023.3
147	317	325	221	585	406	370.7	1024.5
148	317	326	221	591	405	372.1	1023.0
149	318	326	222	596	405	373.3	1020.0
150	318	327	223	599	405	374.3	1015.9
151	318	327	223	603	405	375.1	1011.4
152	318	328	223	605	404	375.7	1007.2
153	319	328	224	607	404	376.1	1002.9
154	319	328	224	608	403	376.3	997.7
155	319	328	224	608	403	376.6	991.2
156	320	329	224	608	403	376.6	984.0
157	320	329	226	607	402	376.7	976.3
158	321	329	227	605	402	376.6	969.0
159	321	329	228	603	401	376.4	961.5
160	321	329	228	601	400	376.0	955.5
161	321	329	229	599	400	375.6	950.2
162	321	329	229	596	399	375.0	945.6
163	322	329	230	594	399	374.5	942.2
164	322	329	230	592	398	374.1	939.3
165	322	329	231	590	398	373.7	936.9
166	322	329	231	588	397	373.3	935.2
167	323	328	231	586	396	372.8	934.5
168	323	328	231	585	396	372.6	933.6
169	323	328	231	583	396	372.3	933.4
170	323	328	231	582	395	372.0	934.1
171	324	328	231	582	395	371.9	935.1
172	324	328	231	581	394	371.7	936.2
173	324	328	231	581	394	371.6	937.0
174	324	328	231	581	394	371.5	938.1
175	325	328	231	581	393	371.6	938.8
176	325	328	231	581	393	371.5	938.4
177	325	329	231	581	392	371.6	937.2
178	325	329	231	581	392	371.6	936.0
179	326	329	231	581	392	371.7	935.3
180	326	329	231	581	392	371.6	933.1
181	326	328	231	581	391	371.5	931.3
182	327	329	231	581	391	371.5	929.5
183	327	329	231	581	391	371.6	928.4
184	327	329	232	580	390	371.6	926.8
185	327	329	232	580	390	371.5	925.9
186	327	329	232	580	390	371.6	924.7
187	328	329	232	579	390	371.5	923.8
188	328	329	232	579	389	371.5	922.9
189	328	329	232	579	389	371.5	922.3
190	328	329	233	578	389	371.5	921.4
191	329	330	233	578	389	371.5	921.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	329	330	233	578	389	371.6	920.9
193	329	330	233	578	388	371.5	920.7
194	329	330	233	577	388	371.5	920.4
195	330	330	233	577	388	371.6	920.1
196	330	330	233	576	388	371.5	919.8
197	330	330	233	577	388	371.7	920.0
198	330	331	233	576	388	371.6	921.3
199	330	331	233	577	388	371.8	922.1
200	331	331	233	576	388	371.9	922.8
201	331	331	234	576	387	371.9	922.9
202	331	332	234	576	387	372.0	923.3
203	332	332	234	576	387	372.1	923.1
204	332	332	234	576	387	372.2	923.9
205	332	332	234	576	387	372.3	924.8
206	332	333	234	576	387	372.3	925.1
207	333	333	233	575	387	372.3	924.6
208	333	333	233	575	387	372.3	924.4
209	334	333	233	574	387	372.2	923.4
210	334	333	233	574	387	372.3	922.5
211	334	334	233	573	387	372.0	921.5
212	334	334	232	572	387	371.8	920.6
213	335	334	232	572	387	371.8	919.8
214	335	334	232	572	387	371.9	919.4
215	335	334	232	572	387	371.8	918.5
216	336	334	231	571	387	371.7	917.8
217	336	334	231	570	387	371.5	916.8
218	336	334	231	570	387	371.6	915.5
219	337	334	231	569	387	371.4	914.1
220	337	334	230	568	387	371.3	912.8
221	337	334	230	567	387	371.1	911.5
222	338	335	230	567	386	371.0	910.0
223	338	335	230	566	386	370.9	908.6
224	338	335	230	565	386	370.8	907.6
225	338	335	230	564	386	370.6	906.3
226	338	335	230	563	386	370.4	904.8
227	338	335	230	562	386	370.4	903.0
228	338	335	231	561	386	370.3	901.3
229	339	335	231	560	387	370.1	899.2
230	339	336	231	559	387	370.0	897.6
231	339	336	231	558	387	369.8	895.7
232	339	336	231	556	387	369.6	894.1
233	339	336	231	555	387	369.5	892.6
234	339	336	231	554	387	369.3	891.5
235	339	336	231	553	387	369.3	890.8
236	339	337	231	552	388	369.2	890.4
237	339	336	231	551	388	369.0	890.5
238	339	337	231	551	388	369.0	891.1
239	339	337	231	550	388	369.0	891.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	339	337	231	550	389	369.2	892.1
241	339	337	231	550	389	369.3	892.6
242	340	337	232	550	389	369.4	893.0
243	340	338	232	549	389	369.6	892.7
244	340	338	233	549	390	369.8	892.1
245	340	338	233	549	390	370.0	890.8
246	340	338	234	549	390	370.2	889.4
247	340	339	234	548	391	370.3	887.6
248	341	339	235	547	391	370.4	886.0
249	341	339	235	547	391	370.6	884.5
250	341	339	235	546	392	370.7	882.5
251	341	339	236	545	392	370.9	880.8
252	341	340	237	544	393	371.0	879.2
253	342	340	237	543	393	371.1	877.8
254	342	341	238	543	394	371.3	876.7
255	342	341	238	542	394	371.4	875.9
256	342	341	239	541	395	371.6	875.7
257	342	341	239	541	395	371.8	875.6
258	343	342	240	541	396	372.2	876.0
259	342	342	240	540	396	372.3	876.5
260	343	342	241	540	397	372.5	877.5
261	343	343	241	540	398	372.7	878.8
262	343	343	241	540	398	373.0	880.3
263	343	343	242	540	399	373.3	881.8
264	343	344	242	541	399	373.7	883.4
265	344	344	243	541	400	374.4	883.0
266	344	344	245	542	401	375.2	883.6
267	345	345	247	541	401	375.8	878.4
268	346	345	248	540	402	376.2	870.9
269	347	346	250	538	403	376.5	863.6
270	348	346	251	535	404	376.8	857.2
271	349	347	253	533	405	377.1	852.4
272	349	347	253	531	406	377.1	848.7
273	350	348	253	529	407	377.1	849.5
274	350	348	253	528	408	377.3	855.8
275	350	348	253	528	408	377.6	863.9
276	350	349	254	529	409	378.1	871.6
277	350	349	254	531	410	378.9	877.1
278	350	349	255	533	411	379.5	880.0
279	350	349	255	535	412	380.1	881.4
280	350	350	256	536	412	380.7	881.7
281	350	350	256	537	413	381.3	881.3
282	350	350	257	538	413	381.8	880.3
283	350	350	258	539	414	382.2	879.2
284	351	351	259	539	414	382.6	878.2
285	351	351	260	540	414	383.0	877.1
286	351	351	260	540	415	383.3	875.7
287	351	351	261	540	415	383.6	874.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	351	351	262	540	415	383.9	874.2
289	351	352	263	540	415	384.2	873.6
290	351	352	264	540	416	384.4	872.5
291	351	352	264	540	416	384.6	871.7
292	351	352	265	540	416	384.8	869.9
293	351	352	265	539	417	384.9	867.8
294	351	352	266	539	417	385.0	866.2
295	352	353	266	539	418	385.2	864.6
296	352	353	266	539	418	385.4	863.6
297	352	353	266	538	419	385.5	862.3
298	352	353	267	538	419	385.6	860.6
299	352	353	267	537	420	385.8	859.6
300	352	353	268	537	420	385.9	858.9
301	352	353	268	536	420	386.0	858.3
302	353	353	268	536	421	386.1	858.4
303	353	353	268	536	421	386.1	857.2
304	353	353	268	535	422	386.2	855.6
305	353	353	268	535	422	386.3	853.9
306	353	353	268	535	422	386.3	852.4
307	353	353	269	534	423	386.4	850.9
308	354	353	269	534	423	386.5	849.9
309	354	353	269	533	423	386.5	848.8
310	354	353	269	533	424	386.5	847.6
311	354	353	269	533	424	386.6	846.6
312	354	354	269	532	424	386.5	845.2
313	354	354	270	532	424	386.7	844.1
314	355	354	270	531	424	386.7	842.8
315	355	354	270	531	424	386.7	841.4
316	355	354	270	530	425	386.8	840.3
317	355	354	271	530	425	386.8	839.2
318	355	354	272	530	425	387.1	838.3
319	356	354	272	529	425	387.2	837.2
320	356	354	273	529	425	387.3	836.4
321	356	354	274	529	426	387.6	835.9
322	357	354	274	528	426	387.7	834.9
323	357	354	275	527	426	387.7	834.1
324	357	354	275	528	426	388.0	833.3
325	357	354	276	526	426	387.9	832.8
326	358	354	276	527	426	388.4	832.5
327	358	354	277	526	427	388.5	832.0
328	358	354	278	526	427	388.7	831.7
329	359	354	279	526	427	388.9	831.6
330	359	355	279	526	427	389.1	831.5
331	359	355	280	525	427	389.4	831.5
332	360	355	281	525	427	389.7	831.3
333	360	355	282	525	427	389.8	831.3
334	361	355	283	524	428	390.3	831.1
335	361	356	284	524	428	390.5	830.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	362	356	285	524	428	390.7	829.1
337	362	356	286	523	428	390.9	827.9
338	362	356	287	522	428	391.1	826.2
339	362	356	288	521	428	391.1	824.5
340	363	356	288	521	429	391.2	822.7
341	363	357	288	520	429	391.1	820.2
342	364	357	288	519	429	391.0	818.0
343	364	357	288	517	429	390.9	815.6
344	364	357	287	516	429	390.5	813.1
345	364	357	287	515	429	390.2	810.4
346	364	357	286	513	429	389.8	806.8
347	364	357	285	512	429	389.4	803.2
348	365	357	285	511	429	389.2	799.3
349	365	357	285	509	429	388.9	795.6
350	365	357	285	508	429	388.6	791.7
351	365	357	285	506	429	388.2	788.0
352	365	357	285	504	429	387.7	784.4
353	364	356	284	503	429	387.3	780.8
354	364	356	284	502	428	386.8	777.5
355	364	356	283	501	428	386.4	774.2
356	364	356	283	499	428	385.9	771.2
357	364	355	283	498	428	385.5	768.1
358	364	355	283	497	428	385.1	765.3
359	364	355	282	495	427	384.6	762.7
360	363	354	282	495	427	384.2	760.1
361	362	354	282	493	427	383.5	757.8
362	362	354	282	492	426	383.1	756.6
363	361	353	282	491	426	382.6	755.8
364	360	353	281	490	426	381.9	755.9
365	359	352	281	490	425	381.5	756.6
366	359	351	281	489	425	381.0	758.4
367	358	351	281	489	425	380.5	760.9
368	357	350	280	489	424	380.0	764.1
369	357	350	279	488	424	379.5	767.4
370	356	349	279	488	424	379.0	771.7
371	355	348	278	487	423	378.5	778.4
372	355	347	278	486	423	377.7	790.7
373	354	347	277	487	422	377.4	805.5
374	353	346	277	487	422	377.0	801.4
375	353	345	276	486	422	376.2	783.2
376	353	345	275	485	421	375.6	763.5
377	352	344	275	481	421	374.4	747.5
378	352	343	274	479	420	373.5	735.3
379	351	342	274	475	420	372.3	725.5
380	351	342	274	472	419	371.4	717.4
381	351	341	273	469	418	370.5	711.3
382	350	340	273	465	418	369.1	706.3
383	350	340	272	462	417	368.1	702.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	349	339	272	460	417	367.4	698.8
385	349	339	272	457	416	366.6	696.4
386	348	338	272	454	415	365.6	694.7
387	348	338	272	452	415	364.9	694.2
388	348	337	272	450	414	364.1	694.2
389	347	337	272	448	414	363.5	694.7
390	347	336	271	447	413	363.0	695.5
391	347	336	271	446	413	362.5	696.9
392	347	336	271	445	413	362.3	699.0
393	346	335	271	445	412	362.0	701.6
394	346	335	272	444	412	361.8	704.4
395	346	335	272	444	412	361.7	707.4
396	345	335	272	445	412	361.7	710.6
397	345	335	272	445	411	361.6	714.0
398	345	335	272	445	411	361.6	717.8
399	344	335	273	447	411	361.8	722.9
400	344	335	273	448	411	362.2	728.6
401	344	336	274	449	411	362.7	734.7
402	343	336	274	450	411	362.9	740.6
403	343	336	275	452	411	363.5	746.2
404	343	337	275	454	412	364.1	751.1
405	343	337	275	457	412	364.8	755.4
406	343	338	276	459	412	365.6	759.0
407	343	338	277	461	412	366.2	761.7
408	343	339	278	463	412	366.8	763.8
409	343	339	278	464	413	367.5	765.4
410	343	340	279	466	413	368.1	766.8
411	343	340	280	467	413	368.7	767.8
412	344	341	281	468	413	369.2	768.6
413	344	342	282	469	413	370.0	769.3
414	344	342	283	470	413	370.4	770.0
415	344	343	284	471	413	370.8	771.0
416	345	343	284	473	413	371.5	771.8
417	345	344	285	473	413	372.0	772.2
418	345	344	286	474	413	372.6	772.7
419	346	345	287	474	413	373.1	773.1
420	346	346	288	476	413	373.7	773.2
421	346	346	289	476	413	374.2	773.3
422	347	346	290	477	414	374.6	773.5
423	347	347	291	477	414	375.1	773.4
424	347	347	292	478	414	375.6	773.1
425	348	348	293	478	414	376.0	772.6
426	348	348	294	478	414	376.4	772.2
427	348	348	296	478	414	376.8	771.5
428	349	349	297	478	414	377.1	770.6
429	349	349	298	478	414	377.5	769.2
430	349	349	299	478	414	377.8	767.6
431	350	349	301	478	413	378.1	766.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
432	350	349	302	478	413	378.3	764.0
433	350	349	303	477	413	378.5	761.8
434	350	349	304	477	413	378.5	759.7
435	351	350	304	476	412	378.5	757.6
436	351	350	305	475	412	378.5	755.5
437	351	350	306	475	412	378.5	753.5
438	351	350	306	474	411	378.3	751.1
439	351	350	307	473	411	378.4	748.9
440	351	350	307	472	411	378.1	746.6
441	351	350	308	471	410	377.8	744.4
442	351	350	308	470	410	377.6	742.1
443	351	349	308	470	409	377.3	739.9
444	351	349	308	468	409	377.0	737.9
445	351	349	309	467	408	376.7	735.7
446	351	349	308	466	408	376.3	733.5
447	351	349	308	465	407	375.8	731.5
448	351	348	308	463	406	375.3	729.3
449	350	349	308	462	406	374.9	727.2
450	350	349	309	461	405	374.8	725.2
451	350	348	308	461	405	374.4	723.0
452	350	348	308	459	404	373.9	721.2
453	350	348	308	458	403	373.4	719.1
454	349	347	308	457	403	372.9	717.2
455	349	347	309	456	402	372.5	715.2
456	349	347	309	454	402	372.0	713.2
457	349	346	307	454	401	371.3	711.8
458	348	346	306	452	400	370.4	710.2
459	348	345	306	452	400	370.1	708.8
460	348	345	306	450	399	369.5	707.1
461	348	345	306	449	398	369.1	706.0
462	347	344	307	448	398	368.9	704.3
463	347	344	307	447	397	368.5	702.8
464	347	343	307	446	397	367.9	700.8
465	346	343	306	445	397	367.5	698.2
466	346	343	306	444	397	366.8	694.9
467	345	342	305	442	396	366.1	691.6
468	345	342	304	441	396	365.6	688.5
469	344	341	304	440	396	364.9	685.8
470	344	341	303	438	396	364.2	683.4
471	344	340	302	436	396	363.6	681.4
472	343	340	301	435	395	362.8	679.5
473	343	339	301	434	395	362.3	678.0
474	342	339	300	432	395	361.7	676.7
475	342	339	300	431	395	361.2	675.5
476	341	338	300	430	394	360.6	674.5
477	341	338	299	429	394	360.2	673.6
478	341	337	299	428	394	359.8	672.8
479	340	337	299	427	394	359.3	672.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
480	340	337	299	426	394	359.0	671.8
481	339	336	299	426	393	358.6	671.7
482	339	336	298	425	393	358.2	671.8
483	339	336	298	424	393	357.9	672.2
484	339	335	298	424	393	357.6	672.6
485	338	335	298	423	393	357.3	673.1
486	338	335	297	423	393	357.0	673.8
487	338	334	297	422	393	356.8	674.5
488	338	334	297	422	392	356.7	675.1
489	338	334	297	422	392	356.6	675.9
490	338	334	297	422	392	356.5	676.7
491	338	333	296	422	392	356.3	677.8
492	338	333	296	421	392	356.2	678.8
493	338	333	296	422	392	356.1	679.8
494	338	333	296	422	392	356.1	680.8
495	338	333	296	422	392	356.2	681.8
496	338	333	296	421	392	356.0	683.2
497	338	332	296	422	392	356.1	684.2
498	338	332	296	423	392	356.3	685.4
499	338	332	296	423	392	356.3	686.6
500	338	332	296	423	392	356.3	687.9
501	338	332	296	423	392	356.4	689.0
502	339	332	296	424	393	356.5	689.9
503	339	332	296	424	393	356.6	691.0
504	339	332	296	425	393	356.8	692.0
505	339	331	296	425	393	356.8	693.1
506	340	331	296	426	393	357.1	694.0
507	340	331	296	424	393	356.9	694.9
508	341	331	296	426	393	357.3	695.6
509	341	331	294	427	393	357.0	696.1
510	341	331	293	427	393	356.9	696.8
511	341	331	292	428	393	356.9	697.9
512	342	331	292	428	393	357.0	699.1
513	342	331	291	428	392	357.0	700.3
514	342	331	291	429	392	357.2	701.4
515	342	331	291	428	392	357.0	702.4
516	343	331	291	430	392	357.5	703.2
517	343	331	291	431	392	357.7	703.9
518	343	331	291	431	392	357.8	704.1
519	344	331	291	431	392	358.0	704.3
520	344	332	291	431	392	357.9	704.3
521	344	332	291	432	392	358.2	704.2
522	344	332	292	432	392	358.4	704.3
523	345	332	292	432	392	358.5	704.2
524	345	332	292	432	392	358.6	704.0
525	345	332	292	432	393	358.8	703.9
526	346	332	292	432	393	358.8	703.8
527	346	332	292	433	393	359.1	703.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
528	347	332	292	432	393	359.0	703.6
529	347	332	293	433	393	359.3	703.2
530	347	332	292	433	393	359.3	703.0
531	348	332	293	432	393	359.2	702.7
532	348	331	292	432	393	359.3	702.3
533	348	331	290	432	393	358.8	701.7
534	348	332	287	432	393	358.3	702.4
535	348	332	286	432	393	358.1	704.1
536	348	331	286	433	393	358.1	707.5
537	348	331	285	434	393	358.2	712.4
538	349	331	286	434	393	358.4	717.2
539	349	332	287	436	393	359.1	721.4
540	349	331	288	437	393	359.5	724.9
541	349	332	288	438	393	359.9	727.8
542	349	332	289	439	393	360.4	730.1
543	349	332	289	441	393	360.8	731.7
544	349	332	289	441	393	361.0	732.8
545	349	333	289	443	393	361.6	733.5
546	350	333	290	444	393	361.9	733.7
547	350	334	290	444	394	362.2	733.7
548	350	334	290	445	394	362.5	733.5
549	351	334	290	446	394	362.7	733.3
550	351	334	289	446	394	362.8	733.1
551	351	335	289	447	394	363.1	733.2
552	352	335	289	447	394	363.2	733.1
553	352	335	290	447	393	363.4	733.1
554	352	336	290	447	393	363.7	733.3
555	352	336	291	448	393	364.0	733.5
556	353	337	291	448	393	364.1	733.8
557	353	337	291	448	393	364.5	733.9
558	353	338	292	449	393	364.8	734.1
559	353	338	292	449	393	364.9	733.9
560	353	339	293	448	393	364.9	734.0
561	353	339	293	449	393	365.1	734.0
562	353	339	293	450	393	365.5	733.9
563	353	340	293	450	392	365.6	733.6
564	353	340	294	450	392	365.8	733.2
565	353	341	294	450	392	365.9	733.0
566	353	341	294	449	392	366.0	732.6
567	353	342	294	449	392	366.0	732.3
568	353	342	294	449	392	366.1	731.8
569	353	342	295	449	392	366.2	731.1
570	353	343	295	449	392	366.2	730.4
571	353	344	292	449	392	365.8	726.4
572	353	344	290	448	392	365.3	726.4
573	354	345	288	447	392	365.2	719.9
574	354	346	288	443	392	364.7	706.0
575	355	347	287	441	393	364.7	689.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

Stove ΔT: 25

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
576	355	348	287	437	393	364.0	672.8
577	356	349	288	433	394	363.8	658.5
578	357	349	288	427	395	363.2	646.6
579	357	350	288	423	396	362.7	637.2
580	358	350	289	419	397	362.4	629.5
581	358	351	289	414	398	362.0	623.6
582	359	351	290	410	399	361.7	619.1
583	360	352	290	407	400	361.7	615.3
584	360	352	290	404	401	361.2	612.2
585	361	352	289	401	402	360.8	609.3
586	361	352	289	397	403	360.5	606.6
587	361	352	289	396	404	360.4	604.0
588	361	352	289	393	406	360.1	601.2
589	361	352	289	391	407	360.0	598.8
590	362	351	290	389	408	359.7	596.1
591	362	351	290	388	409	359.8	593.5
592	362	351	290	384	409	359.0	591.3
593	362	350	290	383	410	358.9	589.8
594	362	350	290	382	410	358.9	588.8
595	362	350	290	380	411	358.7	588.0
596	362	350	290	380	411	358.6	587.4
597	362	350	290	378	412	358.3	586.9
598	362	350	291	377	412	358.3	586.7
599	362	349	291	377	412	358.1	586.5
600	362	349	291	376	413	357.8	586.5
601	362	348	291	374	413	357.6	586.4
602	362	348	291	374	413	357.6	586.6
603	362	348	289	373	413	356.9	587.4
604	362	348	288	372	413	356.5	587.9
605	361	348	288	372	413	356.5	587.5
606	361	348	289	371	413	356.4	585.9
607	360	348	289	371	413	356.4	583.9
608	360	349	290	371	413	356.3	581.9
609	359	349	291	370	413	356.3	580.0
610	359	349	291	369	413	356.2	578.4
Average	333.9	326.7	253.0	482.5	405.2	360.3	791.2

LAB SAMPLE DATA - ASTM E2515

Client: Blaze King
Model: KE40
Run #: 1

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/11/2024

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G00935	238.9	246.5	7.6
	B	G00936	239.0	246.9	7.9
	C - 1st Hour	G00937	240.4	243.3	2.9
	Amb	G00938	238.4	238.4	0.0
Probes	**A**	8A	116632.9	116633.4	0.5
	B	8B	116664.8	116665.7	0.9
	C - 1st Hour	8C	116662.3	116662.6	0.3
O-rings	**A**	8A	3552.3	3552.9	0.6
	B	8B	3557.4	3357.5	0.0
	C - 1st Hour	8C	3586.6	3586.7	0.1

**Negative value corrected to zero*

Placed in Dessicator on:	3/11/2024

Balance Audit (mg):		200.0		200.0					
		Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**	246.7	3/13 0830	246.5	3/14 0900				
	B	246.9	3/13 0830	246.9	3/14 0900				
	C - 1st Hour	243.3	3/13 0830	243.3	3/14 0900				
	Amb	238.4	3/13 0830	238.4	3/14 0900				
Probes	**A**	116633.2	3/13 0830	116633.4	3/14 0900				
	B	116665.6	3/13 0830	116665.7	3/14 0900				
	C - 1st Hour	116662.4	3/13 0830	116662.6	3/14 0900				
O-Rings	**A**	3553.1	3/13 0830	3552.9	3/14 0900				
	B	3557.7	3/13 0830	3357.5	3/14 0900				
	C - 1st Hour	3586.7	3/13 0830	3586.7	3/14 0900				

Train A Aggregate, mg:	**8.7**
Train B Aggregate, mg:	**8.8**
Train C Aggregate, mg:	**3.3**
Ambient, mg:	**0.0**

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 1 Test Date: 3/11/24

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Knob open 80º
Targeted Burn Category: II

Preburn Notes

Time	Notes
	-None-

Test Notes

Test Burn Start Time: 14:59 Test Fuel Loaded by: 45 seconds
Door Closed: 60 seconds Air Control Set at: 0 seconds
Other Loading Notes: Bypass open @ 0 sec, closed @ 60 sec, fan set to low @ 0 sec

Time	Notes
	-None-

Test Burn End Time: 3/12 01:09

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 16.98 CO (%): 4.300
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	12:16	12:17	12:18	3/12 09:21	3/12 09:22	3/12 09:23
CO_2	0.00	16.98	10.15	0.06	16.95	9.99
CO	0.000	4.300	2.545	0.012	4.266	2.524

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature: Date: 3/18/24

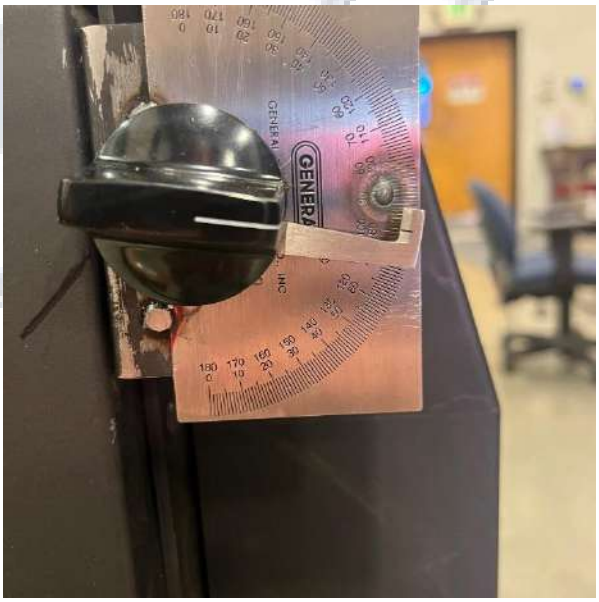
ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 1 Test Date: 3/11/24

Test Fuel Front/Side View

Test Fuel Iso View

Test Fuel Loaded in Stove



Air Setting

Technician Signature: Date: 3/18/24

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 2 Data Summary

Client:	Blaze King
Model:	KE40
Job #:	24-274
Tracking #:	184
Test Date:	3/12/2024

Techician Signature

3/20/2024
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Burn Rate (kg/hr):	0.68

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	80.521	174.719	170.834	8.507
Average Gas Velocity in Dilution Tunnel (ft/sec)	19.1			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	13078.7			
Average Gas Meter Temperature (°F)	64.6	87.0	92.4	76.8
Total Sample Volume (dscf)	82.394	171.350	166.022	8.451
Average Tunnel Temperature (°F)	76.4			
Total Time of Test (min)	949			
Total Particulate Catch (mg)	0.1	3.7	3.8	1.7
Particulate Concentration, dry-standard (g/dscf)	0.0000012	0.0000216	0.0000229	0.0002012
Total PM Emissions (g)	0.25	4.22	4.48	2.61
Particulate Emission Rate (g/hr)	0.02	0.27	0.28	2.61
Emissions Factor (g/kg)	-	0.39	0.42	-
Difference from Average Total Particulate Emissions (g)	-	0.13	0.13	-
Difference from Average Total Particulate Emissions (%)	-	3.1%	3.1%	
Difference from Average Emissions Factor (g/kg)	-	0.01	0.01	-

Final Average Results	
Total Particulate Emissions (g)	4.35
Particulate Emission Rate (g/hr)	0.28
Emissions Factor (g/kg)	0.41
HHV Efficiency (%)	82.1%
LHV Efficiency (%)	88.7%
CO Emissions (g/min)	0.06

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	72.9	OK
Face Velocity	< 30 ft/min	12.8	OK
Leakage Rate	Less than 4% of average sample rate	0.001 cfm	OK
Ambient Temp	55-90 °F	Min:63/Max:67	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	18.7	OK

B415.1 Efficiency Results

Manufacturer:	Blaze King
Model:	KE40
Date:	03/12/24
Run:	2
Control #:	24-274
Test Duration:	949
Output Category:	1

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	82.1%	88.7%
Combustion Efficiency	99.5%	99.5%
Heat Transfer Efficiency	82.5%	89.2%

Output Rate (kJ/h)	10,954	10,392	**(Btu/h)**
Burn Rate (kg/h)	0.67	1.48	**(lb/h)**
Input (kJ/h)	13,345	12,659	**(Btu/h)**

Test Load Weight (dry kg)	10.65	23.48	**dry lb**
MC wet (%)	17.86		
MC dry (%)	21.74		
Particulate (g)	4.35		
CO (g)	56		
Test Duration (h)	15.82		

Emissions	**Particulate**	**CO**
g/MJ Output	0.03	0.32
g/kg Dry Fuel	0.41	5.21
g/h	0.28	3.51
g/min	0.00	0.06
lb/MM Btu Output	0.06	0.74

Air/Fuel Ratio (A/F)	22.28

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	19.00	22.0	2x4	19.00	20.9
2x4	19.00	19.5	2x4	19.00	21.9
2x4	19.00	19.0	2x4	19.00	20.9
2x4	19.00	22.5	2x4	19.00	22.3
2x4	19.00	22.3			
2x4	19.00	21.7			1.6
2x4	19.00	20.2			
2x4	19.00	22.4			
Total Fuel Weight (lbs):		26.19	Average Moisture (%DB):		19.8

Firebox Volume (ft^3):	4.35
Total 2x4 Crib Weight, with spacers (lbs):	0.00
Total 4x4 Crib Weight, with spacers (lbs):	28.58
Total Wet Fuel Weight, with spacers (lbs):	28.58

Coal Bed Range (20-25%):
Min (lbs): 5.72
Max (lbs): 7.15

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	19.00	4.54	22.6	21.5	22.3	3.72
4x4	19.00	4.39	22.4	22.0	20.1	3.61
4x4	19.00	4.43	20.9	19.1	23.0	3.66
4x4	19.00	4.61	21.6	21.4	20.4	3.81
4x4	19.00	4.45	23.0	20.8	23.0	3.64
4x4	19.00	4.39	21.7	22.3	23.3	3.59
					Total Dry Weight, no spacers (lbs):	22.02
					Total Dry Weight, with spacers (lbs):	23.61

Spacer Moisture Readings (%DB)

11.6	13.1	11.5					
10.3	10.9	12.6					
12.3	12.5						
12.8	10.8						
12.7	11.5						
12.0	11.8						
10.2	10.7						
10.9	11.7						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	27.3	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	6.57	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	Blaze King	Job #:	24-274
Model:	KE40	Tracking #:	184
Run #:	2	Technician:	AK
Test Start Time:	13:19	Date:	3/12/2024

Total Sampling Time (min):	949		
Recording Interval (min):	1		
Meter Box γ Factor:	1.004	(A)	
Meter Box γ Factor:	1.005	(B)	
Meter Box γ Factor:	1.004	(C)	
Meter Box γ Factor:	1.013	(Ambient)	
Induced Draft Check (in. H_2O):	0		
Smoke Capture Check (%):	100%		
Date Flue Pipe Last Cleaned:	3/8/2024		
Test Fuel Scale Audit (lbs)	10.00		
Platform Scale Audit (lbs)	10.0		

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	29.84	30.24	30.04
Relative Humidity (%)	33.2	30.1	
Room Air Velocity (ft/min)	<50	<50	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		80.521	ft^3

Sample Train Leak Checks

	Pre-test	Post-test			
(A)	0.000	0.001	cfm @	-8	in. Hg
(B)	0.000	0.000	cfm @	-7	in. Hg
(C)	0.000	0.000	cfm @	-9	in. Hg
(Ambient)	0.000	0.000	cfm @	-12	in. Hg

DILUTION TUNNEL FLOW

Traverse Data

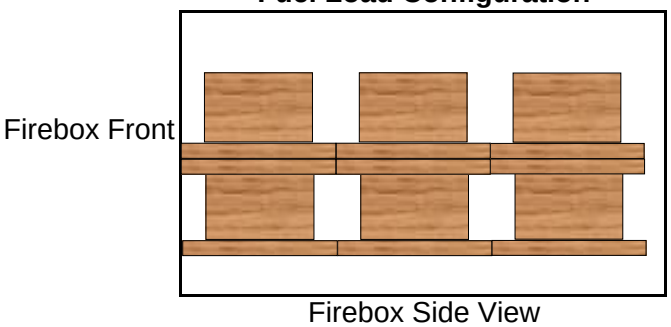
Point	dP (in H_2O)	Temp (°F)
1	0.070	69
2	0.094	69
3	0.094	69
4	0.066	69
5	0.068	69
6	0.096	69
7	0.096	69
8	0.074	69
Center	0.096	69

Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	6	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.1963	ft^2
V_{strav}:	18.99	ft/sec
V_{scent}:	20.59	ft/sec
F_p:	0.923	[ratio]
Initial Tunnel Flow:	218.9	scf/min

Static Pressure: -0.170 in. H_2O

TEST FUEL PROPERTIES

Fuel Load Configuration



Firebox Side View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	21.7

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Recording Interval (min): 1
Run Time (min): 89

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	6.90	-0.058	562	753	422	643	506	577.2	353	69
1	6.84	-0.054	559	740	427	643	508	575.4	319	69
2	6.80	-0.051	555	725	427	640	510	571.6	297	69
3	6.75	-0.049	550	710	426	637	512	566.9	280	69
4	6.69	-0.046	545	694	423	634	513	561.5	268	69
5	6.66	-0.046	539	677	419	631	514	555.9	259	69
6	6.62	-0.046	533	662	414	628	514	550.2	250	69
7	6.58	-0.044	526	647	409	625	514	544.3	243	69
8	6.54	-0.043	520	634	404	621	514	538.6	238	69
9	6.49	-0.044	514	621	399	618	514	533.1	233	69
10	6.47	-0.042	508	609	394	614	513	527.6	229	69
11	6.43	-0.038	502	597	390	611	512	522.4	226	68
12	6.39	-0.040	497	586	385	607	511	517.2	222	68
13	6.36	-0.038	492	576	381	604	510	512.4	218	68
14	6.33	-0.039	486	566	377	600	509	507.6	214	68
15	6.29	-0.038	481	556	373	597	507	502.8	211	67
16	6.28	-0.036	476	547	369	592	506	497.9	208	66
17	6.27	-0.035	471	538	365	588	504	492.9	204	66
18	6.24	-0.030	466	529	361	583	502	488.2	201	67
19	6.22	-0.035	461	521	357	579	501	483.7	199	67
20	6.21	-0.031	456	514	353	574	499	479.3	197	67
21	6.20	-0.034	452	506	350	570	497	475.1	194	68
22	6.19	-0.032	448	499	347	565	495	470.8	191	68
23	6.18	-0.032	443	492	343	560	494	466.4	189	68
24	6.18	-0.031	439	485	340	554	492	462.1	186	68
25	6.17	-0.028	435	479	337	549	490	457.9	183	68
26	6.17	-0.029	431	472	334	541	488	453.3	181	68
27	6.16	-0.027	428	466	331	536	487	449.4	178	68
28	6.15	-0.028	424	460	328	528	485	444.7	177	68
29	6.16	-0.028	420	454	325	522	483	440.6	174	68
30	6.15	-0.027	416	448	321	514	481	436.3	173	68
31	6.15	-0.028	413	442	319	507	480	432.1	172	68
32	6.14	-0.026	409	437	316	500	478	427.8	169	68
33	6.14	-0.027	406	431	313	493	476	423.8	167	67
34	6.14	-0.026	402	426	310	486	475	419.8	165	68
35	6.14	-0.024	399	421	307	480	473	415.9	165	67
36	6.14	-0.024	395	416	305	473	471	412.0	163	67
37	6.14	-0.025	392	411	302	466	470	408.2	160	67
38	6.13	-0.023	389	406	300	460	468	404.5	158	67
39	6.13	-0.022	386	401	297	454	467	401.0	157	67
40	6.13	-0.024	383	396	295	448	465	397.4	155	67
41	6.12	-0.022	380	392	293	443	464	394.1	155	67
42	6.12	-0.023	377	387	291	438	462	390.9	153	67
43	6.12	-0.021	374	383	288	432	461	387.7	153	67
44	6.10	-0.019	372	379	286	428	459	384.7	152	67

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Recording Interval (min): 1
Run Time (min): 89

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	6.11	-0.020	369	375	284	423	458	381.8	150	67
46	6.10	-0.020	366	371	282	419	456	379.0	148	67
47	6.10	-0.021	364	367	280	415	455	376.2	147	67
48	6.10	-0.020	361	364	278	411	453	373.4	147	67
49	6.09	-0.021	359	360	276	407	452	370.9	146	67
50	6.10	-0.020	357	357	274	404	451	368.3	145	67
51	6.08	-0.019	354	353	272	401	449	365.9	143	67
52	6.08	-0.019	352	350	270	397	448	363.4	143	67
53	6.08	-0.019	350	346	268	394	447	361.0	142	67
54	6.07	-0.016	348	343	266	391	445	358.8	141	67
55	6.07	-0.019	346	340	265	389	444	356.7	140	67
56	6.07	-0.018	343	337	263	386	443	354.4	139	67
57	6.06	-0.017	341	334	261	383	442	352.2	138	67
58	6.06	-0.018	339	332	259	380	440	350.1	137	67
59	6.06	-0.017	337	329	258	379	439	348.2	136	67
60	6.05	-0.017	336	326	256	376	438	346.2	136	67
61	6.05	-0.017	334	324	254	374	436	344.3	135	67
62	6.04	-0.016	332	321	253	372	435	342.6	135	67
63	6.04	-0.017	330	319	251	370	434	340.7	134	67
64	6.03	-0.015	329	316	250	367	433	338.8	133	67
65	6.03	-0.015	327	314	248	365	431	337.1	132	67
66	6.02	-0.017	325	312	247	363	430	335.3	132	67
67	6.03	-0.016	324	309	246	361	429	333.7	131	67
68	6.01	-0.015	322	307	244	359	427	332.0	131	67
69	6.01	-0.015	321	305	243	358	426	330.3	131	67
70	6.01	-0.015	319	302	242	356	425	328.7	131	67
71	6.01	-0.016	318	300	240	354	423	327.0	130	67
72	6.00	-0.015	316	298	239	352	422	325.4	128	67
73	5.99	-0.015	315	296	238	350	421	323.8	128	67
74	6.00	-0.014	313	294	236	348	419	322.2	127	67
75	5.99	-0.013	312	292	235	347	418	320.6	127	67
76	5.99	-0.015	311	290	234	345	416	319.1	126	67
77	5.98	-0.014	309	288	233	344	414	317.5	125	67
78	5.97	-0.013	308	286	232	342	413	316.0	125	67
79	5.97	-0.014	307	284	231	341	411	314.7	124	67
80	5.97	-0.013	306	283	230	339	409	313.3	124	67
81	5.97	-0.013	305	281	229	337	408	311.7	123	67
82	5.96	-0.012	304	279	228	336	406	310.4	123	67
83	5.95	-0.012	302	277	226	335	404	308.8	123	67
84	5.92	-0.015	301	275	225	333	402	307.3	123	67
85	5.94	-0.013	300	274	224	333	400	306.1	123	67
86	5.94	-0.013	299	272	223	331	398	304.6	124	67
87	5.94	-0.011	298	271	222	330	396	303.4	124	67
88	5.93	-0.014	297	269	221	329	394	302.1	125	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.096	0.21	72	0.4		28.59		84	188	70	67
1	0.119	0.119	0.095	2.98	72	1.1	-	28.57	-0.02	103	243	70	67
2	0.358	0.239	0.096	3.02	72	1.1	-	28.55	-0.02	89	198	70	67
3	0.533	0.175	0.098	3.03	72	1.1	-	28.53	-0.02	83	175	70	67
4	0.698	0.165	0.096	3.04	72	1.2	-	28.51	-0.02	81	163	71	67
5	0.872	0.174	0.097	3.06	72	1.1	-	28.50	-0.01	80	157	71	67
6	1.043	0.171	0.095	3.07	72	1.1	-	28.48	-0.02	79	153	71	67
7	1.218	0.175	0.094	3.08	72	1.1	-	28.46	-0.02	79	152	71	67
8	1.384	0.166	0.097	3.10	72	1.1	-	28.44	-0.02	79	152	71	67
9	1.561	0.177	0.098	3.11	72	1.1	-	28.41	-0.03	78	152	71	66
10	1.732	0.171	0.097	3.12	72	1.2	97	28.39	-0.02	78	153	71	67
11	1.907	0.175	0.097	3.14	73	1.2	-	28.36	-0.03	78	154	71	67
12	2.076	0.169	0.097	3.14	73	1.2	-	28.32	-0.04	78	156	71	67
13	2.255	0.179	0.098	3.16	73	1.2	-	28.29	-0.03	78	158	71	67
14	2.429	0.174	0.096	3.18	73	1.2	-	28.26	-0.03	78	161	71	67
15	2.609	0.180	0.097	3.20	73	1.1	-	28.21	-0.05	78	163	71	66
16	2.779	0.170	0.098	3.19	74	1.1	-	28.19	-0.02	78	165	71	67
17	2.957	0.178	0.098	3.20	74	1.2	-	28.13	-0.06	78	169	71	66
18	3.132	0.175	0.097	3.21	74	1.1	-	28.08	-0.05	79	172	71	67
19	3.307	0.175	0.096	3.22	74	1.2	-	28.04	-0.04	79	176	71	66
20	3.486	0.179	0.097	3.23	75	1.1	98	27.99	-0.05	79	180	71	66
21	3.661	0.175	0.097	3.24	75	1.2	-	27.94	-0.05	79	182	71	66
22	3.843	0.182	0.097	3.25	75	1.1	-	27.90	-0.04	79	184	71	66
23	4.021	0.178	0.098	3.27	76	1.2	-	27.84	-0.06	79	187	71	66
24	4.195	0.174	0.098	3.24	76	1.2	-	27.79	-0.05	79	190	71	66
25	4.373	0.178	0.097	3.27	76	1.1	-	27.75	-0.04	79	192	71	66
26	4.552	0.179	0.097	3.27	76	1.1	-	27.70	-0.05	79	194	71	66
27	4.732	0.180	0.098	3.28	77	1.1	-	27.65	-0.05	79	195	71	66
28	4.907	0.175	0.097	3.29	77	1.2	-	27.60	-0.05	79	197	71	66
29	5.084	0.177	0.096	3.30	77	1.1	-	27.55	-0.05	80	198	71	66
30	5.264	0.180	0.097	3.29	77	1.2	99	27.49	-0.06	80	198	71	66
31	5.444	0.180	0.096	3.30	78	1.1	-	27.44	-0.05	80	200	71	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	5.627	0.183	0.097	3.31	78	1.2	-	27.38	-0.06	80	202	71	66
33	5.801	0.174	0.096	3.30	78	1.1	-	27.34	-0.04	80	204	71	66
34	5.984	0.183	0.096	3.33	79	1.2	-	27.29	-0.05	80	205	71	66
35	6.164	0.180	0.097	3.31	79	1.2	-	27.23	-0.06	80	207	71	66
36	6.345	0.181	0.098	3.32	79	1.2	-	27.17	-0.06	80	207	71	66
37	6.526	0.181	0.098	3.33	79	1.2	-	27.12	-0.05	80	208	71	66
38	6.704	0.178	0.097	3.33	80	1.2	-	27.07	-0.05	80	209	71	66
39	6.880	0.176	0.098	3.33	80	1.2	-	27.03	-0.04	80	210	71	66
40	7.065	0.185	0.097	3.34	80	1.2	99	26.97	-0.06	80	211	71	66
41	7.244	0.179	0.098	3.33	80	1.1	-	26.91	-0.06	81	212	71	67
42	7.428	0.184	0.097	3.33	81	1.2	-	26.87	-0.04	81	212	71	67
43	7.609	0.181	0.097	3.34	81	1.2	-	26.82	-0.05	81	211	71	67
44	7.785	0.176	0.097	3.35	81	1.2	-	26.76	-0.06	81	211	71	67
45	7.968	0.183	0.097	3.35	81	1.2	-	26.70	-0.06	81	211	71	67
46	8.151	0.183	0.098	3.35	81	1.2	-	26.66	-0.04	81	212	71	66
47	8.335	0.184	0.097	3.36	82	1.2	-	26.59	-0.07	81	214	71	67
48	8.517	0.182	0.096	3.36	82	1.2	-	26.55	-0.04	81	214	71	66
49	8.691	0.174	0.098	3.37	82	1.2	-	26.50	-0.05	81	215	71	67
50	8.875	0.184	0.097	3.36	82	1.2	100	26.44	-0.06	81	216	71	67
51	9.059	0.184	0.096	3.37	83	1.1	-	26.38	-0.06	81	217	71	67
52	9.240	0.181	0.096	3.37	83	1.2	-	26.33	-0.05	81	217	71	67
53	9.422	0.182	0.097	3.37	83	1.2	-	26.27	-0.06	81	218	71	67
54	9.606	0.184	0.096	3.38	83	1.2	-	26.21	-0.06	81	219	71	67
55	9.787	0.181	0.096	3.38	83	1.2	-	26.16	-0.05	82	219	72	67
56	9.968	0.181	0.097	3.39	83	1.2	-	26.10	-0.06	81	220	72	67
57	10.149	0.181	0.097	3.39	84	1.2	-	26.05	-0.05	81	220	72	67
58	10.337	0.188	0.096	3.38	84	1.2	-	25.99	-0.06	81	221	72	67
59	10.518	0.181	0.098	3.39	84	1.2	-	25.93	-0.06	81	220	72	67
60	10.699	0.181	0.097	3.38	84	1.2	100	25.88	-0.05	81	220	72	67
61	10.881	0.182	0.096	3.39	84	1.2	-	25.82	-0.06	81	220	72	67
62	11.064	0.183	0.097	3.40	84	1.2	-	25.77	-0.05	81	220	72	67
63	11.247	0.183	0.097	3.40	85	1.2	-	25.72	-0.05	82	220	72	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	11.433	0.186	0.095	3.40	85	1.2	-	25.66	-0.06	82	220	72	67
65	11.615	0.182	0.098	3.40	85	1.1	-	25.61	-0.05	82	219	72	67
66	11.796	0.181	0.098	3.41	85	1.2	-	25.56	-0.05	81	219	72	67
67	11.978	0.182	0.096	3.40	85	1.2	-	25.51	-0.05	81	219	72	67
68	12.162	0.184	0.097	3.41	85	1.2	-	25.46	-0.05	81	219	72	67
69	12.346	0.184	0.096	3.41	85	1.2	-	25.38	-0.08	82	219	72	67
70	12.531	0.185	0.096	3.40	85	1.2	100	25.34	-0.04	82	220	72	67
71	12.711	0.180	0.096	3.41	86	1.2	-	25.27	-0.07	82	221	72	67
72	12.895	0.184	0.095	3.40	86	1.2	-	25.22	-0.05	82	222	72	67
73	13.078	0.183	0.097	3.41	86	1.2	-	25.16	-0.06	82	222	72	67
74	13.262	0.184	0.096	3.42	86	1.2	-	25.10	-0.06	82	223	72	67
75	13.446	0.184	0.097	3.41	86	1.2	-	25.04	-0.06	82	223	72	67
76	13.632	0.186	0.095	3.41	86	1.2	-	24.98	-0.06	82	223	72	67
77	13.815	0.183	0.096	3.42	86	1.2	-	24.93	-0.05	82	224	72	67
78	13.996	0.181	0.097	3.40	86	1.2	-	24.87	-0.06	82	224	72	67
79	14.179	0.183	0.097	3.41	86	1.2	-	24.80	-0.07	82	224	72	67
80	14.363	0.184	0.096	3.42	86	1.2	100	24.75	-0.05	82	224	72	67
81	14.547	0.184	0.096	3.42	87	1.2	-	24.70	-0.05	82	223	72	67
82	14.733	0.186	0.095	3.42	87	1.2	-	24.64	-0.06	82	223	72	67
83	14.916	0.183	0.095	3.42	87	1.2	-	24.58	-0.06	82	223	72	67
84	15.099	0.183	0.096	3.42	87	1.2	-	24.52	-0.06	82	223	72	67
85	15.282	0.183	0.097	3.42	87	1.2	-	24.46	-0.06	82	223	72	67
86	15.465	0.183	0.097	3.43	87	1.2	-	24.40	-0.06	82	223	72	67
87	15.647	0.182	0.096	3.42	87	1.1	-	24.35	-0.05	82	223	72	67
88	15.836	0.189	0.096	3.42	87	1.2	-	24.29	-0.06	82	223	72	67
89	16.020	0.184	0.097	3.43	87	1.2	-	24.24	-0.05	82	223	72	67
90	16.204	0.184	0.097	3.41	87	1.2	101	24.19	-0.05	82	222	72	67
91	16.385	0.181	0.097	3.42	87	1.2	-	24.13	-0.06	82	223	72	67
92	16.568	0.183	0.097	3.41	87	1.2	-	24.08	-0.05	82	221	72	67
93	16.754	0.186	0.096	3.41	87	1.2	-	24.03	-0.05	82	220	72	67
94	16.939	0.185	0.097	3.44	88	1.2	-	23.99	-0.04	82	220	72	67
95	17.125	0.186	0.097	3.43	88	1.2	-	23.95	-0.04	82	220	72	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	17.310	0.185	0.096	3.43	88	1.2	-	23.90	-0.05	82	219	72	67
97	17.491	0.181	0.096	3.44	88	1.2	-	23.85	-0.05	81	218	72	67
98	17.671	0.180	0.098	3.43	88	1.2	-	23.80	-0.05	82	217	72	67
99	17.857	0.186	0.098	3.44	88	1.2	-	23.75	-0.05	82	216	72	67
100	18.041	0.184	0.097	3.44	88	1.2	100	23.71	-0.04	82	215	72	67
101	18.231	0.190	0.098	3.44	88	1.2	-	23.66	-0.05	82	214	72	67
102	18.414	0.183	0.096	3.44	88	1.2	-	23.61	-0.05	82	215	72	67
103	18.598	0.184	0.097	3.43	88	1.2	-	23.57	-0.04	82	213	72	67
104	18.778	0.180	0.097	3.43	88	1.2	-	23.51	-0.06	81	213	72	67
105	18.962	0.184	0.098	3.44	88	1.2	-	23.48	-0.03	81	212	72	67
106	19.151	0.189	0.098	3.44	88	1.2	-	23.43	-0.05	82	212	72	67
107	19.336	0.185	0.096	3.44	88	1.2	-	23.37	-0.06	81	211	72	67
108	19.522	0.186	0.097	3.43	88	1.1	-	23.32	-0.05	82	211	72	67
109	19.707	0.185	0.096	3.44	88	1.2	-	23.28	-0.04	82	212	72	67
110	19.889	0.182	0.096	3.45	88	1.2	101	23.24	-0.04	81	212	72	67
111	20.073	0.184	0.098	3.44	88	1.2	-	23.17	-0.07	82	213	72	67
112	20.258	0.185	0.095	3.45	89	1.2	-	23.12	-0.05	81	214	72	67
113	20.440	0.182	0.095	3.44	89	1.2	-	23.07	-0.05	81	214	72	67
114	20.627	0.187	0.095	3.44	89	1.2	-	23.02	-0.05	82	215	72	67
115	20.813	0.186	0.096	3.45	89	1.2	-	22.95	-0.07	81	217	72	67
116	20.998	0.185	0.096	3.43	89	1.2	-	22.89	-0.06	82	219	72	67
117	21.181	0.183	0.096	3.44	89	1.2	-	22.84	-0.05	82	220	72	67
118	21.361	0.180	0.096	3.46	89	1.2	-	22.77	-0.07	82	221	72	67
119	21.548	0.187	0.096	3.44	89	1.2	-	22.71	-0.06	82	222	72	67
120	21.735	0.187	0.097	3.45	89	1.2	100	22.65	-0.06	82	222	72	67
121	21.922	0.187	0.096	3.44	89	1.2	-	22.59	-0.06	82	223	72	67
122	22.103	0.181	0.097	3.43	89	1.2	-	22.53	-0.06	82	224	72	67
123	22.284	0.181	0.096	3.45	89	1.2	-	22.46	-0.07	82	225	72	67
124	22.473	0.189	0.096	3.43	89	1.2	-	22.40	-0.06	82	225	72	67
125	22.657	0.184	0.096	3.44	89	1.2	-	22.34	-0.06	82	225	72	67
126	22.843	0.186	0.095	3.44	89	1.2	-	22.29	-0.05	82	226	72	67
127	23.027	0.184	0.096	3.43	89	1.2	-	22.22	-0.07	82	225	72	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	23.211	0.184	0.096	3.45	89	1.2	-	22.16	-0.06	82	225	72	67
129	23.399	0.188	0.095	3.44	89	1.2	-	22.11	-0.05	82	223	72	67
130	23.581	0.182	0.096	3.45	89	1.2	100	22.04	-0.07	82	222	72	67
131	23.765	0.184	0.098	3.44	89	1.2	-	21.98	-0.06	82	222	72	67
132	23.952	0.187	0.098	3.44	89	1.2	-	21.93	-0.05	82	223	72	67
133	24.137	0.185	0.097	3.46	89	1.2	-	21.87	-0.06	82	222	72	67
134	24.324	0.187	0.098	3.44	89	1.2	-	21.82	-0.05	82	221	72	67
135	24.508	0.184	0.097	3.45	89	1.2	-	21.76	-0.06	82	219	72	67
136	24.687	0.179	0.096	3.45	89	1.2	-	21.71	-0.05	82	217	72	67
137	24.875	0.188	0.096	3.45	89	1.2	-	21.65	-0.06	82	215	72	67
138	25.059	0.184	0.095	3.46	89	1.2	-	21.60	-0.05	81	214	72	67
139	25.243	0.184	0.093	3.45	89	1.2	-	21.55	-0.05	81	213	72	67
140	25.431	0.188	0.097	3.45	89	1.2	101	21.50	-0.05	82	213	72	67
141	25.617	0.186	0.096	3.44	89	1.2	-	21.45	-0.05	82	212	72	67
142	25.802	0.185	0.095	3.44	89	1.2	-	21.39	-0.06	81	211	72	67
143	25.980	0.178	0.097	3.45	89	1.2	-	21.34	-0.05	81	211	72	67
144	26.165	0.185	0.096	3.44	89	1.2	-	21.29	-0.05	81	210	72	67
145	26.354	0.189	0.096	3.46	89	1.2	-	21.24	-0.05	81	209	72	67
146	26.539	0.185	0.096	3.43	89	1.2	-	21.19	-0.05	81	209	72	67
147	26.724	0.185	0.095	3.45	89	1.2	-	21.14	-0.05	81	208	72	67
148	26.907	0.183	0.097	3.44	89	1.2	-	21.09	-0.05	81	209	72	67
149	27.096	0.189	0.095	3.44	89	1.2	-	21.04	-0.05	81	208	72	67
150	27.278	0.182	0.096	3.44	89	1.2	100	20.99	-0.05	81	207	72	67
151	27.459	0.181	0.096	3.45	89	1.2	-	20.95	-0.04	81	205	72	67
152	27.646	0.187	0.097	3.43	89	1.2	-	20.90	-0.05	81	205	72	67
153	27.831	0.185	0.095	3.45	89	1.2	-	20.85	-0.05	81	206	72	67
154	28.018	0.187	0.097	3.43	89	1.2	-	20.82	-0.03	81	205	72	67
155	28.205	0.187	0.097	3.45	89	1.2	-	20.77	-0.05	81	204	72	67
156	28.385	0.180	0.097	3.43	89	1.2	-	20.73	-0.04	81	205	72	67
157	28.573	0.188	0.097	3.43	89	1.2	-	20.68	-0.05	81	203	72	67
158	28.756	0.183	0.096	3.45	89	1.2	-	20.63	-0.05	81	204	72	67
159	28.943	0.187	0.096	3.43	89	1.2	-	20.59	-0.04	81	204	72	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	29.129	0.186	0.097	3.45	89	1.2	101	20.54	-0.05	81	203	72	67
161	29.314	0.185	0.097	3.44	89	1.2	-	20.50	-0.04	80	202	72	67
162	29.499	0.185	0.096	3.43	89	1.2	-	20.46	-0.04	80	201	72	67
163	29.681	0.182	0.097	3.45	89	1.2	-	20.42	-0.04	80	201	72	67
164	29.866	0.185	0.095	3.43	89	1.2	-	20.37	-0.05	80	201	72	67
165	30.051	0.185	0.095	3.44	89	1.2	-	20.33	-0.04	80	201	72	67
166	30.236	0.185	0.097	3.45	89	1.2	-	20.29	-0.04	80	201	72	67
167	30.423	0.187	0.098	3.43	89	1.2	-	20.24	-0.05	80	200	72	67
168	30.608	0.185	0.095	3.45	89	1.2	-	20.20	-0.04	80	200	72	67
169	30.792	0.184	0.095	3.44	89	1.2	-	20.16	-0.04	80	200	72	67
170	30.975	0.183	0.096	3.45	89	1.2	100	20.11	-0.05	80	200	72	67
171	31.155	0.180	0.095	3.45	89	1.2	-	20.07	-0.04	80	199	72	67
172	31.345	0.190	0.098	3.44	89	1.2	-	20.03	-0.04	80	199	72	67
173	31.529	0.184	0.096	3.45	89	1.2	-	19.98	-0.05	80	199	72	67
174	31.716	0.187	0.095	3.44	89	1.2	-	19.93	-0.05	80	199	72	67
175	31.901	0.185	0.096	3.45	89	1.2	-	19.89	-0.04	80	200	72	67
176	32.083	0.182	0.096	3.44	89	1.2	-	19.84	-0.05	80	200	72	67
177	32.268	0.185	0.098	3.44	89	1.2	-	19.80	-0.04	80	200	72	67
178	32.452	0.184	0.096	3.45	89	1.2	-	19.74	-0.06	80	199	72	67
179	32.639	0.187	0.096	3.44	89	1.2	-	19.71	-0.03	80	200	72	67
180	32.825	0.186	0.097	3.46	89	1.2	100	19.65	-0.06	80	201	72	67
181	33.010	0.185	0.097	3.45	89	1.2	-	19.60	-0.05	80	203	72	67
182	33.195	0.185	0.095	3.44	89	1.2	-	19.55	-0.05	80	204	72	67
183	33.377	0.182	0.095	3.46	89	1.2	-	19.49	-0.06	80	205	72	67
184	33.562	0.185	0.096	3.45	89	1.2	-	19.44	-0.05	80	205	72	67
185	33.748	0.186	0.097	3.45	89	1.2	-	19.39	-0.05	80	206	72	67
186	33.930	0.182	0.096	3.46	89	1.2	-	19.34	-0.05	80	207	72	67
187	34.120	0.190	0.096	3.45	89	1.2	-	19.28	-0.06	80	208	72	67
188	34.301	0.181	0.096	3.45	89	1.2	-	19.22	-0.06	81	210	72	67
189	34.486	0.185	0.096	3.45	89	1.2	-	19.17	-0.05	81	212	72	67
190	34.672	0.186	0.097	3.44	89	1.2	100	19.11	-0.06	81	212	72	67
191	34.853	0.181	0.096	3.45	89	1.2	-	19.05	-0.06	81	213	72	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	35.041	0.188	0.097	3.45	89	1.2	-	19.00	-0.05	81	213	72	67
193	35.229	0.188	0.096	3.45	89	1.2	-	18.95	-0.05	81	214	72	67
194	35.416	0.187	0.097	3.44	89	1.2	-	18.89	-0.06	81	214	72	67
195	35.600	0.184	0.096	3.45	89	1.2	-	18.83	-0.06	81	214	72	67
196	35.783	0.183	0.097	3.44	89	1.2	-	18.78	-0.05	81	213	72	67
197	35.968	0.185	0.095	3.45	89	1.2	-	18.74	-0.04	81	213	72	67
198	36.148	0.180	0.096	3.45	89	1.2	-	18.69	-0.05	81	211	72	67
199	36.338	0.190	0.097	3.44	90	1.2	-	18.64	-0.05	81	210	72	67
200	36.522	0.184	0.096	3.45	90	1.2	100	18.59	-0.05	81	208	72	67
201	36.709	0.187	0.097	3.45	90	1.2	-	18.55	-0.04	80	206	72	67
202	36.895	0.186	0.096	3.44	90	1.2	-	18.50	-0.05	81	203	72	67
203	37.077	0.182	0.096	3.45	90	1.2	-	18.45	-0.05	80	202	72	67
204	37.258	0.181	0.098	3.46	90	1.2	-	18.41	-0.04	80	201	72	67
205	37.446	0.188	0.095	3.45	89	1.2	-	18.37	-0.04	80	199	72	67
206	37.629	0.183	0.095	3.44	89	1.2	-	18.33	-0.04	80	197	72	67
207	37.820	0.191	0.096	3.45	90	1.2	-	18.29	-0.04	80	195	72	67
208	38.000	0.180	0.094	3.44	90	1.2	-	18.25	-0.04	80	194	72	67
209	38.189	0.189	0.095	3.45	90	1.2	-	18.20	-0.05	80	193	72	67
210	38.371	0.182	0.096	3.46	89	1.2	101	18.16	-0.04	80	192	72	67
211	38.552	0.181	0.094	3.44	89	1.2	-	18.12	-0.04	80	192	71	67
212	38.743	0.191	0.096	3.45	90	1.2	-	18.08	-0.04	80	191	72	67
213	38.925	0.182	0.095	3.47	89	1.2	-	18.04	-0.04	80	189	71	67
214	39.115	0.190	0.097	3.45	90	1.2	-	18.00	-0.04	80	188	72	67
215	39.299	0.184	0.094	3.46	89	1.2	-	17.96	-0.04	80	188	72	67
216	39.479	0.180	0.097	3.45	89	1.2	-	17.91	-0.05	80	188	72	67
217	39.668	0.189	0.095	3.46	90	1.2	-	17.87	-0.04	80	187	72	67
218	39.848	0.180	0.096	3.45	90	1.2	-	17.82	-0.05	80	186	72	67
219	40.038	0.190	0.096	3.44	89	1.2	-	17.78	-0.04	80	187	72	67
220	40.224	0.186	0.097	3.45	89	1.2	101	17.73	-0.05	80	187	72	67
221	40.410	0.186	0.095	3.45	89	1.2	-	17.69	-0.04	80	187	72	67
222	40.593	0.183	0.096	3.45	90	1.2	-	17.63	-0.06	80	187	72	67
223	40.778	0.185	0.095	3.45	89	1.2	-	17.59	-0.04	79	189	71	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	40.960	0.182	0.097	3.44	89	1.2	-	17.54	-0.05	80	189	71	67
225	41.147	0.187	0.095	3.46	89	1.2	-	17.48	-0.06	80	189	71	67
226	41.334	0.187	0.097	3.46	89	1.2	-	17.43	-0.05	79	190	71	67
227	41.520	0.186	0.097	3.46	90	1.2	-	17.38	-0.05	80	190	71	67
228	41.702	0.182	0.095	3.45	89	1.2	-	17.33	-0.05	80	191	71	67
229	41.888	0.186	0.096	3.45	90	1.2	-	17.27	-0.06	79	192	71	67
230	42.074	0.186	0.096	3.47	90	1.2	100	17.22	-0.05	80	193	71	67
231	42.259	0.185	0.097	3.44	90	1.2	-	17.16	-0.06	80	193	71	67
232	42.444	0.185	0.096	3.46	89	1.2	-	17.11	-0.05	80	194	71	67
233	42.630	0.186	0.097	3.45	89	1.2	-	17.06	-0.05	80	193	71	67
234	42.817	0.187	0.096	3.46	90	1.2	-	17.01	-0.05	80	191	71	67
235	43.002	0.185	0.095	3.45	89	1.2	-	16.96	-0.05	80	189	71	67
236	43.188	0.186	0.096	3.44	89	1.2	-	16.90	-0.06	79	187	71	67
237	43.370	0.182	0.098	3.47	89	1.2	-	16.85	-0.05	79	185	71	67
238	43.555	0.185	0.096	3.45	89	1.2	-	16.80	-0.05	79	184	71	67
239	43.739	0.184	0.096	3.45	90	1.2	-	16.76	-0.04	79	182	71	67
240	43.926	0.187	0.095	3.45	90	1.2	101	16.71	-0.05	79	179	71	67
241	44.114	0.188	0.096	3.45	89	1.2	-	16.67	-0.04	79	178	71	67
242	44.298	0.184	0.097	3.46	89	1.2	-	16.63	-0.04	79	178	71	67
243	44.484	0.186	0.096	3.44	89	1.2	-	16.60	-0.03	79	176	71	67
244	44.666	0.182	0.095	3.46	90	1.2	-	16.56	-0.04	79	174	71	67
245	44.850	0.184	0.096	3.45	90	1.2	-	16.51	-0.05	79	173	71	67
246	45.038	0.188	0.095	3.45	89	1.2	-	16.47	-0.04	79	172	71	67
247	45.223	0.185	0.096	3.46	90	1.2	-	16.43	-0.04	79	170	71	67
248	45.410	0.187	0.096	3.46	89	1.2	-	16.39	-0.04	78	169	71	67
249	45.595	0.185	0.096	3.45	89	1.2	-	16.35	-0.04	78	168	71	67
250	45.779	0.184	0.096	3.46	89	1.2	101	16.32	-0.03	78	168	71	66
251	45.963	0.184	0.097	3.45	89	1.2	-	16.29	-0.03	78	167	71	66
252	46.146	0.183	0.096	3.46	89	1.2	-	16.25	-0.04	78	166	71	66
253	46.334	0.188	0.096	3.45	89	1.2	-	16.21	-0.04	78	165	71	66
254	46.519	0.185	0.096	3.46	89	1.2	-	16.18	-0.03	78	164	71	66
255	46.706	0.187	0.096	3.45	89	1.2	-	16.16	-0.02	78	164	71	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	46.891	0.185	0.093	3.47	89	1.2	-	16.13	-0.03	78	162	71	66
257	47.073	0.182	0.094	3.45	89	1.2	-	16.10	-0.03	78	160	71	66
258	47.258	0.185	0.096	3.45	89	1.2	-	16.06	-0.04	78	159	71	67
259	47.442	0.184	0.097	3.48	89	1.2	-	16.04	-0.02	78	159	71	66
260	47.629	0.187	0.096	3.45	89	1.2	100	16.00	-0.04	78	158	71	66
261	47.813	0.184	0.097	3.46	89	1.2	-	15.97	-0.03	77	157	71	66
262	47.998	0.185	0.097	3.46	89	1.2	-	15.95	-0.02	78	157	71	66
263	48.183	0.185	0.096	3.45	89	1.2	-	15.93	-0.02	78	155	71	66
264	48.365	0.182	0.096	3.46	89	1.2	-	15.89	-0.04	77	155	71	66
265	48.554	0.189	0.097	3.45	89	1.2	-	15.87	-0.02	77	154	71	66
266	48.739	0.185	0.096	3.46	89	1.2	-	15.84	-0.03	77	153	71	66
267	48.922	0.183	0.097	3.45	89	1.2	-	15.82	-0.02	77	152	71	66
268	49.113	0.191	0.097	3.45	89	1.2	-	15.79	-0.03	77	151	71	66
269	49.297	0.184	0.095	3.47	89	1.2	-	15.76	-0.03	77	151	71	66
270	49.483	0.186	0.097	3.46	89	1.2	100	15.73	-0.03	77	150	71	66
271	49.662	0.179	0.094	3.47	89	1.2	-	15.71	-0.02	77	150	71	66
272	49.850	0.188	0.096	3.45	89	1.2	-	15.68	-0.03	77	149	71	66
273	50.036	0.186	0.097	3.46	89	1.2	-	15.66	-0.02	77	149	71	66
274	50.219	0.183	0.096	3.46	89	1.2	-	15.64	-0.02	77	149	71	66
275	50.408	0.189	0.095	3.45	89	1.2	-	15.60	-0.04	77	149	71	66
276	50.590	0.182	0.095	3.46	89	1.2	-	15.58	-0.02	77	148	71	66
277	50.778	0.188	0.097	3.45	89	1.2	-	15.56	-0.02	77	148	71	66
278	50.961	0.183	0.096	3.45	89	1.2	-	15.52	-0.04	77	147	71	66
279	51.145	0.184	0.098	3.45	89	1.2	-	15.51	-0.01	77	147	71	66
280	51.332	0.187	0.095	3.46	89	1.2	100	15.48	-0.03	77	148	71	66
281	51.518	0.186	0.096	3.47	89	1.2	-	15.46	-0.02	77	148	71	66
282	51.705	0.187	0.095	3.45	89	1.2	-	15.42	-0.04	77	149	71	66
283	51.887	0.182	0.095	3.47	89	1.2	-	15.40	-0.02	77	148	71	66
284	52.073	0.186	0.095	3.46	89	1.2	-	15.37	-0.03	77	149	71	66
285	52.258	0.185	0.095	3.46	89	1.2	-	15.34	-0.03	77	150	71	66
286	52.439	0.181	0.095	3.47	89	1.2	-	15.31	-0.03	77	151	71	66
287	52.629	0.190	0.096	3.46	89	1.2	-	15.28	-0.03	77	153	71	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	52.812	0.183	0.096	3.47	89	1.2	-	15.24	-0.04	77	153	71	66
289	53.001	0.189	0.097	3.45	89	1.2	-	15.21	-0.03	77	155	71	66
290	53.186	0.185	0.095	3.46	89	1.2	101	15.16	-0.05	77	157	70	66
291	53.368	0.182	0.097	3.46	89	1.2	-	15.13	-0.03	77	157	70	66
292	53.553	0.185	0.097	3.46	89	1.2	-	15.09	-0.04	77	157	70	66
293	53.738	0.185	0.097	3.47	89	1.2	-	15.06	-0.03	77	159	70	66
294	53.925	0.187	0.096	3.45	89	1.2	-	15.01	-0.05	77	162	70	66
295	54.111	0.186	0.095	3.46	89	1.2	-	14.98	-0.03	77	163	70	66
296	54.296	0.185	0.096	3.46	89	1.2	-	14.93	-0.05	77	164	70	66
297	54.482	0.186	0.095	3.45	89	1.2	-	14.89	-0.04	77	164	70	66
298	54.661	0.179	0.094	3.47	89	1.2	-	14.85	-0.04	77	165	70	66
299	54.850	0.189	0.098	3.46	89	1.2	-	14.81	-0.04	77	165	70	66
300	55.034	0.184	0.097	3.47	89	1.2	100	14.79	-0.02	77	166	70	66
301	55.217	0.183	0.095	3.45	89	1.2	-	14.74	-0.05	77	168	70	66
302	55.405	0.188	0.097	3.45	89	1.2	-	14.71	-0.03	77	168	70	66
303	55.589	0.184	0.097	3.47	89	1.2	-	14.67	-0.04	77	169	70	66
304	55.778	0.189	0.096	3.45	89	1.2	-	14.63	-0.04	77	168	70	66
305	55.959	0.181	0.097	3.45	89	1.2	-	14.60	-0.03	77	167	70	66
306	56.145	0.186	0.096	3.45	89	1.2	-	14.57	-0.03	77	167	70	66
307	56.328	0.183	0.095	3.46	89	1.2	-	14.53	-0.04	77	166	70	66
308	56.516	0.188	0.096	3.46	89	1.2	-	14.50	-0.03	77	165	70	66
309	56.703	0.187	0.095	3.46	89	1.2	-	14.47	-0.03	77	165	70	66
310	56.887	0.184	0.096	3.46	89	1.2	100	14.44	-0.03	77	165	70	66
311	57.072	0.185	0.096	3.46	89	1.2	-	14.42	-0.02	77	164	70	66
312	57.256	0.184	0.095	3.46	89	1.2	-	14.38	-0.04	77	165	70	66
313	57.439	0.183	0.097	3.45	89	1.2	-	14.35	-0.03	77	164	70	66
314	57.627	0.188	0.097	3.45	89	1.2	-	14.32	-0.03	77	163	70	66
315	57.813	0.186	0.097	3.47	89	1.2	-	14.29	-0.03	77	164	70	66
316	58.000	0.187	0.098	3.45	89	1.2	-	14.26	-0.03	77	164	70	66
317	58.184	0.184	0.095	3.47	89	1.2	-	14.22	-0.04	77	162	70	66
318	58.368	0.184	0.096	3.45	89	1.2	-	14.19	-0.03	77	163	70	66
319	58.553	0.185	0.095	3.45	89	1.2	-	14.16	-0.03	77	164	70	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	58.736	0.183	0.096	3.46	89	1.2	100	14.13	-0.03	77	164	70	66
321	58.923	0.187	0.096	3.45	89	1.2	-	14.09	-0.04	77	164	70	66
322	59.107	0.184	0.095	3.47	89	1.2	-	14.07	-0.02	77	164	70	66
323	59.295	0.188	0.096	3.46	89	1.2	-	14.04	-0.03	77	163	70	66
324	59.481	0.186	0.096	3.46	89	1.2	-	13.99	-0.05	77	163	70	66
325	59.663	0.182	0.097	3.46	89	1.2	-	13.97	-0.02	77	163	70	66
326	59.845	0.182	0.096	3.45	89	1.2	-	13.94	-0.03	77	164	70	66
327	60.032	0.187	0.095	3.47	89	1.2	-	13.91	-0.03	77	163	70	66
328	60.219	0.187	0.096	3.45	89	1.2	-	13.88	-0.03	77	163	70	65
329	60.406	0.187	0.097	3.46	89	1.2	-	13.83	-0.05	77	163	70	65
330	60.591	0.185	0.096	3.47	89	1.2	101	13.81	-0.02	77	163	70	66
331	60.773	0.182	0.097	3.45	89	1.2	-	13.78	-0.03	77	163	70	66
332	60.959	0.186	0.097	3.47	89	1.2	-	13.75	-0.03	77	163	70	65
333	61.144	0.185	0.096	3.44	89	1.2	-	13.72	-0.03	77	163	70	66
334	61.329	0.185	0.097	3.47	89	1.2	-	13.69	-0.03	77	163	70	66
335	61.514	0.185	0.096	3.45	89	1.2	-	13.65	-0.04	77	163	70	65
336	61.702	0.188	0.098	3.45	89	1.2	-	13.63	-0.02	77	163	70	65
337	61.883	0.181	0.097	3.45	89	1.2	-	13.59	-0.04	77	163	70	65
338	62.071	0.188	0.097	3.46	89	1.2	-	13.56	-0.03	77	164	70	66
339	62.251	0.180	0.097	3.46	89	1.2	-	13.52	-0.04	77	163	70	66
340	62.437	0.186	0.096	3.46	89	1.2	100	13.49	-0.03	77	163	70	65
341	62.621	0.184	0.098	3.45	89	1.2	-	13.46	-0.03	77	164	70	65
342	62.809	0.188	0.099	3.47	89	1.2	-	13.43	-0.03	77	164	70	65
343	62.996	0.187	0.098	3.46	89	1.2	-	13.40	-0.03	77	164	70	65
344	63.180	0.184	0.097	3.47	89	1.2	-	13.37	-0.03	77	163	70	65
345	63.360	0.180	0.097	3.46	89	1.2	-	13.34	-0.03	77	164	70	65
346	63.548	0.188	0.097	3.46	89	1.2	-	13.31	-0.03	77	164	70	65
347	63.732	0.184	0.097	3.46	89	1.2	-	13.28	-0.03	77	164	70	65
348	63.919	0.187	0.096	3.46	89	1.2	-	13.25	-0.03	77	163	70	65
349	64.105	0.186	0.097	3.46	89	1.2	-	13.22	-0.03	77	164	70	65
350	64.290	0.185	0.097	3.46	89	1.2	100	13.18	-0.04	77	164	70	65
351	64.472	0.182	0.097	3.46	89	1.2	-	13.15	-0.03	77	164	70	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	64.658	0.186	0.098	3.46	89	1.2	-	13.13	-0.02	77	164	70	65
353	64.843	0.185	0.097	3.45	89	1.2	-	13.10	-0.03	77	162	70	65
354	65.027	0.184	0.099	3.46	89	1.2	-	13.07	-0.03	77	162	70	65
355	65.213	0.186	0.097	3.45	89	1.2	-	13.03	-0.04	77	162	70	65
356	65.401	0.188	0.097	3.46	89	1.2	-	13.01	-0.02	77	162	70	65
357	65.585	0.184	0.097	3.47	89	1.2	-	12.99	-0.02	77	162	70	65
358	65.770	0.185	0.095	3.46	89	1.2	-	12.95	-0.04	77	162	70	65
359	65.952	0.182	0.098	3.45	89	1.2	-	12.93	-0.02	77	162	70	65
360	66.136	0.184	0.096	3.45	89	1.2	100	12.89	-0.04	76	162	70	65
361	66.323	0.187	0.095	3.46	89	1.2	-	12.87	-0.02	76	160	69	65
362	66.508	0.185	0.097	3.47	89	1.2	-	12.85	-0.02	76	161	70	65
363	66.695	0.187	0.096	3.45	89	1.2	-	12.82	-0.03	76	160	69	65
364	66.879	0.184	0.095	3.45	89	1.2	-	12.78	-0.04	76	161	69	65
365	67.063	0.184	0.095	3.45	89	1.2	-	12.75	-0.03	76	161	69	65
366	67.248	0.185	0.095	3.46	89	1.2	-	12.73	-0.02	76	161	69	65
367	67.431	0.183	0.096	3.46	89	1.2	-	12.69	-0.04	76	159	69	65
368	67.618	0.187	0.096	3.45	89	1.2	-	12.68	-0.01	76	161	69	65
369	67.803	0.185	0.095	3.47	89	1.2	-	12.65	-0.03	76	160	69	65
370	67.985	0.182	0.095	3.45	89	1.2	101	12.61	-0.04	76	160	69	65
371	68.175	0.190	0.096	3.46	89	1.2	-	12.59	-0.02	76	160	69	65
372	68.356	0.181	0.097	3.45	89	1.2	-	12.56	-0.03	76	160	69	65
373	68.541	0.185	0.097	3.45	89	1.2	-	12.53	-0.03	76	160	69	65
374	68.725	0.184	0.095	3.45	89	1.2	-	12.49	-0.04	76	161	69	65
375	68.911	0.186	0.097	3.46	89	1.2	-	12.47	-0.02	76	162	69	65
376	69.098	0.187	0.096	3.44	89	1.2	-	12.42	-0.05	76	162	69	65
377	69.279	0.181	0.095	3.46	89	1.2	-	12.40	-0.02	76	162	69	65
378	69.463	0.184	0.095	3.45	89	1.2	-	12.36	-0.04	76	163	69	65
379	69.647	0.184	0.096	3.45	89	1.2	-	12.33	-0.03	76	163	69	65
380	69.834	0.187	0.097	3.46	89	1.2	100	12.29	-0.04	76	164	69	65
381	70.021	0.187	0.095	3.46	89	1.2	-	12.26	-0.03	76	164	69	65
382	70.203	0.182	0.096	3.46	89	1.2	-	12.22	-0.04	76	165	69	65
383	70.389	0.186	0.096	3.44	88	1.2	-	12.19	-0.03	76	166	69	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	70.576	0.187	0.097	3.46	88	1.2	-	12.15	-0.04	76	166	69	65
385	70.760	0.184	0.097	3.46	88	1.2	-	12.11	-0.04	76	167	69	65
386	70.944	0.184	0.097	3.46	88	1.2	-	12.07	-0.04	76	168	69	65
387	71.127	0.183	0.097	3.47	88	1.2	-	12.05	-0.02	76	167	69	65
388	71.314	0.187	0.095	3.45	88	1.2	-	12.01	-0.04	76	167	69	65
389	71.498	0.184	0.096	3.46	88	1.2	-	11.98	-0.03	76	166	69	65
390	71.685	0.187	0.096	3.45	88	1.2	100	11.95	-0.03	76	166	69	65
391	71.870	0.185	0.096	3.45	88	1.2	-	11.91	-0.04	76	165	69	65
392	72.048	0.178	0.096	3.44	88	1.2	-	11.88	-0.03	76	165	69	65
393	72.237	0.189	0.097	3.45	88	1.2	-	11.85	-0.03	76	166	69	65
394	72.419	0.182	0.095	3.46	88	1.2	-	11.82	-0.03	76	165	69	65
395	72.607	0.188	0.097	3.45	88	1.2	-	11.79	-0.03	76	165	69	65
396	72.794	0.187	0.096	3.45	88	1.2	-	11.76	-0.03	76	164	69	64
397	72.975	0.181	0.096	3.47	88	1.2	-	11.74	-0.02	76	163	69	65
398	73.163	0.188	0.096	3.44	88	1.2	-	11.70	-0.04	76	162	69	65
399	73.345	0.182	0.096	3.44	88	1.2	-	11.68	-0.02	76	161	69	65
400	73.529	0.184	0.096	3.44	88	1.2	100	11.65	-0.03	75	160	69	64
401	73.716	0.187	0.097	3.44	88	1.2	-	11.63	-0.02	75	160	69	64
402	73.901	0.185	0.095	3.46	88	1.2	-	11.61	-0.02	75	158	69	64
403	74.087	0.186	0.096	3.44	88	1.2	-	11.58	-0.03	75	157	69	64
404	74.272	0.185	0.097	3.46	88	1.2	-	11.56	-0.02	75	158	69	64
405	74.454	0.182	0.096	3.46	88	1.2	-	11.54	-0.02	75	156	69	64
406	74.635	0.181	0.096	3.46	88	1.2	-	11.51	-0.03	75	156	69	64
407	74.820	0.185	0.096	3.46	88	1.2	-	11.49	-0.02	75	155	69	64
408	75.005	0.185	0.098	3.46	88	1.2	-	11.47	-0.02	75	155	69	64
409	75.193	0.188	0.097	3.44	88	1.2	-	11.45	-0.02	75	154	69	64
410	75.377	0.184	0.098	3.46	88	1.2	100	11.43	-0.02	75	154	69	64
411	75.561	0.184	0.097	3.44	88	1.2	-	11.41	-0.02	75	153	69	64
412	75.746	0.185	0.098	3.46	88	1.1	-	11.38	-0.03	75	152	68	64
413	75.931	0.185	0.096	3.46	88	1.2	-	11.36	-0.02	75	151	68	64
414	76.117	0.186	0.097	3.46	88	1.2	-	11.35	-0.01	75	150	68	64
415	76.302	0.185	0.097	3.46	88	1.2	-	11.32	-0.03	75	150	68	64

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
416	76.488	0.186	0.097	3.44	88	1.2	-	11.30	-0.02	75	150	68	64
417	76.672	0.184	0.098	3.46	88	1.2	-	11.28	-0.02	75	148	68	64
418	76.856	0.184	0.097	3.45	88	1.2	-	11.26	-0.02	75	149	68	64
419	77.040	0.184	0.096	3.45	88	1.2	-	11.23	-0.03	75	148	68	64
420	77.220	0.180	0.096	3.47	88	1.2	100	11.21	-0.02	74	149	68	64
421	77.410	0.190	0.096	3.46	88	1.2	-	11.19	-0.02	74	147	68	64
422	77.595	0.185	0.098	3.46	88	1.2	-	11.17	-0.02	74	147	68	64
423	77.780	0.185	0.098	3.44	88	1.2	-	11.14	-0.03	74	147	68	64
424	77.962	0.182	0.096	3.45	88	1.2	-	11.13	-0.01	74	146	68	64
425	78.147	0.185	0.097	3.46	88	1.2	-	11.12	-0.01	74	146	68	64
426	78.327	0.180	0.097	3.45	88	1.2	-	11.09	-0.03	74	145	68	64
427	78.516	0.189	0.096	3.46	88	1.2	-	11.07	-0.02	74	145	68	64
428	78.698	0.182	0.097	3.47	88	1.2	-	11.05	-0.02	74	146	68	64
429	78.887	0.189	0.098	3.45	88	1.2	-	11.03	-0.02	74	146	68	64
430	79.071	0.184	0.098	3.46	88	1.2	100	11.02	-0.01	74	147	68	64
431	79.254	0.183	0.097	3.45	88	1.2	-	10.99	-0.03	74	147	68	64
432	79.435	0.181	0.095	3.44	88	1.2	-	10.97	-0.02	74	148	68	64
433	79.618	0.183	0.096	3.45	88	1.2	-	10.94	-0.03	74	148	68	64
434	79.807	0.189	0.095	3.45	88	1.2	-	10.93	-0.01	74	148	68	64
435	79.993	0.186	0.095	3.46	88	1.2	-	10.90	-0.03	74	148	68	64
436	80.177	0.184	0.096	3.45	88	1.2	-	10.89	-0.01	74	150	68	64
437	80.363	0.186	0.097	3.44	88	1.2	-	10.85	-0.04	74	150	68	64
438	80.544	0.181	0.098	3.46	88	1.2	-	10.83	-0.02	74	151	68	64
439	80.729	0.185	0.098	3.44	88	1.2	-	10.82	-0.01	74	151	68	64
440	80.914	0.185	0.098	3.45	88	1.2	99	10.79	-0.03	74	152	68	64
441	81.096	0.182	0.097	3.46	88	1.2	-	10.77	-0.02	74	152	68	64
442	81.282	0.186	0.096	3.44	88	1.2	-	10.75	-0.02	74	153	68	64
443	81.469	0.187	0.097	3.45	88	1.2	-	10.72	-0.03	74	155	68	64
444	81.653	0.184	0.097	3.44	88	1.2	-	10.70	-0.02	74	154	68	64
445	81.837	0.184	0.098	3.45	88	1.2	-	10.66	-0.04	74	156	68	64
446	82.020	0.183	0.097	3.46	88	1.2	-	10.65	-0.01	74	157	68	64
447	82.203	0.183	0.096	3.45	88	1.2	-	10.62	-0.03	74	157	68	64

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
448	82.391	0.188	0.097	3.45	88	1.2	-	10.60	-0.02	74	158	68	64
449	82.576	0.185	0.097	3.45	88	1.2	-	10.57	-0.03	74	157	68	64
450	82.761	0.185	0.098	3.44	88	1.2	99	10.55	-0.02	74	158	68	64
451	82.940	0.179	0.098	3.45	88	1.2	-	10.53	-0.02	74	159	68	64
452	83.127	0.187	0.098	3.45	88	1.2	-	10.50	-0.03	74	159	68	64
453	83.313	0.186	0.095	3.46	88	1.2	-	10.48	-0.02	74	160	68	64
454	83.497	0.184	0.097	3.45	88	1.2	-	10.45	-0.03	74	160	68	64
455	83.681	0.184	0.098	3.45	88	1.2	-	10.43	-0.02	74	160	68	64
456	83.865	0.184	0.098	3.45	88	1.2	-	10.40	-0.03	74	160	68	64
457	84.051	0.186	0.096	3.44	88	1.2	-	10.38	-0.02	74	161	68	64
458	84.235	0.184	0.098	3.45	88	1.2	-	10.36	-0.02	74	162	68	64
459	84.418	0.183	0.097	3.45	88	1.2	-	10.33	-0.03	74	161	68	64
460	84.601	0.183	0.097	3.44	88	1.2	99	10.31	-0.02	74	162	68	64
461	84.788	0.187	0.095	3.45	88	1.2	-	10.29	-0.02	74	162	68	64
462	84.975	0.187	0.097	3.45	88	1.2	-	10.26	-0.03	74	162	68	64
463	85.160	0.185	0.097	3.44	88	1.2	-	10.24	-0.02	74	163	68	64
464	85.342	0.182	0.099	3.45	88	1.2	-	10.21	-0.03	74	164	68	63
465	85.522	0.180	0.097	3.44	87	1.2	-	10.20	-0.01	74	165	68	64
466	85.711	0.189	0.096	3.45	87	1.2	-	10.16	-0.04	74	164	68	64
467	85.896	0.185	0.096	3.45	87	1.2	-	10.13	-0.03	74	164	68	64
468	86.082	0.186	0.097	3.45	88	1.2	-	10.11	-0.02	74	164	68	64
469	86.266	0.184	0.097	3.46	88	1.2	-	10.09	-0.02	74	164	68	64
470	86.450	0.184	0.096	3.45	87	1.2	100	10.06	-0.03	74	164	68	64
471	86.633	0.183	0.096	3.46	87	1.2	-	10.04	-0.02	74	164	68	64
472	86.816	0.183	0.097	3.45	88	1.2	-	10.01	-0.03	74	166	68	64
473	87.003	0.187	0.096	3.44	87	1.2	-	9.99	-0.02	74	165	68	64
474	87.188	0.185	0.097	3.46	88	1.2	-	9.97	-0.02	74	164	68	64
475	87.372	0.184	0.097	3.44	87	1.2	-	9.94	-0.03	74	166	68	64
476	87.557	0.185	0.097	3.45	87	1.2	-	9.92	-0.02	74	165	68	64
477	87.739	0.182	0.097	3.46	87	1.2	-	9.89	-0.03	74	167	68	64
478	87.923	0.184	0.095	3.43	87	1.2	-	9.87	-0.02	74	167	68	64
479	88.109	0.186	0.097	3.44	87	1.2	-	9.84	-0.03	74	166	68	64

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
480	88.293	0.184	0.096	3.45	87	1.2	100	9.82	-0.02	74	166	68	64
481	88.479	0.186	0.096	3.44	87	1.2	-	9.78	-0.04	74	167	68	64
482	88.663	0.184	0.097	3.45	87	1.2	-	9.77	-0.01	74	166	68	64
483	88.846	0.183	0.096	3.45	87	1.2	-	9.74	-0.03	75	166	68	64
484	89.027	0.181	0.095	3.45	87	1.2	-	9.71	-0.03	75	166	68	64
485	89.210	0.183	0.097	3.46	87	1.2	-	9.69	-0.02	75	166	68	64
486	89.399	0.189	0.097	3.44	87	1.2	-	9.66	-0.03	75	167	68	64
487	89.585	0.186	0.096	3.45	87	1.2	-	9.63	-0.03	75	168	68	64
488	89.769	0.184	0.098	3.44	87	1.2	-	9.61	-0.02	75	168	68	64
489	89.950	0.181	0.096	3.45	87	1.2	-	9.59	-0.02	75	169	68	64
490	90.135	0.185	0.097	3.45	87	1.2	100	9.56	-0.03	75	170	68	64
491	90.316	0.181	0.097	3.45	87	1.2	-	9.52	-0.04	75	170	68	64
492	90.506	0.190	0.098	3.45	87	1.2	-	9.49	-0.03	75	170	68	64
493	90.690	0.184	0.096	3.46	87	1.2	-	9.46	-0.03	75	170	68	64
494	90.876	0.186	0.097	3.45	87	1.2	-	9.43	-0.03	75	170	68	64
495	91.060	0.184	0.097	3.46	87	1.2	-	9.41	-0.02	75	170	68	64
496	91.239	0.179	0.097	3.45	87	1.2	-	9.38	-0.03	75	172	68	64
497	91.427	0.188	0.097	3.44	87	1.2	-	9.34	-0.04	75	172	68	63
498	91.608	0.181	0.094	3.46	87	1.2	-	9.30	-0.04	75	172	68	64
499	91.796	0.188	0.099	3.45	87	1.2	-	9.27	-0.03	76	172	68	64
500	91.980	0.184	0.098	3.44	87	1.2	100	9.25	-0.02	76	172	68	64
501	92.166	0.186	0.095	3.46	87	1.2	-	9.21	-0.04	75	172	68	64
502	92.351	0.185	0.098	3.45	87	1.2	-	9.17	-0.04	75	172	68	64
503	92.533	0.182	0.096	3.46	87	1.2	-	9.14	-0.03	75	172	68	64
504	92.716	0.183	0.097	3.44	87	1.2	-	9.11	-0.03	75	173	68	64
505	92.902	0.186	0.097	3.44	87	1.2	-	9.08	-0.03	75	172	68	64
506	93.087	0.185	0.095	3.46	87	1.2	-	9.06	-0.02	76	171	68	64
507	93.273	0.186	0.096	3.44	87	1.2	-	9.01	-0.05	76	172	68	64
508	93.458	0.185	0.096	3.44	87	1.2	-	8.99	-0.02	76	172	68	64
509	93.639	0.181	0.096	3.44	88	1.2	-	8.95	-0.04	76	171	68	64
510	93.823	0.184	0.096	3.45	87	1.2	100	8.91	-0.04	76	171	68	64
511	94.005	0.182	0.096	3.45	87	1.2	-	8.88	-0.03	76	170	68	64

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
512	94.189	0.184	0.097	3.45	87	1.2	-	8.87	-0.01	76	169	68	64
513	94.376	0.187	0.098	3.44	87	1.2	-	8.82	-0.05	76	168	68	64
514	94.563	0.187	0.096	3.45	87	1.2	-	8.79	-0.03	76	168	68	64
515	94.746	0.183	0.096	3.44	87	1.2	-	8.76	-0.03	76	166	68	64
516	94.929	0.183	0.099	3.45	87	1.2	-	8.73	-0.03	76	165	68	64
517	95.112	0.183	0.096	3.45	87	1.2	-	8.70	-0.03	76	164	68	64
518	95.299	0.187	0.097	3.44	87	1.2	-	8.68	-0.02	76	164	68	64
519	95.483	0.184	0.096	3.45	87	1.2	-	8.64	-0.04	76	162	68	64
520	95.665	0.182	0.097	3.45	87	1.2	100	8.62	-0.02	76	161	68	64
521	95.854	0.189	0.099	3.44	87	1.2	-	8.60	-0.02	75	160	68	64
522	96.035	0.181	0.097	3.45	87	1.2	-	8.57	-0.03	75	159	68	64
523	96.219	0.184	0.097	3.44	87	1.2	-	8.54	-0.03	75	158	68	64
524	96.404	0.185	0.098	3.46	87	1.2	-	8.52	-0.02	75	156	68	64
525	96.588	0.184	0.097	3.44	87	1.2	-	8.49	-0.03	75	155	68	64
526	96.775	0.187	0.095	3.45	87	1.2	-	8.48	-0.01	75	153	68	64
527	96.959	0.184	0.097	3.44	87	1.2	-	8.44	-0.04	75	153	68	64
528	97.142	0.183	0.097	3.44	87	1.2	-	8.42	-0.02	75	151	68	64
529	97.322	0.180	0.096	3.44	87	1.2	-	8.40	-0.02	75	150	68	64
530	97.506	0.184	0.096	3.45	87	1.2	100	8.38	-0.02	75	149	68	64
531	97.692	0.186	0.095	3.44	87	1.2	-	8.36	-0.02	75	148	68	64
532	97.880	0.188	0.096	3.45	87	1.2	-	8.34	-0.02	75	148	68	64
533	98.065	0.185	0.097	3.45	87	1.2	-	8.32	-0.02	75	146	68	64
534	98.249	0.184	0.096	3.45	87	1.2	-	8.31	-0.01	75	146	68	64
535	98.434	0.185	0.096	3.46	87	1.2	-	8.29	-0.02	75	145	68	64
536	98.615	0.181	0.096	3.45	87	1.2	-	8.27	-0.02	75	144	68	64
537	98.797	0.182	0.098	3.44	87	1.2	-	8.26	-0.01	75	142	68	64
538	98.985	0.188	0.097	3.45	87	1.2	-	8.25	-0.01	74	142	68	64
539	99.171	0.186	0.097	3.45	87	1.2	-	8.24	-0.01	74	141	68	64
540	99.355	0.184	0.095	3.46	87	1.2	101	8.22	-0.02	74	139	68	64
541	99.537	0.182	0.098	3.45	87	1.2	-	8.21	-0.01	75	138	68	64
542	99.721	0.184	0.098	3.44	87	1.2	-	8.20	-0.01	75	138	68	64
543	99.904	0.183	0.097	3.46	87	1.2	-	8.18	-0.02	75	136	68	64

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
544	100.087	0.183	0.097	3.45	87	1.2	-	8.17	-0.01	75	136	68	64
545	100.277	0.190	0.098	3.45	87	1.2	-	8.16	-0.01	74	135	68	64
546	100.458	0.181	0.096	3.46	87	1.2	-	8.15	-0.01	74	135	68	64
547	100.645	0.187	0.097	3.45	87	1.2	-	8.14	-0.01	74	133	68	63
548	100.827	0.182	0.097	3.45	87	1.2	-	8.13	-0.01	74	133	68	63
549	101.010	0.183	0.097	3.45	87	1.2	-	8.11	-0.02	74	133	68	64
550	101.197	0.187	0.095	3.44	87	1.2	101	8.10	-0.01	74	134	68	63
551	101.379	0.182	0.095	3.46	87	1.2	-	8.09	-0.01	74	133	68	63
552	101.564	0.185	0.095	3.45	87	1.2	-	8.07	-0.02	74	134	68	63
553	101.752	0.188	0.097	3.46	87	1.2	-	8.07	0.00	74	135	68	64
554	101.930	0.178	0.097	3.46	87	1.2	-	8.04	-0.03	74	136	68	63
555	102.114	0.184	0.095	3.44	87	1.2	-	8.03	-0.01	74	138	68	63
556	102.301	0.187	0.096	3.46	87	1.2	-	8.01	-0.02	74	138	68	63
557	102.487	0.186	0.097	3.45	87	1.2	-	8.00	-0.01	74	139	68	63
558	102.676	0.189	0.096	3.46	87	1.2	-	7.97	-0.03	74	141	68	63
559	102.854	0.178	0.096	3.45	87	1.2	-	7.96	-0.01	74	142	68	63
560	103.041	0.187	0.097	3.44	87	1.2	100	7.94	-0.02	74	143	68	63
561	103.224	0.183	0.096	3.46	87	1.2	-	7.91	-0.03	74	146	68	63
562	103.407	0.183	0.096	3.45	87	1.2	-	7.88	-0.03	74	147	68	63
563	103.590	0.183	0.095	3.45	87	1.2	-	7.86	-0.02	74	148	68	63
564	103.778	0.188	0.096	3.45	87	1.2	-	7.84	-0.02	74	151	68	63
565	103.964	0.186	0.097	3.45	87	1.2	-	7.81	-0.03	74	153	68	63
566	104.149	0.185	0.098	3.46	87	1.2	-	7.79	-0.02	74	154	68	63
567	104.330	0.181	0.096	3.46	87	1.2	-	7.76	-0.03	74	156	68	63
568	104.514	0.184	0.097	3.45	87	1.2	-	7.74	-0.02	74	158	68	63
569	104.696	0.182	0.095	3.45	87	1.2	-	7.71	-0.03	74	158	68	63
570	104.883	0.187	0.095	3.45	87	1.2	100	7.68	-0.03	74	161	68	63
571	105.069	0.186	0.096	3.44	87	1.2	-	7.64	-0.04	74	162	68	63
572	105.253	0.184	0.096	3.46	87	1.2	-	7.61	-0.03	74	162	68	63
573	105.432	0.179	0.096	3.45	87	1.2	-	7.58	-0.03	74	165	68	63
574	105.620	0.188	0.096	3.45	87	1.2	-	7.56	-0.02	74	168	68	63
575	105.803	0.183	0.097	3.45	87	1.2	-	7.51	-0.05	74	169	68	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
576	105.989	0.186	0.095	3.45	87	1.2	-	7.48	-0.03	74	170	68	63
577	106.175	0.186	0.097	3.46	87	1.2	-	7.45	-0.03	74	172	68	63
578	106.359	0.184	0.096	3.45	87	1.2	-	7.42	-0.03	74	176	68	63
579	106.544	0.185	0.096	3.45	87	1.2	-	7.37	-0.05	75	178	68	63
580	106.725	0.181	0.096	3.47	87	1.2	100	7.34	-0.03	75	179	68	63
581	106.905	0.180	0.097	3.45	87	1.2	-	7.30	-0.04	75	181	68	63
582	107.095	0.190	0.099	3.46	87	1.2	-	7.26	-0.04	75	181	68	63
583	107.279	0.184	0.097	3.46	87	1.2	-	7.21	-0.05	75	185	68	63
584	107.466	0.187	0.096	3.44	87	1.2	-	7.17	-0.04	75	187	68	63
585	107.650	0.184	0.098	3.46	87	1.2	-	7.13	-0.04	75	188	68	63
586	107.832	0.182	0.097	3.45	87	1.2	-	7.08	-0.05	75	190	68	63
587	108.013	0.181	0.097	3.45	87	1.2	-	7.04	-0.04	75	190	68	63
588	108.199	0.186	0.097	3.46	87	1.2	-	6.98	-0.06	75	190	68	63
589	108.382	0.183	0.098	3.45	87	1.2	-	6.94	-0.04	76	190	68	63
590	108.572	0.190	0.096	3.46	87	1.2	100	6.89	-0.05	75	188	68	63
591	108.755	0.183	0.097	3.46	87	1.2	-	6.84	-0.05	76	187	68	63
592	108.936	0.181	0.095	3.45	87	1.2	-	6.81	-0.03	75	185	68	63
593	109.121	0.185	0.097	3.46	87	1.2	-	6.77	-0.04	76	183	68	63
594	109.305	0.184	0.097	3.44	87	1.2	-	6.72	-0.05	75	180	68	63
595	109.488	0.183	0.098	3.45	87	1.2	-	6.69	-0.03	75	177	68	63
596	109.676	0.188	0.098	3.46	87	1.2	-	6.65	-0.04	75	175	68	63
597	109.862	0.186	0.096	3.44	87	1.2	-	6.61	-0.04	76	172	68	64
598	110.046	0.184	0.097	3.46	87	1.2	-	6.58	-0.03	75	168	68	63
599	110.227	0.181	0.098	3.45	87	1.2	-	6.54	-0.04	75	165	68	63
600	110.412	0.185	0.097	3.45	87	1.2	100	6.52	-0.02	75	162	68	63
601	110.596	0.184	0.096	3.45	87	1.2	-	6.48	-0.04	75	161	68	64
602	110.781	0.185	0.097	3.45	87	1.2	-	6.45	-0.03	75	160	68	63
603	110.968	0.187	0.096	3.45	87	1.2	-	6.43	-0.02	75	158	68	63
604	111.148	0.180	0.098	3.46	87	1.2	-	6.40	-0.03	75	156	68	63
605	111.331	0.183	0.097	3.44	87	1.2	-	6.38	-0.02	75	156	68	64
606	111.518	0.187	0.098	3.47	87	1.2	-	6.36	-0.02	75	154	68	64
607	111.701	0.183	0.095	3.45	87	1.2	-	6.33	-0.03	75	153	68	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
608	111.884	0.183	0.096	3.45	87	1.2	-	6.31	-0.02	75	152	68	63
609	112.072	0.188	0.096	3.44	87	1.1	-	6.28	-0.03	75	151	68	63
610	112.254	0.182	0.098	3.45	87	1.2	99	6.26	-0.02	75	150	68	63
611	112.439	0.185	0.097	3.45	87	1.1	-	6.23	-0.03	74	149	68	63
612	112.621	0.182	0.095	3.46	87	1.2	-	6.21	-0.02	74	148	68	63
613	112.808	0.187	0.096	3.45	87	1.2	-	6.19	-0.02	74	147	68	63
614	112.991	0.183	0.097	3.45	87	1.2	-	6.16	-0.03	74	146	68	63
615	113.177	0.186	0.097	3.46	87	1.2	-	6.14	-0.02	74	146	68	63
616	113.364	0.187	0.096	3.45	87	1.2	-	6.12	-0.02	74	145	68	63
617	113.548	0.184	0.098	3.47	87	1.2	-	6.11	-0.01	74	144	68	63
618	113.727	0.179	0.097	3.45	87	1.2	-	6.08	-0.03	74	143	68	63
619	113.915	0.188	0.097	3.45	87	1.2	-	6.07	-0.01	74	143	68	63
620	114.098	0.183	0.096	3.46	87	1.2	100	6.05	-0.02	74	142	68	63
621	114.284	0.186	0.098	3.45	87	1.2	-	6.03	-0.02	74	141	68	63
622	114.467	0.183	0.096	3.46	87	1.2	-	6.01	-0.02	74	141	68	63
623	114.654	0.187	0.098	3.45	87	1.2	-	5.99	-0.02	74	140	68	63
624	114.839	0.185	0.097	3.46	87	1.2	-	5.98	-0.01	74	140	68	63
625	115.021	0.182	0.097	3.47	87	1.2	-	5.96	-0.02	74	139	68	63
626	115.205	0.184	0.097	3.45	87	1.2	-	5.94	-0.02	74	138	68	63
627	115.390	0.185	0.096	3.46	87	1.2	-	5.93	-0.01	74	137	68	63
628	115.574	0.184	0.097	3.46	87	1.2	-	5.91	-0.02	74	138	68	63
629	115.761	0.187	0.097	3.46	87	1.2	-	5.90	-0.01	74	137	68	63
630	115.945	0.184	0.096	3.45	87	1.2	100	5.88	-0.02	74	136	67	63
631	116.127	0.182	0.096	3.46	87	1.2	-	5.86	-0.02	74	135	67	63
632	116.311	0.184	0.098	3.45	87	1.2	-	5.85	-0.01	74	135	67	63
633	116.495	0.184	0.098	3.46	87	1.2	-	5.84	-0.01	73	134	67	63
634	116.681	0.186	0.096	3.45	87	1.2	-	5.83	-0.01	74	133	67	63
635	116.864	0.183	0.096	3.46	87	1.2	-	5.81	-0.02	74	133	67	63
636	117.051	0.187	0.098	3.46	87	1.2	-	5.81	0.00	74	132	67	63
637	117.232	0.181	0.096	3.46	87	1.2	-	5.78	-0.03	74	132	67	63
638	117.415	0.183	0.097	3.46	87	1.2	-	5.77	-0.01	74	131	67	63
639	117.598	0.183	0.097	3.46	87	1.2	-	5.75	-0.02	73	131	67	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
640	117.784	0.186	0.096	3.44	87	1.2	100	5.74	-0.01	73	130	67	63
641	117.972	0.188	0.095	3.46	87	1.2	-	5.73	-0.01	73	130	67	63
642	118.158	0.186	0.097	3.45	87	1.2	-	5.72	-0.01	73	129	67	63
643	118.342	0.184	0.097	3.46	87	1.2	-	5.71	-0.01	73	129	67	63
644	118.523	0.181	0.096	3.45	87	1.2	-	5.69	-0.02	73	129	67	63
645	118.704	0.181	0.097	3.45	87	1.2	-	5.67	-0.02	73	129	67	63
646	118.891	0.187	0.097	3.46	87	1.2	-	5.67	0.00	73	129	67	63
647	119.077	0.186	0.096	3.45	87	1.2	-	5.64	-0.03	73	130	67	63
648	119.263	0.186	0.096	3.45	87	1.2	-	5.63	-0.01	73	129	67	63
649	119.447	0.184	0.097	3.47	87	1.2	-	5.62	-0.01	73	130	67	63
650	119.631	0.184	0.095	3.44	87	1.2	101	5.61	-0.01	73	131	67	63
651	119.813	0.182	0.097	3.46	87	1.2	-	5.59	-0.02	73	131	67	63
652	119.996	0.183	0.097	3.44	87	1.2	-	5.57	-0.02	73	132	67	63
653	120.182	0.186	0.096	3.44	87	1.2	-	5.56	-0.01	73	133	67	63
654	120.367	0.185	0.097	3.45	87	1.2	-	5.54	-0.02	73	134	67	63
655	120.553	0.186	0.098	3.44	87	1.2	-	5.53	-0.01	73	136	67	63
656	120.737	0.184	0.095	3.45	87	1.2	-	5.50	-0.03	73	136	67	63
657	120.918	0.181	0.098	3.46	87	1.2	-	5.48	-0.02	73	137	67	63
658	121.103	0.185	0.095	3.46	87	1.2	-	5.46	-0.02	73	138	67	63
659	121.287	0.184	0.096	3.46	87	1.2	-	5.44	-0.02	73	140	67	63
660	121.472	0.185	0.097	3.46	87	1.2	100	5.42	-0.02	73	142	67	63
661	121.658	0.186	0.098	3.45	87	1.2	-	5.40	-0.02	73	143	67	63
662	121.842	0.184	0.097	3.46	87	1.2	-	5.38	-0.02	73	143	67	63
663	122.021	0.179	0.095	3.45	87	1.2	-	5.35	-0.03	73	145	67	63
664	122.205	0.184	0.097	3.45	87	1.2	-	5.33	-0.02	73	146	67	63
665	122.389	0.184	0.098	3.46	87	1.2	-	5.31	-0.02	73	147	67	63
666	122.578	0.189	0.096	3.45	87	1.2	-	5.29	-0.02	73	148	67	63
667	122.761	0.183	0.097	3.46	87	1.2	-	5.27	-0.02	73	150	67	63
668	122.947	0.186	0.097	3.45	87	1.2	-	5.25	-0.02	73	150	67	63
669	123.129	0.182	0.096	3.46	87	1.2	-	5.22	-0.03	73	150	67	63
670	123.314	0.185	0.097	3.45	87	1.2	100	5.20	-0.02	73	152	67	63
671	123.497	0.183	0.095	3.45	87	1.2	-	5.17	-0.03	73	154	67	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
672	123.680	0.183	0.096	3.45	87	1.2	-	5.15	-0.02	74	155	67	63
673	123.867	0.187	0.095	3.46	87	1.2	-	5.12	-0.03	74	156	67	63
674	124.054	0.187	0.096	3.45	87	1.2	-	5.10	-0.02	74	157	67	63
675	124.235	0.181	0.097	3.46	87	1.2	-	5.07	-0.03	74	157	67	63
676	124.420	0.185	0.096	3.46	87	1.2	-	5.05	-0.02	74	158	67	63
677	124.604	0.184	0.096	3.44	87	1.2	-	5.02	-0.03	74	159	67	63
678	124.787	0.183	0.096	3.46	87	1.2	-	5.00	-0.02	74	159	67	63
679	124.969	0.182	0.097	3.44	87	1.1	-	4.97	-0.03	74	160	67	63
680	125.159	0.190	0.096	3.46	87	1.2	100	4.94	-0.03	74	161	67	63
681	125.343	0.184	0.095	3.45	87	1.2	-	4.92	-0.02	74	160	67	63
682	125.523	0.180	0.097	3.44	87	1.2	-	4.89	-0.03	74	163	67	63
683	125.707	0.184	0.096	3.46	87	1.2	-	4.87	-0.02	74	163	67	63
684	125.892	0.185	0.098	3.45	87	1.2	-	4.84	-0.03	74	163	67	63
685	126.078	0.186	0.097	3.44	87	1.2	-	4.81	-0.03	74	164	67	63
686	126.263	0.185	0.098	3.47	87	1.2	-	4.80	-0.01	74	164	67	63
687	126.449	0.186	0.096	3.44	87	1.1	-	4.77	-0.03	74	164	67	63
688	126.634	0.185	0.098	3.45	87	1.2	-	4.73	-0.04	74	164	67	63
689	126.811	0.177	0.097	3.45	87	1.2	-	4.71	-0.02	74	164	67	63
690	126.999	0.188	0.096	3.44	87	1.2	100	4.69	-0.02	74	164	67	63
691	127.183	0.184	0.097	3.46	87	1.2	-	4.65	-0.04	74	164	67	63
692	127.368	0.185	0.098	3.44	87	1.2	-	4.62	-0.03	74	165	67	63
693	127.554	0.186	0.097	3.45	87	1.1	-	4.59	-0.03	74	164	67	63
694	127.735	0.181	0.095	3.46	87	1.2	-	4.57	-0.02	75	165	67	63
695	127.922	0.187	0.098	3.45	87	1.2	-	4.55	-0.02	75	163	67	63
696	128.105	0.183	0.095	3.45	87	1.2	-	4.52	-0.03	75	162	67	63
697	128.287	0.182	0.097	3.46	87	1.2	-	4.50	-0.02	75	161	67	63
698	128.474	0.187	0.098	3.44	87	1.2	-	4.47	-0.03	75	162	67	63
699	128.659	0.185	0.097	3.46	87	1.2	-	4.44	-0.03	75	161	67	63
700	128.843	0.184	0.097	3.46	87	1.2	100	4.42	-0.02	75	159	67	63
701	129.028	0.185	0.096	3.45	87	1.2	-	4.40	-0.02	75	158	67	63
702	129.209	0.181	0.096	3.45	87	1.2	-	4.37	-0.03	75	156	67	63
703	129.393	0.184	0.097	3.45	87	1.2	-	4.35	-0.02	75	156	67	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
704	129.579	0.186	0.097	3.46	87	1.2	-	4.33	-0.02	74	154	67	63
705	129.763	0.184	0.097	3.46	87	1.2	-	4.31	-0.02	74	153	67	63
706	129.946	0.183	0.096	3.46	87	1.2	-	4.30	-0.01	74	152	67	63
707	130.133	0.187	0.096	3.47	87	1.2	-	4.27	-0.03	74	151	67	63
708	130.315	0.182	0.096	3.45	87	1.2	-	4.25	-0.02	74	150	67	63
709	130.496	0.181	0.096	3.44	87	1.2	-	4.23	-0.02	74	148	67	63
710	130.682	0.186	0.096	3.46	87	1.2	100	4.22	-0.01	74	147	67	63
711	130.868	0.186	0.095	3.45	87	1.2	-	4.18	-0.04	74	146	67	63
712	131.051	0.183	0.095	3.45	87	1.2	-	4.17	-0.01	74	146	67	63
713	131.238	0.187	0.096	3.46	87	1.2	-	4.16	-0.01	74	145	67	63
714	131.422	0.184	0.095	3.45	87	1.2	-	4.14	-0.02	74	144	67	63
715	131.602	0.180	0.097	3.46	87	1.1	-	4.14	0.00	74	143	67	63
716	131.787	0.185	0.096	3.45	87	1.2	-	4.12	-0.02	74	141	67	63
717	131.973	0.186	0.095	3.45	87	1.2	-	4.10	-0.02	74	141	67	63
718	132.158	0.185	0.095	3.45	87	1.2	-	4.09	-0.01	74	141	67	63
719	132.344	0.186	0.097	3.45	87	1.2	-	4.07	-0.02	74	140	67	63
720	132.529	0.185	0.097	3.45	87	1.2	100	4.05	-0.02	74	139	67	63
721	132.710	0.181	0.096	3.45	87	1.2	-	4.05	0.00	74	138	67	63
722	132.890	0.180	0.097	3.45	87	1.2	-	4.04	-0.01	74	137	67	63
723	133.078	0.188	0.098	3.46	87	1.2	-	4.03	-0.01	74	136	67	63
724	133.263	0.185	0.096	3.45	87	1.2	-	4.01	-0.02	74	135	67	63
725	133.450	0.187	0.097	3.44	87	1.2	-	4.00	-0.01	74	135	67	63
726	133.633	0.183	0.098	3.45	87	1.2	-	3.99	-0.01	74	134	67	63
727	133.816	0.183	0.096	3.45	87	1.2	-	3.98	-0.01	74	133	67	63
728	134.000	0.184	0.095	3.46	87	1.2	-	3.97	-0.01	74	134	67	63
729	134.183	0.183	0.095	3.45	87	1.2	-	3.96	-0.01	74	133	67	63
730	134.369	0.186	0.097	3.45	87	1.2	99	3.94	-0.02	73	133	67	63
731	134.554	0.185	0.097	3.46	87	1.2	-	3.93	-0.01	73	133	67	63
732	134.738	0.184	0.097	3.46	87	1.2	-	3.91	-0.02	73	133	67	63
733	134.923	0.185	0.097	3.44	87	1.2	-	3.90	-0.01	73	134	67	63
734	135.102	0.179	0.098	3.46	87	1.2	-	3.89	-0.01	74	134	67	63
735	135.288	0.186	0.097	3.46	87	1.2	-	3.87	-0.02	73	136	67	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
736	135.474	0.186	0.097	3.46	87	1.2	-	3.86	-0.01	73	137	67	63
737	135.659	0.185	0.096	3.45	87	1.2	-	3.84	-0.02	73	137	67	63
738	135.845	0.186	0.097	3.45	87	1.2	-	3.83	-0.01	73	138	67	63
739	136.029	0.184	0.097	3.46	87	1.2	-	3.81	-0.02	73	139	67	63
740	136.210	0.181	0.096	3.45	87	1.2	100	3.79	-0.02	73	141	67	63
741	136.395	0.185	0.096	3.45	87	1.2	-	3.77	-0.02	73	142	67	63
742	136.576	0.181	0.098	3.46	87	1.2	-	3.76	-0.01	73	144	67	63
743	136.764	0.188	0.096	3.46	87	1.2	-	3.71	-0.05	73	145	67	63
744	136.947	0.183	0.095	3.45	87	1.2	-	3.68	-0.03	73	147	67	62
745	137.134	0.187	0.097	3.46	87	1.2	-	3.67	-0.01	73	149	67	63
746	137.314	0.180	0.097	3.45	87	1.2	-	3.65	-0.02	74	150	67	63
747	137.498	0.184	0.098	3.46	87	1.2	-	3.64	-0.01	74	152	67	63
748	137.683	0.185	0.097	3.46	87	1.2	-	3.62	-0.02	74	153	67	63
749	137.869	0.186	0.097	3.45	87	1.2	-	3.58	-0.04	74	156	67	63
750	138.054	0.185	0.097	3.46	87	1.2	100	3.56	-0.02	74	157	67	63
751	138.239	0.185	0.095	3.45	87	1.2	-	3.53	-0.03	74	158	67	63
752	138.424	0.185	0.097	3.44	87	1.2	-	3.50	-0.03	74	159	67	63
753	138.606	0.182	0.099	3.45	87	1.2	-	3.49	-0.01	74	160	67	63
754	138.789	0.183	0.096	3.45	87	1.2	-	3.46	-0.03	74	161	67	63
755	138.974	0.185	0.097	3.45	87	1.2	-	3.44	-0.02	74	161	67	63
756	139.156	0.182	0.097	3.47	87	1.2	-	3.42	-0.02	74	160	67	63
757	139.342	0.186	0.097	3.45	87	1.2	-	3.39	-0.03	74	159	67	63
758	139.529	0.187	0.096	3.46	87	1.2	-	3.37	-0.02	74	159	67	63
759	139.711	0.182	0.098	3.46	87	1.2	-	3.34	-0.03	74	158	67	63
760	139.895	0.184	0.097	3.45	87	1.2	100	3.32	-0.02	74	158	67	63
761	140.075	0.180	0.097	3.45	87	1.2	-	3.30	-0.02	74	158	67	63
762	140.264	0.189	0.096	3.45	87	1.2	-	3.28	-0.02	74	158	67	63
763	140.450	0.186	0.096	3.46	87	1.2	-	3.26	-0.02	74	159	67	63
764	140.634	0.184	0.096	3.46	87	1.2	-	3.23	-0.03	74	159	67	63
765	140.819	0.185	0.096	3.45	87	1.2	-	3.21	-0.02	74	158	67	63
766	140.998	0.179	0.098	3.45	87	1.2	-	3.19	-0.02	74	158	67	63
767	141.180	0.182	0.097	3.46	87	1.2	-	3.16	-0.03	74	159	67	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
768	141.370	0.190	0.097	3.45	87	1.2	-	3.13	-0.03	74	159	67	63
769	141.551	0.181	0.098	3.46	87	1.2	-	3.11	-0.02	74	159	67	63
770	141.740	0.189	0.095	3.46	87	1.2	100	3.08	-0.03	74	160	67	63
771	141.922	0.182	0.096	3.46	87	1.2	-	3.05	-0.03	74	160	67	63
772	142.106	0.184	0.098	3.45	87	1.2	-	3.03	-0.02	74	161	67	63
773	142.287	0.181	0.098	3.45	87	1.2	-	3.01	-0.02	74	160	67	63
774	142.474	0.187	0.095	3.46	87	1.2	-	2.98	-0.03	74	160	67	63
775	142.659	0.185	0.095	3.45	87	1.2	-	2.96	-0.02	74	161	67	63
776	142.846	0.187	0.097	3.45	87	1.2	-	2.93	-0.03	74	162	67	63
777	143.030	0.184	0.095	3.47	87	1.2	-	2.91	-0.02	74	162	67	63
778	143.213	0.183	0.095	3.45	87	1.2	-	2.87	-0.04	74	162	67	63
779	143.396	0.183	0.095	3.45	87	1.2	-	2.86	-0.01	74	162	67	63
780	143.578	0.182	0.097	3.46	87	1.2	100	2.83	-0.03	74	163	67	63
781	143.762	0.184	0.097	3.45	87	1.2	-	2.81	-0.02	75	164	67	63
782	143.950	0.188	0.096	3.46	87	1.2	-	2.79	-0.02	75	163	67	63
783	144.135	0.185	0.096	3.45	87	1.2	-	2.76	-0.03	75	163	67	63
784	144.316	0.181	0.096	3.45	87	1.2	-	2.73	-0.03	75	164	67	63
785	144.498	0.182	0.096	3.47	87	1.2	-	2.71	-0.02	75	164	67	63
786	144.681	0.183	0.096	3.45	87	1.2	-	2.69	-0.02	75	164	67	63
787	144.870	0.189	0.096	3.45	87	1.2	-	2.67	-0.02	75	164	67	63
788	145.054	0.184	0.096	3.45	87	1.2	-	2.63	-0.04	75	164	67	63
789	145.241	0.187	0.097	3.44	87	1.2	-	2.61	-0.02	75	164	67	63
790	145.422	0.181	0.096	3.45	87	1.2	100	2.59	-0.02	75	164	67	63
791	145.607	0.185	0.098	3.45	87	1.2	-	2.57	-0.02	75	164	67	63
792	145.791	0.184	0.097	3.45	87	1.2	-	2.55	-0.02	75	164	67	63
793	145.974	0.183	0.096	3.46	87	1.2	-	2.52	-0.03	75	164	67	63
794	146.157	0.183	0.097	3.45	87	1.2	-	2.49	-0.03	75	164	67	63
795	146.346	0.189	0.097	3.45	87	1.2	-	2.47	-0.02	75	164	67	63
796	146.527	0.181	0.096	3.47	87	1.2	-	2.45	-0.02	75	164	67	63
797	146.714	0.187	0.096	3.45	87	1.2	-	2.43	-0.02	75	164	67	63
798	146.896	0.182	0.097	3.45	87	1.2	-	2.41	-0.02	75	164	67	63
799	147.079	0.183	0.096	3.45	87	1.2	-	2.39	-0.02	75	164	67	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
800	147.265	0.186	0.097	3.46	87	1.2	100	2.36	-0.03	75	164	67	63
801	147.447	0.182	0.097	3.46	87	1.1	-	2.34	-0.02	75	163	67	63
802	147.636	0.189	0.098	3.45	87	1.2	-	2.31	-0.03	75	164	67	63
803	147.820	0.184	0.096	3.46	87	1.2	-	2.29	-0.02	75	163	67	63
804	147.999	0.179	0.096	3.45	87	1.2	-	2.28	-0.01	75	165	67	63
805	148.186	0.187	0.096	3.45	87	1.2	-	2.25	-0.03	75	165	67	63
806	148.369	0.183	0.096	3.45	87	1.2	-	2.23	-0.02	75	165	67	63
807	148.555	0.186	0.096	3.45	87	1.2	-	2.20	-0.03	75	165	67	63
808	148.739	0.184	0.097	3.45	87	1.2	-	2.18	-0.02	75	165	67	63
809	148.922	0.183	0.098	3.46	87	1.2	-	2.15	-0.03	75	165	67	63
810	149.109	0.187	0.097	3.45	87	1.2	100	2.13	-0.02	75	166	67	63
811	149.289	0.180	0.097	3.45	87	1.2	-	2.10	-0.03	75	164	67	63
812	149.474	0.185	0.097	3.45	87	1.2	-	2.09	-0.01	75	164	67	63
813	149.661	0.187	0.098	3.45	87	1.2	-	2.07	-0.02	75	164	67	63
814	149.846	0.185	0.096	3.45	87	1.2	-	2.06	-0.01	75	164	67	63
815	150.031	0.185	0.097	3.46	87	1.2	-	2.03	-0.03	75	164	67	63
816	150.215	0.184	0.097	3.44	87	1.2	-	2.01	-0.02	75	164	67	63
817	150.397	0.182	0.096	3.46	87	1.2	-	1.99	-0.02	75	164	67	63
818	150.580	0.183	0.096	3.44	87	1.2	-	1.97	-0.02	75	164	67	63
819	150.765	0.185	0.096	3.46	87	1.2	-	1.95	-0.02	75	164	68	63
820	150.947	0.182	0.095	3.46	87	1.2	100	1.93	-0.02	75	163	67	63
821	151.133	0.186	0.098	3.45	87	1.2	-	1.91	-0.02	75	163	68	63
822	151.320	0.187	0.098	3.45	87	1.2	-	1.90	-0.01	75	163	67	63
823	151.503	0.183	0.097	3.46	87	1.2	-	1.87	-0.03	75	162	68	63
824	151.687	0.184	0.097	3.44	87	1.2	-	1.87	0.00	75	163	68	63
825	151.870	0.183	0.095	3.45	87	1.2	-	1.85	-0.02	75	162	68	63
826	152.053	0.183	0.098	3.46	87	1.2	-	1.83	-0.02	75	162	68	63
827	152.242	0.189	0.097	3.46	87	1.2	-	1.81	-0.02	75	162	68	63
828	152.426	0.184	0.097	3.46	87	1.2	-	1.80	-0.01	75	161	68	63
829	152.611	0.185	0.097	3.45	87	1.2	-	1.78	-0.02	75	161	68	63
830	152.792	0.181	0.097	3.45	87	1.2	100	1.76	-0.02	75	160	68	63
831	152.976	0.184	0.097	3.45	87	1.2	-	1.75	-0.01	75	159	68	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
832	153.159	0.183	0.096	3.44	87	1.2	-	1.74	-0.01	75	160	68	63
833	153.346	0.187	0.096	3.47	87	1.2	-	1.72	-0.02	75	160	68	63
834	153.532	0.186	0.096	3.44	87	1.2	-	1.70	-0.02	75	160	67	63
835	153.714	0.182	0.096	3.46	87	1.2	-	1.69	-0.01	75	160	67	63
836	153.895	0.181	0.096	3.45	87	1.2	-	1.68	-0.01	75	160	67	63
837	154.082	0.187	0.098	3.45	87	1.2	-	1.65	-0.03	75	161	67	63
838	154.264	0.182	0.097	3.46	87	1.2	-	1.64	-0.01	75	160	68	63
839	154.452	0.188	0.096	3.45	87	1.2	-	1.62	-0.02	75	159	68	63
840	154.639	0.187	0.098	3.46	87	1.2	100	1.61	-0.01	75	158	68	63
841	154.819	0.180	0.097	3.46	87	1.2	-	1.60	-0.01	75	158	68	63
842	155.007	0.188	0.099	3.45	87	1.2	-	1.58	-0.02	75	158	68	63
843	155.189	0.182	0.097	3.47	87	1.2	-	1.57	-0.01	75	158	68	63
844	155.371	0.182	0.098	3.43	87	1.2	-	1.56	-0.01	75	158	67	63
845	155.558	0.187	0.097	3.45	87	1.2	-	1.55	-0.01	75	157	68	63
846	155.743	0.185	0.097	3.47	87	1.2	-	1.53	-0.02	75	157	67	63
847	155.929	0.186	0.097	3.45	87	1.2	-	1.51	-0.02	75	156	68	63
848	156.113	0.184	0.096	3.47	87	1.1	-	1.50	-0.01	75	156	68	63
849	156.294	0.181	0.097	3.46	87	1.2	-	1.48	-0.02	75	155	68	63
850	156.479	0.185	0.098	3.45	87	1.2	99	1.48	0.00	75	156	67	63
851	156.663	0.184	0.097	3.46	87	1.2	-	1.46	-0.02	74	156	67	63
852	156.845	0.182	0.095	3.47	87	1.2	-	1.45	-0.01	75	156	68	63
853	157.034	0.189	0.096	3.46	87	1.2	-	1.43	-0.02	75	156	68	63
854	157.218	0.184	0.096	3.46	87	1.2	-	1.42	-0.01	75	155	68	63
855	157.398	0.180	0.095	3.45	87	1.2	-	1.40	-0.02	75	155	67	63
856	157.585	0.187	0.098	3.46	87	1.2	-	1.39	-0.01	75	154	68	63
857	157.768	0.183	0.097	3.46	87	1.2	-	1.38	-0.01	75	156	67	63
858	157.951	0.183	0.096	3.45	87	1.2	-	1.36	-0.02	75	156	68	63
859	158.137	0.186	0.096	3.46	87	1.2	-	1.34	-0.02	75	155	68	63
860	158.324	0.187	0.096	3.46	87	1.2	100	1.33	-0.01	75	155	68	63
861	158.509	0.185	0.097	3.46	87	1.2	-	1.32	-0.01	75	155	68	63
862	158.687	0.178	0.097	3.46	87	1.2	-	1.31	-0.01	75	155	68	63
863	158.875	0.188	0.096	3.45	87	1.2	-	1.29	-0.02	75	156	68	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
864	159.057	0.182	0.095	3.46	87	1.2	-	1.27	-0.02	75	156	68	63
865	159.242	0.185	0.096	3.47	87	1.2	-	1.26	-0.01	75	156	68	63
866	159.431	0.189	0.096	3.46	87	1.2	-	1.24	-0.02	75	156	68	63
867	159.615	0.184	0.096	3.46	87	1.2	-	1.23	-0.01	75	157	68	63
868	159.794	0.179	0.096	3.45	87	1.2	-	1.21	-0.02	74	157	68	63
869	159.982	0.188	0.096	3.46	87	1.2	-	1.19	-0.02	75	157	68	63
870	160.165	0.183	0.097	3.47	87	1.2	100	1.19	0.00	74	157	68	63
871	160.351	0.186	0.097	3.46	87	1.2	-	1.17	-0.02	75	157	68	63
872	160.536	0.185	0.098	3.46	87	1.2	-	1.16	-0.01	75	158	68	63
873	160.720	0.184	0.097	3.46	87	1.2	-	1.13	-0.03	74	158	68	63
874	160.905	0.185	0.097	3.44	87	1.2	-	1.12	-0.01	74	158	68	63
875	161.084	0.179	0.098	3.47	87	1.2	-	1.10	-0.02	74	159	68	63
876	161.270	0.186	0.096	3.45	87	1.2	-	1.09	-0.01	74	158	68	63
877	161.456	0.186	0.098	3.46	87	1.2	-	1.07	-0.02	75	158	68	63
878	161.638	0.182	0.097	3.46	87	1.2	-	1.06	-0.01	75	157	68	63
879	161.827	0.189	0.097	3.46	87	1.2	-	1.05	-0.01	75	158	68	63
880	162.011	0.184	0.097	3.46	87	1.2	100	1.04	-0.01	75	158	68	63
881	162.189	0.178	0.097	3.46	87	1.2	-	1.01	-0.03	74	159	68	63
882	162.374	0.185	0.096	3.45	87	1.2	-	1.00	-0.01	74	158	68	63
883	162.560	0.186	0.097	3.46	87	1.2	-	0.98	-0.02	74	157	68	63
884	162.746	0.186	0.095	3.45	87	1.1	-	0.96	-0.02	75	158	68	64
885	162.932	0.186	0.098	3.45	87	1.2	-	0.94	-0.02	74	158	68	64
886	163.116	0.184	0.096	3.46	87	1.2	-	0.93	-0.01	74	158	68	63
887	163.296	0.180	0.097	3.45	87	1.2	-	0.92	-0.01	74	159	67	63
888	163.482	0.186	0.097	3.46	87	1.2	-	0.91	-0.01	75	158	68	63
889	163.664	0.182	0.096	3.45	87	1.2	-	0.88	-0.03	75	159	68	63
890	163.851	0.187	0.096	3.45	87	1.2	100	0.87	-0.01	75	159	68	63
891	164.033	0.182	0.096	3.46	87	1.2	-	0.86	-0.01	75	159	68	63
892	164.217	0.184	0.097	3.45	87	1.2	-	0.84	-0.02	75	160	68	63
893	164.401	0.184	0.096	3.45	87	1.2	-	0.83	-0.01	74	160	68	63
894	164.583	0.182	0.097	3.46	87	1.2	-	0.81	-0.02	74	160	68	63
895	164.765	0.182	0.097	3.45	87	1.2	-	0.79	-0.02	75	160	68	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
896	164.951	0.186	0.097	3.44	87	1.2	-	0.77	-0.02	75	160	68	63
897	165.139	0.188	0.095	3.46	87	1.2	-	0.75	-0.02	75	159	68	63
898	165.325	0.186	0.097	3.45	87	1.2	-	0.74	-0.01	74	160	68	63
899	165.509	0.184	0.098	3.46	87	1.2	-	0.72	-0.02	74	160	68	63
900	165.690	0.181	0.098	3.45	87	1.2	100	0.71	-0.01	74	159	68	63
901	165.875	0.185	0.098	3.45	87	1.2	-	0.69	-0.02	74	160	68	63
902	166.058	0.183	0.096	3.46	87	1.2	-	0.68	-0.01	74	160	68	63
903	166.244	0.186	0.096	3.45	87	1.2	-	0.66	-0.02	74	160	67	63
904	166.427	0.183	0.096	3.45	87	1.2	-	0.65	-0.01	74	160	68	63
905	166.614	0.187	0.096	3.46	87	1.2	-	0.63	-0.02	74	160	68	63
906	166.798	0.184	0.096	3.44	87	1.2	-	0.61	-0.02	74	160	67	63
907	166.980	0.182	0.097	3.46	87	1.2	-	0.59	-0.02	75	160	68	63
908	167.160	0.180	0.096	3.46	87	1.2	-	0.57	-0.02	74	160	68	63
909	167.349	0.189	0.097	3.45	87	1.2	-	0.56	-0.01	74	160	67	63
910	167.531	0.182	0.095	3.46	87	1.2	100	0.54	-0.02	74	160	67	63
911	167.715	0.184	0.097	3.45	87	1.2	-	0.52	-0.02	75	159	67	63
912	167.900	0.185	0.098	3.45	87	1.2	-	0.51	-0.01	75	160	67	63
913	168.082	0.182	0.097	3.45	87	1.2	-	0.49	-0.02	75	160	67	63
914	168.269	0.187	0.097	3.44	87	1.2	-	0.48	-0.01	75	160	68	63
915	168.454	0.185	0.096	3.47	87	1.2	-	0.46	-0.02	75	160	67	63
916	168.638	0.184	0.097	3.45	87	1.2	-	0.46	0.00	74	159	67	63
917	168.825	0.187	0.097	3.44	87	1.2	-	0.43	-0.03	74	159	67	63
918	169.008	0.183	0.097	3.46	87	1.2	-	0.42	-0.01	74	159	67	63
919	169.191	0.183	0.094	3.45	87	1.2	-	0.41	-0.01	74	159	67	63
920	169.371	0.180	0.097	3.45	87	1.2	100	0.40	-0.01	74	159	67	63
921	169.558	0.187	0.097	3.45	87	1.2	-	0.40	0.00	74	159	67	63
922	169.740	0.182	0.097	3.45	87	1.2	-	0.36	-0.04	75	159	68	63
923	169.927	0.187	0.096	3.44	87	1.2	-	0.35	-0.01	74	160	67	63
924	170.111	0.184	0.096	3.46	87	1.2	-	0.34	-0.01	74	159	67	63
925	170.298	0.187	0.095	3.44	87	1.2	-	0.32	-0.02	74	159	67	63
926	170.477	0.179	0.098	3.46	87	1.2	-	0.31	-0.01	74	158	67	63
927	170.663	0.186	0.097	3.45	87	1.2	-	0.29	-0.02	75	158	67	63

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
928	170.849	0.186	0.095	3.44	87	1.2	-	0.28	-0.01	75	158	67	63
929	171.033	0.184	0.096	3.45	87	1.2	-	0.26	-0.02	75	158	67	63
930	171.215	0.182	0.098	3.44	87	1.2	99	0.25	-0.01	74	158	67	63
931	171.404	0.189	0.097	3.46	87	1.2	-	0.24	-0.01	74	158	67	63
932	171.582	0.178	0.097	3.46	87	1.2	-	0.23	-0.01	74	159	67	63
933	171.769	0.187	0.096	3.45	87	1.2	-	0.21	-0.02	74	158	67	63
934	171.953	0.184	0.098	3.46	87	1.2	-	0.20	-0.01	74	159	67	63
935	172.138	0.185	0.095	3.45	87	1.2	-	0.19	-0.01	74	159	67	63
936	172.325	0.187	0.096	3.44	87	1.2	-	0.18	-0.01	74	159	67	63
937	172.508	0.183	0.096	3.47	87	1.2	-	0.16	-0.02	74	159	67	63
938	172.692	0.184	0.098	3.45	87	1.2	-	0.14	-0.02	74	159	67	63
939	172.875	0.183	0.097	3.45	87	1.2	-	0.13	-0.01	74	160	67	63
940	173.057	0.182	0.095	3.46	87	1.2	100	0.12	-0.01	74	160	67	63
941	173.240	0.183	0.097	3.43	87	1.2	-	0.11	-0.01	74	160	67	63
942	173.428	0.188	0.096	3.45	87	1.2	-	0.09	-0.02	74	160	67	63
943	173.613	0.185	0.098	3.45	87	1.2	-	0.08	-0.01	74	160	67	63
944	173.798	0.185	0.098	3.45	87	1.2	-	0.07	-0.01	74	160	67	63
945	173.976	0.178	0.095	3.46	87	1.2	-	0.07	0.00	74	159	67	63
946	174.163	0.187	0.097	3.45	87	1.2	-	0.05	-0.02	75	159	67	63
947	174.345	0.182	0.098	3.46	87	1.2	-	0.03	-0.02	75	161	67	63
948	174.532	0.187	0.097	3.46	87	1.2	-	0.01	-0.02	75	161	67	63
949	174.719	0.187	0.097	3.46	87	1.2	100	0.00	-0.01	75	160	67	63
Avg/Tot	174.719	0.184	0.096	3.44	87.0	1.2	100			76.4	169.1	69.0	64.6

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	-0.001		0.25	73	1.1		71	-0.022	7.80	0.010
1	0.125	0.126	3.15	72	1.9	-	72	-0.029	2.29	0.097
2	0.298	0.173	3.15	72	1.8	-	72	-0.023	1.54	0.027
3	0.472	0.174	3.15	72	2.0	-	72	-0.025	4.46	0.008
4	0.641	0.169	3.16	72	2.0	-	72	-0.023	5.09	0.006
5	0.818	0.177	3.16	72	1.7	-	72	-0.024	4.89	0.006
6	0.990	0.172	3.16	73	1.8	-	72	-0.025	4.64	0.007
7	1.163	0.173	3.17	73	2.1	-	72	-0.022	4.53	0.008
8	1.334	0.171	3.17	73	2.1	-	72	-0.024	4.65	0.008
9	1.511	0.177	3.17	73	1.6	-	72	-0.023	4.99	0.010
10	1.682	0.171	3.17	73	2.0	97	72	-0.024	5.29	0.006
11	1.856	0.174	3.17	73	1.6	-	72	-0.024	5.45	0.006
12	2.027	0.171	3.17	74	1.6	-	72	-0.025	5.59	0.007
13	2.204	0.177	3.18	74	1.7	-	72	-0.025	5.86	0.008
14	2.376	0.172	3.19	74	1.7	-	72	-0.025	6.12	0.008
15	2.553	0.177	3.18	74	1.6	-	72	-0.026	6.30	0.008
16	2.724	0.171	3.18	75	1.7	-	72	-0.027	6.46	0.005
17	2.899	0.175	3.18	75	1.6	-	72	-0.029	6.68	0.008
18	3.071	0.172	3.19	75	2.1	-	72	-0.028	6.83	0.006
19	3.243	0.172	3.19	75	1.7	-	72	-0.030	7.14	0.006
20	3.420	0.177	3.20	76	1.8	100	72	-0.029	6.73	0.008
21	3.593	0.173	3.20	76	1.6	-	72	-0.030	7.43	0.006
22	3.772	0.179	3.20	76	1.7	-	72	-0.031	7.10	0.006
23	3.945	0.173	3.20	77	1.7	-	72	-0.027	6.79	0.004
24	4.119	0.174	3.19	77	1.8	-	72	-0.030	7.12	0.006
25	4.295	0.176	3.21	77	1.6	-	72	-0.031	7.40	0.009
26	4.471	0.176	3.21	78	1.6	-	72	-0.031	6.87	0.008
27	4.645	0.174	3.20	78	1.6	-	72	-0.030	6.81	0.006
28	4.816	0.171	3.21	78	1.7	-	72	-0.032	7.14	0.007
29	4.992	0.176	3.21	78	1.9	-	72	-0.032	6.99	0.008
30	5.169	0.177	3.21	79	1.6	100	72	-0.032	7.12	0.008
31	5.344	0.175	3.22	79	2.1	-	72	-0.033	7.26	0.005

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	5.519	0.175	3.21	79	1.8	-	72	-0.033	7.11	0.005
33	5.693	0.174	3.21	80	1.8	-	72	-0.032	6.99	0.006
34	5.872	0.179	3.21	80	2.1	-	72	-0.035	7.01	0.007
35	6.049	0.177	3.21	80	1.9	-	72	-0.036	7.12	0.005
36	6.224	0.175	3.23	81	2.1	-	72	-0.035	7.05	0.009
37	6.400	0.176	3.22	81	1.8	-	72	-0.036	6.85	0.007
38	6.577	0.177	3.23	81	1.8	-	72	-0.036	6.65	0.007
39	6.752	0.175	3.23	82	1.7	-	72	-0.035	6.65	0.005
40	6.931	0.179	3.23	82	1.9	100	72	-0.036	6.67	0.005
41	7.103	0.172	3.24	82	2.1	-	72	-0.037	6.68	0.002
42	7.282	0.179	3.23	82	2.2	-	72	-0.034	6.68	0.005
43	7.459	0.177	3.23	83	2.2	-	72	-0.038	6.72	0.006
44	7.634	0.175	3.22	83	1.9	-	72	-0.035	6.71	0.005
45	7.813	0.179	3.24	83	1.6	-	72	-0.037	6.72	0.006
46	7.989	0.176	3.23	84	1.6	-	72	-0.036	6.70	0.007
47	8.168	0.179	3.24	84	1.8	-	72	-0.036	6.69	0.005
48	8.345	0.177	3.24	84	1.7	-	72	-0.036	6.76	0.006
49	8.519	0.174	3.24	84	2.2	-	72	-0.039	6.77	0.005
50	8.698	0.179	3.23	85	1.6	100	72	-0.037	6.70	0.005
51	8.875	0.177	3.24	85	2.2	-	72	-0.037	6.81	0.007
52	9.051	0.176	3.24	85	1.6	-	72	-0.037	6.78	0.006
53	9.230	0.179	3.25	85	2.2	-	72	-0.038	6.82	0.008
54	9.410	0.180	3.25	86	2.2	-	72	-0.038	6.81	0.005
55	9.586	0.176	3.25	86	1.9	-	72	-0.039	6.76	0.005
56	9.763	0.177	3.24	86	1.8	-	72	-0.039	6.83	0.008
57	9.939	0.176	3.25	86	1.6	-	72	-0.039	6.82	0.009
58	10.122	0.183	3.25	87	1.8	-	72	-0.040	6.82	0.005
59	10.300	0.178	3.26	87	1.6	-	72	-0.040	6.74	0.007
60	10.476	0.176	3.25	87	1.7	100	73	-0.039	6.72	0.008
61	10.654	0.178	3.25	87	1.7	-	73	-0.037	6.76	0.006
62	10.833	0.179	3.25	87	1.9	-	73	-0.038	6.76	0.008
63	11.013	0.180	3.26	88	1.6	-	72	-0.038	6.68	0.006

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	11.190	0.177	3.25	88	1.8	-	73	-0.038	6.70	0.006
65	11.367	0.177	3.26	88	1.6	-	73	-0.039	6.62	0.009
66	11.545	0.178	3.25	88	2.1	-	73	-0.039	6.69	0.006
67	11.724	0.179	3.26	88	1.8	-	73	-0.038	6.68	0.008
68	11.904	0.180	3.26	89	2.2	-	73	-0.039	6.76	0.007
69	12.082	0.178	3.26	89	1.8	-	73	-0.037	6.92	0.009
70	12.259	0.177	3.26	89	1.8	100	73	-0.039	6.96	0.005
71	12.434	0.175	3.26	89	1.8	-	73	-0.039	6.99	0.007
72	12.617	0.183	3.26	89	2.1	-	73	-0.038	7.07	0.008
73	12.797	0.180	3.27	89	2.2	-	73	-0.038	7.14	0.011
74	12.976	0.179	3.26	90	2.0	-	73	-0.041	7.21	0.007
75	13.152	0.176	3.26	90	1.9	-	73	-0.040	7.19	0.006
76	13.331	0.179	3.26	90	1.7	-	73	-0.040	7.15	0.009
77	13.512	0.181	3.27	90	2.1	-	73	-0.038	7.20	0.005
78	13.692	0.180	3.27	90	1.6	-	73	-0.039	7.18	0.006
79	13.871	0.179	3.27	90	1.6	-	73	-0.038	7.19	0.005
80	14.047	0.176	3.27	91	2.2	101	73	-0.039	7.18	0.005
81	14.226	0.179	3.26	91	1.9	-	73	-0.040	7.27	0.006
82	14.407	0.181	3.27	91	2.1	-	73	-0.041	7.36	0.005
83	14.588	0.181	3.27	91	1.8	-	73	-0.039	7.34	0.006
84	14.766	0.178	3.26	91	1.8	-	73	-0.041	7.36	0.006
85	14.943	0.177	3.27	91	1.7	-	73	-0.041	7.41	0.006
86	15.123	0.180	3.26	91	2.2	-	73	-0.038	7.36	0.006
87	15.300	0.177	3.27	91	2.2	-	73	-0.037	7.39	0.006
88	15.483	0.183	3.27	92	1.7	-	73	-0.040	7.28	0.006
89	15.663	0.180	3.27	92	1.6	-	73	-0.040	6.88	0.008
90	15.841	0.178	3.27	92	1.9	100	73	-0.040	6.77	0.008
91	16.020	0.179	3.27	92	1.9	-	73	-0.040	6.83	0.007
92	16.200	0.180	3.28	92	1.6	-	73	-0.042	6.68	0.007
93	16.380	0.180	3.27	92	1.6	-	73	-0.041	6.65	0.005
94	16.560	0.180	3.27	92	2.1	-	73	-0.041	6.49	0.005
95	16.739	0.179	3.27	92	2.1	-	73	-0.040	6.42	0.006

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	16.918	0.179	3.27	92	1.9	-	73	-0.039	6.34	0.008
97	17.097	0.179	3.28	92	1.9	-	73	-0.039	6.35	0.006
98	17.275	0.178	3.27	93	1.9	-	73	-0.039	6.29	0.005
99	17.456	0.181	3.28	93	1.8	-	73	-0.039	6.28	0.006
100	17.636	0.180	3.28	93	2.1	100	73	-0.038	6.31	0.009
101	17.816	0.180	3.28	93	2.1	-	73	-0.038	6.37	0.008
102	17.996	0.180	3.27	93	1.9	-	73	-0.040	6.36	0.010
103	18.177	0.181	3.27	93	1.8	-	73	-0.039	6.42	0.006
104	18.356	0.179	3.28	93	2.1	-	73	-0.040	6.44	0.006
105	18.534	0.178	3.28	93	2.0	-	73	-0.036	6.51	0.008
106	18.717	0.183	3.28	93	2.0	-	73	-0.039	6.61	0.004
107	18.896	0.179	3.27	93	2.2	-	73	-0.039	6.73	0.006
108	19.076	0.180	3.28	93	2.0	-	73	-0.038	6.74	0.008
109	19.257	0.181	3.28	93	1.9	-	73	-0.040	6.72	0.007
110	19.438	0.181	3.28	94	2.1	100	73	-0.038	6.90	0.006
111	19.618	0.180	3.28	94	2.2	-	73	-0.039	7.08	0.004
112	19.795	0.177	3.27	94	2.0	-	73	-0.039	7.19	0.007
113	19.973	0.178	3.27	94	2.1	-	73	-0.040	7.28	0.010
114	20.154	0.181	3.28	94	2.2	-	73	-0.038	7.42	0.009
115	20.339	0.185	3.29	94	1.8	-	73	-0.040	7.61	0.004
116	20.518	0.179	3.28	94	1.9	-	73	-0.035	7.70	0.009
117	20.696	0.178	3.28	94	1.9	-	73	-0.041	7.90	0.007
118	20.873	0.177	3.27	94	1.6	-	73	-0.040	8.00	0.006
119	21.055	0.182	3.28	94	1.6	-	73	-0.041	8.06	0.006
120	21.238	0.183	3.27	94	1.8	100	73	-0.042	8.06	0.006
121	21.419	0.181	3.28	94	1.7	-	73	-0.039	8.22	0.006
122	21.595	0.176	3.28	94	2.2	-	73	-0.041	8.35	0.004
123	21.774	0.179	3.28	94	1.6	-	73	-0.040	8.35	0.008
124	21.956	0.182	3.28	94	2.0	-	73	-0.039	8.44	0.006
125	22.138	0.182	3.28	94	1.7	-	73	-0.042	8.37	0.008
126	22.320	0.182	3.28	94	2.1	-	73	-0.041	8.26	0.010
127	22.497	0.177	3.29	94	1.8	-	73	-0.042	8.23	0.007

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	22.674	0.177	3.28	94	1.8	-	73	-0.042	8.29	0.006
129	22.858	0.184	3.28	95	1.7	-	73	-0.041	8.30	0.006
130	23.039	0.181	3.29	94	2.2	100	73	-0.039	8.33	0.008
131	23.220	0.181	3.29	95	2.0	-	73	-0.042	8.22	0.008
132	23.401	0.181	3.28	95	2.1	-	73	-0.041	8.16	0.005
133	23.581	0.180	3.28	95	1.8	-	73	-0.037	8.21	0.006
134	23.759	0.178	3.28	95	2.0	-	73	-0.040	8.18	0.008
135	23.939	0.180	3.29	95	2.2	-	73	-0.040	8.09	0.009
136	24.118	0.179	3.28	95	2.1	-	73	-0.041	8.02	0.008
137	24.303	0.185	3.28	95	1.6	-	73	-0.040	8.02	0.004
138	24.482	0.179	3.28	95	1.9	-	73	-0.038	7.87	0.007
139	24.658	0.176	3.28	95	1.6	-	73	-0.041	7.91	0.009
140	24.842	0.184	3.28	95	1.6	100	73	-0.039	7.93	0.008
141	25.023	0.181	3.29	95	2.2	-	73	-0.039	7.94	0.006
142	25.204	0.181	3.29	95	1.7	-	73	-0.040	7.94	0.008
143	25.381	0.177	3.28	95	2.0	-	73	-0.038	7.95	0.004
144	25.562	0.181	3.29	95	2.0	-	73	-0.037	7.93	0.006
145	25.743	0.181	3.29	95	1.9	-	73	-0.038	8.00	0.006
146	25.923	0.180	3.28	95	1.6	-	73	-0.038	7.94	0.008
147	26.103	0.180	3.28	95	1.7	-	73	-0.039	7.66	0.007
148	26.285	0.182	3.28	95	1.7	-	73	-0.038	7.58	0.005
149	26.468	0.183	3.28	95	2.2	-	73	-0.038	7.53	0.007
150	26.647	0.179	3.28	95	1.6	100	73	-0.040	7.46	0.007
151	26.824	0.177	3.28	95	2.2	-	73	-0.038	7.40	0.008
152	27.005	0.181	3.28	95	1.9	-	73	-0.036	7.33	0.005
153	27.186	0.181	3.28	95	1.7	-	73	-0.039	7.30	0.005
154	27.367	0.181	3.28	95	2.2	-	73	-0.038	7.29	0.007
155	27.551	0.184	3.28	95	2.2	-	73	-0.037	7.25	0.006
156	27.726	0.175	3.28	95	1.7	-	73	-0.038	7.21	0.005
157	27.909	0.183	3.28	95	1.6	-	73	-0.038	7.12	0.007
158	28.091	0.182	3.28	95	1.8	-	73	-0.037	7.19	0.006
159	28.272	0.181	3.28	95	1.8	-	73	-0.037	7.20	0.005

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	28.452	0.180	3.28	95	1.6	100	73	-0.038	7.20	0.005
161	28.632	0.180	3.28	95	1.9	-	73	-0.035	7.14	0.007
162	28.812	0.180	3.28	95	1.7	-	73	-0.036	7.05	0.007
163	28.992	0.180	3.27	95	1.7	-	73	-0.038	7.09	0.005
164	29.173	0.181	3.29	95	1.8	-	73	-0.037	7.02	0.009
165	29.355	0.182	3.28	95	2.1	-	73	-0.037	7.10	0.006
166	29.535	0.180	3.29	95	1.6	-	73	-0.035	7.08	0.005
167	29.714	0.179	3.28	95	1.7	-	73	-0.036	7.06	0.005
168	29.894	0.180	3.27	95	1.6	-	73	-0.036	7.11	0.004
169	30.076	0.182	3.28	95	2.2	-	73	-0.037	7.08	0.009
170	30.256	0.180	3.28	95	2.2	100	73	-0.036	7.15	0.009
171	30.434	0.178	3.28	95	1.7	-	73	-0.035	7.26	0.007
172	30.617	0.183	3.28	95	1.9	-	73	-0.038	7.32	0.007
173	30.797	0.180	3.29	95	2.2	-	73	-0.037	7.33	0.006
174	30.977	0.180	3.28	95	1.9	-	73	-0.039	7.45	0.005
175	31.159	0.182	3.29	95	1.6	-	73	-0.036	7.39	0.005
176	31.341	0.182	3.28	95	1.8	-	73	-0.037	7.54	0.005
177	31.520	0.179	3.28	95	2.2	-	73	-0.037	7.61	0.008
178	31.699	0.179	3.28	95	1.6	-	73	-0.036	7.68	0.007
179	31.880	0.181	3.28	95	2.1	-	73	-0.037	7.76	0.006
180	32.061	0.181	3.28	95	2.1	100	73	-0.039	7.77	0.006
181	32.242	0.181	3.28	95	2.2	-	73	-0.039	7.83	0.005
182	32.424	0.182	3.29	95	1.6	-	73	-0.038	8.04	0.007
183	32.604	0.180	3.28	95	2.2	-	73	-0.038	8.10	0.006
184	32.782	0.178	3.29	95	1.6	-	73	-0.039	8.13	0.007
185	32.963	0.181	3.28	95	2.2	-	73	-0.038	8.28	0.008
186	33.142	0.179	3.28	95	2.1	-	73	-0.037	8.47	0.006
187	33.327	0.185	3.29	95	1.6	-	73	-0.036	8.68	0.008
188	33.503	0.176	3.28	95	1.6	-	73	-0.038	8.82	0.006
189	33.682	0.179	3.28	95	2.1	-	73	-0.039	8.86	0.006
190	33.866	0.184	3.29	95	2.0	100	73	-0.039	8.83	0.008
191	34.045	0.179	3.29	95	2.0	-	73	-0.040	8.87	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	34.226	0.181	3.29	95	2.0	-	73	-0.039	8.87	0.004
193	34.411	0.185	3.28	95	1.7	-	73	-0.039	8.87	0.007
194	34.591	0.180	3.30	95	2.1	-	73	-0.039	8.83	0.008
195	34.769	0.178	3.29	95	1.9	-	73	-0.039	8.75	0.008
196	34.950	0.181	3.28	95	1.6	-	73	-0.039	8.65	0.008
197	35.131	0.181	3.28	95	1.7	-	73	-0.039	8.53	0.006
198	35.310	0.179	3.29	95	1.6	-	73	-0.038	8.38	0.007
199	35.493	0.183	3.28	95	1.8	-	73	-0.036	8.24	0.007
200	35.670	0.177	3.28	95	1.6	100	73	-0.038	8.10	0.005
201	35.853	0.183	3.28	95	1.9	-	73	-0.038	7.99	0.007
202	36.033	0.180	3.29	95	2.1	-	73	-0.037	7.92	0.006
203	36.215	0.182	3.28	96	2.2	-	73	-0.038	7.75	0.007
204	36.394	0.179	3.29	95	2.0	-	73	-0.035	7.65	0.008
205	36.576	0.182	3.29	95	2.0	-	73	-0.037	7.55	0.007
206	36.752	0.176	3.29	95	1.9	-	73	-0.036	7.53	0.006
207	36.936	0.184	3.28	95	2.0	-	73	-0.035	7.43	0.008
208	37.115	0.179	3.29	95	1.8	-	73	-0.035	7.45	0.007
209	37.299	0.184	3.29	95	1.6	-	73	-0.036	7.38	0.006
210	37.480	0.181	3.28	96	2.1	101	73	-0.036	7.37	0.005
211	37.657	0.177	3.29	95	2.2	-	72	-0.036	7.34	0.006
212	37.839	0.182	3.28	95	2.1	-	73	-0.035	7.35	0.006
213	38.017	0.178	3.29	95	1.8	-	73	-0.036	7.38	0.005
214	38.202	0.185	3.29	95	1.7	-	73	-0.034	7.52	0.006
215	38.384	0.182	3.29	95	1.9	-	73	-0.034	7.64	0.008
216	38.561	0.177	3.29	95	1.9	-	73	-0.035	7.70	0.007
217	38.744	0.183	3.29	95	1.6	-	73	-0.035	7.83	0.006
218	38.920	0.176	3.28	95	2.1	-	73	-0.034	7.92	0.008
219	39.104	0.184	3.29	95	2.1	-	73	-0.033	8.05	0.007
220	39.286	0.182	3.29	95	2.2	100	73	-0.038	8.23	0.006
221	39.468	0.182	3.29	95	1.6	-	73	-0.034	8.36	0.005
222	39.646	0.178	3.29	96	2.2	-	73	-0.035	8.54	0.010
223	39.827	0.181	3.29	95	2.0	-	72	-0.035	8.71	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	40.004	0.177	3.29	95	1.7	-	72	-0.034	8.85	0.005
225	40.190	0.186	3.30	95	1.9	-	72	-0.036	8.97	0.007
226	40.371	0.181	3.30	95	1.8	-	72	-0.036	9.15	0.007
227	40.552	0.181	3.29	95	2.0	-	72	-0.034	9.27	0.007
228	40.729	0.177	3.30	95	2.0	-	72	-0.035	9.34	0.010
229	40.909	0.180	3.30	95	2.1	-	72	-0.034	9.33	0.011
230	41.091	0.182	3.29	95	2.0	100	72	-0.035	9.46	0.015
231	41.274	0.183	3.29	95	1.6	-	72	-0.034	9.37	0.019
232	41.456	0.182	3.29	95	1.8	-	72	-0.034	9.35	0.038
233	41.636	0.180	3.29	95	2.2	-	72	-0.033	9.34	0.056
234	41.815	0.179	3.29	96	1.6	-	72	-0.034	9.26	0.075
235	41.995	0.180	3.29	96	2.1	-	72	-0.034	9.31	0.094
236	42.176	0.181	3.29	95	1.9	-	72	-0.035	9.18	0.128
237	42.357	0.181	3.28	95	1.9	-	72	-0.033	9.12	0.149
238	42.540	0.183	3.29	95	1.6	-	72	-0.034	8.95	0.141
239	42.717	0.177	3.29	95	2.0	-	72	-0.035	8.73	0.146
240	42.898	0.181	3.29	95	1.6	101	72	-0.033	8.53	0.143
241	43.079	0.181	3.28	95	1.6	-	72	-0.033	8.38	0.162
242	43.261	0.182	3.29	96	1.8	-	72	-0.032	8.37	0.172
243	43.442	0.181	3.29	95	1.9	-	72	-0.031	8.27	0.125
244	43.623	0.181	3.29	96	2.2	-	72	-0.032	8.18	0.094
245	43.803	0.180	3.29	95	2.1	-	72	-0.035	8.16	0.072
246	43.983	0.180	3.30	95	2.0	-	72	-0.033	8.15	0.063
247	44.163	0.180	3.29	95	1.6	-	72	-0.031	8.02	0.048
248	44.345	0.182	3.29	95	2.1	-	72	-0.031	8.01	0.039
249	44.527	0.182	3.29	95	1.6	-	72	-0.029	7.99	0.038
250	44.707	0.180	3.29	95	1.7	101	72	-0.030	7.89	0.030
251	44.886	0.179	3.29	95	1.6	-	72	-0.028	7.78	0.020
252	45.067	0.181	3.29	95	1.7	-	72	-0.030	7.51	0.008
253	45.248	0.181	3.30	95	1.6	-	72	-0.030	7.43	0.007
254	45.429	0.181	3.30	95	2.1	-	72	-0.030	7.23	0.006
255	45.611	0.182	3.29	95	1.6	-	72	-0.031	7.04	0.006

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	45.792	0.181	3.30	95	1.9	-	72	-0.027	7.04	0.011
257	45.970	0.178	3.30	95	1.7	-	72	-0.026	6.95	0.005
258	46.150	0.180	3.29	95	2.2	-	72	-0.028	6.82	0.008
259	46.333	0.183	3.28	95	1.6	-	72	-0.029	6.82	0.012
260	46.514	0.181	3.29	95	1.8	100	72	-0.030	6.71	0.010
261	46.692	0.178	3.30	95	1.9	-	72	-0.028	6.65	0.006
262	46.871	0.179	3.29	95	1.8	-	72	-0.027	6.69	0.008
263	47.051	0.180	3.29	95	2.1	-	72	-0.029	6.65	0.009
264	47.232	0.181	3.29	95	1.9	-	72	-0.026	6.59	0.008
265	47.417	0.185	3.29	95	1.8	-	72	-0.026	6.56	0.008
266	47.599	0.182	3.29	95	2.0	-	72	-0.026	6.48	0.007
267	47.776	0.177	3.29	95	1.7	-	72	-0.026	6.51	0.005
268	47.957	0.181	3.28	95	1.7	-	72	-0.026	6.50	0.008
269	48.139	0.182	3.29	95	1.7	-	72	-0.026	6.43	0.009
270	48.320	0.181	3.30	95	1.8	100	72	-0.027	6.44	0.008
271	48.498	0.178	3.29	95	2.2	-	72	-0.026	6.43	0.006
272	48.683	0.185	3.30	95	1.6	-	72	-0.026	6.33	0.007
273	48.863	0.180	3.29	95	2.0	-	72	-0.025	6.28	0.011
274	49.039	0.176	3.30	95	1.7	-	72	-0.027	6.27	0.007
275	49.222	0.183	3.29	95	1.9	-	72	-0.026	6.23	0.008
276	49.402	0.180	3.29	95	1.7	-	72	-0.025	6.25	0.009
277	49.586	0.184	3.30	95	1.7	-	72	-0.024	6.26	0.008
278	49.766	0.180	3.29	95	1.6	-	72	-0.024	6.30	0.004
279	49.946	0.180	3.30	95	2.1	-	72	-0.025	6.30	0.008
280	50.127	0.181	3.30	95	2.1	100	72	-0.024	6.27	0.007
281	50.307	0.180	3.30	95	1.7	-	72	-0.023	6.35	0.007
282	50.488	0.181	3.30	95	2.2	-	72	-0.024	6.32	0.006
283	50.668	0.180	3.30	95	1.8	-	72	-0.026	6.37	0.005
284	50.851	0.183	3.30	95	1.9	-	72	-0.027	6.46	0.010
285	51.030	0.179	3.29	95	2.0	-	72	-0.027	6.50	0.011
286	51.208	0.178	3.30	95	1.8	-	72	-0.025	6.51	0.009
287	51.393	0.185	3.30	95	2.2	-	72	-0.026	6.57	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	51.571	0.178	3.30	95	2.0	-	72	-0.026	6.69	0.007
289	51.756	0.185	3.30	95	1.7	-	72	-0.025	6.73	0.009
290	51.936	0.180	3.29	95	1.6	101	72	-0.023	6.85	0.010
291	52.114	0.178	3.30	95	1.6	-	72	-0.027	6.90	0.009
292	52.295	0.181	3.29	95	1.7	-	72	-0.028	6.86	0.012
293	52.478	0.183	3.30	95	1.7	-	72	-0.029	6.90	0.009
294	52.659	0.181	3.31	95	1.6	-	72	-0.029	6.85	0.007
295	52.840	0.181	3.30	95	1.9	-	72	-0.027	6.92	0.009
296	53.020	0.180	3.29	95	1.9	-	72	-0.028	6.85	0.009
297	53.200	0.180	3.29	95	2.0	-	72	-0.026	6.85	0.008
298	53.378	0.178	3.30	95	1.9	-	72	-0.029	6.65	0.011
299	53.562	0.184	3.29	95	2.2	-	71	-0.026	6.54	0.016
300	53.744	0.182	3.29	95	2.1	100	71	-0.030	6.38	0.019
301	53.922	0.178	3.30	95	2.1	-	71	-0.030	6.27	0.019
302	54.100	0.178	3.30	95	2.1	-	71	-0.028	6.12	0.012
303	54.280	0.180	3.30	95	2.1	-	71	-0.029	5.88	0.007
304	54.466	0.186	3.30	95	2.2	-	71	-0.029	5.59	0.009
305	54.647	0.181	3.30	95	1.8	-	71	-0.028	5.35	0.009
306	54.828	0.181	3.30	95	1.6	-	71	-0.029	5.24	0.008
307	55.005	0.177	3.29	95	2.1	-	71	-0.030	5.10	0.007
308	55.187	0.182	3.29	95	1.7	-	71	-0.028	5.03	0.007
309	55.367	0.180	3.29	95	1.8	-	71	-0.027	4.91	0.008
310	55.550	0.183	3.30	95	2.1	100	71	-0.028	4.88	0.008
311	55.732	0.182	3.30	95	2.1	-	71	-0.027	4.85	0.009
312	55.912	0.180	3.30	95	1.9	-	71	-0.032	4.86	0.009
313	56.091	0.179	3.29	95	1.9	-	71	-0.028	4.85	0.009
314	56.271	0.180	3.29	95	2.0	-	71	-0.026	4.81	0.008
315	56.452	0.181	3.30	95	1.9	-	71	-0.029	4.81	0.009
316	56.633	0.181	3.29	95	1.8	-	71	-0.029	4.77	0.010
317	56.816	0.183	3.30	95	2.0	-	71	-0.027	4.85	0.006
318	56.996	0.180	3.30	95	1.6	-	71	-0.030	4.91	0.009
319	57.175	0.179	3.30	95	1.8	-	71	-0.028	4.97	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	57.356	0.181	3.29	95	2.1	100	71	-0.030	4.98	0.007
321	57.538	0.182	3.30	95	2.1	-	71	-0.028	5.03	0.006
322	57.716	0.178	3.30	95	1.9	-	71	-0.029	5.02	0.009
323	57.900	0.184	3.30	95	1.8	-	71	-0.028	4.98	0.010
324	58.080	0.180	3.29	95	2.2	-	71	-0.027	4.99	0.006
325	58.259	0.179	3.30	95	1.8	-	71	-0.025	4.96	0.009
326	58.437	0.178	3.30	95	2.2	-	71	-0.027	4.95	0.013
327	58.622	0.185	3.30	95	1.9	-	71	-0.027	4.93	0.006
328	58.805	0.183	3.30	95	2.1	-	71	-0.029	4.95	0.009
329	58.984	0.179	3.30	95	1.7	-	71	-0.027	4.98	0.006
330	59.163	0.179	3.30	95	2.1	100	71	-0.026	4.94	0.008
331	59.341	0.178	3.29	95	1.7	-	71	-0.028	4.83	0.006
332	59.525	0.184	3.29	95	1.7	-	71	-0.027	4.79	0.007
333	59.706	0.181	3.29	95	1.9	-	71	-0.027	4.74	0.008
334	59.888	0.182	3.30	95	2.2	-	71	-0.029	4.74	0.008
335	60.069	0.181	3.30	95	2.1	-	71	-0.027	4.68	0.010
336	60.247	0.178	3.30	95	2.1	-	71	-0.028	4.62	0.007
337	60.424	0.177	3.30	95	1.9	-	71	-0.027	4.58	0.005
338	60.610	0.186	3.29	95	1.9	-	71	-0.028	4.60	0.006
339	60.788	0.178	3.30	95	1.6	-	71	-0.030	4.79	0.008
340	60.971	0.183	3.29	95	1.6	100	71	-0.028	4.98	0.007
341	61.148	0.177	3.29	95	1.6	-	71	-0.028	5.00	0.005
342	61.331	0.183	3.30	95	1.6	-	71	-0.028	5.03	0.007
343	61.512	0.181	3.30	95	1.9	-	71	-0.026	5.16	0.006
344	61.694	0.182	3.30	95	1.6	-	71	-0.029	5.15	0.008
345	61.873	0.179	3.30	95	2.0	-	71	-0.028	5.12	0.006
346	62.055	0.182	3.30	95	2.1	-	71	-0.028	5.09	0.005
347	62.234	0.179	3.29	95	1.6	-	71	-0.026	5.07	0.008
348	62.415	0.181	3.30	95	1.8	-	71	-0.028	5.05	0.009
349	62.597	0.182	3.31	95	1.8	-	71	-0.026	5.01	0.008
350	62.778	0.181	3.30	95	2.0	100	71	-0.026	4.93	0.009
351	62.956	0.178	3.30	95	1.7	-	71	-0.029	4.97	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	63.140	0.184	3.30	95	2.1	-	71	-0.026	4.96	0.008
353	63.318	0.178	3.30	95	2.1	-	71	-0.025	4.89	0.009
354	63.498	0.180	3.29	95	1.7	-	71	-0.027	4.90	0.007
355	63.681	0.183	3.29	95	1.9	-	71	-0.028	4.85	0.009
356	63.862	0.181	3.30	95	1.7	-	71	-0.027	4.88	0.009
357	64.042	0.180	3.30	95	1.9	-	71	-0.027	4.84	0.007
358	64.222	0.180	3.29	95	1.9	-	71	-0.026	4.90	0.008
359	64.402	0.180	3.29	95	1.9	-	71	-0.026	4.85	0.005
360	64.582	0.180	3.30	95	2.2	100	71	-0.026	4.81	0.008
361	64.764	0.182	3.30	95	2.2	-	71	-0.026	4.82	0.008
362	64.946	0.182	3.30	95	2.0	-	71	-0.026	4.76	0.008
363	65.126	0.180	3.30	95	1.6	-	71	-0.026	4.71	0.008
364	65.305	0.179	3.30	95	1.6	-	71	-0.028	4.73	0.009
365	65.485	0.180	3.29	95	2.0	-	71	-0.027	4.72	0.007
366	65.667	0.182	3.30	95	2.1	-	71	-0.027	4.70	0.009
367	65.848	0.181	3.29	95	1.6	-	71	-0.031	4.65	0.009
368	66.029	0.181	3.30	95	2.2	-	71	-0.027	4.62	0.007
369	66.209	0.180	3.29	95	2.1	-	70	-0.027	4.62	0.006
370	66.386	0.177	3.30	95	2.1	100	70	-0.026	4.58	0.008
371	66.569	0.183	3.29	94	2.2	-	70	-0.027	4.54	0.011
372	66.751	0.182	3.30	94	1.6	-	70	-0.027	4.56	0.012
373	66.933	0.182	3.29	95	1.7	-	70	-0.028	4.52	0.011
374	67.112	0.179	3.30	94	2.1	-	70	-0.027	4.55	0.008
375	67.291	0.179	3.30	95	1.9	-	70	-0.029	4.62	0.012
376	67.472	0.181	3.29	95	2.1	-	70	-0.028	4.70	0.006
377	67.650	0.178	3.30	95	1.6	-	70	-0.028	4.76	0.008
378	67.831	0.181	3.30	94	1.7	-	70	-0.027	4.82	0.006
379	68.012	0.181	3.30	94	1.6	-	70	-0.026	4.86	0.010
380	68.196	0.184	3.30	94	2.0	100	70	-0.030	5.09	0.009
381	68.374	0.178	3.30	94	2.1	-	70	-0.028	5.32	0.008
382	68.551	0.177	3.30	94	1.7	-	70	-0.028	5.36	0.008
383	68.734	0.183	3.30	94	1.8	-	70	-0.029	5.41	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	68.918	0.184	3.31	94	1.6	-	70	-0.026	5.44	0.012
385	69.098	0.180	3.30	94	2.0	-	70	-0.028	5.38	0.011
386	69.278	0.180	3.30	94	2.1	-	70	-0.027	5.40	0.011
387	69.458	0.180	3.30	94	1.7	-	70	-0.030	5.35	0.011
388	69.638	0.180	3.30	94	1.8	-	70	-0.030	5.32	0.010
389	69.817	0.179	3.30	94	1.8	-	70	-0.030	5.30	0.010
390	70.002	0.185	3.30	94	1.6	100	70	-0.027	5.29	0.008
391	70.182	0.180	3.30	94	1.6	-	70	-0.028	5.26	0.008
392	70.357	0.175	3.30	94	1.8	-	70	-0.028	5.19	0.007
393	70.540	0.183	3.30	94	1.9	-	70	-0.029	5.15	0.010
394	70.719	0.179	3.30	94	2.0	-	70	-0.026	5.10	0.005
395	70.903	0.184	3.30	94	1.8	-	70	-0.030	5.01	0.008
396	71.084	0.181	3.29	94	2.2	-	70	-0.027	4.94	0.010
397	71.260	0.176	3.30	94	2.1	-	70	-0.028	4.85	0.010
398	71.444	0.184	3.30	94	1.6	-	70	-0.029	4.81	0.010
399	71.624	0.180	3.30	94	2.1	-	70	-0.027	4.72	0.009
400	71.806	0.182	3.30	94	1.8	100	70	-0.027	4.63	0.007
401	71.987	0.181	3.30	94	2.1	-	70	-0.030	4.53	0.009
402	72.167	0.180	3.30	94	2.1	-	70	-0.026	4.44	0.010
403	72.345	0.178	3.29	94	2.1	-	70	-0.028	4.38	0.009
404	72.526	0.181	3.30	94	1.6	-	70	-0.027	4.32	0.009
405	72.708	0.182	3.30	94	1.6	-	70	-0.028	4.36	0.010
406	72.886	0.178	3.31	94	1.7	-	70	-0.026	4.31	0.010
407	73.066	0.180	3.30	94	2.0	-	70	-0.027	4.24	0.009
408	73.247	0.181	3.30	94	1.8	-	70	-0.026	4.22	0.009
409	73.426	0.179	3.31	94	1.8	-	70	-0.026	4.18	0.009
410	73.606	0.180	3.30	94	1.7	99	70	-0.027	4.13	0.010
411	73.788	0.182	3.30	94	1.6	-	70	-0.024	4.08	0.009
412	73.973	0.185	3.31	94	1.7	-	70	-0.024	4.08	0.009
413	74.153	0.180	3.31	94	1.7	-	69	-0.026	4.10	0.009
414	74.332	0.179	3.30	94	2.1	-	70	-0.025	4.09	0.010
415	74.512	0.180	3.30	94	2.0	-	69	-0.024	4.14	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
416	74.693	0.181	3.30	94	1.7	-	69	-0.025	4.27	0.011
417	74.874	0.181	3.30	94	1.7	-	69	-0.026	4.30	0.008
418	75.056	0.182	3.30	94	2.0	-	69	-0.025	4.29	0.012
419	75.237	0.181	3.31	94	1.9	-	69	-0.025	4.26	0.011
420	75.411	0.174	3.30	94	2.1	100	69	-0.026	4.28	0.011
421	75.594	0.183	3.30	94	2.2	-	69	-0.023	4.32	0.010
422	75.777	0.183	3.30	94	1.8	-	69	-0.024	4.32	0.010
423	75.958	0.181	3.30	94	2.1	-	69	-0.023	4.31	0.009
424	76.135	0.177	3.31	94	1.6	-	69	-0.023	4.32	0.013
425	76.318	0.183	3.30	94	2.1	-	69	-0.023	4.28	0.009
426	76.494	0.176	3.30	94	1.6	-	69	-0.023	4.24	0.010
427	76.678	0.184	3.30	94	2.0	-	69	-0.022	4.23	0.010
428	76.856	0.178	3.30	94	2.1	-	69	-0.024	4.21	0.014
429	77.041	0.185	3.30	94	1.7	-	69	-0.023	4.21	0.013
430	77.221	0.180	3.31	94	2.1	100	69	-0.023	4.20	0.010
431	77.399	0.178	3.30	94	2.1	-	69	-0.022	4.21	0.011
432	77.576	0.177	3.30	94	2.1	-	69	-0.023	4.20	0.014
433	77.759	0.183	3.30	94	2.1	-	69	-0.024	4.22	0.015
434	77.942	0.183	3.30	94	2.1	-	69	-0.025	4.21	0.009
435	78.123	0.181	3.30	94	2.2	-	69	-0.025	4.29	0.010
436	78.303	0.180	3.29	93	1.6	-	69	-0.022	4.32	0.012
437	78.483	0.180	3.30	94	1.7	-	69	-0.023	4.36	0.017
438	78.663	0.180	3.31	93	1.6	-	69	-0.022	4.42	0.013
439	78.844	0.181	3.30	93	2.2	-	69	-0.024	4.44	0.013
440	79.026	0.182	3.30	93	2.1	99	69	-0.023	4.48	0.014
441	79.203	0.177	3.30	93	2.1	-	69	-0.025	4.53	0.012
442	79.381	0.178	3.31	93	2.2	-	69	-0.024	4.56	0.009
443	79.565	0.184	3.30	93	2.1	-	69	-0.023	4.59	0.010
444	79.746	0.181	3.30	93	1.6	-	69	-0.026	4.64	0.013
445	79.927	0.181	3.30	93	1.6	-	69	-0.025	4.63	0.013
446	80.108	0.181	3.30	93	2.0	-	69	-0.025	4.68	0.013
447	80.285	0.177	3.30	93	2.2	-	69	-0.027	4.72	0.012

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
448	80.467	0.182	3.30	93	2.1	-	69	-0.026	4.74	0.012
449	80.647	0.180	3.30	93	2.2	-	69	-0.025	4.72	0.013
450	80.829	0.182	3.30	93	2.2	99	69	-0.025	4.69	0.014
451	81.008	0.179	3.30	93	2.0	-	69	-0.026	4.67	0.011
452	81.190	0.182	3.31	93	1.9	-	69	-0.025	4.65	0.015
453	81.369	0.179	3.31	93	1.6	-	69	-0.022	4.68	0.012
454	81.550	0.181	3.30	93	1.8	-	69	-0.024	4.69	0.014
455	81.728	0.178	3.31	93	1.6	-	69	-0.028	4.70	0.012
456	81.909	0.181	3.31	93	1.9	-	69	-0.026	4.68	0.015
457	82.093	0.184	3.31	93	1.9	-	69	-0.025	4.69	0.009
458	82.274	0.181	3.30	93	2.1	-	69	-0.026	4.69	0.014
459	82.451	0.177	3.30	93	1.8	-	69	-0.027	4.74	0.011
460	82.629	0.178	3.31	93	1.7	99	69	-0.025	4.71	0.012
461	82.811	0.182	3.30	93	2.2	-	69	-0.027	4.70	0.011
462	82.996	0.185	3.31	93	1.9	-	69	-0.026	4.69	0.015
463	83.176	0.180	3.30	93	2.0	-	69	-0.026	4.66	0.016
464	83.355	0.179	3.30	93	1.6	-	69	-0.028	4.69	0.015
465	83.532	0.177	3.31	93	2.2	-	69	-0.027	4.70	0.012
466	83.715	0.183	3.30	93	1.6	-	69	-0.027	4.73	0.013
467	83.896	0.181	3.29	93	2.1	-	69	-0.026	4.74	0.013
468	84.079	0.183	3.31	93	2.2	-	69	-0.027	4.76	0.011
469	84.259	0.180	3.30	93	1.7	-	69	-0.027	4.79	0.014
470	84.437	0.178	3.30	93	2.1	100	69	-0.028	4.82	0.010
471	84.617	0.180	3.30	93	1.6	-	69	-0.028	4.83	0.017
472	84.799	0.182	3.30	93	2.2	-	69	-0.027	5.43	0.013
473	84.980	0.181	3.30	93	1.9	-	69	-0.027	4.12	0.014
474	85.160	0.180	3.30	93	1.6	-	69	-0.027	4.95	0.007
475	85.340	0.180	3.30	93	1.6	-	69	-0.029	5.12	0.014
476	85.520	0.180	3.30	93	1.6	-	69	-0.027	5.15	0.012
477	85.699	0.179	3.30	93	2.1	-	69	-0.028	5.18	0.015
478	85.880	0.181	3.30	93	2.0	-	69	-0.028	5.21	0.014
479	86.063	0.183	3.30	93	2.0	-	69	-0.026	5.21	0.013

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
480	86.243	0.180	3.31	93	1.7	100	69	-0.027	5.24	0.013
481	86.421	0.178	3.31	93	2.1	-	69	-0.026	5.27	0.012
482	86.601	0.180	3.30	93	2.2	-	69	-0.026	5.28	0.013
483	86.783	0.182	3.30	93	1.9	-	69	-0.028	5.27	0.015
484	86.961	0.178	3.31	93	2.1	-	69	-0.028	5.30	0.014
485	87.141	0.180	3.31	93	1.7	-	69	-0.027	5.35	0.011
486	87.324	0.183	3.30	93	1.9	-	69	-0.027	5.32	0.019
487	87.503	0.179	3.30	93	1.9	-	69	-0.028	5.34	0.015
488	87.683	0.180	3.30	93	2.0	-	69	-0.026	5.36	0.013
489	87.861	0.178	3.30	93	1.7	-	69	-0.028	5.30	0.014
490	88.046	0.185	3.30	93	2.2	100	69	-0.028	5.28	0.013
491	88.224	0.178	3.31	93	2.0	-	69	-0.026	5.30	0.014
492	88.404	0.180	3.31	93	1.7	-	69	-0.027	5.35	0.018
493	88.585	0.181	3.30	93	1.9	-	69	-0.028	5.36	0.012
494	88.767	0.182	3.31	93	1.7	-	69	-0.028	5.37	0.011
495	88.947	0.180	3.30	93	2.1	-	69	-0.030	5.36	0.014
496	89.125	0.178	3.30	93	1.7	-	69	-0.032	5.36	0.017
497	89.308	0.183	3.30	93	2.0	-	69	-0.027	5.35	0.015
498	89.484	0.176	3.30	93	1.9	-	69	-0.029	5.29	0.018
499	89.667	0.183	3.31	93	1.7	-	69	-0.027	5.49	0.018
500	89.845	0.178	3.30	93	1.6	99	69	-0.031	5.57	0.016
501	90.031	0.186	3.31	93	2.1	-	69	-0.030	5.59	0.012
502	90.210	0.179	3.31	93	1.6	-	69	-0.030	5.59	0.012
503	90.388	0.178	3.30	93	1.7	-	69	-0.031	5.70	0.016
504	90.569	0.181	3.30	93	1.9	-	69	-0.030	5.52	0.019
505	90.751	0.182	3.30	93	2.0	-	69	-0.026	5.53	0.016
506	90.931	0.180	3.30	93	2.2	-	69	-0.029	5.42	0.015
507	91.112	0.181	3.31	93	1.6	-	69	-0.027	5.38	0.017
508	91.292	0.180	3.30	93	1.6	-	69	-0.029	5.38	0.015
509	91.471	0.179	3.31	93	2.0	-	69	-0.030	5.30	0.015
510	91.651	0.180	3.30	93	2.0	100	69	-0.028	5.31	0.017
511	91.829	0.178	3.30	93	2.2	-	69	-0.028	5.30	0.016

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
512	92.011	0.182	3.30	93	1.6	-	69	-0.027	5.36	0.017
513	92.191	0.180	3.30	93	1.6	-	69	-0.030	5.34	0.020
514	92.372	0.181	3.30	93	2.1	-	69	-0.028	5.32	0.019
515	92.553	0.181	3.30	93	1.9	-	69	-0.028	5.25	0.019
516	92.734	0.181	3.30	93	2.2	-	69	-0.027	5.16	0.018
517	92.915	0.181	3.30	93	1.9	-	69	-0.029	5.12	0.017
518	93.096	0.181	3.30	93	1.7	-	69	-0.028	5.00	0.018
519	93.276	0.180	3.30	93	2.0	-	69	-0.027	4.91	0.018
520	93.452	0.176	3.30	93	2.0	100	69	-0.029	4.80	0.015
521	93.634	0.182	3.30	93	2.0	-	69	-0.028	4.71	0.020
522	93.816	0.182	3.30	93	1.6	-	69	-0.027	4.61	0.017
523	93.998	0.182	3.30	93	1.6	-	69	-0.028	4.55	0.019
524	94.177	0.179	3.30	93	2.1	-	69	-0.025	4.49	0.018
525	94.356	0.179	3.30	93	2.0	-	69	-0.026	4.42	0.015
526	94.537	0.181	3.30	93	1.6	-	69	-0.027	4.33	0.020
527	94.718	0.181	3.31	93	2.1	-	69	-0.027	4.25	0.019
528	94.899	0.181	3.30	93	2.0	-	69	-0.026	4.31	0.017
529	95.076	0.177	3.30	93	1.6	-	69	-0.028	4.13	0.020
530	95.256	0.180	3.30	93	1.8	100	69	-0.027	4.05	0.017
531	95.436	0.180	3.31	93	1.6	-	69	-0.027	3.94	0.016
532	95.618	0.182	3.30	93	2.2	-	69	-0.026	3.83	0.020
533	95.800	0.182	3.30	93	2.1	-	69	-0.025	3.76	0.017
534	95.982	0.182	3.31	93	1.6	-	69	-0.026	3.64	0.015
535	96.164	0.182	3.30	93	2.0	-	69	-0.025	3.81	0.016
536	96.341	0.177	3.30	93	2.0	-	69	-0.025	3.85	0.016
537	96.518	0.177	3.31	93	1.7	-	69	-0.024	3.81	0.020
538	96.701	0.183	3.30	93	1.9	-	69	-0.023	3.73	0.023
539	96.882	0.181	3.30	93	2.0	-	69	-0.023	3.67	0.021
540	97.065	0.183	3.31	93	2.1	101	69	-0.024	3.62	0.016
541	97.245	0.180	3.31	93	1.6	-	69	-0.022	3.61	0.020
542	97.423	0.178	3.31	93	2.2	-	69	-0.022	3.56	0.021
543	97.603	0.180	3.31	93	1.7	-	69	-0.021	3.52	0.019

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
544	97.782	0.179	3.30	93	2.2	-	69	-0.023	3.51	0.022
545	97.966	0.184	3.31	93	1.9	-	69	-0.022	3.48	0.020
546	98.144	0.178	3.31	93	1.7	-	69	-0.022	3.45	0.021
547	98.326	0.182	3.30	93	1.6	-	69	-0.021	3.43	0.020
548	98.506	0.180	3.31	93	2.0	-	69	-0.021	3.39	0.019
549	98.686	0.180	3.30	93	2.2	-	69	-0.021	3.37	0.019
550	98.867	0.181	3.31	93	2.2	101	69	-0.021	3.35	0.021
551	99.046	0.179	3.31	93	1.8	-	69	-0.022	3.34	0.015
552	99.226	0.180	3.30	93	2.2	-	69	-0.021	3.32	0.019
553	99.408	0.182	3.31	93	2.0	-	69	-0.021	3.36	0.018
554	99.584	0.176	3.30	93	2.0	-	69	-0.022	3.40	0.018
555	99.767	0.183	3.31	93	2.0	-	69	-0.021	3.45	0.019
556	99.950	0.183	3.30	93	1.7	-	69	-0.021	3.50	0.022
557	100.131	0.181	3.30	93	1.8	-	69	-0.021	3.63	0.020
558	100.314	0.183	3.30	93	1.7	-	69	-0.021	3.75	0.021
559	100.487	0.173	3.31	93	1.7	-	69	-0.021	3.88	0.020
560	100.671	0.184	3.30	93	1.7	100	69	-0.022	4.02	0.023
561	100.852	0.181	3.31	93	2.0	-	69	-0.022	4.11	0.023
562	101.034	0.182	3.30	93	1.7	-	69	-0.021	4.24	0.023
563	101.211	0.177	3.30	93	1.6	-	69	-0.023	4.40	0.021
564	101.392	0.181	3.31	93	1.7	-	69	-0.022	4.53	0.022
565	101.572	0.180	3.30	93	1.7	-	69	-0.026	4.60	0.022
566	101.755	0.183	3.31	93	2.2	-	69	-0.025	4.67	0.023
567	101.935	0.180	3.31	93	2.1	-	69	-0.024	4.66	0.015
568	102.116	0.181	3.31	93	2.1	-	69	-0.026	4.69	0.023
569	102.292	0.176	3.30	93	2.1	-	69	-0.027	4.71	0.022
570	102.475	0.183	3.31	93	2.0	100	69	-0.024	4.74	0.021
571	102.655	0.180	3.30	93	2.1	-	69	-0.027	4.78	0.022
572	102.837	0.182	3.31	93	1.9	-	69	-0.024	4.83	0.021
573	103.015	0.178	3.31	93	2.0	-	69	-0.026	4.87	0.020
574	103.198	0.183	3.31	93	2.1	-	69	-0.027	4.88	0.023
575	103.376	0.178	3.30	93	1.7	-	69	-0.026	4.91	0.022

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
576	103.557	0.181	3.31	93	1.8	-	69	-0.028	4.95	0.025
577	103.739	0.182	3.31	93	2.0	-	69	-0.029	4.95	0.022
578	103.920	0.181	3.31	93	2.2	-	69	-0.028	4.92	0.018
579	104.101	0.181	3.30	93	1.9	-	69	-0.029	4.93	0.020
580	104.281	0.180	3.30	93	1.6	101	69	-0.029	4.91	0.019
581	104.457	0.176	3.31	93	1.6	-	69	-0.028	4.88	0.023
582	104.639	0.182	3.30	93	1.8	-	69	-0.030	4.96	0.026
583	104.822	0.183	3.31	93	2.0	-	69	-0.030	4.96	0.024
584	105.003	0.181	3.31	93	1.8	-	69	-0.031	5.01	0.025
585	105.183	0.180	3.31	93	1.6	-	69	-0.032	5.03	0.020
586	105.362	0.179	3.31	93	1.7	-	69	-0.034	5.06	0.021
587	105.539	0.177	3.31	93	1.7	-	69	-0.031	5.14	0.026
588	105.723	0.184	3.31	93	1.8	-	69	-0.034	5.25	0.031
589	105.901	0.178	3.31	93	1.7	-	69	-0.032	5.27	0.032
590	106.085	0.184	3.31	93	1.8	100	69	-0.032	5.25	0.053
591	106.265	0.180	3.30	93	1.9	-	69	-0.033	5.22	0.082
592	106.441	0.176	3.31	93	2.2	-	69	-0.031	5.35	0.135
593	106.623	0.182	3.30	93	1.6	-	69	-0.031	5.26	0.185
594	106.806	0.183	3.31	93	1.6	-	69	-0.032	5.04	0.230
595	106.985	0.179	3.31	93	1.9	-	69	-0.031	4.90	0.267
596	107.167	0.182	3.31	93	1.6	-	69	-0.033	4.79	0.320
597	107.347	0.180	3.30	93	1.6	-	69	-0.030	4.66	0.355
598	107.526	0.179	3.30	93	2.1	-	69	-0.029	4.52	0.384
599	107.707	0.181	3.31	93	1.7	-	69	-0.028	4.44	0.408
600	107.888	0.181	3.30	93	1.9	100	69	-0.028	4.34	0.420
601	108.070	0.182	3.31	93	2.1	-	69	-0.027	4.29	0.425
602	108.250	0.180	3.31	93	2.1	-	69	-0.029	4.26	0.416
603	108.428	0.178	3.31	93	2.0	-	69	-0.029	4.39	0.399
604	108.605	0.177	3.30	93	2.2	-	69	-0.028	4.46	0.364
605	108.788	0.183	3.31	93	2.2	-	69	-0.027	4.51	0.315
606	108.971	0.183	3.32	93	2.0	-	69	-0.028	4.54	0.267
607	109.152	0.181	3.31	93	2.1	-	69	-0.026	4.56	0.228

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
608	109.328	0.176	3.31	93	1.9	-	69	-0.027	4.54	0.195
609	109.512	0.184	3.31	93	1.6	-	69	-0.027	4.53	0.166
610	109.689	0.177	3.31	93	1.6	99	69	-0.027	4.51	0.134
611	109.870	0.181	3.30	93	1.7	-	69	-0.026	4.44	0.118
612	110.052	0.182	3.31	93	1.9	-	69	-0.024	4.40	0.094
613	110.235	0.183	3.32	93	2.1	-	69	-0.025	4.38	0.080
614	110.410	0.175	3.31	93	1.8	-	69	-0.024	4.34	0.073
615	110.594	0.184	3.30	93	2.0	-	69	-0.024	4.31	0.060
616	110.775	0.181	3.31	93	2.0	-	69	-0.025	4.28	0.053
617	110.956	0.181	3.31	93	1.8	-	69	-0.025	4.22	0.048
618	111.134	0.178	3.31	93	2.1	-	69	-0.024	4.24	0.037
619	111.317	0.183	3.30	93	1.9	-	69	-0.023	4.18	0.037
620	111.496	0.179	3.31	93	1.8	100	69	-0.023	4.14	0.033
621	111.676	0.180	3.31	93	1.9	-	69	-0.024	4.13	0.035
622	111.855	0.179	3.31	93	2.0	-	69	-0.024	4.12	0.034
623	112.040	0.185	3.31	93	1.8	-	69	-0.023	4.06	0.024
624	112.219	0.179	3.31	93	1.8	-	69	-0.021	4.03	0.028
625	112.398	0.179	3.31	93	1.6	-	69	-0.023	3.97	0.026
626	112.579	0.181	3.31	93	2.2	-	69	-0.022	3.94	0.023
627	112.760	0.181	3.32	93	1.7	-	69	-0.023	3.91	0.030
628	112.941	0.181	3.31	93	2.1	-	69	-0.021	3.88	0.028
629	113.123	0.182	3.31	93	1.7	-	69	-0.021	3.86	0.024
630	113.303	0.180	3.31	93	2.1	100	69	-0.022	3.84	0.028
631	113.481	0.178	3.31	93	2.0	-	68	-0.023	3.77	0.026
632	113.661	0.180	3.31	93	1.6	-	68	-0.021	3.78	0.029
633	113.844	0.183	3.31	93	1.8	-	69	-0.023	3.78	0.026
634	114.026	0.182	3.31	93	1.6	-	69	-0.021	3.75	0.028
635	114.202	0.176	3.31	93	1.8	-	69	-0.020	3.71	0.027
636	114.385	0.183	3.31	93	2.1	-	69	-0.020	3.71	0.024
637	114.562	0.177	3.31	93	1.7	-	68	-0.021	3.72	0.022
638	114.743	0.181	3.31	93	1.7	-	69	-0.022	3.70	0.028
639	114.924	0.181	3.32	93	1.8	-	69	-0.020	3.69	0.022

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
640	115.106	0.182	3.30	93	1.9	100	68	-0.020	3.62	0.027
641	115.289	0.183	3.30	93	1.6	-	68	-0.022	3.64	0.023
642	115.467	0.178	3.30	93	2.2	-	68	-0.020	3.65	0.025
643	115.647	0.180	3.31	93	1.8	-	68	-0.018	3.65	0.028
644	115.829	0.182	3.30	93	2.1	-	68	-0.020	3.63	0.022
645	116.008	0.179	3.30	93	1.7	-	68	-0.021	3.61	0.022
646	116.190	0.182	3.31	93	2.2	-	68	-0.020	3.62	0.029
647	116.370	0.180	3.30	93	1.6	-	68	-0.020	3.64	0.024
648	116.550	0.180	3.31	93	1.6	-	68	-0.018	3.66	0.027
649	116.729	0.179	3.31	93	1.6	-	68	-0.020	3.68	0.026
650	116.911	0.182	3.30	93	2.0	100	68	-0.021	3.71	0.030
651	117.093	0.182	3.31	93	1.9	-	68	-0.022	3.80	0.027
652	117.273	0.180	3.31	93	1.6	-	68	-0.018	3.74	0.028
653	117.451	0.178	3.31	93	1.7	-	68	-0.021	3.82	0.027
654	117.631	0.180	3.30	93	1.6	-	68	-0.022	3.88	0.027
655	117.813	0.182	3.30	93	2.2	-	68	-0.019	3.92	0.030
656	117.994	0.181	3.31	93	2.0	-	68	-0.019	3.98	0.026
657	118.174	0.180	3.31	93	1.6	-	68	-0.019	4.01	0.026
658	118.355	0.181	3.31	93	2.2	-	68	-0.021	4.07	0.024
659	118.534	0.179	3.32	93	1.6	-	68	-0.022	4.18	0.026
660	118.714	0.180	3.31	93	1.6	100	68	-0.022	4.19	0.030
661	118.896	0.182	3.31	93	1.6	-	68	-0.022	4.24	0.027
662	119.078	0.182	3.31	93	1.7	-	68	-0.023	4.36	0.026
663	119.255	0.177	3.31	93	1.8	-	68	-0.022	4.27	0.025
664	119.433	0.178	3.31	93	1.7	-	68	-0.023	4.27	0.029
665	119.613	0.180	3.31	93	2.1	-	68	-0.023	4.30	0.025
666	119.798	0.185	3.31	93	2.1	-	68	-0.022	4.33	0.025
667	119.976	0.178	3.31	93	1.8	-	68	-0.024	4.38	0.030
668	120.159	0.183	3.31	93	2.0	-	68	-0.024	4.38	0.026
669	120.336	0.177	3.31	93	1.8	-	68	-0.023	4.39	0.024
670	120.518	0.182	3.31	93	1.6	100	68	-0.025	4.40	0.029
671	120.698	0.180	3.31	93	1.8	-	68	-0.022	4.45	0.026

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
672	120.877	0.179	3.31	93	1.9	-	68	-0.026	4.53	0.024
673	121.062	0.185	3.31	92	2.1	-	68	-0.024	4.53	0.024
674	121.241	0.179	3.31	92	1.7	-	68	-0.023	4.59	0.026
675	121.417	0.176	3.31	93	2.1	-	68	-0.023	4.62	0.030
676	121.601	0.184	3.31	93	1.6	-	68	-0.023	4.63	0.026
677	121.782	0.181	3.31	93	1.6	-	68	-0.026	4.68	0.026
678	121.963	0.181	3.31	93	1.8	-	68	-0.024	4.70	0.028
679	122.140	0.177	3.31	93	2.2	-	68	-0.025	4.72	0.029
680	122.324	0.184	3.31	93	2.2	100	68	-0.024	4.75	0.027
681	122.502	0.178	3.31	93	2.1	-	68	-0.027	4.71	0.029
682	122.680	0.178	3.31	92	2.2	-	68	-0.026	4.76	0.027
683	122.862	0.182	3.31	92	1.9	-	68	-0.026	4.72	0.026
684	123.046	0.184	3.31	93	2.1	-	68	-0.026	4.57	0.032
685	123.226	0.180	3.32	92	2.2	-	68	-0.025	4.52	0.030
686	123.404	0.178	3.31	92	1.7	-	68	-0.026	4.50	0.025
687	123.585	0.181	3.31	92	1.6	-	68	-0.027	4.29	0.027
688	123.766	0.181	3.32	92	1.7	-	68	-0.026	3.93	0.030
689	123.944	0.178	3.31	92	2.2	-	68	-0.026	3.78	0.026
690	124.128	0.184	3.31	92	2.2	100	68	-0.026	3.73	0.028
691	124.308	0.180	3.31	92	1.9	-	68	-0.026	3.79	0.027
692	124.486	0.178	3.30	92	2.1	-	68	-0.027	3.85	0.027
693	124.666	0.180	3.30	92	1.6	-	68	-0.026	4.02	0.028
694	124.845	0.179	3.31	92	1.6	-	68	-0.026	3.84	0.029
695	125.030	0.185	3.31	92	1.6	-	68	-0.028	3.62	0.029
696	125.210	0.180	3.31	92	1.7	-	68	-0.025	3.88	0.026
697	125.388	0.178	3.31	92	2.2	-	68	-0.024	4.13	0.027
698	125.568	0.180	3.30	93	1.8	-	68	-0.026	4.13	0.027
699	125.749	0.181	3.31	92	2.1	-	68	-0.025	4.43	0.032
700	125.930	0.181	3.30	93	2.0	100	68	-0.027	4.71	0.025
701	126.111	0.181	3.30	93	2.0	-	68	-0.026	4.77	0.030
702	126.291	0.180	3.31	92	1.7	-	68	-0.024	4.78	0.029
703	126.469	0.178	3.31	92	1.6	-	68	-0.023	4.75	0.031

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
704	126.649	0.180	3.31	92	1.7	-	68	-0.024	4.67	0.025
705	126.832	0.183	3.31	92	1.6	-	68	-0.026	4.61	0.026
706	127.010	0.178	3.31	92	1.6	-	68	-0.024	4.56	0.030
707	127.193	0.183	3.31	92	1.7	-	68	-0.023	4.51	0.029
708	127.372	0.179	3.31	92	2.1	-	68	-0.023	4.49	0.031
709	127.549	0.177	3.31	92	1.9	-	68	-0.024	4.43	0.030
710	127.732	0.183	3.31	92	2.1	100	68	-0.024	4.42	0.029
711	127.913	0.181	3.31	92	1.8	-	68	-0.023	4.32	0.030
712	128.092	0.179	3.31	92	2.1	-	68	-0.023	4.33	0.029
713	128.276	0.184	3.31	92	2.0	-	68	-0.022	4.29	0.028
714	128.454	0.178	3.31	92	2.0	-	68	-0.024	4.19	0.031
715	128.630	0.176	3.30	92	2.0	-	68	-0.023	4.11	0.026
716	128.816	0.186	3.31	92	1.6	-	68	-0.023	4.19	0.027
717	128.997	0.181	3.31	92	1.8	-	68	-0.021	4.05	0.027
718	129.177	0.180	3.31	92	2.2	-	68	-0.020	4.01	0.026
719	129.356	0.179	3.31	92	2.1	-	68	-0.022	4.00	0.029
720	129.536	0.180	3.31	92	1.8	100	68	-0.021	3.95	0.030
721	129.716	0.180	3.30	92	2.1	-	68	-0.021	3.88	0.025
722	129.895	0.179	3.31	92	2.1	-	68	-0.019	3.80	0.025
723	130.080	0.185	3.31	92	1.7	-	68	-0.021	3.81	0.022
724	130.260	0.180	3.31	92	1.8	-	68	-0.022	3.87	0.029
725	130.438	0.178	3.31	92	1.6	-	68	-0.020	3.83	0.028
726	130.618	0.180	3.31	92	1.6	-	68	-0.020	3.84	0.027
727	130.799	0.181	3.31	93	2.0	-	68	-0.021	3.80	0.026
728	130.980	0.181	3.30	92	2.2	-	68	-0.020	3.78	0.025
729	131.161	0.181	3.31	92	1.6	-	68	-0.021	3.76	0.033
730	131.341	0.180	3.31	93	1.6	100	68	-0.019	3.76	0.028
731	131.520	0.179	3.31	92	1.7	-	68	-0.019	3.74	0.027
732	131.700	0.180	3.31	92	2.1	-	68	-0.018	3.74	0.029
733	131.881	0.181	3.31	93	1.9	-	68	-0.020	3.76	0.027
734	132.060	0.179	3.30	92	2.1	-	68	-0.020	3.81	0.026
735	132.243	0.183	3.31	92	1.7	-	68	-0.020	3.86	0.027

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
736	132.421	0.178	3.31	92	1.7	-	68	-0.019	3.89	0.029
737	132.602	0.181	3.31	92	2.2	-	68	-0.019	3.91	0.025
738	132.783	0.181	3.31	92	1.8	-	68	-0.021	3.86	0.022
739	132.964	0.181	3.31	92	2.2	-	68	-0.019	4.02	0.024
740	133.144	0.180	3.31	92	2.0	100	68	-0.021	4.07	0.026
741	133.325	0.181	3.31	92	1.9	-	68	-0.021	4.17	0.027
742	133.501	0.176	3.31	92	1.8	-	68	-0.020	4.19	0.028
743	133.684	0.183	3.31	92	1.7	-	68	-0.021	4.20	0.031
744	133.862	0.178	3.31	92	1.6	-	68	-0.022	4.31	0.029
745	134.047	0.185	3.31	92	2.2	-	68	-0.022	4.36	0.030
746	134.224	0.177	3.31	92	1.6	-	68	-0.021	4.41	0.029
747	134.402	0.178	3.31	92	2.2	-	68	-0.022	4.48	0.030
748	134.585	0.183	3.31	92	2.0	-	68	-0.030	4.53	0.026
749	134.767	0.182	3.30	92	1.6	-	68	-0.024	4.54	0.030
750	134.947	0.180	3.31	92	1.7	100	68	-0.023	4.63	0.026
751	135.128	0.181	3.31	92	2.1	-	68	-0.026	4.60	0.034
752	135.308	0.180	3.31	92	2.2	-	68	-0.028	4.54	0.038
753	135.487	0.179	3.32	92	1.7	-	68	-0.025	4.46	0.030
754	135.667	0.180	3.31	92	1.9	-	68	-0.025	4.38	0.026
755	135.849	0.182	3.31	92	2.0	-	68	-0.024	4.33	0.027
756	136.028	0.179	3.31	92	1.9	-	68	-0.025	4.32	0.029
757	136.208	0.180	3.31	92	1.9	-	68	-0.024	4.27	0.031
758	136.388	0.180	3.31	92	2.1	-	68	-0.025	4.32	0.030
759	136.569	0.181	3.31	92	2.1	-	68	-0.023	4.39	0.027
760	136.751	0.182	3.31	92	2.0	100	68	-0.024	4.43	0.027
761	136.928	0.177	3.31	92	1.7	-	68	-0.024	4.43	0.026
762	137.112	0.184	3.31	92	1.8	-	68	-0.024	4.44	0.025
763	137.292	0.180	3.31	92	1.9	-	68	-0.025	4.45	0.023
764	137.471	0.179	3.32	92	2.2	-	68	-0.024	4.48	0.026
765	137.651	0.180	3.31	92	2.2	-	68	-0.025	4.49	0.022
766	137.829	0.178	3.31	92	1.6	-	68	-0.025	4.55	0.028
767	138.011	0.182	3.31	92	1.7	-	68	-0.025	4.62	0.025

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
768	138.194	0.183	3.32	92	1.7	-	68	-0.025	4.64	0.030
769	138.369	0.175	3.31	92	2.0	-	68	-0.026	4.66	0.028
770	138.553	0.184	3.31	92	2.0	100	68	-0.024	4.68	0.028
771	138.731	0.178	3.31	92	2.0	-	68	-0.025	4.67	0.026
772	138.915	0.184	3.31	92	2.2	-	68	-0.026	4.79	0.025
773	139.092	0.177	3.31	92	2.1	-	68	-0.027	4.89	0.028
774	139.276	0.184	3.31	92	1.7	-	68	-0.027	4.96	0.023
775	139.454	0.178	3.31	92	2.0	-	68	-0.026	5.01	0.026
776	139.634	0.180	3.31	92	2.2	-	68	-0.025	5.02	0.024
777	139.816	0.182	3.31	92	1.6	-	68	-0.027	5.05	0.024
778	139.998	0.182	3.32	92	1.6	-	68	-0.025	5.07	0.026
779	140.177	0.179	3.31	92	2.2	-	68	-0.026	5.11	0.030
780	140.356	0.179	3.31	92	2.1	100	68	-0.025	5.14	0.028
781	140.533	0.177	3.31	92	2.2	-	68	-0.025	5.14	0.026
782	140.718	0.185	3.31	92	1.6	-	68	-0.027	5.12	0.025
783	140.898	0.180	3.31	92	2.0	-	68	-0.026	5.09	0.024
784	141.076	0.178	3.31	92	2.2	-	68	-0.026	5.08	0.029
785	141.256	0.180	3.31	92	2.0	-	68	-0.028	5.11	0.028
786	141.435	0.179	3.31	92	2.1	-	68	-0.027	5.12	0.025
787	141.618	0.183	3.31	92	1.6	-	68	-0.027	5.12	0.028
788	141.800	0.182	3.31	92	2.1	-	68	-0.026	5.14	0.031
789	141.982	0.182	3.31	92	1.6	-	68	-0.026	5.21	0.026
790	142.158	0.176	3.32	92	2.0	100	68	-0.025	5.23	0.026
791	142.339	0.181	3.31	92	1.6	-	68	-0.027	5.29	0.025
792	142.520	0.181	3.31	92	1.8	-	68	-0.027	5.34	0.024
793	142.701	0.181	3.31	92	2.2	-	68	-0.025	5.36	0.027
794	142.879	0.178	3.31	92	2.0	-	68	-0.024	5.37	0.026
795	143.063	0.184	3.31	92	1.6	-	68	-0.025	5.37	0.024
796	143.239	0.176	3.31	92	1.8	-	68	-0.026	5.38	0.025
797	143.421	0.182	3.31	92	1.8	-	68	-0.024	5.39	0.025
798	143.601	0.180	3.31	92	1.6	-	68	-0.026	5.42	0.028
799	143.783	0.182	3.31	92	1.9	-	68	-0.027	5.45	0.027

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
800	143.965	0.182	3.31	92	2.2	100	68	-0.026	5.45	0.026
801	144.141	0.176	3.30	92	1.6	-	68	-0.026	5.48	0.027
802	144.323	0.182	3.31	92	1.7	-	68	-0.026	5.55	0.026
803	144.503	0.180	3.31	92	1.6	-	68	-0.027	5.58	0.034
804	144.682	0.179	3.32	92	2.1	-	68	-0.024	5.62	0.027
805	144.865	0.183	3.31	92	1.8	-	68	-0.026	5.60	0.026
806	145.046	0.181	3.30	92	2.2	-	68	-0.024	5.59	0.030
807	145.226	0.180	3.31	92	2.2	-	68	-0.024	5.63	0.031
808	145.402	0.176	3.31	92	1.9	-	68	-0.026	5.66	0.031
809	145.582	0.180	3.31	92	1.6	-	68	-0.028	5.68	0.029
810	145.767	0.185	3.31	92	1.9	100	68	-0.025	5.68	0.027
811	145.945	0.178	3.31	92	1.7	-	68	-0.025	5.66	0.027
812	146.128	0.183	3.31	92	2.2	-	69	-0.026	5.65	0.028
813	146.306	0.178	3.30	92	1.7	-	69	-0.025	5.66	0.030
814	146.486	0.180	3.30	92	2.0	-	69	-0.024	5.61	0.033
815	146.667	0.181	3.31	92	2.1	-	68	-0.027	5.67	0.031
816	146.848	0.181	3.31	92	2.1	-	68	-0.026	5.67	0.030
817	147.030	0.182	3.31	92	2.1	-	69	-0.025	5.66	0.028
818	147.210	0.180	3.31	92	1.6	-	69	-0.028	5.61	0.027
819	147.387	0.177	3.31	92	1.6	-	69	-0.026	5.60	0.026
820	147.565	0.178	3.31	92	2.0	100	69	-0.025	5.59	0.029
821	147.747	0.182	3.31	92	1.9	-	69	-0.023	5.55	0.026
822	147.931	0.184	3.31	92	2.1	-	69	-0.025	5.53	0.027
823	148.111	0.180	3.31	92	2.2	-	69	-0.026	5.47	0.030
824	148.290	0.179	3.31	92	2.1	-	69	-0.025	5.45	0.030
825	148.470	0.180	3.31	92	2.1	-	69	-0.024	5.44	0.023
826	148.648	0.178	3.31	92	2.0	-	69	-0.027	5.38	0.027
827	148.831	0.183	3.31	92	1.6	-	69	-0.026	5.31	0.029
828	149.013	0.182	3.31	92	2.1	-	69	-0.023	5.34	0.032
829	149.194	0.181	3.31	92	1.8	-	69	-0.024	5.37	0.025
830	149.371	0.177	3.31	92	2.2	100	69	-0.024	5.35	0.029
831	149.551	0.180	3.31	92	1.9	-	69	-0.025	5.35	0.028

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
832	149.731	0.180	3.31	92	2.2	-	69	-0.025	5.34	0.031
833	149.915	0.184	3.32	92	2.2	-	69	-0.024	5.28	0.028
834	150.095	0.180	3.31	92	2.2	-	69	-0.026	5.17	0.033
835	150.270	0.175	3.30	92	1.7	-	69	-0.026	5.00	0.031
836	150.451	0.181	3.31	92	1.6	-	69	-0.025	4.95	0.029
837	150.634	0.183	3.30	92	1.6	-	69	-0.025	5.01	0.023
838	150.813	0.179	3.31	92	2.2	-	68	-0.023	5.07	0.031
839	150.997	0.184	3.31	92	2.0	-	69	-0.024	5.07	0.032
840	151.178	0.181	3.31	92	1.9	100	69	-0.024	5.06	0.034
841	151.352	0.174	3.31	92	1.6	-	69	-0.025	5.05	0.027
842	151.536	0.184	3.31	92	2.1	-	69	-0.025	5.06	0.026
843	151.717	0.181	3.30	92	2.1	-	69	-0.023	5.03	0.027
844	151.898	0.181	3.31	92	1.7	-	68	-0.026	5.06	0.030
845	152.078	0.180	3.31	92	1.8	-	69	-0.023	5.04	0.033
846	152.258	0.180	3.31	92	2.1	-	68	-0.022	5.00	0.033
847	152.438	0.180	3.31	92	1.6	-	69	-0.025	4.96	0.031
848	152.618	0.180	3.31	92	1.6	-	69	-0.024	4.97	0.034
849	152.799	0.181	3.31	92	1.6	-	69	-0.024	4.99	0.024
850	152.981	0.182	3.31	92	2.2	99	69	-0.023	4.97	0.032
851	153.161	0.180	3.32	92	2.1	-	69	-0.025	4.92	0.030
852	153.336	0.175	3.31	92	1.8	-	69	-0.025	4.92	0.028
853	153.520	0.184	3.31	92	2.1	-	69	-0.024	4.91	0.032
854	153.701	0.181	3.31	92	1.7	-	69	-0.022	4.90	0.034
855	153.880	0.179	3.31	92	2.2	-	69	-0.025	4.93	0.028
856	154.062	0.182	3.31	92	1.7	-	69	-0.022	4.95	0.029
857	154.243	0.181	3.31	92	2.2	-	69	-0.025	4.96	0.023
858	154.419	0.176	3.30	92	1.6	-	69	-0.024	4.95	0.031
859	154.599	0.180	3.30	92	2.0	-	69	-0.024	4.93	0.025
860	154.784	0.185	3.31	92	2.1	100	69	-0.024	4.91	0.031
861	154.965	0.181	3.30	92	1.9	-	69	-0.022	4.92	0.027
862	155.143	0.178	3.31	93	1.9	-	69	-0.025	4.93	0.030
863	155.323	0.180	3.31	92	2.0	-	69	-0.023	4.91	0.026

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2
Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
864	155.500	0.177	3.31	92	1.7	-	69	-0.022	4.89	0.033
865	155.682	0.182	3.31	92	1.6	-	69	-0.023	4.89	0.030
866	155.866	0.184	3.31	92	2.1	-	69	-0.024	4.88	0.030
867	156.047	0.181	3.31	92	1.6	-	69	-0.024	4.88	0.026
868	156.223	0.176	3.31	92	1.6	-	69	-0.024	4.86	0.029
869	156.406	0.183	3.31	92	1.8	-	69	-0.023	4.91	0.027
870	156.586	0.180	3.31	92	1.6	100	69	-0.025	4.99	0.026
871	156.768	0.182	3.30	92	2.2	-	69	-0.024	5.01	0.031
872	156.949	0.181	3.31	92	1.9	-	69	-0.026	5.00	0.033
873	157.129	0.180	3.31	92	1.6	-	69	-0.024	5.00	0.029
874	157.307	0.178	3.30	92	2.2	-	69	-0.026	4.98	0.030
875	157.485	0.178	3.31	92	2.1	-	69	-0.024	4.95	0.028
876	157.670	0.185	3.31	92	2.2	-	69	-0.025	4.94	0.029
877	157.850	0.180	3.31	92	2.1	-	69	-0.026	4.92	0.030
878	158.027	0.177	3.31	93	1.8	-	69	-0.025	4.89	0.032
879	158.211	0.184	3.30	92	1.6	-	69	-0.024	4.90	0.029
880	158.390	0.179	3.32	92	2.0	100	69	-0.023	4.93	0.033
881	158.567	0.177	3.31	92	1.8	-	69	-0.025	4.91	0.025
882	158.748	0.181	3.31	93	1.6	-	69	-0.025	4.90	0.025
883	158.933	0.185	3.31	92	1.7	-	69	-0.025	4.91	0.030
884	159.112	0.179	3.31	93	2.0	-	69	-0.025	4.85	0.028
885	159.291	0.179	3.30	93	1.9	-	69	-0.025	4.86	0.023
886	159.472	0.181	3.31	93	1.7	-	69	-0.024	4.83	0.027
887	159.650	0.178	3.30	93	2.2	-	69	-0.025	4.83	0.023
888	159.834	0.184	3.31	93	1.6	-	69	-0.024	4.85	0.028
889	160.015	0.181	3.31	93	1.8	-	69	-0.025	4.79	0.027
890	160.195	0.180	3.31	93	1.9	100	69	-0.025	4.81	0.026
891	160.371	0.176	3.31	92	2.1	-	69	-0.027	4.86	0.028
892	160.551	0.180	3.31	93	1.9	-	69	-0.025	4.82	0.024
893	160.732	0.181	3.31	92	2.2	-	69	-0.024	4.82	0.026
894	160.914	0.182	3.30	92	1.7	-	69	-0.024	4.92	0.028
895	161.093	0.179	3.30	92	1.7	-	69	-0.023	5.01	0.028

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
896	161.271	0.178	3.30	93	2.2	-	69	-0.024	5.07	0.030
897	161.455	0.184	3.31	92	2.2	-	69	-0.027	5.04	0.024
898	161.636	0.181	3.31	92	1.8	-	69	-0.024	5.03	0.027
899	161.817	0.181	3.31	92	1.8	-	69	-0.026	5.00	0.029
900	161.998	0.181	3.31	93	1.6	100	69	-0.024	4.95	0.027
901	162.178	0.180	3.31	92	1.9	-	69	-0.025	4.90	0.030
902	162.356	0.178	3.31	92	1.8	-	68	-0.026	4.88	0.031
903	162.536	0.180	3.30	92	1.9	-	68	-0.024	4.87	0.031
904	162.716	0.180	3.30	93	2.1	-	69	-0.025	4.84	0.029
905	162.900	0.184	3.31	92	2.2	-	69	-0.023	4.85	0.030
906	163.080	0.180	3.31	92	1.7	-	69	-0.024	4.83	0.029
907	163.258	0.178	3.31	93	1.7	-	69	-0.025	4.84	0.030
908	163.435	0.177	3.31	92	1.9	-	69	-0.024	4.88	0.030
909	163.619	0.184	3.31	92	1.7	-	68	-0.025	4.84	0.031
910	163.797	0.178	3.32	92	1.6	100	69	-0.026	4.81	0.032
911	163.978	0.181	3.31	92	1.6	-	69	-0.026	4.77	0.025
912	164.158	0.180	3.31	92	1.9	-	68	-0.027	4.70	0.031
913	164.337	0.179	3.31	92	2.1	-	68	-0.027	4.65	0.031
914	164.519	0.182	3.31	92	1.7	-	69	-0.026	4.66	0.027
915	164.702	0.183	3.31	92	1.6	-	68	-0.026	4.67	0.030
916	164.884	0.182	3.31	92	1.9	-	68	-0.025	4.61	0.027
917	165.063	0.179	3.31	92	1.9	-	69	-0.026	4.57	0.026
918	165.242	0.179	3.31	92	1.7	-	68	-0.026	4.54	0.030
919	165.422	0.180	3.31	92	2.0	-	68	-0.026	4.45	0.028
920	165.601	0.179	3.31	92	1.7	100	69	-0.026	4.39	0.027
921	165.784	0.183	3.31	92	1.6	-	68	-0.025	4.33	0.023
922	165.962	0.178	3.31	92	1.8	-	69	-0.026	4.33	0.031
923	166.142	0.180	3.31	92	1.7	-	68	-0.026	4.34	0.029
924	166.321	0.179	3.32	92	2.2	-	68	-0.025	4.32	0.030
925	166.503	0.182	3.30	92	1.7	-	69	-0.025	4.29	0.030
926	166.682	0.179	3.31	92	2.2	-	69	-0.026	4.30	0.030
927	166.867	0.185	3.31	92	2.0	-	68	-0.026	4.35	0.029

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
928	167.047	0.180	3.31	92	1.8	-	68	-0.024	4.35	0.029
929	167.226	0.179	3.30	92	1.8	-	68	-0.025	4.35	0.029
930	167.402	0.176	3.31	92	1.6	99	68	-0.025	4.35	0.031
931	167.586	0.184	3.31	92	1.7	-	68	-0.025	4.33	0.033
932	167.764	0.178	3.31	92	1.9	-	68	-0.023	4.31	0.025
933	167.949	0.185	3.31	92	2.1	-	68	-0.026	4.30	0.027
934	168.129	0.180	3.31	92	1.9	-	68	-0.025	4.27	0.027
935	168.307	0.178	3.31	92	1.6	-	68	-0.027	4.22	0.032
936	168.487	0.180	3.30	92	1.7	-	68	-0.026	4.22	0.027
937	168.669	0.182	3.31	92	2.1	-	68	-0.025	4.23	0.029
938	168.850	0.181	3.31	92	2.2	-	68	-0.025	4.20	0.031
939	169.030	0.180	3.31	92	1.7	-	68	-0.026	4.23	0.036
940	169.209	0.179	3.31	92	1.6	100	68	-0.027	4.21	0.029
941	169.386	0.177	3.31	92	2.2	-	68	-0.026	4.19	0.032
942	169.569	0.183	3.31	92	1.8	-	68	-0.026	4.14	0.028
943	169.750	0.181	3.31	92	1.6	-	68	-0.025	4.11	0.028
944	169.932	0.182	3.31	92	1.6	-	68	-0.025	4.04	0.032
945	170.108	0.176	3.30	92	2.1	-	68	-0.024	4.01	0.029
946	170.289	0.181	3.31	92	1.6	-	68	-0.027	3.96	0.030
947	170.466	0.177	3.31	92	1.8	-	68	-0.025	3.86	0.031
948	170.651	0.185	3.31	92	1.8	-	68	-0.026	3.86	0.029
949	170.833	0.182	3.32	92	1.9	100	68	-0.026	3.91	0.026
Avg/Tot	170.834	0.180	3.29	92.4	1.9	100	70.0	-0.028	5.47	0.025

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	-0.001		0.10	72	0.7		70
1	0.110	0.111	0.91	71	1.6	-	70
2	0.245	0.135	0.91	71	1.7	-	70
3	0.384	0.139	0.92	71	1.6	-	70
4	0.518	0.134	0.92	71	1.7	-	70
5	0.657	0.139	0.92	71	1.7	-	70
6	0.791	0.134	0.93	71	1.6	-	70
7	0.932	0.141	0.94	71	1.7	-	70
8	1.066	0.134	0.94	71	1.7	-	70
9	1.208	0.142	0.95	72	1.6	-	70
10	1.344	0.136	0.94	72	1.8	96	70
11	1.486	0.142	0.96	72	1.7	-	70
12	1.623	0.137	0.95	72	1.6	-	70
13	1.764	0.141	0.95	73	1.8	-	70
14	1.903	0.139	0.96	73	1.8	-	70
15	2.047	0.144	0.95	73	1.8	-	70
16	2.184	0.137	0.96	73	1.7	-	70
17	2.325	0.141	0.97	74	1.7	-	70
18	2.462	0.137	0.96	74	1.8	-	70
19	2.604	0.142	0.97	74	1.6	-	70
20	2.746	0.142	0.97	75	1.6	99	70
21	2.884	0.138	0.96	74	1.6	-	70
22	3.027	0.143	0.97	75	1.8	-	70
23	3.169	0.142	0.97	75	1.7	-	70
24	3.309	0.140	0.97	75	1.8	-	70
25	3.451	0.142	0.98	76	1.6	-	70
26	3.593	0.142	0.98	76	1.6	-	70
27	3.734	0.141	0.98	76	1.7	-	70
28	3.873	0.139	0.98	77	1.8	-	70
29	4.017	0.144	0.99	77	1.6	-	70
30	4.159	0.142	0.98	77	1.7	100	70
31	4.301	0.142	0.98	78	1.6	-	70

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.446	0.145	0.99	78	1.7	-	70
33	4.588	0.142	0.99	78	1.7	-	70
34	4.733	0.145	1.00	79	1.6	-	70
35	4.876	0.143	0.99	79	1.8	-	70
36	5.019	0.143	0.99	79	1.7	-	70
37	5.164	0.145	1.00	79	1.6	-	70
38	5.308	0.144	1.00	80	1.7	-	70
39	5.450	0.142	1.00	80	1.7	-	70
40	5.596	0.146	1.00	80	1.6	101	70
41	5.737	0.141	1.00	80	1.6	-	70
42	5.885	0.148	1.01	80	1.6	-	70
43	6.030	0.145	1.01	81	1.7	-	71
44	6.172	0.142	1.00	80	1.6	-	70
45	6.320	0.148	1.00	80	1.7	-	71
46	6.464	0.144	1.00	80	1.7	-	70
47	6.609	0.145	1.01	81	1.6	-	71
48	6.755	0.146	1.01	81	1.7	-	71
49	6.898	0.143	1.01	81	1.7	-	71
50	7.046	0.148	1.01	81	1.6	102	71
51	7.192	0.146	1.01	81	1.8	-	71
52	7.334	0.142	1.01	82	1.8	-	71
53	7.480	0.146	1.01	82	1.8	-	71
54	7.628	0.148	1.01	82	1.7	-	71
55	7.774	0.146	1.02	82	1.7	-	71
56	7.921	0.147	1.02	83	1.6	-	71
57	8.065	0.144	1.02	82	1.8	-	71
58	8.214	0.149	1.02	82	1.8	-	71
59	8.360	0.146	1.02	83	1.7	-	71
60	8.506	0.146	1.01	83	1.7	102	71
Avg/Tot	8.507	0.142	0.97	76.8	1.7	100	70.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	296	267	220	330	392	301.1	509.1
1	293	264	213	330	391	298.0	471.9
2	290	261	205	326	389	294.1	456.6
3	286	258	199	322	387	290.4	442.2
4	282	255	194	317	386	286.8	432.2
5	278	252	190	313	384	283.2	427.4
6	274	248	186	310	383	280.0	426.6
7	269	245	183	306	381	276.9	428.5
8	266	242	180	304	380	274.2	431.8
9	262	239	178	301	378	271.6	436.4
10	258	236	177	299	377	269.4	441.7
11	255	233	175	297	376	267.2	447.8
12	252	231	173	296	375	265.2	454.8
13	249	228	172	295	374	263.5	463.2
14	246	226	171	295	373	262.1	472.6
15	244	224	169	295	372	260.7	483.4
16	242	222	168	295	371	259.5	494.5
17	240	220	167	295	370	258.5	506.7
18	238	219	167	298	369	258.2	521.5
19	237	218	166	300	369	257.7	534.2
20	236	217	166	302	368	257.6	549.5
21	235	216	165	304	368	257.6	558.6
22	234	215	165	306	368	257.5	567.0
23	234	214	165	310	368	257.9	574.2
24	234	214	165	312	368	258.3	580.2
25	233	213	165	315	368	258.6	584.1
26	233	212	165	317	368	258.8	589.4
27	233	212	164	320	368	259.3	594.6
28	232	212	164	322	368	259.6	597.3
29	232	211	165	324	368	260.0	601.2
30	232	211	165	327	368	260.6	607.3
31	232	211	165	329	368	261.1	613.0
32	232	211	165	332	369	261.7	618.9
33	231	211	165	334	369	262.2	624.0
34	231	211	166	337	369	262.9	628.4
35	231	212	167	339	370	263.5	632.0
36	230	212	167	341	370	263.9	633.1
37	230	212	167	343	371	264.4	633.3
38	230	212	168	344	371	264.9	633.0
39	229	212	168	346	371	265.2	632.2
40	229	212	168	347	372	265.6	631.1
41	229	213	169	348	372	266.0	630.4
42	228	213	169	349	373	266.3	630.9
43	228	214	169	350	373	266.8	632.2
44	228	214	170	351	373	267.1	634.1
45	228	214	170	352	374	267.5	636.4
46	228	215	170	353	374	267.9	638.7
47	228	215	171	354	374	268.4	641.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	228	216	171	355	375	268.7	643.0
49	228	216	171	356	375	269.2	645.1
50	228	217	171	357	375	269.6	647.7
51	228	217	172	358	376	270.1	650.0
52	228	218	172	359	376	270.5	652.5
53	228	218	172	361	376	270.9	655.0
54	228	218	172	362	376	271.4	657.9
55	228	219	172	363	377	271.8	661.2
56	228	219	172	365	377	272.2	664.1
57	228	220	173	366	377	272.6	666.1
58	228	220	173	367	377	273.0	666.9
59	228	221	173	368	377	273.3	666.9
60	228	221	173	369	378	273.7	666.4
61	228	222	173	370	378	274.0	665.7
62	228	222	173	371	378	274.3	664.9
63	228	222	173	371	378	274.6	664.5
64	228	223	173	372	378	274.7	664.2
65	228	223	173	372	378	275.0	664.1
66	228	223	174	373	378	275.2	664.3
67	229	224	174	373	378	275.5	665.1
68	228	224	174	374	378	275.6	666.2
69	228	225	174	374	379	276.0	667.8
70	228	225	174	375	379	276.3	670.5
71	229	226	175	376	379	276.7	674.1
72	229	226	175	377	379	277.1	677.8
73	229	227	175	378	379	277.5	681.6
74	229	227	176	380	379	278.0	685.1
75	229	228	176	381	379	278.5	688.6
76	230	228	176	382	379	279.1	691.8
77	230	229	177	384	379	279.6	694.2
78	230	229	177	385	379	280.1	696.3
79	230	230	177	385	379	280.3	698.0
80	230	231	177	388	379	281.1	699.5
81	231	231	178	389	379	281.6	701.2
82	231	232	178	391	379	282.1	702.5
83	231	233	178	392	380	282.6	704.3
84	232	233	179	393	380	283.2	705.6
85	232	234	179	394	380	283.6	707.1
86	232	234	179	395	380	284.1	708.6
87	232	235	179	396	380	284.6	710.1
88	233	236	180	398	380	285.1	710.8
89	233	236	180	399	380	285.5	710.8
90	233	236	180	400	381	285.9	710.5
91	233	237	180	400	381	286.1	709.6
92	233	237	180	402	381	286.5	708.1
93	233	238	180	402	381	286.7	705.8
94	233	238	180	402	381	286.9	702.5
95	233	238	180	402	381	286.9	698.5

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	233	238	180	402	381	286.9	694.1
97	233	238	180	401	381	286.8	689.6
98	233	238	180	401	380	286.6	685.7
99	233	239	181	400	380	286.5	682.2
100	233	239	181	400	380	286.4	679.2
101	233	239	181	398	379	286.0	676.3
102	233	239	181	398	379	286.0	673.8
103	233	239	181	397	379	285.7	671.5
104	233	239	182	396	378	285.5	669.9
105	233	239	182	395	378	285.4	669.0
106	233	239	182	394	378	285.3	668.6
107	233	239	183	393	378	285.1	669.3
108	233	239	183	393	377	285.1	671.1
109	233	239	183	392	377	285.0	673.8
110	234	239	183	392	377	285.1	677.6
111	234	239	184	393	377	285.3	681.9
112	234	239	184	394	377	285.6	687.2
113	234	240	184	394	377	285.9	693.0
114	235	240	185	395	377	286.3	699.5
115	235	240	185	397	378	286.9	706.5
116	236	240	186	398	378	287.7	713.8
117	236	241	187	400	378	288.3	721.0
118	237	241	187	402	379	289.1	727.9
119	237	242	188	405	379	290.0	734.8
120	238	242	188	407	380	290.9	741.8
121	238	243	189	410	380	291.9	748.6
122	239	243	190	413	381	293.0	755.7
123	240	244	190	416	381	294.0	761.9
124	240	244	191	418	382	295.0	766.7
125	241	245	191	422	383	296.2	770.1
126	241	245	192	424	383	297.2	772.4
127	242	246	192	427	384	298.2	772.8
128	242	247	193	429	385	299.1	772.2
129	243	247	194	431	385	300.0	771.3
130	244	248	194	432	386	300.7	770.0
131	244	249	195	433	386	301.4	768.7
132	245	249	196	435	387	302.3	767.5
133	245	250	197	436	387	303.0	766.0
134	246	250	197	437	388	303.6	764.2
135	247	251	197	438	388	304.2	762.1
136	247	251	198	439	389	304.6	760.4
137	247	252	197	439	389	304.8	758.1
138	248	252	195	439	389	304.6	756.2
139	248	253	194	440	389	304.7	754.4
140	248	253	193	440	389	304.7	752.7
141	249	254	193	440	389	304.7	751.4
142	249	254	192	440	389	304.8	750.6
143	249	255	192	440	389	304.9	750.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	249	255	192	440	389	305.0	750.3
145	249	255	192	440	389	305.1	750.2
146	250	256	191	441	389	305.2	750.2
147	249	256	191	441	389	305.2	750.3
148	250	256	191	441	389	305.3	750.0
149	250	257	190	441	389	305.2	749.3
150	250	257	190	441	388	305.1	748.1
151	249	257	189	441	388	304.9	746.9
152	249	257	189	441	388	304.7	745.7
153	249	257	189	441	387	304.6	744.5
154	249	257	189	441	386	304.3	743.4
155	249	257	189	441	386	304.0	742.0
156	248	257	188	440	385	303.7	740.7
157	248	257	188	440	384	303.3	739.4
158	248	257	188	439	383	302.9	737.9
159	248	257	188	439	382	302.6	736.5
160	248	256	188	438	381	302.2	735.0
161	248	256	188	438	380	301.8	733.7
162	247	256	187	437	379	301.4	732.5
163	247	256	187	437	378	301.0	731.4
164	247	256	187	436	377	300.6	730.3
165	247	255	187	436	376	300.2	729.1
166	247	255	187	435	375	299.8	727.9
167	247	255	187	434	374	299.5	726.8
168	247	255	187	434	373	299.1	726.0
169	247	255	187	433	372	298.8	725.7
170	246	255	187	432	371	298.4	725.8
171	247	254	188	432	370	298.2	726.0
172	246	254	188	432	369	297.9	727.1
173	246	254	188	432	368	297.7	728.8
174	246	254	189	432	367	297.6	730.8
175	246	254	189	432	366	297.5	733.3
176	247	254	190	432	365	297.5	735.9
177	247	254	190	433	364	297.5	738.7
178	247	253	191	433	364	297.6	742.1
179	247	253	191	434	363	297.7	745.8
180	247	253	192	435	362	297.9	750.4
181	247	253	193	437	361	298.1	755.0
182	248	253	194	438	360	298.4	760.4
183	248	253	194	440	359	298.8	766.4
184	248	253	195	442	359	299.2	773.2
185	248	253	196	444	358	299.7	780.7
186	248	253	197	446	357	300.4	788.6
187	249	253	198	449	357	301.1	797.6
188	249	253	199	453	356	301.9	806.6
189	249	253	200	456	356	302.8	815.6
190	249	254	201	460	355	303.8	823.5
191	250	254	201	464	355	304.5	829.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	250	254	201	468	354	305.3	835.4
193	251	254	201	471	354	306.0	839.3
194	251	255	201	475	354	306.8	841.6
195	251	255	201	478	353	307.6	841.9
196	252	255	202	480	353	308.3	841.0
197	252	255	202	482	352	308.8	838.6
198	253	256	202	484	352	309.1	835.2
199	253	256	202	485	351	309.4	830.4
200	253	256	203	486	351	309.7	825.0
201	254	256	203	486	350	309.9	818.7
202	254	256	204	485	350	309.8	812.1
203	254	257	204	485	350	309.8	805.6
204	254	257	204	484	349	309.5	798.8
205	255	257	205	482	348	309.2	792.1
206	255	257	205	480	348	308.9	785.7
207	255	257	205	478	347	308.5	779.4
208	255	257	205	476	347	308.0	773.6
209	255	257	205	474	346	307.5	767.9
210	255	257	206	472	346	307.0	762.9
211	255	257	206	470	345	306.5	758.5
212	256	257	206	467	344	306.0	754.6
213	256	256	206	465	344	305.4	751.2
214	256	256	207	463	343	305.0	748.7
215	256	256	207	461	343	304.5	747.0
216	256	256	207	460	342	304.2	746.4
217	256	256	208	458	341	303.9	746.7
218	256	256	209	458	341	303.8	748.0
219	256	256	209	457	340	303.6	750.2
220	256	255	210	456	339	303.5	753.2
221	257	255	211	457	339	303.7	757.2
222	257	255	213	457	338	303.9	761.7
223	257	255	214	458	337	304.1	767.3
224	257	255	215	459	337	304.6	773.1
225	258	255	217	461	336	305.2	779.9
226	258	255	219	463	335	305.8	786.8
227	258	255	220	465	335	306.6	794.3
228	259	255	221	468	334	307.4	802.1
229	259	255	223	471	333	308.3	809.9
230	260	255	224	475	333	309.1	816.8
231	260	255	226	478	332	310.2	821.7
232	261	255	227	482	331	311.2	825.1
233	261	255	228	485	331	312.0	826.7
234	262	255	230	488	330	312.9	826.9
235	262	255	230	491	329	313.6	825.7
236	263	255	231	493	328	314.1	823.3
237	263	255	231	495	327	314.4	819.6
238	264	255	231	497	327	314.7	815.4
239	264	255	231	498	326	314.8	810.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	265	255	231	498	325	314.8	803.9
241	265	256	231	498	324	314.7	798.4
242	266	256	231	497	323	314.5	792.5
243	266	256	232	497	322	314.3	787.1
244	266	256	233	495	320	314.0	782.2
245	266	256	233	494	319	313.6	777.5
246	267	256	233	492	318	313.1	772.7
247	267	256	234	491	317	312.7	768.2
248	267	256	234	489	315	312.2	764.0
249	267	256	235	487	314	311.7	759.9
250	267	255	234	485	313	310.9	755.5
251	267	255	235	483	312	310.4	751.2
252	268	255	234	481	310	309.7	746.3
253	268	255	234	479	309	309.0	741.1
254	268	255	234	477	308	308.3	735.7
255	268	255	235	474	307	307.5	729.4
256	268	255	234	471	306	306.7	723.0
257	268	254	235	468	304	305.8	716.9
258	268	254	235	465	303	305.0	710.4
259	268	254	235	462	302	304.0	704.5
260	268	253	235	459	301	303.1	698.4
261	268	253	235	455	300	302.2	693.2
262	268	253	235	452	299	301.2	687.6
263	268	252	234	449	298	300.2	681.5
264	268	252	234	446	297	299.3	676.5
265	268	252	234	443	296	298.4	672.1
266	267	251	235	440	295	297.6	667.1
267	267	251	235	437	294	296.7	662.6
268	267	251	234	434	293	295.7	658.4
269	267	250	234	431	292	294.8	654.3
270	267	250	234	428	291	293.9	650.7
271	266	249	234	426	290	293.1	647.3
272	266	249	234	423	289	292.2	643.7
273	266	248	233	421	288	291.3	640.4
274	266	248	233	418	288	290.5	638.1
275	266	247	233	416	287	289.8	636.0
276	265	247	233	414	286	289.0	634.4
277	265	246	233	412	285	288.3	633.2
278	265	246	233	411	284	287.6	632.7
279	264	245	233	409	283	287.0	631.8
280	264	245	234	407	282	286.4	632.2
281	264	244	234	406	282	286.0	633.1
282	264	244	234	405	281	285.5	634.5
283	264	243	235	404	280	285.2	636.3
284	263	243	235	403	279	284.8	638.8
285	263	243	236	403	278	284.6	642.4
286	263	242	236	403	278	284.5	646.9
287	263	242	237	403	277	284.4	651.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	263	242	238	404	276	284.5	656.9
289	264	242	238	405	276	284.7	663.3
290	264	242	239	406	275	285.0	669.8
291	264	241	239	408	275	285.4	677.1
292	265	241	240	409	274	285.9	684.7
293	265	242	241	412	274	286.6	692.8
294	266	242	242	414	273	287.4	702.0
295	266	242	243	417	273	288.1	711.6
296	267	242	244	421	272	289.1	721.5
297	267	242	244	425	272	290.1	731.4
298	268	242	245	429	272	291.0	740.6
299	268	243	244	433	272	292.0	748.9
300	269	243	244	437	272	292.8	755.0
301	269	242	243	441	271	293.4	759.3
302	270	243	242	444	271	294.0	762.0
303	271	243	241	447	271	294.5	762.1
304	271	243	240	449	271	294.8	760.0
305	272	243	240	450	271	295.1	756.0
306	272	243	239	451	272	295.4	750.9
307	273	243	238	451	272	295.3	745.0
308	274	243	237	451	272	295.2	739.3
309	275	243	236	450	272	295.1	733.4
310	275	243	235	448	272	294.7	727.5
311	276	243	235	448	272	294.7	722.8
312	276	243	235	446	273	294.5	718.5
313	277	243	234	445	273	294.3	715.6
314	277	243	234	443	273	294.1	713.4
315	278	243	234	442	273	294.0	712.0
316	279	243	234	441	273	294.0	711.0
317	280	243	234	440	274	293.8	710.0
318	280	243	234	439	274	293.9	709.7
319	281	243	234	439	274	294.0	709.6
320	282	243	235	438	274	294.2	710.0
321	282	243	235	437	275	294.2	710.3
322	283	243	235	438	275	294.7	710.6
323	284	243	235	437	275	294.8	710.8
324	284	243	235	437	275	294.9	711.1
325	285	243	235	437	276	295.0	711.2
326	286	243	236	437	276	295.2	711.2
327	287	243	236	435	276	295.4	711.1
328	288	243	236	435	277	295.7	711.2
329	289	243	236	436	277	296.1	711.4
330	290	243	237	437	277	296.6	711.5
331	291	243	237	436	277	296.7	711.1
332	292	243	237	435	278	296.7	711.5
333	293	243	237	436	278	297.2	711.5
334	293	243	237	436	278	297.4	711.9
335	293	243	237	435	278	297.4	712.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	294	243	237	437	279	297.9	713.0
337	295	243	237	437	279	298.0	714.0
338	295	243	237	437	279	298.3	715.5
339	296	243	238	437	279	298.4	717.0
340	296	243	238	437	279	298.7	718.0
341	296	243	238	438	280	299.1	719.5
342	297	243	239	438	280	299.3	721.0
343	297	244	239	439	280	299.7	721.6
344	297	244	239	440	280	300.0	721.9
345	298	244	240	440	280	300.2	721.6
346	298	244	240	440	280	300.5	721.0
347	299	244	240	440	280	300.8	720.3
348	299	245	240	439	281	300.8	719.0
349	300	245	241	440	281	301.2	717.3
350	301	245	241	440	281	301.3	715.4
351	301	245	241	438	281	301.2	714.0
352	302	245	241	439	281	301.6	711.5
353	302	245	241	439	281	301.7	709.4
354	303	245	242	438	281	301.7	707.4
355	303	246	242	437	281	301.7	705.1
356	304	246	242	437	281	301.8	703.2
357	305	246	242	435	281	301.8	701.7
358	305	246	243	435	281	302.0	699.6
359	306	246	243	433	281	301.8	697.7
360	307	246	243	433	281	302.0	696.4
361	307	246	243	432	281	301.9	694.9
362	308	246	243	432	281	302.0	693.4
363	308	246	243	430	281	301.8	692.3
364	309	246	243	430	281	301.8	690.7
365	309	246	243	429	281	301.7	689.8
366	310	247	243	428	281	301.7	688.6
367	310	247	243	427	281	301.7	687.3
368	311	247	244	427	281	301.6	686.5
369	311	247	244	426	281	301.6	685.6
370	312	247	244	425	280	301.6	684.8
371	312	247	243	425	280	301.4	683.7
372	312	247	242	424	280	300.9	683.8
373	312	247	241	424	280	300.6	684.6
374	312	247	240	424	280	300.5	686.2
375	312	247	240	424	280	300.4	689.4
376	312	247	240	425	280	300.6	693.8
377	313	247	240	425	279	300.8	699.3
378	313	247	240	427	279	301.0	705.7
379	313	247	240	428	279	301.3	712.4
380	314	247	239	430	279	301.8	719.1
381	314	247	239	433	278	302.4	725.2
382	315	247	239	435	278	302.8	731.2
383	315	248	239	437	278	303.4	736.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	316	248	239	440	277	304.0	742.0
385	316	248	239	442	277	304.6	746.1
386	317	248	239	445	277	305.2	750.1
387	318	249	239	447	277	305.9	752.2
388	318	249	240	449	276	306.4	753.4
389	319	249	240	451	276	306.9	753.5
390	319	250	240	452	276	307.5	752.4
391	320	250	241	453	276	307.8	750.9
392	320	250	241	455	275	308.3	749.4
393	321	250	241	455	275	308.5	746.7
394	321	251	242	455	275	308.7	743.5
395	321	251	242	455	275	308.8	739.1
396	322	251	242	455	274	308.9	735.0
397	322	252	243	455	274	309.0	730.6
398	322	252	243	454	274	308.8	725.2
399	322	252	243	452	274	308.6	719.9
400	322	252	243	451	273	308.2	713.7
401	322	252	243	449	273	307.8	708.0
402	322	252	243	447	273	307.3	702.1
403	321	252	242	445	273	306.7	695.8
404	321	252	242	442	273	306.0	689.9
405	321	252	242	439	272	305.4	684.2
406	320	252	242	437	272	304.7	678.4
407	320	252	241	435	272	304.0	672.8
408	320	252	241	432	272	303.3	667.9
409	319	252	240	430	271	302.5	662.7
410	319	252	240	427	271	301.6	657.9
411	318	252	240	424	271	300.9	653.2
412	318	252	240	422	271	300.3	648.8
413	318	252	240	419	270	299.7	645.5
414	317	251	239	417	270	299.1	642.9
415	317	251	239	415	270	298.4	640.5
416	316	251	239	414	270	297.9	639.4
417	316	251	238	412	270	297.4	637.5
418	315	251	238	410	270	296.8	636.0
419	315	251	238	409	270	296.3	634.5
420	314	251	237	407	270	295.7	632.7
421	313	251	237	407	270	295.4	631.4
422	313	250	236	405	270	295.0	629.9
423	312	250	236	404	270	294.5	628.2
424	312	250	236	402	271	294.0	626.2
425	311	250	235	401	271	293.5	624.1
426	311	250	235	400	271	293.3	622.4
427	311	249	235	399	271	292.8	621.0
428	310	249	234	398	271	292.4	619.8
429	310	249	234	396	270	291.8	619.1
430	310	249	234	395	270	291.4	618.5
431	309	248	233	394	270	291.0	617.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
432	309	248	233	393	270	290.5	617.0
433	309	248	233	392	270	290.2	617.1
434	309	248	233	391	270	290.0	617.6
435	308	248	233	390	269	289.6	618.3
436	308	247	232	390	269	289.2	619.2
437	308	247	232	389	269	289.1	621.0
438	308	247	232	389	268	288.9	622.7
439	308	247	232	389	268	288.7	625.0
440	309	247	232	389	268	288.7	627.0
441	309	246	232	389	268	288.7	629.5
442	309	246	232	389	268	288.8	631.7
443	310	246	232	390	268	289.0	634.3
444	310	246	232	390	268	289.0	636.9
445	310	246	232	390	268	289.2	639.7
446	311	246	232	391	268	289.5	641.9
447	311	246	232	392	268	289.9	644.0
448	311	246	232	392	269	290.2	646.3
449	312	246	232	393	269	290.4	647.9
450	312	247	233	394	269	290.9	649.2
451	313	247	233	394	269	291.1	650.5
452	313	247	233	395	270	291.4	651.7
453	314	247	233	396	270	291.7	652.7
454	314	247	233	396	270	291.9	653.4
455	315	247	233	396	270	292.1	653.9
456	315	247	233	397	271	292.5	654.5
457	315	247	233	397	271	292.8	655.0
458	316	248	233	398	271	293.1	655.2
459	316	248	233	398	272	293.4	655.4
460	317	248	234	399	272	293.7	655.7
461	317	248	234	399	272	293.9	656.2
462	317	248	234	399	272	294.2	656.4
463	317	249	235	399	273	294.5	656.7
464	318	249	235	400	273	294.8	657.3
465	318	249	235	400	273	295.0	657.8
466	319	249	235	400	273	295.4	658.4
467	319	250	236	400	274	295.6	658.8
468	319	250	236	401	274	295.8	659.6
469	320	250	236	401	274	296.1	660.4
470	320	250	236	401	274	296.4	660.8
471	320	251	237	402	275	296.7	661.1
472	321	251	237	402	275	297.1	662.1
473	321	251	237	403	275	297.4	662.7
474	321	251	238	403	275	297.6	663.5
475	321	252	238	403	276	297.9	664.2
476	321	252	238	404	276	298.2	664.8
477	321	252	238	404	276	298.3	665.6
478	321	252	239	404	276	298.5	666.3
479	322	253	239	405	277	298.9	667.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
480	322	253	239	405	277	299.1	667.9
481	322	253	239	406	277	299.5	669.0
482	322	254	240	408	277	300.1	670.0
483	322	254	240	408	278	300.3	670.6
484	322	254	240	409	278	300.8	671.7
485	322	255	240	409	278	301.0	672.8
486	322	255	241	411	279	301.5	674.0
487	322	255	241	411	279	301.6	675.2
488	322	256	241	411	279	301.8	676.4
489	322	256	241	411	280	301.9	677.8
490	321	257	241	412	280	302.1	679.5
491	321	257	241	412	280	302.2	681.5
492	320	257	240	414	281	302.6	683.7
493	320	258	240	414	282	302.7	685.9
494	320	258	240	415	282	303.0	688.2
495	319	259	240	417	283	303.5	690.3
496	319	259	240	417	283	303.7	692.6
497	319	260	241	418	284	304.3	695.4
498	319	260	241	420	284	304.7	698.3
499	318	260	241	421	285	305.2	702.2
500	318	261	241	423	286	305.8	706.4
501	318	261	241	425	287	306.2	710.5
502	318	262	241	427	287	307.0	714.7
503	318	262	241	429	288	307.5	718.3
504	318	263	241	432	289	308.4	721.3
505	318	263	241	433	290	309.0	723.2
506	318	264	241	434	290	309.3	724.6
507	318	264	241	436	291	310.0	726.1
508	318	264	241	438	292	310.5	726.9
509	317	265	242	438	293	310.8	728.1
510	317	265	242	440	294	311.4	728.9
511	317	266	243	441	294	311.9	729.6
512	317	266	243	442	295	312.5	730.1
513	316	266	243	444	296	313.1	729.8
514	316	267	243	445	296	313.5	728.9
515	316	267	243	446	297	313.8	727.2
516	315	268	244	448	297	314.2	725.1
517	315	268	244	447	298	314.3	722.7
518	314	268	244	448	298	314.5	720.1
519	314	268	244	448	298	314.3	716.8
520	313	269	244	448	298	314.3	714.2
521	313	269	244	447	298	314.1	710.4
522	312	269	243	446	298	313.6	706.9
523	311	269	243	447	298	313.7	703.2
524	310	269	243	446	298	313.2	699.1
525	309	269	243	443	298	312.6	694.9
526	308	269	243	443	298	312.3	690.8
527	307	269	242	442	298	311.5	686.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
528	306	269	242	441	298	311.0	681.4
529	305	269	241	439	297	310.3	676.5
530	304	269	241	436	297	309.3	671.0
531	303	269	241	434	296	308.4	665.2
532	302	269	240	433	296	307.7	658.6
533	300	268	239	430	296	306.7	652.7
534	299	268	239	428	295	305.7	646.5
535	298	268	238	424	294	304.4	639.5
536	297	267	238	422	294	303.4	633.1
537	296	267	237	418	293	302.0	626.5
538	295	266	236	416	293	301.1	619.8
539	294	266	235	412	292	299.8	612.8
540	292	265	235	408	291	298.4	605.7
541	291	265	234	405	291	297.1	599.3
542	290	264	233	402	290	295.7	592.7
543	289	264	232	398	289	294.4	586.0
544	288	263	231	394	289	292.8	580.1
545	286	262	230	391	288	291.4	573.9
546	285	262	229	387	287	290.1	568.6
547	284	261	228	384	287	288.8	563.4
548	283	260	227	380	286	287.2	558.2
549	281	260	226	377	285	285.9	554.3
550	280	259	226	375	284	284.8	550.5
551	279	258	225	372	284	283.4	547.9
552	278	258	224	369	283	282.2	546.2
553	277	257	223	366	282	281.1	545.6
554	275	256	222	364	282	279.9	545.3
555	274	256	221	362	281	278.8	546.2
556	273	255	221	361	280	278.0	548.3
557	272	255	220	359	280	277.1	551.2
558	272	254	219	359	279	276.6	555.3
559	271	254	219	358	279	276.0	560.1
560	270	254	219	357	278	275.6	565.5
561	270	254	219	357	278	275.4	572.1
562	269	253	219	358	278	275.3	578.9
563	269	254	219	359	277	275.3	586.4
564	268	254	219	360	277	275.6	594.7
565	268	254	219	362	277	276.0	602.8
566	268	254	219	365	277	276.5	610.5
567	268	254	220	366	277	276.9	618.8
568	268	254	220	369	277	277.3	626.9
569	268	254	220	371	277	278.0	634.3
570	268	255	220	374	277	278.7	642.6
571	268	255	221	377	277	279.5	651.0
572	269	256	221	379	277	280.2	659.6
573	269	256	222	383	278	281.3	668.5
574	269	257	222	387	278	282.5	678.3
575	270	257	223	390	279	283.6	688.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
576	270	258	223	394	279	284.8	697.7
577	270	258	224	398	280	286.0	707.4
578	271	259	225	402	280	287.4	717.4
579	271	260	225	407	281	288.8	727.1
580	272	261	226	411	282	290.4	737.0
581	273	261	227	416	283	291.9	746.9
582	274	262	228	420	284	293.5	756.9
583	274	263	229	426	285	295.4	766.8
584	275	264	230	431	286	297.2	776.5
585	276	266	231	437	287	299.1	786.6
586	277	267	232	442	288	301.2	797.2
587	279	268	233	448	289	303.3	806.3
588	280	270	234	454	291	305.5	812.2
589	280	271	235	459	292	307.3	815.0
590	281	272	236	464	293	309.3	814.7
591	282	273	237	469	295	311.2	811.6
592	283	275	238	473	296	312.7	806.8
593	284	276	239	477	297	314.5	800.0
594	284	277	240	479	298	315.8	791.8
595	285	279	241	481	300	316.9	782.6
596	285	280	241	481	301	317.6	771.9
597	286	281	242	480	302	318.2	760.2
598	286	282	242	480	303	318.7	747.9
599	287	283	243	477	303	318.6	737.4
600	287	283	243	475	304	318.4	727.2
601	287	284	243	472	304	318.1	717.8
602	287	284	243	470	305	317.7	710.3
603	287	285	243	468	305	317.5	703.8
604	286	285	243	466	305	317.1	698.5
605	286	285	243	462	305	316.2	693.9
606	286	285	243	459	305	315.7	690.3
607	286	285	243	458	304	315.2	687.4
608	285	285	242	456	304	314.5	684.2
609	285	285	242	454	303	313.9	681.7
610	284	285	242	451	303	313.1	679.1
611	284	285	242	449	302	312.4	677.1
612	283	285	241	447	301	311.7	675.1
613	283	285	241	446	301	311.1	673.4
614	282	285	241	444	300	310.4	672.0
615	281	285	240	442	299	309.4	670.6
616	281	285	240	439	298	308.4	669.3
617	280	284	239	436	297	307.4	667.9
618	279	284	239	434	296	306.6	667.8
619	279	284	238	433	295	305.9	664.4
620	278	284	238	431	294	304.9	658.6
621	277	284	237	429	293	304.0	652.2
622	276	283	237	426	292	302.9	646.0
623	276	283	236	423	291	301.8	639.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
624	275	282	236	421	290	300.7	634.3
625	274	282	235	418	289	299.5	629.1
626	273	281	235	415	288	298.4	623.7
627	272	281	234	413	287	297.4	619.5
628	272	280	233	411	286	296.4	614.9
629	271	280	232	408	285	295.2	610.3
630	270	280	231	406	284	294.0	606.5
631	269	279	231	402	283	292.7	601.2
632	268	279	230	400	282	291.6	597.4
633	267	278	229	398	281	290.5	593.8
634	267	277	228	395	280	289.3	590.0
635	266	277	227	393	279	288.3	586.2
636	265	276	226	390	278	286.9	582.4
637	264	276	225	388	277	285.8	579.5
638	263	275	224	386	276	284.7	575.4
639	262	275	224	383	274	283.6	572.7
640	261	274	223	381	273	282.4	568.8
641	260	273	222	379	272	281.4	566.8
642	259	273	221	377	271	280.3	563.9
643	259	272	221	375	270	279.3	562.4
644	258	272	220	373	269	278.3	560.1
645	257	271	219	371	268	277.1	558.0
646	256	271	219	369	267	276.2	556.8
647	255	270	218	368	266	275.4	556.4
648	254	270	217	368	265	274.7	556.4
649	254	270	216	365	264	273.7	556.6
650	253	269	216	365	263	273.0	557.6
651	252	269	215	363	262	272.2	558.8
652	251	269	215	362	261	271.5	561.2
653	251	268	214	362	260	271.0	564.0
654	250	268	214	364	259	270.9	567.7
655	250	268	213	362	258	270.2	571.7
656	249	268	213	362	257	269.8	576.8
657	249	268	213	363	256	269.6	582.3
658	248	268	212	364	255	269.4	587.2
659	248	268	212	365	254	269.5	592.7
660	248	268	212	366	254	269.5	598.9
661	247	268	212	368	253	269.7	604.7
662	247	268	212	369	252	269.7	610.2
663	247	269	212	372	252	270.2	616.0
664	247	269	212	372	251	270.2	620.7
665	247	270	212	374	250	270.7	625.9
666	247	271	212	377	250	271.3	630.5
667	247	271	212	378	249	271.5	635.3
668	247	271	213	380	249	271.8	640.1
669	247	272	213	382	248	272.3	643.6
670	247	272	213	384	248	272.8	648.3
671	247	273	213	386	248	273.3	652.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
672	247	274	214	388	247	274.0	657.1
673	248	275	214	391	247	274.7	663.5
674	248	276	214	393	246	275.3	667.3
675	248	277	214	395	246	276.0	671.7
676	248	278	214	397	246	276.6	676.7
677	249	278	215	399	246	277.4	680.4
678	249	279	215	401	246	278.0	683.7
679	249	280	215	405	245	279.0	687.4
680	250	281	216	406	245	279.5	690.5
681	250	282	216	408	245	280.2	694.1
682	251	283	216	411	245	281.1	696.2
683	251	283	216	413	245	281.7	698.0
684	251	284	217	415	245	282.5	701.8
685	252	285	217	416	245	283.0	703.1
686	252	286	218	419	245	284.0	705.0
687	253	287	218	420	245	284.6	706.1
688	253	287	218	421	246	285.2	707.8
689	254	288	219	422	246	285.7	709.3
690	254	289	219	424	246	286.4	710.9
691	255	290	219	425	246	287.0	712.1
692	255	290	220	426	246	287.5	712.2
693	256	291	220	428	247	288.3	713.5
694	256	292	221	431	247	289.3	714.2
695	257	293	221	432	247	289.9	713.3
696	257	293	221	432	248	290.2	712.9
697	257	294	222	434	248	291.0	710.7
698	258	295	222	434	248	291.2	708.5
699	258	296	222	434	248	291.6	706.2
700	258	297	222	436	249	292.3	702.9
701	258	297	223	434	249	292.2	699.2
702	259	298	223	435	249	292.5	695.6
703	259	298	222	435	249	292.7	691.8
704	259	299	222	435	249	292.8	688.3
705	259	299	222	434	249	292.8	683.8
706	259	300	222	433	249	292.6	679.3
707	259	301	222	432	249	292.6	674.1
708	259	301	222	431	249	292.4	669.2
709	259	302	222	429	249	292.1	663.8
710	259	302	221	428	249	291.7	658.5
711	259	302	221	426	249	291.2	652.6
712	259	302	220	425	249	290.7	648.0
713	259	302	220	422	248	290.1	641.7
714	258	302	219	419	248	289.3	636.1
715	258	302	219	416	248	288.4	630.8
716	257	302	218	414	248	287.8	625.2
717	257	302	217	411	247	286.8	619.2
718	256	302	217	408	247	286.0	613.9
719	256	302	216	406	247	285.4	608.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
720	256	302	215	404	246	284.5	603.2
721	255	302	215	400	246	283.5	598.1
722	254	301	214	399	246	282.8	593.0
723	254	301	213	396	245	281.9	588.1
724	253	301	213	393	245	281.1	583.4
725	253	301	212	390	245	280.2	579.5
726	252	301	211	386	244	278.9	575.0
727	252	301	210	384	244	278.1	570.9
728	251	300	210	382	244	277.3	567.3
729	250	300	209	379	243	276.3	564.7
730	250	300	208	377	243	275.4	561.5
731	249	299	207	374	243	274.5	559.7
732	249	299	207	373	242	273.8	559.1
733	248	299	206	370	242	273.0	558.6
734	247	299	205	369	241	272.4	558.7
735	247	299	205	368	241	271.8	559.8
736	246	299	204	366	241	271.3	562.3
737	246	300	203	366	240	271.0	566.3
738	245	300	203	365	240	270.5	568.8
739	245	301	202	365	240	270.5	573.4
740	245	301	201	365	239	270.3	578.1
741	244	302	201	365	239	270.2	584.0
742	244	302	201	366	239	270.4	588.9
743	244	303	200	367	238	270.5	594.3
744	243	304	200	369	238	270.9	600.3
745	243	305	200	370	238	271.3	606.2
746	243	307	200	371	238	271.7	611.8
747	243	309	199	373	238	272.2	617.3
748	243	310	199	375	238	273.0	623.6
749	243	313	200	377	237	274.0	629.8
750	244	315	200	378	237	274.9	634.3
751	244	318	201	378	237	275.8	632.1
752	245	321	202	379	237	276.6	624.6
753	245	324	202	378	237	277.1	614.9
754	246	326	202	376	237	277.5	604.3
755	247	328	203	373	237	277.7	595.6
756	247	331	203	372	238	278.1	588.0
757	248	333	204	369	238	278.4	582.0
758	248	336	204	368	238	278.9	577.0
759	249	339	205	367	238	279.4	572.5
760	250	341	205	365	239	279.8	569.1
761	251	344	205	363	239	280.2	566.8
762	251	346	206	361	240	280.8	564.4
763	252	349	206	360	240	281.4	562.8
764	253	351	206	359	240	281.8	562.0
765	253	353	207	357	241	282.2	561.6
766	254	356	207	356	242	282.8	561.3
767	254	357	207	357	242	283.5	562.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
768	255	358	207	357	243	283.8	563.6
769	255	359	207	355	243	284.0	564.5
770	256	361	208	355	244	284.6	565.3
771	256	362	208	355	245	285.1	566.2
772	257	363	208	355	246	285.8	567.3
773	257	365	209	355	247	286.4	568.6
774	258	366	209	355	248	287.1	570.4
775	259	367	209	355	248	287.8	572.3
776	259	369	210	355	249	288.3	573.6
777	260	370	210	357	250	289.3	575.6
778	260	371	210	357	251	290.0	576.9
779	261	372	210	358	252	290.5	578.1
780	261	373	210	358	253	291.1	579.1
781	262	374	210	358	254	291.6	579.6
782	262	375	211	357	255	292.1	579.2
783	263	376	211	358	256	292.7	578.2
784	263	377	211	359	257	293.5	577.8
785	264	378	211	360	258	294.1	577.9
786	264	379	212	360	259	294.5	577.7
787	265	379	212	359	260	295.0	578.2
788	266	380	212	359	261	295.4	579.2
789	266	381	212	361	261	296.2	580.2
790	267	381	213	362	262	296.8	581.2
791	267	382	213	362	263	297.4	581.9
792	268	383	213	363	264	298.1	583.1
793	268	384	214	363	265	298.7	583.6
794	269	385	214	364	266	299.3	583.8
795	269	386	214	363	267	299.7	583.7
796	270	387	215	364	267	300.4	583.9
797	270	387	215	365	268	300.9	584.0
798	271	388	215	365	269	301.4	584.1
799	271	388	215	366	270	301.7	583.8
800	271	388	215	366	270	302.1	584.7
801	272	388	215	366	271	302.4	585.1
802	272	388	215	366	272	302.6	587.2
803	272	388	215	367	273	302.9	589.1
804	273	388	215	368	273	303.4	590.7
805	273	388	215	369	274	303.9	592.3
806	274	388	215	370	275	304.3	593.4
807	274	388	215	370	276	304.5	594.0
808	274	388	215	371	276	304.8	594.5
809	274	388	215	372	277	305.2	594.7
810	275	389	215	372	278	305.5	595.4
811	275	388	215	372	279	305.6	595.3
812	275	388	215	373	280	306.1	594.5
813	275	388	215	373	280	306.3	594.3
814	275	388	215	373	281	306.4	593.6
815	275	388	215	373	282	306.6	591.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
816	276	388	215	374	283	306.8	590.2
817	276	388	215	373	283	307.0	588.7
818	276	389	214	374	284	307.3	587.6
819	276	389	214	373	285	307.5	585.3
820	276	389	214	373	286	307.5	583.4
821	276	389	214	373	286	307.7	581.9
822	276	389	214	372	287	307.5	579.9
823	276	390	214	372	288	307.7	578.1
824	276	389	213	371	288	307.5	576.9
825	275	389	213	370	289	307.3	575.3
826	275	389	213	370	290	307.2	573.8
827	275	388	213	369	290	307.1	572.7
828	275	388	213	368	291	306.9	571.6
829	275	387	213	368	291	306.7	570.1
830	274	387	212	368	292	306.6	569.7
831	274	386	212	367	293	306.4	569.8
832	274	385	212	366	293	306.1	568.0
833	274	384	212	365	294	305.6	566.3
834	273	382	212	364	294	305.1	564.0
835	273	381	211	363	295	304.6	562.2
836	273	380	211	363	295	304.3	560.0
837	273	379	211	362	295	304.1	558.0
838	272	378	211	362	296	303.8	555.9
839	272	377	211	360	296	303.3	553.6
840	272	377	210	360	297	302.9	551.2
841	272	376	210	358	297	302.6	549.5
842	272	375	210	357	297	302.2	547.6
843	271	374	210	357	297	301.8	545.9
844	271	374	210	356	298	301.6	544.3
845	271	373	209	355	298	301.2	542.4
846	270	373	209	353	298	300.7	541.5
847	270	373	209	352	298	300.4	541.4
848	270	372	209	352	298	300.2	541.3
849	269	372	208	352	299	300.0	541.3
850	269	372	208	351	299	299.6	541.4
851	268	371	208	350	299	299.1	541.7
852	268	371	208	350	299	299.2	542.3
853	268	371	207	349	299	298.7	542.1
854	268	371	207	349	299	298.7	542.0
855	267	370	207	349	299	298.4	542.7
856	267	370	207	348	299	298.2	542.3
857	267	369	206	348	299	297.9	542.2
858	266	369	206	347	299	297.4	542.3
859	266	368	206	348	299	297.1	542.0
860	266	367	205	348	299	296.9	542.5
861	265	367	205	347	299	296.6	543.3
862	265	366	205	347	299	296.4	544.0
863	264	365	205	347	299	296.0	543.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
864	264	365	204	347	299	295.8	544.2
865	264	364	204	347	298	295.5	544.9
866	263	364	204	347	298	295.2	545.4
867	263	363	204	347	298	295.0	546.5
868	263	364	204	347	298	295.0	547.9
869	263	364	204	347	298	295.1	547.8
870	262	365	204	347	298	295.1	545.5
871	262	365	204	347	298	295.1	543.2
872	262	366	204	346	298	295.1	540.5
873	262	366	204	345	298	295.0	538.2
874	262	367	204	345	297	295.0	536.4
875	262	367	205	344	297	294.9	534.6
876	262	367	205	343	297	294.8	533.6
877	262	368	205	343	297	294.7	532.4
878	262	368	205	343	297	294.7	531.3
879	262	368	205	342	297	294.6	531.0
880	261	368	205	341	296	294.3	530.6
881	261	368	205	341	296	294.4	530.5
882	261	368	205	341	296	294.2	530.5
883	261	368	205	341	296	294.2	530.3
884	261	368	205	340	296	294.0	530.8
885	261	368	205	340	296	294.0	531.2
886	261	368	205	340	296	293.9	531.5
887	261	368	205	340	296	293.7	532.4
888	261	367	205	340	295	293.5	532.5
889	261	367	205	340	295	293.3	533.3
890	261	366	204	340	295	293.2	533.9
891	260	366	204	340	295	293.0	534.7
892	260	367	205	339	295	293.1	536.0
893	261	367	205	340	295	293.3	536.8
894	261	368	205	340	295	293.6	537.0
895	261	368	205	340	295	293.7	536.5
896	261	369	205	340	295	293.9	536.2
897	261	369	205	340	295	293.9	535.5
898	261	369	205	340	295	293.9	535.3
899	261	369	205	340	295	293.9	534.6
900	261	369	205	340	295	294.0	534.3
901	261	370	205	340	294	294.1	535.2
902	261	370	205	340	294	294.0	535.3
903	261	369	205	340	294	294.0	535.6
904	262	369	205	341	294	294.1	536.6
905	262	369	205	341	294	294.0	537.5
906	262	369	205	341	294	294.0	538.4
907	262	369	205	341	294	294.1	538.1
908	262	369	205	341	294	294.1	537.6
909	262	368	205	341	294	294.0	536.6
910	262	368	205	341	294	293.8	536.1
911	262	368	205	341	294	293.7	535.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

Stove ΔT: 19

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
912	262	367	205	341	294	293.7	536.0
913	261	367	204	341	294	293.5	536.4
914	261	367	204	342	294	293.5	537.7
915	261	366	204	341	294	293.3	538.7
916	261	366	204	342	294	293.2	539.6
917	261	365	203	342	294	293.0	539.9
918	261	364	203	342	294	292.8	539.4
919	261	363	203	342	294	292.5	537.5
920	260	363	203	341	294	292.1	534.4
921	260	362	203	340	294	291.8	532.2
922	260	362	203	339	294	291.4	529.5
923	260	361	203	339	294	291.3	528.1
924	259	361	203	339	293	291.0	526.2
925	259	360	203	338	293	290.6	524.8
926	259	360	203	338	293	290.4	524.0
927	259	359	203	337	293	290.2	523.6
928	259	359	202	337	293	289.9	523.5
929	258	358	202	336	293	289.5	523.3
930	258	357	202	336	293	289.1	523.3
931	258	356	202	335	292	288.5	522.8
932	258	356	202	335	292	288.5	522.6
933	257	355	202	335	292	288.1	522.5
934	257	354	201	334	292	287.6	522.9
935	257	354	201	334	292	287.4	523.1
936	256	353	201	333	292	286.9	523.6
937	257	352	200	334	291	286.7	524.6
938	256	351	200	334	291	286.3	525.6
939	256	350	199	333	291	285.9	526.5
940	256	350	199	333	291	285.8	527.2
941	256	350	199	333	291	285.7	527.8
942	255	350	199	334	290	285.6	527.6
943	255	350	198	334	290	285.3	526.4
944	255	349	198	332	290	284.7	524.8
945	254	348	197	333	290	284.4	523.6
946	253	347	197	332	290	283.9	523.4
947	253	346	197	332	290	283.4	523.0
948	252	345	197	332	289	282.9	522.0
949	252	343	196	331	289	282.4	520.4
Average	269.8	279.3	215.3	401.1	300.7	293.3	653.4

LAB SAMPLE DATA - ASTM E2515

Client: Blaze King
Model: KE40
Run #: 2

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/12/2024

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G00939	240.9	243.6	2.7
	B	G00940	239.6	242.1	2.5
	C - 1st Hour	G00941	239.1	239.7	0.6
	Amb	G00942	240.0	240.1	0.1
Probes	**A**	9A	116530.0	116530.3	0.3
	B	9B	117736.8	117737.6	0.8
	C - 1st Hour	9C	116602.2	116602.8	0.6
O-rings	**A**	9A	3580.6	3581.3	0.7
	B	9B	3523.7	3524.2	0.5
	C - 1st Hour	9C	3430.7	3431.2	0.5

Placed in Dessicator on:	3/13 07:45

Balance Audit (mg):		200.0		200.0					
		Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**	243.6	3/14 9:00	243.6	3/15 14:30				
	B	242.0	3/14 9:00	242.1	3/15 14:30				
	C - 1st Hour	239.5	3/14 9:00	239.7	3/15 14:30				
	Amb	240.1	3/14 9:00	240.1	3/15 14:30				
Probes	**A**	116530.5	3/14 9:00	116530.3	3/15 14:30				
	B	117737.8	3/14 9:00	117737.6	3/15 14:30				
	C - 1st Hour	116602.8	3/14 9:00	116602.8	3/15 14:30				
O-Rings	**A**	3581.2	3/14 9:00	3581.3	3/15 14:30				
	B	3524.3	3/14 9:00	3524.2	3/15 14:30				
	C - 1st Hour	3431.4	3/14 9:00	3431.2	3/15 14:30				

Train A Aggregate, mg:	**3.7**
Train B Aggregate, mg:	**3.8**
Train C Aggregate, mg:	**1.7**
Ambient, mg:	**0.1**

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 2 Test Date: 3/12/24

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Knob open 95º
Targeted Burn Category: I

Preburn Notes

Time	Notes
	-None-

Test Notes
Test Burn Start Time: 13:19 Test Fuel Loaded by: 25 seconds
Door Closed: 35 seconds Air Control Set at: 0 seconds
Other Loading Notes: Bypass open @ 0 sec, closed @ 35 sec, fan set to low @ 0 sec

Time	Notes
	-None-

Test Burn End Time: 3/13 05:08

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 16.98 CO (%): 4.300
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	09:21	09:22	09:23	3/13 09:28	3/13 09:29	3/13 09:30
CO_2	0.06	16.95	9.99	0.08	17.13	10.17
CO	0.012	4.266	2.524	0.013	4.340	2.561

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature: Date: 3/18/24

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 2 Test Date: 3/12/24

Test Fuel Front/Side View

Test Fuel Iso View

Test Fuel Loaded in Stove

Air Setting

Technician Signature: Date: 3/18/24

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 3 Data Summary

Client:	Blaze King
Model:	KE40
Job #:	24-274
Tracking #:	184
Test Date:	3/13/2024

Techician Signature

3/20/2024
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Burn Rate (kg/hr):	2.67

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	19.660	43.693	42.179	8.415
Average Gas Velocity in Dilution Tunnel (ft/sec)	20.1			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	13059.9			
Average Gas Meter Temperature (°F)	70.7	88.1	92.0	77.6
Total Sample Volume (dscf)	20.033	43.084	41.321	8.409
Average Tunnel Temperature (°F)	109.5			
Total Time of Test (min)	238			
Total Particulate Catch (mg)	0.5	6.9	6.5	2.9
Particulate Concentration, dry-standard (g/dscf)	0.0000250	0.0001602	0.0001573	0.0003449
Total PM Emissions (g)	1.29	7.00	6.86	4.18
Particulate Emission Rate (g/hr)	0.33	1.77	1.73	4.18
Emissions Factor (g/kg)	-	0.66	0.65	-
Difference from Average Total Particulate Emissions (g)	-	0.07	0.07	-
Difference from Average Total Particulate Emissions (%)	-	1.1%	1.1%	
Difference from Average Emissions Factor (g/kg)	-	0.01	0.01	-

Final Average Results	
Total Particulate Emissions (g)	6.93
Particulate Emission Rate (g/hr)	1.75
Emissions Factor (g/kg)	0.65
HHV Efficiency (%)	76.9%
LHV Efficiency (%)	83.1%
CO Emissions (g/min)	0.98

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	83.7	OK
Face Velocity	< 30 ft/min	10.3	OK
Leakage Rate	Less than 4% of average sample rate	0.001 cfm	OK
Ambient Temp	55-90 °F	Min:67.6/Max:72.4	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	99.4	OK

B415.1 Efficiency Results

Manufacturer:	Blaze King
Model:	KE40
Date:	03/13/24
Run:	3
Control #:	24-274
Test Duration:	238
Output Category:	4

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	76.9%	83.1%
Combustion Efficiency	98.5%	98.5%
Heat Transfer Efficiency	78.0%	84.3%

Output Rate (kJ/h)	40,603	38,516	**(Btu/h)**
Burn Rate (kg/h)	2.67	5.88	**(lb/h)**
Input (kJ/h)	52,815	50,101	**(Btu/h)**

Test Load Weight (dry kg)	10.58	23.31	**dry lb**
MC wet (%)	19.46		
MC dry (%)	24.16		
Particulate (g)	6.93		
CO (g)	233		
Test Duration (h)	3.97		

Emissions	**Particulate**	**CO**
g/MJ Output	0.04	1.44
g/kg Dry Fuel	0.66	22.01
g/h	1.75	58.67
g/min	0.03	0.98
lb/MM Btu Output	0.10	3.36

Air/Fuel Ratio (A/F)	9.62

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	19.00	23.8	2x4	19.00	22.5
2x4	19.00	24.8	2x4	19.00	22.0
2x4	19.00	22.6	2x4	19.00	19.8
2x4	19.00	21.2	2x4	19.00	22.4
2x4	19.00	22.5			
2x4	19.00	22.0			1.6
2x4	19.00	21.1			
2x4	19.00	20.8			
Total Fuel Weight (lbs):		26.87	Average Moisture (%DB):		20.5

Firebox Volume (ft^3):	4.35
Total 2x4 Crib Weight, with spacers (lbs):	0.00
Total 4x4 Crib Weight, with spacers (lbs):	28.99
Total Wet Fuel Weight, with spacers (lbs):	28.99

Coal Bed Range (20-25%):
Min (lbs): 5.80
Max (lbs): 7.25

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	19.00	4.63	24.4	23.5	23.1	3.74
4x4	19.00	4.75	24.6	24.4	25.0	3.81
4x4	19.00	4.19	24.9	24.5	22.7	3.38
4x4	19.00	4.41	23.3	25.0	24.9	3.55
4x4	19.00	4.45	24.5	24.5	23.2	3.59
4x4	19.00	4.61	23.1	24.6	24.7	3.71
					Total Dry Weight, no spacers (lbs):	21.78
					Total Dry Weight, with spacers (lbs):	23.36

Spacer Moisture Readings (%DB)

22.3	23.5	24.0					
22.3	22.0	24.4					
24.4	24.2						
23.7	23.7						
23.2	22.9						
22.9	24.4						
24.1	23.7						
23.8	23.7						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	26.9	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	6.66	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	Blaze King	Job #:	24-274
Model:	KE40	Tracking #:	184
Run #:	3	Technician:	AK
Test Start Time:	11:26	Date:	3/13/2024

Total Sampling Time (min):	238
Recording Interval (min):	1

Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.005	(B)
Meter Box γ Factor:	1.004	(C)
Meter Box γ Factor:	1.013	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	30.26	30.27	30.27
Relative Humidity (%)	28.9	24.1	
Room Air Velocity (ft/min)	<50	<50	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		19.660	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	3/8/2024
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test			
(A)	0.001	0.001	cfm @	-8	in. Hg
(B)	0.000	0.000	cfm @	-8	in. Hg
(C)	0.000	0.000	cfm @	-9	in. Hg
(Ambient)	0.000	0.000	cfm @	-13	in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.076	83
2	0.096	83
3	0.096	83
4	0.072	83
5	0.070	83
6	0.098	83
7	0.096	83
8	0.076	83
Center	0.096	83

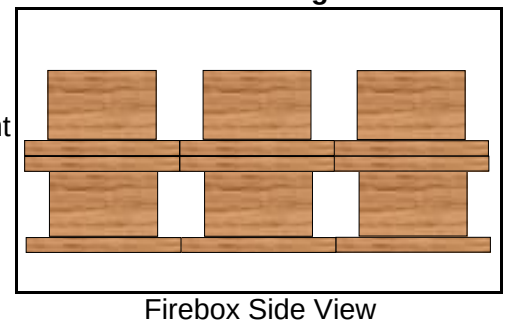
Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	6	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.1963	ft^2
V_{strav}:	19.44	ft/sec
V_{scent}:	20.71	ft/sec
F_p:	0.939	[ratio]
Initial Tunnel Flow:	220.7	scf/min

Static Pressure: -0.170 in. H_2O

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Front



Firebox Back

Firebox Side View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	24.2

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Recording Interval (min): 1
Run Time (min): 117

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	28.53	-0.053	511	526	313	457	564	474.1	321	68
1	28.41	-0.054	498	511	294	442	564	461.6	298	68
2	28.30	-0.055	484	496	277	431	564	450.3	291	67
3	28.14	-0.058	471	483	264	421	563	440.3	295	67
4	28.00	-0.060	460	470	253	413	562	431.6	306	67
5	27.80	-0.062	450	459	247	410	561	425.4	323	67
6	27.60	-0.065	442	450	241	412	560	421.0	343	67
7	27.40	-0.065	436	443	236	419	558	418.3	362	67
8	27.20	-0.068	430	437	234	427	557	416.9	377	67
9	26.97	-0.071	426	432	232	437	554	416.4	392	67
10	26.74	-0.071	424	429	232	447	552	416.7	404	67
11	26.53	-0.072	422	426	232	457	550	417.3	412	67
12	26.29	-0.073	422	424	231	465	547	417.7	418	67
13	26.06	-0.073	421	422	230	475	544	418.4	425	67
14	25.82	-0.074	421	421	230	483	542	419.3	428	67
15	25.58	-0.075	421	422	230	490	539	420.2	433	67
16	25.36	-0.075	421	421	228	498	536	420.8	436	67
17	25.14	-0.075	421	421	228	505	533	421.5	438	67
18	24.89	-0.076	422	420	229	511	530	422.5	442	67
19	24.62	-0.075	423	420	231	519	527	424.0	448	67
20	24.36	-0.077	425	420	233	527	525	425.7	453	67
21	24.10	-0.077	427	421	235	534	522	427.6	458	67
22	23.84	-0.078	429	422	237	541	519	429.8	462	67
23	23.58	-0.080	432	424	239	548	517	432.0	463	67
24	23.31	-0.078	435	427	241	554	514	434.2	465	67
25	23.06	-0.079	438	429	242	560	512	436.3	465	67
26	22.79	-0.079	441	431	244	567	509	438.5	468	67
27	22.53	-0.079	444	433	246	572	507	440.4	469	67
28	22.26	-0.078	447	435	247	577	504	442.1	469	67
29	21.99	-0.081	451	436	249	583	502	444.0	469	67
30	21.73	-0.080	453	438	250	587	500	445.7	471	67
31	21.47	-0.078	457	440	252	592	498	447.6	475	67
32	21.19	-0.080	460	441	253	597	496	449.5	470	67
33	20.93	-0.079	464	443	255	602	494	451.5	475	67
34	20.67	-0.079	468	444	257	607	492	453.7	475	67
35	20.43	-0.079	472	446	258	612	491	455.8	470	67
36	20.16	-0.078	476	447	260	617	489	458.0	471	67
37	19.91	-0.079	480	449	261	622	488	460.0	471	68
38	19.65	-0.079	484	451	262	627	486	462.1	469	68
39	19.39	-0.078	488	454	264	631	485	464.5	468	68
40	19.14	-0.078	491	457	266	634	484	466.7	467	68
41	18.87	-0.077	496	461	269	639	483	469.5	468	68
42	18.62	-0.078	500	465	273	641	482	472.2	466	68
43	18.36	-0.078	504	469	276	645	481	475.0	467	68
44	18.10	-0.077	507	473	279	648	481	477.5	468	68

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Recording Interval (min): 1
Run Time (min): 117

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	17.85	-0.078	511	477	283	651	480	480.4	469	68
46	17.60	-0.076	515	480	287	654	479	483.0	469	68
47	17.35	-0.078	519	484	291	656	479	485.7	469	68
48	17.10	-0.077	522	487	294	657	478	487.9	469	68
49	16.86	-0.078	526	491	297	659	478	490.2	468	68
50	16.62	-0.077	530	494	299	660	477	492.2	470	68
51	16.39	-0.077	534	498	302	660	477	494.1	467	68
52	16.16	-0.076	537	501	305	661	477	495.9	467	68
53	15.93	-0.078	540	504	307	662	477	497.8	466	68
54	15.71	-0.077	542	507	309	662	476	499.5	466	68
55	15.51	-0.076	544	511	311	663	476	501.0	465	68
56	15.30	-0.076	546	513	313	663	476	502.3	463	68
57	15.09	-0.077	548	516	315	662	476	503.5	462	68
58	14.87	-0.076	550	519	317	663	477	504.9	465	68
59	14.68	-0.076	552	522	318	663	477	506.1	464	68
60	14.47	-0.075	554	524	320	664	477	507.5	463	68
61	14.27	-0.077	556	527	322	664	477	508.9	463	68
62	14.06	-0.076	557	529	324	664	477	510.2	462	68
63	13.84	-0.077	560	531	326	665	477	511.7	459	68
64	13.64	-0.076	562	533	328	665	478	513.2	461	68
65	13.44	-0.075	565	535	331	666	478	514.8	461	68
66	13.24	-0.074	567	537	334	667	478	516.5	460	68
67	13.03	-0.075	570	539	336	666	478	518.0	458	68
68	12.83	-0.078	573	542	339	667	478	519.6	458	68
69	12.64	-0.074	575	544	341	667	478	521.0	459	68
70	12.43	-0.075	578	546	344	667	478	522.5	460	68
71	12.25	-0.076	580	549	346	665	478	523.6	459	69
72	12.04	-0.074	583	551	348	666	478	525.3	457	69
73	11.85	-0.076	585	554	351	665	479	526.8	460	68
74	11.64	-0.074	587	557	353	665	479	528.3	461	69
75	11.45	-0.075	589	560	355	665	479	529.5	458	69
76	11.26	-0.073	591	562	356	665	479	530.6	458	69
77	11.06	-0.075	593	564	360	665	479	532.2	458	69
78	10.88	-0.075	595	567	363	665	479	533.8	458	69
79	10.68	-0.075	596	571	366	665	479	535.2	456	69
80	10.49	-0.074	596	575	368	664	479	536.4	456	68
81	10.32	-0.073	597	578	371	663	479	537.6	455	68
82	10.14	-0.075	597	582	373	661	480	538.7	455	69
83	9.94	-0.073	598	586	376	660	480	540.0	453	69
84	9.76	-0.075	597	590	378	659	480	540.8	455	69
85	9.58	-0.073	598	593	380	659	480	542.0	453	69
86	9.40	-0.074	599	597	382	658	481	543.2	453	69
87	9.22	-0.073	599	600	383	657	482	544.2	452	69
88	9.07	-0.071	599	604	385	657	482	545.4	451	69
89	8.91	-0.072	599	607	385	656	483	546.1	450	68

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Recording Interval (min): 1
Run Time (min): 117

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
90	8.77	-0.071	600	610	387	655	484	547.0	448	69
91	8.61	-0.072	600	613	388	654	484	547.9	447	69
92	8.46	-0.072	601	615	390	655	485	549.1	447	69
93	8.31	-0.073	601	618	391	654	486	549.9	446	69
94	8.16	-0.072	602	620	391	653	487	550.5	442	69
95	8.02	-0.071	603	622	392	653	488	551.4	442	69
96	7.88	-0.071	603	625	393	651	489	552.1	442	69
97	7.75	-0.071	604	627	392	650	490	552.6	440	69
98	7.61	-0.071	606	630	393	649	491	553.8	440	69
99	7.47	-0.072	607	633	395	648	493	555.3	439	69
100	7.36	-0.071	609	637	397	648	494	556.9	438	69
101	7.24	-0.071	610	639	396	647	496	557.3	436	69
102	7.12	-0.070	611	641	394	646	497	558.0	435	69
103	7.02	-0.070	612	644	393	646	499	558.5	434	69
104	6.92	-0.070	613	646	392	645	500	559.1	434	69
105	6.82	-0.070	614	647	390	643	502	559.1	430	69
106	6.73	-0.069	614	648	389	640	504	559.0	429	69
107	6.63	-0.067	614	649	388	637	505	558.6	427	69
108	6.55	-0.067	614	649	387	633	507	557.9	424	69
109	6.46	-0.069	614	649	386	628	509	557.0	420	69
110	6.38	-0.067	613	649	385	622	510	556.0	418	69
111	6.28	-0.067	613	649	385	617	512	555.2	416	69
112	6.21	-0.067	612	650	385	612	514	554.4	414	69
113	6.14	-0.065	611	650	384	607	516	553.6	412	69
114	6.05	-0.067	610	650	384	602	518	552.7	409	69
115	5.97	-0.065	609	649	384	597	520	551.7	406	69
116	5.90	-0.066	608	649	384	592	522	550.8	405	69
117	5.83	-0.066	609	648	389	586	523	551.0	401	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.097	1.79	72	1.0		28.94		128	428	71	69
1	0.130	0.130	0.096	3.04	71	1.1	-	28.77	-0.17	154	430	76	69
2	0.300	0.170	0.096	3.07	71	1.1	-	28.55	-0.22	130	417	76	69
3	0.469	0.169	0.097	3.09	71	1.1	-	28.32	-0.23	121	423	76	69
4	0.640	0.171	0.098	3.09	72	1.2	-	28.10	-0.22	117	430	77	69
5	0.813	0.173	0.099	3.09	72	1.1	-	27.88	-0.22	116	437	77	69
6	0.985	0.172	0.097	3.09	72	1.2	-	27.65	-0.23	115	445	77	69
7	1.151	0.166	0.098	3.11	72	1.2	-	27.43	-0.22	115	447	77	69
8	1.323	0.172	0.097	3.12	72	1.2	-	27.23	-0.20	115	448	78	69
9	1.497	0.174	0.098	3.13	72	1.2	-	27.00	-0.23	115	451	78	69
10	1.666	0.169	0.097	3.14	72	1.2	95	26.78	-0.22	115	451	78	69
11	1.837	0.171	0.097	3.15	73	1.2	-	26.55	-0.23	115	452	78	69
12	2.012	0.175	0.099	3.17	73	1.1	-	26.33	-0.22	115	452	79	69
13	2.190	0.178	0.098	3.19	73	1.2	-	26.10	-0.23	115	455	79	68
14	2.358	0.168	0.098	3.21	73	1.2	-	25.90	-0.20	115	454	79	68
15	2.535	0.177	0.098	3.22	74	1.2	-	25.66	-0.24	116	458	79	69
16	2.709	0.174	0.096	3.23	74	1.2	-	25.44	-0.22	116	458	79	69
17	2.886	0.177	0.097	3.24	74	1.2	-	25.21	-0.23	116	459	80	69
18	3.059	0.173	0.098	3.24	74	1.2	-	25.00	-0.21	116	460	80	69
19	3.237	0.178	0.097	3.26	75	1.2	-	24.78	-0.22	116	462	80	69
20	3.415	0.178	0.098	3.27	75	1.2	99	24.56	-0.22	116	463	80	69
21	3.593	0.178	0.097	3.28	75	1.2	-	24.33	-0.23	116	464	80	69
22	3.765	0.172	0.098	3.28	76	1.2	-	24.11	-0.22	116	464	80	69
23	3.941	0.176	0.096	3.29	76	1.2	-	23.88	-0.23	116	464	81	69
24	4.120	0.179	0.096	3.30	76	1.2	-	23.66	-0.22	116	466	81	69
25	4.303	0.183	0.096	3.31	76	1.2	-	23.42	-0.24	117	466	81	69
26	4.478	0.175	0.098	3.32	77	1.2	-	23.22	-0.20	117	466	81	69
27	4.653	0.175	0.097	3.31	77	1.2	-	22.98	-0.24	117	467	81	69
28	4.833	0.180	0.097	3.33	77	1.2	-	22.74	-0.24	117	468	81	69
29	5.011	0.178	0.096	3.32	78	1.2	-	22.53	-0.21	117	469	81	69
30	5.190	0.179	0.096	3.33	78	1.2	100	22.30	-0.23	117	470	81	69
31	5.369	0.179	0.096	3.35	78	1.3	-	22.07	-0.23	117	468	81	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	5.546	0.177	0.098	3.34	78	1.2	-	21.85	-0.22	117	469	81	69
33	5.726	0.180	0.099	3.35	79	1.2	-	21.62	-0.23	117	466	81	69
34	5.906	0.180	0.096	3.35	79	1.2	-	21.39	-0.23	117	468	82	69
35	6.083	0.177	0.099	3.36	79	1.2	-	21.15	-0.24	117	469	82	70
36	6.264	0.181	0.099	3.37	80	1.2	-	20.92	-0.23	117	470	82	70
37	6.444	0.180	0.095	3.37	80	1.2	-	20.69	-0.23	117	468	82	69
38	6.624	0.180	0.095	3.38	80	1.2	-	20.46	-0.23	117	469	82	69
39	6.805	0.181	0.097	3.38	80	1.3	-	20.24	-0.22	117	469	82	69
40	6.986	0.181	0.098	3.38	81	1.3	101	20.02	-0.22	117	470	82	69
41	7.166	0.180	0.099	3.39	81	1.3	-	19.79	-0.23	117	468	82	69
42	7.342	0.176	0.097	3.40	81	1.2	-	19.59	-0.20	117	465	82	70
43	7.526	0.184	0.096	3.40	81	1.3	-	19.36	-0.23	117	464	82	70
44	7.708	0.182	0.099	3.40	82	1.2	-	19.14	-0.22	117	464	82	70
45	7.890	0.182	0.097	3.40	82	1.2	-	18.92	-0.22	117	462	83	70
46	8.071	0.181	0.097	3.41	82	1.3	-	18.72	-0.20	117	459	83	70
47	8.251	0.180	0.098	3.42	82	1.2	-	18.50	-0.22	117	460	83	70
48	8.431	0.180	0.097	3.41	83	1.2	-	18.29	-0.21	116	460	83	70
49	8.614	0.183	0.098	3.41	83	1.3	-	18.08	-0.21	116	460	83	70
50	8.798	0.184	0.097	3.41	83	1.2	101	17.88	-0.20	116	459	83	70
51	8.979	0.181	0.098	3.43	83	1.2	-	17.67	-0.21	116	460	83	70
52	9.159	0.180	0.098	3.43	84	1.2	-	17.46	-0.21	116	460	83	70
53	9.337	0.178	0.097	3.43	84	1.3	-	17.25	-0.21	116	458	83	70
54	9.524	0.187	0.098	3.43	84	1.3	-	17.04	-0.21	116	458	83	70
55	9.707	0.183	0.098	3.44	84	1.2	-	16.83	-0.21	116	457	83	70
56	9.891	0.184	0.098	3.42	84	1.2	-	16.64	-0.19	116	460	83	70
57	10.073	0.182	0.097	3.44	85	1.2	-	16.43	-0.21	116	458	83	70
58	10.252	0.179	0.097	3.44	85	1.3	-	16.22	-0.21	116	456	83	70
59	10.434	0.182	0.097	3.45	85	1.2	-	16.01	-0.21	116	458	83	70
60	10.619	0.185	0.100	3.43	85	1.2	100	15.80	-0.21	116	456	83	70
61	10.803	0.184	0.098	3.44	85	1.2	-	15.61	-0.19	116	457	83	70
62	10.986	0.183	0.098	3.43	86	1.2	-	15.39	-0.22	116	455	83	70
63	11.169	0.183	0.098	3.43	86	1.3	-	15.21	-0.18	116	455	83	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	11.350	0.181	0.098	3.45	86	1.3	-	15.00	-0.21	116	454	83	70
65	11.532	0.182	0.098	3.44	86	1.3	-	14.81	-0.19	115	454	83	70
66	11.717	0.185	0.099	3.45	86	1.2	-	14.63	-0.18	115	453	83	70
67	11.901	0.184	0.098	3.45	86	1.3	-	14.43	-0.20	115	454	83	70
68	12.085	0.184	0.097	3.44	87	1.3	-	14.24	-0.19	115	453	83	70
69	12.269	0.184	0.097	3.46	87	1.2	-	14.05	-0.19	115	451	83	70
70	12.447	0.178	0.098	3.47	87	1.3	100	13.88	-0.17	115	450	83	71
71	12.632	0.185	0.098	3.46	87	1.3	-	13.70	-0.18	114	448	83	70
72	12.818	0.186	0.098	3.44	87	1.3	-	13.55	-0.15	114	446	83	70
73	13.002	0.184	0.098	3.46	87	1.2	-	13.39	-0.16	114	444	83	70
74	13.187	0.185	0.098	3.46	87	1.3	-	13.23	-0.16	114	443	83	70
75	13.371	0.184	0.099	3.45	88	1.3	-	13.09	-0.14	113	443	83	70
76	13.552	0.181	0.099	3.47	88	1.2	-	12.93	-0.16	113	442	83	70
77	13.731	0.179	0.100	3.46	88	1.2	-	12.81	-0.12	113	439	83	70
78	13.920	0.189	0.099	3.48	88	1.3	-	12.63	-0.18	113	437	83	70
79	14.104	0.184	0.099	3.47	88	1.2	-	12.48	-0.15	113	437	83	70
80	14.285	0.181	0.098	3.46	88	1.2	101	12.34	-0.14	113	435	83	70
81	14.473	0.188	0.099	3.47	88	1.3	-	12.19	-0.15	113	435	83	70
82	14.654	0.181	0.098	3.48	88	1.3	-	12.04	-0.15	113	436	83	70
83	14.838	0.184	0.097	3.47	88	1.2	-	11.89	-0.15	112	434	83	70
84	15.022	0.184	0.098	3.47	88	1.2	-	11.75	-0.14	113	434	83	70
85	15.207	0.185	0.098	3.47	89	1.2	-	11.61	-0.14	112	434	83	71
86	15.394	0.187	0.098	3.47	89	1.2	-	11.46	-0.15	112	432	83	70
87	15.577	0.183	0.099	3.49	89	1.2	-	11.32	-0.14	112	432	83	70
88	15.761	0.184	0.097	3.48	89	1.3	-	11.16	-0.16	112	433	83	71
89	15.944	0.183	0.098	3.48	89	1.2	-	10.99	-0.17	112	435	83	70
90	16.127	0.183	0.099	3.48	89	1.3	100	10.84	-0.15	113	437	82	70
91	16.314	0.187	0.097	3.47	89	1.3	-	10.68	-0.16	113	436	82	71
92	16.499	0.185	0.097	3.47	89	1.2	-	10.52	-0.16	113	439	82	71
93	16.684	0.185	0.100	3.47	89	1.3	-	10.35	-0.17	113	439	82	71
94	16.870	0.186	0.097	3.49	89	1.3	-	10.20	-0.15	113	439	82	71
95	17.051	0.181	0.097	3.49	89	1.3	-	10.07	-0.13	113	437	82	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	17.236	0.185	0.099	3.48	90	1.3	-	9.92	-0.15	112	436	82	71
97	17.420	0.184	0.097	3.49	90	1.3	-	9.79	-0.13	112	436	82	71
98	17.605	0.185	0.096	3.48	90	1.3	-	9.69	-0.10	112	434	82	71
99	17.795	0.190	0.099	3.48	90	1.3	-	9.57	-0.12	111	429	82	71
100	17.976	0.181	0.098	3.49	90	1.3	100	9.46	-0.11	111	428	82	71
101	18.160	0.184	0.098	3.49	90	1.2	-	9.35	-0.11	111	424	82	71
102	18.344	0.184	0.098	3.51	90	1.3	-	9.25	-0.10	110	421	82	71
103	18.527	0.183	0.097	3.48	90	1.3	-	9.15	-0.10	110	418	82	70
104	18.714	0.187	0.098	3.48	90	1.3	-	9.04	-0.11	110	417	82	70
105	18.899	0.185	0.097	3.50	90	1.3	-	8.93	-0.11	110	414	82	70
106	19.086	0.187	0.097	3.49	90	1.2	-	8.84	-0.09	110	411	82	71
107	19.271	0.185	0.098	3.50	90	1.2	-	8.73	-0.11	109	409	82	71
108	19.453	0.182	0.099	3.47	90	1.3	-	8.63	-0.10	109	408	82	71
109	19.638	0.185	0.100	3.49	90	1.3	-	8.54	-0.09	109	407	82	71
110	19.823	0.185	0.097	3.51	90	1.3	101	8.45	-0.09	109	404	82	71
111	20.010	0.187	0.099	3.49	91	1.3	-	8.37	-0.08	108	405	82	71
112	20.195	0.185	0.100	3.50	91	1.2	-	8.26	-0.11	108	405	82	71
113	20.381	0.186	0.098	3.49	91	1.2	-	8.17	-0.09	108	408	82	71
114	20.570	0.189	0.098	3.50	91	1.3	-	8.05	-0.12	108	408	82	71
115	20.745	0.175	0.098	3.51	91	1.2	-	7.97	-0.08	108	409	82	71
116	20.934	0.189	0.099	3.51	91	1.2	-	7.86	-0.11	108	410	82	70
117	21.118	0.184	0.096	3.50	91	1.2	-	7.75	-0.11	108	410	82	71
118	21.305	0.187	0.099	3.49	91	1.3	-	7.64	-0.11	109	409	82	71
119	21.492	0.187	0.097	3.51	91	1.3	-	7.56	-0.08	108	408	82	71
120	21.677	0.185	0.099	3.50	91	1.3	100	7.43	-0.13	108	410	82	71
121	21.863	0.186	0.099	3.49	91	1.3	-	7.32	-0.11	108	414	82	71
122	22.046	0.183	0.099	3.51	91	1.3	-	7.24	-0.08	109	414	82	71
123	22.227	0.181	0.098	3.49	91	1.3	-	7.13	-0.11	109	413	82	71
124	22.417	0.190	0.098	3.50	91	1.3	-	7.01	-0.12	108	413	82	71
125	22.603	0.186	0.099	3.50	91	1.3	-	6.92	-0.09	108	411	82	71
126	22.791	0.188	0.098	3.51	91	1.3	-	6.82	-0.10	108	408	82	71
127	22.973	0.182	0.099	3.51	91	1.3	-	6.73	-0.09	108	406	82	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	23.158	0.185	0.098	3.49	91	1.2	-	6.66	-0.07	108	406	82	71
129	23.341	0.183	0.099	3.50	91	1.3	-	6.59	-0.07	108	401	82	71
130	23.530	0.189	0.099	3.50	91	1.3	100	6.50	-0.09	107	397	82	71
131	23.716	0.186	0.099	3.51	91	1.3	-	6.41	-0.09	107	397	82	71
132	23.902	0.186	0.099	3.51	92	1.3	-	6.34	-0.07	107	394	82	71
133	24.090	0.188	0.099	3.50	92	1.3	-	6.25	-0.09	107	395	82	71
134	24.275	0.185	0.098	3.51	92	1.2	-	6.17	-0.08	107	390	82	71
135	24.461	0.186	0.099	3.49	92	1.3	-	6.08	-0.09	107	389	82	71
136	24.645	0.184	0.098	3.51	92	1.3	-	6.00	-0.08	106	389	82	71
137	24.830	0.185	0.098	3.50	92	1.3	-	5.93	-0.07	106	392	82	71
138	25.015	0.185	0.098	3.50	92	1.3	-	5.85	-0.08	106	389	82	71
139	25.202	0.187	0.099	3.50	92	1.3	-	5.76	-0.09	106	392	82	71
140	25.390	0.188	0.098	3.52	92	1.2	100	5.68	-0.08	106	392	82	71
141	25.575	0.185	0.097	3.51	92	1.3	-	5.59	-0.09	106	391	82	71
142	25.761	0.186	0.098	3.51	92	1.2	-	5.51	-0.08	106	389	82	71
143	25.944	0.183	0.100	3.50	92	1.3	-	5.43	-0.08	106	387	82	71
144	26.130	0.186	0.099	3.50	92	1.3	-	5.36	-0.07	106	387	82	71
145	26.315	0.185	0.099	3.52	92	1.3	-	5.26	-0.10	106	386	82	71
146	26.503	0.188	0.098	3.51	92	1.3	-	5.19	-0.07	106	386	82	72
147	26.690	0.187	0.098	3.52	92	1.2	-	5.10	-0.09	106	386	82	71
148	26.873	0.183	0.097	3.52	92	1.3	-	5.03	-0.07	106	385	82	71
149	27.063	0.190	0.097	3.51	92	1.3	-	4.94	-0.09	106	384	82	71
150	27.246	0.183	0.099	3.49	92	1.3	100	4.86	-0.08	106	383	82	72
151	27.432	0.186	0.097	3.52	92	1.2	-	4.78	-0.08	106	384	82	71
152	27.617	0.185	0.099	3.52	92	1.3	-	4.67	-0.11	106	384	82	71
153	27.802	0.185	0.097	3.51	92	1.2	-	4.60	-0.07	106	385	82	72
154	27.992	0.190	0.099	3.51	92	1.2	-	4.53	-0.07	106	384	82	72
155	28.180	0.188	0.098	3.52	92	1.3	-	4.44	-0.09	106	384	82	72
156	28.365	0.185	0.098	3.51	92	1.2	-	4.36	-0.08	106	384	82	72
157	28.550	0.185	0.100	3.51	92	1.3	-	4.29	-0.07	106	383	82	71
158	28.735	0.185	0.097	3.52	92	1.2	-	4.20	-0.09	106	384	82	72
159	28.920	0.185	0.097	3.50	92	1.3	-	4.13	-0.07	106	384	82	72

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	29.108	0.188	0.099	3.51	92	1.2	100	4.05	-0.08	106	384	82	72
161	29.292	0.184	0.097	3.52	93	1.3	-	3.96	-0.09	106	381	82	72
162	29.483	0.191	0.099	3.51	93	1.3	-	3.87	-0.09	106	382	82	72
163	29.668	0.185	0.100	3.53	93	1.3	-	3.80	-0.07	106	382	82	72
164	29.855	0.187	0.099	3.52	93	1.3	-	3.72	-0.08	106	382	82	72
165	30.038	0.183	0.098	3.52	93	1.2	-	3.63	-0.09	106	383	82	72
166	30.225	0.187	0.098	3.51	93	1.3	-	3.55	-0.08	106	383	82	72
167	30.411	0.186	0.098	3.52	93	1.3	-	3.45	-0.10	106	384	82	72
168	30.599	0.188	0.100	3.51	93	1.3	-	3.37	-0.08	106	382	82	72
169	30.787	0.188	0.099	3.52	93	1.3	-	3.30	-0.07	106	382	82	72
170	30.973	0.186	0.098	3.52	93	1.3	100	3.21	-0.09	106	385	82	72
171	31.161	0.188	0.097	3.53	93	1.3	-	3.14	-0.07	106	383	82	72
172	31.344	0.183	0.098	3.52	93	1.3	-	3.06	-0.08	106	383	82	72
173	31.527	0.183	0.099	3.52	93	1.3	-	2.99	-0.07	106	384	82	72
174	31.716	0.189	0.100	3.53	93	1.3	-	2.91	-0.08	106	384	82	72
175	31.904	0.188	0.098	3.51	93	1.3	-	2.85	-0.06	106	383	82	72
176	32.091	0.187	0.098	3.53	93	1.3	-	2.78	-0.07	106	384	82	72
177	32.280	0.189	0.098	3.52	93	1.3	-	2.70	-0.08	106	384	82	72
178	32.466	0.186	0.098	3.52	93	1.3	-	2.64	-0.06	106	381	82	72
179	32.652	0.186	0.098	3.52	93	1.3	-	2.58	-0.06	106	380	83	72
180	32.837	0.185	0.099	3.52	93	1.3	100	2.51	-0.07	106	379	83	72
181	33.023	0.186	0.099	3.52	93	1.3	-	2.45	-0.06	106	379	83	72
182	33.210	0.187	0.100	3.52	93	1.3	-	2.38	-0.07	106	378	83	72
183	33.398	0.188	0.098	3.52	93	1.2	-	2.32	-0.06	106	379	83	72
184	33.586	0.188	0.099	3.53	94	1.3	-	2.24	-0.08	106	377	83	72
185	33.774	0.188	0.099	3.51	94	1.2	-	2.18	-0.06	106	377	83	72
186	33.961	0.187	0.099	3.53	94	1.3	-	2.11	-0.07	106	377	83	72
187	34.150	0.189	0.099	3.51	94	1.3	-	2.05	-0.06	106	376	83	72
188	34.332	0.182	0.097	3.53	94	1.3	-	2.00	-0.05	105	375	83	72
189	34.517	0.185	0.098	3.52	94	1.3	-	1.95	-0.05	105	372	83	72
190	34.706	0.189	0.099	3.54	94	1.3	100	1.90	-0.05	105	371	83	72
191	34.893	0.187	0.096	3.52	94	1.3	-	1.85	-0.05	105	371	83	72

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	35.082	0.189	0.097	3.54	94	1.2	-	1.80	-0.05	105	370	83	72
193	35.268	0.186	0.095	3.53	94	1.3	-	1.76	-0.04	104	365	83	72
194	35.457	0.189	0.097	3.52	94	1.3	-	1.71	-0.05	104	363	83	72
195	35.640	0.183	0.098	3.53	94	1.3	-	1.66	-0.05	104	362	83	72
196	35.828	0.188	0.098	3.53	94	1.3	-	1.62	-0.04	104	360	83	72
197	36.013	0.185	0.099	3.53	94	1.3	-	1.57	-0.05	104	357	83	72
198	36.202	0.189	0.099	3.53	94	1.2	-	1.52	-0.05	104	357	83	72
199	36.389	0.187	0.098	3.54	94	1.3	-	1.47	-0.05	103	353	83	72
200	36.578	0.189	0.099	3.52	94	1.3	100	1.42	-0.05	103	353	83	72
201	36.764	0.186	0.099	3.53	94	1.3	-	1.39	-0.03	103	353	83	72
202	36.947	0.183	0.097	3.52	94	1.3	-	1.34	-0.05	103	351	83	72
203	37.136	0.189	0.098	3.55	94	1.2	-	1.29	-0.05	103	349	83	72
204	37.322	0.186	0.098	3.53	94	1.3	-	1.25	-0.04	103	349	83	72
205	37.509	0.187	0.099	3.55	94	1.3	-	1.21	-0.04	102	347	83	72
206	37.697	0.188	0.098	3.54	94	1.3	-	1.16	-0.05	102	345	83	72
207	37.885	0.188	0.097	3.53	94	1.2	-	1.11	-0.05	102	347	83	72
208	38.074	0.189	0.098	3.54	94	1.3	-	1.07	-0.04	102	345	82	72
209	38.260	0.186	0.098	3.55	94	1.2	-	1.02	-0.05	102	343	82	72
210	38.447	0.187	0.099	3.54	94	1.3	100	0.99	-0.03	102	341	82	72
211	38.632	0.185	0.099	3.54	94	1.3	-	0.94	-0.05	102	343	82	72
212	38.819	0.187	0.098	3.51	94	1.3	-	0.90	-0.04	101	341	82	72
213	39.006	0.187	0.100	3.53	94	1.3	-	0.86	-0.04	101	339	82	72
214	39.195	0.189	0.096	3.53	94	1.3	-	0.82	-0.04	101	338	82	72
215	39.381	0.186	0.098	3.54	94	1.3	-	0.78	-0.04	101	339	82	72
216	39.568	0.187	0.099	3.53	94	1.3	-	0.74	-0.04	101	338	82	72
217	39.756	0.188	0.099	3.54	94	1.3	-	0.71	-0.03	101	338	82	72
218	39.941	0.185	0.097	3.53	94	1.3	-	0.67	-0.04	101	337	82	72
219	40.128	0.187	0.097	3.55	95	1.3	-	0.63	-0.04	101	335	82	72
220	40.318	0.190	0.099	3.52	95	1.2	99	0.60	-0.03	101	337	82	72
221	40.503	0.185	0.097	3.53	95	1.2	-	0.56	-0.04	101	336	82	72
222	40.693	0.190	0.098	3.53	95	1.3	-	0.53	-0.03	100	335	82	72
223	40.881	0.188	0.097	3.52	95	1.3	-	0.49	-0.04	101	333	82	72

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	41.070	0.189	0.099	3.53	95	1.3	-	0.46	-0.03	101	333	82	72
225	41.257	0.187	0.098	3.53	95	1.2	-	0.42	-0.04	100	333	82	72
226	41.444	0.187	0.098	3.53	95	1.3	-	0.38	-0.04	100	332	82	72
227	41.633	0.189	0.097	3.53	95	1.3	-	0.36	-0.02	100	331	82	72
228	41.816	0.183	0.097	3.53	95	1.3	-	0.32	-0.04	100	330	82	72
229	42.004	0.188	0.099	3.54	95	1.3	-	0.29	-0.03	100	330	82	72
230	42.193	0.189	0.099	3.52	95	1.3	100	0.26	-0.03	100	331	82	72
231	42.381	0.188	0.099	3.54	95	1.3	-	0.23	-0.03	100	330	82	72
232	42.566	0.185	0.096	3.54	95	1.3	-	0.20	-0.03	100	329	82	72
233	42.756	0.190	0.096	3.55	95	1.3	-	0.17	-0.03	100	328	82	72
234	42.944	0.188	0.099	3.53	95	1.3	-	0.12	-0.05	100	329	82	72
235	43.129	0.185	0.097	3.55	95	1.2	-	0.09	-0.03	99	328	82	71
236	43.317	0.188	0.099	3.54	95	1.3	-	0.05	-0.04	100	327	82	72
237	43.501	0.184	0.099	3.54	95	1.2	-	0.02	-0.03	99	327	82	72
238	43.693	0.192	0.099	3.54	95	1.2	100	0.00	-0.02	99	326	81	72
Avg/Tot	43.693	0.184	0.098	3.45	88.1	1.2	100			109.5	407.2	81.8	70.7

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	-0.002		2.06	72	1.8		74	-0.067	5.72	0.150
1	0.128	0.130	3.15	72	1.9	-	81	-0.069	3.33	0.178
2	0.294	0.166	3.16	72	1.9	-	81	-0.074	14.13	0.259
3	0.466	0.172	3.16	72	1.8	-	80	-0.073	14.08	0.143
4	0.642	0.176	3.16	72	2.1	-	80	-0.074	13.76	0.115
5	0.811	0.169	3.14	72	2.0	-	80	-0.074	13.63	0.134
6	0.980	0.169	3.14	72	1.7	-	80	-0.074	13.67	0.098
7	1.149	0.169	3.16	72	1.9	-	81	-0.075	13.99	0.202
8	1.322	0.173	3.15	73	1.7	-	81	-0.076	13.84	0.139
9	1.491	0.169	3.15	73	2.2	-	81	-0.076	13.97	0.169
10	1.663	0.172	3.15	73	2.0	99	81	-0.076	13.88	0.186
11	1.835	0.172	3.15	73	2.2	-	81	-0.075	14.14	0.188
12	2.008	0.173	3.16	73	2.2	-	81	-0.076	14.06	0.166
13	2.180	0.172	3.15	74	2.0	-	81	-0.074	14.24	0.219
14	2.350	0.170	3.16	74	1.9	-	81	-0.076	14.50	0.342
15	2.526	0.176	3.16	74	2.2	-	82	-0.076	14.60	0.448
16	2.694	0.168	3.16	75	1.7	-	82	-0.076	14.80	0.453
17	2.864	0.170	3.17	75	2.0	-	82	-0.074	14.85	0.492
18	3.037	0.173	3.17	75	2.3	-	82	-0.075	14.75	0.415
19	3.214	0.177	3.17	75	1.7	-	82	-0.074	14.94	0.374
20	3.385	0.171	3.18	76	2.2	101	82	-0.075	14.90	0.397
21	3.556	0.171	3.18	76	1.7	-	82	-0.076	15.04	0.429
22	3.726	0.170	3.17	76	2.0	-	82	-0.075	15.18	0.511
23	3.900	0.174	3.17	77	2.1	-	82	-0.076	15.23	0.544
24	4.070	0.170	3.17	77	1.9	-	82	-0.076	15.39	0.604
25	4.246	0.176	3.18	77	1.7	-	83	-0.072	15.54	0.672
26	4.418	0.172	3.18	78	1.9	-	83	-0.076	15.55	0.701
27	4.592	0.174	3.18	78	1.7	-	83	-0.076	15.61	0.727
28	4.766	0.174	3.18	78	2.1	-	83	-0.076	15.73	0.691
29	4.936	0.170	3.18	79	1.7	-	83	-0.077	15.73	0.872
30	5.111	0.175	3.19	79	2.3	101	83	-0.077	15.70	0.922
31	5.285	0.174	3.19	79	2.1	-	83	-0.076	15.87	0.897

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	5.457	0.172	3.19	80	2.3	-	83	-0.077	15.86	0.804
33	5.631	0.174	3.18	80	2.3	-	83	-0.075	15.80	0.801
34	5.806	0.175	3.19	80	1.9	-	83	-0.077	15.90	0.905
35	5.978	0.172	3.19	81	1.7	-	83	-0.078	15.90	0.981
36	6.153	0.175	3.19	81	1.7	-	83	-0.077	15.95	1.101
37	6.326	0.173	3.19	81	2.1	-	83	-0.076	15.94	1.197
38	6.502	0.176	3.20	82	2.3	-	83	-0.077	15.81	1.164
39	6.678	0.176	3.20	82	2.2	-	83	-0.075	15.91	1.084
40	6.851	0.173	3.20	82	1.8	101	83	-0.076	15.96	0.956
41	7.025	0.174	3.20	83	1.7	-	83	-0.076	15.83	0.779
42	7.198	0.173	3.21	83	1.9	-	83	-0.075	15.90	0.744
43	7.378	0.180	3.22	83	1.9	-	83	-0.075	15.78	0.798
44	7.551	0.173	3.22	84	2.2	-	83	-0.076	15.84	0.705
45	7.725	0.174	3.21	84	1.7	-	83	-0.075	15.81	0.765
46	7.901	0.176	3.21	84	1.7	-	84	-0.074	15.73	0.694
47	8.078	0.177	3.22	85	2.2	-	84	-0.075	15.68	0.690
48	8.253	0.175	3.22	85	1.7	-	84	-0.075	15.67	0.627
49	8.425	0.172	3.21	85	1.7	-	84	-0.075	15.83	0.648
50	8.601	0.176	3.21	85	2.2	101	84	-0.076	15.78	0.679
51	8.778	0.177	3.22	86	2.3	-	84	-0.074	15.85	0.564
52	8.954	0.176	3.22	86	2.1	-	84	-0.073	15.84	0.594
53	9.125	0.171	3.21	86	2.2	-	84	-0.074	15.83	0.568
54	9.303	0.178	3.22	86	1.8	-	84	-0.076	15.85	0.653
55	9.481	0.178	3.23	87	1.7	-	84	-0.077	15.75	0.673
56	9.658	0.177	3.22	87	1.7	-	84	-0.075	15.77	0.567
57	9.833	0.175	3.22	87	2.2	-	84	-0.075	15.70	0.705
58	10.008	0.175	3.23	87	2.2	-	84	-0.075	15.75	0.739
59	10.185	0.177	3.23	88	2.0	-	84	-0.074	15.88	0.698
60	10.362	0.177	3.23	88	2.2	101	84	-0.076	15.86	0.698
61	10.538	0.176	3.23	88	1.9	-	84	-0.074	15.85	0.663
62	10.712	0.174	3.22	88	1.8	-	84	-0.075	15.76	0.627
63	10.888	0.176	3.23	89	1.9	-	84	-0.075	15.75	0.533

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	11.067	0.179	3.23	89	2.0	-	84	-0.072	15.69	0.582
65	11.244	0.177	3.23	89	2.2	-	84	-0.073	15.64	0.544
66	11.420	0.176	3.23	89	2.0	-	84	-0.075	15.75	0.419
67	11.595	0.175	3.24	90	1.7	-	84	-0.073	15.69	0.452
68	11.772	0.177	3.23	90	1.7	-	84	-0.074	15.88	0.396
69	11.950	0.178	3.23	90	1.7	-	84	-0.075	15.80	0.449
70	12.124	0.174	3.23	90	1.7	100	84	-0.075	15.18	0.400
71	12.301	0.177	3.23	90	2.0	-	84	-0.072	14.85	0.199
72	12.478	0.177	3.23	90	2.3	-	84	-0.071	14.70	0.147
73	12.656	0.178	3.24	91	1.9	-	84	-0.073	14.57	0.091
74	12.835	0.179	3.23	91	1.8	-	84	-0.075	14.35	0.089
75	13.011	0.176	3.25	91	1.8	-	84	-0.071	14.35	0.079
76	13.185	0.174	3.23	91	2.0	-	83	-0.072	14.24	0.061
77	13.360	0.175	3.24	91	1.8	-	83	-0.071	14.05	0.061
78	13.541	0.181	3.23	92	2.0	-	84	-0.073	13.95	0.075
79	13.720	0.179	3.24	92	1.8	-	83	-0.073	14.15	0.069
80	13.893	0.173	3.24	92	2.2	100	83	-0.073	14.11	0.081
81	14.072	0.179	3.24	92	2.0	-	83	-0.073	14.20	0.110
82	14.250	0.178	3.25	92	2.1	-	83	-0.071	14.10	0.094
83	14.428	0.178	3.24	92	2.0	-	83	-0.071	14.25	0.090
84	14.606	0.178	3.24	93	2.1	-	83	-0.070	14.22	0.122
85	14.782	0.176	3.25	93	1.7	-	83	-0.070	14.22	0.115
86	14.959	0.177	3.25	93	1.7	-	83	-0.071	14.37	0.151
87	15.138	0.179	3.24	93	2.1	-	83	-0.070	14.43	0.233
88	15.317	0.179	3.25	93	2.2	-	83	-0.073	14.62	0.322
89	15.494	0.177	3.25	93	2.0	-	83	-0.074	14.83	0.349
90	15.669	0.175	3.24	93	1.7	100	83	-0.072	15.01	0.477
91	15.848	0.179	3.24	93	2.3	-	83	-0.072	15.14	0.587
92	16.027	0.179	3.24	94	1.7	-	83	-0.073	15.07	0.600
93	16.206	0.179	3.25	94	1.7	-	84	-0.073	15.14	0.643
94	16.383	0.177	3.25	94	2.1	-	83	-0.073	15.20	0.680
95	16.558	0.175	3.25	94	1.7	-	83	-0.072	14.56	0.356

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	16.736	0.178	3.24	94	2.3	-	83	-0.073	13.95	0.284
97	16.915	0.179	3.24	94	1.8	-	83	-0.072	13.44	0.163
98	17.094	0.179	3.25	94	2.2	-	83	-0.071	13.00	0.106
99	17.275	0.181	3.25	94	1.7	-	83	-0.071	12.78	0.049
100	17.447	0.172	3.25	94	2.1	100	83	-0.069	12.65	0.036
101	17.625	0.178	3.25	94	1.7	-	83	-0.070	12.56	0.029
102	17.804	0.179	3.25	95	1.8	-	83	-0.070	12.44	0.026
103	17.984	0.180	3.25	95	1.7	-	83	-0.069	12.37	0.023
104	18.161	0.177	3.25	95	2.3	-	83	-0.069	12.66	0.026
105	18.338	0.177	3.25	95	2.2	-	83	-0.068	12.59	0.022
106	18.516	0.178	3.25	95	1.9	-	83	-0.068	12.61	0.011
107	18.694	0.178	3.24	95	1.7	-	83	-0.068	12.44	0.015
108	18.874	0.180	3.25	95	2.0	-	83	-0.067	12.40	0.025
109	19.051	0.177	3.25	95	1.9	-	83	-0.068	12.25	0.020
110	19.229	0.178	3.25	95	2.2	100	83	-0.066	11.93	0.024
111	19.406	0.177	3.25	95	1.7	-	83	-0.068	11.69	0.021
112	19.586	0.180	3.25	95	1.8	-	83	-0.066	11.69	0.023
113	19.765	0.179	3.26	96	1.8	-	83	-0.070	11.92	0.026
114	19.946	0.181	3.25	96	1.7	-	83	-0.068	12.16	0.033
115	20.116	0.170	3.25	96	1.7	-	83	-0.069	12.28	0.040
116	20.298	0.182	3.25	96	1.9	-	83	-0.066	12.57	0.046
117	20.477	0.179	3.25	96	2.0	-	83	-0.067	12.84	0.043
118	20.656	0.179	3.25	96	2.1	-	83	-0.067	13.07	0.035
119	20.834	0.178	3.26	96	2.2	-	83	-0.067	12.79	0.054
120	21.011	0.177	3.26	96	1.8	100	83	-0.072	12.60	0.054
121	21.190	0.179	3.25	96	1.7	-	83	-0.070	12.71	0.057
122	21.369	0.179	3.25	96	2.2	-	83	-0.066	12.88	0.054
123	21.545	0.176	3.25	96	1.9	-	83	-0.067	12.86	0.050
124	21.726	0.181	3.26	96	1.8	-	83	-0.071	12.67	0.045
125	21.904	0.178	3.26	96	1.7	-	83	-0.069	12.55	0.039
126	22.083	0.179	3.26	96	2.2	-	83	-0.070	12.25	0.032
127	22.260	0.177	3.27	96	2.0	-	83	-0.067	12.01	0.028

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	22.438	0.178	3.26	96	2.2	-	83	-0.066	11.76	0.021
129	22.617	0.179	3.26	96	1.7	-	83	-0.066	11.48	0.019
130	22.798	0.181	3.26	97	1.7	99	83	-0.067	11.49	0.016
131	22.976	0.178	3.26	97	1.7	-	83	-0.066	11.45	0.019
132	23.156	0.180	3.25	97	1.7	-	83	-0.064	11.46	0.022
133	23.337	0.181	3.26	97	2.2	-	83	-0.063	11.47	0.013
134	23.515	0.178	3.25	97	1.8	-	83	-0.065	11.45	0.022
135	23.692	0.177	3.26	97	2.2	-	83	-0.068	11.57	0.019
136	23.871	0.179	3.26	97	2.2	-	83	-0.065	11.48	0.023
137	24.050	0.179	3.26	97	2.1	-	83	-0.066	11.37	0.018
138	24.231	0.181	3.26	97	1.7	-	83	-0.065	11.40	0.013
139	24.410	0.179	3.26	97	1.9	-	83	-0.067	11.42	0.019
140	24.586	0.176	3.26	97	1.7	100	83	-0.066	11.52	0.020
141	24.765	0.179	3.26	97	2.3	-	83	-0.066	11.59	0.016
142	24.945	0.180	3.26	97	1.7	-	83	-0.065	11.63	0.016
143	25.125	0.180	3.26	97	1.8	-	83	-0.063	11.62	0.016
144	25.304	0.179	3.27	97	1.9	-	83	-0.064	11.65	0.015
145	25.481	0.177	3.26	97	2.0	-	83	-0.064	11.68	0.015
146	25.660	0.179	3.26	97	1.8	-	82	-0.064	11.68	0.016
147	25.841	0.181	3.27	97	1.7	-	82	-0.064	11.72	0.013
148	26.018	0.177	3.26	97	1.8	-	82	-0.063	11.76	0.009
149	26.199	0.181	3.26	97	2.3	-	83	-0.063	11.78	0.015
150	26.376	0.177	3.26	97	1.9	100	83	-0.064	11.82	0.012
151	26.555	0.179	3.26	97	1.7	-	83	-0.063	11.75	0.014
152	26.736	0.181	3.26	97	2.2	-	83	-0.065	11.62	0.011
153	26.914	0.178	3.27	97	2.0	-	83	-0.064	11.70	0.015
154	27.095	0.181	3.27	97	2.0	-	83	-0.064	11.66	0.014
155	27.272	0.177	3.26	97	2.2	-	83	-0.064	11.44	0.012
156	27.451	0.179	3.27	97	2.3	-	83	-0.063	11.42	0.014
157	27.631	0.180	3.27	97	2.1	-	83	-0.065	11.45	0.015
158	27.810	0.179	3.27	97	1.7	-	83	-0.065	11.50	0.010
159	27.990	0.180	3.26	97	2.2	-	83	-0.064	11.51	0.012

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	28.168	0.178	3.26	98	1.8	99	83	-0.065	11.53	0.014
161	28.344	0.176	3.27	98	2.1	-	83	-0.064	11.44	0.011
162	28.526	0.182	3.27	98	2.0	-	83	-0.065	11.45	0.012
163	28.706	0.180	3.27	98	1.9	-	83	-0.063	11.52	0.010
164	28.887	0.181	3.27	98	1.7	-	83	-0.065	11.56	0.012
165	29.065	0.178	3.26	98	2.3	-	83	-0.065	11.61	0.010
166	29.243	0.178	3.27	98	2.2	-	83	-0.064	11.69	0.012
167	29.422	0.179	3.27	98	2.2	-	83	-0.063	11.77	0.009
168	29.602	0.180	3.27	98	1.8	-	83	-0.063	11.87	0.011
169	29.783	0.181	3.27	98	2.3	-	83	-0.063	11.93	0.011
170	29.962	0.179	3.27	98	2.1	100	83	-0.063	11.92	0.014
171	30.138	0.176	3.26	98	2.0	-	83	-0.063	11.94	0.012
172	30.318	0.180	3.25	98	2.0	-	83	-0.064	11.62	0.011
173	30.496	0.178	3.26	98	2.1	-	83	-0.064	11.39	0.013
174	30.679	0.183	3.27	98	2.1	-	83	-0.064	11.36	0.010
175	30.858	0.179	3.26	98	2.3	-	83	-0.064	11.35	0.010
176	31.035	0.177	3.26	98	2.0	-	83	-0.064	11.22	0.008
177	31.215	0.180	3.26	98	1.8	-	83	-0.062	10.90	0.008
178	31.395	0.180	3.26	98	2.0	-	83	-0.066	10.91	0.012
179	31.575	0.180	3.27	98	1.8	-	83	-0.062	10.88	0.009
180	31.755	0.180	3.27	98	2.2	99	83	-0.064	10.89	0.007
181	31.933	0.178	3.27	98	1.7	-	83	-0.064	10.99	0.012
182	32.112	0.179	3.26	98	1.8	-	83	-0.063	11.08	0.014
183	32.292	0.180	3.27	98	2.1	-	83	-0.063	11.02	0.016
184	32.472	0.180	3.26	98	1.8	-	83	-0.064	11.00	0.010
185	32.651	0.179	3.27	99	1.7	-	83	-0.063	10.90	0.011
186	32.830	0.179	3.26	99	2.0	-	83	-0.067	10.95	0.010
187	33.011	0.181	3.26	99	1.8	-	83	-0.067	10.85	0.011
188	33.188	0.177	3.26	99	1.9	-	83	-0.062	10.72	0.008
189	33.368	0.180	3.26	99	1.8	-	83	-0.064	10.47	0.011
190	33.549	0.181	3.27	99	1.9	99	83	-0.063	9.75	0.008
191	33.728	0.179	3.27	99	2.2	-	83	-0.063	9.62	0.008

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	33.905	0.177	3.26	99	2.0	-	83	-0.062	9.70	0.004
193	34.085	0.180	3.26	99	2.2	-	83	-0.061	9.77	0.005
194	34.266	0.181	3.26	99	2.2	-	83	-0.062	9.81	0.007
195	34.447	0.181	3.26	99	2.2	-	83	-0.062	9.87	0.008
196	34.625	0.178	3.26	99	1.8	-	83	-0.062	9.92	0.007
197	34.803	0.178	3.26	99	1.7	-	83	-0.061	9.91	0.006
198	34.983	0.180	3.26	99	1.8	-	83	-0.060	10.03	0.003
199	35.163	0.180	3.26	99	1.8	-	83	-0.059	9.89	0.007
200	35.344	0.181	3.27	99	2.1	99	83	-0.061	9.83	0.006
201	35.523	0.179	3.27	99	2.2	-	83	-0.059	9.94	0.004
202	35.698	0.175	3.26	99	1.8	-	83	-0.061	9.92	0.006
203	35.881	0.183	3.26	99	2.0	-	83	-0.058	9.87	0.006
204	36.061	0.180	3.27	99	2.1	-	83	-0.057	9.89	0.005
205	36.241	0.180	3.27	99	1.9	-	83	-0.059	9.82	0.005
206	36.422	0.181	3.27	99	2.1	-	83	-0.059	9.86	0.006
207	36.601	0.179	3.26	99	1.7	-	83	-0.058	9.76	0.005
208	36.779	0.178	3.27	99	1.9	-	83	-0.058	9.76	0.005
209	36.958	0.179	3.27	99	2.2	-	83	-0.060	9.77	0.005
210	37.140	0.182	3.27	99	1.7	99	83	-0.058	9.79	0.004
211	37.321	0.181	3.27	99	1.8	-	83	-0.057	9.78	0.005
212	37.499	0.178	3.27	99	1.9	-	83	-0.059	9.15	0.006
213	37.677	0.178	3.27	99	2.2	-	83	-0.055	9.08	0.008
214	37.857	0.180	3.27	99	2.2	-	83	-0.057	8.98	0.006
215	38.035	0.178	3.27	99	2.3	-	83	-0.059	8.97	0.003
216	38.216	0.181	3.27	100	2.1	-	83	-0.058	8.90	0.003
217	38.395	0.179	3.27	100	1.7	-	83	-0.058	8.85	0.005
218	38.573	0.178	3.27	100	2.1	-	83	-0.058	8.86	0.007
219	38.753	0.180	3.27	100	1.9	-	83	-0.058	8.75	0.005
220	38.936	0.183	3.27	100	2.1	99	83	-0.058	8.72	0.006
221	39.115	0.179	3.27	100	2.2	-	83	-0.058	8.72	0.003
222	39.298	0.183	3.27	100	2.1	-	83	-0.056	8.71	0.005
223	39.477	0.179	3.27	100	2.1	-	83	-0.058	8.53	0.005

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	39.655	0.178	3.27	100	1.7	-	83	-0.058	8.49	0.004
225	39.835	0.180	3.26	100	1.8	-	83	-0.056	8.53	0.005
226	40.017	0.182	3.27	100	1.9	-	83	-0.057	8.47	0.005
227	40.200	0.183	3.28	100	1.7	-	83	-0.056	8.52	0.005
228	40.376	0.176	3.27	100	1.8	-	83	-0.058	8.49	0.004
229	40.554	0.178	3.27	100	2.1	-	83	-0.058	8.41	0.006
230	40.735	0.181	3.27	100	1.9	99	83	-0.057	8.48	0.006
231	40.916	0.181	3.28	100	2.2	-	82	-0.057	8.49	0.008
232	41.093	0.177	3.27	100	2.1	-	82	-0.057	8.49	0.004
233	41.276	0.183	3.27	100	2.1	-	82	-0.058	8.63	0.006
234	41.456	0.180	3.27	100	1.7	-	82	-0.058	8.64	0.003
235	41.635	0.179	3.28	100	2.2	-	82	-0.056	8.61	0.005
236	41.814	0.179	3.27	100	2.2	-	82	-0.057	8.58	0.006
237	41.992	0.178	3.27	100	1.7	-	82	-0.058	8.67	0.005
238	42.177	0.185	3.28	100	2.0	99	82	-0.056	8.68	0.004
Avg/Tot	42.179	0.177	3.23	92.0	2.0	100	82.8	-0.068	12.51	0.205

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	-0.001		0.57	72	1.7		72
1	0.114	0.115	0.92	71	1.7	-	73
2	0.248	0.134	0.93	71	1.7	-	73
3	0.383	0.135	0.92	71	1.7	-	74
4	0.522	0.139	0.93	71	1.7	-	74
5	0.657	0.135	0.93	72	1.6	-	74
6	0.795	0.138	0.94	72	1.8	-	75
7	0.928	0.133	0.94	72	1.6	-	75
8	1.066	0.138	0.95	72	1.8	-	75
9	1.203	0.137	0.94	72	1.8	-	75
10	1.342	0.139	0.96	72	1.6	98	76
11	1.479	0.137	0.94	72	1.7	-	76
12	1.618	0.139	0.96	73	1.8	-	76
13	1.758	0.140	0.95	73	1.8	-	76
14	1.894	0.136	0.96	74	1.8	-	77
15	2.035	0.141	0.96	74	1.8	-	77
16	2.171	0.136	0.96	74	1.6	-	77
17	2.310	0.139	0.96	74	1.6	-	77
18	2.448	0.138	0.95	75	1.6	-	77
19	2.590	0.142	0.96	75	1.8	-	77
20	2.729	0.139	0.96	75	1.7	100	77
21	2.867	0.138	0.96	75	1.8	-	78
22	3.005	0.138	0.97	75	1.8	-	78
23	3.144	0.139	0.96	76	1.7	-	78
24	3.284	0.140	0.97	76	1.8	-	78
25	3.427	0.143	0.97	76	1.7	-	78
26	3.563	0.136	0.96	76	1.7	-	78
27	3.704	0.141	0.98	77	1.7	-	78
28	3.847	0.143	0.98	77	1.6	-	78
29	3.984	0.137	0.97	77	1.7	-	78
30	4.126	0.142	0.98	77	1.6	101	78
31	4.267	0.141	0.98	78	1.8	-	79

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.407	0.140	0.98	78	1.7	-	79
33	4.550	0.143	0.99	78	1.6	-	79
34	4.691	0.141	0.98	78	1.7	-	79
35	4.830	0.139	0.98	79	1.7	-	79
36	4.974	0.144	0.99	79	1.9	-	79
37	5.117	0.143	0.99	80	1.8	-	79
38	5.258	0.141	0.99	80	1.7	-	79
39	5.400	0.142	0.99	80	1.8	-	79
40	5.544	0.144	1.00	80	1.8	102	79
41	5.686	0.142	0.99	81	1.7	-	79
42	5.825	0.139	0.98	81	1.6	-	79
43	5.970	0.145	0.99	81	1.7	-	79
44	6.114	0.144	1.00	81	1.9	-	79
45	6.257	0.143	1.00	82	1.7	-	80
46	6.400	0.143	0.99	82	1.6	-	80
47	6.542	0.142	1.00	82	1.8	-	80
48	6.687	0.145	1.00	82	1.9	-	80
49	6.831	0.144	1.00	83	1.7	-	80
50	6.974	0.143	1.00	83	1.8	102	80
51	7.117	0.143	0.99	83	1.7	-	80
52	7.261	0.144	1.01	83	1.9	-	80
53	7.403	0.142	1.01	84	1.7	-	80
54	7.549	0.146	1.01	84	1.7	-	80
55	7.693	0.144	1.00	84	1.7	-	80
56	7.836	0.143	1.00	84	1.9	-	80
57	7.981	0.145	1.01	85	1.8	-	80
58	8.126	0.145	1.01	85	1.7	-	80
59	8.270	0.144	1.01	85	1.7	-	80
60	8.414	0.144	1.00	85	1.8	102	80
Avg/Tot	8.415	0.140	0.97	77.6	1.7	101	77.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 99

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	609	646	404	579	526	552.8	834.6
1	603	640	370	571	529	542.4	784.6
2	590	629	338	561	532	530.0	819.1
3	576	615	316	559	534	520.0	877.2
4	563	603	299	560	536	512.2	924.1
5	551	593	286	564	537	506.0	945.6
6	539	584	275	568	538	500.8	940.2
7	529	576	267	572	539	496.5	935.1
8	520	569	260	577	539	492.8	931.2
9	512	562	255	579	539	489.3	928.6
10	505	555	251	583	539	486.6	930.3
11	499	549	249	586	539	484.3	934.9
12	493	543	247	587	538	481.7	937.7
13	488	538	245	592	537	479.9	940.4
14	484	533	245	595	537	478.6	942.4
15	480	529	245	597	536	477.4	943.8
16	477	526	245	600	534	476.4	947.3
17	474	524	246	604	533	476.1	952.1
18	472	521	247	607	532	475.7	955.8
19	470	519	248	610	531	475.4	960.8
20	469	518	249	613	529	475.5	964.6
21	467	517	251	616	528	475.6	965.0
22	467	516	253	618	526	475.8	965.5
23	466	515	255	620	525	476.2	966.5
24	466	515	256	622	524	476.4	969.3
25	466	515	257	625	522	477.0	970.9
26	466	515	259	626	521	477.4	970.4
27	467	516	260	628	519	478.0	972.7
28	468	517	261	630	518	478.7	974.0
29	469	518	263	633	517	479.7	976.4
30	470	519	264	634	515	480.5	978.0
31	472	520	265	636	514	481.3	980.0
32	474	522	265	637	513	482.2	982.8
33	475	523	266	638	512	482.9	983.4
34	478	526	267	640	511	484.1	983.5
35	479	529	267	641	510	485.1	987.0
36	482	531	268	642	509	486.1	990.1
37	484	533	268	643	508	487.3	991.5
38	486	536	269	645	507	488.4	993.9
39	489	538	269	645	506	489.4	994.3
40	491	541	270	647	505	491.0	992.4
41	494	544	272	647	505	492.4	992.9
42	497	547	274	648	504	493.8	993.7
43	500	549	275	648	503	495.1	994.1
44	503	552	276	647	503	496.2	992.3
45	506	554	277	647	502	497.4	991.7
46	509	557	279	647	502	498.7	992.4
47	512	560	280	647	502	499.9	995.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 99

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	514	562	281	646	501	500.7	997.0
49	517	563	281	646	501	501.7	994.8
50	520	565	282	645	501	502.7	993.7
51	523	567	283	645	501	503.6	992.6
52	525	568	283	645	501	504.4	994.5
53	528	569	284	645	500	505.3	995.4
54	530	571	284	645	500	506.1	997.1
55	533	572	285	645	500	506.9	997.8
56	536	573	286	645	501	507.9	994.0
57	538	573	286	645	501	508.7	994.0
58	541	575	287	645	501	509.6	995.2
59	543	576	287	645	501	510.4	992.8
60	546	577	287	645	501	511.2	989.9
61	548	578	286	644	501	511.7	984.9
62	551	580	286	645	502	512.5	981.9
63	553	581	286	645	502	513.3	977.7
64	555	583	285	644	502	513.9	973.7
65	557	585	285	644	502	514.6	968.5
66	559	586	285	643	503	515.2	963.6
67	561	588	285	643	503	515.8	960.2
68	563	589	285	643	503	516.5	958.1
69	564	591	286	642	503	517.3	959.9
70	566	592	288	642	503	518.1	964.9
71	569	592	290	641	503	518.9	970.1
72	571	592	292	641	503	519.8	975.1
73	575	591	292	640	503	520.2	978.4
74	577	591	293	639	503	520.7	978.7
75	581	591	294	637	504	521.2	976.3
76	584	591	294	635	504	521.6	972.1
77	587	590	296	633	504	522.0	969.9
78	591	589	297	630	505	522.2	968.6
79	594	588	298	627	505	522.5	967.9
80	598	587	300	625	505	522.9	967.0
81	601	586	301	622	506	523.0	966.4
82	604	585	302	620	506	523.4	965.8
83	606	584	303	617	507	523.5	963.8
84	609	583	304	615	507	523.6	962.9
85	611	582	305	613	508	523.8	961.8
86	613	582	306	611	509	524.1	963.8
87	613	582	305	611	509	524.0	968.0
88	614	582	304	611	510	523.9	970.7
89	614	582	303	609	511	523.7	964.6
90	613	582	302	609	511	523.5	962.7
91	613	582	301	609	512	523.5	966.9
92	612	583	301	611	513	523.9	970.1
93	612	584	300	613	514	524.4	969.6
94	612	585	300	615	514	525.2	971.1
95	611	586	302	617	515	526.3	970.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 99

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	611	587	303	619	516	527.0	964.5
97	611	586	303	620	516	527.1	956.8
98	610	585	304	619	517	526.9	951.5
99	609	584	305	618	518	526.7	946.0
100	608	583	307	616	518	526.5	940.6
101	607	583	308	613	519	526.1	934.8
102	607	584	309	610	520	525.9	931.9
103	607	585	311	606	520	525.7	928.2
104	606	586	315	602	521	526.2	920.7
105	606	589	321	598	522	527.0	909.9
106	607	591	324	593	523	527.5	903.0
107	607	593	326	588	524	527.4	901.2
108	607	594	327	583	524	527.0	902.7
109	607	593	327	580	525	526.4	906.6
110	607	592	329	577	526	525.9	908.7
111	607	590	327	574	527	524.8	906.9
112	606	588	325	570	527	523.4	910.5
113	606	586	323	569	528	522.2	916.9
114	605	584	320	567	529	521.1	925.6
115	605	583	319	566	529	520.3	932.3
116	605	582	320	565	530	520.1	934.5
117	606	581	323	565	530	520.9	931.6
118	606	579	326	565	531	521.5	925.1
119	607	578	325	564	531	521.1	930.4
120	608	578	325	564	532	521.2	934.6
121	607	577	325	563	533	520.9	936.7
122	607	578	326	563	533	521.4	933.9
123	607	578	328	563	534	521.9	931.4
124	607	578	330	563	535	522.3	920.5
125	606	579	334	561	535	523.1	905.8
126	606	580	335	558	536	522.9	889.6
127	605	581	336	555	537	522.5	876.2
128	603	582	334	552	537	521.6	868.0
129	601	583	331	548	538	520.1	860.7
130	599	584	329	545	539	518.9	854.9
131	597	584	326	541	540	517.5	854.2
132	596	584	324	538	541	516.4	856.0
133	594	584	322	536	541	515.3	856.1
134	592	583	321	534	542	514.4	858.4
135	591	583	320	532	543	513.7	861.8
136	589	583	319	531	544	513.1	865.6
137	587	582	318	530	545	512.4	874.8
138	585	581	318	529	546	511.8	883.2
139	583	581	317	529	547	511.5	886.0
140	581	581	317	529	548	511.1	885.5
141	580	581	315	528	549	510.4	875.7
142	578	581	314	528	550	510.1	851.7
143	577	582	314	525	551	509.6	827.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 99

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	575	583	314	522	552	509.3	809.3
145	574	585	315	519	553	509.1	798.5
146	573	587	316	516	554	509.0	794.0
147	572	588	316	514	555	509.0	792.6
148	571	590	317	510	556	508.7	795.2
149	570	592	319	508	557	509.0	804.9
150	568	594	320	506	558	509.3	812.9
151	568	596	320	505	559	509.4	818.8
152	567	598	321	504	560	509.8	821.1
153	566	599	321	504	561	510.1	822.1
154	565	601	322	503	562	510.3	821.8
155	564	602	324	502	563	510.9	824.1
156	563	603	324	502	563	510.9	821.1
157	562	603	324	501	564	511.0	816.2
158	561	604	324	500	565	510.9	815.9
159	561	605	324	499	566	510.7	813.2
160	560	606	323	498	566	510.6	813.6
161	559	607	323	497	567	510.5	814.7
162	558	608	322	497	568	510.4	816.6
163	557	609	322	497	568	510.5	818.3
164	556	610	322	497	569	510.7	819.4
165	555	611	321	497	569	510.6	819.3
166	554	613	321	496	570	510.5	819.0
167	552	615	320	496	570	510.4	818.9
168	551	616	320	496	570	510.7	819.9
169	550	618	322	496	571	511.1	819.4
170	549	619	322	497	571	511.5	820.0
171	548	620	323	497	571	511.7	822.0
172	547	620	324	498	571	512.0	825.9
173	546	619	325	499	571	512.2	830.6
174	547	617	328	499	571	512.4	829.6
175	547	615	331	499	571	512.6	823.7
176	547	612	335	498	571	512.8	811.1
177	548	609	338	497	571	512.6	796.7
178	548	607	339	496	571	512.1	791.5
179	549	604	339	494	571	511.5	785.8
180	549	602	338	492	572	510.5	784.0
181	550	599	337	491	572	509.8	787.1
182	551	597	337	491	572	509.3	795.0
183	552	594	337	491	572	509.1	798.6
184	552	591	336	491	572	508.4	800.4
185	553	589	335	491	572	508.1	804.8
186	553	587	335	491	573	507.6	807.3
187	554	584	334	491	573	507.3	806.5
188	554	582	333	491	573	506.5	803.6
189	554	581	330	490	573	505.6	795.1
190	554	578	326	489	574	504.1	782.7
191	553	576	323	488	574	502.7	772.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 99

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	552	574	321	485	574	501.2	767.3
193	551	571	319	483	574	499.7	767.5
194	550	569	319	481	574	498.4	769.9
195	549	567	318	478	574	497.2	772.1
196	549	566	317	476	573	496.1	772.9
197	548	564	316	474	573	495.1	771.5
198	548	563	316	472	573	494.3	768.1
199	548	561	316	469	573	493.3	762.8
200	548	560	316	466	572	492.4	757.8
201	547	559	315	464	572	491.5	752.1
202	547	558	316	461	572	490.9	747.3
203	547	557	315	459	572	490.0	744.1
204	547	556	315	457	572	489.3	740.6
205	547	554	315	454	572	488.6	737.8
206	548	553	315	452	572	487.9	735.0
207	548	552	315	450	572	487.3	731.5
208	548	551	315	448	573	486.7	728.6
209	548	550	314	446	573	486.1	725.9
210	547	549	314	444	573	485.5	723.0
211	547	548	314	442	574	484.9	719.5
212	547	547	313	440	574	484.2	714.4
213	547	546	312	437	574	483.2	712.8
214	546	544	310	436	575	482.0	712.4
215	544	542	309	434	575	480.7	714.1
216	543	540	307	432	575	479.5	714.3
217	541	538	305	431	576	478.1	715.0
218	539	536	304	430	576	476.7	715.6
219	536	534	302	429	576	475.2	714.8
220	534	531	301	428	576	473.9	713.1
221	532	529	299	426	576	472.6	710.6
222	529	527	298	425	576	471.2	707.3
223	527	525	297	424	576	469.7	704.6
224	525	523	295	422	577	468.4	701.7
225	522	522	294	421	576	466.9	697.5
226	520	520	293	419	576	465.7	693.7
227	518	518	292	417	576	464.3	690.3
228	516	517	291	416	576	463.0	687.2
229	514	515	289	415	576	461.6	684.4
230	512	514	288	413	576	460.3	683.3
231	510	513	286	411	575	459.1	682.8
232	508	512	286	410	575	458.1	682.8
233	507	510	285	409	575	457.1	683.6
234	506	509	284	408	574	456.2	684.9
235	505	508	283	407	574	455.3	685.6
236	504	507	283	406	574	454.6	684.4
237	503	506	282	405	573	453.9	684.2
238	502	505	282	405	573	453.4	683.8
Average	552.4	570.2	302.7	550.5	539.9	503.1	873.5

LAB SAMPLE DATA - ASTM E2515

Client: Blaze King
Model: KE40
Run #: 3

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G00943	240.1	245.2	5.1
	B	G00944	238.5	243.6	5.1
	C - 1st Hour	G00945	239.4	241.3	1.9
	Amb	G00946	239.9	240.4	0.5
Probes	**A**	10A	116644.6	116645.7	1.1
	B	10B	117752.6	117753.6	1.0
	C - 1st Hour	10C	116727.7	116728.1	0.4
O-rings	**A**	10A	3360.7	3361.4	0.7
	B	10B	3570.7	3571.1	0.4
	C - 1st Hour	10C	3366.4	3367.0	0.6

Placed in Dessicator on:	3/13/2024

Balance Audit (mg):		200.0		200.0					
		Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**	245.2	3/15 14:30	245.2	3/18 9:30				
	B	243.5	3/15 14:30	243.6	3/18 9:30				
	C - 1st Hour	241.2	3/15 14:30	241.3	3/18 9:30				
	Amb	240.1	3/15 14:30	240.4	3/18 9:30				
Probes	**A**	116645.8	3/15 14:30	116645.7	3/18 9:30				
	B	117753.7	3/15 14:30	117753.6	3/18 9:30				
	C - 1st Hour	116728.3	3/15 14:30	116728.1	3/18 9:30				
O-Rings	**A**	3361.4	3/15 14:30	3361.4	3/18 9:30				
	B	3571.2	3/15 14:30	3571.1	3/18 9:30				
	C - 1st Hour	3366.9	3/15 14:30	3367.0	3/18 9:30				

Train A Aggregate, mg:	**6.9**
Train B Aggregate, mg:	**6.5**
Train C Aggregate, mg:	**2.9**
Ambient, mg:	**0.5**

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 3 Test Date: 3/13/24

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Knob fully open
Targeted Burn Category: IV

Preburn Notes

Time	Notes
	-None-

Test Notes

Test Burn Start Time: 11:26 Test Fuel Loaded by: 20 seconds
Door Closed: 30 seconds Air Control Set at: 0 seconds
Other Loading Notes: Bypass open @ 0 sec, closed @ 30 sec, fan set to high @ 0 sec

Time	Notes
	-None-

Test Burn End Time: 15:24

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 16.98 CO (%): 4.300
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	09:28	09:29	09:30	16:46	16:47	16:48
CO_2	0.08	17.13	10.17	0.12	17.17	10.13
CO	0.013	4.340	2.561	-0.030	4.316	2.496

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature: Date: 3/18/24

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 3 Test Date: 3/13/24

Test Fuel Front/Side View

Test Fuel Iso View

Test Fuel Loaded in Stove

Air Setting

Technician Signature: Date: 3/18/24

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 4 Data Summary

Client:	Blaze King
Model:	KE40
Job #:	24-274
Tracking #:	184
Test Date:	3/13/2024

Techician Signature

3/20/2024
Date

WOODSTOVE FUEL DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	19.00	24.5	2x4	19.00	19.7
2x4	19.00	20.2	2x4	19.00	23.6
2x4	19.00	22.8	2x4	19.00	24.5
2x4	19.00	23.9	2x4	19.00	21.8
2x4	19.00	24.8			
2x4	19.00	24.0			1.6
2x4	19.00	22.5			
2x4	19.00	19.1			
Total Fuel Weight (lbs):		25.73	Average Moisture (%DB):		21.0

Firebox Volume (ft^3):	4.35
Total 2x4 Crib Weight, with spacers (lbs):	0.00
Total 4x4 Crib Weight, with spacers (lbs):	28.85
Total Wet Fuel Weight, with spacers (lbs):	28.85

Coal Bed Range (20-25%):
Min (lbs): 5.77
Max (lbs): 7.21

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	19.00	4.52	23.5	24.5	22.8	3.66
4x4	19.00	4.52	22.5	23.5	24.5	3.66
4x4	19.00	4.81	24.4	24.9	23.5	3.87
4x4	19.00	4.41	24.8	24.5	19.9	3.58
4x4	19.00	4.30	24.6	22.1	20.2	3.52
4x4	19.00	4.54	23.3	23.2	24.5	3.67
					Total Dry Weight, no spacers (lbs):	21.96
					Total Dry Weight, with spacers (lbs):	23.40

Spacer Moisture Readings (%DB)

21.4	21.1	20.9					
20.9	21.0	20.6					
20.7	20.9						
19.8	22.1						
20.4	22.1						
21.4	22.0						
22.1	22.3						
23.1	20.9						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	27.2	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	6.63	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Burn Rate (kg/hr):	1.59

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	34.047	73.682	71.917	8.689
Average Gas Velocity in Dilution Tunnel (ft/sec)	19.6			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	13235.4			
Average Gas Meter Temperature (°F)	66.1	87.7	93.0	79.0
Total Sample Volume (dscf)	35.034	72.787	70.407	8.670
Average Tunnel Temperature (°F)	87.7			
Total Time of Test (min)	400			
Total Particulate Catch (mg)	0.1	6.7	7.2	3.5
Particulate Concentration, dry-standard (g/dscf)	0.0000029	0.0000920	0.0001023	0.0004037
Total PM Emissions (g)	0.25	7.87	8.77	5.31
Particulate Emission Rate (g/hr)	0.04	1.18	1.32	5.31
Emissions Factor (g/kg)	-	0.74	0.83	-
Difference from Average Total Particulate Emissions (g)	-	0.45	0.45	-
Difference from Average Total Particulate Emissions (%)	-	5.4%	5.4%	
Difference from Average Emissions Factor (g/kg)	-	0.04	0.04	-

Final Average Results	
Total Particulate Emissions (g)	8.32
Particulate Emission Rate (g/hr)	1.25
Emissions Factor (g/kg)	0.78
HHV Efficiency (%)	81.1%
LHV Efficiency (%)	87.6%
CO Emissions (g/min)	0.25

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	74.7	OK
Face Velocity	< 30 ft/min	10.2	OK
Leakage Rate	Less than 4% of average sample rate	0 cfm	OK
Ambient Temp	55-90 °F	Min:64.2/Max:67.5	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	47.8	OK

B415.1 Efficiency Results

Manufacturer:	Blaze King
Model:	KE40
Date:	03/13/24
Run:	4
Control #:	24-274
Test Duration:	400
Output Category:	3

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	81.1%	87.6%
Combustion Efficiency	99.5%	99.5%
Heat Transfer Efficiency	81.5%	88.1%

Output Rate (kJ/h)	25,569	24,255	**(Btu/h)**
Burn Rate (kg/h)	1.59	3.51	**(lb/h)**
Input (kJ/h)	31,542	29,921	**(Btu/h)**

Test Load Weight (dry kg)	10.61	23.40	**dry lb**
MC wet (%)	18.96		
MC dry (%)	23.40		
Particulate (g)	8.32		
CO (g)	99		
Test Duration (h)	6.67		

Emissions	**Particulate**	**CO**
g/MJ Output	0.05	0.58
g/kg Dry Fuel	0.78	9.32
g/h	1.25	14.84
g/min	0.02	0.25
lb/MM Btu Output	0.11	1.35

Air/Fuel Ratio (A/F)	10.53

VERSION: **2.4** **4/15/2010**

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	Blaze King	Job #:	24-274
Model:	KE40	Tracking #:	184
Run #:	4	Technician:	AK
Test Start Time:	19:14	Date:	3/13/2024

Total Sampling Time (min):	400	
Recording Interval (min):	1	
Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.005	(B)
Meter Box γ Factor:	1.004	(C)
Meter Box γ Factor:	1.013	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	30.27	30.32	30.30
Relative Humidity (%)	25.1	25.5	
Room Air Velocity (ft/min)	<50	<50	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		34.047	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	3/8/2024
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test			
(A)	0.001	0.000	cfm @	-7	in. Hg
(B)	0.000	0.000	cfm @	-7	in. Hg
(C)	0.000	0.000	cfm @	-9	in. Hg
(Ambient)	0.000	0.000	cfm @	-12	in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.076	88
2	0.096	88
3	0.098	88
4	0.070	88
5	0.074	88
6	0.098	88
7	0.098	88
8	0.074	88
Center	0.098	88

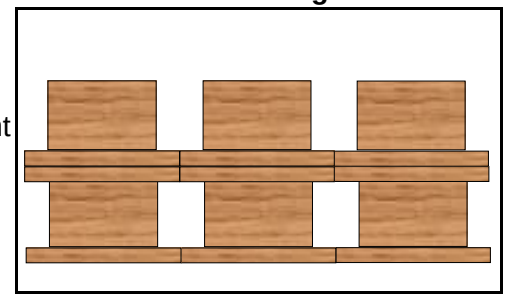
Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	6	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.1963	ft^2
V_{strav}:	19.58	ft/sec
V_{scent}:	21.02	ft/sec
F_p:	0.932	[ratio]
Initial Tunnel Flow:	220.4	scf/min

Static Pressure: -0.170 in. H_2O

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Front



Firebox Back

Firebox Side View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	23.4

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Recording Interval (min): 1
Run Time (min): 93

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	13.83	-0.069	458	482	253	546	465	440.7	419	72
1	13.71	-0.069	457	482	254	544	465	440.5	420	72
2	13.56	-0.071	457	483	256	543	465	440.5	421	72
3	13.44	-0.070	457	483	258	542	465	441.1	422	72
4	13.30	-0.070	458	484	261	542	465	442.0	421	72
5	13.15	-0.073	459	485	264	543	465	443.2	422	72
6	13.00	-0.071	461	487	267	544	466	444.7	424	72
7	12.85	-0.072	463	488	270	545	466	446.4	424	72
8	12.69	-0.072	466	490	273	546	467	448.3	428	72
9	12.53	-0.074	469	492	276	547	467	450.4	430	72
10	12.35	-0.072	473	494	279	549	468	452.8	434	72
11	12.18	-0.074	477	497	282	553	469	455.4	438	72
12	12.02	-0.072	481	500	285	556	469	458.2	441	72
13	11.83	-0.074	485	504	289	560	470	461.6	442	72
14	11.64	-0.070	488	511	293	565	471	465.5	442	72
15	11.47	-0.073	492	521	296	570	472	470.0	447	72
16	11.29	-0.074	495	534	298	577	473	475.2	448	72
17	11.11	-0.072	497	548	301	583	473	480.2	451	72
18	10.92	-0.074	499	560	303	588	474	484.9	453	72
19	10.75	-0.071	502	571	306	594	475	489.5	454	72
20	10.56	-0.074	504	581	309	600	475	493.7	454	72
21	10.39	-0.076	506	589	312	604	476	497.4	453	72
22	10.21	-0.073	509	596	315	608	476	500.6	454	72
23	10.05	-0.075	511	603	317	612	476	503.7	454	72
24	9.87	-0.074	513	609	320	615	476	506.5	454	72
25	9.70	-0.074	514	614	322	618	477	509.0	453	72
26	9.55	-0.075	516	618	324	621	477	511.2	449	72
27	9.37	-0.074	518	621	325	623	477	512.7	449	72
28	9.22	-0.071	520	623	327	624	477	514.2	446	72
29	9.05	-0.071	521	625	329	626	477	515.4	447	72
30	8.92	-0.064	522	625	334	630	477	517.5	412	72
31	8.77	-0.062	522	620	341	635	477	518.8	368	72
32	8.67	-0.057	520	612	342	636	477	517.2	336	72
33	8.56	-0.054	517	602	339	635	477	513.9	310	72
34	8.47	-0.051	513	591	335	631	476	509.4	288	72
35	8.39	-0.051	509	581	332	626	476	504.7	271	72
36	8.32	-0.048	505	570	329	620	475	499.8	259	72
37	8.26	-0.047	500	559	327	614	474	494.6	249	72
38	8.20	-0.048	494	548	324	607	473	489.2	241	72
39	8.14	-0.044	489	538	321	601	472	484.1	233	72
40	8.09	-0.044	483	528	318	595	471	479.0	227	72
41	8.05	-0.042	477	519	316	590	470	474.3	221	72
42	8.00	-0.043	472	509	313	586	468	469.5	217	72
43	7.93	-0.042	466	501	310	581	467	465.0	213	72
44	7.89	-0.041	461	494	306	576	466	460.6	208	72

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Recording Interval (min): 1
Run Time (min): 93

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	7.84	-0.041	456	486	303	571	464	456.1	206	71
46	7.81	-0.037	451	478	300	566	463	451.6	203	71
47	7.77	-0.041	446	471	297	561	461	447.4	201	71
48	7.73	-0.038	441	464	294	557	460	443.1	200	71
49	7.68	-0.038	437	458	290	553	459	439.2	200	70
50	7.63	-0.037	432	451	287	550	457	435.4	202	70
51	7.59	-0.038	428	445	284	548	456	432.2	203	69
52	7.55	-0.039	424	439	281	549	455	429.6	208	69
53	7.50	-0.040	420	433	279	553	454	427.8	214	69
54	7.46	-0.040	416	428	277	557	454	426.3	220	69
55	7.41	-0.041	415	424	277	559	453	425.6	232	68
56	7.38	-0.040	412	421	275	560	453	424.0	235	68
57	7.33	-0.039	410	417	274	559	453	422.5	233	69
58	7.30	-0.042	408	414	272	556	453	420.4	235	68
59	7.27	-0.041	405	411	271	553	453	418.4	235	69
60	7.23	-0.042	404	408	269	549	453	416.5	236	69
61	7.19	-0.042	402	405	268	544	453	414.5	239	69
62	7.15	-0.042	400	402	268	539	454	412.7	239	69
63	7.12	-0.041	399	400	268	534	455	411.0	242	68
64	7.09	-0.042	398	398	267	528	456	409.3	243	68
65	7.06	-0.041	397	397	267	522	457	407.9	244	68
66	7.02	-0.041	396	396	268	516	458	406.5	245	68
67	6.99	-0.042	395	395	268	510	459	405.2	243	68
68	6.95	-0.041	394	395	268	503	460	403.9	242	68
69	6.93	-0.040	394	394	268	497	461	402.6	243	68
70	6.89	-0.042	393	394	268	491	462	401.5	243	68
71	6.86	-0.041	393	394	267	484	463	400.2	244	68
72	6.82	-0.041	392	393	267	478	465	399.0	243	68
73	6.79	-0.043	392	393	268	472	466	398.1	242	67
74	6.76	-0.041	391	392	268	467	467	397.1	244	67
75	6.73	-0.041	391	392	268	462	469	396.1	243	67
76	6.70	-0.041	390	391	268	457	470	395.3	242	67
77	6.67	-0.041	390	391	268	452	471	394.5	241	67
78	6.64	-0.043	390	391	268	448	473	393.9	242	67
79	6.61	-0.038	390	391	269	444	474	393.6	241	67
80	6.57	-0.041	390	391	270	440	476	393.3	240	67
81	6.55	-0.041	390	391	270	437	477	393.0	241	67
82	6.50	-0.040	391	391	270	433	478	392.7	241	67
83	6.47	-0.040	391	391	272	430	480	392.6	241	67
84	6.45	-0.040	391	392	273	427	482	392.8	241	67
85	6.40	-0.039	392	392	274	425	485	393.2	240	67
86	6.37	-0.041	392	392	275	423	488	393.9	241	67
87	6.32	-0.040	393	392	276	421	491	394.6	242	67
88	6.29	-0.040	394	392	277	419	495	395.4	241	67
89	6.25	-0.039	395	393	278	418	498	396.3	242	67

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Recording Interval (min): 1
Run Time (min): 93

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
90	6.23	-0.041	396	393	279	417	502	397.1	241	67
91	6.19	-0.041	397	393	279	416	505	398.0	241	67
92	6.15	-0.040	398	393	279	415	509	398.8	240	67
93	6.11	-0.040	399	393	278	415	512	399.3	241	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.099	0.93	76	0.9		28.87		103	282	72	67
1	0.170	0.170	0.098	2.98	75	1.2	-	28.77	-0.10	125	308	72	67
2	0.342	0.172	0.098	3.02	75	1.2	-	28.68	-0.09	104	277	72	67
3	0.511	0.169	0.097	3.05	75	1.2	-	28.61	-0.07	96	267	72	66
4	0.683	0.172	0.099	3.07	75	1.2	-	28.53	-0.08	93	263	73	66
5	0.853	0.170	0.098	3.09	75	1.2	-	28.45	-0.08	92	264	73	66
6	1.028	0.175	0.098	3.11	75	1.2	-	28.37	-0.08	91	266	73	66
7	1.202	0.174	0.099	3.13	75	1.2	-	28.29	-0.08	91	268	73	66
8	1.372	0.170	0.099	3.13	76	1.2	-	28.21	-0.08	90	271	73	66
9	1.543	0.171	0.098	3.16	76	1.2	-	28.13	-0.08	90	272	73	66
10	1.722	0.179	0.098	3.17	76	1.2	96	28.05	-0.08	90	275	73	66
11	1.896	0.174	0.100	3.19	76	1.2	-	27.97	-0.08	90	275	73	66
12	2.068	0.172	0.099	3.21	76	1.2	-	27.88	-0.09	90	277	73	66
13	2.242	0.174	0.099	3.22	76	1.2	-	27.80	-0.08	90	279	73	66
14	2.422	0.180	0.097	3.22	76	1.2	-	27.70	-0.10	90	281	73	66
15	2.598	0.176	0.099	3.23	76	1.2	-	27.60	-0.10	90	286	73	66
16	2.769	0.171	0.099	3.25	76	1.2	-	27.49	-0.11	91	290	73	66
17	2.949	0.180	0.098	3.26	77	1.2	-	27.38	-0.11	91	295	73	66
18	3.126	0.177	0.098	3.27	77	1.2	-	27.28	-0.10	91	297	73	66
19	3.305	0.179	0.098	3.28	77	1.2	-	27.16	-0.12	92	303	73	66
20	3.478	0.173	0.098	3.28	77	1.2	98	27.04	-0.12	92	308	73	66
21	3.655	0.177	0.099	3.29	77	1.2	-	26.93	-0.11	92	312	73	66
22	3.838	0.183	0.099	3.30	78	1.2	-	26.81	-0.12	92	315	73	66
23	4.015	0.177	0.099	3.31	78	1.2	-	26.69	-0.12	93	320	73	66
24	4.197	0.182	0.100	3.31	78	1.2	-	26.58	-0.11	93	322	73	66
25	4.373	0.176	0.098	3.32	79	1.2	-	26.46	-0.12	93	324	74	66
26	4.551	0.178	0.099	3.32	79	1.2	-	26.35	-0.11	93	328	74	66
27	4.729	0.178	0.099	3.33	79	1.2	-	26.23	-0.12	94	328	74	66
28	4.909	0.180	0.099	3.34	79	1.2	-	26.10	-0.13	94	329	74	65
29	5.088	0.179	0.099	3.34	79	1.2	-	25.98	-0.12	94	330	74	66
30	5.267	0.179	0.098	3.35	80	1.2	99	25.86	-0.12	94	332	74	66
31	5.447	0.180	0.098	3.37	80	1.2	-	25.74	-0.12	94	333	74	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	5.631	0.184	0.098	3.36	80	1.2	-	25.61	-0.13	94	335	74	66
33	5.812	0.181	0.099	3.36	80	1.2	-	25.49	-0.12	94	334	74	66
34	5.993	0.181	0.098	3.37	81	1.2	-	25.37	-0.12	94	335	74	65
35	6.172	0.179	0.099	3.38	81	1.2	-	25.26	-0.11	94	336	74	65
36	6.351	0.179	0.098	3.37	81	1.2	-	25.14	-0.12	94	334	74	65
37	6.530	0.179	0.098	3.38	81	1.2	-	25.02	-0.12	94	334	74	65
38	6.716	0.186	0.098	3.38	81	1.2	-	24.90	-0.12	94	333	74	65
39	6.894	0.178	0.098	3.39	82	1.2	-	24.78	-0.12	94	334	74	65
40	7.075	0.181	0.098	3.39	82	1.2	100	24.66	-0.12	94	335	74	65
41	7.255	0.180	0.098	3.39	82	1.2	-	24.54	-0.12	95	335	74	65
42	7.435	0.180	0.098	3.40	82	1.2	-	24.41	-0.13	95	335	74	64
43	7.619	0.184	0.098	3.39	82	1.2	-	24.30	-0.11	95	337	74	64
44	7.803	0.184	0.099	3.40	82	1.2	-	24.18	-0.12	95	337	74	64
45	7.979	0.176	0.099	3.40	83	1.2	-	24.06	-0.12	95	337	74	64
46	8.164	0.185	0.097	3.41	83	1.2	-	23.96	-0.10	95	337	74	65
47	8.343	0.179	0.098	3.40	83	1.2	-	23.86	-0.10	94	336	74	65
48	8.529	0.186	0.099	3.41	83	1.3	-	23.75	-0.11	95	335	74	65
49	8.708	0.179	0.099	3.40	83	1.2	-	23.64	-0.11	95	336	74	65
50	8.891	0.183	0.099	3.40	83	1.2	100	23.53	-0.11	94	337	73	65
51	9.071	0.180	0.097	3.43	84	1.2	-	23.41	-0.12	94	338	73	66
52	9.254	0.183	0.098	3.42	84	1.2	-	23.29	-0.12	94	336	73	66
53	9.435	0.181	0.098	3.41	84	1.3	-	23.18	-0.11	95	336	73	66
54	9.619	0.184	0.098	3.42	84	1.2	-	23.07	-0.11	94	339	73	66
55	9.801	0.182	0.096	3.42	84	1.2	-	22.94	-0.13	94	338	73	66
56	9.982	0.181	0.099	3.42	84	1.3	-	22.83	-0.11	94	340	73	66
57	10.164	0.182	0.100	3.42	84	1.3	-	22.72	-0.11	95	340	73	66
58	10.348	0.184	0.098	3.43	85	1.2	-	22.59	-0.13	95	340	73	66
59	10.529	0.181	0.098	3.43	85	1.2	-	22.49	-0.10	95	339	73	66
60	10.715	0.186	0.099	3.43	85	1.2	100	22.36	-0.13	95	340	73	66
61	10.897	0.182	0.098	3.43	85	1.2	-	22.25	-0.11	95	340	73	66
62	11.077	0.180	0.098	3.44	85	1.3	-	22.14	-0.11	95	340	73	66
63	11.260	0.183	0.099	3.44	85	1.2	-	22.01	-0.13	95	339	73	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	11.446	0.186	0.098	3.44	85	1.2	-	21.90	-0.11	94	338	73	65
65	11.630	0.184	0.097	3.43	85	1.2	-	21.80	-0.10	94	337	73	65
66	11.813	0.183	0.097	3.44	85	1.2	-	21.68	-0.12	94	338	73	66
67	11.996	0.183	0.097	3.45	86	1.2	-	21.57	-0.11	94	336	73	66
68	12.177	0.181	0.099	3.44	86	1.2	-	21.46	-0.11	94	338	73	66
69	12.363	0.186	0.098	3.44	86	1.2	-	21.35	-0.11	94	337	74	66
70	12.544	0.181	0.099	3.45	86	1.3	100	21.23	-0.12	94	338	74	66
71	12.730	0.186	0.098	3.45	86	1.2	-	21.10	-0.13	94	338	74	67
72	12.916	0.186	0.099	3.45	86	1.3	-	21.01	-0.09	94	338	74	67
73	13.099	0.183	0.098	3.45	86	1.2	-	20.88	-0.13	94	338	74	67
74	13.282	0.183	0.097	3.44	86	1.2	-	20.76	-0.12	94	336	74	67
75	13.462	0.180	0.098	3.44	86	1.2	-	20.65	-0.11	94	335	74	67
76	13.645	0.183	0.097	3.45	87	1.3	-	20.55	-0.10	94	333	74	67
77	13.833	0.188	0.096	3.45	87	1.2	-	20.43	-0.12	94	334	74	67
78	14.016	0.183	0.096	3.46	87	1.3	-	20.32	-0.11	94	334	74	67
79	14.199	0.183	0.098	3.47	87	1.3	-	20.21	-0.11	94	332	74	67
80	14.383	0.184	0.097	3.46	87	1.2	101	20.10	-0.11	94	333	74	67
81	14.566	0.183	0.098	3.48	87	1.3	-	19.99	-0.11	94	331	74	67
82	14.751	0.185	0.096	3.46	87	1.3	-	19.88	-0.11	94	329	74	67
83	14.935	0.184	0.097	3.46	87	1.2	-	19.77	-0.11	94	328	74	67
84	15.120	0.185	0.096	3.47	87	1.3	-	19.68	-0.09	93	327	74	67
85	15.308	0.188	0.098	3.46	87	1.3	-	19.57	-0.11	93	326	74	67
86	15.489	0.181	0.098	3.46	87	1.2	-	19.47	-0.10	93	324	74	67
87	15.671	0.182	0.097	3.47	88	1.2	-	19.37	-0.10	93	323	74	68
88	15.858	0.187	0.098	3.47	88	1.2	-	19.27	-0.10	92	321	74	67
89	16.043	0.185	0.097	3.47	88	1.2	-	19.18	-0.09	92	321	74	67
90	16.225	0.182	0.097	3.47	88	1.3	101	19.07	-0.11	93	320	74	67
91	16.415	0.190	0.097	3.48	88	1.2	-	18.97	-0.10	92	319	74	67
92	16.596	0.181	0.097	3.47	88	1.3	-	18.87	-0.10	92	319	74	67
93	16.779	0.183	0.098	3.47	88	1.3	-	18.77	-0.10	92	318	74	67
94	16.966	0.187	0.098	3.48	88	1.2	-	18.68	-0.09	92	319	74	68
95	17.146	0.180	0.097	3.48	88	1.2	-	18.59	-0.09	92	318	74	68

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	17.336	0.190	0.097	3.46	88	1.2	-	18.49	-0.10	92	317	74	67
97	17.519	0.183	0.098	3.48	88	1.2	-	18.42	-0.07	92	316	74	68
98	17.707	0.188	0.097	3.46	88	1.3	-	18.31	-0.11	92	315	74	68
99	17.892	0.185	0.097	3.47	88	1.2	-	18.22	-0.09	92	315	74	67
100	18.071	0.179	0.097	3.47	88	1.3	101	18.11	-0.11	92	314	74	67
101	18.259	0.188	0.096	3.46	88	1.2	-	18.01	-0.10	92	315	74	67
102	18.441	0.182	0.098	3.48	88	1.2	-	17.93	-0.08	92	313	74	67
103	18.629	0.188	0.098	3.47	88	1.3	-	17.83	-0.10	91	314	74	67
104	18.813	0.184	0.098	3.48	89	1.3	-	17.73	-0.10	92	313	74	67
105	19.000	0.187	0.098	3.48	89	1.2	-	17.64	-0.09	91	314	74	67
106	19.186	0.186	0.097	3.48	89	1.3	-	17.54	-0.10	91	316	74	67
107	19.365	0.179	0.097	3.48	89	1.2	-	17.45	-0.09	91	316	74	67
108	19.549	0.184	0.098	3.47	89	1.2	-	17.34	-0.11	91	317	74	67
109	19.738	0.189	0.099	3.48	89	1.2	-	17.24	-0.10	91	315	74	67
110	19.923	0.185	0.096	3.48	89	1.2	102	17.16	-0.08	91	315	74	67
111	20.108	0.185	0.097	3.47	89	1.2	-	17.06	-0.10	91	315	74	67
112	20.292	0.184	0.097	3.48	89	1.3	-	16.97	-0.09	91	314	74	67
113	20.475	0.183	0.098	3.48	89	1.2	-	16.87	-0.10	91	314	74	67
114	20.663	0.188	0.098	3.48	89	1.2	-	16.77	-0.10	91	316	74	67
115	20.846	0.183	0.098	3.48	89	1.2	-	16.67	-0.10	91	315	74	67
116	21.030	0.184	0.098	3.48	89	1.3	-	16.56	-0.11	91	315	74	67
117	21.216	0.186	0.097	3.48	89	1.2	-	16.48	-0.08	91	314	74	67
118	21.402	0.186	0.098	3.49	89	1.3	-	16.37	-0.11	91	316	74	67
119	21.590	0.188	0.098	3.49	89	1.2	-	16.28	-0.09	91	316	74	67
120	21.773	0.183	0.099	3.48	89	1.2	101	16.17	-0.11	91	316	74	67
121	21.958	0.185	0.099	3.48	89	1.3	-	16.07	-0.10	91	316	74	67
122	22.142	0.184	0.098	3.49	89	1.2	-	15.97	-0.10	91	317	74	67
123	22.329	0.187	0.099	3.49	89	1.3	-	15.88	-0.09	91	316	74	67
124	22.515	0.186	0.098	3.49	89	1.2	-	15.77	-0.11	91	314	74	67
125	22.701	0.186	0.099	3.48	89	1.2	-	15.68	-0.09	91	313	74	67
126	22.887	0.186	0.098	3.49	89	1.2	-	15.58	-0.10	91	314	74	67
127	23.066	0.179	0.098	3.49	89	1.2	-	15.48	-0.10	91	315	74	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	23.254	0.188	0.098	3.49	89	1.2	-	15.38	-0.10	91	315	74	67
129	23.439	0.185	0.099	3.49	89	1.2	-	15.28	-0.10	91	316	74	67
130	23.626	0.187	0.098	3.48	89	1.3	100	15.18	-0.10	91	315	74	67
131	23.813	0.187	0.098	3.50	89	1.2	-	15.08	-0.10	91	314	74	67
132	23.997	0.184	0.098	3.49	89	1.3	-	14.97	-0.11	91	314	74	67
133	24.183	0.186	0.099	3.49	89	1.2	-	14.87	-0.10	91	314	74	67
134	24.362	0.179	0.098	3.49	89	1.3	-	14.78	-0.09	91	315	74	67
135	24.551	0.189	0.099	3.47	89	1.3	-	14.67	-0.11	91	316	74	67
136	24.736	0.185	0.099	3.49	89	1.3	-	14.56	-0.11	91	315	74	67
137	24.922	0.186	0.098	3.48	89	1.2	-	14.47	-0.09	91	313	74	67
138	25.110	0.188	0.098	3.48	89	1.3	-	14.38	-0.09	91	312	74	67
139	25.294	0.184	0.099	3.50	89	1.3	-	14.29	-0.09	91	311	74	67
140	25.480	0.186	0.099	3.49	90	1.3	100	14.19	-0.10	91	310	74	67
141	25.662	0.182	0.098	3.49	90	1.3	-	14.11	-0.08	90	309	74	67
142	25.844	0.182	0.098	3.48	90	1.2	-	14.02	-0.09	91	308	74	67
143	26.031	0.187	0.098	3.49	90	1.3	-	13.92	-0.10	91	307	74	67
144	26.217	0.186	0.098	3.49	90	1.3	-	13.82	-0.10	91	306	74	67
145	26.404	0.187	0.099	3.48	90	1.2	-	13.74	-0.08	91	305	74	67
146	26.589	0.185	0.098	3.48	90	1.3	-	13.66	-0.08	91	303	74	67
147	26.773	0.184	0.098	3.48	90	1.2	-	13.57	-0.09	90	302	74	67
148	26.958	0.185	0.098	3.49	90	1.2	-	13.48	-0.09	90	301	74	67
149	27.144	0.186	0.098	3.49	90	1.3	-	13.39	-0.09	90	299	74	67
150	27.332	0.188	0.098	3.49	90	1.3	100	13.32	-0.07	90	297	74	67
151	27.517	0.185	0.098	3.50	90	1.3	-	13.21	-0.11	90	298	74	67
152	27.701	0.184	0.098	3.49	90	1.3	-	13.12	-0.09	90	299	74	67
153	27.888	0.187	0.098	3.49	90	1.2	-	13.04	-0.08	90	300	74	67
154	28.073	0.185	0.099	3.47	90	1.2	-	12.96	-0.08	90	302	74	67
155	28.254	0.181	0.098	3.49	90	1.3	-	12.87	-0.09	90	302	74	67
156	28.440	0.186	0.098	3.48	90	1.2	-	12.79	-0.08	90	303	74	67
157	28.628	0.188	0.099	3.49	90	1.3	-	12.70	-0.09	89	301	74	67
158	28.811	0.183	0.098	3.50	90	1.2	-	12.63	-0.07	89	298	74	67
159	29.001	0.190	0.098	3.48	90	1.2	-	12.54	-0.09	89	297	74	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	29.183	0.182	0.097	3.49	90	1.2	101	12.47	-0.07	89	296	74	67
161	29.369	0.186	0.098	3.49	90	1.2	-	12.38	-0.09	89	295	74	67
162	29.551	0.182	0.098	3.49	90	1.3	-	12.30	-0.08	89	295	74	67
163	29.738	0.187	0.098	3.50	90	1.3	-	12.23	-0.07	89	293	74	67
164	29.926	0.188	0.098	3.49	90	1.3	-	12.16	-0.07	89	293	74	67
165	30.111	0.185	0.098	3.51	90	1.3	-	12.08	-0.08	89	290	73	67
166	30.295	0.184	0.099	3.49	90	1.3	-	12.00	-0.08	89	290	73	67
167	30.481	0.186	0.099	3.50	90	1.3	-	11.93	-0.07	89	291	74	67
168	30.667	0.186	0.098	3.48	90	1.2	-	11.85	-0.08	89	290	74	67
169	30.853	0.186	0.098	3.49	90	1.3	-	11.78	-0.07	88	290	73	67
170	31.034	0.181	0.098	3.49	90	1.3	101	11.70	-0.08	88	288	73	67
171	31.224	0.190	0.098	3.49	90	1.2	-	11.64	-0.06	88	287	73	67
172	31.410	0.186	0.099	3.49	90	1.2	-	11.56	-0.08	88	287	73	67
173	31.597	0.187	0.099	3.49	90	1.2	-	11.48	-0.08	88	285	73	67
174	31.783	0.186	0.098	3.50	90	1.2	-	11.42	-0.06	88	285	73	67
175	31.965	0.182	0.098	3.49	90	1.2	-	11.34	-0.08	88	284	73	67
176	32.151	0.186	0.098	3.48	90	1.3	-	11.28	-0.06	88	283	73	67
177	32.332	0.181	0.098	3.50	90	1.2	-	11.20	-0.08	88	283	73	67
178	32.523	0.191	0.098	3.50	90	1.3	-	11.12	-0.08	88	283	73	67
179	32.707	0.184	0.099	3.50	90	1.3	-	11.07	-0.05	88	281	73	67
180	32.896	0.189	0.098	3.49	90	1.2	101	10.99	-0.08	88	281	73	67
181	33.078	0.182	0.098	3.49	90	1.2	-	10.93	-0.06	87	281	73	67
182	33.264	0.186	0.099	3.49	90	1.2	-	10.86	-0.07	87	280	73	67
183	33.450	0.186	0.098	3.49	90	1.3	-	10.80	-0.06	87	280	73	67
184	33.634	0.184	0.098	3.50	90	1.2	-	10.73	-0.07	87	279	73	67
185	33.818	0.184	0.098	3.50	90	1.2	-	10.67	-0.06	87	279	73	67
186	34.008	0.190	0.098	3.50	90	1.2	-	10.61	-0.06	87	279	73	67
187	34.195	0.187	0.098	3.49	90	1.2	-	10.54	-0.07	87	278	73	67
188	34.380	0.185	0.099	3.50	90	1.2	-	10.47	-0.07	87	278	73	67
189	34.563	0.183	0.098	3.50	90	1.2	-	10.40	-0.07	87	279	73	67
190	34.746	0.183	0.098	3.48	90	1.3	100	10.33	-0.07	87	279	73	67
191	34.933	0.187	0.097	3.50	90	1.3	-	10.27	-0.06	87	281	73	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	35.121	0.188	0.098	3.49	90	1.3	-	10.21	-0.06	87	281	73	67
193	35.305	0.184	0.097	3.50	90	1.3	-	10.14	-0.07	87	282	73	67
194	35.494	0.189	0.099	3.49	90	1.2	-	10.08	-0.06	87	284	73	67
195	35.680	0.186	0.098	3.50	90	1.2	-	10.00	-0.08	87	284	73	67
196	35.863	0.183	0.098	3.50	90	1.3	-	9.93	-0.07	87	285	73	67
197	36.045	0.182	0.099	3.49	90	1.3	-	9.87	-0.06	87	287	73	67
198	36.233	0.188	0.099	3.50	90	1.3	-	9.80	-0.07	87	285	73	67
199	36.421	0.188	0.099	3.49	90	1.3	-	9.73	-0.07	87	286	73	67
200	36.605	0.184	0.099	3.51	90	1.2	100	9.67	-0.06	87	286	73	67
201	36.794	0.189	0.098	3.49	90	1.2	-	9.58	-0.09	87	287	73	67
202	36.980	0.186	0.097	3.51	90	1.3	-	9.52	-0.06	87	287	73	67
203	37.160	0.180	0.099	3.51	90	1.2	-	9.45	-0.07	87	287	73	67
204	37.345	0.185	0.098	3.49	90	1.2	-	9.38	-0.07	87	287	73	67
205	37.533	0.188	0.098	3.50	90	1.2	-	9.32	-0.06	87	287	73	67
206	37.721	0.188	0.099	3.49	90	1.3	-	9.25	-0.07	86	287	73	67
207	37.907	0.186	0.099	3.51	90	1.2	-	9.18	-0.07	87	289	73	67
208	38.091	0.184	0.098	3.50	90	1.2	-	9.13	-0.05	87	288	73	67
209	38.277	0.186	0.099	3.50	90	1.2	-	9.06	-0.07	87	286	73	67
210	38.460	0.183	0.096	3.50	90	1.2	101	8.98	-0.08	87	285	73	67
211	38.649	0.189	0.099	3.50	90	1.2	-	8.93	-0.05	87	283	73	67
212	38.833	0.184	0.098	3.50	90	1.2	-	8.85	-0.08	87	281	73	66
213	39.021	0.188	0.098	3.49	90	1.2	-	8.79	-0.06	87	282	73	66
214	39.207	0.186	0.098	3.50	90	1.2	-	8.72	-0.07	86	282	73	66
215	39.391	0.184	0.098	3.50	90	1.2	-	8.66	-0.06	86	282	73	67
216	39.579	0.188	0.099	3.50	90	1.3	-	8.60	-0.06	87	279	73	67
217	39.763	0.184	0.099	3.50	90	1.3	-	8.53	-0.07	87	281	73	67
218	39.945	0.182	0.098	3.50	90	1.2	-	8.47	-0.06	86	279	73	66
219	40.132	0.187	0.099	3.50	90	1.2	-	8.40	-0.07	86	279	73	66
220	40.320	0.188	0.099	3.50	90	1.3	101	8.33	-0.07	86	279	73	66
221	40.503	0.183	0.098	3.49	90	1.2	-	8.28	-0.05	86	279	73	66
222	40.693	0.190	0.096	3.49	90	1.2	-	8.22	-0.06	86	282	73	67
223	40.878	0.185	0.098	3.51	90	1.2	-	8.15	-0.07	86	281	73	67

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	41.063	0.185	0.098	3.50	90	1.3	-	8.09	-0.06	86	283	73	67
225	41.244	0.181	0.099	3.49	90	1.2	-	8.03	-0.06	86	280	73	66
226	41.429	0.185	0.099	3.50	90	1.2	-	7.97	-0.06	86	278	72	66
227	41.616	0.187	0.097	3.50	90	1.3	-	7.91	-0.06	86	277	72	66
228	41.802	0.186	0.098	3.51	90	1.2	-	7.84	-0.07	86	277	72	66
229	41.993	0.191	0.098	3.49	90	1.3	-	7.78	-0.06	86	275	72	66
230	42.175	0.182	0.098	3.51	90	1.2	100	7.71	-0.07	86	277	72	66
231	42.363	0.188	0.099	3.49	90	1.3	-	7.65	-0.06	86	273	72	66
232	42.544	0.181	0.098	3.50	90	1.3	-	7.59	-0.06	86	274	72	67
233	42.731	0.187	0.097	3.49	90	1.2	-	7.53	-0.06	86	275	72	66
234	42.919	0.188	0.100	3.49	90	1.2	-	7.47	-0.06	86	274	72	66
235	43.105	0.186	0.099	3.51	90	1.3	-	7.41	-0.06	86	273	72	66
236	43.292	0.187	0.098	3.50	90	1.3	-	7.36	-0.05	86	273	72	66
237	43.477	0.185	0.098	3.50	90	1.3	-	7.30	-0.06	86	273	72	66
238	43.658	0.181	0.099	3.50	90	1.3	-	7.24	-0.06	86	275	72	66
239	43.847	0.189	0.099	3.50	90	1.2	-	7.17	-0.07	86	275	72	66
240	44.030	0.183	0.098	3.49	90	1.2	100	7.12	-0.05	86	276	72	66
241	44.218	0.188	0.099	3.49	90	1.3	-	7.04	-0.08	86	276	72	66
242	44.404	0.186	0.098	3.50	90	1.3	-	6.98	-0.06	86	278	72	66
243	44.592	0.188	0.099	3.50	90	1.2	-	6.92	-0.06	86	278	72	66
244	44.776	0.184	0.098	3.49	90	1.2	-	6.86	-0.06	86	280	72	66
245	44.961	0.185	0.099	3.50	90	1.2	-	6.76	-0.10	86	279	72	66
246	45.142	0.181	0.097	3.50	90	1.3	-	6.72	-0.04	86	280	72	66
247	45.329	0.187	0.098	3.50	90	1.2	-	6.64	-0.08	86	280	72	66
248	45.517	0.188	0.098	3.49	90	1.3	-	6.58	-0.06	86	284	72	66
249	45.700	0.183	0.096	3.50	90	1.2	-	6.51	-0.07	86	281	72	66
250	45.890	0.190	0.098	3.49	90	1.3	100	6.45	-0.06	86	283	72	66
251	46.075	0.185	0.097	3.50	90	1.3	-	6.38	-0.07	86	284	72	66
252	46.255	0.180	0.097	3.50	90	1.3	-	6.31	-0.07	86	283	72	66
253	46.444	0.189	0.099	3.51	90	1.3	-	6.25	-0.06	87	285	72	66
254	46.625	0.181	0.097	3.51	90	1.2	-	6.17	-0.08	86	286	72	66
255	46.812	0.187	0.099	3.49	90	1.2	-	6.07	-0.10	86	287	72	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	47.001	0.189	0.099	3.50	90	1.2	-	6.03	-0.04	86	287	72	66
257	47.188	0.187	0.099	3.49	90	1.3	-	5.97	-0.06	87	290	72	66
258	47.373	0.185	0.098	3.51	90	1.2	-	5.84	-0.13	87	290	72	66
259	47.557	0.184	0.098	3.49	90	1.2	-	5.83	-0.01	87	289	72	66
260	47.743	0.186	0.098	3.49	90	1.2	100	5.74	-0.09	87	293	72	66
261	47.924	0.181	0.097	3.51	90	1.3	-	5.70	-0.04	86	290	72	66
262	48.114	0.190	0.097	3.49	90	1.2	-	5.63	-0.07	86	289	72	66
263	48.297	0.183	0.098	3.50	90	1.2	-	5.57	-0.06	86	288	72	66
264	48.487	0.190	0.099	3.50	90	1.3	-	5.50	-0.07	86	289	72	66
265	48.670	0.183	0.099	3.50	90	1.3	-	5.45	-0.05	86	284	72	66
266	48.856	0.186	0.099	3.50	90	1.2	-	5.39	-0.06	86	285	72	66
267	49.042	0.186	0.098	3.50	90	1.2	-	5.33	-0.06	86	283	72	66
268	49.223	0.181	0.098	3.50	90	1.3	-	5.27	-0.06	86	280	72	66
269	49.413	0.190	0.099	3.49	90	1.3	-	5.20	-0.07	86	279	72	66
270	49.599	0.186	0.099	3.50	90	1.2	100	5.14	-0.06	86	278	72	66
271	49.786	0.187	0.099	3.49	90	1.3	-	5.09	-0.05	86	276	72	66
272	49.971	0.185	0.099	3.51	90	1.2	-	5.04	-0.05	86	275	72	66
273	50.150	0.179	0.098	3.50	90	1.3	-	4.98	-0.06	86	274	72	66
274	50.339	0.189	0.098	3.51	90	1.2	-	4.92	-0.06	86	274	72	66
275	50.520	0.181	0.098	3.50	90	1.3	-	4.86	-0.06	86	274	72	66
276	50.711	0.191	0.098	3.49	90	1.3	-	4.80	-0.06	85	274	72	66
277	50.896	0.185	0.097	3.51	90	1.2	-	4.74	-0.06	85	273	72	66
278	51.080	0.184	0.098	3.50	90	1.3	-	4.67	-0.07	85	274	72	66
279	51.269	0.189	0.098	3.51	90	1.3	-	4.61	-0.06	85	274	72	66
280	51.452	0.183	0.098	3.49	90	1.2	100	4.55	-0.06	85	274	72	66
281	51.634	0.182	0.099	3.51	90	1.2	-	4.48	-0.07	85	274	72	66
282	51.819	0.185	0.098	3.50	90	1.3	-	4.43	-0.05	85	273	72	66
283	52.009	0.190	0.099	3.49	90	1.3	-	4.37	-0.06	85	274	72	66
284	52.195	0.186	0.099	3.50	90	1.2	-	4.30	-0.07	85	273	72	66
285	52.378	0.183	0.097	3.49	90	1.2	-	4.24	-0.06	85	271	72	66
286	52.568	0.190	0.098	3.51	90	1.3	-	4.17	-0.07	85	271	72	66
287	52.750	0.182	0.098	3.50	90	1.2	-	4.11	-0.06	85	270	72	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	52.935	0.185	0.098	3.48	90	1.3	-	4.06	-0.05	85	273	72	66
289	53.117	0.182	0.099	3.50	90	1.2	-	3.99	-0.07	85	272	72	66
290	53.307	0.190	0.099	3.49	90	1.2	100	3.94	-0.05	85	270	72	66
291	53.493	0.186	0.098	3.50	90	1.3	-	3.87	-0.07	85	271	72	66
292	53.676	0.183	0.098	3.49	90	1.3	-	3.82	-0.05	85	268	72	66
293	53.862	0.186	0.097	3.49	90	1.3	-	3.76	-0.06	85	268	72	66
294	54.048	0.186	0.098	3.51	90	1.3	-	3.70	-0.06	85	267	72	66
295	54.230	0.182	0.099	3.49	90	1.3	-	3.64	-0.06	85	269	72	66
296	54.418	0.188	0.098	3.51	90	1.3	-	3.58	-0.06	85	268	72	66
297	54.605	0.187	0.098	3.49	90	1.3	-	3.54	-0.04	85	269	72	66
298	54.792	0.187	0.097	3.50	90	1.2	-	3.47	-0.07	85	268	72	66
299	54.977	0.185	0.098	3.49	90	1.2	-	3.41	-0.06	85	267	72	66
300	55.160	0.183	0.099	3.50	90	1.2	100	3.36	-0.05	85	266	72	66
301	55.346	0.186	0.098	3.51	90	1.3	-	3.31	-0.05	84	265	72	66
302	55.531	0.185	0.098	3.49	90	1.3	-	3.26	-0.05	84	265	72	66
303	55.714	0.183	0.098	3.49	90	1.3	-	3.22	-0.04	84	264	72	66
304	55.903	0.189	0.098	3.49	90	1.3	-	3.16	-0.06	84	263	72	66
305	56.090	0.187	0.098	3.51	90	1.2	-	3.14	-0.02	84	260	71	66
306	56.272	0.182	0.098	3.51	90	1.3	-	3.09	-0.05	84	259	72	66
307	56.461	0.189	0.097	3.49	90	1.3	-	3.05	-0.04	84	256	72	66
308	56.644	0.183	0.099	3.52	90	1.2	-	3.02	-0.03	84	255	72	66
309	56.825	0.181	0.098	3.49	90	1.2	-	2.97	-0.05	83	253	71	66
310	57.014	0.189	0.097	3.50	90	1.2	100	2.95	-0.02	83	252	71	66
311	57.197	0.183	0.098	3.49	90	1.3	-	2.91	-0.04	83	250	71	66
312	57.388	0.191	0.098	3.51	90	1.2	-	2.88	-0.03	83	247	71	66
313	57.573	0.185	0.098	3.50	89	1.2	-	2.85	-0.03	83	246	71	66
314	57.755	0.182	0.097	3.49	89	1.2	-	2.82	-0.03	83	243	71	66
315	57.941	0.186	0.098	3.50	89	1.2	-	2.79	-0.03	83	242	71	66
316	58.126	0.185	0.098	3.49	89	1.3	-	2.75	-0.04	83	241	71	66
317	58.312	0.186	0.098	3.50	89	1.3	-	2.73	-0.02	82	241	71	66
318	58.498	0.186	0.098	3.50	89	1.2	-	2.69	-0.04	82	239	71	66
319	58.682	0.184	0.097	3.49	89	1.3	-	2.66	-0.03	83	239	71	66

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
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Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	58.867	0.185	0.098	3.51	89	1.2	100	2.64	-0.02	83	238	71	66
321	59.056	0.189	0.098	3.49	89	1.3	-	2.60	-0.04	82	239	71	66
322	59.239	0.183	0.098	3.50	89	1.2	-	2.57	-0.03	82	238	71	66
323	59.420	0.181	0.099	3.50	89	1.2	-	2.55	-0.02	82	236	71	66
324	59.610	0.190	0.099	3.49	89	1.2	-	2.51	-0.04	82	236	71	65
325	59.795	0.185	0.098	3.50	89	1.2	-	2.48	-0.03	82	235	71	65
326	59.980	0.185	0.098	3.49	89	1.2	-	2.44	-0.04	82	235	71	66
327	60.165	0.185	0.098	3.50	89	1.3	-	2.40	-0.04	82	235	71	66
328	60.353	0.188	0.099	3.49	89	1.3	-	2.38	-0.02	82	235	71	65
329	60.536	0.183	0.099	3.50	89	1.2	-	2.34	-0.04	82	236	71	65
330	60.720	0.184	0.099	3.48	89	1.3	100	2.30	-0.04	82	235	71	65
331	60.904	0.184	0.098	3.48	89	1.2	-	2.27	-0.03	82	236	71	65
332	61.090	0.186	0.098	3.51	89	1.3	-	2.23	-0.04	82	237	71	65
333	61.280	0.190	0.099	3.49	89	1.2	-	2.20	-0.03	82	236	71	65
334	61.465	0.185	0.099	3.50	89	1.3	-	2.15	-0.05	82	237	71	65
335	61.645	0.180	0.099	3.49	89	1.3	-	2.11	-0.04	82	237	71	65
336	61.830	0.185	0.098	3.49	89	1.3	-	2.08	-0.03	82	237	71	65
337	62.014	0.184	0.098	3.49	89	1.2	-	2.05	-0.03	82	237	71	65
338	62.204	0.190	0.098	3.49	89	1.3	-	1.99	-0.06	82	237	71	65
339	62.390	0.186	0.098	3.49	89	1.2	-	1.96	-0.03	82	237	71	65
340	62.577	0.187	0.099	3.50	89	1.2	100	1.92	-0.04	82	237	71	65
341	62.760	0.183	0.098	3.50	89	1.3	-	1.88	-0.04	82	238	71	65
342	62.942	0.182	0.099	3.49	89	1.2	-	1.84	-0.04	82	236	71	65
343	63.131	0.189	0.098	3.49	89	1.2	-	1.81	-0.03	82	237	71	65
344	63.315	0.184	0.098	3.49	89	1.2	-	1.77	-0.04	82	237	71	65
345	63.499	0.184	0.097	3.48	89	1.2	-	1.73	-0.04	82	237	71	65
346	63.685	0.186	0.098	3.50	89	1.3	-	1.70	-0.03	82	238	71	65
347	63.871	0.186	0.098	3.49	89	1.2	-	1.66	-0.04	82	237	71	65
348	64.060	0.189	0.099	3.50	89	1.3	-	1.62	-0.04	82	235	71	65
349	64.239	0.179	0.099	3.49	89	1.2	-	1.58	-0.04	82	237	71	65
350	64.428	0.189	0.099	3.48	89	1.3	99	1.55	-0.03	82	238	71	65
351	64.609	0.181	0.098	3.50	89	1.3	-	1.51	-0.04	82	236	71	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	64.799	0.190	0.098	3.50	89	1.3	-	1.47	-0.04	82	236	71	65
353	64.985	0.186	0.099	3.49	89	1.2	-	1.44	-0.03	82	236	71	65
354	65.171	0.186	0.099	3.48	89	1.3	-	1.41	-0.03	81	235	71	65
355	65.357	0.186	0.099	3.50	89	1.2	-	1.37	-0.04	81	236	71	65
356	65.539	0.182	0.098	3.50	89	1.2	-	1.34	-0.03	81	236	70	65
357	65.724	0.185	0.098	3.49	89	1.3	-	1.31	-0.03	81	233	71	65
358	65.907	0.183	0.098	3.50	89	1.3	-	1.27	-0.04	81	235	71	65
359	66.096	0.189	0.098	3.49	89	1.2	-	1.23	-0.04	81	235	70	65
360	66.283	0.187	0.098	3.50	89	1.3	100	1.19	-0.04	81	235	70	65
361	66.464	0.181	0.098	3.51	89	1.2	-	1.16	-0.03	81	235	70	65
362	66.653	0.189	0.099	3.48	89	1.3	-	1.12	-0.04	81	235	70	65
363	66.836	0.183	0.097	3.50	89	1.2	-	1.09	-0.03	81	236	70	65
364	67.020	0.184	0.099	3.48	89	1.3	-	1.04	-0.05	82	235	70	65
365	67.204	0.184	0.098	3.49	89	1.3	-	1.00	-0.04	81	237	70	65
366	67.391	0.187	0.098	3.50	89	1.3	-	0.97	-0.03	81	237	70	65
367	67.576	0.185	0.098	3.49	89	1.2	-	0.93	-0.04	81	238	70	65
368	67.764	0.188	0.097	3.50	89	1.2	-	0.89	-0.04	81	236	70	65
369	67.945	0.181	0.099	3.48	89	1.2	-	0.87	-0.02	81	237	70	65
370	68.132	0.187	0.097	3.49	89	1.2	100	0.83	-0.04	81	236	70	65
371	68.316	0.184	0.099	3.49	89	1.3	-	0.80	-0.03	81	236	70	65
372	68.500	0.184	0.098	3.49	89	1.2	-	0.76	-0.04	81	236	70	65
373	68.688	0.188	0.098	3.50	89	1.2	-	0.73	-0.03	81	236	70	65
374	68.875	0.187	0.099	3.49	89	1.2	-	0.71	-0.02	81	236	70	65
375	69.060	0.185	0.097	3.49	89	1.3	-	0.67	-0.04	81	235	70	65
376	69.244	0.184	0.098	3.48	89	1.2	-	0.65	-0.02	81	233	70	65
377	69.425	0.181	0.098	3.49	89	1.2	-	0.61	-0.04	81	234	70	65
378	69.612	0.187	0.098	3.49	89	1.2	-	0.58	-0.03	81	233	70	65
379	69.799	0.187	0.098	3.49	89	1.3	-	0.56	-0.02	81	233	70	65
380	69.984	0.185	0.098	3.50	89	1.2	100	0.53	-0.03	81	232	70	65
381	70.167	0.183	0.098	3.49	89	1.2	-	0.50	-0.03	81	232	70	65
382	70.356	0.189	0.098	3.49	89	1.2	-	0.47	-0.03	81	231	70	65
383	70.538	0.182	0.099	3.48	89	1.2	-	0.45	-0.02	81	230	70	65

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	70.719	0.181	0.098	3.47	89	1.2	-	0.42	-0.03	81	230	70	65
385	70.906	0.187	0.099	3.50	89	1.3	-	0.39	-0.03	81	230	70	65
386	71.089	0.183	0.099	3.50	89	1.3	-	0.36	-0.03	81	229	70	65
387	71.279	0.190	0.098	3.50	89	1.2	-	0.33	-0.03	81	229	70	65
388	71.464	0.185	0.099	3.49	89	1.2	-	0.30	-0.03	80	229	70	65
389	71.646	0.182	0.098	3.49	89	1.3	-	0.28	-0.02	80	228	70	65
390	71.832	0.186	0.098	3.51	89	1.2	100	0.25	-0.03	80	229	70	65
391	72.016	0.184	0.097	3.49	89	1.2	-	0.22	-0.03	80	228	70	65
392	72.199	0.183	0.099	3.48	89	1.2	-	0.21	-0.01	80	227	70	65
393	72.387	0.188	0.098	3.49	89	1.2	-	0.16	-0.05	80	227	70	65
394	72.571	0.184	0.097	3.49	89	1.3	-	0.15	-0.01	80	227	70	65
395	72.756	0.185	0.097	3.49	88	1.3	-	0.12	-0.03	80	226	70	65
396	72.943	0.187	0.099	3.49	89	1.2	-	0.10	-0.02	80	227	70	65
397	73.127	0.184	0.098	3.49	88	1.3	-	0.08	-0.02	80	226	70	65
398	73.307	0.180	0.098	3.50	88	1.3	-	0.06	-0.02	80	226	70	64
399	73.497	0.190	0.099	3.48	88	1.2	-	0.02	-0.04	80	226	70	65
400	73.682	0.185	0.099	3.50	88	1.2	99	0.00	-0.02	80	227	70	64
Avg/Tot	73.682	0.184	0.098	3.46	87.7	1.2	100			87.7	284.2	72.5	66.1

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		1.13	78	1.7		74	-0.042	4.60	0.217
1	0.126	0.126	3.23	77	2.0	-	74	-0.048	3.03	0.159
2	0.305	0.179	3.23	77	2.0	-	74	-0.047	8.45	0.001
3	0.478	0.173	3.23	77	2.0	-	74	-0.048	7.78	0.002
4	0.655	0.177	3.24	77	1.7	-	74	-0.048	7.42	0.001
5	0.827	0.172	3.25	77	2.1	-	74	-0.050	7.33	0.003
6	1.002	0.175	3.24	77	1.7	-	74	-0.051	7.10	0.002
7	1.178	0.176	3.24	77	2.1	-	74	-0.051	7.32	0.002
8	1.354	0.176	3.24	77	2.1	-	74	-0.051	7.45	0.004
9	1.523	0.169	3.24	77	2.1	-	74	-0.050	7.50	0.002
10	1.701	0.178	3.24	77	1.7	98	74	-0.051	7.50	0.003
11	1.877	0.176	3.24	77	2.1	-	74	-0.051	7.49	0.003
12	2.053	0.176	3.24	78	2.1	-	74	-0.052	7.58	0.001
13	2.222	0.169	3.23	78	2.2	-	74	-0.051	7.90	0.003
14	2.400	0.178	3.25	78	1.7	-	74	-0.051	8.08	0.003
15	2.577	0.177	3.25	78	1.7	-	74	-0.052	8.78	0.004
16	2.751	0.174	3.26	78	1.8	-	74	-0.054	9.59	0.005
17	2.928	0.177	3.25	78	1.7	-	74	-0.054	9.55	0.004
18	3.098	0.170	3.25	79	1.6	-	74	-0.055	9.57	0.004
19	3.278	0.180	3.26	79	1.7	-	74	-0.056	9.45	0.005
20	3.452	0.174	3.25	79	2.0	100	74	-0.056	9.71	0.008
21	3.627	0.175	3.26	79	1.6	-	74	-0.057	9.93	0.009
22	3.802	0.175	3.25	80	1.6	-	74	-0.058	10.01	0.011
23	3.976	0.174	3.26	80	1.6	-	74	-0.056	9.93	0.012
24	4.155	0.179	3.26	80	1.7	-	74	-0.055	9.90	0.013
25	4.331	0.176	3.26	80	2.2	-	74	-0.059	10.00	0.012
26	4.505	0.174	3.25	81	1.6	-	74	-0.057	10.01	0.009
27	4.678	0.173	3.25	81	2.2	-	74	-0.059	10.05	0.015
28	4.856	0.178	3.27	81	1.8	-	74	-0.058	10.23	0.014
29	5.033	0.177	3.26	82	1.9	-	74	-0.060	10.42	0.016
30	5.208	0.175	3.26	82	1.6	101	74	-0.058	10.51	0.019
31	5.383	0.175	3.27	82	1.9	-	75	-0.059	10.57	0.017

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	5.563	0.180	3.27	82	2.1	-	75	-0.059	10.44	0.019
33	5.741	0.178	3.27	83	1.8	-	75	-0.059	10.52	0.018
34	5.917	0.176	3.27	83	1.7	-	75	-0.060	10.35	0.013
35	6.092	0.175	3.27	83	1.9	-	75	-0.058	10.30	0.014
36	6.269	0.177	3.27	83	2.2	-	74	-0.060	10.27	0.010
37	6.444	0.175	3.27	84	1.9	-	74	-0.060	10.47	0.015
38	6.625	0.181	3.28	84	2.1	-	74	-0.060	10.48	0.015
39	6.799	0.174	3.28	84	2.2	-	74	-0.059	10.43	0.014
40	6.976	0.177	3.26	84	2.2	101	74	-0.061	10.59	0.018
41	7.153	0.177	3.27	85	2.2	-	74	-0.060	10.72	0.017
42	7.329	0.176	3.28	85	1.7	-	74	-0.059	10.86	0.016
43	7.507	0.178	3.28	85	1.7	-	74	-0.059	10.86	0.021
44	7.687	0.180	3.28	85	2.1	-	74	-0.060	10.81	0.020
45	7.860	0.173	3.27	86	1.7	-	74	-0.060	10.63	0.016
46	8.041	0.181	3.28	86	2.2	-	74	-0.060	10.52	0.024
47	8.217	0.176	3.29	86	1.8	-	74	-0.059	10.73	0.021
48	8.397	0.180	3.27	86	2.1	-	74	-0.060	10.84	0.023
49	8.570	0.173	3.28	87	2.1	-	74	-0.061	10.77	0.021
50	8.748	0.178	3.28	87	2.1	100	74	-0.060	10.88	0.022
51	8.927	0.179	3.28	87	1.6	-	74	-0.060	10.77	0.022
52	9.108	0.181	3.28	87	1.8	-	74	-0.060	11.01	0.020
53	9.283	0.175	3.28	87	2.2	-	74	-0.061	11.12	0.022
54	9.459	0.176	3.28	88	1.8	-	74	-0.060	11.26	0.024
55	9.637	0.178	3.29	88	2.0	-	74	-0.062	11.32	0.032
56	9.817	0.180	3.29	88	1.6	-	74	-0.060	11.32	0.024
57	9.997	0.180	3.30	88	2.2	-	74	-0.061	11.33	0.031
58	10.177	0.180	3.29	88	1.8	-	74	-0.061	11.32	0.026
59	10.351	0.174	3.29	89	2.1	-	74	-0.060	11.38	0.030
60	10.529	0.178	3.29	89	2.2	100	74	-0.061	11.49	0.037
61	10.709	0.180	3.30	89	1.7	-	74	-0.060	11.54	0.031
62	10.889	0.180	3.30	89	1.6	-	74	-0.059	11.55	0.033
63	11.066	0.177	3.30	89	1.6	-	74	-0.062	11.44	0.032

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	11.245	0.179	3.29	90	1.7	-	74	-0.062	11.52	0.027
65	11.424	0.179	3.30	90	2.2	-	74	-0.061	11.62	0.031
66	11.602	0.178	3.30	90	2.1	-	74	-0.061	11.73	0.028
67	11.782	0.180	3.30	90	1.6	-	74	-0.061	11.77	0.029
68	11.959	0.177	3.30	90	2.0	-	74	-0.061	12.04	0.037
69	12.139	0.180	3.30	90	1.9	-	74	-0.062	12.12	0.033
70	12.315	0.176	3.30	90	2.1	100	74	-0.058	12.38	0.039
71	12.498	0.183	3.30	91	1.8	-	74	-0.058	12.51	0.045
72	12.677	0.179	3.30	91	2.0	-	74	-0.061	12.60	0.047
73	12.856	0.179	3.31	91	2.2	-	74	-0.059	12.64	0.041
74	13.034	0.178	3.30	91	2.2	-	74	-0.061	12.69	0.046
75	13.210	0.176	3.31	91	1.6	-	74	-0.059	12.81	0.044
76	13.390	0.180	3.31	91	1.8	-	74	-0.059	12.89	0.060
77	13.573	0.183	3.31	91	2.1	-	74	-0.058	12.85	0.045
78	13.749	0.176	3.31	92	2.1	-	74	-0.059	12.88	0.044
79	13.927	0.178	3.31	92	2.2	-	75	-0.060	12.72	0.031
80	14.106	0.179	3.31	92	1.9	101	75	-0.059	12.74	0.035
81	14.286	0.180	3.32	92	1.6	-	75	-0.059	12.57	0.025
82	14.468	0.182	3.31	92	2.2	-	75	-0.059	12.41	0.033
83	14.646	0.178	3.31	92	1.6	-	75	-0.059	12.29	0.020
84	14.825	0.179	3.31	92	2.0	-	75	-0.061	12.17	0.023
85	15.005	0.180	3.31	92	1.8	-	75	-0.060	12.20	0.019
86	15.182	0.177	3.31	92	1.8	-	75	-0.058	12.06	0.018
87	15.362	0.180	3.31	93	2.1	-	75	-0.058	12.09	0.021
88	15.547	0.185	3.31	93	1.9	-	75	-0.056	12.09	0.019
89	15.726	0.179	3.31	93	2.1	-	75	-0.057	11.95	0.019
90	15.900	0.174	3.32	93	2.1	101	75	-0.057	11.99	0.030
91	16.083	0.183	3.31	93	2.2	-	75	-0.058	12.16	0.020
92	16.261	0.178	3.31	93	1.7	-	75	-0.059	12.27	0.022
93	16.442	0.181	3.32	93	1.8	-	75	-0.058	12.20	0.017
94	16.624	0.182	3.31	93	1.9	-	75	-0.058	11.84	0.017
95	16.799	0.175	3.31	93	1.9	-	75	-0.057	11.85	0.014

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	16.982	0.183	3.31	93	1.7	-	75	-0.058	11.66	0.016
97	17.160	0.178	3.32	93	2.0	-	75	-0.056	11.76	0.017
98	17.343	0.183	3.31	94	1.7	-	75	-0.057	11.79	0.019
99	17.524	0.181	3.31	94	1.7	-	75	-0.059	11.85	0.014
100	17.700	0.176	3.31	94	1.7	101	75	-0.056	11.83	0.017
101	17.881	0.181	3.31	94	1.7	-	75	-0.057	11.94	0.019
102	18.058	0.177	3.32	94	2.2	-	75	-0.056	12.04	0.024
103	18.243	0.185	3.32	94	1.6	-	75	-0.060	12.05	0.016
104	18.421	0.178	3.31	94	2.2	-	75	-0.056	12.11	0.019
105	18.603	0.182	3.32	94	1.9	-	75	-0.059	12.36	0.025
106	18.781	0.178	3.32	94	2.1	-	75	-0.057	12.28	0.025
107	18.958	0.177	3.31	94	1.9	-	75	-0.057	12.27	0.024
108	19.139	0.181	3.32	94	1.7	-	75	-0.059	12.26	0.029
109	19.323	0.184	3.31	94	2.1	-	75	-0.058	12.29	0.035
110	19.503	0.180	3.32	94	2.0	101	75	-0.056	12.28	0.027
111	19.680	0.177	3.32	94	2.0	-	75	-0.055	12.23	0.021
112	19.859	0.179	3.32	94	2.2	-	75	-0.056	12.34	0.023
113	20.039	0.180	3.32	95	1.8	-	75	-0.057	12.40	0.033
114	20.223	0.184	3.32	95	1.8	-	75	-0.056	12.50	0.024
115	20.404	0.181	3.32	95	2.0	-	75	-0.056	12.66	0.036
116	20.581	0.177	3.32	95	1.7	-	75	-0.056	12.62	0.051
117	20.759	0.178	3.32	95	1.6	-	75	-0.059	12.76	0.049
118	20.939	0.180	3.31	95	2.1	-	75	-0.056	12.91	0.067
119	21.124	0.185	3.32	95	1.9	-	75	-0.057	12.92	0.099
120	21.304	0.180	3.32	95	1.6	101	75	-0.057	13.07	0.100
121	21.485	0.181	3.32	95	2.2	-	75	-0.056	12.98	0.102
122	21.665	0.180	3.32	95	2.2	-	75	-0.057	12.97	0.089
123	21.844	0.179	3.33	95	1.7	-	75	-0.058	13.02	0.118
124	22.024	0.180	3.32	95	2.2	-	75	-0.058	13.01	0.085
125	22.206	0.182	3.32	95	1.8	-	75	-0.057	13.11	0.099
126	22.387	0.181	3.32	95	1.7	-	75	-0.057	13.04	0.106
127	22.564	0.177	3.32	95	1.9	-	75	-0.055	13.13	0.110

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	22.745	0.181	3.31	95	1.6	-	75	-0.057	13.13	0.101
129	22.926	0.181	3.32	95	2.2	-	75	-0.058	13.17	0.130
130	23.108	0.182	3.32	95	1.7	100	75	-0.059	13.27	0.127
131	23.288	0.180	3.32	95	1.6	-	75	-0.058	13.37	0.182
132	23.469	0.181	3.33	95	1.7	-	75	-0.054	13.34	0.163
133	23.649	0.180	3.32	95	2.2	-	74	-0.058	13.27	0.074
134	23.825	0.176	3.33	95	2.2	-	75	-0.053	13.29	0.087
135	24.008	0.183	3.32	95	1.6	-	75	-0.057	13.34	0.134
136	24.190	0.182	3.31	95	1.9	-	75	-0.059	13.34	0.098
137	24.371	0.181	3.33	95	2.1	-	75	-0.056	13.21	0.093
138	24.551	0.180	3.32	95	2.0	-	74	-0.058	13.23	0.081
139	24.729	0.178	3.32	95	1.9	-	74	-0.056	13.17	0.068
140	24.910	0.181	3.32	95	2.2	100	74	-0.055	13.03	0.034
141	25.091	0.181	3.33	95	1.8	-	74	-0.055	13.07	0.046
142	25.269	0.178	3.32	95	1.8	-	74	-0.056	12.97	0.027
143	25.450	0.181	3.32	95	1.8	-	74	-0.055	12.80	0.029
144	25.630	0.180	3.32	95	2.1	-	74	-0.056	12.82	0.039
145	25.810	0.180	3.33	95	2.2	-	74	-0.053	12.72	0.029
146	25.990	0.180	3.32	95	1.6	-	74	-0.054	12.67	0.031
147	26.172	0.182	3.32	95	2.0	-	74	-0.055	12.53	0.023
148	26.353	0.181	3.32	95	1.9	-	74	-0.056	12.62	0.025
149	26.536	0.183	3.32	95	2.0	-	74	-0.056	12.46	0.026
150	26.715	0.179	3.32	95	1.7	100	74	-0.054	12.60	0.036
151	26.895	0.180	3.32	96	2.0	-	74	-0.055	13.02	0.132
152	27.074	0.179	3.32	96	1.8	-	74	-0.055	13.25	0.202
153	27.257	0.183	3.32	96	1.8	-	74	-0.057	13.24	0.195
154	27.439	0.182	3.32	96	2.2	-	74	-0.056	13.29	0.191
155	27.616	0.177	3.32	96	1.7	-	74	-0.054	13.27	0.209
156	27.797	0.181	3.32	96	1.8	-	74	-0.056	13.16	0.258
157	27.977	0.180	3.33	96	1.9	-	74	-0.053	13.14	0.258
158	28.157	0.180	3.33	96	2.0	-	74	-0.056	13.06	0.266
159	28.341	0.184	3.33	96	1.9	-	74	-0.053	12.95	0.350

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4
Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	28.519	0.178	3.33	96	2.2	100	74	-0.055	12.86	0.324
161	28.702	0.183	3.32	96	1.6	-	74	-0.055	12.77	0.289
162	28.878	0.176	3.32	96	1.9	-	74	-0.054	12.86	0.261
163	29.062	0.184	3.33	96	2.1	-	74	-0.053	12.68	0.294
164	29.243	0.181	3.32	96	1.7	-	74	-0.053	12.58	0.288
165	29.425	0.182	3.32	96	1.8	-	74	-0.052	12.59	0.290
166	29.603	0.178	3.33	96	1.8	-	74	-0.056	12.53	0.279
167	29.781	0.178	3.32	96	2.2	-	74	-0.052	12.59	0.366
168	29.965	0.184	3.32	96	1.7	-	74	-0.054	12.50	0.375
169	30.147	0.182	3.33	96	2.1	-	74	-0.050	12.49	0.439
170	30.324	0.177	3.33	96	2.2	100	74	-0.051	12.43	0.460
171	30.508	0.184	3.33	96	2.0	-	74	-0.051	12.37	0.510
172	30.688	0.180	3.32	96	2.2	-	74	-0.052	12.35	0.511
173	30.867	0.179	3.32	96	1.6	-	74	-0.052	12.21	0.501
174	31.048	0.181	3.32	96	2.2	-	74	-0.052	12.15	0.509
175	31.230	0.182	3.32	96	1.7	-	74	-0.051	12.24	0.503
176	31.412	0.182	3.33	96	2.1	-	74	-0.053	12.18	0.493
177	31.589	0.177	3.32	96	1.8	-	74	-0.052	12.17	0.479
178	31.772	0.183	3.33	96	1.9	-	74	-0.051	12.10	0.471
179	31.949	0.177	3.33	96	2.0	-	74	-0.050	12.05	0.479
180	32.133	0.184	3.33	96	1.7	100	74	-0.051	12.09	0.458
181	32.311	0.178	3.33	96	1.6	-	74	-0.050	11.98	0.451
182	32.497	0.186	3.33	96	2.1	-	74	-0.051	12.02	0.451
183	32.677	0.180	3.34	96	1.7	-	74	-0.051	11.93	0.435
184	32.855	0.178	3.33	96	2.1	-	74	-0.049	11.95	0.405
185	33.033	0.178	3.33	96	1.9	-	74	-0.051	11.98	0.407
186	33.219	0.186	3.33	96	2.1	-	74	-0.051	11.98	0.418
187	33.399	0.180	3.34	96	1.7	-	74	-0.052	11.88	0.363
188	33.580	0.181	3.33	96	2.1	-	74	-0.050	12.03	0.400
189	33.761	0.181	3.33	96	1.7	-	74	-0.050	12.02	0.407
190	33.938	0.177	3.34	96	2.2	100	74	-0.050	12.01	0.436
191	34.121	0.183	3.33	96	2.1	-	74	-0.050	12.06	0.438

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	34.304	0.183	3.33	96	2.1	-	74	-0.052	12.10	0.476
193	34.482	0.178	3.33	96	1.6	-	74	-0.051	12.08	0.483
194	34.666	0.184	3.34	96	2.0	-	74	-0.051	12.10	0.477
195	34.845	0.179	3.33	96	1.7	-	74	-0.051	12.19	0.491
196	35.026	0.181	3.33	96	2.2	-	74	-0.050	12.18	0.559
197	35.204	0.178	3.33	96	2.1	-	74	-0.052	12.20	0.633
198	35.388	0.184	3.33	96	1.7	-	74	-0.051	12.33	0.620
199	35.571	0.183	3.33	96	1.7	-	74	-0.051	12.31	0.602
200	35.748	0.177	3.34	96	1.8	100	74	-0.050	12.37	0.584
201	35.929	0.181	3.33	96	2.2	-	73	-0.050	12.36	0.619
202	36.111	0.182	3.33	96	1.7	-	73	-0.054	12.43	0.594
203	36.290	0.179	3.33	96	2.2	-	73	-0.052	12.36	0.558
204	36.471	0.181	3.33	96	1.7	-	73	-0.052	12.43	0.499
205	36.656	0.185	3.34	96	2.0	-	73	-0.052	12.33	0.486
206	36.836	0.180	3.33	96	1.7	-	73	-0.050	12.37	0.519
207	37.015	0.179	3.34	96	1.6	-	73	-0.053	12.67	0.563
208	37.193	0.178	3.34	96	1.7	-	73	-0.051	11.99	0.201
209	37.375	0.182	3.33	96	1.7	-	73	-0.051	11.96	0.182
210	37.557	0.182	3.33	96	1.7	100	73	-0.053	12.05	0.184
211	37.740	0.183	3.34	96	1.6	-	73	-0.050	12.09	0.130
212	37.920	0.180	3.33	96	1.7	-	73	-0.050	12.12	0.159
213	38.100	0.180	3.34	96	1.9	-	73	-0.053	12.14	0.180
214	38.281	0.181	3.34	96	2.2	-	73	-0.053	12.16	0.162
215	38.459	0.178	3.33	96	1.9	-	73	-0.050	12.16	0.183
216	38.645	0.186	3.32	96	1.8	-	73	-0.052	12.28	0.171
217	38.825	0.180	3.33	96	2.2	-	73	-0.051	12.12	0.159
218	39.001	0.176	3.33	96	1.8	-	73	-0.050	12.01	0.186
219	39.185	0.184	3.33	96	1.6	-	73	-0.051	12.07	0.150
220	39.367	0.182	3.33	96	1.7	100	73	-0.050	12.05	0.092
221	39.545	0.178	3.33	96	1.7	-	73	-0.050	12.02	0.064
222	39.730	0.185	3.33	96	2.2	-	73	-0.050	12.08	0.037
223	39.910	0.180	3.33	96	1.9	-	73	-0.050	12.07	0.028

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	40.088	0.178	3.33	96	2.1	-	73	-0.052	11.94	0.032
225	40.266	0.178	3.34	96	2.1	-	73	-0.050	11.88	0.036
226	40.448	0.182	3.33	96	1.8	-	73	-0.051	11.75	0.028
227	40.631	0.183	3.33	96	2.2	-	73	-0.049	11.84	0.024
228	40.811	0.180	3.34	96	2.2	-	73	-0.049	11.84	0.021
229	40.994	0.183	3.33	96	2.1	-	73	-0.049	11.85	0.018
230	41.170	0.176	3.33	96	1.6	99	73	-0.049	11.84	0.020
231	41.354	0.184	3.34	96	1.6	-	73	-0.049	11.83	0.016
232	41.533	0.179	3.33	96	2.0	-	73	-0.048	11.67	0.021
233	41.718	0.185	3.33	96	1.9	-	73	-0.048	11.64	0.015
234	41.898	0.180	3.33	96	1.7	-	73	-0.048	11.61	0.013
235	42.077	0.179	3.33	96	1.8	-	73	-0.049	11.78	0.015
236	42.258	0.181	3.33	96	2.2	-	73	-0.049	11.81	0.014
237	42.440	0.182	3.33	96	2.1	-	73	-0.049	11.93	0.013
238	42.618	0.178	3.33	96	2.0	-	73	-0.048	12.02	0.011
239	42.803	0.185	3.34	96	2.2	-	73	-0.047	12.02	0.013
240	42.983	0.180	3.33	96	2.0	100	73	-0.051	12.06	0.016
241	43.162	0.179	3.33	96	1.9	-	73	-0.052	12.06	0.014
242	43.343	0.181	3.33	96	1.7	-	73	-0.050	12.12	0.013
243	43.525	0.182	3.33	96	2.1	-	73	-0.050	12.12	0.018
244	43.707	0.182	3.34	96	1.6	-	73	-0.049	12.32	0.017
245	43.887	0.180	3.34	96	1.6	-	73	-0.051	12.26	0.016
246	44.064	0.177	3.33	96	1.7	-	73	-0.050	12.37	0.020
247	44.248	0.184	3.34	96	1.8	-	73	-0.051	12.43	0.019
248	44.428	0.180	3.34	96	2.1	-	73	-0.047	12.35	0.018
249	44.607	0.179	3.33	96	1.8	-	73	-0.051	12.48	0.022
250	44.792	0.185	3.34	96	1.6	100	73	-0.052	12.53	0.029
251	44.972	0.180	3.33	96	1.7	-	73	-0.050	12.43	0.020
252	45.148	0.176	3.33	96	2.1	-	73	-0.052	12.49	0.021
253	45.332	0.184	3.33	96	2.2	-	73	-0.050	12.51	0.027
254	45.511	0.179	3.33	96	2.1	-	73	-0.050	12.54	0.053
255	45.692	0.181	3.33	96	1.8	-	73	-0.057	12.54	0.051

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	45.877	0.185	3.33	96	2.0	-	73	-0.052	12.56	0.044
257	46.058	0.181	3.33	96	1.6	-	73	-0.054	12.72	0.058
258	46.236	0.178	3.33	96	2.2	-	73	-0.059	12.93	0.065
259	46.417	0.181	3.34	96	1.8	-	73	-0.049	12.53	0.036
260	46.599	0.182	3.33	96	2.2	100	73	-0.048	12.58	0.089
261	46.779	0.180	3.33	96	1.7	-	73	-0.052	12.60	0.050
262	46.961	0.182	3.33	96	1.6	-	73	-0.050	13.05	0.066
263	47.138	0.177	3.33	96	1.8	-	73	-0.049	12.81	0.048
264	47.322	0.184	3.34	96	1.7	-	73	-0.048	12.38	0.085
265	47.499	0.177	3.33	96	1.9	-	73	-0.050	12.37	0.029
266	47.684	0.185	3.33	96	2.2	-	73	-0.050	12.31	0.028
267	47.866	0.182	3.33	96	1.6	-	73	-0.050	12.48	0.030
268	48.044	0.178	3.34	96	1.9	-	73	-0.049	12.17	0.021
269	48.225	0.181	3.33	96	1.7	-	73	-0.052	12.23	0.017
270	48.406	0.181	3.33	96	1.6	100	73	-0.052	12.34	0.023
271	48.588	0.182	3.34	96	1.8	-	73	-0.050	12.28	0.019
272	48.769	0.181	3.33	96	2.2	-	73	-0.049	12.34	0.023
273	48.948	0.179	3.33	96	2.1	-	73	-0.050	12.40	0.021
274	49.132	0.184	3.34	96	1.6	-	73	-0.048	12.53	0.018
275	49.307	0.175	3.33	96	1.7	-	73	-0.049	12.50	0.017
276	49.491	0.184	3.34	96	2.2	-	73	-0.049	12.59	0.024
277	49.674	0.183	3.33	96	2.0	-	73	-0.052	12.58	0.029
278	49.853	0.179	3.34	96	1.8	-	73	-0.050	12.81	0.043
279	50.036	0.183	3.33	96	1.8	-	73	-0.049	12.65	0.065
280	50.216	0.180	3.33	96	1.7	100	73	-0.049	12.69	0.078
281	50.393	0.177	3.33	96	1.6	-	73	-0.051	12.60	0.100
282	50.574	0.181	3.33	96	1.7	-	73	-0.049	12.52	0.106
283	50.759	0.185	3.34	96	2.1	-	73	-0.051	12.58	0.138
284	50.941	0.182	3.34	96	2.2	-	73	-0.049	12.58	0.127
285	51.118	0.177	3.34	96	1.8	-	73	-0.050	12.78	0.132
286	51.300	0.182	3.33	96	1.7	-	73	-0.050	12.76	0.056
287	51.481	0.181	3.32	96	1.8	-	73	-0.048	12.62	0.070

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	51.662	0.181	3.33	96	2.0	-	73	-0.048	12.66	0.114
289	51.841	0.179	3.33	96	1.9	-	73	-0.050	12.80	0.123
290	52.026	0.185	3.33	96	1.7	100	73	-0.049	12.66	0.096
291	52.206	0.180	3.34	96	1.7	-	73	-0.049	12.65	0.131
292	52.381	0.175	3.33	96	2.2	-	73	-0.050	12.56	0.132
293	52.562	0.181	3.33	96	2.1	-	73	-0.048	12.62	0.165
294	52.748	0.186	3.33	96	2.1	-	72	-0.050	12.55	0.197
295	52.927	0.179	3.34	96	2.1	-	72	-0.048	12.48	0.193
296	53.110	0.183	3.33	96	2.2	-	72	-0.048	12.52	0.222
297	53.291	0.181	3.33	96	1.9	-	72	-0.048	12.44	0.209
298	53.470	0.179	3.34	96	2.1	-	72	-0.049	12.42	0.172
299	53.651	0.181	3.33	96	2.2	-	72	-0.047	12.42	0.214
300	53.830	0.179	3.34	96	2.0	99	72	-0.049	12.49	0.190
301	54.016	0.186	3.33	96	1.7	-	72	-0.049	12.28	0.170
302	54.196	0.180	3.34	96	1.9	-	72	-0.048	12.09	0.094
303	54.371	0.175	3.33	96	1.7	-	72	-0.046	11.98	0.081
304	54.556	0.185	3.33	96	1.8	-	72	-0.047	11.73	0.049
305	54.736	0.180	3.33	96	2.0	-	72	-0.047	11.56	0.030
306	54.916	0.180	3.34	96	1.7	-	72	-0.047	11.36	0.022
307	55.101	0.185	3.33	96	1.9	-	72	-0.046	11.19	0.018
308	55.281	0.180	3.34	96	2.0	-	72	-0.045	10.98	0.017
309	55.457	0.176	3.34	96	2.0	-	72	-0.046	10.85	0.019
310	55.641	0.184	3.33	96	1.8	100	72	-0.047	10.78	0.017
311	55.820	0.179	3.33	96	1.7	-	72	-0.046	10.66	0.017
312	56.004	0.184	3.34	96	1.6	-	72	-0.044	10.56	0.013
313	56.186	0.182	3.34	96	2.2	-	72	-0.045	10.43	0.017
314	56.363	0.177	3.34	96	2.1	-	72	-0.044	10.39	0.015
315	56.545	0.182	3.33	96	2.2	-	72	-0.044	10.31	0.017
316	56.726	0.181	3.33	96	1.7	-	72	-0.044	10.35	0.017
317	56.909	0.183	3.34	96	2.1	-	72	-0.043	10.31	0.016
318	57.090	0.181	3.34	96	1.6	-	72	-0.041	10.37	0.019
319	57.268	0.178	3.34	96	1.6	-	72	-0.040	10.21	0.016

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	57.447	0.179	3.34	95	2.0	100	72	-0.044	10.14	0.015
321	57.632	0.185	3.34	95	1.7	-	72	-0.042	10.18	0.016
322	57.812	0.180	3.33	95	1.6	-	72	-0.043	10.26	0.015
323	57.991	0.179	3.33	95	1.6	-	72	-0.041	10.26	0.018
324	58.176	0.185	3.33	95	1.7	-	72	-0.043	10.32	0.017
325	58.356	0.180	3.34	95	2.1	-	72	-0.042	10.26	0.016
326	58.532	0.176	3.34	95	2.1	-	72	-0.040	10.38	0.014
327	58.713	0.181	3.33	95	1.9	-	72	-0.043	10.56	0.012
328	58.898	0.185	3.34	95	2.1	-	72	-0.040	10.54	0.018
329	59.079	0.181	3.34	95	2.1	-	72	-0.042	10.56	0.020
330	59.261	0.182	3.34	95	1.8	100	72	-0.043	10.65	0.016
331	59.439	0.178	3.34	95	1.9	-	72	-0.042	10.72	0.016
332	59.618	0.179	3.34	95	1.6	-	72	-0.042	10.78	0.020
333	59.801	0.183	3.34	95	2.2	-	72	-0.044	10.63	0.014
334	59.984	0.183	3.33	95	1.6	-	72	-0.042	10.79	0.019
335	60.163	0.179	3.34	95	2.1	-	72	-0.042	10.82	0.017
336	60.343	0.180	3.34	95	1.9	-	72	-0.041	10.82	0.018
337	60.523	0.180	3.34	95	1.8	-	72	-0.043	10.80	0.019
338	60.706	0.183	3.34	95	1.7	-	72	-0.043	10.62	0.016
339	60.887	0.181	3.34	95	1.9	-	72	-0.046	10.59	0.018
340	61.069	0.182	3.33	95	1.8	99	72	-0.043	10.61	0.017
341	61.248	0.179	3.33	95	1.6	-	72	-0.044	10.52	0.021
342	61.428	0.180	3.34	95	1.6	-	72	-0.044	10.43	0.018
343	61.610	0.182	3.33	95	1.9	-	72	-0.044	10.53	0.020
344	61.791	0.181	3.33	95	1.6	-	71	-0.042	10.47	0.017
345	61.970	0.179	3.34	95	1.7	-	72	-0.042	10.36	0.020
346	62.152	0.182	3.34	95	2.0	-	71	-0.043	10.35	0.021
347	62.333	0.181	3.34	95	1.8	-	71	-0.043	10.25	0.016
348	62.517	0.184	3.34	95	1.6	-	71	-0.043	10.33	0.016
349	62.692	0.175	3.33	95	1.6	-	71	-0.043	10.30	0.018
350	62.876	0.184	3.34	95	1.8	99	71	-0.043	10.35	0.014
351	63.055	0.179	3.33	95	1.6	-	71	-0.043	10.41	0.019

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	63.239	0.184	3.34	95	1.6	-	71	-0.041	10.44	0.018
353	63.420	0.181	3.34	95	1.7	-	71	-0.042	10.40	0.017
354	63.601	0.181	3.33	95	1.6	-	71	-0.042	10.40	0.019
355	63.780	0.179	3.34	95	2.2	-	71	-0.043	10.39	0.016
356	63.961	0.181	3.34	95	1.8	-	71	-0.042	10.40	0.018
357	64.143	0.182	3.34	95	1.8	-	71	-0.044	10.42	0.020
358	64.322	0.179	3.34	95	1.9	-	71	-0.042	10.50	0.015
359	64.506	0.184	3.34	95	2.1	-	71	-0.042	10.54	0.016
360	64.685	0.179	3.34	95	1.9	99	71	-0.043	10.70	0.020
361	64.862	0.177	3.33	95	1.9	-	71	-0.042	10.70	0.017
362	65.046	0.184	3.34	95	2.0	-	71	-0.042	10.79	0.018
363	65.228	0.182	3.33	95	2.1	-	71	-0.043	10.84	0.019
364	65.410	0.182	3.33	95	2.2	-	71	-0.042	10.91	0.019
365	65.588	0.178	3.34	95	1.7	-	71	-0.042	10.91	0.024
366	65.769	0.181	3.34	95	2.0	-	71	-0.043	10.84	0.018
367	65.947	0.178	3.34	95	1.7	-	71	-0.043	10.85	0.019
368	66.132	0.185	3.33	95	2.1	-	71	-0.041	10.68	0.019
369	66.311	0.179	3.34	95	1.6	-	71	-0.042	10.75	0.020
370	66.494	0.183	3.33	95	1.8	100	71	-0.044	10.73	0.017
371	66.675	0.181	3.33	95	1.6	-	71	-0.041	10.71	0.021
372	66.852	0.177	3.34	95	1.7	-	71	-0.043	10.65	0.016
373	67.035	0.183	3.34	95	2.0	-	71	-0.043	10.56	0.013
374	67.217	0.182	3.34	95	1.7	-	71	-0.041	10.54	0.021
375	67.400	0.183	3.34	95	1.6	-	71	-0.040	10.45	0.020
376	67.580	0.180	3.33	95	2.0	-	71	-0.040	10.48	0.020
377	67.755	0.175	3.33	95	1.6	-	71	-0.040	10.50	0.018
378	67.939	0.184	3.33	95	2.1	-	71	-0.042	10.49	0.020
379	68.120	0.181	3.33	95	2.0	-	71	-0.041	10.45	0.020
380	68.302	0.182	3.34	95	2.0	100	71	-0.042	10.39	0.020
381	68.481	0.179	3.34	95	1.8	-	71	-0.040	10.42	0.020
382	68.665	0.184	3.34	95	1.7	-	71	-0.041	10.40	0.017
383	68.843	0.178	3.34	95	1.8	-	71	-0.041	10.37	0.020

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	69.020	0.177	3.34	95	2.1	-	71	-0.042	10.24	0.021
385	69.207	0.187	3.34	95	1.7	-	71	-0.041	10.34	0.022
386	69.385	0.178	3.34	95	1.8	-	71	-0.040	10.33	0.025
387	69.569	0.184	3.34	95	2.1	-	71	-0.041	10.30	0.023
388	69.749	0.180	3.34	95	1.7	-	71	-0.041	10.24	0.021
389	69.926	0.177	3.34	95	2.1	-	71	-0.040	10.28	0.023
390	70.109	0.183	3.33	95	2.0	100	71	-0.042	10.25	0.024
391	70.291	0.182	3.34	95	1.7	-	71	-0.041	10.26	0.015
392	70.471	0.180	3.34	95	2.1	-	71	-0.040	10.31	0.021
393	70.654	0.183	3.34	95	2.1	-	71	-0.039	10.20	0.018
394	70.829	0.175	3.34	95	2.1	-	71	-0.041	9.97	0.022
395	71.010	0.181	3.34	95	1.8	-	71	-0.040	9.98	0.022
396	71.194	0.184	3.34	95	2.2	-	71	-0.040	10.04	0.024
397	71.376	0.182	3.34	95	2.0	-	71	-0.039	9.98	0.019
398	71.555	0.179	3.34	95	1.9	-	71	-0.041	9.97	0.024
399	71.739	0.184	3.34	95	2.1	-	71	-0.040	9.96	0.026
400	71.917	0.178	3.34	95	1.8	99	71	-0.039	9.91	0.023
Avg/Tot	71.917	0.180	3.31	93.0	1.9	100	73.2	-0.051	11.53	0.096

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	0.000		0.34	74	1.6		72
1	0.133	0.133	0.94	74	1.8	-	73
2	0.273	0.140	0.94	74	1.7	-	73
3	0.408	0.135	0.95	74	1.8	-	73
4	0.550	0.142	0.97	74	1.8	-	73
5	0.689	0.139	0.96	74	1.7	-	73
6	0.830	0.141	0.98	74	1.6	-	73
7	0.971	0.141	0.98	75	1.7	-	73
8	1.112	0.141	0.98	75	1.8	-	73
9	1.251	0.139	0.99	75	1.8	-	73
10	1.396	0.145	1.00	75	1.6	98	73
11	1.538	0.142	0.99	75	1.7	-	73
12	1.679	0.141	0.99	75	1.8	-	73
13	1.821	0.142	1.00	75	1.6	-	73
14	1.965	0.144	1.00	75	1.8	-	73
15	2.107	0.142	1.00	75	1.8	-	73
16	2.247	0.140	1.00	76	1.6	-	73
17	2.394	0.147	1.00	76	1.6	-	73
18	2.534	0.140	1.00	77	1.8	-	73
19	2.679	0.145	1.00	76	1.6	-	73
20	2.819	0.140	1.00	77	1.6	99	73
21	2.964	0.145	1.01	77	1.6	-	73
22	3.110	0.146	1.01	77	1.6	-	73
23	3.251	0.141	1.01	77	1.8	-	73
24	3.397	0.146	1.01	77	1.6	-	73
25	3.541	0.144	1.01	77	1.6	-	73
26	3.686	0.145	1.02	78	1.6	-	73
27	3.829	0.143	1.02	78	1.8	-	73
28	3.974	0.145	1.02	79	1.6	-	73
29	4.118	0.144	1.02	79	1.6	-	73
30	4.263	0.145	1.02	79	1.8	100	73
31	4.409	0.146	1.03	79	1.7	-	73

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.557	0.148	1.03	80	1.8	-	73
33	4.704	0.147	1.04	80	1.6	-	73
34	4.850	0.146	1.04	80	1.7	-	73
35	4.996	0.146	1.04	81	1.7	-	73
36	5.142	0.146	1.04	81	1.7	-	73
37	5.286	0.144	1.04	81	1.7	-	73
38	5.436	0.150	1.04	81	1.8	-	73
39	5.580	0.144	1.03	81	1.7	-	73
40	5.729	0.149	1.03	82	1.6	102	73
41	5.876	0.147	1.04	82	1.7	-	73
42	6.022	0.146	1.05	82	1.6	-	73
43	6.170	0.148	1.05	82	1.8	-	73
44	6.320	0.150	1.05	82	1.8	-	73
45	6.465	0.145	1.05	82	1.8	-	73
46	6.615	0.150	1.05	83	1.8	-	73
47	6.760	0.145	1.05	83	1.8	-	73
48	6.911	0.151	1.05	83	1.6	-	73
49	7.056	0.145	1.05	83	1.7	-	73
50	7.204	0.148	1.04	83	1.7	102	73
51	7.352	0.148	1.04	83	1.6	-	73
52	7.503	0.151	1.05	84	1.8	-	73
53	7.649	0.146	1.05	84	1.7	-	73
54	7.797	0.148	1.05	84	1.8	-	73
55	7.945	0.148	1.05	84	1.7	-	73
56	8.094	0.149	1.05	85	1.8	-	73
57	8.242	0.148	1.05	84	1.7	-	73
58	8.394	0.152	1.05	84	1.6	-	73
59	8.540	0.146	1.05	84	1.8	-	73
60	8.689	0.149	1.05	84	1.8	102	73
Avg/Tot	8.689	0.145	1.01	79.0	1.7	100	73.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	399	393	280	415	518	401.0	666.6
1	396	391	267	415	522	398.0	624.2
2	392	387	250	411	524	392.7	615.9
3	386	382	238	409	525	387.8	636.3
4	379	376	228	408	525	383.1	667.6
5	373	370	220	409	525	379.2	691.1
6	366	364	214	410	524	375.4	705.3
7	359	358	209	412	523	372.0	713.5
8	353	353	205	413	521	368.8	717.8
9	347	348	201	414	520	365.9	720.9
10	341	343	199	415	518	363.1	723.2
11	335	339	196	415	516	360.4	724.3
12	330	335	194	416	514	358.0	726.0
13	326	332	193	416	512	355.8	730.2
14	321	330	191	417	510	353.8	737.8
15	317	327	190	418	508	352.1	749.8
16	313	326	189	420	506	350.8	766.4
17	310	325	188	423	504	350.1	787.9
18	307	324	188	427	502	349.6	804.9
19	304	323	187	431	501	349.1	819.4
20	302	323	186	435	499	348.7	833.5
21	299	323	185	440	497	348.8	849.1
22	297	324	184	445	496	349.1	863.5
23	295	324	183	450	494	349.5	872.5
24	294	325	183	454	493	349.9	876.6
25	292	326	182	459	492	350.3	879.3
26	291	327	183	462	491	350.9	880.4
27	290	329	183	466	490	351.4	881.5
28	289	330	183	468	489	351.9	884.0
29	289	331	183	472	489	352.7	889.1
30	288	333	184	475	488	353.6	895.0
31	288	334	184	479	488	354.5	901.3
32	288	335	184	482	488	355.5	905.4
33	288	337	185	485	488	356.4	907.3
34	288	338	185	488	488	357.4	907.7
35	288	339	185	491	488	358.3	906.6
36	288	340	185	493	489	359.0	904.3
37	288	341	186	495	489	359.7	903.6
38	288	343	186	497	490	360.5	905.4
39	288	344	186	498	490	361.3	907.8
40	288	345	187	500	491	362.1	910.9
41	289	346	187	502	491	362.9	914.6
42	289	347	187	503	492	363.6	920.7
43	290	349	187	505	493	364.6	927.0
44	290	350	188	508	493	365.8	932.0
45	291	351	188	511	494	366.9	934.7
46	291	353	188	513	495	367.9	935.1
47	292	354	189	515	496	368.9	934.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	292	355	189	517	497	370.1	934.9
49	293	357	190	519	497	371.2	937.6
50	294	358	191	520	498	372.2	940.3
51	294	359	191	523	499	373.2	943.5
52	295	361	191	524	500	374.3	948.0
53	295	362	192	526	501	375.3	953.7
54	296	363	192	529	502	376.5	960.7
55	297	365	193	532	503	377.7	967.9
56	297	366	193	535	503	378.8	973.3
57	298	367	193	538	504	379.9	978.0
58	298	368	193	542	505	381.1	983.6
59	299	369	193	545	506	382.3	987.7
60	300	371	194	548	507	383.7	991.0
61	300	372	194	551	507	384.9	993.9
62	301	373	195	554	508	386.1	994.9
63	302	374	195	556	508	387.1	994.2
64	302	376	196	558	509	388.1	992.7
65	303	377	196	560	510	388.9	991.6
66	303	379	197	561	510	390.0	991.1
67	304	380	197	563	511	391.0	992.8
68	305	382	197	564	511	391.9	996.9
69	306	383	198	566	512	393.0	1002.2
70	307	385	198	569	513	394.1	1006.0
71	307	386	199	571	513	395.3	1010.0
72	308	388	199	573	513	396.3	1013.8
73	309	389	200	576	514	397.4	1015.9
74	310	392	200	578	514	398.7	1016.4
75	311	394	201	581	514	399.9	1015.0
76	312	396	201	582	514	401.0	1013.1
77	313	398	202	584	514	402.1	1011.0
78	314	400	202	585	514	403.0	1009.5
79	315	402	203	587	514	404.0	1007.5
80	316	404	203	587	514	405.0	1007.0
81	317	407	204	589	513	405.9	1005.1
82	318	409	205	590	513	406.8	1003.3
83	319	411	205	590	512	407.4	1001.7
84	320	413	206	591	511	408.0	999.6
85	321	414	206	590	510	408.4	997.4
86	322	416	207	590	509	408.6	993.6
87	323	418	207	590	507	408.8	988.8
88	324	419	207	589	506	409.0	985.1
89	324	420	208	588	505	409.1	981.1
90	325	421	208	587	504	409.0	982.8
91	326	423	209	587	503	409.2	984.9
92	326	424	209	586	502	409.3	985.4
93	327	425	209	586	500	409.5	985.8
94	328	426	210	586	499	410.0	983.5
95	329	427	211	586	498	410.2	980.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	330	428	211	585	497	410.3	978.0
97	330	429	212	585	496	410.4	976.5
98	331	430	213	584	495	410.5	974.0
99	332	430	213	583	494	410.4	970.8
100	332	431	214	582	494	410.7	969.7
101	333	432	215	582	493	410.8	969.1
102	334	433	216	581	492	411.0	970.5
103	334	433	216	581	492	411.0	971.6
104	334	434	217	580	491	411.2	972.8
105	335	434	218	580	490	411.4	974.3
106	336	435	218	580	490	411.6	976.0
107	336	435	219	581	490	412.0	977.7
108	337	436	219	581	489	412.3	979.4
109	337	437	220	581	489	412.7	979.4
110	338	437	220	582	488	412.9	977.9
111	338	438	221	582	488	413.4	976.9
112	339	438	221	583	488	413.7	976.5
113	340	439	222	583	488	414.2	976.8
114	340	440	222	583	488	414.6	978.3
115	341	441	223	584	487	415.1	979.1
116	342	442	223	584	487	415.5	980.2
117	342	443	224	584	487	415.9	981.4
118	343	444	225	584	486	416.4	984.2
119	344	445	225	585	486	417.0	985.1
120	344	447	226	586	486	417.6	984.8
121	345	448	226	587	485	418.2	983.0
122	346	450	226	587	485	418.6	983.1
123	347	451	227	587	485	419.2	983.4
124	347	452	227	588	484	419.7	984.7
125	348	453	228	589	484	420.3	987.2
126	348	454	229	590	483	421.0	987.4
127	349	455	229	591	483	421.6	988.8
128	350	457	230	593	482	422.3	991.4
129	351	458	231	594	482	422.9	992.2
130	351	459	231	595	481	423.5	994.6
131	352	460	232	597	481	424.2	995.5
132	353	461	232	599	480	425.0	997.8
133	353	462	233	601	480	425.8	998.3
134	354	463	234	602	479	426.4	999.7
135	355	464	235	604	478	427.0	1002.6
136	355	464	235	605	478	427.6	1006.2
137	356	465	235	607	477	428.0	1005.3
138	357	465	236	608	476	428.5	998.2
139	358	465	237	609	476	428.8	994.1
140	359	466	237	609	475	429.1	989.7
141	359	466	238	610	474	429.4	985.0
142	360	466	239	609	474	429.6	980.3
143	361	467	239	608	473	429.6	974.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	362	467	240	609	472	429.9	971.0
145	363	467	241	608	472	430.1	966.7
146	363	467	242	607	471	429.9	963.9
147	364	467	242	607	470	430.0	961.0
148	365	467	243	606	469	430.0	959.0
149	365	467	244	605	469	430.1	956.9
150	366	466	245	605	468	429.8	960.6
151	366	465	245	605	467	429.5	986.8
152	366	463	245	608	466	429.6	1021.3
153	366	462	244	613	466	430.1	1047.2
154	366	460	245	620	465	430.8	1061.5
155	365	458	244	625	464	431.3	1069.1
156	365	456	244	631	464	431.9	1072.4
157	365	454	243	636	463	432.3	1072.2
158	365	452	243	639	463	432.3	1070.0
159	365	451	244	643	462	433.0	1067.2
160	365	449	244	645	462	432.9	1063.9
161	365	448	244	646	462	432.8	1059.7
162	365	447	244	647	461	432.6	1056.2
163	365	445	244	646	461	432.2	1052.3
164	365	444	244	647	461	432.3	1048.7
165	365	443	244	647	461	431.9	1045.2
166	365	442	244	646	461	431.4	1042.5
167	366	441	244	645	460	431.0	1040.6
168	366	439	244	643	460	430.5	1039.6
169	366	438	244	643	460	430.2	1038.7
170	366	437	244	642	460	430.0	1037.9
171	366	436	245	642	460	429.7	1036.9
172	366	435	245	640	460	429.4	1035.9
173	366	434	246	640	460	429.1	1034.9
174	367	434	246	638	460	428.8	1033.6
175	367	433	246	638	460	428.4	1031.8
176	367	432	245	637	459	428.1	1030.0
177	367	432	246	633	459	427.2	1027.6
178	367	431	245	634	459	427.1	1025.4
179	367	430	245	633	459	426.8	1023.1
180	367	430	244	632	460	426.4	1020.9
181	367	429	244	630	460	425.9	1018.6
182	367	429	244	628	460	425.5	1016.4
183	367	428	244	627	461	425.1	1014.3
184	367	427	243	625	462	424.8	1012.3
185	367	427	243	623	462	424.4	1010.3
186	367	426	242	621	463	424.0	1009.2
187	367	426	242	620	464	423.7	1008.4
188	367	425	242	618	465	423.4	1007.7
189	367	425	242	617	466	423.1	1007.3
190	367	425	241	615	466	422.9	1007.0
191	367	424	241	615	467	422.9	1007.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	367	424	241	614	468	423.0	1008.7
193	367	424	241	614	469	422.9	1009.7
194	367	424	240	613	470	423.0	1010.8
195	367	424	241	613	471	423.2	1012.0
196	368	424	241	612	472	423.3	1013.5
197	368	424	241	613	473	423.6	1015.2
198	368	424	241	611	474	423.7	1016.7
199	368	424	241	613	475	424.3	1018.4
200	368	424	242	614	477	424.8	1020.0
201	368	424	242	614	478	425.2	1021.0
202	369	425	242	615	479	425.7	1021.6
203	369	425	242	614	480	426.0	1021.5
204	369	426	242	616	481	426.7	1021.3
205	369	426	242	616	482	427.1	1021.0
206	370	426	243	616	484	427.5	1020.5
207	371	428	244	615	485	428.4	1014.0
208	371	429	245	615	486	429.3	1006.6
209	372	431	247	612	487	430.0	987.5
210	373	433	249	608	488	430.3	970.6
211	375	435	251	603	490	430.7	958.9
212	376	436	253	598	492	430.9	950.4
213	377	438	254	593	493	431.1	944.1
214	379	439	255	588	495	431.3	939.7
215	380	441	256	584	497	431.6	936.5
216	381	443	257	580	499	432.0	934.4
217	382	444	258	577	500	432.2	932.8
218	383	446	257	574	501	432.1	932.3
219	384	448	257	571	502	432.3	932.0
220	384	451	256	569	502	432.4	930.8
221	385	453	256	566	503	432.7	929.0
222	386	455	258	565	503	433.2	927.3
223	386	455	260	563	504	433.6	923.8
224	387	456	261	561	504	433.8	919.1
225	388	457	263	558	505	434.1	913.6
226	389	458	264	556	505	434.5	908.4
227	390	459	265	554	506	434.7	903.7
228	391	460	266	552	507	434.9	900.5
229	392	460	266	549	508	435.0	897.6
230	393	461	267	548	509	435.3	895.1
231	394	462	267	546	510	435.5	892.9
232	394	462	268	544	511	435.8	891.2
233	395	462	267	542	512	435.6	889.4
234	395	463	266	541	513	435.5	888.2
235	395	464	265	540	513	435.5	887.7
236	395	465	265	539	513	435.4	888.1
237	395	467	264	538	514	435.3	888.6
238	395	468	264	537	514	435.5	889.8
239	395	470	264	537	514	435.7	892.0

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	394	471	264	537	514	435.9	894.0
241	394	472	263	537	514	436.1	895.4
242	394	473	263	537	515	436.3	895.5
243	394	473	263	537	515	436.5	896.6
244	394	474	264	537	516	436.8	897.9
245	394	474	264	537	516	437.1	898.1
246	393	475	264	537	517	437.4	897.9
247	393	476	264	537	518	437.6	902.0
248	393	477	264	538	518	438.1	903.4
249	393	478	264	539	518	438.5	906.2
250	393	479	265	539	517	438.7	905.5
251	393	480	265	540	517	439.1	905.6
252	393	481	267	541	516	439.5	903.9
253	393	482	268	541	516	440.0	901.5
254	393	483	269	542	516	440.3	904.1
255	393	484	269	542	515	440.7	906.9
256	394	485	270	543	515	441.3	907.0
257	394	486	271	544	514	441.8	909.4
258	394	486	271	545	514	442.1	917.1
259	395	487	272	547	514	442.7	918.7
260	395	487	272	548	514	443.1	930.8
261	395	487	273	551	514	443.9	932.2
262	396	487	273	553	513	444.3	938.1
263	396	486	272	555	513	444.6	941.9
264	396	486	272	558	513	445.1	943.6
265	397	486	272	559	513	445.4	942.3
266	397	485	272	560	513	445.4	936.7
267	397	485	272	560	514	445.4	932.6
268	397	485	272	560	514	445.4	928.6
269	397	484	273	559	514	445.3	924.9
270	397	484	273	559	514	445.2	920.8
271	397	483	273	558	514	445.1	920.1
272	397	482	274	557	515	445.1	919.4
273	397	482	275	557	516	445.2	919.1
274	398	481	275	556	516	445.2	919.5
275	398	481	276	555	517	445.2	920.4
276	398	480	276	555	518	445.3	922.3
277	398	480	276	554	519	445.4	924.3
278	398	480	277	555	519	445.7	927.1
279	398	479	277	555	520	445.9	929.8
280	399	479	278	555	521	446.4	932.4
281	399	479	278	555	523	446.8	932.8
282	399	479	279	556	524	447.4	933.2
283	400	480	279	556	526	447.9	933.5
284	400	480	279	556	527	448.3	934.7
285	400	480	279	555	529	448.7	935.2
286	401	481	281	556	530	449.4	934.2
287	402	480	282	556	531	450.0	931.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	403	480	283	556	531	450.5	927.6
289	403	480	283	554	532	450.4	924.7
290	404	480	284	554	532	450.7	922.8
291	405	479	285	553	532	451.0	922.2
292	406	479	285	553	533	451.1	922.4
293	407	479	286	552	533	451.2	922.2
294	407	478	285	552	533	451.1	922.8
295	408	478	286	551	534	451.2	921.9
296	408	478	286	551	534	451.3	920.2
297	409	477	286	550	534	451.3	917.7
298	409	477	286	549	535	451.3	916.0
299	410	477	286	548	535	451.1	915.0
300	410	476	287	547	535	451.1	913.6
301	411	476	287	547	535	451.2	911.0
302	411	475	288	545	535	450.9	907.9
303	412	474	288	544	536	450.6	902.2
304	412	474	288	543	536	450.4	895.0
305	412	473	288	541	537	449.9	885.3
306	412	472	287	538	537	449.3	874.0
307	412	470	287	535	538	448.6	861.6
308	412	469	287	532	539	447.5	849.0
309	412	468	286	528	539	446.7	836.3
310	413	466	286	524	540	445.8	823.2
311	413	465	286	520	541	444.6	810.5
312	413	463	285	515	541	443.4	797.7
313	413	462	285	510	542	442.1	786.1
314	413	461	284	505	543	441.0	775.4
315	413	460	284	500	543	439.8	764.7
316	413	459	283	495	544	438.5	755.0
317	413	458	282	490	545	437.3	746.1
318	413	457	282	484	545	436.3	738.1
319	413	455	282	480	546	435.2	730.6
320	413	454	283	475	547	434.3	722.2
321	413	453	282	470	547	433.2	713.9
322	413	452	282	466	548	432.4	706.5
323	414	452	283	462	548	431.7	700.4
324	414	450	283	458	549	430.9	695.1
325	414	449	284	454	550	430.4	691.8
326	415	448	285	451	551	429.9	690.0
327	415	448	286	448	551	429.5	688.7
328	416	447	287	445	552	429.3	687.4
329	417	446	288	443	552	429.1	686.5
330	417	446	289	441	552	428.9	685.9
331	418	445	291	438	553	428.8	685.8
332	419	444	292	436	553	428.7	686.0
333	420	443	293	435	554	428.8	686.7
334	421	442	294	433	554	428.8	687.3
335	422	442	295	432	555	429.2	688.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	423	441	296	432	556	429.6	689.2
337	424	441	297	430	557	429.8	689.7
338	426	440	297	430	559	430.2	689.6
339	427	440	297	430	560	430.9	689.1
340	429	440	298	428	562	431.4	688.0
341	431	439	298	429	564	432.1	687.3
342	433	439	298	428	567	432.7	687.0
343	435	438	299	428	569	433.7	686.8
344	437	438	299	427	571	434.4	686.5
345	439	437	299	428	574	435.2	686.0
346	441	437	298	427	576	435.7	684.7
347	443	436	298	426	579	436.3	682.8
348	446	436	297	426	581	437.2	680.7
349	448	435	297	426	584	437.9	678.7
350	451	435	296	425	587	438.6	677.2
351	454	434	297	424	589	439.6	675.9
352	457	434	297	424	592	440.7	674.7
353	461	433	296	424	594	441.6	673.4
354	465	432	297	423	596	442.6	672.1
355	468	431	298	422	598	443.5	670.6
356	472	430	298	422	600	444.3	669.4
357	476	429	298	421	602	445.2	668.4
358	479	428	298	421	604	446.0	667.9
359	482	427	299	420	606	446.7	667.8
360	485	426	299	420	607	447.5	668.4
361	488	425	299	420	609	448.1	669.5
362	491	424	300	420	610	448.8	671.7
363	494	423	300	420	611	449.5	674.1
364	496	422	301	420	612	450.1	676.1
365	498	421	302	421	613	450.7	677.8
366	501	420	302	421	613	451.4	678.9
367	502	419	303	421	616	452.1	678.8
368	502	417	304	420	617	452.2	678.1
369	503	416	305	421	618	452.7	676.2
370	504	416	306	420	619	452.9	673.2
371	505	415	307	420	620	453.2	670.2
372	506	415	308	419	621	453.8	667.4
373	508	414	309	419	622	454.1	664.3
374	509	413	309	417	623	454.3	660.3
375	510	413	310	416	624	454.4	656.5
376	511	412	311	415	624	454.5	652.8
377	512	412	311	414	625	454.5	649.9
378	513	411	311	413	625	454.6	647.3
379	513	411	312	412	626	454.7	645.2
380	514	410	312	410	627	454.5	643.3
381	515	410	313	409	627	454.7	642.1
382	515	409	313	408	627	454.6	640.9
383	516	409	313	407	628	454.4	639.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

Stove ΔT: 48

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	516	408	313	406	628	454.3	638.8
385	517	407	313	405	628	454.0	638.0
386	518	407	313	405	628	454.1	637.5
387	518	406	313	403	628	453.7	637.2
388	519	406	312	403	628	453.5	637.0
389	519	405	312	403	628	453.3	637.0
390	519	405	312	402	628	453.0	637.0
391	519	404	312	401	627	452.8	637.2
392	519	404	312	401	627	452.4	637.5
393	519	403	312	400	627	452.1	637.7
394	518	402	313	400	626	451.9	638.2
395	517	402	312	400	626	451.3	638.2
396	516	401	314	399	625	450.8	638.6
397	515	400	314	399	624	450.5	639.0
398	514	399	315	398	623	449.7	639.2
399	513	399	314	399	622	449.4	639.5
400	512	398	314	398	622	448.8	639.2
Average	380.8	428.4	250.0	531.2	518.5	421.8	885.2

LAB SAMPLE DATA - ASTM E2515

Client: Blaze King
Model: KE40
Run #: 4

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/13/2024

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G00947	238.5	244.7	6.2
	B	G00948	239.6	245.1	5.5
	C - 1st Hour	G00949	239.5	242.4	2.9
	Amb	G00950	238.6	238.7	0.1
Probes	**A**	11A	116866.8	116867.3	0.5
	B	11B	117340.4	117341.0	0.6
	C - 1st Hour	11C	116186.3	116186.7	0.4
O-rings	**A**	11A	3423.4	3423.4	0.0
	B	11B	4233.9	4235.0	1.1
	C - 1st Hour	11C	3588.8	3589.0	0.2

Placed in Dessicator on:	3/14/2024 8:30

		Balance Audit (mg):	200.0		200.0					
			Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**		244.7	3/15 14:30	244.7	3/18 9:30				
	B		244.9	3/15 14:30	245.1	3/18 9:30				
	C - 1st Hour		242.6	3/15 14:30	242.4	3/18 9:30				
	Amb		238.7	3/15 14:30	238.7	3/18 9:30				
Probes	**A**		116867.5	3/15 14:30	116867.3	3/18 9:30				
	B		117341.1	3/15 14:30	117341.0	3/18 9:30				
	C - 1st Hour		116186.7	3/15 14:30	116186.7	3/18 9:30				
O-Rings	**A**		3423.5	3/15 14:30	3423.4	3/18 9:30				
	B		4235.2	3/15 14:30	4235.0	3/18 9:30				
	C - 1st Hour		3589.1	3/15 14:30	3589.0	3/18 9:30				

Train A Aggregate, mg:	**6.7**
Train B Aggregate, mg:	**7.2**
Train C Aggregate, mg:	**3.5**
Ambient, mg:	**0.1**

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 4 Test Date: 3/13/24

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Knob open 60º
Targeted Burn Category: III

Preburn Notes

Time	Notes
	-None-

Test Notes
Test Burn Start Time: 19:14 Test Fuel Loaded by: 25 seconds
Door Closed: 35 seconds Air Control Set at: 0 seconds
Other Loading Notes: Bypass open @ 0 sec, closed @ 35 sec, fan set to high @ 0 sec

Time	Notes
	-None-

Test Burn End Time: 3/14 01:54

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 16.98 CO (%): 4.300
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	16:46	16:47	16:48	3/14 11:56	3/14 11:57	3/14 11:58
CO_2	0.12	17.17	10.13	0.18	17.01	10.18
CO	-0.030	4.316	2.496	0.004	4.354	2.552

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature: Date: 3/18/24

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 4 Test Date: 3/13/24

Test Fuel Front/Side View

Test Fuel Iso View

Test Fuel Loaded in Stove

Air Setting

Technician Signature: Date: 3/18/24

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 5 Data Summary

Client:	Blaze King
Model:	KE40
Job #:	24-274
Tracking #:	184
Test Date:	3/14/2024

Techician Signature

3/20/2024
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Burn Rate (kg/hr):	1.31

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	41.462	90.585	87.385	8.686
Average Gas Velocity in Dilution Tunnel (ft/sec)	19.6			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	13121.7			
Average Gas Meter Temperature (°F)	69.8	90.5	95.2	77.2
Total Sample Volume (dscf)	42.169	88.632	84.809	8.656
Average Tunnel Temperature (°F)	89.4			
Total Time of Test (min)	487			
Total Particulate Catch (mg)	0.0	3.6	3.9	2.0
Particulate Concentration, dry-standard (g/dscf)	0.0000000	0.0000406	0.0000460	0.0002310
Total PM Emissions (g)	0.00	4.33	4.90	3.03
Particulate Emission Rate (g/hr)	0.00	0.53	0.60	3.03
Emissions Factor (g/kg)	-	0.41	0.46	-
Difference from Average Total Particulate Emissions (g)	-	0.29	0.29	-
Difference from Average Total Particulate Emissions (%)	-	6.2%	6.2%	
Difference from Average Emissions Factor (g/kg)	-	0.03	0.03	-

Final Average Results	
Total Particulate Emissions (g)	4.61
Particulate Emission Rate (g/hr)	0.57
Emissions Factor (g/kg)	0.43
HHV Efficiency (%)	82.6%
LHV Efficiency (%)	89.3%
CO Emissions (g/min)	0.21

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	78.8	OK
Face Velocity	< 30 ft/min	10.3	OK
Leakage Rate	Less than 4% of average sample rate	0 cfm	OK
Ambient Temp	55-90 °F	Min:68/Max:71.1	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	41.8	OK

B415.1 Efficiency Results

Manufacturer:	Blaze King
Model:	KE40
Date:	03/14/24
Run:	5
Control #:	24-274
Test Duration:	487
Output Category:	3

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	82.6%	89.3%
Combustion Efficiency	99.5%	99.5%
Heat Transfer Efficiency	83.0%	89.8%

Output Rate (kJ/h)	21,438	20,336	**(Btu/h)**
Burn Rate (kg/h)	1.31	2.89	**(lb/h)**
Input (kJ/h)	25,943	24,609	**(Btu/h)**

Test Load Weight (dry kg)	10.63	23.43	**dry lb**
MC wet (%)	16.75		
MC dry (%)	20.12		
Particulate (g)	4.61		
CO (g)	102		
Test Duration (h)	8.12		

Emissions	Particulate	CO
g/MJ Output	0.03	0.59
g/kg Dry Fuel	0.43	9.59
g/h	0.57	12.56
g/min	0.01	0.21
lb/MM Btu Output	0.06	1.36

Air/Fuel Ratio (A/F)	10.95

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	19.00	19.4	2x4	19.00	23.2
2x4	19.00	21.4	2x4	19.00	20.9
2x4	19.00	23.3	2x4	19.00	19.0
2x4	19.00	24.5	2x4	19.00	19.6
2x4	19.00	24.6			
2x4	19.00	21.7			1.6
2x4	19.00	24.5			
2x4	19.00	21.5			
Total Fuel Weight (lbs):		25.53	Average Moisture (%DB):		20.4

Firebox Volume (ft^3):	4.35
Total 2x4 Crib Weight, with spacers (lbs):	0.00
Total 4x4 Crib Weight, with spacers (lbs):	28.17
Total Wet Fuel Weight, with spacers (lbs):	28.17

Coal Bed Range (20-25%):
Min (lbs): 5.63
Max (lbs): 7.04

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	19.00	4.45	19.1	19.7	20.9	3.71
4x4	19.00	4.32	19.6	19.1	19.2	3.62
4x4	19.00	4.30	20.2	20.1	20.4	3.58
4x4	19.00	4.52	22.8	19.7	19.3	3.75
4x4	19.00	4.59	21.9	20.4	21.7	3.78
4x4	19.00	4.34	19.2	19.8	19.0	3.64
					Total Dry Weight, no spacers (lbs):	22.08
					Total Dry Weight, with spacers (lbs):	23.47

Spacer Moisture Readings (%DB)

17.3	18.3	16.9					
17.1	17.1	18.7					
17.1	18.7						
18.9	19.5						
18.3	17.1						
19.2	17.4						
17.6	17.7						
18.1	19.0						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	27.3	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	6.48	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	Blaze King	Job #:	24-274
Model:	KE40	Tracking #:	184
Run #:	5	Technician:	AK
Test Start Time:	12:29	Date:	3/14/2024

Total Sampling Time (min):	487
Recording Interval (min):	1

Meter Box γ Factor:	1.004	(A)
Meter Box γ Factor:	1.005	(B)
Meter Box γ Factor:	1.004	(C)
Meter Box γ Factor:	1.013	(Ambient)

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	30.27	30.04	30.16
Relative Humidity (%)	26.4	22.2	
Room Air Velocity (ft/min)	<50	<50	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		41.462	ft^3

Induced Draft Check (in. H_2O):	0
Smoke Capture Check (%):	100%
Date Flue Pipe Last Cleaned:	3/8/2024
Test Fuel Scale Audit (lbs)	10.00
Platform Scale Audit (lbs)	10.0

Sample Train Leak Checks

	Pre-test	Post-test			
(A)	0.000	0.000	cfm @	-8	in. Hg
(B)	0.000	0.000	cfm @	-8	in. Hg
(C)	0.000	0.000	cfm @	-9	in. Hg
(Ambient)	0.000	0.000	cfm @	-12	in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.072	72
2	0.094	72
3	0.096	72
4	0.074	72
5	0.068	72
6	0.096	72
7	0.096	72
8	0.074	72
Center	0.096	72

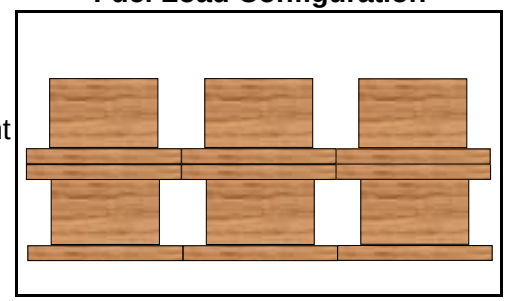
Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	6	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.1963	ft^2
V_{strav}:	19.10	ft/sec
V_{scent}:	20.50	ft/sec
F_p:	0.932	[ratio]
Initial Tunnel Flow:	220.9	scf/min

Static Pressure: -0.170 in. H_2O

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Front



Firebox Back

Firebox Side View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	20.1

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	6.96	-0.059	641	663	533	690	529	611.2	400	69
1	6.86	-0.056	642	661	521	684	532	608.0	349	69
2	6.78	-0.054	638	656	510	680	534	603.4	316	69
3	6.72	-0.051	631	647	501	673	535	597.5	293	69
4	6.68	-0.048	623	638	493	667	535	591.4	275	69
5	6.64	-0.046	614	629	486	660	535	584.7	262	69
6	6.61	-0.045	605	618	479	652	535	577.8	251	69
7	6.58	-0.043	596	609	473	645	533	571.2	243	69
8	6.54	-0.043	587	599	466	639	532	564.5	235	69
9	6.52	-0.043	578	590	460	632	530	557.9	228	69
10	6.50	-0.039	569	581	454	626	529	551.6	223	69
11	6.47	-0.039	560	572	448	619	527	545.2	217	69
12	6.46	-0.038	552	563	443	613	525	539.1	212	69
13	6.44	-0.038	544	554	438	608	523	533.3	208	68
14	6.41	-0.038	536	546	432	601	521	527.2	204	69
15	6.40	-0.035	529	539	427	594	519	521.4	201	69
16	6.37	-0.035	521	531	422	588	517	515.8	198	69
17	6.35	-0.034	514	523	418	582	515	510.4	196	69
18	6.33	-0.035	507	516	413	577	513	505.2	193	69
19	6.31	-0.034	500	509	408	573	511	500.3	191	69
20	6.29	-0.034	493	503	404	567	509	495.2	189	69
21	6.27	-0.033	487	496	400	563	507	490.6	186	68
22	6.26	-0.032	481	490	396	557	506	485.8	185	68
23	6.23	-0.031	475	484	392	553	504	481.4	183	69
24	6.21	-0.030	469	478	388	549	502	476.9	180	69
25	6.19	-0.031	463	472	384	544	500	472.6	179	69
26	6.18	-0.029	458	466	380	539	498	468.2	177	68
27	6.17	-0.029	453	461	376	535	496	464.1	175	68
28	6.16	-0.028	447	456	373	530	494	459.8	174	68
29	6.16	-0.029	443	450	369	524	492	455.6	172	69
30	6.14	-0.029	438	445	366	519	490	451.6	170	69
31	6.13	-0.026	433	440	363	514	488	447.5	169	68
32	6.12	-0.027	428	435	360	509	487	443.6	167	69
33	6.10	-0.027	424	430	356	504	485	439.8	165	68
34	6.09	-0.026	419	425	353	500	483	436.1	164	68
35	6.08	-0.026	415	421	350	494	481	432.2	162	68
36	6.07	-0.024	411	416	347	489	480	428.4	161	68
37	6.08	-0.024	407	412	344	484	478	425.0	158	68
38	6.07	-0.026	403	407	341	479	476	421.1	158	68
39	6.08	-0.025	399	403	338	473	475	417.4	158	68
40	6.07	-0.025	395	399	335	468	473	414.0	158	68
41	6.06	-0.026	392	395	332	462	472	410.4	159	68
42	6.05	-0.026	388	391	329	456	470	406.8	161	68
43	6.04	-0.026	385	387	326	450	469	403.3	164	68
44	6.04	-0.027	382	383	323	444	468	400.0	168	68

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	6.03	-0.027	378	380	321	440	467	397.1	172	68
46	6.01	-0.027	376	377	319	435	466	394.5	175	68
47	6.00	-0.027	373	374	318	431	466	392.4	178	68
48	5.97	-0.028	371	372	317	426	466	390.3	180	68
49	5.96	-0.029	369	370	316	422	467	388.7	183	68
50	5.93	-0.028	367	368	315	418	468	387.3	185	68
51	5.92	-0.028	365	367	315	414	469	386.1	188	68
52	5.90	-0.031	364	366	315	410	471	385.1	191	68
53	5.88	-0.029	363	366	315	406	473	384.5	192	68
54	5.86	-0.030	362	365	315	404	475	384.1	194	68
55	5.82	-0.030	362	366	315	401	477	384.0	195	68
56	5.80	-0.032	361	366	315	399	479	383.9	198	68
57	5.78	-0.032	361	366	315	397	481	383.9	200	68
58	5.75	-0.031	360	367	315	395	484	384.1	202	68
59	5.72	-0.033	361	367	316	394	486	384.7	204	68
60	5.70	-0.032	361	368	316	393	489	385.2	205	68

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.097	0.57	72	0.7		28.14		91	232	71	68
1	0.117	0.117	0.097	2.93	72	1.1	-	28.11	-0.03	110	257	73	69
2	0.287	0.170	0.099	2.97	72	1.1	-	28.06	-0.05	96	240	73	68
3	0.457	0.170	0.097	3.01	72	1.1	-	27.98	-0.08	91	232	73	68
4	0.622	0.165	0.096	3.04	72	1.2	-	27.90	-0.08	89	230	73	68
5	0.793	0.171	0.096	3.06	72	1.1	-	27.84	-0.06	88	232	73	68
6	0.966	0.173	0.098	3.09	72	1.1	-	27.77	-0.07	87	234	73	68
7	1.135	0.169	0.097	3.10	72	1.2	-	27.68	-0.09	87	239	73	68
8	1.307	0.172	0.097	3.12	72	1.2	-	27.61	-0.07	87	244	73	68
9	1.483	0.176	0.097	3.15	72	1.1	-	27.53	-0.08	87	249	73	68
10	1.656	0.173	0.097	3.15	72	1.1	92	27.45	-0.08	87	254	74	68
11	1.827	0.171	0.098	3.18	73	1.1	-	27.36	-0.09	88	258	74	68
12	2.002	0.175	0.097	3.19	73	1.1	-	27.28	-0.08	88	261	74	68
13	2.176	0.174	0.096	3.21	73	1.2	-	27.20	-0.08	88	264	74	68
14	2.351	0.175	0.097	3.23	73	1.2	-	27.10	-0.10	88	267	74	68
15	2.524	0.173	0.099	3.24	74	1.1	-	27.01	-0.09	88	269	74	68
16	2.704	0.180	0.098	3.25	74	1.2	-	26.92	-0.09	89	271	74	68
17	2.882	0.178	0.097	3.26	74	1.1	-	26.81	-0.11	89	274	74	68
18	3.060	0.178	0.098	3.27	74	1.2	-	26.71	-0.10	89	280	74	68
19	3.234	0.174	0.097	3.27	75	1.2	-	26.62	-0.09	90	282	74	68
20	3.410	0.176	0.098	3.28	75	1.2	97	26.51	-0.11	90	286	74	68
21	3.590	0.180	0.097	3.29	75	1.2	-	26.40	-0.11	90	290	75	68
22	3.769	0.179	0.097	3.29	75	1.1	-	26.28	-0.12	91	296	75	68
23	3.947	0.178	0.097	3.31	76	1.1	-	26.15	-0.13	91	302	75	68
24	4.124	0.177	0.097	3.33	76	1.1	-	26.02	-0.13	91	308	75	68
25	4.304	0.180	0.097	3.33	76	1.2	-	25.92	-0.10	92	312	75	68
26	4.486	0.182	0.097	3.34	77	1.1	-	25.80	-0.12	92	313	75	68
27	4.663	0.177	0.097	3.34	77	1.2	-	25.67	-0.13	92	314	75	68
28	4.841	0.178	0.097	3.33	77	1.1	-	25.55	-0.12	92	316	75	68
29	5.023	0.182	0.096	3.36	78	1.2	-	25.43	-0.12	93	316	75	69
30	5.201	0.178	0.097	3.35	78	1.2	99	25.32	-0.11	93	316	75	68
31	5.382	0.181	0.098	3.37	78	1.2	-	25.20	-0.12	93	317	75	68

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	5.563	0.181	0.098	3.37	78	1.2	-	25.07	-0.13	93	317	75	69
33	5.742	0.179	0.099	3.36	79	1.2	-	24.96	-0.11	93	318	76	69
34	5.925	0.183	0.099	3.38	79	1.2	-	24.84	-0.12	93	317	76	68
35	6.103	0.178	0.097	3.39	79	1.2	-	24.71	-0.13	93	318	76	69
36	6.285	0.182	0.096	3.39	80	1.2	-	24.60	-0.11	93	317	76	69
37	6.467	0.182	0.099	3.38	80	1.2	-	24.48	-0.12	93	316	76	69
38	6.652	0.185	0.097	3.39	80	1.2	-	24.36	-0.12	93	315	76	69
39	6.828	0.176	0.096	3.40	80	1.2	-	24.26	-0.10	93	313	76	69
40	7.011	0.183	0.097	3.40	81	1.2	100	24.14	-0.12	93	312	76	68
41	7.191	0.180	0.095	3.39	81	1.2	-	24.02	-0.12	93	310	76	69
42	7.373	0.182	0.097	3.41	81	1.2	-	23.92	-0.10	93	309	76	69
43	7.557	0.184	0.098	3.40	82	1.2	-	23.80	-0.12	93	309	76	69
44	7.737	0.180	0.098	3.41	82	1.2	-	23.68	-0.12	93	309	76	69
45	7.923	0.186	0.097	3.41	82	1.2	-	23.55	-0.13	93	308	76	69
46	8.102	0.179	0.096	3.42	82	1.2	-	23.44	-0.11	93	306	76	69
47	8.285	0.183	0.097	3.43	82	1.2	-	23.33	-0.11	93	304	76	69
48	8.470	0.185	0.098	3.42	83	1.2	-	23.22	-0.11	93	302	76	69
49	8.653	0.183	0.096	3.43	83	1.2	-	23.13	-0.09	93	300	76	69
50	8.836	0.183	0.098	3.43	83	1.2	100	23.02	-0.11	93	299	76	69
51	9.015	0.179	0.097	3.43	83	1.2	-	22.92	-0.10	92	298	76	69
52	9.202	0.187	0.098	3.45	84	1.2	-	22.81	-0.11	92	297	76	69
53	9.389	0.187	0.097	3.43	84	1.2	-	22.71	-0.10	93	296	76	69
54	9.568	0.179	0.098	3.44	84	1.2	-	22.61	-0.10	93	295	76	69
55	9.752	0.184	0.097	3.46	84	1.2	-	22.51	-0.10	92	296	76	69
56	9.933	0.181	0.095	3.44	84	1.2	-	22.39	-0.12	92	296	76	68
57	10.119	0.186	0.099	3.45	85	1.2	-	22.29	-0.10	92	295	76	68
58	10.301	0.182	0.099	3.46	85	1.2	-	22.18	-0.11	92	297	76	68
59	10.487	0.186	0.097	3.46	85	1.2	-	22.06	-0.12	92	296	76	68
60	10.671	0.184	0.097	3.44	85	1.2	100	21.95	-0.11	92	298	76	68
61	10.854	0.183	0.097	3.47	85	1.2	-	21.85	-0.10	92	298	76	68
62	11.036	0.182	0.098	3.46	85	1.2	-	21.75	-0.10	92	297	76	68
63	11.220	0.184	0.099	3.47	86	1.2	-	21.63	-0.12	92	299	76	68

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	11.403	0.183	0.098	3.46	86	1.2	-	21.53	-0.10	92	300	76	68
65	11.586	0.183	0.097	3.46	86	1.2	-	21.43	-0.10	92	300	76	68
66	11.776	0.190	0.098	3.47	86	1.2	-	21.33	-0.10	92	299	76	68
67	11.956	0.180	0.096	3.46	86	1.2	-	21.23	-0.10	92	299	76	69
68	12.140	0.184	0.098	3.47	86	1.2	-	21.13	-0.10	92	298	76	68
69	12.326	0.186	0.097	3.47	86	1.2	-	21.02	-0.11	92	298	76	69
70	12.509	0.183	0.098	3.47	86	1.2	100	20.93	-0.09	92	295	76	69
71	12.693	0.184	0.097	3.48	87	1.2	-	20.83	-0.10	92	295	76	68
72	12.878	0.185	0.097	3.48	87	1.2	-	20.73	-0.10	92	295	76	68
73	13.068	0.190	0.097	3.48	87	1.2	-	20.63	-0.10	92	294	76	69
74	13.252	0.184	0.097	3.48	87	1.2	-	20.54	-0.09	92	293	76	69
75	13.434	0.182	0.097	3.47	87	1.2	-	20.43	-0.11	92	294	76	69
76	13.616	0.182	0.098	3.48	87	1.2	-	20.34	-0.09	92	295	76	69
77	13.801	0.185	0.097	3.48	87	1.2	-	20.24	-0.10	92	294	76	69
78	13.987	0.186	0.098	3.48	87	1.2	-	20.13	-0.11	92	293	76	69
79	14.176	0.189	0.096	3.49	87	1.2	-	20.04	-0.09	92	293	76	69
80	14.361	0.185	0.096	3.48	88	1.2	101	19.94	-0.10	92	294	76	69
81	14.547	0.186	0.097	3.49	88	1.2	-	19.84	-0.10	92	291	76	69
82	14.730	0.183	0.096	3.49	88	1.2	-	19.74	-0.10	92	293	76	69
83	14.915	0.185	0.098	3.49	88	1.2	-	19.64	-0.10	92	292	76	69
84	15.098	0.183	0.097	3.50	88	1.2	-	19.54	-0.10	92	293	76	69
85	15.283	0.185	0.098	3.48	88	1.2	-	19.41	-0.13	93	293	76	69
86	15.474	0.191	0.096	3.50	88	1.2	-	19.28	-0.13	93	294	77	69
87	15.658	0.184	0.098	3.49	88	1.2	-	19.16	-0.12	93	295	77	69
88	15.840	0.182	0.097	3.49	88	1.2	-	19.05	-0.11	93	294	77	69
89	16.027	0.187	0.097	3.50	88	1.2	-	18.94	-0.11	93	294	77	69
90	16.208	0.181	0.096	3.49	89	1.2	101	18.83	-0.11	93	294	77	69
91	16.398	0.190	0.097	3.49	89	1.2	-	18.72	-0.11	93	293	77	69
92	16.581	0.183	0.098	3.50	89	1.2	-	18.61	-0.11	93	293	77	69
93	16.769	0.188	0.097	3.49	89	1.2	-	18.51	-0.10	93	294	77	69
94	16.957	0.188	0.097	3.49	89	1.3	-	18.39	-0.12	93	293	77	69
95	17.139	0.182	0.095	3.48	89	1.2	-	18.29	-0.10	93	293	77	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	17.326	0.187	0.096	3.50	89	1.2	-	18.17	-0.12	92	290	77	69
97	17.507	0.181	0.096	3.49	89	1.2	-	18.08	-0.09	93	290	77	69
98	17.697	0.190	0.097	3.49	89	1.2	-	17.98	-0.10	93	289	77	69
99	17.880	0.183	0.098	3.50	89	1.2	-	17.88	-0.10	92	288	77	69
100	18.071	0.191	0.097	3.50	89	1.2	101	17.78	-0.10	92	287	77	69
101	18.254	0.183	0.098	3.51	89	1.2	-	17.69	-0.09	92	287	77	69
102	18.443	0.189	0.098	3.49	90	1.2	-	17.60	-0.09	92	285	77	69
103	18.623	0.180	0.097	3.49	90	1.2	-	17.52	-0.08	92	284	77	69
104	18.812	0.189	0.096	3.49	90	1.2	-	17.43	-0.09	92	283	77	69
105	18.997	0.185	0.096	3.50	90	1.2	-	17.33	-0.10	92	282	77	69
106	19.181	0.184	0.097	3.50	90	1.2	-	17.25	-0.08	92	281	77	69
107	19.372	0.191	0.096	3.51	90	1.2	-	17.17	-0.08	92	279	77	69
108	19.555	0.183	0.097	3.50	90	1.2	-	17.07	-0.10	92	279	77	70
109	19.741	0.186	0.097	3.49	90	1.3	-	16.99	-0.08	92	279	77	70
110	19.928	0.187	0.097	3.50	90	1.3	100	16.91	-0.08	92	279	77	70
111	20.114	0.186	0.097	3.50	90	1.2	-	16.81	-0.10	92	279	77	70
112	20.296	0.182	0.097	3.51	90	1.2	-	16.74	-0.07	92	278	77	69
113	20.484	0.188	0.097	3.50	90	1.2	-	16.65	-0.09	92	278	77	70
114	20.671	0.187	0.098	3.51	90	1.2	-	16.56	-0.09	92	276	77	70
115	20.861	0.190	0.097	3.50	90	1.2	-	16.48	-0.08	92	277	77	70
116	21.045	0.184	0.097	3.50	90	1.2	-	16.40	-0.08	92	277	77	70
117	21.227	0.182	0.097	3.49	90	1.2	-	16.31	-0.09	92	276	77	70
118	21.414	0.187	0.098	3.50	91	1.2	-	16.24	-0.07	92	277	77	70
119	21.599	0.185	0.098	3.51	91	1.2	-	16.16	-0.08	92	276	77	70
120	21.790	0.191	0.097	3.50	91	1.2	100	16.07	-0.09	92	277	77	70
121	21.976	0.186	0.098	3.50	91	1.2	-	15.98	-0.09	92	276	77	70
122	22.164	0.188	0.099	3.50	91	1.2	-	15.90	-0.08	92	276	77	70
123	22.350	0.186	0.096	3.51	91	1.2	-	15.82	-0.08	92	276	77	70
124	22.533	0.183	0.098	3.49	91	1.2	-	15.73	-0.09	92	279	77	70
125	22.718	0.185	0.097	3.51	91	1.2	-	15.65	-0.08	92	279	77	70
126	22.902	0.184	0.097	3.51	91	1.2	-	15.56	-0.09	92	278	77	70
127	23.093	0.191	0.096	3.51	91	1.2	-	15.49	-0.07	92	277	77	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	23.280	0.187	0.098	3.51	91	1.2	-	15.40	-0.09	92	277	77	70
129	23.466	0.186	0.096	3.50	91	1.2	-	15.32	-0.08	92	277	77	70
130	23.654	0.188	0.096	3.50	91	1.2	101	15.24	-0.08	92	276	77	70
131	23.838	0.184	0.097	3.50	91	1.2	-	15.17	-0.07	92	277	77	70
132	24.025	0.187	0.098	3.51	91	1.2	-	15.08	-0.09	92	277	77	70
133	24.208	0.183	0.096	3.50	91	1.2	-	15.00	-0.08	92	278	77	70
134	24.397	0.189	0.097	3.52	91	1.2	-	14.91	-0.09	92	278	77	70
135	24.585	0.188	0.097	3.51	91	1.2	-	14.82	-0.09	92	279	77	70
136	24.772	0.187	0.097	3.52	91	1.2	-	14.73	-0.09	92	279	77	70
137	24.960	0.188	0.097	3.51	91	1.2	-	14.65	-0.08	92	278	77	70
138	25.143	0.183	0.097	3.52	91	1.2	-	14.56	-0.09	92	278	77	70
139	25.332	0.189	0.097	3.51	91	1.2	-	14.48	-0.08	92	277	77	70
140	25.514	0.182	0.098	3.51	91	1.2	100	14.40	-0.08	92	277	77	70
141	25.702	0.188	0.097	3.51	92	1.2	-	14.30	-0.10	92	277	77	70
142	25.887	0.185	0.097	3.51	92	1.2	-	14.23	-0.07	92	276	77	70
143	26.077	0.190	0.095	3.50	92	1.2	-	14.15	-0.08	92	276	77	70
144	26.266	0.189	0.097	3.51	92	1.2	-	14.06	-0.09	92	275	77	70
145	26.451	0.185	0.097	3.51	92	1.2	-	14.00	-0.06	92	275	77	70
146	26.639	0.188	0.096	3.51	92	1.2	-	13.90	-0.10	92	276	77	70
147	26.822	0.183	0.095	3.51	92	1.2	-	13.83	-0.07	92	274	77	70
148	27.006	0.184	0.097	3.51	92	1.2	-	13.75	-0.08	92	274	77	70
149	27.195	0.189	0.096	3.52	92	1.2	-	13.66	-0.09	92	276	77	70
150	27.380	0.185	0.097	3.51	92	1.2	100	13.59	-0.07	92	275	77	70
151	27.570	0.190	0.098	3.53	92	1.2	-	13.51	-0.08	92	275	77	70
152	27.759	0.189	0.097	3.51	92	1.2	-	13.42	-0.09	92	275	77	70
153	27.944	0.185	0.097	3.51	92	1.2	-	13.34	-0.08	92	276	77	70
154	28.126	0.182	0.097	3.51	92	1.2	-	13.25	-0.09	92	277	77	71
155	28.315	0.189	0.097	3.52	92	1.2	-	13.16	-0.09	92	278	78	71
156	28.502	0.187	0.097	3.51	92	1.2	-	13.08	-0.08	92	278	78	70
157	28.687	0.185	0.097	3.52	92	1.2	-	12.99	-0.09	92	278	78	70
158	28.877	0.190	0.098	3.51	92	1.3	-	12.91	-0.08	92	278	78	70
159	29.066	0.189	0.096	3.52	92	1.3	-	12.83	-0.08	92	277	78	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	29.249	0.183	0.096	3.52	92	1.3	101	12.74	-0.09	92	278	78	70
161	29.440	0.191	0.098	3.52	92	1.2	-	12.67	-0.07	92	278	78	70
162	29.621	0.181	0.098	3.52	92	1.2	-	12.59	-0.08	92	277	78	70
163	29.808	0.187	0.097	3.51	92	1.3	-	12.52	-0.07	92	275	78	70
164	29.996	0.188	0.099	3.52	92	1.2	-	12.45	-0.07	92	273	78	71
165	30.182	0.186	0.098	3.51	92	1.2	-	12.39	-0.06	92	269	78	70
166	30.372	0.190	0.097	3.51	92	1.2	-	12.34	-0.05	91	267	78	71
167	30.558	0.186	0.097	3.51	92	1.2	-	12.28	-0.06	91	265	78	71
168	30.748	0.190	0.095	3.52	92	1.2	-	12.23	-0.05	91	266	78	71
169	30.936	0.188	0.097	3.51	92	1.2	-	12.17	-0.06	91	262	78	71
170	31.117	0.181	0.098	3.53	92	1.2	100	12.14	-0.03	91	262	78	71
171	31.304	0.187	0.096	3.52	92	1.2	-	12.07	-0.07	91	261	78	70
172	31.493	0.189	0.096	3.52	92	1.2	-	12.02	-0.05	91	259	78	71
173	31.682	0.189	0.097	3.51	93	1.2	-	11.97	-0.05	91	260	78	71
174	31.869	0.187	0.097	3.53	92	1.2	-	11.91	-0.06	91	257	78	71
175	32.058	0.189	0.097	3.51	93	1.2	-	11.85	-0.06	91	255	78	71
176	32.245	0.187	0.094	3.52	93	1.2	-	11.80	-0.05	91	254	78	71
177	32.432	0.187	0.098	3.51	93	1.2	-	11.75	-0.05	91	254	78	71
178	32.613	0.181	0.098	3.53	93	1.2	-	11.69	-0.06	91	255	78	71
179	32.801	0.188	0.097	3.51	93	1.2	-	11.63	-0.06	91	254	78	70
180	32.990	0.189	0.098	3.52	93	1.2	100	11.58	-0.05	91	253	78	71
181	33.176	0.186	0.097	3.52	93	1.2	-	11.52	-0.06	91	252	78	71
182	33.367	0.191	0.097	3.53	93	1.2	-	11.46	-0.06	91	252	78	71
183	33.555	0.188	0.096	3.51	93	1.3	-	11.40	-0.06	91	251	78	70
184	33.742	0.187	0.097	3.55	93	1.2	-	11.34	-0.06	91	252	78	71
185	33.929	0.187	0.097	3.51	93	1.3	-	11.28	-0.06	91	253	78	70
186	34.114	0.185	0.097	3.53	93	1.3	-	11.21	-0.07	91	255	78	71
187	34.301	0.187	0.096	3.52	93	1.2	-	11.15	-0.06	91	254	78	70
188	34.488	0.187	0.098	3.53	93	1.2	-	11.09	-0.06	91	255	78	71
189	34.677	0.189	0.097	3.52	93	1.2	-	11.03	-0.06	91	255	78	70
190	34.864	0.187	0.097	3.52	93	1.2	100	10.96	-0.07	91	255	78	70
191	35.054	0.190	0.098	3.52	93	1.2	-	10.89	-0.07	90	255	78	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	35.237	0.183	0.097	3.53	93	1.3	-	10.83	-0.06	91	256	78	71
193	35.424	0.187	0.098	3.52	93	1.2	-	10.76	-0.07	91	259	78	71
194	35.610	0.186	0.097	3.53	93	1.2	-	10.69	-0.07	91	262	78	71
195	35.800	0.190	0.099	3.52	93	1.2	-	10.61	-0.08	91	264	78	71
196	35.986	0.186	0.097	3.53	93	1.2	-	10.53	-0.08	91	264	78	71
197	36.175	0.189	0.097	3.53	93	1.2	-	10.46	-0.07	91	264	78	71
198	36.363	0.188	0.096	3.54	93	1.2	-	10.39	-0.07	91	265	78	71
199	36.552	0.189	0.097	3.52	93	1.2	-	10.32	-0.07	91	266	78	71
200	36.736	0.184	0.096	3.53	93	1.3	101	10.24	-0.08	91	267	78	71
201	36.921	0.185	0.099	3.51	93	1.2	-	10.16	-0.08	91	267	78	71
202	37.110	0.189	0.098	3.53	93	1.2	-	10.09	-0.07	91	268	78	71
203	37.294	0.184	0.097	3.51	93	1.2	-	10.02	-0.07	91	267	78	71
204	37.485	0.191	0.096	3.53	93	1.2	-	9.94	-0.08	92	268	78	71
205	37.674	0.189	0.097	3.52	93	1.3	-	9.88	-0.06	92	268	78	71
206	37.859	0.185	0.096	3.54	93	1.2	-	9.81	-0.07	91	267	78	71
207	38.051	0.192	0.097	3.52	93	1.2	-	9.74	-0.07	92	267	78	71
208	38.237	0.186	0.098	3.53	93	1.2	-	9.68	-0.06	91	266	78	71
209	38.421	0.184	0.098	3.52	93	1.2	-	9.62	-0.06	91	264	78	71
210	38.610	0.189	0.098	3.53	93	1.2	101	9.56	-0.06	91	262	78	71
211	38.794	0.184	0.097	3.53	93	1.3	-	9.51	-0.05	91	261	78	71
212	38.984	0.190	0.097	3.52	93	1.2	-	9.46	-0.05	91	259	78	71
213	39.174	0.190	0.099	3.53	93	1.2	-	9.41	-0.05	91	256	78	71
214	39.359	0.185	0.097	3.53	93	1.2	-	9.37	-0.04	91	255	78	71
215	39.551	0.192	0.097	3.53	93	1.2	-	9.31	-0.06	91	254	78	71
216	39.735	0.184	0.098	3.53	93	1.2	-	9.27	-0.04	90	253	78	71
217	39.925	0.190	0.098	3.53	93	1.2	-	9.21	-0.06	90	252	78	71
218	40.107	0.182	0.097	3.52	93	1.2	-	9.17	-0.04	91	250	78	71
219	40.298	0.191	0.097	3.53	93	1.2	-	9.12	-0.05	90	248	78	71
220	40.485	0.187	0.097	3.53	93	1.2	100	9.07	-0.05	91	246	78	71
221	40.674	0.189	0.097	3.53	93	1.2	-	9.01	-0.06	90	245	78	71
222	40.859	0.185	0.097	3.53	93	1.2	-	8.96	-0.05	90	245	78	71
223	41.048	0.189	0.096	3.52	93	1.2	-	8.92	-0.04	90	243	78	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	41.238	0.190	0.098	3.53	93	1.2	-	8.87	-0.05	90	244	78	71
225	41.426	0.188	0.097	3.52	93	1.2	-	8.81	-0.06	90	244	78	71
226	41.608	0.182	0.097	3.53	93	1.2	-	8.77	-0.04	90	243	78	71
227	41.796	0.188	0.098	3.52	94	1.2	-	8.71	-0.06	90	242	78	71
228	41.985	0.189	0.098	3.53	93	1.2	-	8.65	-0.06	90	242	78	71
229	42.175	0.190	0.098	3.52	94	1.2	-	8.60	-0.05	90	242	78	71
230	42.360	0.185	0.097	3.53	93	1.2	100	8.55	-0.05	90	243	78	71
231	42.552	0.192	0.097	3.52	94	1.2	-	8.48	-0.07	90	244	78	71
232	42.736	0.184	0.097	3.53	94	1.2	-	8.43	-0.05	90	243	78	71
233	42.924	0.188	0.098	3.53	94	1.2	-	8.37	-0.06	90	242	78	71
234	43.109	0.185	0.098	3.54	94	1.2	-	8.31	-0.06	90	243	78	71
235	43.300	0.191	0.098	3.53	94	1.2	-	8.25	-0.06	90	245	78	71
236	43.486	0.186	0.097	3.53	94	1.2	-	8.19	-0.06	90	246	78	71
237	43.676	0.190	0.097	3.54	94	1.2	-	8.13	-0.06	90	247	78	71
238	43.860	0.184	0.097	3.53	94	1.3	-	8.06	-0.07	90	247	78	71
239	44.050	0.190	0.098	3.52	94	1.3	-	8.01	-0.05	90	249	78	71
240	44.240	0.190	0.098	3.52	94	1.2	100	7.94	-0.07	90	251	78	71
241	44.429	0.189	0.097	3.53	94	1.2	-	7.87	-0.07	90	252	78	71
242	44.610	0.181	0.097	3.53	94	1.2	-	7.80	-0.07	90	253	78	71
243	44.798	0.188	0.099	3.51	94	1.3	-	7.75	-0.05	90	254	78	71
244	44.984	0.186	0.099	3.52	94	1.2	-	7.68	-0.07	90	253	78	71
245	45.177	0.193	0.098	3.54	94	1.2	-	7.62	-0.06	90	253	78	71
246	45.365	0.188	0.097	3.53	94	1.2	-	7.56	-0.06	90	253	78	71
247	45.554	0.189	0.100	3.55	94	1.2	-	7.49	-0.07	90	253	78	71
248	45.742	0.188	0.097	3.53	94	1.2	-	7.42	-0.07	91	252	78	71
249	45.930	0.188	0.096	3.55	94	1.2	-	7.36	-0.06	91	252	78	71
250	46.116	0.186	0.097	3.52	94	1.2	100	7.30	-0.06	91	255	78	71
251	46.302	0.186	0.098	3.53	94	1.2	-	7.24	-0.06	91	255	78	71
252	46.490	0.188	0.097	3.52	94	1.2	-	7.17	-0.07	91	254	78	71
253	46.677	0.187	0.097	3.52	94	1.2	-	7.11	-0.06	91	253	78	71
254	46.866	0.189	0.097	3.51	94	1.2	-	7.04	-0.07	91	254	78	71
255	47.053	0.187	0.098	3.53	94	1.2	-	6.99	-0.05	91	253	78	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	47.241	0.188	0.096	3.52	94	1.2	-	6.93	-0.06	91	254	78	71
257	47.431	0.190	0.096	3.55	94	1.2	-	6.88	-0.05	90	254	78	71
258	47.619	0.188	0.097	3.53	94	1.3	-	6.81	-0.07	91	254	78	71
259	47.805	0.186	0.098	3.55	94	1.2	-	6.76	-0.05	91	251	78	71
260	47.992	0.187	0.098	3.54	94	1.2	100	6.71	-0.05	91	252	78	71
261	48.180	0.188	0.098	3.54	94	1.2	-	6.66	-0.05	91	251	78	71
262	48.369	0.189	0.099	3.52	94	1.2	-	6.60	-0.06	91	251	78	71
263	48.554	0.185	0.097	3.53	94	1.2	-	6.55	-0.05	90	250	78	71
264	48.744	0.190	0.098	3.53	94	1.2	-	6.50	-0.05	90	249	78	71
265	48.934	0.190	0.098	3.54	94	1.2	-	6.46	-0.04	90	247	78	71
266	49.122	0.188	0.097	3.53	94	1.2	-	6.40	-0.06	90	248	78	71
267	49.307	0.185	0.098	3.54	94	1.2	-	6.34	-0.06	90	248	78	71
268	49.496	0.189	0.098	3.54	94	1.3	-	6.29	-0.05	90	246	78	71
269	49.682	0.186	0.098	3.53	94	1.2	-	6.23	-0.06	90	247	78	71
270	49.872	0.190	0.098	3.54	94	1.2	100	6.19	-0.04	90	245	78	71
271	50.057	0.185	0.097	3.54	94	1.3	-	6.14	-0.05	90	245	78	71
272	50.247	0.190	0.097	3.53	94	1.3	-	6.09	-0.05	90	246	78	71
273	50.434	0.187	0.098	3.54	94	1.2	-	6.04	-0.05	90	245	78	71
274	50.623	0.189	0.097	3.54	94	1.2	-	5.98	-0.06	90	245	78	71
275	50.808	0.185	0.098	3.53	94	1.2	-	5.93	-0.05	90	244	78	71
276	50.996	0.188	0.096	3.53	94	1.3	-	5.88	-0.05	90	244	78	71
277	51.186	0.190	0.095	3.53	94	1.2	-	5.82	-0.06	89	244	78	71
278	51.372	0.186	0.096	3.54	94	1.2	-	5.78	-0.04	89	244	78	71
279	51.563	0.191	0.097	3.53	94	1.2	-	5.74	-0.04	89	244	78	71
280	51.750	0.187	0.097	3.55	94	1.2	100	5.69	-0.05	89	241	78	71
281	51.938	0.188	0.098	3.53	94	1.2	-	5.65	-0.04	89	240	78	71
282	52.128	0.190	0.097	3.54	94	1.2	-	5.60	-0.05	89	241	78	71
283	52.312	0.184	0.095	3.52	94	1.2	-	5.57	-0.03	89	241	78	71
284	52.502	0.190	0.097	3.54	94	1.2	-	5.53	-0.04	89	239	78	71
285	52.686	0.184	0.095	3.54	94	1.2	-	5.48	-0.05	89	239	78	71
286	52.877	0.191	0.097	3.55	94	1.2	-	5.44	-0.04	89	237	78	71
287	53.063	0.186	0.097	3.54	94	1.2	-	5.41	-0.03	89	236	78	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	53.254	0.191	0.096	3.53	94	1.2	-	5.38	-0.03	89	236	77	71
289	53.444	0.190	0.096	3.54	94	1.2	-	5.34	-0.04	89	234	78	71
290	53.629	0.185	0.097	3.54	94	1.2	100	5.31	-0.03	89	233	77	71
291	53.820	0.191	0.097	3.54	94	1.2	-	5.28	-0.03	89	232	77	71
292	54.002	0.182	0.097	3.54	94	1.3	-	5.25	-0.03	88	230	77	71
293	54.194	0.192	0.096	3.54	94	1.2	-	5.22	-0.03	88	230	77	71
294	54.380	0.186	0.097	3.53	94	1.3	-	5.19	-0.03	88	229	77	71
295	54.567	0.187	0.096	3.54	94	1.2	-	5.16	-0.03	88	227	77	71
296	54.755	0.188	0.097	3.53	94	1.2	-	5.13	-0.03	88	226	77	71
297	54.948	0.193	0.096	3.55	94	1.2	-	5.10	-0.03	88	226	77	71
298	55.132	0.184	0.096	3.53	94	1.2	-	5.07	-0.03	88	226	77	71
299	55.321	0.189	0.097	3.54	94	1.2	-	5.04	-0.03	88	225	77	71
300	55.511	0.190	0.097	3.53	94	1.2	101	5.01	-0.03	88	226	77	71
301	55.697	0.186	0.096	3.54	94	1.2	-	4.99	-0.02	88	225	77	71
302	55.880	0.183	0.098	3.53	94	1.2	-	4.96	-0.03	88	225	77	71
303	56.072	0.192	0.098	3.55	94	1.2	-	4.92	-0.04	88	225	77	70
304	56.262	0.190	0.097	3.54	94	1.2	-	4.90	-0.02	88	226	77	71
305	56.450	0.188	0.097	3.55	94	1.2	-	4.86	-0.04	87	227	77	71
306	56.636	0.186	0.095	3.53	94	1.3	-	4.84	-0.02	88	226	77	71
307	56.827	0.191	0.098	3.54	94	1.3	-	4.82	-0.02	87	227	77	71
308	57.011	0.184	0.098	3.54	94	1.3	-	4.79	-0.03	87	229	77	71
309	57.200	0.189	0.096	3.54	94	1.2	-	4.76	-0.03	88	229	77	70
310	57.388	0.188	0.099	3.53	94	1.2	100	4.72	-0.04	88	228	77	71
311	57.572	0.184	0.097	3.54	94	1.2	-	4.70	-0.02	88	228	77	71
312	57.762	0.190	0.096	3.53	94	1.2	-	4.66	-0.04	88	229	77	71
313	57.953	0.191	0.096	3.53	94	1.3	-	4.64	-0.02	88	229	77	71
314	58.143	0.190	0.097	3.54	94	1.2	-	4.61	-0.03	88	230	77	71
315	58.327	0.184	0.097	3.55	94	1.2	-	4.58	-0.03	88	229	77	71
316	58.519	0.192	0.097	3.55	94	1.2	-	4.55	-0.03	88	230	77	71
317	58.701	0.182	0.096	3.54	94	1.2	-	4.52	-0.03	88	230	77	71
318	58.889	0.188	0.097	3.54	94	1.2	-	4.49	-0.03	88	231	77	71
319	59.079	0.190	0.097	3.53	94	1.2	-	4.46	-0.03	88	231	77	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	59.266	0.187	0.097	3.53	94	1.2	100	4.44	-0.02	88	232	77	71
321	59.453	0.187	0.097	3.53	94	1.3	-	4.41	-0.03	88	233	77	70
322	59.645	0.192	0.097	3.54	94	1.2	-	4.38	-0.03	88	232	77	71
323	59.834	0.189	0.095	3.54	94	1.2	-	4.35	-0.03	88	233	77	70
324	60.022	0.188	0.096	3.54	94	1.2	-	4.31	-0.04	88	235	77	71
325	60.210	0.188	0.099	3.54	94	1.2	-	4.29	-0.02	88	234	77	71
326	60.392	0.182	0.097	3.54	94	1.2	-	4.25	-0.04	88	234	77	70
327	60.584	0.192	0.097	3.54	94	1.2	-	4.23	-0.02	87	234	77	70
328	60.768	0.184	0.097	3.53	94	1.3	-	4.20	-0.03	87	235	77	71
329	60.960	0.192	0.098	3.54	94	1.2	-	4.18	-0.02	87	235	77	70
330	61.145	0.185	0.097	3.55	94	1.2	100	4.14	-0.04	88	234	77	70
331	61.338	0.193	0.098	3.54	94	1.2	-	4.12	-0.02	87	234	77	70
332	61.522	0.184	0.098	3.54	94	1.3	-	4.10	-0.02	88	232	76	70
333	61.714	0.192	0.096	3.54	94	1.2	-	4.06	-0.04	88	232	76	70
334	61.896	0.182	0.097	3.54	94	1.2	-	4.04	-0.02	88	231	76	70
335	62.087	0.191	0.096	3.52	94	1.2	-	4.00	-0.04	88	230	76	70
336	62.271	0.184	0.096	3.54	94	1.2	-	3.98	-0.02	88	230	76	70
337	62.464	0.193	0.097	3.54	94	1.3	-	3.95	-0.03	87	229	76	70
338	62.648	0.184	0.097	3.55	94	1.3	-	3.93	-0.02	87	228	76	70
339	62.838	0.190	0.098	3.53	94	1.2	-	3.90	-0.03	87	228	76	70
340	63.025	0.187	0.097	3.53	94	1.2	100	3.87	-0.03	87	228	76	70
341	63.214	0.189	0.097	3.53	94	1.2	-	3.84	-0.03	87	227	76	70
342	63.399	0.185	0.097	3.52	94	1.2	-	3.82	-0.02	87	226	76	70
343	63.590	0.191	0.096	3.54	94	1.2	-	3.79	-0.03	87	225	76	70
344	63.777	0.187	0.097	3.53	94	1.2	-	3.76	-0.03	87	226	76	70
345	63.965	0.188	0.098	3.54	94	1.2	-	3.74	-0.02	87	225	76	70
346	64.154	0.189	0.097	3.53	94	1.2	-	3.72	-0.02	87	224	76	70
347	64.341	0.187	0.097	3.54	94	1.2	-	3.69	-0.03	87	224	76	70
348	64.532	0.191	0.097	3.53	94	1.2	-	3.66	-0.03	87	225	76	70
349	64.719	0.187	0.097	3.54	94	1.2	-	3.64	-0.02	87	225	76	70
350	64.907	0.188	0.096	3.54	93	1.2	101	3.61	-0.03	87	224	76	70
351	65.092	0.185	0.099	3.55	94	1.2	-	3.57	-0.04	87	224	76	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	65.276	0.184	0.098	3.52	94	1.2	-	3.56	-0.01	87	223	76	70
353	65.467	0.191	0.098	3.54	93	1.2	-	3.53	-0.03	87	224	76	70
354	65.653	0.186	0.097	3.52	94	1.2	-	3.51	-0.02	87	225	76	70
355	65.844	0.191	0.096	3.55	93	1.2	-	3.48	-0.03	87	225	76	70
356	66.033	0.189	0.098	3.53	94	1.2	-	3.45	-0.03	87	226	76	70
357	66.221	0.188	0.097	3.54	93	1.2	-	3.41	-0.04	87	226	76	70
358	66.409	0.188	0.097	3.53	93	1.2	-	3.40	-0.01	87	225	76	70
359	66.594	0.185	0.097	3.53	93	1.2	-	3.37	-0.03	87	224	76	70
360	66.779	0.185	0.098	3.52	93	1.2	100	3.35	-0.02	87	223	76	70
361	66.966	0.187	0.096	3.55	93	1.3	-	3.32	-0.03	87	222	76	70
362	67.158	0.192	0.098	3.53	93	1.2	-	3.30	-0.02	87	222	76	70
363	67.346	0.188	0.097	3.54	93	1.3	-	3.27	-0.03	87	222	76	70
364	67.536	0.190	0.097	3.54	93	1.2	-	3.26	-0.01	87	223	76	70
365	67.720	0.184	0.097	3.55	93	1.3	-	3.23	-0.03	87	222	76	70
366	67.908	0.188	0.097	3.52	93	1.2	-	3.21	-0.02	86	222	76	70
367	68.093	0.185	0.099	3.54	93	1.2	-	3.19	-0.02	86	221	76	70
368	68.281	0.188	0.097	3.53	93	1.2	-	3.17	-0.02	86	220	76	70
369	68.467	0.186	0.097	3.55	93	1.2	-	3.15	-0.02	87	220	76	70
370	68.657	0.190	0.096	3.52	93	1.2	100	3.12	-0.03	87	221	76	70
371	68.848	0.191	0.098	3.54	93	1.2	-	3.10	-0.02	87	221	76	70
372	69.037	0.189	0.097	3.54	93	1.2	-	3.08	-0.02	87	221	76	70
373	69.225	0.188	0.096	3.53	93	1.2	-	3.05	-0.03	87	220	76	70
374	69.410	0.185	0.097	3.54	93	1.2	-	3.04	-0.01	86	222	76	70
375	69.595	0.185	0.098	3.52	93	1.2	-	3.01	-0.03	86	222	76	70
376	69.786	0.191	0.098	3.54	93	1.2	-	2.99	-0.02	86	222	76	70
377	69.973	0.187	0.098	3.52	93	1.2	-	2.97	-0.02	86	221	76	70
378	70.161	0.188	0.098	3.53	93	1.2	-	2.95	-0.02	86	221	76	70
379	70.350	0.189	0.098	3.53	93	1.2	-	2.93	-0.02	86	221	76	70
380	70.538	0.188	0.096	3.54	93	1.2	101	2.91	-0.02	86	222	76	70
381	70.723	0.185	0.097	3.53	93	1.2	-	2.88	-0.03	86	222	76	70
382	70.912	0.189	0.096	3.54	93	1.2	-	2.86	-0.02	86	222	75	70
383	71.101	0.189	0.098	3.53	93	1.2	-	2.84	-0.02	86	222	76	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	71.284	0.183	0.098	3.54	93	1.2	-	2.81	-0.03	86	223	76	70
385	71.471	0.187	0.098	3.50	93	1.2	-	2.79	-0.02	86	223	76	70
386	71.661	0.190	0.097	3.53	93	1.2	-	2.76	-0.03	86	223	76	70
387	71.848	0.187	0.097	3.52	93	1.2	-	2.75	-0.01	86	223	76	70
388	72.039	0.191	0.097	3.54	93	1.3	-	2.72	-0.03	86	224	76	70
389	72.225	0.186	0.098	3.51	93	1.2	-	2.69	-0.03	86	222	75	70
390	72.415	0.190	0.096	3.54	93	1.2	101	2.68	-0.01	86	224	75	70
391	72.599	0.184	0.098	3.52	93	1.2	-	2.65	-0.03	86	224	76	70
392	72.788	0.189	0.096	3.53	93	1.2	-	2.63	-0.02	86	225	75	70
393	72.975	0.187	0.098	3.52	93	1.2	-	2.60	-0.03	86	225	75	70
394	73.159	0.184	0.098	3.53	93	1.2	-	2.58	-0.02	86	225	75	70
395	73.351	0.192	0.098	3.53	93	1.2	-	2.56	-0.02	86	225	75	70
396	73.539	0.188	0.097	3.54	93	1.3	-	2.53	-0.03	86	225	75	70
397	73.728	0.189	0.097	3.52	93	1.3	-	2.52	-0.01	86	224	75	70
398	73.915	0.187	0.098	3.53	93	1.3	-	2.48	-0.04	86	224	75	70
399	74.099	0.184	0.097	3.52	93	1.2	-	2.46	-0.02	86	226	75	70
400	74.285	0.186	0.097	3.52	93	1.3	100	2.44	-0.02	86	226	75	70
401	74.476	0.191	0.096	3.52	93	1.2	-	2.41	-0.03	86	226	75	70
402	74.662	0.186	0.097	3.53	93	1.2	-	2.38	-0.03	86	225	75	70
403	74.849	0.187	0.098	3.53	93	1.2	-	2.36	-0.02	86	226	75	70
404	75.036	0.187	0.098	3.53	93	1.2	-	2.34	-0.02	86	225	75	70
405	75.228	0.192	0.097	3.52	93	1.2	-	2.31	-0.03	86	227	75	70
406	75.415	0.187	0.098	3.54	93	1.2	-	2.29	-0.02	86	226	75	70
407	75.603	0.188	0.098	3.52	93	1.2	-	2.26	-0.03	86	227	75	70
408	75.785	0.182	0.098	3.53	93	1.2	-	2.24	-0.02	86	227	75	70
409	75.973	0.188	0.098	3.53	93	1.2	-	2.21	-0.03	86	227	75	70
410	76.162	0.189	0.097	3.53	93	1.2	100	2.19	-0.02	86	227	75	70
411	76.351	0.189	0.097	3.52	93	1.2	-	2.16	-0.03	86	227	75	70
412	76.539	0.188	0.097	3.52	93	1.2	-	2.15	-0.01	86	227	75	70
413	76.725	0.186	0.098	3.52	93	1.2	-	2.12	-0.03	86	228	75	70
414	76.915	0.190	0.098	3.53	93	1.2	-	2.09	-0.03	86	228	75	70
415	77.100	0.185	0.099	3.52	93	1.2	-	2.07	-0.02	86	228	75	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
416	77.288	0.188	0.099	3.53	93	1.2	-	2.04	-0.03	86	227	75	70
417	77.473	0.185	0.098	3.52	93	1.2	-	2.01	-0.03	86	228	75	69
418	77.662	0.189	0.099	3.53	93	1.2	-	1.99	-0.02	86	228	75	70
419	77.852	0.190	0.095	3.53	93	1.3	-	1.96	-0.03	86	230	75	70
420	78.039	0.187	0.097	3.53	93	1.2	100	1.93	-0.03	86	230	75	69
421	78.229	0.190	0.098	3.54	93	1.2	-	1.92	-0.01	86	229	75	69
422	78.413	0.184	0.097	3.51	93	1.2	-	1.88	-0.04	86	229	75	69
423	78.604	0.191	0.096	3.52	93	1.2	-	1.86	-0.02	86	229	75	70
424	78.788	0.184	0.098	3.53	93	1.2	-	1.82	-0.04	86	230	75	69
425	78.973	0.185	0.097	3.52	93	1.3	-	1.81	-0.01	86	231	75	69
426	79.162	0.189	0.098	3.52	93	1.2	-	1.79	-0.02	86	232	75	69
427	79.352	0.190	0.098	3.54	93	1.2	-	1.76	-0.03	86	232	75	69
428	79.536	0.184	0.096	3.51	93	1.2	-	1.73	-0.03	86	233	75	69
429	79.725	0.189	0.098	3.52	93	1.2	-	1.69	-0.04	86	232	75	69
430	79.915	0.190	0.098	3.52	93	1.2	100	1.67	-0.02	86	232	75	69
431	80.104	0.189	0.097	3.53	93	1.2	-	1.64	-0.03	86	233	75	69
432	80.288	0.184	0.097	3.52	93	1.2	-	1.61	-0.03	86	235	75	69
433	80.472	0.184	0.099	3.52	93	1.2	-	1.57	-0.04	86	236	75	69
434	80.659	0.187	0.098	3.53	93	1.2	-	1.56	-0.01	86	235	75	69
435	80.848	0.189	0.098	3.53	93	1.2	-	1.53	-0.03	86	234	75	69
436	81.038	0.190	0.096	3.51	93	1.2	-	1.50	-0.03	86	234	75	69
437	81.228	0.190	0.097	3.53	93	1.2	-	1.46	-0.04	86	236	75	69
438	81.412	0.184	0.097	3.53	93	1.3	-	1.44	-0.02	86	236	75	69
439	81.600	0.188	0.097	3.52	93	1.2	-	1.41	-0.03	86	237	75	69
440	81.788	0.188	0.097	3.52	93	1.3	100	1.39	-0.02	86	236	75	69
441	81.975	0.187	0.098	3.53	93	1.2	-	1.35	-0.04	86	237	75	69
442	82.161	0.186	0.098	3.52	93	1.2	-	1.33	-0.02	86	237	75	69
443	82.350	0.189	0.098	3.52	93	1.3	-	1.29	-0.04	86	236	75	69
444	82.534	0.184	0.098	3.53	93	1.2	-	1.27	-0.02	86	236	75	69
445	82.727	0.193	0.098	3.52	93	1.2	-	1.24	-0.03	86	238	75	69
446	82.910	0.183	0.098	3.52	92	1.3	-	1.22	-0.02	86	237	75	69
447	83.102	0.192	0.098	3.53	92	1.3	-	1.18	-0.04	86	237	75	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
448	83.283	0.181	0.098	3.52	92	1.2	-	1.15	-0.03	86	237	75	69
449	83.470	0.187	0.097	3.52	92	1.2	-	1.13	-0.02	86	238	75	69
450	83.659	0.189	0.098	3.52	92	1.2	100	1.10	-0.03	86	238	75	69
451	83.845	0.186	0.098	3.52	92	1.2	-	1.06	-0.04	86	238	75	69
452	84.036	0.191	0.097	3.51	92	1.2	-	1.04	-0.02	86	238	75	69
453	84.222	0.186	0.098	3.52	92	1.2	-	1.00	-0.04	86	237	75	69
454	84.412	0.190	0.097	3.51	92	1.2	-	0.97	-0.03	86	236	75	69
455	84.597	0.185	0.098	3.52	92	1.2	-	0.94	-0.03	86	236	75	69
456	84.781	0.184	0.098	3.52	92	1.2	-	0.91	-0.03	86	234	75	69
457	84.969	0.188	0.098	3.52	92	1.2	-	0.88	-0.03	86	235	75	69
458	85.155	0.186	0.096	3.52	92	1.2	-	0.85	-0.03	86	235	75	69
459	85.344	0.189	0.097	3.52	92	1.2	-	0.81	-0.04	86	235	75	69
460	85.531	0.187	0.097	3.52	92	1.2	100	0.78	-0.03	86	235	75	69
461	85.724	0.193	0.096	3.51	92	1.2	-	0.76	-0.02	86	234	75	69
462	85.910	0.186	0.098	3.50	92	1.2	-	0.73	-0.03	86	234	75	69
463	86.098	0.188	0.097	3.52	92	1.2	-	0.70	-0.03	86	233	75	69
464	86.282	0.184	0.098	3.51	92	1.2	-	0.67	-0.03	86	234	75	69
465	86.470	0.188	0.097	3.52	92	1.2	-	0.64	-0.03	86	235	75	69
466	86.655	0.185	0.098	3.51	92	1.2	-	0.62	-0.02	86	234	75	69
467	86.845	0.190	0.098	3.52	92	1.2	-	0.58	-0.04	86	234	75	69
468	87.032	0.187	0.096	3.53	92	1.2	-	0.55	-0.03	86	232	75	69
469	87.218	0.186	0.097	3.51	92	1.2	-	0.53	-0.02	86	232	75	69
470	87.405	0.187	0.098	3.53	92	1.2	100	0.49	-0.04	86	234	75	69
471	87.592	0.187	0.097	3.51	92	1.2	-	0.47	-0.02	86	234	75	69
472	87.780	0.188	0.098	3.53	92	1.2	-	0.43	-0.04	86	234	74	69
473	87.967	0.187	0.097	3.51	92	1.2	-	0.40	-0.03	86	234	75	69
474	88.153	0.186	0.098	3.53	92	1.2	-	0.38	-0.02	86	233	74	69
475	88.339	0.186	0.097	3.52	92	1.3	-	0.35	-0.03	86	233	74	69
476	88.526	0.187	0.098	3.52	92	1.2	-	0.30	-0.05	86	232	74	69
477	88.715	0.189	0.097	3.51	92	1.2	-	0.28	-0.02	86	231	74	69
478	88.905	0.190	0.099	3.53	92	1.2	-	0.24	-0.04	86	231	74	69
479	89.092	0.187	0.097	3.52	92	1.2	-	0.21	-0.03	86	230	74	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
480	89.277	0.185	0.098	3.53	92	1.2	100	0.18	-0.03	85	231	74	69
481	89.464	0.187	0.098	3.52	92	1.2	-	0.15	-0.03	85	230	74	69
482	89.650	0.186	0.096	3.53	92	1.2	-	0.12	-0.03	85	229	74	69
483	89.839	0.189	0.097	3.52	92	1.2	-	0.09	-0.03	85	230	74	69
484	90.026	0.187	0.097	3.54	92	1.2	-	0.06	-0.03	85	229	74	69
485	90.212	0.186	0.098	3.51	92	1.2	-	0.03	-0.03	85	228	74	69
486	90.399	0.187	0.098	3.51	92	1.2	-	0.01	-0.02	85	227	74	69
487	90.585	0.186	0.098	3.52	92	1.2	100	0.00	-0.01	85	227	74	69
Avg/Tot	90.585	0.186	0.097	3.49	90.5	1.2	100			89.4	254.0	76.3	69.8

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		0.70	72	1.5		73	-0.036	5.76	0.030
1	0.127	0.127	3.17	72	2.0	-	76	-0.039	2.82	0.196
2	0.300	0.173	3.18	72	1.8	-	75	-0.039	6.79	0.018
3	0.473	0.173	3.18	72	1.9	-	75	-0.040	7.79	0.016
4	0.644	0.171	3.18	72	1.9	-	75	-0.041	7.79	0.017
5	0.815	0.171	3.18	72	2.1	-	75	-0.042	7.95	0.019
6	0.988	0.173	3.18	72	1.9	-	75	-0.043	8.40	0.019
7	1.161	0.173	3.19	73	1.7	-	75	-0.044	8.59	0.017
8	1.332	0.171	3.18	73	2.2	-	75	-0.044	9.02	0.017
9	1.504	0.172	3.18	73	2.1	-	75	-0.045	9.03	0.018
10	1.678	0.174	3.19	73	1.7	98	75	-0.046	8.64	0.018
11	1.852	0.174	3.19	73	1.8	-	75	-0.050	8.70	0.015
12	2.023	0.171	3.19	74	1.7	-	75	-0.046	8.89	0.012
13	2.193	0.170	3.19	74	2.1	-	75	-0.048	9.14	0.017
14	2.367	0.174	3.19	74	1.9	-	75	-0.048	9.57	0.019
15	2.541	0.174	3.20	74	2.2	-	75	-0.048	9.10	0.016
16	2.715	0.174	3.21	75	1.7	-	76	-0.049	9.90	0.013
17	2.888	0.173	3.20	75	1.6	-	76	-0.050	10.14	0.023
18	3.063	0.175	3.21	75	1.6	-	76	-0.049	10.08	0.018
19	3.237	0.174	3.20	75	2.2	-	76	-0.050	10.24	0.024
20	3.409	0.172	3.20	76	1.9	100	76	-0.052	10.31	0.023
21	3.583	0.174	3.21	76	1.7	-	76	-0.051	10.92	0.023
22	3.758	0.175	3.21	76	1.7	-	76	-0.052	11.55	0.025
23	3.932	0.174	3.21	77	1.9	-	76	-0.055	11.99	0.035
24	4.104	0.172	3.21	77	1.8	-	76	-0.054	12.00	0.050
25	4.278	0.174	3.21	77	1.6	-	76	-0.053	11.80	0.044
26	4.456	0.178	3.21	78	1.6	-	76	-0.054	11.55	0.032
27	4.629	0.173	3.21	78	2.2	-	76	-0.057	11.43	0.038
28	4.801	0.172	3.21	78	1.9	-	77	-0.055	11.71	0.042
29	4.978	0.177	3.22	79	1.9	-	77	-0.056	11.77	0.046
30	5.151	0.173	3.21	79	1.8	100	77	-0.055	11.77	0.047
31	5.327	0.176	3.22	79	1.7	-	77	-0.055	11.74	0.043

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	5.501	0.174	3.22	80	1.6	-	77	-0.054	11.69	0.043
33	5.675	0.174	3.23	80	1.9	-	77	-0.055	11.75	0.051
34	5.854	0.179	3.23	80	1.7	-	77	-0.055	11.91	0.057
35	6.028	0.174	3.23	81	1.7	-	77	-0.056	12.07	0.063
36	6.203	0.175	3.23	81	1.7	-	77	-0.056	11.98	0.061
37	6.377	0.174	3.24	81	2.2	-	77	-0.056	11.82	0.042
38	6.555	0.178	3.23	82	1.8	-	77	-0.056	11.70	0.040
39	6.730	0.175	3.23	82	2.2	-	77	-0.057	11.62	0.032
40	6.909	0.179	3.23	82	2.1	101	77	-0.055	11.65	0.032
41	7.080	0.171	3.23	83	1.8	-	77	-0.055	11.67	0.032
42	7.253	0.173	3.24	83	1.9	-	77	-0.053	11.66	0.026
43	7.433	0.180	3.24	83	1.8	-	77	-0.055	11.72	0.029
44	7.611	0.178	3.24	83	1.6	-	77	-0.055	12.63	0.070
45	7.790	0.179	3.24	84	2.1	-	77	-0.056	12.60	0.056
46	7.962	0.172	3.24	84	1.7	-	77	-0.055	11.98	0.031
47	8.139	0.177	3.25	84	2.2	-	77	-0.054	11.86	0.023
48	8.316	0.177	3.25	85	1.6	-	77	-0.052	11.77	0.023
49	8.493	0.177	3.25	85	2.0	-	77	-0.053	11.56	0.019
50	8.671	0.178	3.25	85	2.0	100	77	-0.054	11.54	0.023
51	8.844	0.173	3.25	85	1.7	-	77	-0.053	11.44	0.023
52	9.026	0.182	3.25	86	1.9	-	77	-0.054	11.42	0.019
53	9.207	0.181	3.26	86	1.7	-	78	-0.054	11.36	0.023
54	9.379	0.172	3.26	86	2.2	-	78	-0.053	11.42	0.025
55	9.553	0.174	3.25	87	1.7	-	77	-0.052	11.58	0.019
56	9.731	0.178	3.25	87	2.0	-	77	-0.053	11.64	0.024
57	9.913	0.182	3.26	87	1.7	-	77	-0.052	11.79	0.021
58	10.088	0.175	3.26	87	2.2	-	77	-0.054	11.98	0.021
59	10.269	0.181	3.27	88	1.6	-	77	-0.055	12.05	0.021
60	10.442	0.173	3.26	88	1.8	100	77	-0.054	12.30	0.026
61	10.619	0.177	3.26	88	1.7	-	77	-0.053	12.29	0.022
62	10.798	0.179	3.26	88	2.2	-	77	-0.053	12.22	0.022
63	10.976	0.178	3.26	88	2.0	-	77	-0.052	12.17	0.020

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	11.153	0.177	3.26	89	1.7	-	77	-0.054	12.25	0.021
65	11.327	0.174	3.27	89	1.9	-	77	-0.053	12.22	0.022
66	11.509	0.182	3.27	89	1.7	-	77	-0.053	12.27	0.019
67	11.685	0.176	3.27	89	1.7	-	77	-0.054	12.26	0.022
68	11.863	0.178	3.27	89	2.2	-	77	-0.052	12.17	0.020
69	12.042	0.179	3.27	90	1.8	-	77	-0.055	12.16	0.017
70	12.220	0.178	3.27	90	2.0	100	77	-0.054	12.15	0.023
71	12.396	0.176	3.27	90	1.7	-	77	-0.053	12.16	0.021
72	12.576	0.180	3.27	90	1.7	-	77	-0.052	12.19	0.020
73	12.756	0.180	3.27	90	1.8	-	77	-0.052	12.29	0.018
74	12.933	0.177	3.26	91	2.1	-	77	-0.053	12.27	0.020
75	13.111	0.178	3.28	91	2.1	-	77	-0.050	12.38	0.019
76	13.288	0.177	3.28	91	2.1	-	77	-0.052	12.40	0.013
77	13.468	0.180	3.27	91	1.7	-	77	-0.052	12.44	0.017
78	13.645	0.177	3.27	91	2.2	-	77	-0.053	12.47	0.022
79	13.825	0.180	3.26	91	1.9	-	77	-0.052	12.51	0.022
80	14.004	0.179	3.28	91	2.2	101	77	-0.052	12.51	0.021
81	14.183	0.179	3.28	92	2.2	-	77	-0.052	12.48	0.026
82	14.363	0.180	3.27	92	1.9	-	77	-0.051	12.53	0.026
83	14.541	0.178	3.28	92	1.7	-	77	-0.052	12.58	0.022
84	14.715	0.174	3.27	92	1.7	-	77	-0.055	11.77	0.020
85	14.894	0.179	3.27	92	2.1	-	77	-0.053	13.14	1.518
86	15.077	0.183	3.28	92	2.1	-	78	-0.053	13.16	1.024
87	15.256	0.179	3.27	92	2.0	-	78	-0.054	13.35	0.276
88	15.433	0.177	3.27	92	1.7	-	78	-0.055	13.26	0.991
89	15.613	0.180	3.27	93	2.2	-	78	-0.053	13.02	0.500
90	15.789	0.176	3.28	93	2.1	101	78	-0.054	13.05	0.252
91	15.971	0.182	3.29	93	2.1	-	78	-0.054	13.08	0.200
92	16.148	0.177	3.27	93	1.6	-	78	-0.056	12.99	0.192
93	16.327	0.179	3.27	93	1.7	-	78	-0.052	13.04	0.138
94	16.509	0.182	3.28	93	2.2	-	78	-0.051	13.24	0.313
95	16.683	0.174	3.27	93	2.1	-	78	-0.056	13.27	0.244

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	16.865	0.182	3.27	94	1.7	-	78	-0.051	13.17	0.239
97	17.043	0.178	3.27	94	2.2	-	78	-0.052	13.00	0.103
98	17.226	0.183	3.28	94	2.1	-	78	-0.053	12.71	0.124
99	17.401	0.175	3.28	94	1.9	-	78	-0.050	12.47	0.036
100	17.582	0.181	3.28	94	2.1	101	78	-0.051	12.28	0.020
101	17.758	0.176	3.27	94	2.2	-	78	-0.053	12.09	0.017
102	17.941	0.183	3.28	94	2.2	-	78	-0.054	11.94	0.019
103	18.119	0.178	3.28	94	1.9	-	78	-0.051	11.81	0.014
104	18.301	0.182	3.28	94	2.1	-	78	-0.052	11.92	0.011
105	18.478	0.177	3.28	94	1.6	-	78	-0.052	11.91	0.011
106	18.654	0.176	3.27	94	2.2	-	78	-0.050	12.02	0.010
107	18.838	0.184	3.28	95	1.7	-	78	-0.051	12.06	0.016
108	19.016	0.178	3.28	95	1.6	-	78	-0.051	12.14	0.018
109	19.195	0.179	3.29	95	2.1	-	78	-0.050	12.21	0.012
110	19.375	0.180	3.27	95	1.8	100	78	-0.051	12.27	0.017
111	19.555	0.180	3.28	95	2.2	-	78	-0.053	12.33	0.013
112	19.732	0.177	3.27	95	1.7	-	78	-0.050	12.33	0.014
113	19.913	0.181	3.28	95	1.9	-	78	-0.050	12.29	0.013
114	20.092	0.179	3.28	95	1.7	-	78	-0.049	12.29	0.015
115	20.274	0.182	3.27	95	1.7	-	78	-0.052	12.28	0.013
116	20.449	0.175	3.27	95	2.2	-	78	-0.050	12.28	0.012
117	20.630	0.181	3.28	95	1.8	-	78	-0.049	12.44	0.015
118	20.810	0.180	3.28	95	2.2	-	78	-0.049	12.43	0.020
119	20.989	0.179	3.28	95	1.7	-	78	-0.049	12.39	0.014
120	21.172	0.183	3.27	96	2.1	101	78	-0.049	12.45	0.022
121	21.350	0.178	3.28	96	1.7	-	78	-0.048	12.59	0.040
122	21.529	0.179	3.28	96	1.9	-	78	-0.049	12.57	0.032
123	21.710	0.181	3.27	96	1.7	-	78	-0.050	12.68	0.044
124	21.888	0.178	3.28	96	1.7	-	78	-0.051	12.70	0.059
125	22.068	0.180	3.28	96	2.2	-	78	-0.049	12.65	0.090
126	22.245	0.177	3.28	96	1.7	-	78	-0.050	12.68	0.094
127	22.428	0.183	3.28	96	1.9	-	78	-0.049	12.53	0.122

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	22.608	0.180	3.27	96	1.7	-	78	-0.050	12.60	0.120
129	22.787	0.179	3.27	96	2.2	-	78	-0.049	12.52	0.123
130	22.968	0.181	3.27	96	2.2	101	78	-0.049	12.52	0.108
131	23.143	0.175	3.27	96	2.1	-	78	-0.051	12.60	0.118
132	23.326	0.183	3.26	96	1.8	-	78	-0.052	12.50	0.140
133	23.504	0.178	3.28	96	1.7	-	78	-0.049	12.63	0.222
134	23.686	0.182	3.28	96	1.9	-	78	-0.047	12.84	0.292
135	23.867	0.181	3.28	96	2.0	-	78	-0.050	12.86	0.286
136	24.046	0.179	3.27	96	2.0	-	78	-0.049	12.71	0.312
137	24.224	0.178	3.28	96	1.8	-	78	-0.052	12.78	0.340
138	24.401	0.177	3.27	97	1.9	-	78	-0.049	12.71	0.356
139	24.585	0.184	3.27	97	1.7	-	78	-0.049	12.75	0.344
140	24.763	0.178	3.28	97	2.2	100	78	-0.048	12.58	0.354
141	24.945	0.182	3.27	97	1.9	-	78	-0.050	12.47	0.374
142	25.120	0.175	3.28	97	1.8	-	78	-0.047	12.66	0.372
143	25.303	0.183	3.27	97	1.9	-	78	-0.050	12.62	0.278
144	25.484	0.181	3.27	97	1.7	-	78	-0.048	12.82	0.230
145	25.664	0.180	3.28	97	2.1	-	78	-0.049	12.94	0.265
146	25.844	0.180	3.27	97	1.9	-	78	-0.048	13.01	0.248
147	26.023	0.179	3.27	97	1.8	-	78	-0.048	13.05	0.237
148	26.199	0.176	3.27	97	2.1	-	78	-0.047	13.18	0.407
149	26.382	0.183	3.27	97	1.8	-	78	-0.050	12.17	0.503
150	26.560	0.178	3.27	97	1.9	100	78	-0.049	12.02	0.603
151	26.744	0.184	3.28	97	2.1	-	78	-0.049	12.10	0.676
152	26.923	0.179	3.26	97	2.0	-	78	-0.050	12.02	0.627
153	27.101	0.178	3.27	97	1.8	-	78	-0.050	12.21	0.521
154	27.278	0.177	3.27	97	1.7	-	78	-0.049	12.24	0.643
155	27.462	0.184	3.27	97	2.1	-	79	-0.052	12.42	0.843
156	27.643	0.181	3.28	97	2.0	-	79	-0.051	12.43	0.724
157	27.820	0.177	3.28	97	1.9	-	79	-0.050	12.43	0.916
158	28.000	0.180	3.27	97	2.2	-	79	-0.050	12.21	0.869
159	28.181	0.181	3.28	97	2.2	-	79	-0.051	12.16	0.916

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	28.359	0.178	3.27	97	1.8	101	79	-0.050	12.24	0.819
161	28.542	0.183	3.28	97	2.1	-	79	-0.051	12.24	0.639
162	28.719	0.177	3.27	97	1.8	-	79	-0.049	12.15	0.621
163	28.899	0.180	3.27	97	1.9	-	79	-0.047	11.99	0.482
164	29.081	0.182	3.28	97	2.1	-	79	-0.047	11.81	0.365
165	29.258	0.177	3.27	97	2.0	-	79	-0.046	11.58	0.279
166	29.442	0.184	3.28	97	2.2	-	79	-0.048	11.35	0.159
167	29.621	0.179	3.28	97	1.7	-	79	-0.048	11.21	0.077
168	29.803	0.182	3.29	97	1.8	-	79	-0.044	10.95	0.045
169	29.981	0.178	3.28	98	1.8	-	79	-0.047	10.85	0.026
170	30.158	0.177	3.28	98	1.7	100	79	-0.046	10.95	0.018
171	30.340	0.182	3.28	98	2.1	-	79	-0.047	10.89	0.015
172	30.523	0.183	3.28	98	1.9	-	79	-0.047	10.92	0.017
173	30.703	0.180	3.27	98	2.2	-	79	-0.045	11.10	0.021
174	30.883	0.180	3.28	98	1.7	-	79	-0.046	11.12	0.013
175	31.063	0.180	3.28	98	2.2	-	79	-0.046	11.20	0.017
176	31.242	0.179	3.28	98	1.9	-	79	-0.046	11.24	0.010
177	31.423	0.181	3.28	98	1.9	-	79	-0.045	11.20	0.014
178	31.602	0.179	3.28	98	2.1	-	79	-0.046	11.25	0.014
179	31.781	0.179	3.27	98	2.1	-	79	-0.046	11.30	0.012
180	31.962	0.181	3.28	98	1.7	100	78	-0.045	11.30	0.012
181	32.139	0.177	3.27	98	2.0	-	79	-0.044	11.51	0.016
182	32.324	0.185	3.27	98	1.7	-	79	-0.044	11.57	0.015
183	32.505	0.181	3.28	98	1.8	-	79	-0.046	11.62	0.017
184	32.685	0.180	3.28	98	1.8	-	79	-0.044	11.59	0.015
185	32.864	0.179	3.28	98	2.2	-	79	-0.045	11.77	0.011
186	33.044	0.180	3.28	98	2.0	-	79	-0.043	11.83	0.013
187	33.224	0.180	3.28	98	1.9	-	79	-0.044	11.98	0.014
188	33.405	0.181	3.28	98	2.1	-	79	-0.045	12.03	0.020
189	33.587	0.182	3.27	98	2.1	-	78	-0.044	12.11	0.022
190	33.767	0.180	3.28	98	2.1	100	78	-0.045	12.20	0.025
191	33.944	0.177	3.28	98	1.8	-	79	-0.044	12.37	0.038

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	34.121	0.177	3.27	98	2.1	-	79	-0.048	12.48	0.052
193	34.303	0.182	3.28	98	2.0	-	79	-0.045	12.55	0.062
194	34.485	0.182	3.28	98	2.0	-	79	-0.045	12.67	0.092
195	34.667	0.182	3.28	98	1.7	-	79	-0.048	12.72	0.174
196	34.846	0.179	3.27	98	1.8	-	79	-0.046	13.08	0.420
197	35.026	0.180	3.27	98	2.0	-	79	-0.047	13.14	0.304
198	35.206	0.180	3.28	98	2.2	-	79	-0.047	13.03	0.301
199	35.387	0.181	3.27	98	1.8	-	79	-0.047	13.03	0.323
200	35.566	0.179	3.28	98	2.2	100	79	-0.047	13.10	0.436
201	35.745	0.179	3.28	98	1.7	-	79	-0.046	13.07	0.438
202	35.927	0.182	3.29	98	1.7	-	79	-0.046	13.05	0.540
203	36.104	0.177	3.28	98	1.8	-	79	-0.045	13.10	0.492
204	36.289	0.185	3.28	98	2.2	-	79	-0.049	13.09	0.387
205	36.470	0.181	3.28	98	1.9	-	79	-0.048	13.02	0.408
206	36.647	0.177	3.28	98	2.2	-	79	-0.046	13.00	0.391
207	36.829	0.182	3.27	98	1.9	-	79	-0.047	12.85	0.325
208	37.009	0.180	3.28	98	1.7	-	79	-0.046	12.69	0.237
209	37.187	0.178	3.29	98	2.2	-	79	-0.045	12.50	0.150
210	37.370	0.183	3.28	98	2.1	100	79	-0.045	12.32	0.081
211	37.549	0.179	3.28	98	1.9	-	79	-0.046	12.06	0.027
212	37.732	0.183	3.28	98	1.7	-	79	-0.046	11.82	0.016
213	37.910	0.178	3.28	98	2.2	-	79	-0.047	11.48	0.019
214	38.087	0.177	3.27	98	2.0	-	79	-0.045	11.45	0.010
215	38.272	0.185	3.28	98	2.2	-	79	-0.044	11.38	0.011
216	38.451	0.179	3.28	98	1.8	-	79	-0.045	11.34	0.008
217	38.633	0.182	3.28	98	1.8	-	79	-0.044	11.34	0.016
218	38.809	0.176	3.28	98	2.0	-	79	-0.044	11.30	0.008
219	38.993	0.184	3.28	98	1.7	-	79	-0.043	11.34	0.011
220	39.173	0.180	3.29	99	1.9	100	79	-0.044	11.25	0.011
221	39.354	0.181	3.28	99	2.1	-	79	-0.042	11.27	0.006
222	39.533	0.179	3.28	99	1.7	-	79	-0.044	11.27	0.009
223	39.714	0.181	3.28	99	2.2	-	79	-0.043	11.25	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	39.895	0.181	3.28	99	2.0	-	79	-0.044	11.37	0.006
225	40.075	0.180	3.28	99	1.9	-	79	-0.046	11.33	0.009
226	40.254	0.179	3.28	99	1.7	-	79	-0.042	11.32	0.008
227	40.435	0.181	3.29	99	1.8	-	79	-0.042	11.46	0.005
228	40.618	0.183	3.28	99	2.0	-	79	-0.045	11.56	0.008
229	40.799	0.181	3.28	99	1.7	-	79	-0.044	11.64	0.011
230	40.975	0.176	3.27	99	2.1	100	79	-0.043	11.78	0.009
231	41.158	0.183	3.28	99	2.1	-	79	-0.043	11.82	0.006
232	41.336	0.178	3.27	99	2.0	-	79	-0.042	12.01	0.008
233	41.518	0.182	3.28	99	1.8	-	79	-0.044	12.08	0.010
234	41.698	0.180	3.28	99	2.1	-	79	-0.042	12.23	0.013
235	41.879	0.181	3.27	99	1.9	-	79	-0.044	12.37	0.013
236	42.060	0.181	3.28	99	2.2	-	79	-0.044	12.50	0.021
237	42.241	0.181	3.28	99	2.2	-	79	-0.044	12.54	0.017
238	42.419	0.178	3.28	99	1.9	-	79	-0.045	12.58	0.020
239	42.599	0.180	3.27	99	2.0	-	79	-0.043	12.69	0.043
240	42.783	0.184	3.28	99	1.8	100	79	-0.045	12.78	0.098
241	42.962	0.179	3.28	99	2.2	-	79	-0.046	12.83	0.086
242	43.139	0.177	3.28	99	1.8	-	79	-0.045	12.76	0.108
243	43.320	0.181	3.28	99	1.7	-	79	-0.045	12.81	0.132
244	43.502	0.182	3.28	99	1.8	-	79	-0.043	12.89	0.149
245	43.685	0.183	3.27	99	2.1	-	79	-0.045	12.90	0.175
246	43.863	0.178	3.27	99	2.2	-	79	-0.045	12.85	0.189
247	44.044	0.181	3.28	99	1.8	-	79	-0.045	12.84	0.179
248	44.225	0.181	3.28	99	1.8	-	79	-0.046	12.73	0.165
249	44.406	0.181	3.28	99	2.1	-	79	-0.046	12.77	0.132
250	44.588	0.182	3.28	99	2.0	100	79	-0.042	12.85	0.129
251	44.767	0.179	3.27	99	2.1	-	79	-0.046	12.83	0.172
252	44.946	0.179	3.28	99	2.2	-	79	-0.045	12.76	0.159
253	45.126	0.180	3.28	99	2.2	-	79	-0.046	12.66	0.186
254	45.308	0.182	3.28	99	1.9	-	79	-0.045	12.65	0.133
255	45.487	0.179	3.28	99	2.2	-	79	-0.046	12.59	0.117

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	45.666	0.179	3.28	99	2.0	-	79	-0.045	12.35	0.093
257	45.849	0.183	3.28	99	2.1	-	79	-0.043	12.23	0.101
258	46.029	0.180	3.27	99	1.9	-	79	-0.046	12.21	0.047
259	46.210	0.181	3.28	99	1.7	-	79	-0.045	12.03	0.035
260	46.391	0.181	3.27	99	1.8	100	79	-0.044	12.00	0.033
261	46.574	0.183	3.28	99	1.9	-	79	-0.045	11.88	0.021
262	46.754	0.180	3.28	99	2.0	-	79	-0.044	11.78	0.009
263	46.929	0.175	3.28	99	1.8	-	79	-0.044	11.73	0.011
264	47.109	0.180	3.28	99	1.7	-	79	-0.043	11.71	0.012
265	47.294	0.185	3.27	99	1.7	-	79	-0.044	11.61	0.009
266	47.475	0.181	3.28	99	2.1	-	79	-0.043	11.70	0.011
267	47.656	0.181	3.28	99	1.8	-	79	-0.044	11.62	0.008
268	47.836	0.180	3.28	99	2.2	-	79	-0.044	11.73	0.009
269	48.016	0.180	3.29	99	2.2	-	79	-0.044	11.66	0.009
270	48.196	0.180	3.29	99	1.6	100	79	-0.045	11.67	0.010
271	48.375	0.179	3.29	99	2.2	-	79	-0.042	11.81	0.012
272	48.557	0.182	3.28	99	2.2	-	79	-0.044	11.81	0.013
273	48.737	0.180	3.29	99	1.8	-	79	-0.042	11.85	0.015
274	48.916	0.179	3.28	99	1.9	-	79	-0.043	11.98	0.011
275	49.096	0.180	3.28	99	1.8	-	79	-0.042	11.84	0.015
276	49.278	0.182	3.28	99	1.8	-	79	-0.045	11.98	0.014
277	49.462	0.184	3.28	99	1.7	-	79	-0.044	11.79	0.012
278	49.640	0.178	3.28	99	2.0	-	79	-0.042	11.89	0.021
279	49.824	0.184	3.28	99	2.2	-	79	-0.042	11.76	0.018
280	50.000	0.176	3.29	99	1.6	100	79	-0.042	11.70	0.021
281	50.180	0.180	3.28	99	2.2	-	79	-0.040	11.47	0.015
282	50.365	0.185	3.28	99	1.7	-	79	-0.042	11.33	0.011
283	50.544	0.179	3.28	99	1.7	-	79	-0.042	11.15	0.006
284	50.727	0.183	3.28	99	1.9	-	79	-0.039	11.00	0.008
285	50.902	0.175	3.28	99	1.7	-	79	-0.040	11.36	0.009
286	51.086	0.184	3.28	99	2.0	-	79	-0.040	11.24	0.007
287	51.265	0.179	3.29	99	2.0	-	79	-0.041	11.25	0.006

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	51.448	0.183	3.28	99	1.7	-	79	-0.039	11.26	0.006
289	51.631	0.183	3.28	99	2.2	-	79	-0.040	11.00	0.006
290	51.808	0.177	3.28	99	1.8	100	79	-0.037	10.98	0.005
291	51.989	0.181	3.28	99	1.6	-	78	-0.041	10.96	0.008
292	52.167	0.178	3.28	99	2.1	-	79	-0.041	10.77	0.005
293	52.352	0.185	3.28	99	2.2	-	78	-0.040	10.70	0.006
294	52.533	0.181	3.28	99	2.1	-	78	-0.038	10.56	0.007
295	52.711	0.178	3.29	99	1.7	-	78	-0.038	10.58	0.009
296	52.891	0.180	3.27	99	1.8	-	78	-0.037	10.47	0.003
297	53.074	0.183	3.29	99	1.8	-	78	-0.038	10.37	0.006
298	53.252	0.178	3.28	99	2.0	-	78	-0.039	10.50	0.007
299	53.433	0.181	3.28	99	2.1	-	78	-0.038	10.52	0.004
300	53.619	0.186	3.28	99	2.2	100	78	-0.040	10.45	0.009
301	53.799	0.180	3.28	99	2.2	-	78	-0.041	10.48	0.006
302	53.974	0.175	3.27	99	1.7	-	78	-0.037	10.57	0.007
303	54.158	0.184	3.27	99	1.8	-	78	-0.038	10.55	0.004
304	54.339	0.181	3.28	99	1.9	-	78	-0.039	10.53	0.005
305	54.520	0.181	3.28	99	1.9	-	78	-0.037	10.62	0.005
306	54.700	0.180	3.28	99	2.2	-	78	-0.037	10.56	0.004
307	54.883	0.183	3.28	99	1.7	-	78	-0.038	10.68	0.005
308	55.058	0.175	3.28	99	2.0	-	78	-0.039	10.58	0.005
309	55.242	0.184	3.28	99	1.7	-	78	-0.040	10.53	0.008
310	55.424	0.182	3.28	99	2.2	99	78	-0.039	10.56	0.006
311	55.603	0.179	3.29	99	1.9	-	78	-0.036	10.52	0.006
312	55.783	0.180	3.29	99	2.1	-	78	-0.038	10.55	0.006
313	55.967	0.184	3.28	99	2.0	-	78	-0.039	10.55	0.003
314	56.146	0.179	3.29	99	2.2	-	78	-0.038	10.62	0.006
315	56.324	0.178	3.28	99	1.8	-	78	-0.038	10.57	0.007
316	56.509	0.185	3.28	99	1.7	-	78	-0.038	10.63	0.002
317	56.687	0.178	3.27	99	2.2	-	78	-0.041	10.59	0.007
318	56.868	0.181	3.29	99	1.9	-	78	-0.038	10.63	0.005
319	57.049	0.181	3.28	99	2.1	-	78	-0.038	10.61	0.005

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	57.227	0.178	3.28	99	2.2	99	78	-0.039	10.54	0.005
321	57.409	0.182	3.28	99	1.6	-	78	-0.038	10.71	0.003
322	57.593	0.184	3.28	99	1.9	-	78	-0.039	10.69	0.004
323	57.775	0.182	3.28	99	2.0	-	78	-0.039	10.71	0.003
324	57.955	0.180	3.29	99	2.0	-	78	-0.039	10.73	0.004
325	58.133	0.178	3.29	99	1.6	-	78	-0.035	10.87	0.006
326	58.311	0.178	3.28	99	2.2	-	78	-0.038	10.83	0.003
327	58.496	0.185	3.28	99	1.7	-	78	-0.038	10.76	0.003
328	58.676	0.180	3.29	99	2.1	-	78	-0.039	10.72	0.003
329	58.858	0.182	3.28	99	1.6	-	78	-0.040	10.85	0.004
330	59.035	0.177	3.28	99	1.8	100	78	-0.040	10.21	0.005
331	59.219	0.184	3.29	99	1.8	-	78	-0.040	10.30	0.004
332	59.396	0.177	3.28	99	2.2	-	78	-0.039	10.22	0.004
333	59.581	0.185	3.28	99	2.0	-	78	-0.039	10.20	0.003
334	59.760	0.179	3.29	99	1.9	-	78	-0.040	10.20	0.003
335	59.942	0.182	3.28	99	1.8	-	78	-0.038	10.30	0.003
336	60.118	0.176	3.28	99	2.2	-	78	-0.038	10.28	0.004
337	60.302	0.184	3.28	99	1.8	-	78	-0.038	10.25	0.003
338	60.481	0.179	3.28	99	2.2	-	78	-0.037	10.10	0.003
339	60.662	0.181	3.28	99	2.1	-	78	-0.039	10.21	0.003
340	60.843	0.181	3.28	99	2.2	100	78	-0.036	10.22	0.002
341	61.023	0.180	3.29	99	1.9	-	78	-0.038	10.21	0.003
342	61.203	0.180	3.28	99	1.8	-	78	-0.039	10.11	0.003
343	61.386	0.183	3.28	99	1.7	-	78	-0.038	10.21	0.005
344	61.568	0.182	3.28	99	2.2	-	77	-0.039	10.14	0.005
345	61.750	0.182	3.29	99	1.7	-	77	-0.038	10.15	0.004
346	61.930	0.180	3.28	99	2.1	-	77	-0.039	10.26	0.003
347	62.106	0.176	3.28	99	1.8	-	77	-0.036	10.19	0.003
348	62.290	0.184	3.28	99	1.9	-	77	-0.037	10.27	0.004
349	62.470	0.180	3.29	99	2.2	-	77	-0.037	10.24	0.003
350	62.652	0.182	3.28	99	2.1	100	77	-0.037	10.26	0.001
351	62.834	0.182	3.28	99	1.8	-	77	-0.039	10.24	0.003

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	63.012	0.178	3.29	99	1.8	-	77	-0.038	10.32	0.003
353	63.193	0.181	3.29	99	2.1	-	77	-0.039	10.24	0.002
354	63.370	0.177	3.28	99	1.7	-	77	-0.038	10.28	0.003
355	63.556	0.186	3.29	99	2.1	-	77	-0.038	9.36	0.002
356	63.736	0.180	3.29	99	2.1	-	77	-0.040	9.44	0.003
357	63.917	0.181	3.29	99	1.7	-	77	-0.038	9.28	0.002
358	64.098	0.181	3.28	99	2.0	-	77	-0.036	9.13	0.001
359	64.277	0.179	3.28	99	1.6	-	77	-0.038	9.04	0.002
360	64.455	0.178	3.28	99	1.7	100	77	-0.039	8.98	0.002
361	64.637	0.182	3.28	99	1.8	-	77	-0.038	8.97	0.003
362	64.822	0.185	3.28	99	1.9	-	77	-0.039	8.98	0.003
363	65.002	0.180	3.29	99	1.6	-	77	-0.036	8.95	0.004
364	65.181	0.179	3.29	99	2.2	-	77	-0.038	8.98	0.002
365	65.358	0.177	3.28	99	2.0	-	77	-0.037	8.92	0.004
366	65.540	0.182	3.29	99	2.0	-	77	-0.039	8.95	0.003
367	65.721	0.181	3.29	99	2.2	-	77	-0.039	9.08	0.003
368	65.903	0.182	3.28	99	2.2	-	77	-0.039	8.98	0.004
369	66.083	0.180	3.28	99	2.1	-	77	-0.037	8.95	0.004
370	66.261	0.178	3.28	99	2.2	100	77	-0.040	8.96	0.002
371	66.445	0.184	3.28	99	1.7	-	77	-0.037	8.99	0.003
372	66.627	0.182	3.28	99	1.9	-	77	-0.037	8.97	0.002
373	66.808	0.181	3.28	99	2.1	-	77	-0.037	9.04	0.002
374	66.986	0.178	3.28	99	1.8	-	77	-0.038	9.04	0.003
375	67.166	0.180	3.28	99	1.9	-	77	-0.036	9.19	0.002
376	67.349	0.183	3.29	99	1.6	-	77	-0.038	9.11	0.004
377	67.529	0.180	3.29	99	1.8	-	77	-0.037	9.21	0.005
378	67.712	0.183	3.28	99	1.6	-	77	-0.036	9.18	0.003
379	67.894	0.182	3.28	99	1.8	-	77	-0.039	9.19	0.001
380	68.073	0.179	3.29	99	1.8	101	77	-0.036	9.18	0.002
381	68.249	0.176	3.28	99	1.6	-	77	-0.038	9.17	0.003
382	68.430	0.181	3.28	99	1.8	-	77	-0.037	9.24	0.002
383	68.614	0.184	3.28	99	1.7	-	77	-0.038	9.32	0.005

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	68.793	0.179	3.28	99	2.0	-	77	-0.037	9.35	0.002
385	68.974	0.181	3.28	99	1.6	-	77	-0.038	9.39	0.002
386	69.158	0.184	3.28	99	1.7	-	77	-0.039	9.32	0.003
387	69.333	0.175	3.29	99	2.1	-	77	-0.037	9.41	0.004
388	69.517	0.184	3.28	99	2.2	-	77	-0.038	9.39	0.003
389	69.696	0.179	3.28	99	2.2	-	77	-0.037	9.45	0.002
390	69.880	0.184	3.28	99	1.7	100	77	-0.037	9.49	0.003
391	70.058	0.178	3.29	99	1.7	-	77	-0.040	9.52	0.003
392	70.241	0.183	3.28	99	2.0	-	77	-0.036	9.59	0.004
393	70.421	0.180	3.29	99	2.0	-	77	-0.039	9.60	0.004
394	70.598	0.177	3.28	99	2.0	-	77	-0.036	9.63	0.003
395	70.783	0.185	3.28	99	1.7	-	77	-0.038	9.61	0.003
396	70.965	0.182	3.28	99	2.0	-	77	-0.038	9.64	0.003
397	71.145	0.180	3.28	99	1.8	-	77	-0.037	9.62	0.002
398	71.323	0.178	3.28	99	1.9	-	77	-0.033	9.48	0.003
399	71.501	0.178	3.29	99	1.8	-	77	-0.038	9.49	0.002
400	71.683	0.182	3.28	99	1.8	100	77	-0.038	9.45	0.003
401	71.867	0.184	3.28	99	2.2	-	77	-0.039	9.52	0.003
402	72.049	0.182	3.29	99	2.0	-	77	-0.038	9.45	0.003
403	72.225	0.176	3.28	99	2.1	-	77	-0.038	9.47	0.003
404	72.405	0.180	3.28	99	2.1	-	77	-0.038	9.41	0.002
405	72.587	0.182	3.27	99	2.0	-	77	-0.039	9.43	0.005
406	72.770	0.183	3.28	99	1.7	-	77	-0.039	9.53	0.002
407	72.952	0.182	3.28	99	2.2	-	77	-0.039	9.56	0.002
408	73.128	0.176	3.28	99	1.9	-	77	-0.038	9.56	0.002
409	73.307	0.179	3.28	99	1.9	-	77	-0.040	9.64	0.001
410	73.491	0.184	3.28	99	1.7	100	77	-0.039	9.58	0.003
411	73.672	0.181	3.28	99	1.9	-	77	-0.039	9.71	0.001
412	73.853	0.181	3.28	99	2.2	-	77	-0.040	9.71	0.004
413	74.032	0.179	3.28	99	1.8	-	77	-0.038	9.72	0.004
414	74.216	0.184	3.29	98	1.9	-	77	-0.039	9.72	0.002
415	74.391	0.175	3.28	99	2.1	-	77	-0.039	9.66	0.004

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
416	74.575	0.184	3.28	98	1.7	-	77	-0.040	9.80	0.004
417	74.754	0.179	3.28	98	2.2	-	77	-0.039	9.80	0.003
418	74.937	0.183	3.28	98	2.0	-	77	-0.039	9.83	0.003
419	75.118	0.181	3.28	98	1.7	-	77	-0.039	9.86	0.003
420	75.299	0.181	3.28	98	2.1	100	77	-0.039	9.86	0.005
421	75.478	0.179	3.28	98	1.6	-	77	-0.039	9.92	0.003
422	75.655	0.177	3.28	98	1.6	-	77	-0.040	9.91	0.005
423	75.840	0.185	3.28	98	1.7	-	77	-0.040	9.99	0.004
424	76.022	0.182	3.28	98	1.9	-	77	-0.037	10.20	0.005
425	76.199	0.177	3.29	98	2.0	-	77	-0.038	10.22	0.003
426	76.380	0.181	3.28	98	2.2	-	76	-0.040	10.21	0.002
427	76.561	0.181	3.28	98	2.2	-	76	-0.040	10.20	0.004
428	76.740	0.179	3.28	98	2.2	-	77	-0.043	10.21	0.004
429	76.920	0.180	3.28	98	1.7	-	77	-0.041	10.28	0.003
430	77.105	0.185	3.28	98	2.2	100	77	-0.041	10.34	0.003
431	77.285	0.180	3.28	98	1.8	-	77	-0.040	10.32	0.003
432	77.463	0.178	3.28	98	2.2	-	77	-0.039	10.27	0.001
433	77.641	0.178	3.28	98	2.1	-	77	-0.039	10.41	0.003
434	77.823	0.182	3.28	98	2.2	-	76	-0.038	10.26	0.002
435	78.005	0.182	3.28	98	2.0	-	76	-0.038	10.23	0.003
436	78.188	0.183	3.28	98	2.0	-	76	-0.041	10.14	0.003
437	78.367	0.179	3.28	98	2.2	-	76	-0.039	10.23	0.004
438	78.544	0.177	3.28	98	1.7	-	76	-0.039	10.20	0.003
439	78.726	0.182	3.29	98	2.1	-	76	-0.040	10.13	0.002
440	78.909	0.183	3.28	98	2.1	100	76	-0.040	9.94	0.003
441	79.091	0.182	3.28	98	2.1	-	76	-0.042	9.94	0.002
442	79.271	0.180	3.28	98	2.2	-	76	-0.040	9.98	0.003
443	79.450	0.179	3.28	98	1.8	-	76	-0.042	10.03	0.004
444	79.626	0.176	3.27	98	1.9	-	76	-0.041	9.98	0.003
445	79.812	0.186	3.27	98	1.8	-	76	-0.040	10.02	0.003
446	79.991	0.179	3.29	98	2.1	-	76	-0.041	10.07	0.002
447	80.173	0.182	3.28	98	1.7	-	76	-0.041	10.08	0.003

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
448	80.350	0.177	3.28	98	2.1	-	76	-0.041	10.12	0.001
449	80.530	0.180	3.28	98	2.0	-	76	-0.040	10.13	0.003
450	80.713	0.183	3.28	98	2.2	100	76	-0.041	10.21	0.002
451	80.891	0.178	3.28	98	2.2	-	76	-0.039	10.19	0.003
452	81.076	0.185	3.27	98	1.9	-	76	-0.042	10.25	0.002
453	81.254	0.178	3.28	98	2.2	-	76	-0.040	10.25	0.004
454	81.435	0.181	3.27	98	1.9	-	76	-0.042	10.01	0.003
455	81.612	0.177	3.28	98	2.1	-	76	-0.040	9.98	0.004
456	81.794	0.182	3.27	98	1.6	-	76	-0.042	10.03	0.002
457	81.975	0.181	3.28	98	2.0	-	76	-0.039	9.92	0.004
458	82.155	0.180	3.28	98	2.2	-	76	-0.038	9.94	0.003
459	82.335	0.180	3.28	98	2.1	-	76	-0.039	9.96	0.002
460	82.515	0.180	3.28	98	2.0	99	76	-0.040	9.94	0.002
461	82.698	0.183	3.28	98	2.0	-	76	-0.040	9.90	0.002
462	82.880	0.182	3.27	98	1.8	-	76	-0.041	9.92	0.003
463	83.061	0.181	3.28	98	2.2	-	76	-0.040	9.91	0.006
464	83.241	0.180	3.28	98	1.7	-	76	-0.038	9.86	0.003
465	83.419	0.178	3.28	98	1.7	-	76	-0.040	9.87	0.003
466	83.600	0.181	3.28	98	1.9	-	76	-0.041	9.89	0.004
467	83.782	0.182	3.28	98	1.9	-	76	-0.040	9.86	0.003
468	83.962	0.180	3.28	98	2.2	-	76	-0.040	9.82	0.003
469	84.140	0.178	3.27	98	2.2	-	76	-0.040	9.78	0.004
470	84.320	0.180	3.28	98	2.0	100	76	-0.042	9.82	0.003
471	84.499	0.179	3.28	98	1.9	-	76	-0.039	9.83	0.004
472	84.682	0.183	3.27	98	2.2	-	76	-0.041	9.93	0.002
473	84.864	0.182	3.28	98	1.6	-	76	-0.041	10.06	0.002
474	85.046	0.182	3.28	98	1.7	-	76	-0.039	10.57	0.004
475	85.222	0.176	3.28	98	1.7	-	76	-0.039	10.71	0.002
476	85.401	0.179	3.28	98	2.1	-	76	-0.042	10.39	0.002
477	85.581	0.180	3.27	98	2.1	-	76	-0.039	10.36	0.004
478	85.765	0.184	3.28	98	2.2	-	76	-0.041	10.34	0.002
479	85.946	0.181	3.28	98	1.8	-	76	-0.041	10.15	0.003

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
480	86.128	0.182	3.28	98	1.9	100	76	-0.040	10.12	0.004
481	86.308	0.180	3.28	98	1.9	-	76	-0.040	10.07	0.005
482	86.486	0.178	3.28	98	2.1	-	76	-0.041	10.09	0.004
483	86.666	0.180	3.28	98	1.9	-	76	-0.041	10.09	0.003
484	86.848	0.182	3.29	98	2.1	-	76	-0.039	10.17	0.003
485	87.027	0.179	3.28	98	1.9	-	76	-0.039	10.22	0.004
486	87.206	0.179	3.28	98	2.2	-	76	-0.040	10.22	0.003
487	87.385	0.179	3.28	98	2.2	100	76	-0.040	10.37	0.001
Avg/Tot	87.385	0.179	3.27	95.2	1.9	100	77.5	-0.044	11.10	0.074

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	-0.002		0.24	72	1.3		72
1	0.114	0.116	0.95	71	1.6	-	72
2	0.252	0.138	0.96	71	1.7	-	72
3	0.392	0.140	0.96	71	1.6	-	72
4	0.530	0.138	0.96	71	1.5	-	72
5	0.671	0.141	0.98	71	1.7	-	72
6	0.811	0.140	0.97	71	1.7	-	73
7	0.951	0.140	0.98	71	1.7	-	73
8	1.094	0.143	0.99	71	1.8	-	73
9	1.235	0.141	0.99	71	1.7	-	73
10	1.376	0.141	0.99	72	1.6	96	73
11	1.519	0.143	1.00	72	1.6	-	73
12	1.662	0.143	1.00	72	1.8	-	73
13	1.801	0.139	1.00	73	1.7	-	73
14	1.944	0.143	1.00	73	1.8	-	73
15	2.088	0.144	1.01	73	1.5	-	73
16	2.233	0.145	1.01	73	1.6	-	73
17	2.376	0.143	1.00	74	1.8	-	73
18	2.519	0.143	1.00	74	1.8	-	73
19	2.662	0.143	1.01	74	1.8	-	74
20	2.807	0.145	1.01	74	1.8	99	74
21	2.950	0.143	1.01	74	1.6	-	74
22	3.093	0.143	1.01	75	1.7	-	74
23	3.236	0.143	1.01	75	1.6	-	74
24	3.382	0.146	1.02	76	1.7	-	74
25	3.526	0.144	1.02	76	1.6	-	74
26	3.673	0.147	1.02	76	1.8	-	74
27	3.814	0.141	1.02	76	1.8	-	74
28	3.959	0.145	1.01	76	1.8	-	74
29	4.106	0.147	1.02	77	1.7	-	74
30	4.251	0.145	1.03	77	1.8	100	74
31	4.396	0.145	1.03	77	1.7	-	74

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.542	0.146	1.03	78	1.7	-	75
33	4.687	0.145	1.03	78	1.6	-	75
34	4.836	0.149	1.03	78	1.7	-	75
35	4.979	0.143	1.03	79	1.8	-	75
36	5.125	0.146	1.03	79	1.7	-	75
37	5.272	0.147	1.04	79	1.6	-	75
38	5.421	0.149	1.04	80	1.6	-	75
39	5.567	0.146	1.05	80	1.6	-	75
40	5.717	0.150	1.05	80	1.7	101	75
41	5.861	0.144	1.05	81	1.7	-	75
42	6.006	0.145	1.04	81	1.7	-	75
43	6.156	0.150	1.05	81	1.8	-	75
44	6.304	0.148	1.04	81	1.8	-	75
45	6.454	0.150	1.05	82	1.8	-	75
46	6.599	0.145	1.05	82	1.7	-	75
47	6.747	0.148	1.05	82	1.6	-	75
48	6.895	0.148	1.05	83	1.7	-	75
49	7.044	0.149	1.05	83	1.8	-	75
50	7.195	0.151	1.05	83	1.7	101	75
51	7.341	0.146	1.05	83	1.6	-	75
52	7.492	0.151	1.05	83	1.6	-	75
53	7.644	0.152	1.05	83	1.7	-	75
54	7.788	0.144	1.05	83	1.7	-	76
55	7.937	0.149	1.05	83	1.8	-	75
56	8.086	0.149	1.05	83	1.7	-	75
57	8.238	0.152	1.06	83	1.7	-	75
58	8.385	0.147	1.06	83	1.7	-	75
59	8.538	0.153	1.06	83	1.6	-	75
60	8.684	0.146	1.06	83	1.6	102	75
Avg/Tot	8.686	0.145	1.01	77.2	1.7	100	74.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	360	370	313	391	493	385.3	590.5
1	357	368	301	390	495	382.3	575.3
2	354	365	289	388	496	378.3	566.8
3	349	360	280	386	497	374.5	570.8
4	345	356	273	384	497	370.9	590.9
5	340	351	268	384	497	367.9	615.8
6	335	346	263	385	497	365.3	639.3
7	330	342	260	387	497	363.1	659.0
8	326	337	257	390	496	361.3	677.6
9	322	334	254	393	496	359.7	695.6
10	318	330	251	396	495	358.0	710.1
11	315	327	248	400	494	356.7	722.2
12	311	324	246	403	493	355.6	734.2
13	308	322	245	407	492	354.7	747.2
14	306	320	244	411	491	354.3	760.0
15	303	318	243	415	490	353.9	768.5
16	301	316	243	419	489	353.6	781.0
17	299	315	242	424	488	353.6	797.2
18	297	314	242	428	488	353.7	812.8
19	296	313	242	433	487	354.1	824.9
20	295	313	241	438	486	354.6	834.0
21	294	313	242	443	486	355.4	847.2
22	293	312	243	448	485	356.4	869.3
23	293	313	245	455	485	357.9	895.0
24	293	314	245	462	484	359.6	913.9
25	293	315	245	470	484	361.5	918.4
26	293	316	246	477	484	363.2	915.8
27	294	318	248	483	483	365.0	917.6
28	295	319	249	489	483	367.0	925.0
29	295	320	250	495	483	368.8	932.4
30	296	322	252	500	484	370.7	937.1
31	297	323	253	505	484	372.4	939.4
32	298	325	254	509	484	374.0	940.4
33	299	327	256	513	484	375.7	941.6
34	300	328	257	517	484	377.5	942.7
35	302	330	259	521	485	379.2	945.5
36	303	332	260	524	485	380.7	947.6
37	304	334	261	527	485	382.3	947.7
38	305	336	263	530	486	384.0	945.3
39	307	338	265	532	486	385.4	941.9
40	308	339	266	534	487	386.8	938.5
41	309	341	267	536	487	388.1	935.8
42	311	343	268	537	488	389.2	933.1
43	312	345	269	538	488	390.2	932.0
44	313	347	270	539	489	391.5	928.2
45	314	350	270	541	489	392.6	920.4
46	315	353	270	542	489	393.7	913.6
47	316	355	269	542	490	394.5	906.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	317	358	269	544	490	395.6	898.8
49	318	361	269	545	490	396.6	892.7
50	318	364	269	545	490	397.4	888.9
51	319	366	269	545	491	398.0	887.1
52	320	369	269	546	491	398.8	887.2
53	321	372	269	546	491	399.5	889.0
54	321	374	269	546	491	400.3	893.5
55	322	377	269	546	491	400.9	899.6
56	322	379	269	548	491	401.9	906.2
57	323	381	270	548	492	402.7	912.4
58	323	384	270	550	492	403.7	918.0
59	324	386	270	552	492	404.7	923.4
60	325	388	270	553	491	405.5	927.7
61	326	391	270	556	491	406.8	929.1
62	326	393	271	558	491	407.7	929.9
63	327	394	271	561	490	408.6	931.1
64	328	396	271	563	490	409.6	931.8
65	328	398	271	564	490	410.2	932.4
66	329	400	271	566	489	411.2	932.3
67	330	401	272	567	489	411.8	932.6
68	331	403	272	568	489	412.5	933.9
69	332	404	272	571	489	413.4	935.5
70	332	406	272	571	488	413.9	936.3
71	333	407	272	572	488	414.6	935.9
72	334	408	273	572	488	415.0	934.9
73	335	410	274	574	488	415.9	934.6
74	336	411	274	574	487	416.4	935.8
75	337	412	274	575	487	417.1	937.7
76	338	413	275	575	487	417.5	939.7
77	339	414	275	577	487	418.3	941.6
78	340	415	276	578	487	418.9	943.6
79	341	415	276	579	487	419.5	945.5
80	342	417	277	580	487	420.2	946.8
81	342	417	277	580	487	420.7	947.6
82	343	418	278	581	487	421.4	948.9
83	344	419	278	582	487	421.9	950.9
84	346	419	279	584	487	423.1	953.5
85	348	421	279	585	487	424.2	945.3
86	352	421	280	587	487	425.4	938.9
87	355	421	281	589	487	426.7	939.9
88	359	421	282	591	487	427.9	941.6
89	362	421	282	593	486	428.7	940.5
90	365	421	282	595	486	429.7	943.5
91	369	420	282	597	485	430.6	947.5
92	372	420	283	600	484	431.5	950.7
93	375	420	283	601	482	432.1	952.6
94	378	420	283	603	481	432.9	954.3
95	380	420	284	604	480	433.5	954.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	383	421	284	605	478	434.2	952.2
97	385	421	285	606	476	434.7	951.8
98	388	421	286	608	475	435.2	950.9
99	390	420	286	608	473	435.4	948.1
100	391	420	286	609	471	435.3	944.5
101	393	420	286	608	469	435.2	940.4
102	395	419	286	607	467	434.9	935.7
103	396	418	287	606	466	434.5	931.3
104	397	418	287	605	464	434.0	927.8
105	397	417	288	603	462	433.5	925.3
106	398	417	288	601	460	432.9	923.4
107	399	416	288	600	459	432.4	921.6
108	400	416	288	598	457	432.0	920.4
109	401	415	289	598	456	431.7	918.8
110	402	415	290	596	454	431.3	917.4
111	403	414	290	595	452	430.9	917.1
112	404	414	291	594	451	430.6	917.4
113	405	413	291	593	449	430.3	917.5
114	406	413	291	593	448	430.1	918.0
115	406	413	292	592	447	429.9	918.8
116	407	413	292	592	445	429.6	919.9
117	408	412	292	591	444	429.4	921.1
118	408	412	292	591	443	429.1	923.3
119	408	412	292	591	442	429.0	926.0
120	409	412	293	591	441	428.9	929.2
121	409	412	293	592	439	428.8	932.5
122	409	412	293	593	438	428.9	935.9
123	409	412	293	594	438	428.9	939.1
124	409	412	293	594	437	429.0	942.3
125	409	412	293	596	436	429.0	946.0
126	409	412	293	597	435	429.1	949.8
127	409	412	293	598	434	429.0	952.9
128	408	412	293	599	433	429.2	955.2
129	408	412	293	600	433	429.1	957.4
130	407	412	293	601	432	429.1	958.0
131	407	412	293	602	431	429.2	958.1
132	406	412	294	604	431	429.1	959.3
133	405	412	293	605	430	429.1	962.0
134	404	412	293	606	430	429.0	965.2
135	404	412	293	607	429	429.0	966.2
136	403	413	292	608	429	428.9	964.0
137	403	413	292	608	428	428.8	960.0
138	403	413	292	609	428	428.8	955.4
139	402	414	292	608	428	428.8	951.7
140	402	415	292	609	427	428.7	949.4
141	401	415	292	608	427	428.7	949.6
142	401	416	292	608	426	428.6	950.4
143	400	416	293	608	426	428.6	950.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	400	417	293	609	426	428.7	951.3
145	400	416	293	609	425	428.7	952.8
146	400	416	294	610	425	428.9	954.6
147	400	416	294	611	425	429.1	955.7
148	400	416	294	612	424	429.4	956.0
149	400	415	295	614	424	429.5	957.5
150	400	414	296	615	424	429.5	962.7
151	399	413	297	615	423	429.5	968.7
152	399	412	297	616	423	429.6	972.7
153	399	412	298	617	423	429.6	977.6
154	399	411	298	619	422	429.7	981.9
155	398	410	298	619	422	429.6	985.7
156	398	410	299	621	422	429.9	986.2
157	398	409	299	623	422	430.1	986.3
158	398	409	299	624	421	430.2	985.9
159	397	408	300	626	421	430.2	985.8
160	397	407	300	626	421	430.2	986.4
161	397	407	300	628	420	430.5	986.9
162	398	406	300	628	420	430.4	987.5
163	398	406	301	628	420	430.4	986.6
164	398	406	301	629	419	430.4	984.5
165	397	405	302	627	419	430.0	980.4
166	397	405	303	627	419	429.9	975.5
167	397	404	303	624	418	429.4	968.9
168	397	404	303	622	418	428.8	961.6
169	397	403	304	620	417	428.3	953.5
170	398	403	304	616	417	427.5	945.1
171	397	403	304	612	417	426.7	936.6
172	397	402	305	609	417	425.8	928.7
173	397	402	305	605	416	425.1	922.1
174	397	402	305	601	416	424.3	916.2
175	397	402	306	597	416	423.4	911.8
176	396	402	306	593	416	422.5	908.0
177	396	401	306	590	416	421.8	905.0
178	396	401	306	587	416	421.0	902.9
179	395	401	306	584	416	420.4	901.3
180	395	401	306	581	416	419.8	900.5
181	395	401	306	580	416	419.4	900.7
182	394	401	306	578	416	418.9	902.0
183	394	401	306	577	416	418.7	903.4
184	394	401	307	576	416	418.6	905.4
185	394	401	307	575	416	418.4	907.3
186	393	401	307	574	416	418.3	909.6
187	393	401	307	574	416	418.2	912.8
188	393	401	307	575	416	418.3	916.7
189	393	401	308	575	416	418.4	921.3
190	393	401	308	576	416	418.7	925.9
191	393	401	308	577	416	419.0	930.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	393	401	309	579	416	419.5	934.4
193	393	402	309	580	417	419.9	940.4
194	393	402	310	582	417	420.5	945.1
195	392	402	310	585	417	421.1	955.0
196	392	402	310	588	417	421.8	964.7
197	392	402	310	591	417	422.6	974.5
198	392	402	311	596	418	423.6	982.8
199	392	402	311	600	418	424.6	989.6
200	392	402	311	605	418	425.5	997.2
201	392	402	311	609	418	426.5	1003.1
202	392	402	312	614	419	427.6	1007.1
203	392	403	311	618	419	428.4	1009.5
204	392	403	311	622	419	429.2	1011.2
205	392	403	311	625	419	430.0	1011.1
206	392	403	311	628	420	430.5	1009.4
207	392	404	310	630	420	431.1	1007.6
208	392	404	310	632	420	431.5	1003.1
209	392	404	310	632	420	431.7	997.8
210	392	405	310	633	421	431.8	991.4
211	392	405	310	632	421	431.8	984.2
212	392	405	310	631	421	431.7	975.9
213	392	405	310	629	421	431.2	967.6
214	391	406	310	626	421	430.8	959.5
215	391	406	310	623	421	430.2	951.4
216	391	406	309	619	422	429.4	943.9
217	391	406	309	615	422	428.6	937.2
218	391	406	309	612	422	428.0	931.5
219	391	406	309	609	422	427.3	926.3
220	390	406	309	605	422	426.5	921.5
221	390	406	309	602	422	425.9	916.9
222	390	406	309	599	422	425.2	912.5
223	390	406	309	595	423	424.4	908.3
224	390	406	309	592	423	423.8	904.7
225	389	406	309	589	423	423.2	902.0
226	389	405	309	587	423	422.6	899.9
227	389	405	309	584	423	422.1	898.5
228	388	405	309	582	423	421.7	897.9
229	388	405	309	581	424	421.3	898.5
230	388	405	309	579	424	420.9	899.9
231	387	404	310	578	424	420.7	901.9
232	387	404	310	577	424	420.5	905.0
233	387	404	310	578	424	420.5	908.4
234	387	404	310	577	425	420.5	912.6
235	387	404	310	578	425	420.6	917.2
236	387	403	310	579	425	420.8	922.0
237	386	403	311	580	425	421.0	927.4
238	386	403	311	582	425	421.5	932.7
239	386	403	311	584	425	422.0	938.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	386	403	312	585	426	422.3	943.6
241	387	403	312	588	426	423.0	948.8
242	387	403	312	590	426	423.6	953.3
243	387	403	312	593	426	424.1	957.2
244	387	403	312	596	426	424.8	960.6
245	387	403	313	598	426	425.4	963.4
246	387	403	313	600	427	426.0	965.2
247	387	403	313	602	427	426.4	966.7
248	388	403	313	604	427	427.0	967.8
249	388	403	314	606	427	427.5	968.9
250	388	403	314	607	427	427.9	969.9
251	388	403	314	609	427	428.3	970.4
252	388	403	315	610	428	428.7	970.9
253	389	403	315	611	428	429.2	970.7
254	389	404	315	612	428	429.6	970.2
255	389	404	315	612	428	429.6	969.3
256	389	404	316	613	428	429.9	968.2
257	390	404	316	613	428	430.1	965.6
258	390	404	316	613	428	430.3	962.4
259	390	404	317	613	428	430.4	958.6
260	390	404	317	612	428	430.4	954.1
261	391	404	317	610	428	430.1	949.7
262	391	405	318	609	428	429.9	945.3
263	391	405	318	607	428	429.7	941.2
264	391	405	318	606	428	429.4	937.4
265	391	405	318	604	428	429.2	933.9
266	391	405	318	601	428	428.8	930.6
267	392	405	318	599	428	428.4	927.7
268	392	404	318	597	428	427.9	925.1
269	392	405	319	596	428	427.7	923.1
270	392	405	319	594	428	427.4	921.6
271	392	405	319	592	428	427.0	920.9
272	392	405	319	591	428	426.8	920.9
273	392	405	319	590	428	426.7	921.1
274	392	405	319	589	428	426.5	922.0
275	392	405	319	588	428	426.3	922.7
276	392	405	319	587	428	426.2	923.3
277	392	405	319	587	428	426.1	923.6
278	392	405	319	587	428	426.2	923.5
279	392	406	319	586	428	426.1	922.8
280	392	406	319	586	428	426.2	921.3
281	392	406	319	586	428	426.0	918.7
282	392	406	319	585	428	426.0	915.0
283	392	406	319	583	428	425.6	910.2
284	392	406	319	582	428	425.4	904.1
285	392	406	318	581	428	424.8	898.2
286	392	406	318	578	428	424.0	892.0
287	392	406	317	575	428	423.6	885.9

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	391	406	317	572	428	422.8	879.5
289	391	407	317	570	428	422.4	873.1
290	391	407	316	567	428	421.8	866.3
291	391	407	316	564	429	421.3	859.2
292	390	408	316	561	429	420.7	852.0
293	390	408	316	557	430	420.1	844.7
294	390	409	316	553	430	419.4	837.8
295	389	409	315	550	431	418.8	831.0
296	389	409	315	547	431	418.2	824.9
297	389	409	315	544	432	417.6	819.1
298	388	409	315	540	432	416.8	813.8
299	388	410	315	537	433	416.3	809.1
300	388	410	314	533	433	415.7	804.9
301	387	410	314	530	434	415.1	801.2
302	387	410	314	527	434	414.6	798.3
303	387	410	314	525	435	414.2	796.0
304	387	411	314	522	435	413.7	794.2
305	386	411	314	520	436	413.4	793.0
306	386	411	314	519	436	413.1	792.2
307	386	411	314	516	437	412.7	791.8
308	386	412	314	516	437	412.8	791.6
309	386	412	314	514	438	412.5	791.6
310	386	412	314	512	438	412.3	791.7
311	386	413	313	511	438	412.2	791.6
312	386	413	313	511	439	412.2	791.8
313	386	413	313	510	439	412.2	791.9
314	385	414	313	509	439	412.1	792.2
315	386	414	313	509	439	412.2	792.5
316	385	415	314	508	440	412.2	792.9
317	385	415	314	508	440	412.3	793.5
318	386	416	314	508	440	412.5	794.1
319	386	416	314	506	440	412.3	794.7
320	386	417	314	507	440	412.5	794.9
321	386	417	314	506	441	412.6	795.5
322	386	418	314	506	441	412.8	795.8
323	386	418	314	506	441	413.1	796.6
324	386	419	314	506	441	413.3	797.3
325	386	420	314	506	441	413.4	798.3
326	386	420	315	506	441	413.8	799.2
327	387	421	315	505	442	413.8	800.0
328	387	421	315	506	442	414.1	800.4
329	387	422	316	506	442	414.8	796.8
330	388	424	317	506	442	415.2	796.2
331	388	425	317	505	443	415.5	787.3
332	389	426	318	503	443	415.7	775.0
333	389	427	319	501	443	415.7	762.6
334	390	429	319	497	443	415.6	752.5
335	390	430	320	494	444	415.5	744.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	391	431	320	491	444	415.3	737.6
337	391	432	321	487	444	415.2	732.4
338	391	433	321	485	445	415.3	728.8
339	392	434	322	483	445	415.2	725.9
340	392	435	322	481	446	415.1	723.6
341	392	436	322	478	446	415.0	721.6
342	393	437	323	476	446	415.0	720.1
343	393	438	323	475	446	414.9	718.7
344	393	439	323	473	446	414.8	717.5
345	393	440	323	471	447	414.7	716.9
346	393	440	323	471	447	414.7	716.5
347	393	441	323	469	447	414.6	716.3
348	393	441	323	468	447	414.5	716.0
349	393	442	324	467	447	414.4	716.0
350	393	442	324	467	447	414.5	716.0
351	393	442	324	466	447	414.4	716.1
352	393	443	324	466	447	414.5	715.9
353	393	443	324	465	447	414.4	715.9
354	393	444	324	465	447	414.6	715.3
355	393	445	323	464	448	414.4	715.2
356	393	445	322	463	448	414.1	713.0
357	392	445	321	462	448	413.7	708.7
358	391	445	320	461	448	413.2	703.8
359	390	445	319	460	448	412.6	698.8
360	389	445	318	458	448	411.8	694.4
361	388	444	318	457	448	411.1	690.8
362	387	444	317	456	448	410.3	687.5
363	386	443	316	454	448	409.4	684.7
364	385	442	315	453	448	408.7	682.1
365	384	442	314	451	448	407.9	679.8
366	384	441	314	450	448	407.3	677.9
367	383	440	313	448	449	406.6	676.3
368	382	440	313	447	449	406.0	675.2
369	381	439	312	446	450	405.5	674.1
370	380	438	311	445	450	405.0	672.9
371	380	438	311	444	451	404.6	671.8
372	379	437	310	442	452	404.2	670.5
373	379	437	310	442	452	403.8	669.3
374	379	436	310	440	453	403.5	668.3
375	378	436	309	440	454	403.4	667.6
376	378	435	309	439	455	403.2	667.0
377	378	435	309	438	456	403.3	666.4
378	378	435	309	436	457	403.0	665.8
379	378	435	308	436	459	403.0	665.4
380	378	434	308	435	460	402.9	665.5
381	378	434	307	435	461	402.9	665.8
382	378	434	307	434	462	403.0	666.6
383	378	434	307	434	463	403.1	667.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	378	434	307	434	465	403.4	668.3
385	377	434	306	433	466	403.3	669.1
386	378	434	306	433	467	403.5	669.7
387	378	434	306	433	468	403.8	670.1
388	378	434	306	433	469	403.9	670.5
389	378	434	306	433	470	404.3	671.0
390	378	434	306	434	471	404.5	671.5
391	378	434	306	433	472	404.8	672.2
392	379	434	306	433	473	405.0	673.3
393	379	434	306	434	474	405.4	674.3
394	379	434	306	434	475	405.7	675.2
395	379	435	306	434	476	406.0	676.0
396	380	435	306	434	477	406.4	676.8
397	380	435	306	435	478	406.7	677.8
398	380	436	306	435	479	407.0	678.6
399	380	436	306	435	480	407.3	679.1
400	380	436	306	435	480	407.5	679.2
401	381	436	306	436	481	407.8	678.9
402	381	436	306	435	482	407.8	678.7
403	381	436	306	436	482	408.1	678.6
404	381	436	306	436	483	408.3	678.7
405	381	436	306	436	483	408.4	678.8
406	381	436	306	436	484	408.5	679.2
407	381	435	306	436	484	408.7	679.9
408	382	435	307	437	485	408.8	680.9
409	382	435	307	436	485	408.9	682.0
410	382	435	307	437	485	409.1	683.2
411	382	435	307	438	486	409.4	684.5
412	382	434	307	438	486	409.5	686.0
413	382	434	307	439	487	409.8	687.6
414	382	434	308	439	487	409.9	689.1
415	383	434	308	439	487	410.2	690.4
416	383	434	308	440	487	410.4	691.6
417	383	434	308	441	488	410.7	692.5
418	383	434	308	441	488	411.0	693.5
419	384	434	309	442	488	411.3	694.4
420	384	434	309	442	488	411.6	695.3
421	384	434	309	443	489	411.9	696.5
422	384	434	310	443	489	412.0	697.7
423	385	435	310	445	489	412.6	699.4
424	385	435	311	445	489	412.8	701.2
425	385	435	311	445	489	413.1	703.6
426	386	435	312	446	489	413.4	705.9
427	387	435	312	447	489	414.0	708.3
428	387	435	313	448	490	414.5	710.3
429	388	435	314	449	490	415.0	712.1
430	388	435	314	450	490	415.4	713.8
431	389	436	315	450	490	415.8	715.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
432	390	436	315	451	490	416.3	717.9
433	390	436	316	452	490	416.8	719.5
434	391	436	316	454	490	417.1	719.9
435	391	436	317	454	489	417.4	719.9
436	392	436	317	455	489	417.7	720.5
437	392	437	317	456	489	418.0	721.1
438	392	437	317	456	488	418.2	721.9
439	393	437	317	457	488	418.3	722.3
440	393	437	318	458	487	418.5	722.4
441	394	437	318	458	487	418.5	722.0
442	394	437	318	458	486	418.6	722.0
443	394	436	318	459	486	418.6	722.7
444	395	436	319	459	485	418.8	724.2
445	395	436	319	459	485	418.9	725.8
446	395	436	320	460	485	419.1	726.8
447	396	436	321	461	484	419.6	725.9
448	397	435	323	461	484	419.9	724.0
449	397	435	324	461	484	420.1	721.8
450	398	435	326	460	484	420.5	719.7
451	398	435	327	460	483	420.7	717.4
452	398	435	329	460	483	420.9	715.1
453	398	435	330	460	483	421.1	712.9
454	397	434	331	458	483	420.8	710.4
455	397	434	331	457	484	420.5	707.6
456	396	434	331	457	484	420.3	705.3
457	396	434	331	456	484	420.0	704.2
458	395	434	332	455	484	420.0	704.3
459	395	433	332	455	484	419.8	704.9
460	395	434	332	455	485	419.9	705.9
461	394	434	333	454	485	419.9	706.5
462	394	434	333	454	485	419.8	707.1
463	394	434	334	454	485	420.1	707.5
464	394	434	334	454	486	420.3	708.2
465	394	434	334	454	486	420.4	708.8
466	393	434	335	454	486	420.4	709.1
467	393	434	335	454	486	420.4	709.1
468	393	434	336	454	486	420.6	709.1
469	393	434	336	454	486	420.8	708.9
470	393	434	336	454	487	420.9	708.9
471	393	435	337	453	487	421.0	708.5
472	393	436	338	454	487	421.6	707.5
473	393	437	339	454	487	422.1	705.5
474	394	438	341	453	487	422.7	702.4
475	394	440	343	453	487	423.4	699.0
476	394	441	345	452	487	423.8	695.4
477	395	441	346	451	488	424.1	692.8
478	395	442	347	450	488	424.4	691.4
479	396	442	348	450	489	424.7	691.1

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

Stove ΔT: 42

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
480	396	443	348	449	489	425.1	691.0
481	396	443	348	449	490	425.2	691.2
482	397	443	349	448	490	425.4	691.3
483	397	444	350	448	491	425.8	691.3
484	397	444	350	448	491	426.1	691.5
485	397	444	351	448	492	426.4	691.5
486	397	445	352	447	492	426.7	691.3
487	397	446	353	447	493	427.1	690.8
Average	378.1	409.2	302.8	529.6	455.1	415.0	840.4

LAB SAMPLE DATA - ASTM E2515

Client: Blaze King
Model: KE40
Run #: 5

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/14/2024

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G00951	237.9	241.5	3.6
	B	G00952	240.5	243.5	3.0
	C - 1st Hour	G00953	239.7	241.1	1.4
	Amb	G00954	241.2	241.2	0.0
Probes	**A**	12A	116706.9	116706.9	0.0
	B	12B	117772.9	117773.2	0.3
	C - 1st Hour	12C	117172.3	117172.5	0.2
O-rings	**A**	12A	3586.4	3586.2	0.0
	B	12B	3550.6	3551.2	0.6
	C - 1st Hour	12C	3616.2	3616.6	0.4

**Negative value corrected to zero*

Placed in Dessicator on:	3/15/2024

Balance Audit (mg):		200.0		200.0					
		Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**	241.6	3/18 9:30	241.5	3/18 17:30				
	B	243.7	3/18 9:30	243.5	3/18 17:30				
	C - 1st Hour	241.1	3/18 9:30	241.1	3/18 17:30				
	Amb	241.2	3/18 9:30	241.2	3/18 17:30				
Probes	**A**	116707.1	3/18 9:30	116706.9	3/18 17:30				
	B	117773.4	3/18 9:30	117773.2	3/18 17:30				
	C - 1st Hour	117172.7	3/18 9:30	117172.5	3/18 17:30				
O-Rings	**A**	3586.4	3/18 9:30	3586.2	3/18 17:30				
	B	3551.4	3/18 9:30	3551.2	3/18 17:30				
	C - 1st Hour	3616.8	3/18 9:30	3616.6	3/18 17:30				

Train A Aggregate, mg:	**3.6**
Train B Aggregate, mg:	**3.9**
Train C Aggregate, mg:	**2.0**
Ambient, mg:	**0.0**

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 5 Test Date: 3/14/24

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Knob open 60º
Targeted Burn Category: II (fan confirmation)

Preburn Notes

Time	Notes
	-None-

Test Notes
Test Burn Start Time: 12:29 Test Fuel Loaded by: 40 seconds
Door Closed: 50 seconds Air Control Set at: 0 seconds
Other Loading Notes: Bypass open @ 0 sec, closed @ 50 sec, fan off (fan confirmation)

Time	Notes
	-None-

Test Burn End Time: 20:36

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 16.98 CO (%): 4.300
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	11:56	11:57	11:58	3/15 10:36	3/15 10:37	3/15 10:38
CO_2	0.18	17.01	10.18	0.09	16.91	10.12
CO	0.004	4.354	2.552	0.007	4.335	2.539

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature: Date: 3/18/24

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 5 Test Date: 3/14/24

Test Fuel Front/Side View

Test Fuel Iso View

Test Fuel Loaded in Stove

Air Setting

Technician Signature: Date: 3/18/24

WOOD STOVE TEST DATA PACKET
ASTM E2780/E2515

Run 6 Data Summary

Client:	Blaze King
Model:	KE40
Job #:	24-274
Tracking #:	184
Test Date:	3/15/2024

Techician Signature

3/20/2024
Date

TEST RESULTS - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Burn Rate (kg/hr):	0.98

	Ambient Sample	Sample Train A	Sample Train B	1st Hour Filter
Total Sample Volume (ft^3)	56.793	122.537	118.697	8.612
Average Gas Velocity in Dilution Tunnel (ft/sec)	19.4			
Average Gas Flow Rate in Dilution Tunnel (dscf/hr)	13032.6			
Average Gas Meter Temperature (°F)	70.2	91.9	97.0	78.6
Total Sample Volume (dscf)	57.397	118.902	114.186	8.512
Average Tunnel Temperature (°F)	86.7			
Total Time of Test (min)	658			
Total Particulate Catch (mg)	0.4	5.3	4.8	2.0
Particulate Concentration, dry-standard (g/dscf)	0.0000070	0.0000446	0.0000420	0.0002350
Total PM Emissions (g)	1.00	5.37	5.01	2.97
Particulate Emission Rate (g/hr)	0.09	0.49	0.46	2.97
Emissions Factor (g/kg)	-	0.50	0.46	-
Difference from Average Total Particulate Emissions (g)	-	0.18	0.18	-
Difference from Average Total Particulate Emissions (%)	-	3.5%	3.5%	
Difference from Average Emissions Factor (g/kg)	-	0.02	0.02	-

Final Average Results	
Total Particulate Emissions (g)	5.19
Particulate Emission Rate (g/hr)	0.47
Emissions Factor (g/kg)	0.48
HHV Efficiency (%)	82.8%
LHV Efficiency (%)	89.5%
CO Emissions (g/min)	0.04

Quality Checks	Requirement	Observed	Result
Dual Train Precision	Each train within 7.5% of average emissions (in grams), or emission factors within 0.5 g/kg	See Above	OK
Filter Temps	<90 °F	79.0	OK
Face Velocity	< 30 ft/min	10.4	OK
Leakage Rate	Less than 4% of average sample rate	0.001 cfm	OK
Ambient Temp	55-90 °F	Min:68.1/Max:71.4	OK
Negative Probe Weight Evaluation	<5% of Total Catch	Probe Catch Not Negative	OK
Pro-Rate Variation	90% of readings between 90-110%; none greater than 120% or less than 80%	See Data Tabs	OK
Stove Surface ΔT	<126°F	12.3	OK

B415.1 Efficiency Results

Manufacturer:	Blaze King
Model:	KE40
Date:	03/15/24
Run:	6
Control #:	24-274
Test Duration:	658
Output Category:	2

Test Results in Accordance with CSA B415.1-09

	HHV Basis	LHV Basis
Overall Efficiency	82.8%	89.5%
Combustion Efficiency	99.5%	99.5%
Heat Transfer Efficiency	83.3%	90.0%

Output Rate (kJ/h)	16,118	15,290	**(Btu/h)**
Burn Rate (kg/h)	0.98	2.16	**(lb/h)**
Input (kJ/h)	19,456	18,456	**(Btu/h)**

Test Load Weight (dry kg)	10.77	23.74	**dry lb**
MC wet (%)	17.14		
MC dry (%)	20.69		
Particulate (g)	5.19		
CO (g)	29		
Test Duration (h)	10.97		

Emissions	**Particulate**	**CO**
g/MJ Output	0.03	0.16
g/kg Dry Fuel	0.48	2.67
g/h	0.47	2.63
g/min	0.01	0.04
lb/MM Btu Output	0.07	0.38

Air/Fuel Ratio (A/F)	12.65

VERSION: **2.4** **4/15/2010**

WOODSTOVE FUEL DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Preburn Fuel Information

Size	Length (in)	Moisture Content (% DB)	Size	Length (in)	Moisture Content (% DB)
2x4	19.00	19.8	2x4	19.00	23.3
2x4	19.00	22.5	2x4	19.00	19.6
2x4	19.00	23.6			
2x4	19.00	22.7			
2x4	19.00	22.1			
2x4	19.00	21.4			1.6
2x4	19.00	23.2			
2x4	19.00	19.4			
Total Fuel Weight (lbs):		25.67	Average Moisture (%DB):		19.9

Firebox Volume (ft^3): 4.35
Total 2x4 Crib Weight, with spacers (lbs): 0.00
Total 4x4 Crib Weight, with spacers (lbs): 28.68
Total Wet Fuel Weight, with spacers (lbs): 28.68

Coal Bed Range (20-25%):
Min (lbs): 5.74
Max (lbs): 7.17

Test Fuel Information

Size	Length (in)	Weight (lbs)	Moisture Content (%DB)			Dry Weight (lbs)
4x4	19.00	4.59	20.1	21.5	22.6	3.78
4x4	19.00	4.39	19.2	19.0	23.0	3.65
4x4	19.00	4.63	23.4	19.1	19.5	3.84
4x4	19.00	4.78	21.2	19.1	22.4	3.95
4x4	19.00	4.01	19.2	19.4	19.3	3.36
4x4	19.00	4.32	21.7	23.0	19.7	3.56
					Total Dry Weight, no spacers (lbs):	22.14
					Total Dry Weight, with spacers (lbs):	23.77

Spacer Moisture Readings (%DB)

20.4	18.3	22.4					
17.2	21.1	18.1					
19.8	20.4						
21.2	17.7						
19.4	17.8						
21.3	18.4						
21.2	22.5						
20.7	18.8						

Quality Checks	Requirement	Observed	Result
Fuel Density	25 - 36 (lbs/ft^3, DB)	27.4	OK
Loading Density	6.3 - 7.7 (lbs/ft^3, WB)	6.59	OK
2x4 Fuel Mix	35 - 65 % of total weight	N/A	N/A

DILUTION TUNNEL & MISC. DATA - ASTM E2780 / E2515

Client:	Blaze King	Job #:	24-274
Model:	KE40	Tracking #:	184
Run #:	6	Technician:	AK
Test Start Time:	12:50	Date:	3/15/2024

Total Sampling Time (min):	658		
Recording Interval (min):	1		
Meter Box γ Factor:	1.004	(A)	
Meter Box γ Factor:	1.005	(B)	
Meter Box γ Factor:	1.004	(C)	
Meter Box γ Factor:	1.013	(Ambient)	
Induced Draft Check (in. H_2O):	0		
Smoke Capture Check (%):	100%		
Date Flue Pipe Last Cleaned:	3/8/2024		
Test Fuel Scale Audit (lbs)	10.00		
Platform Scale Audit (lbs)	10.0		

	Pre-Test	Post Test	Avg.
Barometric Pressure (in. Hg)	30.03	29.94	29.99
Relative Humidity (%)	20.6	23.4	
Room Air Velocity (ft/min)	<50	<50	
Pitot Tube Leak Check	0	0	
Ambient Sample Volume:		56.793	ft^3

Sample Train Leak Checks

	Pre-test	Post-test			
(A)	0.001	0.001	cfm @	-8	in. Hg
(B)	0.000	0.000	cfm @	-7	in. Hg
(C)	0.000	0.000	cfm @	-10	in. Hg
(Ambient)	0.000	0.000	cfm @	-12	in. Hg

DILUTION TUNNEL FLOW

Traverse Data

Point	dP (in H_2O)	Temp (°F)
1	0.074	71
2	0.094	71
3	0.096	71
4	0.070	71
5	0.074	71
6	0.098	71
7	0.098	71
8	0.072	71
Center	0.096	71

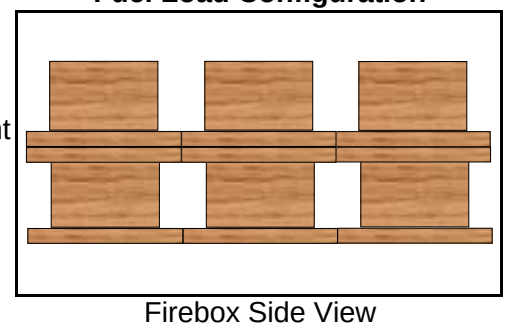
Dilution Tunnel H_2O:	2.00	percent
Tunnel Diameter:	6	inches
Pitot Tube Cp:	0.99	[unitless]
Dilution Tunnel MW(dry):	29.00	lb/lb-mole
Dilution Tunnel MW(wet):	28.78	lb/lb-mole
Tunnel Area:	0.1963	ft^2
V_{strav}:	19.24	ft/sec
V_{scent}:	20.56	ft/sec
F_p:	0.936	[ratio]
Initial Tunnel Flow:	221.4	scf/min

Static Pressure: -0.170 in. H_2O

TEST FUEL PROPERTIES

Fuel Load Configuration

Firebox Front



Firebox Back

Firebox Side View

Actual Fuel Used Properties

Fuel Type:	D. Fir
HHV (kJ/kg)	19,810
%C	48.73
%H	6.87
%O	43.9
%Ash	0.5
MC (%DB)	20.7

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
0	6.54	-0.034	500	494	406	577	492	493.9	195	70
1	6.54	-0.033	494	488	401	573	491	489.4	193	70
2	6.52	-0.031	488	483	397	568	489	485.0	190	70
3	6.51	-0.031	482	477	393	564	488	480.8	188	70
4	6.52	-0.030	477	472	389	558	486	476.4	186	69
5	6.50	-0.031	471	466	385	555	485	472.5	183	70
6	6.49	-0.030	466	461	381	550	484	468.5	181	70
7	6.48	-0.029	461	456	377	548	483	464.9	180	69
8	6.48	-0.029	456	451	374	544	482	461.2	177	69
9	6.48	-0.029	451	446	370	539	481	457.3	175	70
10	6.48	-0.026	446	441	366	533	480	453.1	174	70
11	6.48	-0.028	441	436	363	525	479	448.9	172	69
12	6.48	-0.026	437	432	360	519	479	445.0	170	70
13	6.47	-0.026	432	427	357	511	478	440.9	168	69
14	6.46	-0.025	428	422	353	503	477	436.8	166	69
15	6.46	-0.025	424	418	350	495	477	432.5	164	69
16	6.46	-0.025	420	413	347	488	476	428.7	162	69
17	6.45	-0.025	415	409	344	479	475	424.5	161	69
18	6.46	-0.025	411	404	341	473	475	420.9	159	69
19	6.45	-0.023	408	400	338	466	474	417.2	158	69
20	6.46	-0.024	404	396	335	460	474	413.7	157	69
21	6.45	-0.023	400	392	333	453	473	410.3	156	69
22	6.46	-0.024	397	388	330	446	473	406.7	154	69
23	6.45	-0.024	393	384	327	439	472	403.0	154	69
24	6.45	-0.021	389	380	324	433	471	399.7	152	69
25	6.45	-0.021	386	377	322	428	471	396.7	150	69
26	6.45	-0.022	382	373	319	423	470	393.4	149	69
27	6.44	-0.022	379	369	317	418	470	390.5	148	69
28	6.44	-0.023	376	366	314	413	469	387.5	148	69
29	6.44	-0.024	373	363	312	409	468	384.7	148	69
30	6.43	-0.022	370	359	310	403	468	381.9	150	69
31	6.42	-0.022	367	356	307	400	467	379.4	153	69
32	6.43	-0.023	365	353	305	396	467	377.2	156	69
33	6.41	-0.024	362	350	303	393	468	375.2	159	69
34	6.39	-0.023	360	347	301	390	469	373.4	162	69
35	6.37	-0.025	358	345	300	388	470	372.0	164	69
36	6.36	-0.026	356	343	298	384	471	370.6	168	69
37	6.35	-0.026	355	341	297	383	473	369.6	169	69
38	6.33	-0.025	354	339	296	381	475	369.0	173	69
39	6.31	-0.027	353	338	295	379	477	368.4	175	69
40	6.29	-0.026	352	336	295	378	479	368.0	176	69
41	6.27	-0.026	352	335	294	377	482	367.8	178	69
42	6.24	-0.029	351	334	294	376	484	367.8	181	69
43	6.22	-0.029	351	334	293	374	487	367.8	183	69
44	6.21	-0.026	351	333	293	374	489	368.1	185	69

WOODSTOVE PREBURN DATA - ASTM E2780

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Recording Interval (min): 1
Run Time (min): 60

			Temperatures (°F)							
Elapsed Time (min)	Scale Reading (lbs)	Flue Draft (in H_2O)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Flue	Ambient
45	6.17	-0.029	352	333	293	374	492	368.5	187	69
46	6.15	-0.028	352	332	293	374	495	369.3	190	69
47	6.15	-0.029	353	332	293	374	498	370.1	191	69
48	6.11	-0.028	354	333	293	375	501	371.2	191	69
49	6.09	-0.028	355	333	294	375	505	372.2	194	69
50	6.06	-0.026	356	333	294	377	508	373.5	196	69
51	6.04	-0.030	358	333	295	378	511	374.8	199	69
52	6.01	-0.031	359	334	296	379	514	376.3	201	69
53	5.98	-0.031	361	334	297	380	517	377.9	203	69
54	5.95	-0.031	363	335	297	381	520	379.5	204	69
55	5.92	-0.033	366	336	298	382	524	381.1	205	69
56	5.91	-0.032	368	337	300	383	527	382.8	206	70
57	5.87	-0.031	370	337	300	385	530	384.5	207	69
58	5.85	-0.032	373	338	301	385	533	386.2	207	69
59	5.83	-0.032	375	339	302	386	536	387.6	208	69
60	5.80	-0.030	377	339	303	388	540	389.2	209	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
0	0.000		0.095	1.16	73	1.0		28.65		97	238	72	70
1	0.125	0.125	0.093	2.88	73	1.2	-	28.61	-0.04	113	286	75	70
2	0.290	0.165	0.095	2.95	73	1.2	-	28.56	-0.05	98	252	74	70
3	0.454	0.164	0.095	2.98	73	1.2	-	28.52	-0.04	92	233	74	70
4	0.627	0.173	0.095	3.01	73	1.2	-	28.47	-0.05	90	223	74	70
5	0.800	0.173	0.096	3.03	73	1.2	-	28.43	-0.04	88	217	74	69
6	0.967	0.167	0.096	3.07	73	1.2	-	28.37	-0.06	88	214	74	70
7	1.137	0.170	0.096	3.07	73	1.2	-	28.33	-0.04	87	213	74	70
8	1.313	0.176	0.095	3.10	73	1.2	-	28.27	-0.06	87	213	75	69
9	1.484	0.171	0.096	3.11	74	1.2	-	28.22	-0.05	87	215	75	70
10	1.654	0.170	0.095	3.13	74	1.2	92	28.17	-0.05	87	216	75	70
11	1.833	0.179	0.095	3.15	74	1.2	-	28.12	-0.05	87	217	75	70
12	2.008	0.175	0.097	3.16	74	1.2	-	28.06	-0.06	87	218	75	69
13	2.181	0.173	0.095	3.19	74	1.1	-	28.02	-0.04	87	220	75	69
14	2.355	0.174	0.096	3.20	75	1.2	-	27.96	-0.06	87	220	75	70
15	2.533	0.178	0.096	3.22	75	1.1	-	27.91	-0.05	87	221	75	69
16	2.710	0.177	0.095	3.22	75	1.2	-	27.85	-0.06	87	223	75	69
17	2.885	0.175	0.096	3.22	75	1.2	-	27.79	-0.06	87	224	75	69
18	3.057	0.172	0.094	3.23	76	1.2	-	27.73	-0.06	87	225	75	70
19	3.239	0.182	0.095	3.24	76	1.2	-	27.68	-0.05	87	227	75	69
20	3.418	0.179	0.094	3.26	76	1.1	98	27.62	-0.06	87	229	75	69
21	3.592	0.174	0.096	3.27	76	1.2	-	27.56	-0.06	87	230	75	69
22	3.771	0.179	0.097	3.28	77	1.2	-	27.50	-0.06	87	233	75	69
23	3.950	0.179	0.096	3.28	77	1.2	-	27.43	-0.07	87	233	75	69
24	4.127	0.177	0.095	3.30	77	1.2	-	27.36	-0.07	87	234	75	69
25	4.309	0.182	0.094	3.29	78	1.2	-	27.30	-0.06	88	235	76	69
26	4.486	0.177	0.094	3.30	78	1.2	-	27.23	-0.07	88	238	76	69
27	4.665	0.179	0.095	3.30	78	1.2	-	27.16	-0.07	88	240	76	69
28	4.842	0.177	0.096	3.32	79	1.2	-	27.09	-0.07	88	241	76	70
29	5.024	0.182	0.095	3.32	79	1.2	-	27.04	-0.05	88	241	76	69
30	5.203	0.179	0.094	3.33	79	1.2	99	26.97	-0.07	88	244	76	69
31	5.384	0.181	0.095	3.32	80	1.2	-	26.90	-0.07	88	244	76	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
32	5.564	0.180	0.094	3.34	80	1.2	-	26.83	-0.07	88	245	76	70
33	5.745	0.181	0.096	3.35	80	1.2	-	26.76	-0.07	88	246	76	69
34	5.927	0.182	0.097	3.33	80	1.2	-	26.69	-0.07	88	246	76	70
35	6.108	0.181	0.096	3.35	81	1.2	-	26.63	-0.06	88	249	76	70
36	6.284	0.176	0.094	3.35	81	1.2	-	26.55	-0.08	88	250	76	70
37	6.465	0.181	0.095	3.36	81	1.2	-	26.48	-0.07	89	251	76	70
38	6.649	0.184	0.095	3.35	82	1.2	-	26.41	-0.07	89	252	76	70
39	6.831	0.182	0.095	3.37	82	1.2	-	26.33	-0.08	89	253	76	70
40	7.015	0.184	0.094	3.36	82	1.2	100	26.25	-0.08	89	255	76	70
41	7.197	0.182	0.096	3.37	82	1.2	-	26.17	-0.08	89	256	76	69
42	7.373	0.176	0.093	3.39	83	1.2	-	26.10	-0.07	89	258	76	70
43	7.553	0.180	0.095	3.37	83	1.2	-	26.02	-0.08	89	260	76	70
44	7.741	0.188	0.096	3.39	83	1.2	-	25.95	-0.07	90	263	76	70
45	7.922	0.181	0.096	3.39	83	1.2	-	25.87	-0.08	90	263	76	70
46	8.107	0.185	0.095	3.39	84	1.2	-	25.79	-0.08	90	264	76	70
47	8.289	0.182	0.095	3.39	84	1.2	-	25.71	-0.08	90	265	76	70
48	8.470	0.181	0.096	3.40	84	1.2	-	25.62	-0.09	90	266	76	70
49	8.651	0.181	0.097	3.40	84	1.2	-	25.55	-0.07	90	267	76	70
50	8.835	0.184	0.096	3.39	84	1.2	100	25.47	-0.08	90	268	76	70
51	9.020	0.185	0.095	3.39	85	1.2	-	25.39	-0.08	90	268	76	70
52	9.203	0.183	0.096	3.40	85	1.2	-	25.30	-0.09	90	270	77	70
53	9.380	0.177	0.096	3.40	85	1.2	-	25.22	-0.08	91	271	77	70
54	9.563	0.183	0.095	3.41	85	1.2	-	25.13	-0.09	91	271	77	70
55	9.749	0.186	0.096	3.41	86	1.2	-	25.05	-0.08	91	275	77	70
56	9.933	0.184	0.095	3.40	86	1.2	-	24.94	-0.11	91	277	77	70
57	10.119	0.186	0.095	3.41	86	1.2	-	24.86	-0.08	91	278	77	70
58	10.301	0.182	0.094	3.41	86	1.2	-	24.76	-0.10	91	279	77	70
59	10.484	0.183	0.095	3.40	86	1.2	-	24.66	-0.10	92	280	77	70
60	10.667	0.183	0.095	3.40	86	1.2	100	24.58	-0.08	92	282	77	70
61	10.846	0.179	0.095	3.41	87	1.3	-	24.48	-0.10	92	284	77	70
62	11.035	0.189	0.095	3.42	87	1.2	-	24.39	-0.09	92	284	77	70
63	11.221	0.186	0.094	3.43	87	1.2	-	24.31	-0.08	92	284	77	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
64	11.401	0.180	0.096	3.42	87	1.2	-	24.21	-0.10	92	284	77	70
65	11.588	0.187	0.095	3.43	87	1.2	-	24.11	-0.10	92	285	77	70
66	11.770	0.182	0.095	3.44	87	1.2	-	24.03	-0.08	92	283	77	70
67	11.952	0.182	0.096	3.42	88	1.2	-	23.94	-0.09	92	282	77	70
68	12.139	0.187	0.095	3.43	88	1.2	-	23.83	-0.11	92	281	77	70
69	12.323	0.184	0.095	3.43	88	1.3	-	23.76	-0.07	92	281	77	70
70	12.505	0.182	0.094	3.43	88	1.2	100	23.65	-0.11	92	281	77	70
71	12.694	0.189	0.094	3.43	88	1.2	-	23.56	-0.09	92	282	77	70
72	12.871	0.177	0.094	3.44	88	1.3	-	23.48	-0.08	92	281	77	70
73	13.060	0.189	0.096	3.44	88	1.3	-	23.40	-0.08	92	281	77	70
74	13.242	0.182	0.094	3.45	89	1.2	-	23.31	-0.09	92	281	77	70
75	13.430	0.188	0.095	3.44	89	1.2	-	23.22	-0.09	92	280	77	70
76	13.617	0.187	0.096	3.44	89	1.3	-	23.13	-0.09	92	279	77	70
77	13.801	0.184	0.096	3.45	89	1.3	-	23.05	-0.08	92	278	77	70
78	13.981	0.180	0.096	3.44	89	1.2	-	22.96	-0.09	92	277	77	70
79	14.168	0.187	0.095	3.45	89	1.2	-	22.88	-0.08	92	276	77	70
80	14.349	0.181	0.094	3.44	89	1.2	101	22.80	-0.08	92	276	77	70
81	14.538	0.189	0.095	3.44	89	1.2	-	22.71	-0.09	92	275	77	70
82	14.724	0.186	0.095	3.43	90	1.2	-	22.63	-0.08	92	275	77	70
83	14.907	0.183	0.094	3.45	90	1.2	-	22.55	-0.08	92	275	77	70
84	15.095	0.188	0.094	3.46	90	1.3	-	22.46	-0.09	92	275	78	70
85	15.278	0.183	0.094	3.45	90	1.2	-	22.37	-0.09	92	274	77	70
86	15.463	0.185	0.096	3.45	90	1.2	-	22.28	-0.09	92	275	77	71
87	15.647	0.184	0.094	3.46	90	1.3	-	22.20	-0.08	92	274	77	70
88	15.834	0.187	0.095	3.46	90	1.2	-	22.12	-0.08	92	273	77	70
89	16.020	0.186	0.093	3.45	90	1.2	-	22.03	-0.09	92	274	78	71
90	16.206	0.186	0.096	3.45	90	1.2	101	21.95	-0.08	92	274	78	70
91	16.392	0.186	0.095	3.46	90	1.2	-	21.86	-0.09	92	273	78	70
92	16.571	0.179	0.095	3.45	90	1.2	-	21.79	-0.07	92	272	78	70
93	16.759	0.188	0.095	3.45	91	1.2	-	21.70	-0.09	92	271	78	70
94	16.941	0.182	0.096	3.46	91	1.2	-	21.62	-0.08	92	269	78	70
95	17.131	0.190	0.096	3.46	91	1.2	-	21.55	-0.07	92	270	77	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
96	17.318	0.187	0.094	3.46	91	1.2	-	21.46	-0.09	92	269	78	70
97	17.500	0.182	0.095	3.47	91	1.3	-	21.38	-0.08	92	270	78	70
98	17.689	0.189	0.096	3.45	91	1.3	-	21.29	-0.09	92	269	78	70
99	17.872	0.183	0.094	3.47	91	1.2	-	21.22	-0.07	92	268	78	70
100	18.054	0.182	0.093	3.45	91	1.2	100	21.14	-0.08	92	268	78	70
101	18.242	0.188	0.095	3.46	91	1.2	-	21.05	-0.09	92	267	78	70
102	18.430	0.188	0.096	3.45	91	1.3	-	20.97	-0.08	91	267	78	70
103	18.617	0.187	0.096	3.47	91	1.2	-	20.89	-0.08	92	267	78	70
104	18.799	0.182	0.096	3.48	91	1.2	-	20.82	-0.07	91	266	78	71
105	18.989	0.190	0.096	3.46	91	1.3	-	20.74	-0.08	91	265	78	71
106	19.172	0.183	0.096	3.47	91	1.3	-	20.66	-0.08	91	263	78	71
107	19.354	0.182	0.095	3.46	91	1.2	-	20.58	-0.08	91	263	78	71
108	19.543	0.189	0.096	3.46	92	1.2	-	20.50	-0.08	91	263	78	71
109	19.730	0.187	0.096	3.46	92	1.2	-	20.42	-0.08	91	264	78	71
110	19.917	0.187	0.094	3.46	92	1.3	101	20.35	-0.07	91	260	78	70
111	20.100	0.183	0.096	3.47	92	1.2	-	20.28	-0.07	91	261	78	71
112	20.290	0.190	0.096	3.47	92	1.2	-	20.20	-0.08	91	260	78	70
113	20.472	0.182	0.097	3.47	92	1.2	-	20.13	-0.07	91	257	78	71
114	20.655	0.183	0.095	3.48	92	1.2	-	20.06	-0.07	91	258	78	71
115	20.843	0.188	0.095	3.48	92	1.2	-	19.99	-0.07	91	256	78	71
116	21.031	0.188	0.094	3.47	92	1.2	-	19.91	-0.08	91	257	78	71
117	21.217	0.186	0.095	3.47	92	1.3	-	19.84	-0.07	91	256	78	71
118	21.401	0.184	0.095	3.46	92	1.2	-	19.76	-0.08	91	256	78	71
119	21.593	0.192	0.096	3.47	92	1.2	-	19.69	-0.07	91	257	78	71
120	21.775	0.182	0.096	3.47	92	1.3	100	19.61	-0.08	91	257	78	71
121	21.961	0.186	0.094	3.47	92	1.3	-	19.54	-0.07	91	257	78	71
122	22.142	0.181	0.094	3.48	92	1.2	-	19.46	-0.08	91	256	78	71
123	22.330	0.188	0.095	3.47	92	1.3	-	19.39	-0.07	91	256	78	71
124	22.517	0.187	0.096	3.46	92	1.3	-	19.31	-0.08	91	257	78	71
125	22.705	0.188	0.094	3.46	92	1.2	-	19.25	-0.06	91	257	78	71
126	22.894	0.189	0.096	3.46	92	1.2	-	19.16	-0.09	91	257	78	71
127	23.071	0.177	0.095	3.46	92	1.2	-	19.10	-0.06	91	255	78	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
128	23.258	0.187	0.095	3.47	92	1.2	-	19.03	-0.07	91	255	78	71
129	23.449	0.191	0.097	3.47	92	1.2	-	18.96	-0.07	91	256	78	71
130	23.634	0.185	0.094	3.47	93	1.3	100	18.89	-0.07	91	253	78	71
131	23.823	0.189	0.096	3.48	93	1.3	-	18.83	-0.06	91	253	78	71
132	24.012	0.189	0.094	3.48	93	1.2	-	18.76	-0.07	91	252	78	71
133	24.197	0.185	0.096	3.48	93	1.2	-	18.69	-0.07	91	251	78	71
134	24.384	0.187	0.094	3.47	93	1.3	-	18.63	-0.06	91	250	78	71
135	24.568	0.184	0.094	3.49	93	1.2	-	18.57	-0.06	91	250	78	71
136	24.754	0.186	0.095	3.48	93	1.2	-	18.50	-0.07	91	249	78	71
137	24.937	0.183	0.096	3.48	93	1.2	-	18.45	-0.05	91	247	78	71
138	25.125	0.188	0.096	3.47	93	1.2	-	18.39	-0.06	90	246	78	71
139	25.315	0.190	0.095	3.48	93	1.2	-	18.31	-0.08	90	245	78	71
140	25.503	0.188	0.093	3.48	93	1.3	101	18.27	-0.04	90	247	78	71
141	25.689	0.186	0.095	3.48	93	1.3	-	18.20	-0.07	90	246	78	71
142	25.871	0.182	0.096	3.46	93	1.3	-	18.14	-0.06	90	243	78	71
143	26.060	0.189	0.094	3.49	93	1.3	-	18.07	-0.07	90	243	78	71
144	26.245	0.185	0.095	3.47	93	1.3	-	18.02	-0.05	90	242	78	71
145	26.430	0.185	0.094	3.47	93	1.2	-	17.96	-0.06	90	243	78	71
146	26.620	0.190	0.095	3.47	93	1.2	-	17.90	-0.06	90	243	78	71
147	26.805	0.185	0.095	3.47	93	1.3	-	17.85	-0.05	90	243	78	71
148	26.994	0.189	0.095	3.48	93	1.2	-	17.79	-0.06	90	243	78	71
149	27.178	0.184	0.095	3.48	93	1.2	-	17.73	-0.06	90	242	78	71
150	27.365	0.187	0.095	3.48	93	1.3	101	17.67	-0.06	90	242	78	71
151	27.549	0.184	0.095	3.47	93	1.2	-	17.61	-0.06	90	242	78	71
152	27.735	0.186	0.095	3.48	93	1.2	-	17.55	-0.06	90	241	78	71
153	27.926	0.191	0.095	3.46	93	1.3	-	17.49	-0.06	90	241	78	71
154	28.111	0.185	0.096	3.49	93	1.2	-	17.44	-0.05	90	242	78	71
155	28.302	0.191	0.093	3.48	93	1.3	-	17.37	-0.07	90	242	78	71
156	28.488	0.186	0.095	3.49	93	1.2	-	17.31	-0.06	90	242	78	71
157	28.670	0.182	0.097	3.48	93	1.3	-	17.25	-0.06	90	242	78	71
158	28.859	0.189	0.096	3.48	93	1.3	-	17.18	-0.07	90	243	78	71
159	29.042	0.183	0.096	3.48	93	1.2	-	17.12	-0.06	90	244	78	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
160	29.233	0.191	0.095	3.49	93	1.2	100	17.05	-0.07	90	246	78	71
161	29.421	0.188	0.095	3.48	93	1.2	-	16.98	-0.07	90	246	78	71
162	29.606	0.185	0.095	3.47	93	1.2	-	16.92	-0.06	90	247	78	71
163	29.796	0.190	0.095	3.47	94	1.2	-	16.84	-0.08	90	248	78	71
164	29.980	0.184	0.095	3.47	94	1.3	-	16.78	-0.06	90	248	78	71
165	30.167	0.187	0.095	3.48	94	1.2	-	16.72	-0.06	90	248	78	71
166	30.355	0.188	0.096	3.49	94	1.2	-	16.65	-0.07	90	248	78	71
167	30.537	0.182	0.095	3.49	94	1.2	-	16.57	-0.08	90	247	78	71
168	30.729	0.192	0.094	3.48	94	1.2	-	16.51	-0.06	90	246	78	71
169	30.915	0.186	0.095	3.49	94	1.3	-	16.44	-0.07	90	247	78	71
170	31.105	0.190	0.095	3.48	94	1.3	101	16.38	-0.06	90	245	78	71
171	31.291	0.186	0.096	3.49	94	1.2	-	16.31	-0.07	90	245	78	71
172	31.478	0.187	0.095	3.49	94	1.3	-	16.24	-0.07	90	244	78	71
173	31.663	0.185	0.096	3.49	94	1.2	-	16.19	-0.05	89	242	78	71
174	31.849	0.186	0.094	3.48	94	1.2	-	16.13	-0.06	89	241	78	71
175	32.036	0.187	0.095	3.50	94	1.3	-	16.07	-0.06	89	239	78	71
176	32.224	0.188	0.093	3.48	94	1.3	-	16.01	-0.06	89	238	78	71
177	32.412	0.188	0.095	3.50	94	1.2	-	15.94	-0.07	89	235	78	71
178	32.600	0.188	0.096	3.48	94	1.3	-	15.88	-0.06	89	234	78	71
179	32.786	0.186	0.095	3.48	94	1.2	-	15.82	-0.06	89	234	78	71
180	32.973	0.187	0.095	3.48	94	1.2	100	15.76	-0.06	89	233	78	71
181	33.158	0.185	0.094	3.49	94	1.3	-	15.71	-0.05	89	232	78	71
182	33.345	0.187	0.095	3.47	94	1.3	-	15.66	-0.05	89	231	78	71
183	33.531	0.186	0.095	3.49	94	1.3	-	15.60	-0.06	89	230	78	71
184	33.720	0.189	0.095	3.48	94	1.3	-	15.55	-0.05	89	229	78	71
185	33.908	0.188	0.096	3.50	94	1.3	-	15.49	-0.06	89	228	78	71
186	34.096	0.188	0.096	3.48	94	1.2	-	15.44	-0.05	89	227	78	71
187	34.280	0.184	0.095	3.49	94	1.2	-	15.39	-0.05	89	227	78	71
188	34.465	0.185	0.096	3.49	94	1.2	-	15.34	-0.05	89	226	78	71
189	34.652	0.187	0.095	3.48	94	1.2	-	15.28	-0.06	89	224	78	71
190	34.841	0.189	0.095	3.48	94	1.2	100	15.23	-0.05	89	222	78	71
191	35.029	0.188	0.095	3.49	94	1.3	-	15.18	-0.05	89	222	78	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
192	35.217	0.188	0.094	3.48	94	1.2	-	15.14	-0.04	89	221	78	71
193	35.405	0.188	0.096	3.49	94	1.3	-	15.09	-0.05	89	219	78	71
194	35.593	0.188	0.095	3.49	94	1.2	-	15.05	-0.04	89	218	78	71
195	35.780	0.187	0.095	3.50	94	1.3	-	15.00	-0.05	89	218	78	71
196	35.965	0.185	0.097	3.49	94	1.2	-	14.95	-0.05	88	217	78	71
197	36.149	0.184	0.096	3.48	94	1.2	-	14.91	-0.04	88	215	78	71
198	36.334	0.185	0.094	3.49	94	1.2	-	14.86	-0.05	88	214	78	71
199	36.527	0.193	0.095	3.50	94	1.2	-	14.82	-0.04	88	214	78	71
200	36.711	0.184	0.094	3.48	94	1.3	101	14.78	-0.04	88	213	78	71
201	36.903	0.192	0.094	3.50	94	1.2	-	14.74	-0.04	88	212	77	71
202	37.090	0.187	0.094	3.49	94	1.3	-	14.69	-0.05	87	211	77	71
203	37.278	0.188	0.094	3.50	94	1.3	-	14.64	-0.05	88	210	77	71
204	37.459	0.181	0.093	3.49	94	1.3	-	14.60	-0.04	88	210	77	71
205	37.647	0.188	0.096	3.49	94	1.2	-	14.57	-0.03	88	210	77	71
206	37.836	0.189	0.095	3.48	94	1.3	-	14.51	-0.06	88	211	77	71
207	38.022	0.186	0.096	3.48	94	1.2	-	14.47	-0.04	88	211	77	71
208	38.209	0.187	0.096	3.50	94	1.2	-	14.43	-0.04	88	211	77	71
209	38.402	0.193	0.097	3.50	94	1.2	-	14.39	-0.04	88	212	77	71
210	38.588	0.186	0.096	3.49	94	1.3	101	14.33	-0.06	88	212	77	71
211	38.777	0.189	0.094	3.49	94	1.3	-	14.30	-0.03	88	213	77	71
212	38.961	0.184	0.094	3.49	94	1.3	-	14.26	-0.04	88	214	77	71
213	39.145	0.184	0.096	3.48	94	1.3	-	14.21	-0.05	88	214	77	71
214	39.333	0.188	0.094	3.49	94	1.3	-	14.15	-0.06	88	215	77	71
215	39.523	0.190	0.095	3.49	94	1.2	-	14.12	-0.03	88	215	77	71
216	39.708	0.185	0.095	3.50	94	1.2	-	14.05	-0.07	88	216	77	71
217	39.897	0.189	0.095	3.48	94	1.2	-	14.02	-0.03	88	215	77	71
218	40.086	0.189	0.096	3.49	94	1.3	-	13.97	-0.05	88	216	77	71
219	40.275	0.189	0.095	3.49	94	1.2	-	13.92	-0.05	88	217	77	71
220	40.456	0.181	0.094	3.49	94	1.3	100	13.87	-0.05	88	218	77	71
221	40.643	0.187	0.097	3.48	94	1.3	-	13.82	-0.05	88	219	77	71
222	40.832	0.189	0.095	3.49	94	1.2	-	13.77	-0.05	88	219	77	71
223	41.022	0.190	0.095	3.50	94	1.3	-	13.72	-0.05	88	220	77	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
224	41.206	0.184	0.095	3.50	94	1.3	-	13.67	-0.05	87	220	77	71
225	41.399	0.193	0.094	3.50	94	1.2	-	13.62	-0.05	88	221	77	71
226	41.585	0.186	0.094	3.48	94	1.2	-	13.57	-0.05	87	222	77	71
227	41.774	0.189	0.095	3.50	94	1.3	-	13.52	-0.05	88	223	77	71
228	41.955	0.181	0.096	3.50	94	1.2	-	13.47	-0.05	88	223	77	71
229	42.146	0.191	0.094	3.49	94	1.2	-	13.43	-0.04	88	223	77	71
230	42.332	0.186	0.094	3.49	94	1.2	101	13.39	-0.04	88	223	77	71
231	42.521	0.189	0.095	3.50	94	1.2	-	13.34	-0.05	88	222	77	71
232	42.706	0.185	0.096	3.49	94	1.3	-	13.29	-0.05	88	223	77	71
233	42.895	0.189	0.097	3.49	94	1.2	-	13.25	-0.04	88	223	77	71
234	43.085	0.190	0.096	3.50	94	1.2	-	13.20	-0.05	88	223	77	71
235	43.273	0.188	0.096	3.50	94	1.3	-	13.15	-0.05	88	222	77	71
236	43.454	0.181	0.096	3.50	94	1.3	-	13.11	-0.04	88	223	77	71
237	43.642	0.188	0.095	3.49	94	1.3	-	13.06	-0.05	89	224	77	71
238	43.830	0.188	0.095	3.49	94	1.2	-	13.01	-0.05	88	223	77	71
239	44.020	0.190	0.095	3.49	94	1.3	-	12.97	-0.04	88	223	78	71
240	44.204	0.184	0.095	3.49	94	1.2	101	12.92	-0.05	88	222	78	71
241	44.393	0.189	0.095	3.50	94	1.3	-	12.87	-0.05	88	222	78	71
242	44.580	0.187	0.095	3.50	94	1.2	-	12.82	-0.05	88	223	78	71
243	44.771	0.191	0.094	3.49	94	1.3	-	12.77	-0.05	88	223	77	71
244	44.956	0.185	0.095	3.49	94	1.3	-	12.72	-0.05	88	222	77	71
245	45.144	0.188	0.095	3.49	94	1.2	-	12.68	-0.04	88	223	78	71
246	45.329	0.185	0.094	3.49	94	1.3	-	12.62	-0.06	88	222	77	71
247	45.515	0.186	0.093	3.49	94	1.3	-	12.57	-0.05	88	224	77	71
248	45.709	0.194	0.095	3.49	94	1.2	-	12.53	-0.04	88	226	77	71
249	45.892	0.183	0.093	3.49	95	1.3	-	12.48	-0.05	88	225	77	71
250	46.082	0.190	0.095	3.49	94	1.2	101	12.42	-0.06	88	225	77	71
251	46.271	0.189	0.094	3.50	94	1.2	-	12.37	-0.05	88	225	77	71
252	46.455	0.184	0.096	3.50	94	1.3	-	12.32	-0.05	88	226	77	71
253	46.639	0.184	0.095	3.49	94	1.2	-	12.27	-0.05	88	227	77	71
254	46.826	0.187	0.095	3.49	94	1.2	-	12.20	-0.07	88	228	77	71
255	47.019	0.193	0.094	3.50	94	1.3	-	12.15	-0.05	89	229	77	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
256	47.206	0.187	0.096	3.49	94	1.3	-	12.09	-0.06	89	230	77	71
257	47.396	0.190	0.095	3.49	94	1.3	-	12.02	-0.07	89	230	77	71
258	47.579	0.183	0.094	3.50	94	1.3	-	11.97	-0.05	89	232	77	71
259	47.771	0.192	0.093	3.50	95	1.3	-	11.91	-0.06	89	233	78	71
260	47.952	0.181	0.094	3.50	94	1.3	100	11.85	-0.06	89	234	78	71
261	48.143	0.191	0.096	3.49	95	1.3	-	11.78	-0.07	89	235	78	71
262	48.326	0.183	0.094	3.50	95	1.2	-	11.72	-0.06	89	235	78	71
263	48.516	0.190	0.094	3.49	94	1.2	-	11.65	-0.07	89	235	78	71
264	48.703	0.187	0.094	3.49	95	1.3	-	11.60	-0.05	89	235	78	71
265	48.893	0.190	0.094	3.49	95	1.2	-	11.54	-0.06	89	235	78	71
266	49.087	0.194	0.095	3.48	95	1.3	-	11.48	-0.06	89	234	78	71
267	49.271	0.184	0.094	3.51	95	1.2	-	11.42	-0.06	89	234	78	71
268	49.457	0.186	0.094	3.49	95	1.3	-	11.36	-0.06	89	233	78	71
269	49.644	0.187	0.096	3.49	95	1.3	-	11.32	-0.04	89	231	78	71
270	49.827	0.183	0.095	3.49	95	1.2	101	11.25	-0.07	89	230	78	71
271	50.019	0.192	0.095	3.49	95	1.3	-	11.19	-0.06	89	228	78	71
272	50.207	0.188	0.094	3.49	95	1.3	-	11.14	-0.05	89	226	78	71
273	50.396	0.189	0.096	3.50	95	1.3	-	11.09	-0.05	89	225	78	71
274	50.584	0.188	0.095	3.50	95	1.3	-	11.03	-0.06	89	224	78	71
275	50.769	0.185	0.096	3.50	95	1.3	-	10.97	-0.06	89	224	78	71
276	50.955	0.186	0.095	3.49	95	1.2	-	10.92	-0.05	89	224	78	71
277	51.144	0.189	0.095	3.51	95	1.3	-	10.88	-0.04	89	221	78	71
278	51.332	0.188	0.094	3.48	95	1.3	-	10.83	-0.05	89	220	78	71
279	51.519	0.187	0.095	3.49	95	1.3	-	10.78	-0.05	89	219	78	71
280	51.705	0.186	0.094	3.49	95	1.3	101	10.73	-0.05	88	218	78	71
281	51.896	0.191	0.095	3.50	95	1.2	-	10.69	-0.04	89	217	78	71
282	52.085	0.189	0.094	3.49	95	1.3	-	10.63	-0.06	88	215	78	71
283	52.272	0.187	0.096	3.48	95	1.3	-	10.59	-0.04	88	215	78	71
284	52.460	0.188	0.095	3.49	95	1.2	-	10.55	-0.04	88	213	78	71
285	52.642	0.182	0.094	3.50	95	1.3	-	10.51	-0.04	88	212	78	71
286	52.833	0.191	0.095	3.50	95	1.3	-	10.47	-0.04	88	211	78	71
287	53.020	0.187	0.094	3.51	95	1.3	-	10.44	-0.03	88	209	78	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
288	53.209	0.189	0.095	3.49	95	1.3	-	10.40	-0.04	88	208	78	71
289	53.394	0.185	0.096	3.50	95	1.2	-	10.36	-0.04	88	208	78	71
290	53.586	0.192	0.094	3.49	95	1.2	101	10.33	-0.03	88	206	78	71
291	53.774	0.188	0.096	3.51	95	1.2	-	10.30	-0.03	88	206	78	71
292	53.962	0.188	0.094	3.49	95	1.3	-	10.27	-0.03	88	204	78	71
293	54.147	0.185	0.094	3.50	95	1.3	-	10.23	-0.04	87	204	78	71
294	54.332	0.185	0.094	3.49	95	1.2	-	10.20	-0.03	87	203	78	71
295	54.521	0.189	0.094	3.49	95	1.2	-	10.17	-0.03	87	202	78	71
296	54.711	0.190	0.094	3.49	95	1.3	-	10.14	-0.03	87	200	78	71
297	54.898	0.187	0.095	3.49	95	1.3	-	10.10	-0.04	87	199	77	71
298	55.085	0.187	0.095	3.48	95	1.3	-	10.07	-0.03	87	199	77	71
299	55.275	0.190	0.095	3.48	95	1.3	-	10.04	-0.03	87	199	77	71
300	55.463	0.188	0.095	3.49	95	1.2	101	10.01	-0.03	87	198	77	71
301	55.648	0.185	0.095	3.50	95	1.2	-	9.98	-0.03	87	197	77	71
302	55.836	0.188	0.094	3.50	95	1.2	-	9.94	-0.04	87	197	77	71
303	56.022	0.186	0.096	3.50	95	1.2	-	9.91	-0.03	87	199	77	71
304	56.208	0.186	0.094	3.49	95	1.3	-	9.88	-0.03	87	199	77	71
305	56.402	0.194	0.096	3.49	95	1.2	-	9.84	-0.04	87	199	77	71
306	56.589	0.187	0.094	3.50	95	1.3	-	9.80	-0.04	87	200	77	71
307	56.776	0.187	0.094	3.48	95	1.3	-	9.78	-0.02	87	200	77	71
308	56.961	0.185	0.093	3.49	95	1.3	-	9.73	-0.05	87	202	77	71
309	57.146	0.185	0.095	3.49	95	1.2	-	9.71	-0.02	87	203	77	71
310	57.334	0.188	0.094	3.49	95	1.3	100	9.67	-0.04	87	203	77	71
311	57.527	0.193	0.094	3.49	95	1.2	-	9.63	-0.04	87	204	77	71
312	57.713	0.186	0.096	3.50	95	1.3	-	9.60	-0.03	87	205	77	71
313	57.897	0.184	0.096	3.50	95	1.2	-	9.55	-0.05	87	206	77	71
314	58.088	0.191	0.095	3.50	95	1.2	-	9.52	-0.03	87	206	77	71
315	58.275	0.187	0.095	3.50	95	1.2	-	9.48	-0.04	87	207	77	71
316	58.464	0.189	0.095	3.50	95	1.3	-	9.44	-0.04	87	206	77	71
317	58.653	0.189	0.095	3.49	95	1.2	-	9.40	-0.04	87	206	77	71
318	58.839	0.186	0.094	3.50	95	1.2	-	9.37	-0.03	87	207	77	71
319	59.026	0.187	0.095	3.49	95	1.3	-	9.34	-0.03	87	208	77	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
320	59.213	0.187	0.094	3.49	95	1.3	101	9.29	-0.05	87	210	77	71
321	59.403	0.190	0.093	3.49	95	1.3	-	9.24	-0.05	87	212	77	71
322	59.591	0.188	0.095	3.50	95	1.3	-	9.21	-0.03	87	211	77	71
323	59.777	0.186	0.093	3.48	95	1.3	-	9.17	-0.04	87	211	77	71
324	59.968	0.191	0.094	3.50	95	1.2	-	9.13	-0.04	87	211	77	71
325	60.155	0.187	0.095	3.50	95	1.2	-	9.10	-0.03	87	211	77	71
326	60.341	0.186	0.094	3.50	95	1.3	-	9.05	-0.05	87	211	77	71
327	60.532	0.191	0.093	3.50	95	1.2	-	9.01	-0.04	87	212	77	71
328	60.712	0.180	0.094	3.51	95	1.2	-	8.98	-0.03	87	214	77	71
329	60.902	0.190	0.096	3.50	95	1.3	-	8.94	-0.04	87	215	77	71
330	61.093	0.191	0.095	3.50	95	1.2	101	8.90	-0.04	87	214	77	71
331	61.282	0.189	0.092	3.49	95	1.3	-	8.86	-0.04	87	213	77	71
332	61.467	0.185	0.093	3.51	95	1.2	-	8.81	-0.05	87	213	77	71
333	61.658	0.191	0.095	3.49	95	1.2	-	8.78	-0.03	87	214	77	71
334	61.843	0.185	0.095	3.50	95	1.2	-	8.73	-0.05	87	214	77	71
335	62.031	0.188	0.095	3.49	95	1.3	-	8.69	-0.04	87	215	77	71
336	62.214	0.183	0.096	3.51	95	1.2	-	8.66	-0.03	87	216	77	71
337	62.407	0.193	0.095	3.50	95	1.3	-	8.62	-0.04	87	215	77	71
338	62.594	0.187	0.093	3.50	95	1.2	-	8.58	-0.04	87	214	77	71
339	62.785	0.191	0.095	3.51	95	1.2	-	8.55	-0.03	87	215	77	71
340	62.971	0.186	0.095	3.49	95	1.3	100	8.50	-0.05	87	216	77	71
341	63.157	0.186	0.095	3.49	95	1.3	-	8.46	-0.04	87	216	77	71
342	63.342	0.185	0.093	3.51	95	1.3	-	8.42	-0.04	87	216	77	71
343	63.533	0.191	0.094	3.51	95	1.2	-	8.39	-0.03	87	216	77	71
344	63.719	0.186	0.093	3.50	95	1.2	-	8.35	-0.04	87	216	77	71
345	63.908	0.189	0.094	3.50	95	1.2	-	8.30	-0.05	87	216	77	71
346	64.093	0.185	0.097	3.49	95	1.2	-	8.26	-0.04	87	217	77	71
347	64.284	0.191	0.095	3.51	95	1.2	-	8.23	-0.03	87	217	77	71
348	64.475	0.191	0.094	3.50	95	1.2	-	8.19	-0.04	87	217	77	71
349	64.662	0.187	0.094	3.50	95	1.2	-	8.15	-0.04	87	216	77	71
350	64.845	0.183	0.094	3.49	95	1.2	100	8.12	-0.03	87	218	77	71
351	65.035	0.190	0.096	3.50	95	1.3	-	8.08	-0.04	87	217	77	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
352	65.223	0.188	0.092	3.49	95	1.3	-	8.04	-0.04	87	217	77	71
353	65.408	0.185	0.095	3.50	95	1.3	-	8.00	-0.04	87	218	77	71
354	65.600	0.192	0.094	3.49	95	1.2	-	7.97	-0.03	87	216	77	71
355	65.788	0.188	0.094	3.50	95	1.3	-	7.93	-0.04	87	217	77	71
356	65.977	0.189	0.095	3.50	95	1.3	-	7.88	-0.05	87	217	77	71
357	66.161	0.184	0.095	3.50	95	1.3	-	7.85	-0.03	87	217	77	71
358	66.348	0.187	0.095	3.48	95	1.2	-	7.81	-0.04	87	218	77	71
359	66.537	0.189	0.094	3.50	95	1.3	-	7.76	-0.05	87	218	77	71
360	66.725	0.188	0.094	3.49	95	1.3	101	7.73	-0.03	87	217	77	71
361	66.908	0.183	0.096	3.50	95	1.2	-	7.69	-0.04	87	217	77	71
362	67.101	0.193	0.095	3.50	95	1.3	-	7.64	-0.05	87	216	77	71
363	67.289	0.188	0.096	3.50	95	1.3	-	7.61	-0.03	87	217	77	71
364	67.475	0.186	0.097	3.48	95	1.3	-	7.57	-0.04	87	217	77	71
365	67.663	0.188	0.094	3.51	95	1.3	-	7.52	-0.05	87	217	77	71
366	67.854	0.191	0.094	3.50	95	1.3	-	7.49	-0.03	87	218	77	71
367	68.039	0.185	0.095	3.50	95	1.3	-	7.45	-0.04	87	218	77	71
368	68.228	0.189	0.095	3.50	95	1.3	-	7.42	-0.03	87	219	77	71
369	68.411	0.183	0.094	3.50	95	1.3	-	7.36	-0.06	87	219	77	71
370	68.600	0.189	0.095	3.49	95	1.2	101	7.31	-0.05	87	219	77	71
371	68.791	0.191	0.096	3.50	95	1.3	-	7.28	-0.03	87	219	77	71
372	68.981	0.190	0.095	3.50	95	1.2	-	7.23	-0.05	87	219	77	71
373	69.165	0.184	0.095	3.50	95	1.3	-	7.19	-0.04	87	219	77	71
374	69.357	0.192	0.095	3.50	95	1.2	-	7.14	-0.05	87	221	77	71
375	69.542	0.185	0.093	3.49	94	1.2	-	7.10	-0.04	87	220	77	71
376	69.726	0.184	0.096	3.49	95	1.2	-	7.06	-0.04	87	220	77	71
377	69.916	0.190	0.095	3.51	94	1.2	-	7.01	-0.05	87	221	77	71
378	70.104	0.188	0.095	3.51	94	1.2	-	6.97	-0.04	87	220	77	71
379	70.293	0.189	0.093	3.49	94	1.3	-	6.93	-0.04	87	220	77	71
380	70.479	0.186	0.096	3.50	94	1.2	100	6.89	-0.04	87	221	77	71
381	70.670	0.191	0.095	3.49	94	1.3	-	6.85	-0.04	87	222	77	71
382	70.857	0.187	0.094	3.50	94	1.2	-	6.81	-0.04	87	223	77	71
383	71.045	0.188	0.094	3.50	94	1.2	-	6.76	-0.05	87	223	77	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
384	71.228	0.183	0.095	3.51	94	1.3	-	6.71	-0.05	87	223	77	71
385	71.418	0.190	0.095	3.49	94	1.2	-	6.67	-0.04	87	223	77	71
386	71.605	0.187	0.094	3.50	94	1.3	-	6.61	-0.06	87	224	77	71
387	71.792	0.187	0.094	3.48	94	1.2	-	6.57	-0.04	87	224	77	71
388	71.983	0.191	0.095	3.50	94	1.3	-	6.52	-0.05	87	225	77	71
389	72.169	0.186	0.095	3.48	94	1.3	-	6.46	-0.06	87	225	77	71
390	72.359	0.190	0.095	3.51	94	1.2	100	6.43	-0.03	87	226	77	71
391	72.547	0.188	0.095	3.50	94	1.3	-	6.37	-0.06	87	226	77	71
392	72.732	0.185	0.094	3.50	94	1.3	-	6.33	-0.04	87	226	77	71
393	72.916	0.184	0.094	3.49	94	1.2	-	6.28	-0.05	87	226	77	71
394	73.107	0.191	0.095	3.50	94	1.2	-	6.23	-0.05	87	225	76	71
395	73.296	0.189	0.096	3.48	94	1.3	-	6.18	-0.05	87	226	76	71
396	73.481	0.185	0.095	3.50	94	1.2	-	6.13	-0.05	87	225	76	71
397	73.673	0.192	0.094	3.48	94	1.2	-	6.08	-0.05	87	226	76	71
398	73.860	0.187	0.095	3.50	94	1.3	-	6.04	-0.04	87	225	76	71
399	74.049	0.189	0.096	3.49	94	1.2	-	5.99	-0.05	87	223	76	71
400	74.237	0.188	0.094	3.49	94	1.2	101	5.94	-0.05	87	224	76	71
401	74.422	0.185	0.096	3.49	94	1.2	-	5.89	-0.05	87	223	76	71
402	74.608	0.186	0.095	3.50	94	1.2	-	5.85	-0.04	87	221	76	71
403	74.795	0.187	0.096	3.49	94	1.3	-	5.81	-0.04	87	221	76	71
404	74.985	0.190	0.095	3.50	94	1.3	-	5.76	-0.05	87	219	76	71
405	75.175	0.190	0.095	3.49	94	1.2	-	5.72	-0.04	87	217	76	71
406	75.359	0.184	0.095	3.50	94	1.2	-	5.69	-0.03	87	216	76	71
407	75.551	0.192	0.096	3.50	94	1.3	-	5.65	-0.04	86	215	76	71
408	75.736	0.185	0.096	3.49	94	1.3	-	5.62	-0.03	86	214	76	71
409	75.923	0.187	0.096	3.49	94	1.2	-	5.59	-0.03	86	212	76	71
410	76.106	0.183	0.094	3.50	94	1.3	101	5.55	-0.04	86	210	76	71
411	76.299	0.193	0.096	3.50	94	1.3	-	5.52	-0.03	86	208	76	71
412	76.486	0.187	0.095	3.49	94	1.3	-	5.50	-0.02	86	207	76	71
413	76.675	0.189	0.096	3.49	94	1.3	-	5.46	-0.04	86	204	76	71
414	76.863	0.188	0.095	3.50	94	1.2	-	5.44	-0.02	86	203	76	71
415	77.051	0.188	0.094	3.50	94	1.3	-	5.42	-0.02	86	201	76	71

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
416	77.232	0.181	0.096	3.50	94	1.2	-	5.38	-0.04	86	200	76	71
417	77.423	0.191	0.096	3.51	94	1.3	-	5.36	-0.02	85	199	76	70
418	77.606	0.183	0.094	3.49	94	1.2	-	5.34	-0.02	85	197	76	70
419	77.798	0.192	0.095	3.51	94	1.2	-	5.32	-0.02	85	196	76	70
420	77.983	0.185	0.095	3.50	94	1.3	101	5.29	-0.03	85	195	76	70
421	78.175	0.192	0.095	3.51	94	1.3	-	5.28	-0.01	85	193	76	70
422	78.364	0.189	0.095	3.48	94	1.3	-	5.26	-0.02	85	192	76	70
423	78.551	0.187	0.094	3.50	94	1.3	-	5.24	-0.02	85	191	76	70
424	78.738	0.187	0.094	3.49	94	1.3	-	5.22	-0.02	85	190	76	70
425	78.924	0.186	0.094	3.50	94	1.2	-	5.21	-0.01	85	190	76	70
426	79.111	0.187	0.094	3.49	94	1.2	-	5.19	-0.02	85	189	76	70
427	79.299	0.188	0.094	3.51	94	1.2	-	5.16	-0.03	85	188	76	70
428	79.484	0.185	0.095	3.49	94	1.2	-	5.14	-0.02	85	188	76	70
429	79.674	0.190	0.095	3.50	94	1.3	-	5.13	-0.01	85	188	76	70
430	79.865	0.191	0.094	3.49	94	1.3	101	5.10	-0.03	84	188	76	70
431	80.052	0.187	0.095	3.50	94	1.3	-	5.09	-0.01	84	188	76	70
432	80.239	0.187	0.095	3.49	94	1.2	-	5.07	-0.02	85	189	76	70
433	80.424	0.185	0.095	3.50	94	1.3	-	5.05	-0.02	84	189	76	70
434	80.608	0.184	0.096	3.49	94	1.3	-	5.02	-0.03	84	188	76	70
435	80.797	0.189	0.096	3.49	94	1.3	-	5.00	-0.02	84	188	76	70
436	80.989	0.192	0.095	3.49	94	1.2	-	4.98	-0.02	84	189	76	70
437	81.177	0.188	0.096	3.51	94	1.3	-	4.95	-0.03	84	189	76	70
438	81.366	0.189	0.095	3.50	94	1.3	-	4.93	-0.02	84	190	76	70
439	81.553	0.187	0.095	3.50	94	1.3	-	4.91	-0.02	84	190	76	70
440	81.741	0.188	0.094	3.50	94	1.2	101	4.88	-0.03	84	191	76	70
441	81.922	0.181	0.095	3.49	94	1.3	-	4.87	-0.01	84	193	76	70
442	82.117	0.195	0.095	3.48	94	1.3	-	4.84	-0.03	84	193	76	70
443	82.297	0.180	0.094	3.49	94	1.2	-	4.84	0.00	84	193	76	70
444	82.486	0.189	0.094	3.49	94	1.2	-	4.81	-0.03	84	194	76	70
445	82.677	0.191	0.094	3.50	94	1.2	-	4.78	-0.03	84	195	76	70
446	82.866	0.189	0.094	3.49	94	1.2	-	4.76	-0.02	84	195	75	70
447	83.050	0.184	0.095	3.49	94	1.3	-	4.74	-0.02	84	195	75	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
448	83.237	0.187	0.094	3.50	94	1.3	-	4.72	-0.02	84	194	75	70
449	83.426	0.189	0.097	3.51	94	1.2	-	4.70	-0.02	84	196	75	70
450	83.613	0.187	0.095	3.49	94	1.2	100	4.67	-0.03	84	196	75	70
451	83.797	0.184	0.096	3.51	94	1.2	-	4.64	-0.03	84	197	75	70
452	83.986	0.189	0.095	3.49	94	1.2	-	4.61	-0.03	84	197	75	70
453	84.179	0.193	0.094	3.50	94	1.3	-	4.60	-0.01	84	198	75	70
454	84.366	0.187	0.096	3.49	94	1.2	-	4.59	-0.01	84	199	75	70
455	84.556	0.190	0.096	3.49	94	1.3	-	4.56	-0.03	84	200	75	70
456	84.741	0.185	0.096	3.48	94	1.2	-	4.53	-0.03	84	199	75	70
457	84.926	0.185	0.095	3.51	94	1.2	-	4.51	-0.02	84	200	75	70
458	85.113	0.187	0.094	3.48	94	1.3	-	4.48	-0.03	84	200	75	70
459	85.297	0.184	0.096	3.50	94	1.2	-	4.46	-0.02	84	200	75	70
460	85.486	0.189	0.096	3.49	94	1.3	100	4.44	-0.02	84	200	75	70
461	85.676	0.190	0.095	3.50	94	1.2	-	4.42	-0.02	84	200	75	70
462	85.866	0.190	0.095	3.49	94	1.2	-	4.39	-0.03	84	201	75	70
463	86.053	0.187	0.096	3.50	94	1.2	-	4.36	-0.03	84	201	75	70
464	86.241	0.188	0.095	3.50	94	1.2	-	4.34	-0.02	84	202	75	70
465	86.425	0.184	0.095	3.51	94	1.3	-	4.32	-0.02	84	201	75	70
466	86.610	0.185	0.096	3.50	94	1.2	-	4.28	-0.04	84	201	75	70
467	86.796	0.186	0.094	3.51	94	1.2	-	4.25	-0.03	84	202	75	70
468	86.985	0.189	0.096	3.49	94	1.2	-	4.22	-0.03	84	202	75	70
469	87.175	0.190	0.096	3.51	94	1.2	-	4.20	-0.02	84	204	75	70
470	87.365	0.190	0.094	3.49	94	1.3	100	4.18	-0.02	84	205	75	70
471	87.549	0.184	0.095	3.51	94	1.2	-	4.16	-0.02	84	205	75	70
472	87.739	0.190	0.095	3.50	94	1.2	-	4.13	-0.03	84	205	75	70
473	87.921	0.182	0.095	3.50	94	1.3	-	4.10	-0.03	84	206	75	70
474	88.112	0.191	0.096	3.49	94	1.2	-	4.07	-0.03	85	206	75	70
475	88.298	0.186	0.096	3.50	94	1.2	-	4.04	-0.03	85	206	75	70
476	88.485	0.187	0.095	3.49	94	1.2	-	4.02	-0.02	84	208	75	70
477	88.672	0.187	0.094	3.51	93	1.2	-	4.00	-0.02	85	209	75	70
478	88.865	0.193	0.096	3.48	93	1.2	-	3.97	-0.03	85	208	75	70
479	89.051	0.186	0.096	3.50	94	1.3	-	3.95	-0.02	85	209	75	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
480	89.239	0.188	0.096	3.49	93	1.2	100	3.92	-0.03	85	208	75	70
481	89.424	0.185	0.096	3.49	93	1.2	-	3.89	-0.03	85	208	75	70
482	89.612	0.188	0.096	3.48	93	1.2	-	3.86	-0.03	85	209	75	70
483	89.798	0.186	0.096	3.49	93	1.3	-	3.84	-0.02	85	210	75	70
484	89.987	0.189	0.097	3.49	93	1.2	-	3.80	-0.04	85	210	75	70
485	90.177	0.190	0.096	3.49	93	1.3	-	3.78	-0.02	85	210	75	70
486	90.361	0.184	0.096	3.49	93	1.3	-	3.76	-0.02	85	209	75	70
487	90.548	0.187	0.096	3.50	93	1.2	-	3.73	-0.03	85	208	75	70
488	90.735	0.187	0.096	3.49	93	1.3	-	3.70	-0.03	85	209	75	70
489	90.920	0.185	0.094	3.51	93	1.2	-	3.67	-0.03	85	210	75	70
490	91.112	0.192	0.096	3.49	93	1.3	100	3.66	-0.01	85	209	75	70
491	91.297	0.185	0.095	3.49	93	1.2	-	3.62	-0.04	85	210	75	70
492	91.487	0.190	0.095	3.49	93	1.3	-	3.60	-0.02	85	210	75	70
493	91.674	0.187	0.096	3.48	93	1.3	-	3.57	-0.03	85	209	75	70
494	91.866	0.192	0.095	3.49	93	1.3	-	3.55	-0.02	85	210	75	70
495	92.047	0.181	0.097	3.50	93	1.3	-	3.52	-0.03	85	209	75	70
496	92.235	0.188	0.096	3.49	93	1.2	-	3.49	-0.03	85	209	75	70
497	92.420	0.185	0.097	3.50	93	1.3	-	3.48	-0.01	84	208	75	70
498	92.611	0.191	0.094	3.49	93	1.3	-	3.45	-0.03	85	208	75	70
499	92.796	0.185	0.096	3.49	93	1.3	-	3.42	-0.03	85	207	75	70
500	92.982	0.186	0.094	3.49	93	1.3	100	3.40	-0.02	85	208	75	70
501	93.172	0.190	0.095	3.50	93	1.3	-	3.37	-0.03	85	208	75	70
502	93.363	0.191	0.096	3.50	93	1.3	-	3.35	-0.02	85	206	75	70
503	93.549	0.186	0.095	3.49	93	1.2	-	3.32	-0.03	85	205	75	70
504	93.738	0.189	0.095	3.49	93	1.2	-	3.30	-0.02	84	204	75	70
505	93.922	0.184	0.097	3.50	93	1.2	-	3.27	-0.03	84	204	75	70
506	94.106	0.184	0.095	3.49	93	1.3	-	3.26	-0.01	85	204	75	70
507	94.292	0.186	0.095	3.50	93	1.2	-	3.24	-0.02	84	203	75	70
508	94.485	0.193	0.097	3.49	93	1.3	-	3.22	-0.02	84	202	75	70
509	94.671	0.186	0.096	3.49	93	1.2	-	3.19	-0.03	84	203	75	70
510	94.861	0.190	0.097	3.50	93	1.2	100	3.16	-0.03	84	202	75	70
511	95.048	0.187	0.095	3.49	93	1.3	-	3.15	-0.01	84	201	75	70

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
512	95.236	0.188	0.096	3.50	93	1.2	-	3.13	-0.02	84	200	75	70
513	95.421	0.185	0.096	3.50	93	1.3	-	3.10	-0.03	84	199	75	70
514	95.609	0.188	0.095	3.50	93	1.2	-	3.09	-0.01	84	199	75	69
515	95.791	0.182	0.095	3.50	93	1.2	-	3.07	-0.02	84	199	75	70
516	95.984	0.193	0.096	3.49	93	1.2	-	3.04	-0.03	84	199	75	70
517	96.174	0.190	0.096	3.50	93	1.2	-	3.02	-0.02	84	198	75	70
518	96.360	0.186	0.096	3.50	93	1.3	-	3.00	-0.02	84	199	75	69
519	96.547	0.187	0.094	3.49	93	1.3	-	2.99	-0.01	84	197	75	69
520	96.731	0.184	0.096	3.48	93	1.3	99	2.96	-0.03	84	197	75	69
521	96.919	0.188	0.096	3.49	93	1.3	-	2.95	-0.01	84	196	75	69
522	97.107	0.188	0.095	3.49	93	1.2	-	2.92	-0.03	84	196	75	69
523	97.296	0.189	0.096	3.49	93	1.3	-	2.90	-0.02	84	196	75	69
524	97.479	0.183	0.095	3.49	93	1.2	-	2.89	-0.01	84	196	75	69
525	97.669	0.190	0.095	3.48	93	1.2	-	2.86	-0.03	84	196	75	69
526	97.859	0.190	0.096	3.49	93	1.2	-	2.84	-0.02	84	196	75	69
527	98.043	0.184	0.096	3.50	93	1.2	-	2.82	-0.02	84	195	75	69
528	98.230	0.187	0.095	3.49	93	1.3	-	2.80	-0.02	84	196	75	69
529	98.418	0.188	0.096	3.49	93	1.3	-	2.77	-0.03	84	196	75	69
530	98.606	0.188	0.097	3.49	93	1.2	99	2.76	-0.01	84	195	75	69
531	98.789	0.183	0.095	3.50	93	1.2	-	2.74	-0.02	84	195	75	69
532	98.981	0.192	0.096	3.49	93	1.2	-	2.71	-0.03	84	195	75	69
533	99.168	0.187	0.094	3.49	93	1.2	-	2.70	-0.01	84	195	75	69
534	99.354	0.186	0.095	3.50	93	1.2	-	2.68	-0.02	83	194	75	69
535	99.544	0.190	0.096	3.50	93	1.2	-	2.65	-0.03	83	194	75	69
536	99.728	0.184	0.096	3.48	93	1.3	-	2.64	-0.01	83	194	75	69
537	99.916	0.188	0.097	3.50	93	1.3	-	2.62	-0.02	83	193	75	69
538	100.100	0.184	0.095	3.48	93	1.3	-	2.59	-0.03	83	194	75	69
539	100.289	0.189	0.096	3.49	93	1.3	-	2.58	-0.01	83	193	75	69
540	100.475	0.186	0.097	3.49	93	1.3	99	2.56	-0.02	84	193	75	69
541	100.665	0.190	0.095	3.50	93	1.2	-	2.53	-0.03	83	193	75	69
542	100.854	0.189	0.096	3.48	93	1.2	-	2.51	-0.02	84	193	75	69
543	101.041	0.187	0.095	3.50	93	1.3	-	2.50	-0.01	83	194	75	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
544	101.225	0.184	0.095	3.49	93	1.3	-	2.47	-0.03	83	194	75	69
545	101.413	0.188	0.095	3.49	93	1.2	-	2.45	-0.02	83	193	75	69
546	101.600	0.187	0.095	3.48	93	1.3	-	2.42	-0.03	83	192	75	69
547	101.786	0.186	0.094	3.49	93	1.2	-	2.42	0.00	83	191	75	69
548	101.975	0.189	0.096	3.49	93	1.3	-	2.39	-0.03	83	190	75	69
549	102.160	0.185	0.096	3.49	93	1.2	-	2.37	-0.02	83	190	75	69
550	102.351	0.191	0.095	3.49	93	1.2	100	2.35	-0.02	83	189	75	69
551	102.534	0.183	0.096	3.50	93	1.3	-	2.33	-0.02	83	189	75	69
552	102.724	0.190	0.095	3.48	93	1.2	-	2.31	-0.02	83	188	75	69
553	102.906	0.182	0.095	3.50	93	1.2	-	2.29	-0.02	83	188	74	69
554	103.099	0.193	0.095	3.48	93	1.3	-	2.28	-0.01	83	188	74	69
555	103.282	0.183	0.095	3.49	93	1.3	-	2.25	-0.03	83	186	74	69
556	103.467	0.185	0.096	3.48	93	1.3	-	2.24	-0.01	83	186	74	69
557	103.659	0.192	0.095	3.49	93	1.2	-	2.22	-0.02	83	187	74	69
558	103.847	0.188	0.096	3.48	93	1.2	-	2.20	-0.02	83	186	74	69
559	104.031	0.184	0.095	3.49	93	1.3	-	2.18	-0.02	83	185	74	69
560	104.219	0.188	0.095	3.48	93	1.2	100	2.16	-0.02	83	185	74	69
561	104.402	0.183	0.096	3.48	93	1.2	-	2.14	-0.02	83	184	74	69
562	104.590	0.188	0.096	3.49	93	1.2	-	2.12	-0.02	82	185	74	69
563	104.779	0.189	0.095	3.49	93	1.3	-	2.11	-0.01	83	185	74	69
564	104.966	0.187	0.096	3.49	93	1.2	-	2.08	-0.03	82	185	74	69
565	105.155	0.189	0.095	3.48	93	1.3	-	2.06	-0.02	82	184	74	69
566	105.339	0.184	0.097	3.49	93	1.2	-	2.05	-0.01	82	185	74	69
567	105.530	0.191	0.095	3.50	93	1.3	-	2.04	-0.01	82	185	74	69
568	105.711	0.181	0.096	3.49	93	1.2	-	2.02	-0.02	82	185	74	69
569	105.901	0.190	0.096	3.48	93	1.2	-	1.99	-0.03	82	185	74	69
570	106.084	0.183	0.096	3.49	93	1.2	99	1.98	-0.01	82	185	74	69
571	106.275	0.191	0.095	3.48	93	1.3	-	1.95	-0.03	82	186	74	69
572	106.462	0.187	0.094	3.49	93	1.2	-	1.93	-0.02	82	186	74	69
573	106.651	0.189	0.096	3.48	93	1.2	-	1.92	-0.01	82	186	74	69
574	106.838	0.187	0.095	3.50	93	1.3	-	1.90	-0.02	82	187	74	69
575	107.022	0.184	0.096	3.48	93	1.3	-	1.89	-0.01	82	186	74	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
576	107.210	0.188	0.095	3.49	93	1.3	-	1.87	-0.02	82	186	74	69
577	107.397	0.187	0.096	3.47	93	1.2	-	1.84	-0.03	82	187	74	69
578	107.580	0.183	0.096	3.50	93	1.2	-	1.82	-0.02	82	188	74	69
579	107.771	0.191	0.095	3.48	93	1.3	-	1.80	-0.02	83	188	74	69
580	107.959	0.188	0.095	3.49	93	1.2	100	1.79	-0.01	82	188	74	69
581	108.147	0.188	0.095	3.48	93	1.3	-	1.76	-0.03	83	188	74	69
582	108.331	0.184	0.095	3.48	93	1.2	-	1.74	-0.02	83	188	74	69
583	108.524	0.193	0.095	3.47	92	1.2	-	1.72	-0.02	83	187	74	69
584	108.705	0.181	0.096	3.48	92	1.3	-	1.70	-0.02	82	187	74	69
585	108.892	0.187	0.095	3.48	93	1.2	-	1.68	-0.02	83	188	74	69
586	109.078	0.186	0.096	3.49	92	1.2	-	1.66	-0.02	82	189	74	69
587	109.263	0.185	0.097	3.48	92	1.2	-	1.64	-0.02	82	188	74	69
588	109.453	0.190	0.096	3.49	92	1.3	-	1.62	-0.02	82	188	74	69
589	109.643	0.190	0.096	3.49	92	1.2	-	1.59	-0.03	82	188	74	69
590	109.830	0.187	0.095	3.49	92	1.3	100	1.57	-0.02	82	188	74	69
591	110.016	0.186	0.095	3.48	92	1.2	-	1.54	-0.03	82	188	74	69
592	110.201	0.185	0.096	3.49	92	1.2	-	1.52	-0.02	82	189	74	69
593	110.384	0.183	0.096	3.49	92	1.2	-	1.51	-0.01	82	189	74	69
594	110.575	0.191	0.095	3.49	92	1.2	-	1.49	-0.02	82	190	74	69
595	110.760	0.185	0.096	3.48	92	1.2	-	1.47	-0.02	82	190	74	69
596	110.954	0.194	0.095	3.49	92	1.3	-	1.45	-0.02	82	190	74	69
597	111.138	0.184	0.097	3.49	92	1.2	-	1.42	-0.03	82	190	74	69
598	111.326	0.188	0.097	3.49	92	1.2	-	1.40	-0.02	82	190	74	69
599	111.507	0.181	0.095	3.49	92	1.2	-	1.38	-0.02	82	191	74	69
600	111.698	0.191	0.097	3.49	92	1.2	99	1.36	-0.02	82	191	74	69
601	111.882	0.184	0.095	3.48	92	1.2	-	1.34	-0.02	82	191	74	69
602	112.074	0.192	0.096	3.50	92	1.3	-	1.32	-0.02	82	191	74	69
603	112.258	0.184	0.095	3.48	92	1.2	-	1.28	-0.04	82	190	74	69
604	112.447	0.189	0.097	3.48	92	1.3	-	1.27	-0.01	82	192	74	69
605	112.634	0.187	0.097	3.49	92	1.2	-	1.25	-0.02	82	192	74	69
606	112.817	0.183	0.096	3.48	92	1.3	-	1.23	-0.02	82	192	74	69
607	113.005	0.188	0.096	3.49	92	1.2	-	1.20	-0.03	82	191	74	69

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
608	113.188	0.183	0.096	3.49	92	1.2	-	1.18	-0.02	82	192	74	69
609	113.378	0.190	0.096	3.49	92	1.2	-	1.16	-0.02	82	193	74	69
610	113.567	0.189	0.096	3.47	92	1.3	99	1.14	-0.02	82	192	74	69
611	113.754	0.187	0.095	3.50	92	1.3	-	1.12	-0.02	82	193	74	69
612	113.942	0.188	0.095	3.49	92	1.3	-	1.10	-0.02	82	193	74	69
613	114.128	0.186	0.096	3.50	92	1.3	-	1.07	-0.03	82	194	74	69
614	114.315	0.187	0.096	3.48	92	1.3	-	1.05	-0.02	82	194	74	69
615	114.499	0.184	0.095	3.49	92	1.2	-	1.03	-0.02	82	195	74	69
616	114.686	0.187	0.096	3.48	92	1.2	-	1.00	-0.03	82	195	74	69
617	114.873	0.187	0.096	3.50	92	1.2	-	0.98	-0.02	82	195	74	69
618	115.061	0.188	0.094	3.50	92	1.2	-	0.96	-0.02	82	197	74	69
619	115.249	0.188	0.096	3.50	92	1.2	-	0.94	-0.02	82	195	74	69
620	115.436	0.187	0.094	3.49	92	1.2	100	0.91	-0.03	82	196	74	69
621	115.624	0.188	0.095	3.50	92	1.2	-	0.89	-0.02	82	195	74	69
622	115.804	0.180	0.095	3.49	92	1.2	-	0.87	-0.02	82	196	74	69
623	115.991	0.187	0.096	3.48	92	1.3	-	0.85	-0.02	82	196	74	69
624	116.180	0.189	0.095	3.49	92	1.2	-	0.82	-0.03	82	196	74	69
625	116.369	0.189	0.095	3.48	92	1.3	-	0.81	-0.01	82	196	74	69
626	116.555	0.186	0.096	3.49	92	1.3	-	0.79	-0.02	82	196	74	69
627	116.744	0.189	0.096	3.48	92	1.3	-	0.76	-0.03	82	195	74	69
628	116.931	0.187	0.098	3.49	92	1.2	-	0.73	-0.03	82	196	74	68
629	117.115	0.184	0.096	3.48	92	1.2	-	0.69	-0.04	82	197	74	68
630	117.299	0.184	0.096	3.49	92	1.2	100	0.67	-0.02	82	198	74	68
631	117.489	0.190	0.095	3.49	92	1.3	-	0.64	-0.03	82	198	74	68
632	117.675	0.186	0.095	3.50	92	1.2	-	0.61	-0.03	82	198	74	69
633	117.864	0.189	0.095	3.49	92	1.3	-	0.59	-0.02	82	199	74	68
634	118.051	0.187	0.097	3.50	92	1.2	-	0.56	-0.03	82	199	74	68
635	118.240	0.189	0.095	3.49	92	1.2	-	0.54	-0.02	82	198	74	68
636	118.426	0.186	0.097	3.49	92	1.3	-	0.52	-0.02	82	197	74	68
637	118.612	0.186	0.095	3.48	92	1.3	-	0.48	-0.04	82	198	74	68
638	118.797	0.185	0.096	3.49	92	1.2	-	0.45	-0.03	82	197	74	68
639	118.983	0.186	0.095	3.49	92	1.2	-	0.43	-0.02	82	198	74	68

BOX A TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Fuel Weight (lb)		Temperature Data (°F)			
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Dilution Tunnel dP (in H_2O)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Scale Reading	Weight Change	Dilution Tunnel	Flue	Filter	Ambient
640	119.170	0.187	0.097	3.49	92	1.2	99	0.40	-0.03	82	198	74	68
641	119.359	0.189	0.095	3.48	92	1.3	-	0.37	-0.03	82	198	74	68
642	119.547	0.188	0.094	3.48	92	1.2	-	0.35	-0.02	82	198	74	68
643	119.734	0.187	0.095	3.49	92	1.2	-	0.32	-0.03	82	199	74	68
644	119.921	0.187	0.095	3.49	92	1.3	-	0.30	-0.02	82	199	74	68
645	120.106	0.185	0.097	3.48	92	1.2	-	0.28	-0.02	82	199	74	68
646	120.293	0.187	0.097	3.49	92	1.3	-	0.25	-0.03	82	199	74	68
647	120.481	0.188	0.095	3.48	92	1.2	-	0.25	0.00	82	199	74	68
648	120.663	0.182	0.096	3.47	92	1.2	-	0.20	-0.05	82	199	74	68
649	120.851	0.188	0.095	3.49	92	1.2	-	0.19	-0.01	82	198	74	68
650	121.039	0.188	0.095	3.48	92	1.3	99	0.17	-0.02	82	198	74	68
651	121.226	0.187	0.096	3.50	92	1.2	-	0.13	-0.04	82	198	74	68
652	121.413	0.187	0.095	3.47	92	1.2	-	0.11	-0.02	82	198	73	68
653	121.600	0.187	0.095	3.48	92	1.2	-	0.10	-0.01	82	198	74	68
654	121.787	0.187	0.095	3.48	92	1.2	-	0.07	-0.03	82	198	73	68
655	121.973	0.186	0.095	3.49	92	1.2	-	0.05	-0.02	82	199	73	68
656	122.161	0.188	0.095	3.48	92	1.3	-	0.03	-0.02	82	197	73	68
657	122.349	0.188	0.096	3.49	92	1.2	-	0.01	-0.02	82	197	73	68
658	122.537	0.188	0.096	3.49	92	1.3	100	0.00	-0.01	82	197	73	68
Avg/Tot	122.537	0.186	0.095	3.46	91.9	1.2	100			86.7	219.5	76.1	70.2

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
0	0.000		1.43	74	1.8		74	-0.035	3.34	0.193
1	0.127	0.127	3.15	74	1.9	-	77	-0.038	2.16	0.104
2	0.298	0.171	3.15	73	1.9	-	76	-0.037	5.86	0.077
3	0.469	0.171	3.15	73	2.0	-	76	-0.038	6.39	0.010
4	0.643	0.174	3.16	74	1.9	-	76	-0.037	6.23	0.004
5	0.817	0.174	3.16	74	1.7	-	76	-0.039	6.05	0.004
6	0.989	0.172	3.17	74	1.6	-	76	-0.038	6.14	0.008
7	1.160	0.171	3.17	74	1.7	-	76	-0.037	6.35	0.009
8	1.337	0.177	3.17	74	2.0	-	76	-0.038	6.20	0.007
9	1.509	0.172	3.17	74	2.0	-	76	-0.038	6.03	0.008
10	1.678	0.169	3.17	74	1.9	98	76	-0.041	6.22	0.008
11	1.856	0.178	3.18	75	2.2	-	76	-0.040	6.45	0.006
12	2.031	0.175	3.18	75	2.0	-	76	-0.039	6.53	0.006
13	2.203	0.172	3.18	75	1.8	-	76	-0.039	6.63	0.006
14	2.375	0.172	3.18	75	1.7	-	76	-0.039	6.33	0.006
15	2.550	0.175	3.18	76	2.1	-	76	-0.039	6.36	0.006
16	2.726	0.176	3.18	76	2.1	-	77	-0.039	6.47	0.005
17	2.899	0.173	3.19	76	1.7	-	77	-0.042	6.44	0.007
18	3.068	0.169	3.19	76	1.7	-	77	-0.041	6.61	0.005
19	3.246	0.178	3.19	77	2.2	-	77	-0.041	6.66	0.007
20	3.422	0.176	3.19	77	2.2	101	77	-0.041	6.87	0.005
21	3.592	0.170	3.20	77	2.1	-	77	-0.040	6.86	0.008
22	3.768	0.176	3.19	78	1.8	-	77	-0.042	6.87	0.008
23	3.944	0.176	3.19	78	2.2	-	77	-0.041	7.04	0.008
24	4.117	0.173	3.19	78	1.7	-	77	-0.041	7.14	0.007
25	4.295	0.178	3.20	79	1.6	-	77	-0.042	7.18	0.008
26	4.468	0.173	3.21	79	2.0	-	77	-0.042	7.17	0.006
27	4.643	0.175	3.19	79	1.7	-	77	-0.041	7.18	0.004
28	4.817	0.174	3.21	80	1.7	-	77	-0.043	7.19	0.005
29	4.992	0.175	3.20	80	2.0	-	77	-0.043	7.12	0.008
30	5.166	0.174	3.20	80	1.6	101	77	-0.043	7.23	0.007
31	5.344	0.178	3.20	81	1.7	-	77	-0.044	7.36	0.003

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
32	5.521	0.177	3.21	81	1.7	-	77	-0.043	7.32	0.006
33	5.699	0.178	3.22	81	2.2	-	77	-0.043	7.60	0.008
34	5.874	0.175	3.22	82	2.2	-	77	-0.043	7.41	0.007
35	6.048	0.174	3.21	82	2.2	-	77	-0.043	7.54	0.011
36	6.223	0.175	3.21	82	1.8	-	77	-0.044	7.62	0.006
37	6.401	0.178	3.22	83	1.8	-	77	-0.046	7.83	0.008
38	6.579	0.178	3.21	83	1.6	-	77	-0.044	7.77	0.009
39	6.754	0.175	3.22	83	2.1	-	77	-0.043	7.71	0.006
40	6.930	0.176	3.21	84	1.7	101	77	-0.045	7.89	0.009
41	7.109	0.179	3.22	84	2.1	-	77	-0.044	7.96	0.007
42	7.284	0.175	3.22	84	2.2	-	77	-0.046	8.22	0.008
43	7.460	0.176	3.23	85	2.2	-	78	-0.046	8.06	0.006
44	7.639	0.179	3.23	85	1.7	-	77	-0.046	8.07	0.006
45	7.813	0.174	3.23	85	1.7	-	78	-0.046	8.36	0.005
46	7.994	0.181	3.23	85	1.8	-	78	-0.046	8.17	0.007
47	8.171	0.177	3.23	86	1.6	-	78	-0.046	8.21	0.004
48	8.348	0.177	3.23	86	1.7	-	78	-0.047	8.57	0.006
49	8.525	0.177	3.24	86	2.0	-	78	-0.047	8.25	0.005
50	8.704	0.179	3.24	87	2.2	101	78	-0.049	8.45	0.006
51	8.882	0.178	3.23	87	1.6	-	78	-0.050	8.41	0.008
52	9.060	0.178	3.23	87	1.6	-	78	-0.048	8.33	0.007
53	9.232	0.172	3.23	87	1.9	-	78	-0.049	8.63	0.008
54	9.409	0.177	3.22	88	1.6	-	78	-0.050	8.95	0.007
55	9.592	0.183	3.23	88	1.9	-	78	-0.048	9.06	0.007
56	9.772	0.180	3.24	88	1.6	-	78	-0.049	9.03	0.010
57	9.949	0.177	3.24	88	2.1	-	78	-0.050	9.32	0.006
58	10.125	0.176	3.24	89	1.8	-	78	-0.049	9.17	0.008
59	10.302	0.177	3.23	89	1.9	-	78	-0.052	9.51	0.009
60	10.483	0.181	3.24	89	2.1	100	78	-0.052	9.43	0.009
61	10.659	0.176	3.25	89	1.6	-	78	-0.051	9.14	0.011
62	10.840	0.181	3.25	90	2.2	-	78	-0.051	9.34	0.006
63	11.016	0.176	3.24	90	1.9	-	78	-0.052	9.20	0.006

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
64	11.191	0.175	3.24	90	1.9	-	78	-0.051	9.31	0.006
65	11.374	0.183	3.24	90	2.0	-	78	-0.050	9.38	0.006
66	11.554	0.180	3.24	90	1.7	-	78	-0.050	9.16	0.007
67	11.732	0.178	3.25	91	2.0	-	78	-0.051	9.00	0.004
68	11.908	0.176	3.25	91	2.2	-	78	-0.048	9.21	0.006
69	12.086	0.178	3.24	91	1.7	-	78	-0.050	9.47	0.008
70	12.264	0.178	3.24	91	1.6	101	78	-0.051	9.95	0.005
71	12.447	0.183	3.25	91	2.0	-	78	-0.053	9.55	0.008
72	12.622	0.175	3.25	92	1.7	-	78	-0.049	9.26	0.009
73	12.801	0.179	3.25	92	2.2	-	79	-0.051	9.24	0.009
74	12.977	0.176	3.24	92	1.7	-	79	-0.049	9.20	0.007
75	13.161	0.184	3.25	92	2.1	-	79	-0.050	9.22	0.006
76	13.341	0.180	3.25	92	1.6	-	79	-0.051	9.24	0.005
77	13.519	0.178	3.25	93	1.8	-	79	-0.049	9.20	0.008
78	13.693	0.174	3.25	93	1.9	-	79	-0.050	9.31	0.007
79	13.875	0.182	3.25	93	1.7	-	79	-0.050	9.28	0.004
80	14.053	0.178	3.24	93	1.7	101	79	-0.050	9.45	0.005
81	14.235	0.182	3.25	93	1.9	-	79	-0.049	9.46	0.005
82	14.414	0.179	3.24	93	2.2	-	79	-0.052	9.57	0.000
83	14.588	0.174	3.24	94	1.7	-	79	-0.048	9.64	0.005
84	14.771	0.183	3.25	94	2.2	-	79	-0.050	9.43	0.004
85	14.951	0.180	3.25	94	1.8	-	79	-0.051	9.75	0.005
86	15.131	0.180	3.25	94	1.6	-	79	-0.051	9.58	0.007
87	15.311	0.180	3.25	94	1.6	-	79	-0.047	9.51	0.010
88	15.490	0.179	3.25	94	2.0	-	79	-0.049	9.66	0.005
89	15.669	0.179	3.26	94	1.9	-	79	-0.050	9.61	0.005
90	15.848	0.179	3.26	95	2.0	101	79	-0.048	9.59	0.004
91	16.028	0.180	3.24	95	1.9	-	79	-0.051	9.57	0.004
92	16.206	0.178	3.26	95	2.2	-	79	-0.051	9.57	0.005
93	16.389	0.183	3.25	95	1.8	-	79	-0.050	9.44	0.005
94	16.563	0.174	3.26	95	2.2	-	79	-0.049	9.64	0.005
95	16.745	0.182	3.25	95	2.0	-	79	-0.049	9.54	0.005

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
96	16.927	0.182	3.25	95	2.0	-	79	-0.049	9.71	0.004
97	17.105	0.178	3.25	95	1.7	-	79	-0.048	9.63	0.005
98	17.287	0.182	3.26	95	2.2	-	79	-0.045	9.82	0.005
99	17.465	0.178	3.25	95	1.8	-	79	-0.049	9.85	0.003
100	17.642	0.177	3.26	96	1.7	101	79	-0.050	9.87	0.007
101	17.826	0.184	3.25	96	1.8	-	79	-0.049	9.84	0.004
102	18.007	0.181	3.25	96	2.2	-	79	-0.049	9.88	0.005
103	18.187	0.180	3.26	96	1.6	-	79	-0.048	9.74	0.007
104	18.363	0.176	3.25	96	1.7	-	79	-0.050	9.78	0.007
105	18.545	0.182	3.26	96	1.9	-	79	-0.047	9.79	0.007
106	18.725	0.180	3.25	96	1.7	-	79	-0.049	9.73	0.006
107	18.902	0.177	3.25	96	1.7	-	79	-0.048	9.69	0.006
108	19.087	0.185	3.25	96	1.9	-	79	-0.048	9.67	0.005
109	19.267	0.180	3.25	96	2.0	-	79	-0.049	9.61	0.007
110	19.445	0.178	3.26	96	1.7	101	79	-0.048	9.54	0.005
111	19.621	0.176	3.25	96	2.1	-	79	-0.046	9.52	0.004
112	19.806	0.185	3.25	96	2.2	-	79	-0.048	9.60	0.005
113	19.987	0.181	3.25	97	1.8	-	79	-0.048	9.46	0.004
114	20.164	0.177	3.25	97	1.6	-	79	-0.049	9.50	0.004
115	20.347	0.183	3.26	97	1.9	-	79	-0.048	9.51	0.005
116	20.526	0.179	3.26	97	1.9	-	79	-0.046	9.51	0.004
117	20.706	0.180	3.26	97	1.7	-	79	-0.048	9.62	0.002
118	20.884	0.178	3.26	97	1.9	-	79	-0.049	9.83	0.005
119	21.072	0.188	3.25	97	1.9	-	79	-0.049	10.00	0.005
120	21.249	0.177	3.27	97	2.1	101	79	-0.046	10.12	0.004
121	21.427	0.178	3.26	97	2.1	-	79	-0.046	10.04	0.004
122	21.604	0.177	3.26	97	2.0	-	79	-0.049	10.11	0.004
123	21.786	0.182	3.26	97	1.7	-	79	-0.048	9.91	0.005
124	21.967	0.181	3.26	97	1.8	-	79	-0.045	10.12	0.006
125	22.147	0.180	3.26	97	1.8	-	79	-0.046	10.02	0.006
126	22.330	0.183	3.25	97	1.7	-	79	-0.048	9.97	0.003
127	22.503	0.173	3.26	97	1.6	-	79	-0.047	9.94	0.004

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
128	22.684	0.181	3.26	97	1.7	-	79	-0.048	9.90	0.003
129	22.870	0.186	3.26	97	1.8	-	79	-0.044	9.83	0.005
130	23.049	0.179	3.26	98	2.1	100	79	-0.044	9.89	0.003
131	23.232	0.183	3.26	98	2.2	-	79	-0.046	9.73	0.004
132	23.410	0.178	3.26	98	1.6	-	79	-0.045	9.67	0.006
133	23.591	0.181	3.26	98	1.7	-	79	-0.045	9.69	0.004
134	23.773	0.182	3.26	98	1.8	-	79	-0.047	9.96	0.004
135	23.954	0.181	3.26	98	2.2	-	79	-0.047	9.63	0.003
136	24.134	0.180	3.26	98	2.2	-	79	-0.044	9.79	0.003
137	24.311	0.177	3.26	98	2.2	-	79	-0.045	9.85	0.003
138	24.491	0.180	3.26	98	1.9	-	79	-0.043	9.62	0.004
139	24.674	0.183	3.26	98	2.2	-	79	-0.044	9.85	0.004
140	24.856	0.182	3.26	98	2.0	101	79	-0.043	9.68	0.002
141	25.038	0.182	3.26	98	2.0	-	79	-0.046	9.64	0.003
142	25.215	0.177	3.27	98	1.7	-	79	-0.043	9.71	0.003
143	25.396	0.181	3.26	98	1.9	-	79	-0.046	9.80	0.004
144	25.577	0.181	3.26	98	1.8	-	79	-0.045	9.77	0.003
145	25.756	0.179	3.26	98	1.9	-	79	-0.045	9.81	0.003
146	25.939	0.183	3.26	98	1.7	-	79	-0.045	9.64	0.002
147	26.117	0.178	3.26	98	2.2	-	79	-0.044	9.70	0.004
148	26.302	0.185	3.26	98	2.2	-	79	-0.045	9.64	0.003
149	26.477	0.175	3.26	98	2.0	-	79	-0.044	9.69	0.001
150	26.660	0.183	3.25	98	1.9	101	79	-0.046	9.72	0.004
151	26.839	0.179	3.26	98	1.6	-	79	-0.046	9.87	0.002
152	27.022	0.183	3.26	98	2.0	-	79	-0.045	9.93	0.003
153	27.204	0.182	3.26	98	1.7	-	79	-0.043	9.97	0.002
154	27.380	0.176	3.26	98	1.7	-	79	-0.044	10.09	0.003
155	27.565	0.185	3.27	98	1.8	-	79	-0.044	10.09	0.004
156	27.745	0.180	3.26	98	1.7	-	79	-0.046	10.37	0.005
157	27.923	0.178	3.25	98	2.2	-	79	-0.044	10.54	0.005
158	28.109	0.186	3.26	98	1.7	-	79	-0.046	10.61	0.003
159	28.286	0.177	3.27	99	2.2	-	79	-0.043	10.81	0.004

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6
Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
160	28.467	0.181	3.26	99	1.7	100	79	-0.043	10.94	0.007
161	28.649	0.182	3.26	99	2.2	-	79	-0.043	11.21	0.010
162	28.827	0.178	3.26	99	2.1	-	79	-0.046	11.19	0.016
163	29.011	0.184	3.27	99	1.8	-	79	-0.045	11.21	0.023
164	29.189	0.178	3.26	99	1.9	-	79	-0.044	11.37	0.028
165	29.373	0.184	3.26	99	1.6	-	79	-0.045	11.38	0.011
166	29.552	0.179	3.26	99	2.0	-	79	-0.044	11.30	0.014
167	29.730	0.178	3.26	99	1.7	-	79	-0.044	11.42	0.022
168	29.915	0.185	3.26	99	2.1	-	79	-0.045	11.45	0.014
169	30.097	0.182	3.27	99	1.9	-	79	-0.045	11.34	0.010
170	30.277	0.180	3.26	99	1.9	100	79	-0.044	11.31	0.012
171	30.457	0.180	3.26	99	1.9	-	79	-0.043	11.32	0.017
172	30.638	0.181	3.27	99	1.6	-	79	-0.044	11.33	0.016
173	30.818	0.180	3.27	99	1.9	-	79	-0.044	11.24	0.012
174	31.000	0.182	3.27	99	1.6	-	79	-0.043	11.23	0.016
175	31.182	0.182	3.26	99	1.9	-	79	-0.043	11.18	0.011
176	31.362	0.180	3.26	99	1.8	-	79	-0.045	11.09	0.012
177	31.541	0.179	3.26	99	1.8	-	79	-0.045	11.18	0.015
178	31.722	0.181	3.26	99	1.8	-	79	-0.045	11.21	0.011
179	31.904	0.182	3.26	99	2.0	-	79	-0.042	11.02	0.015
180	32.085	0.181	3.26	99	1.8	100	79	-0.044	11.16	0.013
181	32.267	0.182	3.26	99	1.7	-	79	-0.040	11.07	0.010
182	32.447	0.180	3.26	99	1.8	-	79	-0.042	10.98	0.011
183	32.626	0.179	3.26	99	1.7	-	79	-0.042	10.91	0.009
184	32.807	0.181	3.26	99	1.9	-	79	-0.041	11.02	0.005
185	32.989	0.182	3.26	99	1.7	-	79	-0.041	10.79	0.008
186	33.171	0.182	3.26	99	2.0	-	79	-0.041	10.74	0.005
187	33.349	0.178	3.26	99	1.9	-	79	-0.041	10.70	0.004
188	33.528	0.179	3.26	99	2.1	-	79	-0.040	10.61	0.005
189	33.709	0.181	3.26	99	1.9	-	79	-0.040	10.49	0.005
190	33.893	0.184	3.26	99	1.9	100	79	-0.039	10.40	0.003
191	34.075	0.182	3.26	99	1.7	-	79	-0.041	10.43	0.005

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6
Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
192	34.257	0.182	3.26	99	2.2	-	79	-0.040	10.34	0.003
193	34.437	0.180	3.26	99	1.8	-	79	-0.038	10.16	0.003
194	34.616	0.179	3.26	99	1.7	-	79	-0.040	10.14	0.003
195	34.797	0.181	3.26	99	2.2	-	79	-0.040	10.12	0.005
196	34.979	0.182	3.26	99	2.2	-	79	-0.041	10.04	0.004
197	35.158	0.179	3.26	99	1.6	-	79	-0.039	9.84	0.004
198	35.340	0.182	3.26	99	2.0	-	79	-0.040	9.89	0.002
199	35.524	0.184	3.27	99	2.0	-	79	-0.040	9.78	0.003
200	35.699	0.175	3.26	99	1.8	100	79	-0.036	9.70	0.003
201	35.883	0.184	3.26	99	2.2	-	79	-0.037	9.70	0.002
202	36.066	0.183	3.27	99	1.7	-	79	-0.037	9.74	0.004
203	36.247	0.181	3.27	99	2.2	-	78	-0.038	9.84	0.003
204	36.425	0.178	3.26	99	1.6	-	78	-0.040	9.70	0.003
205	36.606	0.181	3.26	99	1.8	-	78	-0.040	9.81	0.003
206	36.788	0.182	3.26	99	1.8	-	78	-0.038	9.75	0.004
207	36.967	0.179	3.27	99	1.8	-	78	-0.036	9.84	0.003
208	37.149	0.182	3.27	99	1.9	-	78	-0.038	9.86	0.003
209	37.334	0.185	3.27	99	2.2	-	78	-0.038	9.88	0.005
210	37.515	0.181	3.27	99	1.6	100	78	-0.039	9.98	0.005
211	37.695	0.180	3.26	99	1.6	-	79	-0.040	10.19	0.006
212	37.876	0.181	3.27	99	1.7	-	79	-0.040	10.13	0.007
213	38.053	0.177	3.27	99	1.6	-	79	-0.038	10.21	0.005
214	38.239	0.186	3.27	99	1.8	-	79	-0.037	10.29	0.006
215	38.421	0.182	3.27	99	1.9	-	79	-0.037	10.44	0.012
216	38.599	0.178	3.27	99	1.7	-	78	-0.039	10.44	0.007
217	38.777	0.178	3.26	99	2.1	-	79	-0.039	10.73	0.009
218	38.962	0.185	3.26	99	1.8	-	79	-0.038	11.14	0.008
219	39.143	0.181	3.27	100	2.2	-	79	-0.038	11.26	0.014
220	39.323	0.180	3.27	100	1.9	100	79	-0.039	11.17	0.011
221	39.505	0.182	3.27	100	1.7	-	79	-0.038	11.25	0.010
222	39.688	0.183	3.27	100	1.8	-	78	-0.039	11.14	0.004
223	39.867	0.179	3.27	100	2.2	-	78	-0.040	11.05	0.006

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
224	40.046	0.179	3.27	100	1.8	-	78	-0.040	11.19	0.005
225	40.231	0.185	3.27	100	1.8	-	78	-0.040	10.98	0.004
226	40.413	0.182	3.27	100	2.2	-	78	-0.039	10.95	0.004
227	40.595	0.182	3.27	100	1.8	-	78	-0.040	10.88	0.004
228	40.772	0.177	3.27	100	2.0	-	78	-0.039	10.87	0.002
229	40.954	0.182	3.27	100	1.8	-	78	-0.038	10.93	0.003
230	41.135	0.181	3.27	100	1.9	101	78	-0.040	10.91	0.002
231	41.318	0.183	3.27	100	2.0	-	78	-0.039	10.77	0.002
232	41.498	0.180	3.27	100	2.1	-	78	-0.040	10.74	0.002
233	41.678	0.180	3.27	100	1.7	-	78	-0.036	10.79	0.002
234	41.862	0.184	3.27	100	1.7	-	78	-0.041	10.79	0.003
235	42.042	0.180	3.27	100	1.7	-	79	-0.037	10.85	0.002
236	42.220	0.178	3.27	100	1.6	-	79	-0.039	10.78	0.003
237	42.402	0.182	3.27	100	1.8	-	79	-0.039	10.71	0.001
238	42.588	0.186	3.27	100	1.6	-	79	-0.039	10.79	0.003
239	42.768	0.180	3.27	100	1.7	-	79	-0.041	10.71	0.002
240	42.944	0.176	3.26	100	2.1	100	79	-0.040	10.77	0.001
241	43.125	0.181	3.27	100	1.7	-	79	-0.041	10.89	0.001
242	43.307	0.182	3.26	100	2.2	-	79	-0.040	10.79	0.003
243	43.492	0.185	3.27	100	1.7	-	79	-0.040	10.93	0.001
244	43.674	0.182	3.26	100	1.9	-	78	-0.040	10.91	0.002
245	43.854	0.180	3.27	100	2.1	-	79	-0.040	10.91	0.002
246	44.033	0.179	3.26	100	1.9	-	79	-0.039	11.04	0.002
247	44.212	0.179	3.27	100	1.8	-	79	-0.039	11.14	0.002
248	44.399	0.187	3.27	100	2.1	-	78	-0.040	11.11	0.004
249	44.576	0.177	3.27	100	1.8	-	79	-0.041	11.21	0.001
250	44.761	0.185	3.27	100	2.2	100	78	-0.037	11.35	0.003
251	44.942	0.181	3.27	100	1.8	-	78	-0.040	11.35	0.004
252	45.121	0.179	3.27	100	1.7	-	78	-0.040	11.62	0.003
253	45.299	0.178	3.26	100	2.1	-	78	-0.039	11.67	0.008
254	45.481	0.182	3.27	100	1.9	-	78	-0.040	11.78	0.014
255	45.666	0.185	3.27	100	1.6	-	79	-0.039	11.80	0.037

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
256	45.848	0.182	3.27	100	2.1	-	79	-0.042	12.04	0.072
257	46.029	0.181	3.26	100	1.8	-	79	-0.041	12.06	0.150
258	46.205	0.176	3.27	100	2.1	-	79	-0.040	12.12	0.204
259	46.389	0.184	3.26	100	1.8	-	79	-0.041	12.18	0.212
260	46.569	0.180	3.27	100	1.7	100	79	-0.043	12.16	0.310
261	46.753	0.184	3.27	100	2.1	-	79	-0.040	12.20	0.347
262	46.932	0.179	3.27	100	2.2	-	79	-0.043	12.19	0.391
263	47.112	0.180	3.27	100	2.0	-	79	-0.041	12.18	0.408
264	47.293	0.181	3.26	100	1.8	-	79	-0.041	12.15	0.436
265	47.473	0.180	3.27	100	2.2	-	79	-0.042	12.11	0.507
266	47.662	0.189	3.26	100	1.8	-	79	-0.042	12.05	0.517
267	47.841	0.179	3.27	100	1.6	-	79	-0.041	11.97	0.527
268	48.022	0.181	3.27	100	1.7	-	79	-0.038	11.88	0.510
269	48.202	0.180	3.26	100	2.1	-	79	-0.040	11.84	0.466
270	48.379	0.177	3.26	100	1.7	100	79	-0.042	11.86	0.493
271	48.563	0.184	3.26	100	1.6	-	79	-0.040	11.78	0.514
272	48.745	0.182	3.27	100	1.7	-	79	-0.041	11.69	0.508
273	48.928	0.183	3.26	100	2.1	-	79	-0.040	11.71	0.480
274	49.108	0.180	3.27	100	2.1	-	79	-0.041	11.75	0.536
275	49.285	0.177	3.27	100	2.1	-	79	-0.041	11.51	0.494
276	49.466	0.181	3.26	100	1.7	-	79	-0.040	11.55	0.478
277	49.651	0.185	3.27	100	1.8	-	79	-0.039	11.47	0.450
278	49.832	0.181	3.27	100	2.0	-	79	-0.040	11.41	0.398
279	50.015	0.183	3.26	100	1.9	-	79	-0.040	11.32	0.405
280	50.193	0.178	3.26	100	2.2	101	79	-0.039	11.48	0.269
281	50.375	0.182	3.27	100	1.8	-	79	-0.038	11.34	0.215
282	50.556	0.181	3.26	100	1.9	-	79	-0.039	11.29	0.180
283	50.739	0.183	3.27	100	1.7	-	79	-0.037	11.18	0.126
284	50.920	0.181	3.27	100	2.1	-	79	-0.037	10.95	0.113
285	51.098	0.178	3.26	100	1.9	-	79	-0.040	10.87	0.043
286	51.283	0.185	3.26	100	1.9	-	79	-0.037	10.71	0.025
287	51.462	0.179	3.26	100	1.6	-	79	-0.038	10.55	0.009

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
288	51.643	0.181	3.27	100	2.2	-	79	-0.038	10.44	0.004
289	51.824	0.181	3.27	100	2.0	-	79	-0.036	10.25	0.001
290	52.008	0.184	3.26	100	2.1	101	79	-0.036	10.18	0.002
291	52.189	0.181	3.27	100	2.1	-	79	-0.036	10.08	0.001
292	52.371	0.182	3.27	100	1.6	-	79	-0.033	9.92	0.001
293	52.550	0.179	3.27	100	1.6	-	79	-0.037	9.79	0.003
294	52.729	0.179	3.26	100	1.7	-	79	-0.034	9.76	0.002
295	52.914	0.185	3.26	100	2.0	-	79	-0.035	9.67	0.001
296	53.097	0.183	3.27	100	1.9	-	79	-0.036	9.71	0.002
297	53.277	0.180	3.26	100	2.2	-	79	-0.035	9.60	0.002
298	53.454	0.177	3.26	100	1.6	-	79	-0.033	9.52	0.001
299	53.638	0.184	3.26	100	2.2	-	79	-0.034	9.44	0.003
300	53.819	0.181	3.26	100	2.0	100	79	-0.034	9.41	0.002
301	54.002	0.183	3.26	100	1.9	-	79	-0.035	9.49	0.002
302	54.184	0.182	3.26	100	2.0	-	79	-0.033	9.52	0.002
303	54.364	0.180	3.26	100	2.1	-	79	-0.034	9.40	0.003
304	54.540	0.176	3.26	100	2.2	-	79	-0.038	9.49	0.001
305	54.729	0.189	3.26	100	1.8	-	79	-0.031	9.60	0.001
306	54.906	0.177	3.26	100	2.2	-	79	-0.033	9.65	0.002
307	55.088	0.182	3.26	100	2.0	-	79	-0.036	9.69	0.001
308	55.268	0.180	3.27	100	1.9	-	79	-0.034	9.77	0.001
309	55.449	0.181	3.27	100	2.1	-	79	-0.037	9.74	0.002
310	55.628	0.179	3.27	100	2.2	100	79	-0.036	9.87	0.001
311	55.816	0.188	3.26	100	2.1	-	79	-0.035	9.85	0.002
312	55.995	0.179	3.27	100	2.2	-	79	-0.034	9.86	0.002
313	56.174	0.179	3.26	100	2.1	-	79	-0.036	9.91	0.001
314	56.355	0.181	3.27	100	2.2	-	79	-0.035	9.83	0.001
315	56.537	0.182	3.27	100	1.9	-	79	-0.035	9.79	0.001
316	56.716	0.179	3.27	100	1.6	-	79	-0.037	9.89	0.001
317	56.900	0.184	3.26	100	2.0	-	78	-0.034	9.93	0.001
318	57.083	0.183	3.26	100	2.1	-	78	-0.036	9.89	0.003
319	57.265	0.182	3.27	100	1.8	-	78	-0.038	9.98	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
320	57.446	0.181	3.27	100	1.6	101	79	-0.038	9.88	0.001
321	57.627	0.181	3.26	100	1.7	-	78	-0.033	9.92	0.002
322	57.806	0.179	3.26	100	1.7	-	78	-0.037	9.91	0.002
323	57.985	0.179	3.27	100	2.1	-	79	-0.035	9.90	0.003
324	58.171	0.186	3.27	100	2.1	-	79	-0.036	9.98	0.002
325	58.353	0.182	3.27	100	2.2	-	78	-0.040	9.92	0.001
326	58.534	0.181	3.26	100	1.9	-	78	-0.037	10.00	0.002
327	58.718	0.184	3.26	100	1.9	-	78	-0.037	9.94	0.001
328	58.892	0.174	3.27	100	1.8	-	78	-0.036	9.94	0.002
329	59.073	0.181	3.27	100	2.1	-	78	-0.036	9.92	0.001
330	59.259	0.186	3.27	100	2.0	100	78	-0.037	9.82	0.002
331	59.441	0.182	3.27	100	2.2	-	78	-0.038	9.82	0.002
332	59.618	0.177	3.27	100	2.1	-	78	-0.038	9.79	0.001
333	59.802	0.184	3.26	100	2.1	-	78	-0.037	9.81	0.002
334	59.983	0.181	3.27	100	2.0	-	78	-0.037	9.70	0.002
335	60.164	0.181	3.26	100	1.9	-	78	-0.039	9.63	0.001
336	60.343	0.179	3.26	100	1.6	-	78	-0.036	9.68	0.001
337	60.529	0.186	3.26	100	1.7	-	78	-0.037	9.72	0.001
338	60.709	0.180	3.27	100	1.7	-	78	-0.038	9.63	0.001
339	60.889	0.180	3.26	100	2.1	-	78	-0.038	9.62	0.001
340	61.071	0.182	3.26	100	1.9	100	78	-0.039	9.57	0.001
341	61.250	0.179	3.28	100	2.1	-	78	-0.038	9.53	0.001
342	61.431	0.181	3.27	100	2.1	-	78	-0.037	9.55	0.000
343	61.617	0.186	3.26	100	2.0	-	78	-0.038	9.52	0.001
344	61.797	0.180	3.27	100	1.9	-	78	-0.040	9.50	0.002
345	61.977	0.180	3.27	100	1.9	-	78	-0.038	9.50	0.001
346	62.155	0.178	3.27	100	2.2	-	78	-0.036	9.47	0.001
347	62.338	0.183	3.27	100	1.6	-	78	-0.037	9.44	0.002
348	62.522	0.184	3.27	100	1.6	-	78	-0.039	9.33	0.000
349	62.705	0.183	3.26	100	2.1	-	78	-0.040	9.34	0.002
350	62.882	0.177	3.27	100	1.9	100	78	-0.037	9.32	0.002
351	63.065	0.183	3.27	100	1.9	-	78	-0.038	9.34	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6
Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
352	63.246	0.181	3.26	100	2.2	-	78	-0.040	9.34	0.001
353	63.426	0.180	3.26	100	1.8	-	78	-0.038	9.23	0.001
354	63.611	0.185	3.26	100	1.6	-	78	-0.040	9.31	0.001
355	63.793	0.182	3.26	100	1.6	-	78	-0.038	9.29	0.002
356	63.973	0.180	3.26	100	1.6	-	78	-0.037	9.38	0.001
357	64.150	0.177	3.27	100	1.9	-	78	-0.038	9.38	0.000
358	64.330	0.180	3.26	100	2.2	-	78	-0.039	9.38	0.002
359	64.516	0.186	3.26	100	1.7	-	78	-0.040	9.39	0.001
360	64.698	0.182	3.27	100	1.7	101	78	-0.039	9.36	0.001
361	64.876	0.178	3.27	100	1.7	-	78	-0.039	9.33	0.001
362	65.060	0.184	3.27	100	2.1	-	78	-0.038	9.40	0.001
363	65.240	0.180	3.27	100	1.9	-	78	-0.038	9.43	0.001
364	65.419	0.179	3.27	100	1.9	-	78	-0.038	9.47	0.000
365	65.601	0.182	3.26	100	1.9	-	78	-0.040	9.53	0.000
366	65.787	0.186	3.28	100	1.9	-	78	-0.038	9.56	0.002
367	65.967	0.180	3.27	100	1.6	-	78	-0.038	9.57	0.001
368	66.148	0.181	3.26	100	2.1	-	78	-0.039	9.61	0.001
369	66.325	0.177	3.26	100	2.0	-	78	-0.039	9.90	0.001
370	66.507	0.182	3.27	100	1.9	100	78	-0.039	9.90	0.001
371	66.692	0.185	3.26	100	2.1	-	78	-0.040	9.98	0.001
372	66.875	0.183	3.27	100	1.7	-	78	-0.039	10.01	0.001
373	67.052	0.177	3.26	100	2.2	-	78	-0.038	9.96	0.001
374	67.235	0.183	3.27	100	2.0	-	78	-0.040	9.78	0.001
375	67.416	0.181	3.26	100	1.9	-	78	-0.038	9.71	0.001
376	67.595	0.179	3.28	100	1.9	-	78	-0.037	9.66	0.001
377	67.779	0.184	3.27	100	2.1	-	78	-0.038	9.73	0.001
378	67.962	0.183	3.27	100	2.2	-	78	-0.039	9.73	0.001
379	68.143	0.181	3.27	100	2.2	-	78	-0.040	9.89	0.001
380	68.319	0.176	3.27	100	2.2	100	78	-0.037	9.92	0.000
381	68.504	0.185	3.26	100	1.6	-	78	-0.039	9.91	0.001
382	68.686	0.182	3.27	100	2.1	-	78	-0.039	9.93	0.000
383	68.867	0.181	3.26	100	2.1	-	78	-0.040	9.97	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
384	69.047	0.180	3.26	100	2.1	-	78	-0.040	10.18	0.001
385	69.231	0.184	3.27	100	1.9	-	78	-0.040	10.24	0.001
386	69.410	0.179	3.27	100	1.9	-	78	-0.039	10.38	0.000
387	69.588	0.178	3.27	100	1.9	-	78	-0.038	10.41	0.001
388	69.774	0.186	3.27	100	2.2	-	78	-0.039	10.42	0.001
389	69.953	0.179	3.26	100	2.0	-	78	-0.041	10.55	0.000
390	70.138	0.185	3.26	100	1.7	100	78	-0.039	10.59	0.002
391	70.319	0.181	3.27	100	1.9	-	78	-0.038	10.63	0.001
392	70.497	0.178	3.26	100	1.8	-	78	-0.039	10.66	0.002
393	70.675	0.178	3.26	100	1.8	-	78	-0.041	10.69	0.001
394	70.861	0.186	3.26	100	1.7	-	78	-0.041	10.86	0.002
395	71.043	0.182	3.27	100	1.8	-	78	-0.044	10.89	0.000
396	71.222	0.179	3.27	100	1.6	-	78	-0.040	10.88	0.001
397	71.406	0.184	3.27	100	1.8	-	78	-0.040	10.96	0.000
398	71.585	0.179	3.27	100	2.1	-	78	-0.040	11.04	0.001
399	71.766	0.181	3.26	100	1.6	-	78	-0.039	10.94	0.002
400	71.952	0.186	3.27	100	1.7	100	78	-0.039	10.96	0.000
401	72.132	0.180	3.27	100	1.8	-	78	-0.040	10.94	0.000
402	72.312	0.180	3.27	100	2.2	-	78	-0.040	10.88	0.002
403	72.489	0.177	3.27	100	2.1	-	78	-0.041	10.74	0.001
404	72.674	0.185	3.27	100	2.1	-	78	-0.036	10.63	0.001
405	72.854	0.180	3.27	100	2.2	-	78	-0.038	10.49	0.001
406	73.034	0.180	3.27	100	1.7	-	78	-0.038	10.47	0.002
407	73.220	0.186	3.27	100	1.9	-	78	-0.038	10.13	0.001
408	73.400	0.180	3.27	100	1.8	-	78	-0.036	9.99	0.001
409	73.580	0.180	3.27	100	1.6	-	78	-0.038	9.77	0.001
410	73.758	0.178	3.27	100	1.8	100	78	-0.039	9.60	0.001
411	73.942	0.184	3.26	100	1.7	-	78	-0.037	9.32	0.001
412	74.124	0.182	3.26	100	1.6	-	78	-0.038	9.20	0.000
413	74.307	0.183	3.26	100	1.9	-	78	-0.035	9.12	0.002
414	74.488	0.181	3.27	100	1.6	-	78	-0.036	8.91	0.002
415	74.667	0.179	3.26	100	2.1	-	77	-0.035	8.80	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
416	74.845	0.178	3.27	100	2.2	-	77	-0.035	8.65	0.001
417	75.031	0.186	3.27	100	2.2	-	77	-0.034	8.57	0.002
418	75.210	0.179	3.27	100	1.8	-	77	-0.034	8.44	0.001
419	75.395	0.185	3.27	100	1.6	-	77	-0.036	8.29	0.000
420	75.573	0.178	3.27	100	2.2	100	77	-0.034	8.25	0.000
421	75.755	0.182	3.27	100	2.1	-	77	-0.032	8.21	0.001
422	75.936	0.181	3.26	100	2.0	-	77	-0.035	8.12	0.002
423	76.119	0.183	3.27	100	2.2	-	77	-0.030	8.05	0.002
424	76.301	0.182	3.26	100	2.2	-	77	-0.032	8.08	0.001
425	76.483	0.182	3.27	100	2.1	-	77	-0.035	8.04	0.001
426	76.664	0.181	3.27	100	1.8	-	77	-0.034	8.06	0.000
427	76.843	0.179	3.27	100	2.2	-	77	-0.034	8.12	0.001
428	77.021	0.178	3.26	100	1.7	-	77	-0.032	8.07	0.001
429	77.204	0.183	3.27	100	2.0	-	77	-0.034	8.03	0.002
430	77.388	0.184	3.27	100	1.8	100	77	-0.032	8.18	0.000
431	77.570	0.182	3.27	100	1.9	-	77	-0.030	8.21	0.004
432	77.751	0.181	3.27	100	1.9	-	77	-0.031	8.18	0.004
433	77.931	0.180	3.27	100	1.8	-	77	-0.031	8.24	0.002
434	78.109	0.178	3.27	100	1.9	-	77	-0.031	8.28	0.001
435	78.292	0.183	3.27	100	1.6	-	77	-0.033	8.34	0.001
436	78.477	0.185	3.27	100	2.2	-	77	-0.032	8.47	0.001
437	78.658	0.181	3.27	100	2.1	-	77	-0.031	8.45	0.002
438	78.839	0.181	3.27	100	1.9	-	77	-0.031	8.42	0.004
439	79.019	0.180	3.27	100	2.2	-	77	-0.033	8.45	0.000
440	79.200	0.181	3.27	100	1.6	100	77	-0.033	8.51	0.002
441	79.379	0.179	3.27	100	1.8	-	77	-0.033	8.55	0.001
442	79.568	0.189	3.27	100	1.8	-	77	-0.029	8.60	0.001
443	79.743	0.175	3.27	100	2.1	-	77	-0.032	8.60	0.002
444	79.922	0.179	3.27	100	1.9	-	77	-0.036	8.59	0.003
445	80.107	0.185	3.28	100	2.1	-	77	-0.034	8.61	0.001
446	80.288	0.181	3.27	100	1.8	-	77	-0.034	8.61	0.001
447	80.467	0.179	3.26	100	2.2	-	77	-0.034	8.69	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
448	80.650	0.183	3.27	100	2.1	-	77	-0.035	8.73	0.000
449	80.833	0.183	3.27	100	2.1	-	77	-0.035	8.77	0.001
450	81.013	0.180	3.27	100	2.0	100	77	-0.032	8.76	0.001
451	81.192	0.179	3.27	100	2.2	-	77	-0.032	8.75	0.002
452	81.374	0.182	3.27	100	2.2	-	77	-0.034	8.86	0.001
453	81.562	0.188	3.27	100	1.8	-	77	-0.034	8.79	0.001
454	81.741	0.179	3.27	99	1.8	-	77	-0.033	8.85	0.001
455	81.924	0.183	3.27	100	1.6	-	77	-0.033	8.83	0.001
456	82.101	0.177	3.27	100	1.9	-	77	-0.034	8.86	0.001
457	82.282	0.181	3.27	100	2.2	-	77	-0.035	8.82	0.002
458	82.465	0.183	3.27	100	1.9	-	77	-0.033	8.86	0.002
459	82.643	0.178	3.28	100	2.2	-	77	-0.036	8.86	0.001
460	82.825	0.182	3.27	99	2.2	100	77	-0.036	8.83	0.002
461	83.010	0.185	3.27	99	2.1	-	77	-0.034	8.91	0.001
462	83.189	0.179	3.27	100	2.1	-	77	-0.034	8.84	0.002
463	83.370	0.181	3.27	99	1.6	-	77	-0.035	8.91	0.002
464	83.552	0.182	3.27	99	1.8	-	77	-0.033	9.16	0.001
465	83.734	0.182	3.27	99	1.7	-	77	-0.033	9.71	0.001
466	83.912	0.178	3.28	99	1.9	-	77	-0.033	9.91	0.002
467	84.093	0.181	3.27	99	1.6	-	77	-0.033	9.88	0.001
468	84.274	0.181	3.28	99	2.0	-	77	-0.033	9.88	0.002
469	84.457	0.183	3.27	99	1.7	-	77	-0.033	9.85	0.002
470	84.640	0.183	3.27	99	2.1	100	77	-0.034	9.88	0.001
471	84.820	0.180	3.27	99	1.8	-	77	-0.035	9.81	0.002
472	85.003	0.183	3.27	99	2.0	-	77	-0.035	9.74	0.001
473	85.180	0.177	3.27	99	1.9	-	77	-0.035	9.78	0.001
474	85.364	0.184	3.27	99	2.0	-	77	-0.035	9.79	0.001
475	85.545	0.181	3.27	99	1.6	-	77	-0.035	9.79	0.001
476	85.724	0.179	3.28	99	1.6	-	77	-0.036	9.83	0.001
477	85.907	0.183	3.27	99	2.2	-	77	-0.030	9.79	0.000
478	86.091	0.184	3.27	99	1.7	-	77	-0.031	9.84	0.002
479	86.271	0.180	3.27	99	2.1	-	77	-0.034	9.85	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
480	86.452	0.181	3.27	99	1.9	100	77	-0.035	9.82	0.001
481	86.633	0.181	3.27	99	1.6	-	77	-0.033	9.93	0.000
482	86.815	0.182	3.27	99	2.2	-	77	-0.035	10.00	0.002
483	86.997	0.182	3.26	99	2.2	-	77	-0.034	10.05	0.001
484	87.178	0.181	3.27	99	1.8	-	77	-0.036	10.02	0.002
485	87.361	0.183	3.27	99	1.9	-	77	-0.035	10.00	0.002
486	87.536	0.175	3.27	99	2.2	-	77	-0.036	9.96	0.002
487	87.718	0.182	3.28	99	1.8	-	77	-0.036	10.09	0.001
488	87.900	0.182	3.27	99	2.0	-	77	-0.035	10.12	0.002
489	88.082	0.182	3.27	99	2.2	-	77	-0.038	10.05	0.002
490	88.266	0.184	3.27	99	1.7	100	77	-0.037	10.15	0.001
491	88.445	0.179	3.28	99	2.2	-	77	-0.036	10.15	0.004
492	88.626	0.181	3.27	99	1.7	-	77	-0.034	10.17	0.001
493	88.809	0.183	3.28	99	1.9	-	77	-0.035	10.08	0.001
494	88.993	0.184	3.27	99	1.7	-	77	-0.036	10.10	0.002
495	89.168	0.175	3.27	99	1.7	-	77	-0.034	10.08	0.001
496	89.349	0.181	3.27	99	2.0	-	77	-0.037	9.99	0.001
497	89.529	0.180	3.27	99	2.2	-	77	-0.036	10.07	0.001
498	89.713	0.184	3.27	99	2.0	-	77	-0.035	10.07	0.001
499	89.896	0.183	3.26	99	2.0	-	77	-0.035	9.98	0.002
500	90.075	0.179	3.28	99	1.9	100	77	-0.032	9.88	0.002
501	90.258	0.183	3.27	99	1.9	-	77	-0.034	9.91	0.001
502	90.439	0.181	3.27	99	1.7	-	77	-0.035	9.88	0.002
503	90.619	0.180	3.28	99	2.1	-	77	-0.034	9.77	0.001
504	90.800	0.181	3.28	99	1.8	-	77	-0.034	9.71	0.001
505	90.983	0.183	3.27	99	1.6	-	77	-0.036	9.64	0.001
506	91.162	0.179	3.27	99	1.6	-	77	-0.035	9.56	0.000
507	91.342	0.180	3.27	99	2.2	-	77	-0.034	9.56	0.002
508	91.526	0.184	3.27	99	2.1	-	77	-0.034	9.52	0.002
509	91.707	0.181	3.27	99	2.2	-	77	-0.033	9.53	0.001
510	91.888	0.181	3.27	99	1.6	100	77	-0.034	9.48	0.002
511	92.070	0.182	3.27	99	1.6	-	77	-0.034	9.49	0.002

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
512	92.253	0.183	3.26	99	1.6	-	77	-0.034	9.57	0.002
513	92.433	0.180	3.27	99	2.2	-	77	-0.035	9.49	0.002
514	92.612	0.179	3.26	99	1.9	-	77	-0.033	9.55	0.002
515	92.791	0.179	3.27	99	1.7	-	77	-0.032	9.53	0.001
516	92.975	0.184	3.27	99	1.7	-	76	-0.033	9.50	0.001
517	93.160	0.185	3.27	99	1.9	-	76	-0.032	9.47	0.001
518	93.340	0.180	3.27	99	1.7	-	76	-0.034	9.51	0.000
519	93.520	0.180	3.28	99	1.7	-	76	-0.032	9.52	0.001
520	93.696	0.176	3.27	99	1.6	99	76	-0.033	9.66	0.001
521	93.880	0.184	3.27	99	1.8	-	76	-0.034	9.62	0.001
522	94.063	0.183	3.27	99	1.8	-	76	-0.031	9.56	0.000
523	94.247	0.184	3.27	99	2.1	-	76	-0.035	9.57	0.001
524	94.423	0.176	3.27	99	1.8	-	76	-0.032	9.72	0.002
525	94.607	0.184	3.27	99	1.7	-	76	-0.031	9.87	0.001
526	94.786	0.179	3.28	99	1.8	-	76	-0.033	9.84	0.001
527	94.964	0.178	3.26	99	2.1	-	76	-0.030	9.85	0.002
528	95.148	0.184	3.27	99	2.0	-	76	-0.032	9.85	0.002
529	95.332	0.184	3.28	99	1.8	-	76	-0.031	9.89	0.001
530	95.513	0.181	3.27	99	1.7	99	76	-0.032	9.99	0.002
531	95.691	0.178	3.27	99	2.1	-	76	-0.032	10.04	0.001
532	95.874	0.183	3.27	99	1.7	-	76	-0.032	9.97	0.002
533	96.055	0.181	3.27	99	2.1	-	76	-0.032	9.97	0.002
534	96.235	0.180	3.27	99	1.6	-	76	-0.031	9.92	0.002
535	96.420	0.185	3.28	99	2.0	-	76	-0.031	9.89	0.001
536	96.597	0.177	3.27	99	1.7	-	76	-0.031	9.95	0.003
537	96.781	0.184	3.26	99	2.1	-	76	-0.033	9.83	0.002
538	96.958	0.177	3.26	99	1.9	-	76	-0.032	9.82	0.002
539	97.142	0.184	3.27	99	1.9	-	76	-0.032	9.82	0.003
540	97.321	0.179	3.27	99	2.0	99	76	-0.033	9.82	0.002
541	97.507	0.186	3.27	99	2.2	-	76	-0.033	9.93	0.001
542	97.687	0.180	3.25	99	2.2	-	76	-0.033	9.83	0.001
543	97.866	0.179	3.27	99	1.7	-	76	-0.033	9.67	0.001

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
544	98.045	0.179	3.27	99	2.2	-	76	-0.033	9.59	0.000
545	98.229	0.184	3.27	99	2.2	-	76	-0.031	9.66	0.001
546	98.411	0.182	3.26	99	1.8	-	76	-0.032	9.59	0.002
547	98.594	0.183	3.27	99	1.8	-	76	-0.033	9.61	0.002
548	98.775	0.181	3.27	99	1.7	-	76	-0.031	9.57	0.001
549	98.950	0.175	3.27	99	1.7	-	76	-0.033	9.71	0.001
550	99.134	0.184	3.27	99	1.6	99	76	-0.030	9.83	0.002
551	99.313	0.179	3.26	99	2.0	-	76	-0.032	9.77	0.003
552	99.498	0.185	3.27	99	2.1	-	76	-0.030	9.71	0.001
553	99.676	0.178	3.26	99	1.7	-	76	-0.030	9.72	0.001
554	99.864	0.188	3.27	99	1.6	-	76	-0.031	9.70	0.002
555	100.039	0.175	3.27	99	1.6	-	76	-0.030	9.65	0.001
556	100.217	0.178	3.27	99	2.1	-	76	-0.033	9.61	0.002
557	100.403	0.186	3.27	99	2.0	-	76	-0.031	9.66	0.003
558	100.585	0.182	3.27	99	2.2	-	76	-0.030	9.68	0.001
559	100.763	0.178	3.27	99	2.1	-	76	-0.033	9.58	0.000
560	100.946	0.183	3.27	99	2.2	100	76	-0.032	9.55	0.001
561	101.123	0.177	3.26	99	2.0	-	76	-0.030	9.66	0.001
562	101.307	0.184	3.27	99	2.2	-	76	-0.030	9.64	0.002
563	101.489	0.182	3.27	98	1.8	-	76	-0.029	9.52	0.003
564	101.672	0.183	3.27	98	1.7	-	76	-0.029	9.53	0.002
565	101.852	0.180	3.27	98	2.2	-	76	-0.029	9.46	0.003
566	102.028	0.176	3.27	98	2.1	-	76	-0.032	9.47	0.002
567	102.212	0.184	3.27	98	1.7	-	76	-0.030	9.48	0.001
568	102.392	0.180	3.27	98	1.6	-	76	-0.032	9.49	0.002
569	102.575	0.183	3.27	98	1.6	-	76	-0.031	9.52	0.001
570	102.755	0.180	3.27	98	1.6	99	76	-0.031	9.51	0.000
571	102.939	0.184	3.27	98	1.7	-	76	-0.030	9.60	0.001
572	103.118	0.179	3.27	98	2.1	-	76	-0.030	9.60	0.001
573	103.299	0.181	3.27	98	2.0	-	76	-0.032	9.67	0.002
574	103.481	0.182	3.27	98	1.8	-	76	-0.028	9.63	0.001
575	103.660	0.179	3.27	98	2.1	-	76	-0.030	9.61	0.003

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
576	103.845	0.185	3.27	98	1.8	-	76	-0.029	9.62	0.002
577	104.025	0.180	3.27	98	2.2	-	76	-0.032	9.65	0.003
578	104.202	0.177	3.28	98	1.8	-	76	-0.029	9.62	0.004
579	104.385	0.183	3.27	98	1.7	-	76	-0.031	9.56	0.002
580	104.568	0.183	3.27	98	1.8	100	76	-0.031	9.56	0.004
581	104.750	0.182	3.28	98	1.8	-	76	-0.030	9.64	0.001
582	104.928	0.178	3.27	98	2.2	-	76	-0.032	9.58	0.002
583	105.115	0.187	3.27	98	2.1	-	75	-0.030	9.60	0.001
584	105.292	0.177	3.28	98	1.7	-	75	-0.030	9.59	0.003
585	105.472	0.180	3.28	98	1.8	-	75	-0.030	9.50	0.002
586	105.655	0.183	3.28	98	2.0	-	75	-0.031	9.39	0.003
587	105.835	0.180	3.26	98	2.0	-	75	-0.031	9.59	0.001
588	106.015	0.180	3.28	98	2.0	-	75	-0.030	9.52	0.003
589	106.198	0.183	3.27	98	1.7	-	75	-0.030	9.47	0.003
590	106.379	0.181	3.27	98	2.1	100	75	-0.030	9.51	0.002
591	106.560	0.181	3.27	98	1.7	-	75	-0.031	9.48	0.003
592	106.742	0.182	3.27	98	1.8	-	75	-0.031	9.47	0.002
593	106.922	0.180	3.28	98	1.7	-	75	-0.030	9.45	0.002
594	107.105	0.183	3.28	98	1.9	-	75	-0.032	9.45	0.002
595	107.281	0.176	3.28	98	1.8	-	75	-0.031	9.46	0.001
596	107.469	0.188	3.27	98	1.7	-	75	-0.028	9.42	0.003
597	107.647	0.178	3.27	98	2.2	-	75	-0.033	9.45	0.003
598	107.829	0.182	3.27	98	2.2	-	75	-0.032	9.36	0.002
599	108.008	0.179	3.28	98	1.7	-	75	-0.030	9.45	0.004
600	108.192	0.184	3.28	98	2.1	99	75	-0.031	9.45	0.003
601	108.371	0.179	3.28	98	1.8	-	75	-0.031	9.45	0.003
602	108.555	0.184	3.27	98	1.9	-	75	-0.033	9.43	0.002
603	108.735	0.180	3.27	98	1.7	-	75	-0.030	9.43	0.004
604	108.916	0.181	3.28	98	1.9	-	75	-0.033	9.35	0.002
605	109.097	0.181	3.27	98	2.2	-	75	-0.033	9.40	0.002
606	109.275	0.178	3.27	98	2.0	-	75	-0.034	9.34	0.002
607	109.457	0.182	3.27	98	2.0	-	75	-0.032	9.34	0.003

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
608	109.635	0.178	3.27	98	1.7	-	75	-0.032	9.28	0.002
609	109.821	0.186	3.26	98	1.8	-	75	-0.034	9.31	0.003
610	110.003	0.182	3.28	98	2.2	99	75	-0.031	9.33	0.003
611	110.183	0.180	3.27	98	1.8	-	75	-0.034	9.32	0.003
612	110.364	0.181	3.27	98	1.9	-	75	-0.034	9.31	0.002
613	110.545	0.181	3.28	98	2.1	-	75	-0.032	9.33	0.003
614	110.725	0.180	3.27	98	1.7	-	75	-0.031	9.31	0.004
615	110.907	0.182	3.27	98	2.1	-	75	-0.032	9.40	0.004
616	111.090	0.183	3.27	98	2.0	-	75	-0.033	9.53	0.001
617	111.270	0.180	3.27	98	2.2	-	75	-0.030	9.52	0.001
618	111.449	0.179	3.27	98	2.2	-	75	-0.034	9.48	0.001
619	111.631	0.182	3.27	98	1.7	-	75	-0.031	9.48	0.003
620	111.812	0.181	3.27	98	1.9	100	75	-0.032	9.48	0.002
621	111.994	0.182	3.27	98	2.1	-	75	-0.033	9.47	0.002
622	112.173	0.179	3.27	98	1.9	-	75	-0.030	9.38	0.003
623	112.355	0.182	3.27	98	2.1	-	75	-0.033	9.41	0.001
624	112.536	0.181	3.27	98	2.2	-	75	-0.031	9.39	0.004
625	112.717	0.181	3.27	98	2.0	-	75	-0.036	9.39	0.003
626	112.900	0.183	3.27	98	1.7	-	75	-0.032	9.40	0.003
627	113.081	0.181	3.27	98	1.6	-	75	-0.032	9.40	0.004
628	113.263	0.182	3.27	98	1.9	-	75	-0.032	9.34	0.002
629	113.440	0.177	3.27	98	1.9	-	75	-0.032	10.11	0.001
630	113.620	0.180	3.28	98	1.7	100	75	-0.035	10.31	0.002
631	113.803	0.183	3.27	98	1.9	-	75	-0.034	10.21	0.002
632	113.986	0.183	3.28	98	1.7	-	75	-0.032	10.16	0.003
633	114.168	0.182	3.27	98	2.2	-	75	-0.033	10.01	0.003
634	114.349	0.181	3.27	98	1.6	-	75	-0.033	9.97	0.002
635	114.530	0.181	3.27	98	1.9	-	75	-0.034	9.83	0.003
636	114.710	0.180	3.28	98	1.9	-	75	-0.036	9.79	0.003
637	114.891	0.181	3.28	98	1.6	-	75	-0.031	9.83	0.003
638	115.073	0.182	3.27	98	1.6	-	75	-0.034	9.80	0.001
639	115.256	0.183	3.27	98	2.0	-	75	-0.034	9.82	0.003

BOX B TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data							Flue Gas Data		
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)	Flue Draft (in H_2O)	CO_2 (%)	CO (%)
640	115.436	0.180	3.28	98	2.0	99	75	-0.035	9.76	0.002
641	115.616	0.180	3.27	98	2.0	-	75	-0.034	9.71	0.002
642	115.797	0.181	3.27	98	2.1	-	75	-0.033	9.66	0.002
643	115.978	0.181	3.27	98	1.6	-	75	-0.032	9.57	0.003
644	116.160	0.182	3.27	98	1.8	-	75	-0.033	9.53	0.003
645	116.343	0.183	3.27	98	2.0	-	75	-0.033	9.54	0.001
646	116.523	0.180	3.27	98	1.9	-	75	-0.033	9.50	0.002
647	116.706	0.183	3.27	98	1.8	-	75	-0.034	9.49	0.003
648	116.880	0.174	3.27	98	1.7	-	75	-0.031	9.43	0.003
649	117.063	0.183	3.27	98	1.7	-	75	-0.035	9.41	0.001
650	117.245	0.182	3.28	98	2.1	99	75	-0.034	9.41	0.003
651	117.427	0.182	3.27	98	1.9	-	75	-0.031	9.33	0.002
652	117.607	0.180	3.27	98	2.2	-	75	-0.033	9.32	0.001
653	117.789	0.182	3.28	98	2.1	-	75	-0.032	9.36	0.004
654	117.971	0.182	3.26	98	2.2	-	75	-0.034	9.32	0.002
655	118.153	0.182	3.27	98	2.1	-	75	-0.033	9.36	0.003
656	118.335	0.182	3.28	98	1.6	-	75	-0.035	9.25	0.002
657	118.517	0.182	3.28	98	1.7	-	75	-0.032	9.32	0.002
658	118.697	0.180	3.27	98	1.9	100	75	-0.033	9.40	0.002
Avg/Tot	118.697	0.180	3.26	97.0	1.9	100	77.4	-0.038	9.66	0.020

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
0	-0.001		0.42	73	1.7		73
1	0.116	0.117	0.93	72	1.7	-	73
2	0.252	0.136	0.93	72	1.5	-	73
3	0.389	0.137	0.94	72	1.6	-	73
4	0.526	0.137	0.94	72	1.7	-	73
5	0.668	0.142	0.95	72	1.5	-	73
6	0.806	0.138	0.95	73	1.7	-	74
7	0.944	0.138	0.96	73	1.6	-	74
8	1.086	0.142	0.96	73	1.7	-	74
9	1.225	0.139	0.96	73	1.7	-	74
10	1.365	0.140	0.97	73	1.7	97	74
11	1.508	0.143	0.97	73	1.7	-	74
12	1.648	0.140	0.96	74	1.8	-	74
13	1.790	0.142	0.98	74	1.6	-	74
14	1.932	0.142	0.98	74	1.7	-	74
15	2.072	0.140	0.97	75	1.8	-	74
16	2.214	0.142	0.98	75	1.6	-	74
17	2.357	0.143	0.98	75	1.6	-	74
18	2.495	0.138	0.98	75	1.8	-	74
19	2.639	0.144	0.98	76	1.6	-	74
20	2.783	0.144	0.99	76	1.8	100	74
21	2.922	0.139	0.98	76	1.7	-	74
22	3.067	0.145	0.98	76	1.7	-	74
23	3.209	0.142	0.99	76	1.8	-	74
24	3.351	0.142	1.00	77	1.6	-	74
25	3.497	0.146	1.00	77	1.6	-	74
26	3.639	0.142	0.99	77	1.6	-	75
27	3.783	0.144	0.99	78	1.7	-	75
28	3.925	0.142	1.00	78	1.8	-	75
29	4.069	0.144	1.00	78	1.7	-	75
30	4.213	0.144	1.00	78	1.8	101	75
31	4.360	0.147	1.00	79	1.7	-	75

BOX C TEST DATA - ASTM E2780 / ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

	Particulate Sampling Data						
Elapsed Time (min)	Gas Meter (ft^3)	Sample Rate (cfm)	Orifice dH (in H_2O)	Meter Temp (°F)	Meter Vacuum (in Hg)	Pro. Rate (%)	Filter (°F)
32	4.504	0.144	1.00	79	1.6	-	75
33	4.649	0.145	1.01	80	1.6	-	75
34	4.795	0.146	1.02	80	1.8	-	75
35	4.940	0.145	1.02	80	1.7	-	75
36	5.083	0.143	1.01	81	1.6	-	75
37	5.228	0.145	1.01	81	1.7	-	75
38	5.376	0.148	1.01	81	1.8	-	75
39	5.522	0.146	1.01	81	1.8	-	75
40	5.668	0.146	1.02	82	1.7	102	75
41	5.815	0.147	1.02	82	1.8	-	75
42	5.959	0.144	1.03	82	1.7	-	75
43	6.105	0.146	1.02	83	1.7	-	75
44	6.254	0.149	1.02	83	1.6	-	75
45	6.398	0.144	1.02	83	1.7	-	75
46	6.547	0.149	1.02	83	1.8	-	75
47	6.693	0.146	1.02	83	1.6	-	75
48	6.840	0.147	1.02	84	1.6	-	75
49	6.987	0.147	1.03	84	1.7	-	75
50	7.134	0.147	1.03	84	1.8	102	75
51	7.282	0.148	1.03	84	1.7	-	75
52	7.430	0.148	1.03	85	1.8	-	75
53	7.575	0.145	1.03	85	1.6	-	75
54	7.722	0.147	1.03	85	1.6	-	75
55	7.872	0.150	1.03	85	1.7	-	75
56	8.020	0.148	1.03	85	1.6	-	75
57	8.168	0.148	1.03	85	1.7	-	75
58	8.315	0.147	1.03	85	1.8	-	75
59	8.463	0.148	1.03	85	1.6	-	75
60	8.611	0.148	1.03	86	1.8	102	76
Avg/Tot	8.612	0.144	0.99	78.6	1.7	100	74.5

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
0	378	339	304	389	544	390.7	615.6
1	375	337	293	388	546	387.7	543.4
2	370	334	282	385	547	383.5	536.3
3	365	330	275	381	547	379.5	531.6
4	359	325	268	378	545	375.3	539.2
5	353	320	263	377	544	371.3	553.7
6	347	315	258	376	542	367.6	568.9
7	342	311	253	375	539	364.0	582.0
8	336	306	250	375	537	360.6	592.2
9	331	302	246	374	534	357.4	599.5
10	326	298	243	374	532	354.4	604.8
11	321	293	240	374	529	351.5	609.0
12	317	290	238	375	526	349.0	612.6
13	312	286	235	375	523	346.5	616.8
14	308	283	233	375	521	344.0	620.7
15	305	280	231	376	518	341.8	624.3
16	301	277	229	376	515	339.6	627.1
17	298	274	228	376	512	337.6	628.8
18	295	272	226	376	510	335.7	630.5
19	292	269	225	377	507	333.9	632.5
20	289	267	223	377	504	332.3	635.4
21	287	265	222	378	502	330.8	638.6
22	285	263	221	378	499	329.2	642.9
23	282	262	220	378	497	327.8	647.0
24	281	260	219	379	494	326.6	651.0
25	279	259	218	380	492	325.6	655.4
26	277	258	217	381	489	324.5	659.9
27	276	257	217	382	487	323.7	664.4
28	274	256	216	383	485	322.8	669.0
29	273	255	215	384	483	321.9	672.3
30	271	254	215	385	480	321.1	674.4
31	270	254	214	386	478	320.5	676.0
32	269	253	214	387	476	319.7	678.4
33	268	253	213	388	475	319.2	683.4
34	267	253	213	389	473	318.8	687.1
35	266	253	212	391	471	318.5	690.2
36	265	253	212	392	469	318.3	692.3
37	264	253	212	393	468	318.1	696.6
38	264	254	211	395	466	317.9	702.3
39	263	254	211	396	465	317.8	706.5
40	263	254	211	398	464	317.9	710.2
41	262	254	211	399	462	317.9	714.2
42	262	255	211	401	461	318.1	720.1
43	262	255	212	403	460	318.3	725.7
44	262	256	212	405	459	318.6	730.4
45	262	256	212	407	458	318.9	734.9
46	262	257	213	408	457	319.3	738.5
47	262	257	213	411	457	319.7	741.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
48	262	258	213	412	456	320.2	744.8
49	262	259	214	414	455	320.8	748.6
50	262	259	214	417	455	321.4	752.5
51	263	261	214	419	454	322.0	755.8
52	263	261	215	421	454	322.7	758.0
53	263	262	216	422	453	323.2	760.0
54	264	263	216	424	453	323.8	764.9
55	264	264	216	426	453	324.6	773.1
56	265	265	217	429	453	325.5	781.8
57	265	266	218	431	453	326.5	790.8
58	266	267	219	434	452	327.6	796.8
59	267	268	219	437	452	328.7	803.1
60	267	270	220	440	452	329.9	810.6
61	268	271	221	443	452	331.2	815.1
62	269	273	222	446	453	332.3	817.6
63	269	274	222	450	453	333.7	818.6
64	270	276	223	452	453	335.0	818.7
65	271	278	224	455	453	336.2	816.9
66	272	280	225	458	454	337.6	815.0
67	273	282	226	459	454	338.6	812.4
68	274	282	227	462	454	339.6	809.4
69	275	283	228	463	455	340.6	809.4
70	275	284	229	465	455	341.5	814.4
71	276	286	229	467	455	342.5	821.4
72	276	287	229	468	456	343.3	825.2
73	277	289	230	471	456	344.4	824.5
74	278	290	230	472	456	345.3	821.3
75	278	292	231	473	457	346.1	818.0
76	279	293	231	474	457	346.8	815.3
77	279	294	232	475	458	347.6	813.2
78	280	296	232	476	458	348.3	811.7
79	280	297	233	476	459	348.9	811.6
80	281	299	233	477	459	349.8	812.4
81	281	300	234	478	459	350.4	814.6
82	282	301	234	479	460	351.2	817.5
83	282	302	235	480	460	352.0	820.0
84	283	304	236	482	461	352.9	820.7
85	283	305	236	483	461	353.7	821.6
86	284	306	237	484	462	354.8	823.5
87	285	308	238	485	462	355.5	826.2
88	285	309	239	487	462	356.4	828.8
89	286	310	240	489	463	357.3	830.4
90	286	311	240	490	463	358.1	831.2
91	287	312	241	492	464	358.9	831.8
92	287	313	242	493	464	359.7	832.6
93	288	314	242	494	464	360.4	833.0
94	288	315	243	495	465	361.1	833.3
95	288	316	244	496	465	361.8	833.3

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
96	289	317	245	497	465	362.6	832.8
97	289	317	246	497	466	363.1	833.0
98	290	318	247	498	466	363.8	834.2
99	291	319	248	498	467	364.4	836.8
100	292	320	248	500	467	365.2	839.9
101	292	320	249	501	467	365.8	842.3
102	293	321	249	502	468	366.6	843.9
103	293	321	250	504	468	367.2	845.3
104	294	322	251	505	468	367.8	846.2
105	295	322	251	505	469	368.3	846.9
106	296	322	252	506	469	368.9	846.7
107	296	323	252	507	469	369.4	846.3
108	297	323	253	508	469	369.9	845.0
109	298	324	253	508	470	370.5	842.4
110	298	324	254	509	470	370.9	840.2
111	299	324	254	510	470	371.3	837.9
112	299	325	254	509	470	371.5	835.5
113	300	325	255	509	470	371.6	833.1
114	300	325	255	508	470	371.7	831.3
115	301	325	256	508	470	371.8	830.1
116	301	325	256	508	470	372.0	829.9
117	302	325	257	507	470	372.1	830.2
118	302	326	257	506	470	372.2	832.3
119	303	326	258	506	470	372.5	836.5
120	303	326	258	506	470	372.5	840.8
121	304	326	259	507	470	373.0	844.9
122	305	326	259	509	469	373.6	849.0
123	305	327	260	510	469	374.0	853.0
124	306	327	260	511	469	374.3	857.7
125	306	327	261	513	468	374.9	862.2
126	307	327	261	515	468	375.4	866.9
127	307	327	261	517	467	375.9	870.1
128	307	327	261	519	467	376.1	873.3
129	308	327	261	520	466	376.3	873.6
130	308	327	261	522	466	376.6	874.0
131	308	327	261	523	465	376.8	871.5
132	309	327	261	524	464	376.8	869.5
133	309	327	262	525	464	376.9	867.8
134	309	326	262	525	463	376.8	867.7
135	309	326	262	526	462	376.9	866.7
136	309	326	262	526	461	376.9	865.5
137	309	326	262	526	461	376.8	863.9
138	309	326	263	526	460	376.7	862.3
139	309	326	263	526	459	376.6	861.8
140	309	326	264	526	458	376.6	861.8
141	309	326	264	527	458	376.5	862.6
142	309	325	264	526	457	376.2	864.2
143	309	325	264	527	456	376.0	866.8

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
144	308	325	264	528	456	375.9	869.3
145	308	324	264	529	455	375.8	870.6
146	308	324	263	529	454	375.6	870.5
147	308	323	264	530	453	375.5	869.4
148	308	323	263	530	452	375.4	867.9
149	308	323	264	530	451	375.0	866.1
150	308	322	264	530	451	374.9	864.7
151	308	322	264	530	450	374.5	864.2
152	307	322	264	530	449	374.4	864.5
153	307	322	264	530	448	374.2	865.7
154	307	322	264	530	447	374.2	868.1
155	307	322	264	531	447	374.1	871.1
156	307	322	264	531	446	374.0	875.2
157	308	322	265	533	445	374.2	880.5
158	308	322	265	534	444	374.5	886.7
159	308	322	265	536	444	374.8	893.2
160	308	322	265	538	443	375.2	900.5
161	308	322	265	540	442	375.5	907.5
162	308	322	266	543	442	376.2	914.5
163	309	322	265	547	441	376.8	921.2
164	309	323	266	550	441	377.5	926.4
165	309	323	267	553	440	378.4	930.6
166	309	323	267	557	439	379.3	933.8
167	310	324	268	560	439	380.0	936.4
168	310	324	269	563	438	380.8	938.2
169	310	325	269	567	438	381.6	939.2
170	311	325	270	569	437	382.3	939.2
171	311	326	270	571	437	382.9	938.8
172	312	326	271	573	436	383.4	937.4
173	312	327	271	574	435	383.9	935.9
174	313	327	271	576	435	384.2	933.6
175	313	327	272	577	434	384.6	931.5
176	313	328	272	577	434	384.7	929.2
177	314	328	272	577	433	384.8	926.9
178	314	328	273	578	433	385.0	925.0
179	314	328	273	578	432	385.1	923.0
180	315	329	273	578	432	385.2	920.6
181	315	329	273	578	431	385.3	918.2
182	315	329	274	578	431	385.2	915.7
183	316	329	274	577	430	385.2	913.2
184	316	330	274	577	430	385.0	910.5
185	316	330	274	576	429	384.9	907.7
186	316	330	274	575	429	384.6	904.6
187	317	330	273	574	428	384.4	900.9
188	317	330	273	573	428	384.1	896.9
189	317	330	273	571	427	383.6	892.4
190	317	330	273	569	427	383.2	887.4
191	317	330	273	567	426	382.7	882.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
192	318	330	273	565	426	382.3	877.9
193	318	330	273	563	425	381.7	872.8
194	318	330	272	560	425	381.1	867.7
195	318	330	272	558	424	380.4	862.4
196	318	330	272	556	424	379.8	857.3
197	318	330	271	553	423	379.0	852.5
198	318	330	271	550	423	378.3	847.2
199	318	330	271	548	422	377.6	841.6
200	318	330	270	545	422	377.0	836.6
201	317	330	270	542	421	376.1	831.9
202	318	330	269	539	421	375.5	828.0
203	317	330	269	537	421	374.7	824.4
204	317	330	268	534	420	373.8	821.5
205	317	330	268	531	420	373.1	818.8
206	317	329	267	529	419	372.4	816.5
207	317	329	267	527	419	371.7	814.5
208	317	329	267	525	419	371.0	813.4
209	317	329	266	523	418	370.5	812.6
210	317	329	266	521	418	369.9	812.4
211	316	329	265	520	418	369.5	812.9
212	316	329	264	518	417	368.9	813.6
213	316	329	264	518	417	368.7	814.9
214	316	329	264	517	417	368.4	816.3
215	316	329	263	516	417	368.2	818.1
216	316	329	263	516	416	368.1	820.0
217	316	329	263	516	416	368.0	823.6
218	316	330	264	516	416	368.3	827.2
219	316	330	264	517	416	368.5	831.7
220	316	330	265	518	416	368.9	836.6
221	316	330	265	519	416	369.2	841.5
222	317	330	265	521	416	369.7	845.7
223	317	331	266	523	415	370.3	849.1
224	317	331	266	524	415	370.7	852.2
225	318	331	266	526	416	371.3	854.8
226	318	332	266	527	416	371.7	856.7
227	318	332	266	529	416	372.3	857.9
228	319	332	266	530	416	372.6	858.9
229	319	332	266	531	416	373.0	859.5
230	320	333	266	532	416	373.4	859.5
231	320	333	266	533	416	373.7	859.2
232	321	333	266	534	416	374.1	858.9
233	321	334	266	535	416	374.4	858.1
234	322	334	267	535	417	374.8	857.3
235	322	334	267	536	417	375.1	856.7
236	323	334	267	536	417	375.2	856.2
237	323	335	267	536	417	375.5	855.4
238	324	335	267	536	417	375.8	854.8
239	324	335	268	536	417	376.0	854.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
240	325	336	268	536	417	376.1	853.6
241	325	336	268	536	417	376.4	853.5
242	326	336	268	536	417	376.6	853.6
243	326	336	268	537	417	376.8	854.2
244	326	337	268	537	417	377.0	855.3
245	327	337	268	537	417	377.1	856.5
246	327	337	268	537	417	377.2	857.9
247	328	338	268	538	417	377.4	859.5
248	328	338	268	537	417	377.4	861.4
249	328	338	268	538	417	377.8	863.4
250	329	338	268	540	417	378.2	865.7
251	329	338	268	540	417	378.5	868.9
252	329	339	268	541	417	378.8	872.7
253	330	339	268	543	417	379.2	876.9
254	330	339	268	544	417	379.7	881.9
255	331	340	268	547	417	380.3	887.0
256	331	340	269	548	417	380.9	892.7
257	332	340	269	551	417	381.6	899.3
258	332	341	269	554	417	382.5	905.8
259	333	341	270	557	417	383.5	912.4
260	333	342	270	560	417	384.3	918.2
261	334	342	271	563	417	385.3	922.8
262	334	343	271	567	416	386.2	926.1
263	335	343	272	569	416	387.1	928.3
264	336	344	272	572	416	388.0	929.9
265	336	345	273	575	416	389.0	930.7
266	337	345	273	578	416	389.8	930.2
267	337	346	274	580	416	390.5	928.8
268	338	346	275	581	416	391.1	926.8
269	338	347	275	582	416	391.7	924.5
270	339	348	276	583	416	392.1	922.2
271	339	348	277	583	416	392.5	919.9
272	340	349	277	584	415	393.0	917.2
273	340	349	278	583	415	393.2	914.5
274	341	350	278	583	415	393.5	911.8
275	341	351	279	583	415	393.7	909.0
276	341	351	280	582	415	393.8	906.3
277	342	352	280	581	415	393.8	903.3
278	342	352	281	580	414	393.9	900.2
279	342	352	281	579	414	393.8	896.7
280	343	353	281	578	414	393.7	893.1
281	343	353	282	576	414	393.5	889.2
282	343	353	282	574	414	393.2	885.1
283	343	353	282	573	413	393.0	880.5
284	344	353	283	571	413	392.7	875.3
285	344	353	283	569	413	392.3	869.6
286	344	353	283	566	413	391.9	863.3
287	344	353	283	563	412	391.2	856.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
288	344	353	283	561	412	390.7	849.5
289	344	353	283	558	412	389.9	842.2
290	344	353	283	554	412	389.0	834.6
291	344	353	283	551	411	388.4	827.1
292	344	353	282	547	411	387.5	819.7
293	344	353	282	544	411	386.6	812.3
294	344	352	282	540	411	385.7	805.3
295	344	352	282	536	410	384.7	798.3
296	343	352	281	532	410	383.7	791.9
297	343	351	281	528	410	382.5	785.7
298	343	351	281	524	410	381.5	780.2
299	343	350	280	520	409	380.5	775.1
300	342	350	280	516	409	379.5	770.9
301	342	349	280	513	409	378.6	767.7
302	342	349	280	510	409	377.8	765.2
303	342	348	279	507	408	376.9	763.9
304	341	348	279	504	408	375.9	763.2
305	341	347	279	502	408	375.2	762.6
306	340	347	278	500	408	374.5	762.6
307	340	346	278	498	407	373.7	763.0
308	340	346	277	496	407	373.2	763.5
309	339	346	277	495	407	372.6	764.6
310	339	345	277	493	406	371.9	766.2
311	339	345	276	492	406	371.5	767.9
312	338	345	276	491	405	371.1	769.8
313	338	344	276	490	405	370.6	771.5
314	338	344	276	490	405	370.3	773.1
315	338	343	275	490	404	370.1	774.4
316	337	343	275	490	404	369.8	775.5
317	337	343	275	489	404	369.6	776.6
318	337	343	275	489	403	369.4	777.9
319	337	343	275	489	403	369.1	779.1
320	337	343	274	489	403	368.9	780.0
321	336	343	274	489	402	368.8	781.0
322	336	343	274	489	402	368.7	781.6
323	336	343	274	489	402	368.7	782.7
324	336	343	274	489	402	368.6	783.6
325	336	343	274	489	402	368.5	784.4
326	336	343	274	489	401	368.5	785.1
327	336	343	274	489	401	368.5	786.0
328	336	343	274	489	401	368.5	786.8
329	336	343	274	490	401	368.6	787.3
330	336	343	274	490	401	368.7	787.5
331	336	343	274	490	401	368.7	788.0
332	336	343	274	490	401	368.7	788.3
333	336	343	274	490	401	368.7	788.6
334	336	343	274	489	401	368.7	788.6
335	336	343	275	490	401	368.9	788.5

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
336	336	343	275	490	401	369.0	788.2
337	336	343	275	489	401	369.0	787.9
338	337	343	275	490	402	369.2	787.4
339	337	343	276	489	402	369.1	787.2
340	337	343	276	489	402	369.2	786.7
341	337	343	276	489	402	369.2	786.4
342	337	343	276	489	402	369.4	786.1
343	337	344	276	488	402	369.4	786.0
344	337	344	276	488	402	369.4	785.9
345	337	344	277	487	403	369.3	785.9
346	337	344	277	488	403	369.5	786.0
347	337	344	277	487	403	369.5	785.7
348	337	344	277	487	403	369.5	785.3
349	337	344	277	487	403	369.6	784.4
350	337	344	278	486	403	369.6	783.5
351	337	344	278	487	403	369.7	782.4
352	337	344	278	486	404	369.6	781.8
353	337	344	278	486	404	369.7	781.3
354	337	344	279	486	404	369.8	780.9
355	337	344	279	485	404	369.8	780.7
356	337	344	279	486	404	369.9	780.8
357	337	344	279	485	404	369.8	781.0
358	337	344	280	485	404	369.9	781.5
359	337	344	280	485	404	369.9	782.4
360	338	344	280	485	405	370.0	782.9
361	338	343	280	485	405	370.1	783.7
362	338	343	280	485	405	370.2	784.2
363	338	343	280	485	405	370.2	784.8
364	338	343	281	485	405	370.4	785.7
365	338	343	281	485	405	370.5	786.9
366	338	343	281	486	405	370.6	788.4
367	338	343	282	486	405	370.7	790.0
368	338	343	282	487	406	371.0	791.7
369	339	342	283	487	406	371.1	793.6
370	339	342	283	487	406	371.4	796.1
371	339	342	283	488	406	371.6	799.1
372	339	342	284	489	406	372.1	801.7
373	339	342	284	490	406	372.3	804.1
374	339	342	285	492	406	372.7	805.9
375	339	342	285	492	406	372.9	806.8
376	339	343	285	493	406	373.1	806.7
377	339	343	285	493	406	373.2	806.4
378	339	342	285	494	406	373.4	806.4
379	339	343	285	494	406	373.5	806.7
380	340	343	286	495	406	373.7	807.8
381	340	343	286	496	406	373.9	809.1
382	340	343	286	496	406	374.2	810.6
383	340	343	287	497	406	374.5	812.7

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
384	340	343	287	498	406	374.7	815.2
385	341	343	287	498	406	375.0	818.5
386	341	343	288	500	406	375.5	822.4
387	341	343	288	501	406	375.8	826.7
388	341	343	289	503	406	376.3	831.1
389	342	343	289	505	406	376.9	835.4
390	342	343	290	506	406	377.3	840.1
391	342	343	290	508	406	377.9	844.6
392	343	343	291	510	406	378.6	848.8
393	343	343	291	512	407	379.3	852.5
394	343	343	292	515	407	380.0	855.9
395	344	344	292	517	407	380.6	858.9
396	344	344	293	519	407	381.3	861.9
397	345	344	294	521	407	382.1	864.8
398	345	344	294	524	407	382.8	867.3
399	346	344	295	526	407	383.5	869.3
400	346	344	296	528	407	384.1	870.9
401	346	344	296	530	408	384.8	871.2
402	347	344	297	532	408	385.4	870.9
403	347	344	297	533	408	385.9	869.7
404	347	344	297	535	408	386.3	867.4
405	348	345	298	535	408	386.7	863.9
406	348	345	298	535	408	386.8	859.9
407	348	345	299	535	408	387.0	854.6
408	349	345	299	535	408	387.0	848.3
409	349	345	299	534	409	387.0	841.2
410	349	344	299	532	409	386.6	833.2
411	349	344	299	530	409	386.1	823.8
412	349	344	300	527	409	385.7	814.2
413	349	344	300	524	409	385.1	804.0
414	349	343	300	521	409	384.5	793.9
415	349	343	300	517	409	383.6	783.8
416	349	343	299	513	410	382.7	774.0
417	349	342	299	509	410	381.9	763.8
418	349	342	299	505	410	380.8	754.3
419	348	342	299	500	410	379.7	744.5
420	348	341	299	495	410	378.6	735.3
421	348	341	299	491	410	377.5	726.2
422	347	340	299	486	410	376.4	717.7
423	347	339	298	482	410	375.2	709.9
424	347	339	298	477	410	374.2	702.7
425	346	338	298	473	410	373.0	696.5
426	346	338	298	469	410	371.9	690.9
427	345	337	297	465	410	370.8	685.9
428	345	336	297	461	410	369.7	682.0
429	344	336	297	457	410	368.9	678.6
430	344	335	296	454	410	367.9	675.6
431	344	335	296	452	410	367.2	673.5

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
432	343	334	296	448	410	366.4	671.7
433	343	334	296	446	411	365.7	670.3
434	343	333	295	444	411	365.0	669.4
435	343	333	295	441	411	364.4	668.7
436	342	332	295	439	411	363.8	668.6
437	342	331	295	438	411	363.5	668.9
438	342	331	295	437	411	363.0	669.4
439	342	331	295	435	411	362.7	670.3
440	342	330	294	434	412	362.3	671.1
441	342	330	294	434	412	362.2	672.2
442	341	329	294	433	412	361.9	673.2
443	341	329	294	432	412	361.8	674.3
444	341	329	294	431	412	361.6	675.5
445	341	329	294	431	413	361.5	676.7
446	341	328	294	430	413	361.4	678.0
447	341	328	294	430	413	361.4	679.2
448	341	328	295	430	414	361.5	680.5
449	342	328	295	430	414	361.5	681.9
450	342	328	295	430	414	361.6	683.3
451	342	327	295	430	414	361.6	684.7
452	342	327	295	430	415	361.7	686.0
453	342	327	295	430	415	361.9	687.3
454	342	327	295	431	415	362.1	688.5
455	342	327	296	431	416	362.3	689.7
456	342	327	296	431	416	362.4	690.6
457	342	327	296	431	416	362.6	691.4
458	343	327	296	431	416	362.7	692.2
459	343	327	297	432	417	363.0	693.0
460	343	327	297	432	417	363.1	693.6
461	343	327	297	433	417	363.4	694.3
462	343	328	297	433	417	363.5	694.8
463	343	328	298	433	417	363.7	695.3
464	344	328	298	434	417	364.0	696.8
465	344	328	298	434	418	364.3	698.7
466	344	328	299	435	418	364.7	702.4
467	345	328	299	436	419	365.3	707.2
468	345	329	300	437	419	365.9	712.3
469	345	329	301	438	420	366.7	717.4
470	346	330	301	440	421	367.5	721.8
471	346	331	301	441	421	368.0	725.1
472	346	332	302	443	421	368.7	727.7
473	347	332	302	444	422	369.3	729.4
474	347	333	302	446	422	369.9	730.6
475	347	334	303	447	422	370.6	731.4
476	348	335	303	448	422	371.1	732.1
477	348	335	303	449	422	371.6	732.7
478	349	336	304	450	422	372.1	733.1
479	349	337	304	451	423	372.7	733.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
480	349	338	305	452	423	373.2	734.0
481	350	338	305	453	423	373.7	734.6
482	351	339	305	453	423	374.3	735.4
483	351	340	306	454	424	374.9	736.5
484	351	340	306	455	424	375.3	737.8
485	352	341	307	456	424	375.9	739.4
486	352	342	307	457	425	376.5	740.8
487	353	342	308	458	425	377.1	742.2
488	353	343	309	459	425	377.7	743.4
489	354	344	309	459	426	378.3	744.4
490	354	344	310	460	426	378.9	745.0
491	355	345	311	461	426	379.4	745.5
492	355	346	311	462	427	380.0	745.6
493	355	346	312	462	427	380.5	745.5
494	356	347	312	462	427	380.9	745.4
495	356	348	313	463	427	381.4	745.1
496	357	349	314	464	428	382.1	744.6
497	357	349	315	464	428	382.7	743.8
498	357	350	316	465	428	383.1	742.7
499	358	350	316	465	429	383.5	741.8
500	358	351	317	465	429	384.0	740.6
501	358	351	318	465	430	384.3	738.8
502	358	352	318	465	430	384.6	737.3
503	358	352	318	465	431	384.8	735.4
504	359	353	318	465	431	385.0	733.6
505	359	353	318	464	431	385.0	731.6
506	359	353	318	464	432	385.1	729.4
507	359	353	319	463	432	385.1	727.1
508	359	354	319	462	433	385.2	724.7
509	359	354	319	462	433	385.2	722.2
510	359	354	319	461	433	385.1	719.9
511	359	354	319	460	434	385.1	717.6
512	359	355	319	459	434	384.9	715.7
513	359	355	319	458	434	384.9	713.9
514	359	355	319	458	435	384.8	712.3
515	359	355	319	457	435	384.8	711.1
516	358	355	319	456	435	384.7	709.7
517	358	355	318	455	435	384.5	708.6
518	358	355	319	455	436	384.4	707.3
519	358	355	319	454	436	384.4	706.3
520	358	356	319	453	436	384.3	705.3
521	357	356	319	453	436	384.2	704.1
522	357	356	319	452	436	384.1	703.2
523	357	356	319	451	437	383.9	702.7
524	357	356	319	451	437	383.8	702.3
525	356	356	319	450	437	383.7	702.0
526	356	357	319	450	437	383.7	702.0
527	356	357	319	450	437	383.6	702.2

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
528	355	357	319	450	437	383.4	702.7
529	355	357	319	450	437	383.4	702.9
530	355	357	319	450	437	383.4	703.0
531	354	357	318	449	437	383.2	702.9
532	354	358	318	448	437	383.0	702.8
533	354	358	318	449	437	382.9	702.9
534	353	358	318	449	436	382.8	702.7
535	353	358	318	448	436	382.5	702.3
536	352	359	317	449	436	382.6	701.9
537	352	359	317	449	436	382.3	701.1
538	351	359	317	448	435	382.2	700.5
539	351	360	317	448	435	382.0	699.7
540	350	360	316	448	435	381.8	699.0
541	350	360	316	448	435	381.8	698.2
542	350	361	317	447	434	381.6	697.2
543	349	361	317	447	434	381.7	695.1
544	349	362	317	446	434	381.5	689.9
545	349	363	317	444	434	381.3	682.0
546	349	364	317	442	434	381.0	673.7
547	348	364	317	440	433	380.7	665.9
548	348	365	317	438	433	380.2	659.2
549	348	366	317	435	433	379.8	654.0
550	347	367	317	433	432	379.4	650.0
551	347	367	317	431	432	378.9	646.8
552	346	368	317	429	432	378.5	644.3
553	346	369	316	428	432	378.1	642.2
554	346	370	316	426	431	377.8	640.1
555	346	371	315	425	431	377.4	638.3
556	345	372	315	423	431	377.0	636.6
557	345	373	314	421	430	376.6	634.9
558	344	373	314	421	430	376.3	633.5
559	344	374	313	419	430	375.9	632.7
560	344	375	313	418	429	375.6	632.3
561	343	375	312	418	429	375.3	632.2
562	343	375	312	417	428	375.0	632.5
563	342	376	311	417	428	374.8	633.1
564	342	376	310	416	428	374.5	633.7
565	342	376	310	415	428	374.1	634.3
566	341	376	309	415	427	373.8	635.3
567	340	377	309	415	427	373.6	636.8
568	340	377	308	415	427	373.3	638.7
569	340	377	307	415	427	373.1	640.8
570	339	376	307	416	426	372.8	642.5
571	339	376	307	416	426	372.7	644.8
572	338	376	306	417	426	372.5	647.4
573	338	376	306	417	426	372.4	650.4
574	337	376	305	418	426	372.3	653.7
575	337	376	304	419	425	372.3	656.6

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
576	337	376	304	420	425	372.3	659.1
577	336	376	304	420	425	372.2	660.8
578	336	376	303	421	425	372.2	661.5
579	336	376	303	421	424	372.1	661.0
580	336	377	303	422	424	372.1	659.7
581	336	377	302	422	424	372.0	658.2
582	335	377	302	422	424	371.9	656.3
583	335	377	302	422	423	371.7	654.6
584	335	377	302	422	423	371.6	653.3
585	335	377	301	421	423	371.3	652.5
586	334	377	301	421	422	371.0	651.8
587	334	376	300	421	422	370.7	651.1
588	334	376	300	420	422	370.4	649.8
589	334	376	300	420	421	370.0	648.6
590	334	376	299	419	421	369.7	647.8
591	334	375	299	419	420	369.5	647.3
592	334	375	299	418	420	369.1	647.1
593	334	375	298	418	419	368.9	647.3
594	334	375	298	418	419	368.6	647.9
595	334	375	297	417	418	368.2	648.4
596	334	375	297	417	418	368.1	648.6
597	334	374	296	417	417	367.9	648.3
598	334	374	296	417	417	367.6	648.1
599	334	374	296	417	416	367.3	647.9
600	334	374	296	416	416	367.1	647.7
601	334	374	295	416	415	366.9	648.0
602	334	374	295	416	415	366.7	648.1
603	334	373	295	416	414	366.5	648.3
604	334	373	295	415	414	366.3	648.5
605	335	373	294	415	414	366.1	648.7
606	335	373	294	415	413	366.0	649.0
607	335	373	294	415	413	365.9	649.3
608	335	373	293	416	413	365.8	649.8
609	335	373	293	415	412	365.7	650.5
610	335	373	293	415	412	365.7	651.2
611	335	373	293	415	412	365.6	651.7
612	335	373	293	415	412	365.6	652.5
613	336	373	293	416	412	365.6	653.3
614	336	373	292	416	411	365.6	654.1
615	336	374	292	416	411	365.7	654.8
616	336	374	292	416	411	365.8	654.6
617	336	374	292	416	411	365.9	652.7
618	336	375	292	415	411	365.8	649.9
619	336	376	292	415	411	366.0	646.9
620	336	376	292	414	411	365.9	644.3
621	336	377	292	414	411	366.1	642.3
622	336	378	292	413	411	366.1	641.0
623	337	378	292	413	412	366.3	640.4

WOODSTOVE SURFACE TEMPERATURE DATA

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

Stove ΔT: 12

	Temperature Data (°F)						
Elapsed Time (min)	FB Left	FB Right	FB Back	FB Top	FB Bottom	Stove Surface Average	Catalyst Exit
624	337	379	293	412	412	366.4	640.1
625	337	379	293	412	412	366.6	640.1
626	337	380	293	412	412	366.7	640.2
627	337	380	293	412	413	366.9	640.3
628	337	381	294	411	413	367.3	640.8
629	338	382	295	411	414	368.0	641.6
630	338	383	297	411	414	368.6	642.0
631	338	383	299	411	415	369.2	642.6
632	339	384	300	411	416	369.7	643.0
633	339	385	301	411	416	370.4	643.6
634	339	386	301	411	417	370.9	643.9
635	340	387	302	411	418	371.3	644.1
636	340	387	302	411	419	371.9	644.4
637	341	388	303	411	420	372.5	645.0
638	341	389	303	412	421	373.0	645.8
639	341	389	304	412	421	373.5	646.7
640	342	390	304	412	422	374.0	647.6
641	342	391	305	412	423	374.5	648.5
642	343	391	305	412	424	375.0	648.9
643	343	392	305	413	425	375.4	649.2
644	343	392	305	413	425	375.7	648.9
645	344	393	305	413	426	376.1	648.4
646	344	393	305	413	427	376.4	647.7
647	344	394	305	413	428	376.6	647.1
648	344	394	306	413	428	376.8	646.5
649	344	395	306	412	429	377.0	646.3
650	344	395	306	413	429	377.3	646.0
651	344	396	306	413	430	377.5	645.6
652	344	396	306	413	430	377.6	645.3
653	344	396	306	412	430	377.8	644.8
654	344	397	306	413	431	378.0	644.5
655	344	397	306	413	431	378.1	644.1
656	344	397	306	412	431	378.2	643.8
657	344	398	306	413	431	378.3	643.6
658	344	398	306	412	432	378.4	643.3
Average	327.0	336.9	278.2	477.3	430.9	370.1	766.6

LAB SAMPLE DATA - ASTM E2515

Client: Blaze King
Model: KE40
Run #: 6

Job #: 24-274
Tracking #: 184
Technician: AK
Date: 3/15/2024

		Sample ID	Tare, mg	Final, mg	Catch, mg
Filters	**A**	G00955	239.9	244.4	4.5
	B	G00956	239.7	243.9	4.2
	C - 1st Hour	G00957	240.2	241.9	1.7
	Amb	G00958	238.0	238.4	0.4
Probes	**A**	13A	117314.6	117314.7	0.1
	B	13B	116941.2	116941.4	0.2
	C - 1st Hour	13C	115649.8	115649.8	0.0
O-rings	**A**	13A	3596.0	3596.7	0.7
	B	13B	3642.3	3642.7	0.4
	C - 1st Hour	13C	4409.7	4410.0	0.3

Placed in Dessicator on:	3/16/2024

		Balance Audit (mg):	200.0		200.0					
			Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time	Weight (mg)	Date/Time
Filters	**A**		244.2	3/18 9:30	244.4	3/18 17:30				
	B		243.7	3/18 9:30	243.9	3/18 17:30				
	C - 1st Hour		241.7	3/18 9:30	241.9	3/18 17:30				
	Amb		238.1	3/18 9:30	238.4	3/18 17:30				
Probes	**A**		117314.9	3/18 9:30	117314.7	3/18 17:30				
	B		116941.5	3/18 9:30	116941.4	3/18 17:30				
	C - 1st Hour		115649.8	3/18 9:30	115649.8	3/18 17:30				
O-Rings	**A**		3596.8	3/18 9:30	3596.7	3/18 17:30				
	B		3642.9	3/18 9:30	3642.7	3/18 17:30				
	C - 1st Hour		4410.2	3/18 9:30	4410.0	3/18 17:30				

Train A Aggregate, mg:	**5.3**
Train B Aggregate, mg:	**4.8**
Train C Aggregate, mg:	**2.0**
Ambient, mg:	**0.4**

ASTM E2780 Wood Heater Run Sheets

Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 6 Test Date: 3/15/24

Wood Heater Run Notes

Test Control Settings

Primary Air Setting(s): Knob open 75º
Targeted Burn Category: II (fan confirmation)

Preburn Notes

Time	Notes
	-None-

Test Notes
Test Burn Start Time: 12:50 Test Fuel Loaded by: 25 seconds
Door Closed: 35 seconds Air Control Set at: 0 seconds
Other Loading Notes: Bypass open @ 0 sec, closed @ 35 sec, fan off (fan confirmation)

Time	Notes
	-None-

Test Burn End Time: 23:48

Flue Gas Concentration Measurement

Calibration Gas Values: Span Gas CO_2 (%): 16.98 CO (%): 4.300
Mid Gas CO_2 (%): 10.09 CO (%): 2.530

Calibration Results:

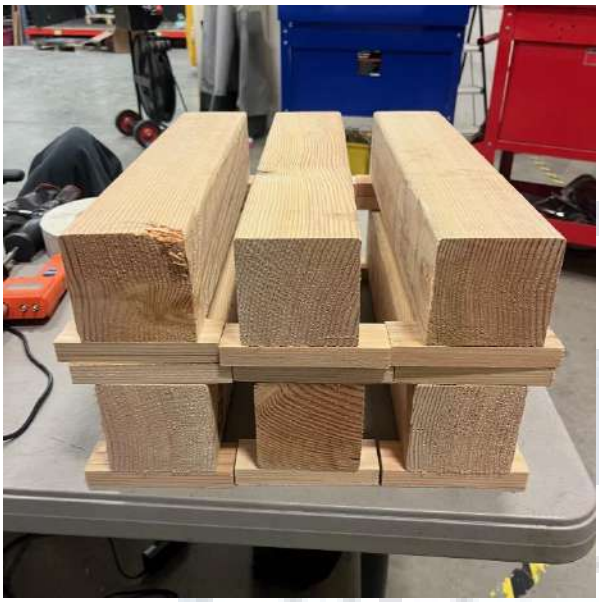
	Pre Test			Post Test		
	Zero	Span	Mid	Zero	Span	Mid
Time	10:36	10:37	10:38	3/16 09:05	3/16 09:06	3/16 09:07
CO_2	0.09	16.91	10.12	0.11	17.00	10.04
CO	0.007	4.335	2.539	-0.009	4.318	2.517

Flue Gas Probe Leak Check: Initial: No Leakage Final: No Leakage

Technician Signature:  Date: 3/18/24

ASTM E2780 Wood Heater Run Sheets

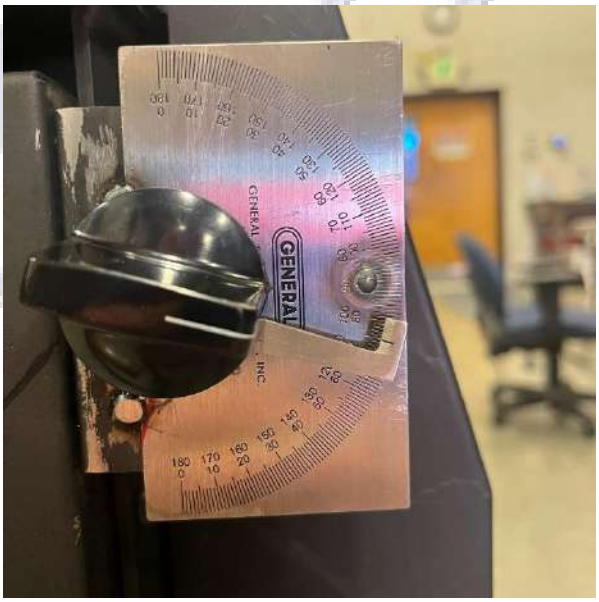
Client: Blaze King Job Number: 24-274 Tracking #: 184
Model: KE40 Run Number: 6 Test Date: 3/15/24



Test Fuel Front/Side View

Test Fuel Iso View

Test Fuel Loaded in Stove



Air Setting

Technician Signature: Date: 3/18/24

ASTM E2515 - Glass Fiber Filters

Date:	3/4/24	3/6/24	-	-			
Time:	12:15	0815	-	-			
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
G00933	239.1	239.3	-	-	A	24-273	#5
G00934	239.7	239.9	-	-	A	↓	↓
G00935	239.0	238.9	-	-	A	24-274	#1
G00936	239.0	239.0	-	-	A	↓	↓
G00937	240.4	240.4	-	-	A	↓	↓
G00938	238.5	238.4	-	-	A	↓	↓
G00939	240.9	240.9	-	-	A	24-274	#2
G00940	239.5	239.6	-	-	A	↓	↓
G00941	239.2	239.1	-	-	A	↓	↓
G00942	240.0	240.0	-	-	A	↓	↓
G00943	239.9	240.1	-	-	A	24-274	#3
G00944	238.5	238.5	-	-	A	↓	↓
G00945	239.5	239.4	-	-	A	↓	↓
G00946	240.0	239.9	-	-	A	↓	↓
G00947	238.5	238.5	-	-	A	24-274	#4
G00948	239.6	239.6	-	-	A	↓	↓

Date:	3/11/24	3/12/24					
Time:	11:00	13:30					
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
G00949	239.7	239.5	-	-	A	24-274	#4
G00950	238.8	238.6	-	-	A	↓	↓
G00951	238.1	237.9	-	-	A	24-274	#5
G00952	240.4	240.5	-	-	A	↓	↓
G00953	239.8	239.7	-	-	A	↓	↓
G00954	241.2	241.2	-	-	A	↓	↓
G00955	240.1	239.9	-	-	A	24-274	#6
G00956	239.6	239.7	-	-	A	↓	↓
G00957	240.4	240.2	-	-	A	↓	↓
G00958	238.0	238.6	-	-	A	↓	↓
G00959	238.6	238.5	-	-	A		
G00960	238.3	238.2	-	-	A		
G00961	240.5	240.4	-	-	A		
G00962	239.7	239.5	-	-	A		
G00963	240.0	239.9	-	-	A		
G00964	239.8	239.6	-	-	A		

ASTM E2515 - Probe Samples 1-10

Date:	2/27/24	2/28/24	2/28/24				
Time:	1430	0930	1830				
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
1A	115626.7	115626.9	-	-	A	24-284	#6
1B	115902.1	115902.1	-	-	A		
1C	116432.4	116432.6	-	-	A		
2A	116056.7	116056.8	-	-	A	24-284	#7
2B	116173.7	116173.8	-	-	A		
2C	116428.7	116428.8	-	-	A		
3A	115880.2	115880.4	-	-	A	24-273	#1
3B	116120.3	116120.4	-	-	A		
3C	116617.8	116618.2	116618.3	-	A		
4A	116022.7	116022.8	-	-	A	24-273	#2
4B	116181.7	116181.7	-	-	A		
4C	116997.2	116997.6	116997.5	-	A		
5A	116757.3	116757.5	-	-	A	24-273	#3
5B	116875.2	116875.7	116875.7	-	A		
5C	115854.9	115855.3	115855.3	-	A		

Date:	3/4/24	3/6/24	3/6/24				
Time:	1215	0930	1630				
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
6A	116382.4	116382.3	116382.1	-	A	24-273	#4
6B	115954.2	115953.8	115953.6	-	A		
6C	115127.9	115127.7	-	-	A		
7A	116557.8	116557.6	-	-	A	24-273	#5
7B	117128.2	117127.8	117127.6	-	A		
7C	116550.6	116550.2	116550.1	-	A		
8A	116633.0	116632.9	-	-	A	24-274	#1
8B	116664.9	116664.8	-	-	A		
8C	116662.4	116662.3	-	-	A		
9A	116530.2	116530.0	-	-	A	24-274	#2
9B	117737.8	117737.0	117736.8	-	A		
9C	116602.8	116602.4	116602.2	-	A		
10A	116645.2	116644.7	116644.6	-	A	24-274	#3
10B	117752.7	117752.6	-	-	A		
10C	116727.9	116727.7	-	-	A		

ASTM E2515 - Probe Samples 11-20

Date:	3/11	3/12	3/13/24				
Time:	11:00	14:00	0900				
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
11A	116867.2	116866.8	116886.8	-	A	24-274	#4
11B	117340.8	117340.5	117340.4	-	A		
11C	116186.5	116186.3	-	-	A		
12A	116707.4	116707.0	117706.9	-	A	24-274	#5
12B	117773.5	117773.0	117772.9	-	A		
12C	117173.0	117172.3	117172.3	-	A		
13A	117315.6	117314.7	117314.6	-	A	24-274	#6
13B	116942.2	116941.1	116941.2	-	A		
13C	115650.7	115649.7	115649.8	-	A		
14A	116633.4	116633.1	116633.0	-	A		
14B	116619.6	116618.7	116618.8	-	A		
14C	116530.4	116529.8	116529.9	-	A		
15A	117239.7	117239.2	117239.3	-	A		
15B	116752.9	116752.3	116752.3	-	A		
15C	116847.1	116846.9	-	-	A		

Date:							
Time:							
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
16A							
16B							
16C							
17A							
17B							
17C							
18A							
18B							
18C							
19A							
19B							
19C							
20A							
20B							
20C							

ASTM E2515 - O-Ring Samples 1-10

Date:	2/27/24	2/28/24					
Time:	1445	0900					
	Weight 1	Weight 2	Weigth 3	Weight 4	Initial	Project	Run
1A	3568.6	3568.6	-	-	A	24-264	#6
1B	3557.0	3557.1	-	-	A		
1C	4167.5	4167.4	-	-	A		
2A	3553.8	3557.8	-	-	A	24-264	#7
2B	3573.3	3573.2	-	-	A		
2C	3391.5	3391.5	-	-	A		
3A	3580.1	3580.2	-	-	A	24-273	#1
3B	3568.9	3569.0	-	-	A		
3C	3623.3	3623.2	-	-	A		
4A	3377.3	3377.3	-	-	A	24-273	#2
4B	3580.5	3580.5	-	-	A		
4C	3372.9	3373.0	-	-	A		
5A	3536.4	3536.5	-	-	A	24-273	#2
5B	3532.2	3532.4	-	-	A		
5C	3376.8	3376.8	-	-	A		

Date:	3/4/24	3/6/24	-	-			
Time:	12:00	0900	-	-			
	Weight 1	Weight 2	Weigth 3	Weight 4	Initial	Project	Run
6A	3396.4	3396.5	-	-	A	24-273	#4
6B	3613.8	3613.8	-	-	A		
6C	3401.6	3401.6	-	-	A		
7A	3572.0	3572.0	-	-	A	24-273	#5
7B	3523.1	3523.0	-	-	A		
7C	3406.8	3406.8	-	-	A		
8A	3552.3	3552.3	-	-	A	24-274	~~#6~~ #1
8B	3357.3	3557.4	-	-	A		
8C	3586.6	3586.6	-	-	A		
9A	3580.7	3580.6	-	-	A	24-274	#2
9B	3523.7	3523.7	-	-	A		
9C	3430.7	3430.7	-	-	A		
10A	3360.7	3360.7	-	-	A	24-274	#3
10B	3570.7	3570.7	-	-	A		
10C	3366.2	3366.4	-	-	A		

ASTM E2515 - O-Ring Samples 11-20

Date:	3/11/24	3/12/24	3/13/24				
Time:	11:00						
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
11A	3472.4	3423.3	3423.4	-	A	24-274	#4
11B	4232.3	4233.8	4233.9	-	A		
11C	3588.76	3588.8	-	-	A		
12A	3585.8	3586.3	3586.4	-	A	24-274	#5
12B	3550.4	3550.6		-	A		
12C	3616.0	3616.2	-	-	A		
13A	3596.1	3596.0	-	-	A	24-274	#6
13B	3642.1	3642.3	-	-	A		
13C	4409.6	4409.7	-	-	A		
14A	3367.1	3367.1	-	-	A		
14B	3341.9	3342.1	-	-	A		
14C	3444.9	3444.8	-	-	A		
15A	3570.0	3569.7	3569.8	-	A		
15B	3570.9	3570.8		-	A		
15C	3396.7	3396.6	-	-	A		

Date:							
Time:							
	Weight 1	**Weight 2**	**Weigth 3**	**Weight 4**	**Initial**	**Project**	**Run**
16A							
16B							
16C							
17A							
17B							
17C							
18A							
18B							
18C							
19A							
19B							
19C							
20A							
20B							
20C							

KE40 Conditioning data with Applied Ceramics C2 Ceramic Combustor. Conditioning done using a medium air setting.

Date	Time	[1]Ambient	[2]Combustor	[3]Flue	
7/17/2019	6:25:59 AM	69.22	118.97	125.98	**Loaded 14.7 lbs of fuel @ Medium Air Setting**
7/17/2019	7:25:01 AM	73.31	1073.52	495.56	
7/17/2019	8:03:03 AM	72.64	692.17	434.88	**Added 14 lbs of fuel @ Medium Air Setting**
7/17/2019	9:03:07 AM	72.69	1075.09	496.57	
7/17/2019	10:03:10 AM	74.15	712.06	200.11	
7/17/2019	10:27:12 AM	73.59	574.28	210.08	
7/17/2019	10:44:13 AM	73.81	476.17	181.06	**Added 22 lb of fuel @ Medium Air Setting**
7/17/2019	11:44:15 AM	72.75	729.21	251.15	
7/17/2019	12:44:18 PM	73.2	796.28	248.52	
7/17/2019	1:44:21 PM	74.04	704.78	200.56	
7/17/2019	2:44:25 PM	74.37	580.56	163.97	
7/17/2019	3:44:28 PM	74.49	731.9	185.26	
7/17/2019	4:44:32 PM	74.37	665.73	188	
7/17/2019	5:44:35 PM	74.6	645.55	175.57	
7/17/2019	6:44:39 PM	74.77	639.67	169.23	
7/17/2019	7:44:43 PM	74.88	609.19	166.99	
7/17/2019	8:44:46 PM	74.88	591.32	165.93	
7/17/2019	9:44:50 PM	73.98	562.35	166.66	
7/17/2019	10:44:54 PM	73.2	569.63	170.47	
7/17/2019	11:44:57 PM	73.25	556.8	173.04	
7/18/2019	12:44:01 AM	72.92	512.37	165.65	
7/18/2019	1:44:04 AM	72.08	505.81	170.64	
7/18/2019	2:44:07 AM	71.96	550.86	183.8	
7/18/2019	3:44:12 AM	71.12	541.22	185.54	
7/18/2019	4:44:15 AM	69.84	430.68	163.86	
7/18/2019	5:44:17 AM	69.84	418.46	143.74	
7/19/2019	6:32:26 AM	65.52	403.05	184.53	**Added 13lbs of fuel @ Medium Air Setting**
7/19/2019	7:32:30 AM	67.26	1045.62	481.1	
7/19/2019	7:50:31 AM	67.48	828.22	485.36	**Add 13 lbs of fuel @ Medium Air Setting**
7/19/2019	8:50:34 AM	69.33	1097.39	506.32	
7/19/2019	9:50:38 AM	67.87	652.89	178.26	
7/19/2019	10:22:40 AM	67.37	551.25	234.34	**Added 21 lbs of fuel @ Medium Air Setting**
7/19/2019	11:22:45 AM	67.54	680.13	276.31	
7/19/2019	12:22:49 PM	68.38	911.76	321.69	
7/19/2019	1:22:53 PM	69.55	811.01	258.94	
7/19/2019	2:22:58 PM	69.72	756.27	224.65	
7/19/2019	3:22:02 PM	70.4	852.81	236.36	
7/19/2019	4:22:07 PM	71.52	884.3	254.96	
7/19/2019	5:22:11 PM	72.08	738.73	211.93	
7/19/2019	6:22:15 PM	72.58	723.94	216.13	
7/19/2019	7:22:20 PM	72.97	669.48	215.8	
7/19/2019	8:22:24 PM	72.97	703.72	221.79	
7/19/2019	9:22:29 PM	72.3	658.89	214.45	
7/22/2019	6:38:45 AM	67.2	676.6	249.75	**Added 14 lbs of fuel @ Medium Air Setting**
7/22/2019	7:38:48 AM	71.74	1076.71	477.24	

7/22/2019	8:15:51 AM	71.52	639.39	418.18	**Added 14 lbs of fuel @ Medium Air Setting**
7/22/2019	9:15:55 AM	71.68	1058.17	479.76	
7/22/2019	10:15:00 AM	72.75	766.25	308.47	
7/22/2019	10:39:01 AM	74.37	682.82	326.46	**Added 21 lbs of fuel @ Medium Air Setting**
7/22/2019	11:39:05 AM	76.11	973	427.82	
7/22/2019	12:39:09 PM	78.41	1012.45	394.87	
7/22/2019	1:39:14 PM	80.14	890.35	348.14	
7/22/2019	2:39:18 PM	80.31	790.84	323.32	
7/22/2019	3:39:21 PM	79.47	724.39	301.64	
7/22/2019	4:39:25 PM	79.08	667.18	286	
7/23/2019	6:27:08 AM	66.7	83.28	79.81	**Added 14 lbs of fuel @ Medium Air Setting**
7/23/2019	7:27:12 AM	69.5	1031.11	475.11	
7/23/2019	7:56:14 AM	72.64	716.49	444.96	**Added 23 lbs of fuel @ Medium Air Setting**
7/23/2019	8:56:18 AM	72.92	1049.32	477.8	
7/23/2019	9:56:22 AM	74.77	797.06	262.13	
7/23/2019	10:49:26 AM	72.19	554.62	240.62	**Added 21 lbs of fuel @ Medium Air Setting**
7/23/2019	11:49:30 AM	71.91	914.17	356.55	
7/23/2019	12:49:34 PM	73.25	946.22	295.14	
7/23/2019	1:49:39 PM	74.32	946.95	282.98	
7/23/2019	2:49:43 PM	76.73	813.76	247.51	
7/23/2019	3:49:47 PM	77.12	723.27	225.83	
7/23/2019	4:49:51 PM	76.78	761.82	261.91	
7/23/2019	5:49:55 PM	77.46	723.38	249.53	
7/23/2019	6:49:00 PM	77.74	731	247.68	
7/23/2019	7:49:03 PM	76.61	729.21	247.62	
7/24/2019	6:52:48 AM	65.74	330.27	156.4	**Added 14 lbs of fuel @ Medium Air Setting**
7/24/2019	7:52:53 AM	68.43	825.75	349.6	
7/24/2019	8:51:57 AM	70.06	670.6	431.52	**Added 15 lbs of fuel @ Medium Air Setting**
7/24/2019	9:51:01 AM	72.02	1064.95	488.16	
7/24/2019	10:51:05 AM	72.92	769.1	301.19	
7/24/2019	11:17:07 AM	72.58	656.82	321.86	**Adde 21 lbs of fuel @ Medium Air Setting**
7/24/2019	12:17:11 PM	73.48	1060.02	437.85	
7/24/2019	1:17:15 PM	75.72	1020.8	379.07	
7/24/2019	2:17:20 PM	71.74	948.68	389.16	
7/24/2019	3:17:24 PM	71.18	755.54	329.37	
7/24/2019	4:17:29 PM	70.62	739.18	321.13	
7/25/2019	6:41:59 AM	66.02	81.66	69.22	**Added 14 lbs of fuel @ Medium Air Setting**
7/25/2019	7:41:02 AM	71.4	1089.21	470.68	
7/25/2019	8:24:04 AM	72.3	782.89	504.75	**Added 19 lbs of fuel @ Medium Air Setting**
7/25/2019	9:24:07 AM	74.04	1011.83	454.21	
7/25/2019	10:24:11 AM	75.77	988.41	407.03	
7/25/2019	10:25:11 AM	75.72	932.77	577.93	**Added 19 lbs of fuel @ Medium Air Setting**
7/25/2019	11:25:15 AM	72.3	1052	435.61	
7/25/2019	12:25:19 PM	73.31	936.75	383.95	
7/25/2019	1:25:23 PM	74.6	923.64	376.16	
7/25/2019	2:25:27 PM	75.27	763.33	322.09	

Sample Calculations – ASTM E2780 & E2515

Client: Blaze King
Model: KE40
Run: 1

Equations used to calculate the parameters listed below are described in this appendix. Sample calculations are provided for each equation. The raw data and printout results from a sample run are also provided for comparison to the sample calculations.

M_{Sdb} – Weight of test fuel spacers, dry basis, kg

M_{Cdb}– Weight of test fuel crib, excluding nails and spacers, dry basis, kg

D_{Cdb} - Density of fuel crib, excluding spacers and nails, dry basis, lbs/ft^3

M_{FTAdb} - Total weight of fuel crib excluding nails, dry basis, kg

BR – Dry burn rate, kg/hr

V_s – Average gas velocity in the dilution tunnel, ft/sec

Q_{sd} – Average gas flow rate in dilution tunnel, dscf/hr

$V_{m(std)}$ – Volume of gas sampled, corrected to dry standard conditions, dscf

m_n – Total particulate matter collected, mg

C_s - Concentration of particulate matter in tunnel gas, dry basis, corrected to STP, g/dscf

E_T – Total particulate emissions, g

PR - Proportional rate variation

PM_R – Particulate emissions for test run, g/hr

PM_F – Particulate emission factor for test run, g/dry kg of fuel burned

M_{Sdb} – Weight of test fuel spacers, dry basis, kg
ASTM E2780 equation (1)

$$M_{Sdb} = (M_{Swb})(100/(100 + FM_S))$$

Where,

FM_S = average fuel moisture of test fuel spacers, % dry basis

M_{Swb} = weight of test fuel spacers, wet basis, kg

Sample Calculation:

FM_S = 12.1 %

M_{Swb} = 1.7 lbs

0.4536 = Conversion factor from lbs to kg

M_{Sdb} = [(1.7 x 0.4536) (100/(100 + 12.1)

M_{Sdb} = **0.68** kg

M_{Cdb}– Weight of test fuel crib, excluding nails and spacers, dry basis, kg
ASTM E2780 equation (2)

$$M_{Cdb} = \Sigma[(M_{CPnwb})(100/(100 + FM_{CPn}))]$$

Where,

M_{CPnwb} = weight of each test fuel piece n in fuel crib, excluding nails and spacers, wet basis, kg

FM_{CPn} = Average fuel moisture of test fuel n in fuel crib, % dry basis

Sample Calculation (test fuel piece 1):

MC_{Pnwb} = 4.92

FM_{CPn} = 22.9

= 4.9 (100/(100+ 22.9)

= 4.0 lbs

Total dry crib weight, excluding spacers = 23.25 lbs

M_{Cdb} = **10.54** kg

D_{Cdb} - Density of fuel crib, excluding spacers and nails, dry basis, lbs/ft^3
ASTM E2780 equation (3)

$$D_{Cdb} = M_{Cdb}/V_C$$

Where,

V_C = Volume of fuel crib, ft^3

Sample calculation:

V_C = 1397 in^3

1728 = conversion from in^3 to ft^3

D_{Cdb} = 23.25 / 1397 * 1728

= **28.77** lbs/ft^3

M_{FTAdb} - Total weight of fuel crib excluding nails, dry basis, kg
ASTM E2780 equation (4)

$$M_{FTAdb} = M_{Sdb} + M_{Cdb}$$

Sample calculation:

$$M_{FTAdb} = 0.68 + 10.54$$

$$= \#\#\#\# \text{ kg}$$

BR – dry burn rate, kg/hr
ASTM E2780 equation (5)

$$BR = \frac{60\ M_{FTAdb}}{\theta}$$

Where,

θ = Total length of test run, min

Sample Calculation:

M_{Bdb} = 11.22 kg
θ = 610 min

$$BR = \frac{60 \times 11.2}{610}$$

BR = **1.10** kg/hr

V_s – Average gas velocity in the dilution tunnel, ft/sec
ASTM E2515 equations (9)

$$v_s = F_P \times k_p \times C_p \times (\sqrt{\Delta P})_{avg} \times \sqrt{\frac{T_{s(avg)}}{P_s \times M_s}}$$

Where:

F_p	=	Adjustment factor for pitot tube center point reading = $\frac{V_{strav}}{V_{scent}}$, ASTM E2515 Equation (1)
v_{scent}	=	Dilution tunnel velocity calculated after the multi-point pitot traverse at the center, ft/sec
v_{strav}	=	Dilution tunnel velocity calculated after the multi-point pitot traverse, ft/sec
k_p	=	Pitot tube constant, 85.49
C_p	=	Pitot tube coefficient: 0.99, unitless
ΔP*	=	Velocity pressure in the dilution tunnel, in H_2O
T_s	=	Absolute average gas temperature in the dilution tunnel, °R; (°R = °F + 460)
P_s	=	Absolute average gas static pressure in dilution tunnel, = P_{bar} + P_g , in Hg
P_{bar}	=	Barometric pressure at test site, in. Hg
P_g	=	Static pressure of tunnel, in. H_20; (in Hg = in H_20/13.6)
M_s	=	
		**The dilution tunnel wet molecular weight; M_s = 28.78 assuming a dry weight of 29 lb/lb-mole

Sample calculation:

$$Fp = \frac{19.04}{20.62} = 0.923$$

$$V_s = 0.923 \times 85.49 \times 0.99 \times 0.313 \times \left(\frac{81.3 + 460}{\left(29.68 + \frac{-0.17}{13.6}\right) \times 28.78} \right)^{1/2}$$

V_s = **19.46** ft/s

*The ASTM test standard mistakenly has the square root of the average delta p instead of the average of the square root of delta p. The current EPA Method 2 is also incorrect. This was verified by Mike Toney at EPA.

**The ASTM test standard mistakenly identifies Ms as the dry molecular weight. It should be the wet molecular weight as indicated in EPA Method 2.

Q_{sd} – Average gas flow rate in dilution tunnel, dscf/hr

ASTM E2515 equation (3)

$$Q_{sd} = 3600 \times (1 - B_{ws}) \times v_s \times A \times \frac{T_{std}}{T_{s(avg)}} \times \frac{P_s}{P_{std}}$$

Where:

3600	=	Conversion from seconds to hours (ASTM method uses 60 to convert in minutes)
B_{ws}	=	Water vapor in gas stream, proportion by volume; assume 2%
A	=	Cross sectional area of dilution tunnel, ft^2
T_{std}	=	Standard absolute temperature, 528 °R
P_s	=	Absolute average gas static pressure in dilution tunnel, = P_{bar} + P_g , in Hg
$T_{s(avg)}$	=	Absolute average gas temperature in the dilution tunnel, °R; (°R = °F + 460)
P_{std}	=	Standard absolute pressure, 29.92 in Hg

Sample calculation:

$$Q_{sd} = 3600 \times (1 - 0.02) \times 19.46 \times 0.1963 \times \frac{528}{81.3 + 460} \times \frac{29.68 + \frac{-0.17}{13.6}}{29.92}$$

Q_{sd} = **13038.5** dscf/hr

$V_{m(std)}$ – Volume of Gas Sampled Corrected to Dry Standard Conditions, dscf
ASTM E2515 equation (6)

$$V_{m(std)} = K_1 \, V_m \, Y \frac{P_{bar} + \left(\frac{\Delta H}{13.6}\right)}{T_m}$$

Where:

K_1	=	17.64 °R/in. Hg
V_m	=	Volume of gas sample measured at the dry gas meter, dcf
Y	=	Dry gas meter calibration factor, dimensionless
P_{bar}	=	Barometric pressure at the testing site, in. Hg
ΔH	=	Average pressure differential across the orifice meter, in. H_2O
T_m	=	Absolute average dry gas meter temperature, °R

Sample Calculation:

Using equation for Train A:

$V_{m(std)}$ = 17.64 x ###### x 1.004 x $\dfrac{(\ 29.68 + \frac{3.42}{13.6}\ )}{(\ 88.2 + 460\ )}$

$V_{m(std)}$ = **109.202** dscf

Using equation for Train B:

$V_{m(std)}$ = 17.64 x ###### x 1.005 x $\dfrac{(\ 29.68 + \frac{3.21}{13.6}\ )}{(\ 92.8 + 460\ )}$

$V_{m(std)}$ = **104.924** dscf

Using equation for ambient train:

$V_{m(std)}$ = 17.64 x 51.78 x 1.013 x $\dfrac{(\ \underline{29.68} + \frac{0.00}{13.6}\ )}{(\ 65.5 + 460\ )}$

$V_{m(std)}$ = **52.259** dscf

m_n – Total Particulate Matter Collected, mg
ASTM E2515 Equation (12)

$$m_n = m_p + m_f + m_g$$

Where:

m_p = mass of particulate matter from probe, mg
m_f = mass of particulate matter from filters, mg
m_g = mass of particulate matter from filter seals, mg

Sample Calculation:

Using equation for Train A:

m_n = 0.5 + 7.6 + 0.6

m_n = **8.7** mg

Using equation for Train B:

m_n = 0.9 + 7.9 + 0

m_n = **8.8** mg

C_s - Concentration of particulate matter in tunnel gas, dry basis, corrected to STP, g/dscf
ASTM E2515 equation (13)

$$C_s = K_2 \times \frac{m_n}{V_{m(std)}}$$

Where:

K_2	=	Constant, 0.001 g/mg
m_n	=	Total mass of particulate matter collected in the sampling train, mg
$V_{m(std)}$	=	Volume of gas sampled corrected to dry standard conditions, dscf

Sample calculation:

For Train A:

$$C_s = 0.001 \times \frac{8.7}{109.20}$$

C_s = **0.00008** g/dscf

For Train B

$$C_s = 0.001 \times \frac{8.8}{104.92}$$

C_s = **0.00008** g/dscf

For Ambient Train

$$C_r = 0.001 \times \frac{0.0}{52.26}$$

C_r = **0.000000** g/dscf

E_T – Total Particulate Emissions, g
ASTM E2515 equation (15)

$$E_T = (c_s - c_r) \times Q_{std} \times \theta$$

Where:

C_s	=	Concentration of particulate matter in tunnel gas, g/dscf
C_r	=	Concentration particulate matter room air, g/dscf
Q_{std}	=	Average dilution tunnel gas flow rate, dscf/hr
θ	=	Total time of test run, minutes

Sample calculation:

For Train A

E_T = (0.000080 - 0.000000) x 13038.5 x 610 /60

E_T = **10.56** g

For Train B

E_T = (0.000084 - 0.000000) x 13038.5 x 610 /60

E_T = **11.12** g

Average

E = **10.84** g

PR - Proportional Rate Variation

ASTM E2515 equation (16)

$$PR = \left[\frac{\theta \times V_{mi} \times V_s \times T_m \times T_{si}}{\theta_i \times V_m \times V_{si} \times T_{mi} \times T_s} \right] \times 100$$

Where:

θ = Total sampling time, min

θ_i = Length of recording interval, min

V_{mi} = Volume of gas sample measured by the dry gas meter during the “ith” time interval, dcf

V_m = Volume of gas sample as measured by dry gas meter, dcf

V_{si} = Average gas velocity in the dilution tunnel during the "ith" time interval, ft/sec

V_s = Average gas velocity in the dilution tunnel, ft/sec

T_{mi} = Absolute average dry gas meter temperature during the "ith" time interval, ^oR

T_m = Absolute average dry gas meter temperature, ^oR

T_{si} = Absolute average gas temperature in the dilution tunnel during the "ith" time interval, ^oR

T_s = Absolute average gas temperature in the dilution tunnel, ^oR

Sample calculation (for the first 10-min interval of Train 1):

$$PR = \left(\frac{610 \times 1.649 \times 19.46 \times (82.2 + 460) \times (88.2 + 460)}{10 \times 112.92 \times 19.39 \times (81.3 + 460) \times (72.8 + 460)} \right) \times 100$$

PR = **92** %

PM_R – Particulate emissions for test run, g/hr
ASTM E2780 equation (6)

$$PM_R = 60 (E_T/\theta)$$

Where,

E_T = Total particulate emissions, grams

θ = Total length of full integrated test run, min

Sample Calculation:

E_T (Dual train average) = 10.84 g

θ = 610 min

$PM_R = 60 \times (10.84 / 610)$

PM_R = **1.07** g/hr

PM_F – Particulate emission factor for test run, g/dry kg of fuel burned
ASTM E2780 equation (7)

$$PM_F = E_T/M_{FTAdb}$$

Sample Calculation:

E_T (Dual train average)	=	10.84	g
M_{Bdb}	=	11.22	kg
PM_F	=	10.84 /	####
PM_F	=	**0.97**	g/kg

Stack Loss Efficiency and CO emissions calculations are done in accordance with CSA B415.1, using the password protected excel spreadsheet provided with the test standard. No alterations or alternative calculations are used for determining efficiency or CO emissions. The following pages are a sample of the calculations page from the B415.1 Spreadsheet (V2_4 - Dated April 15, 2010).

Manufacturer: Blaze King
Model: KE40
Date: 03/11/24
Run: 1
Control #: 24-274
Test Duration: 610 min

	HHV	LHV
Eff	80.40%	86.89%
Comb Eff	97.71%	97.71%
HT Eff	82.28%	88.93%
Output	17,475	kJ/h
Burn Rate	1.10	kg/h
Grams CO	396	g
Input	21,736	kJ/h
MC wet	17.88	

Note: In the "Input data", "Calc. % O_2", "Fuel Properties", and "Mass Balance" columns, [e], [d], [g], [a]. [b], [c], [h], [u], [w], [j], and [k] refer to their respective variables in Clauses 13.7.3 to 13.7.5.

Ultimate CO_2
$CO_{2\text{-ult}}$ 19.64
F_0
1.062

Overall Heating Efficiency:	80.40%	Air Fue	
Combustion Efficiency:	97.71%	Dry Molecular W	
Heat Transfer Efficiency:	82.28%	Dry Moles Exhaus	
		Air Fuel Ratio	
Heat Output:	16,577 Btu/h	17,475	kJ/h
Heat Input:	20,619 Btu/h	21,736	kJ/h
Burn Duration:	10.17 h		
Burn Rate:	2.42 lb/h	1.097	kg/h
Stack Temp:	221.2 Deg. F	105.1	Deg. C

Averages	**0.26**	**9.36**	**1.11**	**20.31**	**10.82**	**105.14**	**18.60**	**98.4%**	**82.9%**	**81.6%**	**12.71**	**5.05**
INPUT DATA			**Oxygen Calculation**			**Input Data**		**Combust**	**Heat**	**Net**	**Air**	**Wet Wt**
Elapsed Time	**Weight Remaining (kg)**	**% CO [e]**	**% CO_2 [d]**	**Excess Air EA**	**Total O_2**	**Calc. % O_2 [g]**	**Flue Gas (°C)**	**Room Temp (°C)**	**Eff %**	**Transfer %**	**Eff %**	**Fuel Ratio**	**Now Wt**
0	13.58	0.10	4.27	349.6%	20.65	16.33	111.9	19.3	99.1%	75.8%	75.1%	27.1	13.58
1	13.58	0.02	3.14	522.2%	20.73	17.58	128.9	19.3	101.1%	67.8%	68.6%	37.7	13.58
2	13.56	0.07	1.58	1095.6%	20.83	19.22	109.1	19.4	99.9%	55.5%	55.5%	72.7	13.56
3	13.54	0.01	4.85	304.7%	20.62	15.77	100.1	19.4	100.8%	79.0%	79.6%	24.5	13.54
4	13.53	0.01	5.25	273.2%	20.59	15.33	97.1	19.4	100.7%	80.1%	80.6%	22.6	13.53
5	13.51	0.01	5.07	286.5%	20.60	15.53	96.3	19.4	100.8%	79.9%	80.5%	23.4	13.51
6	13.48	0.01	4.94	297.5%	20.61	15.68	97.4	19.4	100.8%	79.5%	80.1%	24.0	13.48
7	13.47	0.01	4.97	295.0%	20.61	15.64	98.8	19.3	100.8%	79.3%	80.0%	23.9	13.47
8	13.43	0.01	5.21	276.3%	20.60	15.38	100.9	19.3	100.7%	79.5%	80.1%	22.8	13.43
9	13.41	0.01	5.75	241.2%	20.56	14.81	102.8	19.1	100.7%	80.2%	80.7%	20.6	13.41
10	13.39	0.01	5.74	241.5%	20.56	14.81	105.2	18.9	100.6%	79.9%	80.3%	20.6	13.39
11	13.36	0.01	5.88	233.4%	20.55	14.66	107.7	18.8	100.6%	79.8%	80.3%	20.2	13.36
12	13.33	0.01	5.79	238.8%	20.56	14.76	109.7	18.8	100.6%	79.4%	79.9%	20.5	13.33
13	13.31	0.01	5.72	242.9%	20.56	14.84	111.2	18.9	100.7%	79.1%	79.7%	20.7	13.31
14	13.28	0.01	5.71	243.6%	20.56	14.85	112.1	18.8	100.6%	79.0%	79.5%	20.8	13.28
15	13.26	0.01	5.90	232.4%	20.55	14.65	113.7	18.9	100.6%	79.1%	79.6%	20.1	13.26
16	13.23	0.01	6.01	226.5%	20.54	14.53	115.0	18.9	100.6%	79.2%	79.7%	19.7	13.23
17	13.21	0.01	6.02	226.2%	20.54	14.52	114.9	18.9	100.6%	79.2%	79.7%	19.7	13.21
18	13.17	0.01	5.99	227.4%	20.54	14.55	116.2	18.9	100.6%	79.0%	79.5%	19.8	13.17
19	13.14	0.01	5.97	228.8%	20.55	14.57	116.8	18.9	100.6%	78.9%	79.4%	19.9	13.14
20	13.11	0.01	6.05	224.3%	20.54	14.49	117.2	18.9	100.6%	79.0%	79.4%	19.6	13.11
21	13.09	0.01	6.13	220.0%	20.53	14.40	117.4	19.0	100.6%	79.1%	79.6%	19.3	13.09
22	13.06	0.01	6.20	216.5%	20.53	14.33	118.3	19.0	100.5%	79.1%	79.5%	19.1	13.06
23	13.03	0.01	6.30	211.4%	20.52	14.22	118.9	19.0	100.6%	79.2%	79.6%	18.8	13.03
24	13.00	0.01	6.41	206.0%	20.52	14.10	119.2	19.0	100.6%	79.3%	79.8%	18.5	13.00
25	12.97	0.01	6.62	196.5%	20.50	13.88	119.6	19.0	100.5%	79.6%	80.0%	17.9	12.97
26	12.94	0.01	6.67	194.2%	20.50	13.83	120.4	19.1	100.5%	79.6%	80.0%	17.8	12.94
27	12.91	0.01	6.80	188.7%	20.49	13.69	121.6	19.1	100.5%	79.6%	80.0%	17.5	12.91
28	12.88	0.01	6.89	185.0%	20.48	13.59	122.2	19.1	100.5%	79.7%	80.1%	17.2	12.88
29	12.84	0.01	6.85	186.6%	20.49	13.64	123.6	19.1	100.5%	79.5%	79.9%	17.3	12.84
30	12.81	0.01	6.96	181.9%	20.48	13.52	123.5	19.0	100.5%	79.6%	80.0%	17.0	12.81
31	12.78	0.01	6.55	199.4%	20.51	13.95	124.1	19.0	100.5%	79.0%	79.5%	18.1	12.78
32	12.75	0.01	6.78	189.5%	20.49	13.71	125.4	19.0	100.5%	79.2%	79.6%	17.5	12.75
33	12.72	0.01	6.86	186.0%	20.49	13.62	125.2	19.1	100.5%	79.3%	79.7%	17.3	12.72
34	12.69	0.01	6.86	185.8%	20.49	13.62	126.0	19.1	100.4%	79.3%	79.6%	17.3	12.69
35	12.65	0.01	6.82	187.7%	20.49	13.66	126.3	18.9	100.5%	79.2%	79.6%	17.4	12.65
36	12.62	0.01	7.04	178.7%	20.47	13.43	126.7	18.8	100.4%	79.4%	79.8%	16.8	12.62
37	12.58	0.01	7.14	174.8%	20.47	13.32	126.0	18.8	100.4%	79.6%	80.0%	16.6	12.58

el Ratio (A/F)	
Weight (M_d)	29.93
st Gas (N_r):	441.99
o (A/F)	12.72

%HC 0.88

Combustion Efficiency: 97.71%
Total Input (kJ): 220,982 209,591 (Btu)
Total Output (kJ): 177,661 168,503 (Btu)
Efficiency: 80.40%
Total CO (g): 395.52

Moisture of Wood (wet basis): 17.8832
Initial Dry Weight Wt_{do} (kg): 11.16
Moisture Content Dry 21.78

Load Weight (kg): **13.58**

Fuel Heating	**HHV**	**LHV**		**HHV**
Value in kj/kg - CV:	**19,810**	**18,329**	Btu/lb	**8522.5**

62.82	4.46	59.98	221025	4.06	6.87	2.74	19810.00	17.88	79.56	21.10	2.37	8.11	0.02	0.24	39.82
% Wet Consumed	Dry Wt. Now	% Dry Comsumed	Total	Fuel Properties				Mw Moisture	Mass Balance (moles/100 mole dry flue gas)					kg Wood per 100 mole dfp	
				Carbon	Hydrogen	Oxygen	Calorific								
x	Wt_{dn}	y	Input	/12= [a]	/1= [b]	/16= [c]	Value	Fuel Burnt	[h]	[u]	[w]	[j]	[k]	Nk	CO_2
0.00	11.16	0.00	0	4.06	6.87	2.74	19810.00	17.88	79.30	21.03	1.07	3.71	-0.01	0.11	39.95
0.07	11.15	0.07	258	4.06	6.87	2.74	19810.00	17.88	79.26	21.02	0.77	2.70	-0.03	0.08	40.90
0.17	11.14	0.17	258	4.06	6.87	2.74	19810.00	17.88	79.13	20.99	0.40	1.41	-0.02	0.04	39.63
0.30	11.12	0.30	295	4.06	6.87	2.74	19810.00	17.88	79.38	21.05	1.19	4.13	-0.02	0.12	40.94
0.43	11.11	0.43	258	4.06	6.87	2.74	19810.00	17.88	79.40	21.06	1.29	4.48	-0.02	0.13	40.90
0.53	11.10	0.53	332	4.06	6.87	2.74	19810.00	17.88	79.39	21.06	1.25	4.33	-0.02	0.12	40.94
0.73	11.07	0.73	369	4.06	6.87	2.74	19810.00	17.88	79.38	21.06	1.21	4.21	-0.02	0.12	40.96
0.87	11.06	0.87	406	4.06	6.87	2.74	19810.00	17.88	79.38	21.06	1.22	4.23	-0.02	0.12	40.95
1.10	11.03	1.10	443	4.06	6.87	2.74	19810.00	17.88	79.40	21.06	1.28	4.44	-0.02	0.13	40.93
1.27	11.01	1.27	369	4.06	6.87	2.74	19810.00	17.88	79.44	21.07	1.41	4.90	-0.02	0.14	40.92
1.44	10.99	1.44	406	4.06	6.87	2.74	19810.00	17.88	79.43	21.07	1.41	4.89	-0.02	0.14	40.89
1.64	10.97	1.64	480	4.06	6.87	2.74	19810.00	17.88	79.44	21.07	1.45	5.01	-0.02	0.14	40.90
1.87	10.95	1.87	443	4.06	6.87	2.74	19810.00	17.88	79.44	21.07	1.42	4.93	-0.02	0.14	40.91
2.04	10.93	2.04	369	4.06	6.87	2.74	19810.00	17.88	79.43	21.07	1.41	4.87	-0.02	0.14	40.93
2.20	10.91	2.20	369	4.06	6.87	2.74	19810.00	17.88	79.43	21.07	1.40	4.86	-0.02	0.14	40.92
2.37	10.89	2.37	443	4.06	6.87	2.74	19810.00	17.88	79.44	21.07	1.45	5.02	-0.02	0.14	40.89
2.61	10.86	2.61	443	4.06	6.87	2.74	19810.00	17.88	79.45	21.08	1.48	5.11	-0.02	0.15	40.92
2.77	10.85	2.77	480	4.06	6.87	2.74	19810.00	17.88	79.45	21.08	1.48	5.12	-0.02	0.15	40.92
3.04	10.82	3.04	517	4.06	6.87	2.74	19810.00	17.88	79.45	21.07	1.47	5.10	-0.02	0.15	40.90
3.24	10.79	3.24	480	4.06	6.87	2.74	19810.00	17.88	79.45	21.07	1.47	5.08	-0.02	0.15	40.93
3.47	10.77	3.47	406	4.06	6.87	2.74	19810.00	17.88	79.46	21.08	1.49	5.15	-0.02	0.15	40.90
3.61	10.75	3.61	406	4.06	6.87	2.74	19810.00	17.88	79.46	21.08	1.51	5.22	-0.02	0.15	40.92
3.84	10.73	3.84	517	4.06	6.87	2.74	19810.00	17.88	79.46	21.08	1.52	5.27	-0.02	0.15	40.88
4.07	10.70	4.07	480	4.06	6.87	2.74	19810.00	17.88	79.47	21.08	1.55	5.36	-0.02	0.15	40.90
4.28	10.68	4.28	480	4.06	6.87	2.74	19810.00	17.88	79.48	21.08	1.58	5.46	-0.02	0.16	40.91
4.51	10.65	4.51	480	4.06	6.87	2.74	19810.00	17.88	79.49	21.09	1.63	5.63	-0.02	0.16	40.91
4.71	10.63	4.71	517	4.06	6.87	2.74	19810.00	17.88	79.50	21.09	1.64	5.67	-0.02	0.16	40.89
4.98	10.60	4.98	517	4.06	6.87	2.74	19810.00	17.88	79.51	21.09	1.67	5.78	-0.02	0.17	40.90
5.18	10.58	5.18	517	4.06	6.87	2.74	19810.00	17.88	79.51	21.09	1.69	5.85	-0.02	0.17	40.90
5.44	10.55	5.44	554	4.06	6.87	2.74	19810.00	17.88	79.51	21.09	1.68	5.82	-0.02	0.17	40.90
5.68	10.52	5.68	517	4.06	6.87	2.74	19810.00	17.88	79.52	21.09	1.71	5.92	-0.02	0.17	40.88
5.91	10.50	5.91	517	4.06	6.87	2.74	19810.00	17.88	79.49	21.08	1.61	5.57	-0.02	0.16	40.90
6.15	10.47	6.15	480	4.06	6.87	2.74	19810.00	17.88	79.50	21.09	1.67	5.76	-0.02	0.17	40.88
6.35	10.45	6.35	517	4.06	6.87	2.74	19810.00	17.88	79.51	21.09	1.69	5.83	-0.02	0.17	40.88
6.61	10.42	6.61	590	4.06	6.87	2.74	19810.00	17.88	79.51	21.09	1.69	5.84	-0.02	0.17	40.87
6.88	10.39	6.88	554	4.06	6.87	2.74	19810.00	17.88	79.51	21.09	1.68	5.80	-0.02	0.17	40.90
7.11	10.36	7.11	554	4.06	6.87	2.74	19810.00	17.88	79.52	21.09	1.73	5.99	-0.02	0.17	40.87
7.38	10.33	7.38	627	4.06	6.87	2.74	19810.00	17.88	79.53	21.09	1.76	6.07	-0.02	0.17	40.88

Moisture Content M_{Cwb}: 17.88321

Dry kg : 11.16

CA: 49

HY: 7

OX: 43.9

LHV
7885.2

48.73	**0.94**	**0.06**	**348.47**	**34.41**	**12.10**	**378.29**	**3402.51**	**2580.24**	**2513.91**	**2485.04**	**3232.49**	**3009.83**	**291.75**	**82847.94**	**78385.76**
Moles per kg of Dry Wood					**Moisture**	**Stack Temp**	**Heat Content Change - Ambient to Stack Temperature Flue Gas Constituent**						**Room Temp**		
O_2	**CO**	**HC**	**N_2**	**H_2O**	**Present**	**K**	**CO_2**	**O_2**	**CO**	**N_2**	**CH_4**	**H_2O**	**K**	**CO_2**	**O_2**
152.98	0.96	-0.11	742.66	34.73	12.10	385.09	3645.63	2762.69	2691.21	2660.39	3467.65	3221.95	292.48	145.65	422.63
229.17	0.25	-0.33	1032.98	35.19	12.10	402.04	4339.56	3276.52	3188.80	3152.90	4154.09	3816.74	292.48	177.48	750.89
483.68	1.71	-0.53	1991.18	35.58	12.10	382.21	3526.03	2673.71	2604.93	2575.02	3350.29	3118.79	292.54	139.74	1293.21
133.25	0.08	-0.20	670.72	34.93	12.10	373.21	3161.59	2402.08	2341.44	2314.31	2993.69	2803.68	292.54	129.43	320.09
119.41	0.09	-0.18	618.30	34.88	12.10	370.26	3042.87	2313.37	2255.33	2229.13	2878.01	2700.69	292.54	124.45	276.24
125.28	0.06	-0.19	640.58	34.91	12.10	369.43	3009.32	2288.28	2230.97	2205.03	2845.36	2671.55	292.54	123.20	286.67
130.09	0.06	-0.20	658.79	34.92	12.10	370.54	3054.06	2321.74	2263.45	2237.16	2888.90	2710.40	292.54	125.08	302.03
129.00	0.06	-0.20	654.67	34.92	12.10	371.98	3116.51	2368.52	2308.89	2282.10	2949.48	2764.76	292.43	127.63	305.53
120.79	0.06	-0.19	623.61	34.89	12.10	374.09	3201.71	2432.14	2370.64	2343.20	3032.58	2838.62	292.43	131.06	293.77
105.38	0.05	-0.16	565.38	34.85	12.10	375.98	3284.38	2494.01	2430.71	2402.62	3112.95	2910.48	292.26	134.41	262.82
105.52	0.08	-0.16	565.80	34.84	12.10	378.32	3385.17	2569.32	2503.82	2474.95	3211.13	2997.92	292.09	138.43	271.10
101.98	0.06	-0.15	552.47	34.83	12.10	380.87	3495.13	2651.40	2583.47	2553.74	3318.46	3093.17	291.93	142.97	270.39
104.33	0.06	-0.16	561.34	34.84	12.10	382.82	3571.98	2708.52	2638.84	2608.54	3394.02	3159.38	291.98	146.12	282.57
106.11	0.05	-0.16	568.15	34.85	12.10	384.37	3633.13	2753.92	2682.83	2652.08	3454.24	3211.98	292.04	148.69	292.23
106.43	0.06	-0.16	569.32	34.85	12.10	385.26	3671.42	2782.44	2710.49	2679.45	3491.75	3245.05	291.98	150.23	296.14
101.54	0.08	-0.15	550.76	34.83	12.10	386.87	3732.82	2827.92	2754.54	2723.04	3552.47	3297.70	292.09	152.63	287.14
98.94	0.04	-0.15	541.04	34.83	12.10	388.15	3787.04	2868.23	2793.62	2761.71	3605.73	3344.43	292.04	154.98	283.78
98.80	0.05	-0.15	540.48	34.83	12.10	388.09	3782.66	2864.91	2790.39	2758.52	3601.56	3340.56	292.09	154.77	283.05
99.35	0.06	-0.15	542.52	34.82	12.10	389.32	3832.54	2901.92	2826.25	2794.01	3650.74	3383.43	292.09	156.76	288.30
99.95	0.04	-0.15	544.84	34.83	12.10	389.93	3857.50	2920.43	2844.18	2811.76	3675.37	3404.87	292.09	157.87	291.89
97.97	0.06	-0.15	537.33	34.82	12.10	390.37	3875.66	2933.90	2857.22	2824.67	3693.29	3420.46	292.09	158.52	287.44
96.09	0.04	-0.15	530.28	34.82	12.10	390.54	3880.36	2937.31	2860.51	2827.93	3698.07	3424.39	292.15	158.79	282.26
94.56	0.07	-0.14	524.39	34.81	12.10	391.43	3916.69	2964.25	2886.60	2853.75	3733.95	3455.58	292.15	160.12	280.31
92.32	0.05	-0.14	515.96	34.80	12.10	392.04	3941.69	2982.77	2904.54	2871.50	3758.65	3477.03	292.15	161.22	275.36
89.93	0.04	-0.14	506.99	34.80	12.10	392.32	3953.05	2991.19	2912.70	2879.58	3769.88	3486.77	292.15	161.73	269.01
85.81	0.04	-0.13	491.38	34.79	12.10	392.71	3968.97	3002.98	2924.11	2890.88	3785.61	3500.42	292.15	162.36	257.68
84.80	0.05	-0.13	487.53	34.78	12.10	393.54	3998.86	3024.97	2945.38	2911.94	3815.48	3525.84	292.26	163.52	256.51
82.35	0.04	-0.13	478.32	34.78	12.10	394.76	4051.05	3063.68	2982.88	2949.05	3866.97	3570.66	292.21	165.70	252.30
80.74	0.04	-0.12	472.22	34.77	12.10	395.32	4071.71	3078.90	2997.60	2963.62	3887.58	3588.25	292.26	166.54	248.59
81.45	0.04	-0.12	474.89	34.77	12.10	396.71	4130.80	3122.68	3040.00	3005.59	3945.97	3638.94	292.21	168.93	254.34
79.38	0.05	-0.12	467.04	34.76	12.10	396.65	4130.63	3122.63	3039.97	3005.55	3945.65	3638.91	292.15	168.86	247.88
87.08	0.04	-0.13	496.16	34.79	12.10	397.26	4155.72	3141.18	3057.93	3023.33	3970.52	3660.37	292.15	169.98	273.52
82.71	0.06	-0.12	479.60	34.77	12.10	398.54	4208.21	3179.97	3095.48	3060.50	4022.59	3705.26	292.15	172.02	263.02
81.20	0.05	-0.12	473.90	34.77	12.10	398.37	4199.25	3173.28	3088.98	3054.07	4013.86	3697.48	292.21	171.67	257.66
81.11	0.07	-0.12	473.53	34.76	12.10	399.15	4231.22	3196.90	3111.85	3076.71	4045.60	3724.81	292.21	172.92	259.30
81.93	0.04	-0.13	476.70	34.77	12.10	399.43	4248.98	3210.24	3124.81	3089.53	4062.74	3740.32	292.04	173.77	263.01
77.98	0.06	-0.12	461.73	34.76	12.10	399.87	4271.48	3227.01	3141.08	3105.62	4084.77	3759.77	291.93	174.58	251.65
76.29	0.05	-0.12	455.35	34.75	12.10	399.15	4241.78	3205.07	3119.85	3084.61	4055.27	3734.40	291.93	173.39	244.52

SUMS					AVERAGE	SUMS						
163082.38	534883.87	31597.64	987634.12	347286.53	3642.75	43298.93	5042.93	38256.00	177725.66	5064.79	395.52	18.79
Energy Losses (kJ/kg of Dry Fuel)					Total							
Flue Gas Constituent					Loss	Total	Chemical	Sensible and	Total	Chem	Grams Produced	
CO	N_2	CH_4	H_2O Comb	H_2O Fuel MC	Rate	Loss	Loss 1	Latent Loss	Output	Loss 2	CO	HC
275.55	1975.76	-94.28	1639.11	570.96	4935.38	0.00	0	0.00	0	0	0.00	0.00
70.87	3256.88	-297.46	1681.48	578.15	6218.28	81.09	-3	84.04	177	-3	0.09	-0.07
488.66	5127.33	-472.45	1675.39	569.71	8821.59	115.04	0	114.86	143	0	0.62	-0.11
21.70	1552.25	-181.58	1633.73	565.90	4041.52	60.23	-2	62.61	235	-2	0.03	-0.05
26.65	1378.27	-159.40	1627.82	564.65	3838.68	50.06	-2	51.78	208	-2	0.03	-0.04
18.41	1412.49	-171.58	1628.08	564.30	3861.56	64.74	-3	67.30	267	-3	0.03	-0.05
16.57	1473.82	-179.35	1630.24	564.77	3933.17	73.27	-3	76.30	296	-3	0.03	-0.06
16.47	1494.03	-177.84	1631.98	565.43	3963.24	81.21	-3	84.51	325	-3	0.03	-0.07
17.93	1461.24	-165.39	1633.26	566.32	3938.18	88.04	-3	91.32	355	-3	0.04	-0.07
14.22	1358.39	-144.96	1633.62	567.19	3825.69	71.27	-2	73.70	298	-2	0.03	-0.05
22.37	1400.32	-141.46	1636.29	568.25	3895.31	79.82	-2	82.26	326	-2	0.04	-0.05
17.87	1410.88	-138.44	1639.29	569.40	3912.36	94.75	-3	97.66	385	-3	0.04	-0.06
18.17	1464.29	-141.70	1641.94	570.20	3981.59	89.01	-3	91.76	354	-3	0.04	-0.06
14.30	1506.77	-146.04	1644.23	570.84	4031.02	75.09	-2	77.54	294	-2	0.03	-0.05
16.38	1525.47	-145.55	1645.33	571.24	4059.23	75.62	-2	78.02	293	-2	0.03	-0.05
21.79	1499.73	-136.06	1646.16	571.87	4043.27	90.39	-3	92.93	352	-3	0.05	-0.05
11.68	1494.19	-136.95	1647.88	572.44	4028.01	90.05	-3	92.84	353	-3	0.03	-0.05
13.61	1490.93	-135.86	1647.63	572.39	4026.53	97.51	-3	100.46	382	-3	0.03	-0.06
17.57	1515.82	-134.86	1649.02	572.91	4065.51	106.03	-3	109.08	411	-3	0.04	-0.06
11.76	1531.97	-138.37	1650.14	573.17	4078.43	98.77	-3	101.83	381	-3	0.03	-0.06
17.40	1517.77	-132.96	1650.11	573.36	4071.63	83.44	-2	85.80	323	-2	0.03	-0.05
11.45	1499.60	-132.98	1650.24	573.41	4042.77	82.84	-2	85.33	323	-2	0.02	-0.05
20.75	1496.48	-126.54	1650.65	573.78	4055.56	105.77	-3	108.52	411	-3	0.05	-0.06
14.85	1481.58	-126.00	1651.34	574.04	4032.38	97.66	-3	100.34	382	-3	0.04	-0.05
10.94	1459.91	-124.36	1651.50	574.16	4002.90	96.94	-3	99.68	383	-3	0.03	-0.05
10.60	1420.52	-118.58	1651.36	574.33	3958.27	95.86	-3	98.47	384	-3	0.03	-0.05
14.03	1419.65	-115.57	1651.93	574.63	3964.70	103.40	-3	106.04	413	-3	0.04	-0.05
10.32	1410.58	-113.75	1653.29	575.18	3953.63	103.11	-3	105.80	414	-3	0.03	-0.05
10.19	1399.47	-111.49	1653.66	575.39	3942.35	102.82	-3	105.45	414	-3	0.03	-0.05
11.96	1427.32	-111.72	1655.45	576.00	3982.29	111.28	-3	114.06	442	-3	0.03	-0.06
15.12	1403.70	-107.30	1654.98	576.00	3959.24	103.26	-2	105.66	413	-2	0.04	-0.05
12.50	1500.05	-119.57	1657.03	576.26	4069.77	106.14	-3	108.92	411	-3	0.03	-0.06
17.26	1467.83	-111.13	1657.69	576.80	4043.49	97.92	-2	100.19	382	-2	0.04	-0.05
15.35	1447.31	-109.82	1657.28	576.71	4016.16	104.74	-2	107.20	412	-2	0.04	-0.05
18.74	1456.90	-108.15	1658.05	577.04	4034.80	120.26	-3	122.92	470	-3	0.05	-0.06
12.01	1472.77	-112.40	1659.04	577.23	4045.42	113.04	-3	115.84	441	-3	0.03	-0.06
16.61	1433.95	-104.63	1658.89	577.46	4008.53	112.01	-2	114.46	442	-2	0.05	-0.05
14.74	1404.59	-103.04	1657.84	577.16	3969.20	125.70	-3	128.49	502	-3	0.05	-0.06

Low Burn Rate Justification

Completed by Ashnil Reddy
Product Development, Blaze King Ind.
December 14, 2016
Revised January 13, 2021

The two main components of a Blaze King thermostat are the damper blade and the bimetallic coil; they work in unison to produce a consistent heat output. The damper blade is controlled by a thermostat knob that is positioned accordingly based on desired heat output. The bimetallic coil regulates the flow of intake air by adjusting the damper blade angle based on its reaction with heat radiating off the appliance. As the fire loses intensity (appliance radiates less heat) the bimetallic coil contracts causing both the damper blade angle and the flow of intake air to increase which stokes the fire so the appliance can maintain the desired heat output. As the fire gains intensity (appliance radiates more heat) the bimetallic coil expands causing both the damper blade angle and the flow of intake air to decrease for the opposite effect.

When preforming a emission certification test run in the Low Burn rate category (<0.8kg/hr), Blaze King's target fuel consumption rate is 0.1lb of test fuel per 10 minute interval. To achieve this, the thermostat knob is positioned such that the damper blade is almost fully closed. If the blade is closed beyond this point, inadequate intake air would cause the burn to stall. This low burn rate is consistently achievable in a test lab environment given that external conditions are held constant. However, when burning in a real world environment, external conditions cannot be held constant which could yield a faster low burn rate given the same thermostat knob setting as used in the test lab environment.

A great example of a real world inconsistency that would affect the low burn rate is chimney draft. If the unit were installed with a chimney height of 20ft or greater, the increased draft associated with that chimney height could increase the velocity of intake air into the unit and result in a faster low burn rate given the same thermostat knob setting as used in the test lab. In this scenario, the operator would be able to turn the thermostat knob lower to account for the increased draft and maintain the same low burn rate that was achieved in the test lab environment. If the consumer were to turn the thermostat knob too low, the fire would stall due to inadequate intake air as previously mentioned. This proves that when the damper blade is closed within the thermostat, regardless of the thermostat knob position, the low burn rate achieved during emissions testing is no greater than the rate that an operator can achieve in real world use.

Note To File

Subject: Low Burn Rate Justification

Parties: EPA Staff

Dr. Rafael Sanchez-OEECA

Robert (Bob) Scinta-OEECA

Steffan Johnson-OAQPS

Patrick Yellin-OEECA

Angelina Brashear-OAQPS

Mike Toney-OAQPS

Ashnil Reddy-Blaze King

Chris Neufeld-Blaze King

Background: On January 1, 2021, we received an email from Dr. Sanchez in which he comments that EPA had received an email expressing concern about the low burn rate on the PE32 test report. The email expressing concern was from ADEC.

EPA requested data to support the PE32 was in fact tested at the lowest burn rate possible. Data was submitted (attached) to EPA on January 13, 2021. Subsequently, EPA requested a virtual phone call with Blaze King's Ashnil Reddy and Chris Neufeld where we were to be asked questions related to the data. OAQPS was given the time to review the data and Low Burn Justification memorandum submitted 01/13/2021.

Blaze King and EPA conducted a virtual phone call. Present were all the parties cited in the header of this memorandum. Several questions were asked about the data and responded to by Ashnil Reddy. OEECA's Bob Scinta inquired of Steffan Johnson if he was satisfied that the Blaze King Princess 32 had in fact been tested at the lowest burn rate possible. Stef asked Angelina Brashear her opinion, having reviewed the supporting data and she commented she was. Stef then asked Mike Toney, having also reviewed the data, and he too acknowledged his support.

Stef then said that as far has he and his staff were concerned, the data a supporting document supported the PE32 had been tested at the lowest possible burn rate.

Bob Scinta commented that as far as EPA was concerned, Blaze King had provided sufficient data for the agency to review and it was the decision of EPA that the PE32 had been tested at the lowest possible burn rate.

Update: Dr. Rafael Sanchez called me (Chris Neufeld) and asked that we included the letter of Low Burn Justification with each test report for all our units that use out thermostat.

This cover memo and supporting documents and data will be included in all CBI reports submitted to EPA

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A2LA ACCREDITED
CERTIFICATE #1550.01

PFS Teco
11785 SE Hwy 212 STE#305
Clackamas, OR 97015

Report Number: DIRI0182484A0912013i231228

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Scale	Digiweigh	DWP12i 300kg x 0.	82484A0912013i	#050	Lab
Units	**Readability**	**SOP**	**Cal Date**	**Last Cal Date**	**Cal Due Date**
lbs	0.01	QC033	12/28/23	12/14/22	12/2024

FUNCTIONAL CHECKS

SHIFT TEST	LINEARITY	REPEATABILITY	ENVIRONMENTAL CONDITIONS
Test Wt: 100 Tol: 0.05	Test Wt: HB44 Tol: HB44	Test Wt: 100 Tol: 0.01	☐ Good ☑ Fair ☐ Poor
As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	Temperature: 19.3°C
As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
400	399.87	400.01	0.006
200	200.00	200.00	0.005
100	100.02	100.02	0.005
75	75.02	75.02	0.005
50	50.02	50.02	0.005
25	25.00	25.00	0.005

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Avoirdupois Cast W	Rice Lake	25 and 50lb	PWO990-CA	7/18/22	7/2024	20221688

Permanent Information Concerning this Equipment:

Comments/Information Concerning this Calibration

12/28/23: RH-42.5%

Report prepared/reviewed by: R.B. **Date:** 12-28-23 **Technician:** C.Call

Signature:

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

KING KE40

SN - 51.

BLAZE KING CATALYTIC STOVE - POÊLE À BOIS CATALYTIQUE

PFS Report # F19-513

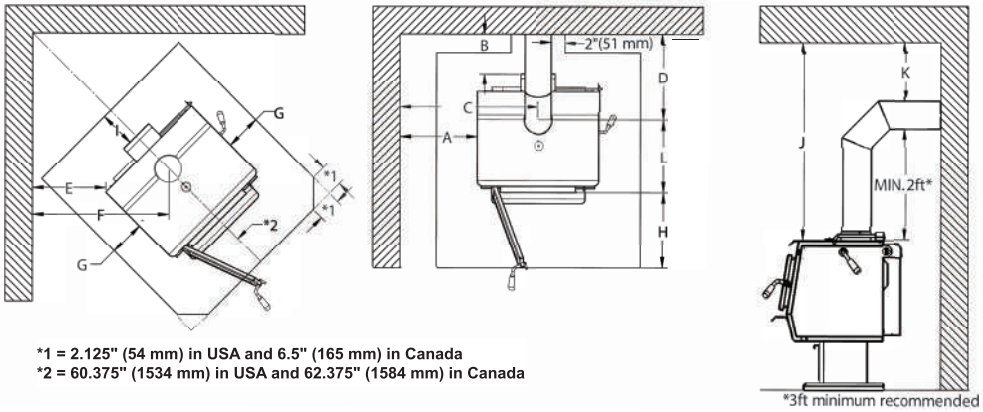
MODEL / MODÈLE: KE40
ROOM HEATER, SOLID FUEL TYPE / APPAREIL DE CHAUFFAGE, TYPE COMBUSTIBLE SOLIDE
TESTED TO / TESTÉ: UL 1482-11(R2022) & CAN/ULC-S627:2023
CERTIFIED FOR USE IN BOTH USA AND CANADA / CERTIFIÉ POUR UNE UTILISATION AUX ÉTATS-UNIS ET AU CANADA
APPROVED FOR USE IN MOBILE HOMES (USA) AND IN TRANSPORTABLE BUILDINGS (CAN) / APPROUVÉ POUR UNE UTILISATION DANS LES MAISONS MOBILES (USA) ET DANS LES BÂTIMENTS TRANSPORTABLES (CAN)

Install and use this appliance in accordance with Blaze King's installation and operation instructions. Contact local building or fire officials about restrictions and installation inspection in your area. To be installed as a freestanding space heater with the clearances listed below and in the installation instructions. Not to be installed in any fireplace. DO NOT CONNECT THIS APPLIANCE TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE. The flue diameter is 8". Except for the installation detailed below, use a 8" listed, factory built chimney suitable for use with solid fuels conforming to UL-103HT (USA) or CAN/ULC-S629 (CAN) or a code comliant, masonry chimney.
Mobile Home (USA) or Transportable Building (CAN) and residential close clearance installations require a 8" listed double wall, close clearance chimney connector with matching listed factory built chimney suitable for use with solid fuels and conforming to UL-103HT (USA) or CAN/ULC-S629 (CAN). Mobile Home (USA) or Transportable Buildings (CAN) installations are approved for roof exit only. Do not install in a sleeping room. Connection through a wall or ceiling requires special methods, see instructions and refer to local building codes to ensure proper installation.

Installez et utilisez cet appareil conformément aux instructions d'installation et d'utilisation de Blaze King. Contactez les responsables locaux du bâtiment ou des pompiers au sujet des restrictions et de l'inspection de l'installation dans votre région. À installer en tant qu'appareil de chauffage autonome avec les dégagements indiqués ci-dessous et dans les instructions d'installation. Ne pas installer dans une cheminée. NE RACCORDEZ PAS CET APPAREIL À UN CONDUIT DE CHEMINÉE DESSERVANT UN AUTRE APPAREIL. Le diamètre du conduit est de 8". À l'exception de l'installation détaillée ci-dessous, utilisez une cheminée de 8" homologuée et fabriquée en usine adaptée à une utilisation avec des combustibles solides conformes à UL-103HT (USA) ou CAN/ULC-S629 (CAN) ou un code conforme, cheminée en maçonnerie.
Les installations de maisons mobiles (USA) ou de bâtiments transportables (CAN) et résidentielles à dégagement réduit nécessitent un connecteur de cheminée homologué à double paroi et à dégagement réduit avec une cheminée fabriquée en usine homologuée adaptée à une utilisation avec des combustibles solides et conforme à UL-103HT (USA) ou CAN/ULC-S629 (CAN). Les installations de maisons mobiles (USA) ou de bâtiments transportables (CAN) sont approuvées pour une sortie sur le toit uniquement. Ne pas installer dans une chambre à coucher. La connexion à travers un mur ou un plafond nécessite des méthodes spéciales, voir les instructions et se référer aux codes du bâtiment locaux pour assurer une installation correcte.

MINIMUM CLEARANCES TO COMBUSTIBLES (see owners manual for complete description of all requirements)
*** In Canada, 18" clearances from single wall pipe is required. Check with local codes and pipe manufacturers for minimum pipe clearances.**
DÉGAGEMENTS MINIMUM AUX COMBUSTIBLES (voir les directives d'installation pour la description complète de toutes les conditions)
*** Au Canada, un dégagement de 18 po est exigé pour un tuyau à simple paroi. Vérifier avec le code du bâtiment local et avec le manufacturier de tuyaux pour les dégagements.**

Residential Installations / Installations Résidentielles	A	B	* C	* D	E	* F	J
Roof Exit or Wall Exit, Parallel or Corner minimum clearances Dégagements minimaux de sortie de toit ou de sortie murale, parallèle ou d'angle	10" 254 mm	6" 153 mm	25.5" 648 mm	16.125" 410 mm	4" 102 mm	19.375" 492 mm	48.125" 1223 mm
Mobile Home (USA) or Transportable Building (CAN) / Maison mobile (USA) or Bâtiment transportable (CAN)							
Roof Exit, Parallel or Corner minimum clearances; outside Air Kit and Fan Kit or Rear Shield required Dégagements minimaux de sortie de toit, parallèles ou en coin; Kit d'air extérieur et kit de ventilateur ou écran arrière requis	10" 254 mm	6" 153 mm	25.5" 648 mm	16.125" 410 mm	4" 102 mm	19.375" 492 mm	48.125" 1223 mm



***1 = 2.125" (54 mm) in USA and 6.5" (165 mm) in Canada**
***2 = 60.375" (1534 mm) in USA and 62.375" (1584 mm) in Canada**

G = 2" (51 mm) in USA 8" (203 mm) in Canada	H = 16" (406 mm) in USA 18" (457 mm) in Canada	I = 0" (0 mm) in USA 8" (203 mm) in Canada	* K = 18" (457 mm) for single wall pipe in Canada

This appliance does not require thermal hearth pad floor protection; however, if installed on a combustible floor, a non-combustible floor shield must be used. Minimum floor protection size is: 35" x 43.125" (889 mm x 1096 mm) in USA or 47" x 53.125" (1194 mm x 1350 mm) in Canada.
This appliance is certified to comply with 2020 particulate emission standards using crib wood (certified to EPA test methods 28R/5G with an emission-rate of 1.0 g/hr). It is against federal regulations to operate this appliance in a manner inconsistent with operating instructions in the owner's manual or if the catalytic combustor is deactivated or removed. This appliance needs periodic inspection and repair for proper operation; consult the owner's manual for instruction.
ONLY OPERATE WITH DOOR CLOSED; open door to feed fire ONLY. DO NOT OBSTRUCT COMBUSTION AIR OPENINGS OR THE SPACE BENEATH THE APPLIANCE. Provide adequate outside air for combustion. For use with solid wood fuel only; do not burn other fuels as this will cause the catalyst in the combustor to become inactive. The performance of the combustor or its durability has not been evaluated as part of the certification. Combustor OEM part number: 115-1510-C2. Replace glass with 5mm ceramic glass only. This appliance must be installed with either Blaze King Leg Kit Z1713, Classic Base Kit Z4815, or Pedestal Kit Z3903; attach as instructed in the installation instructions.

Cet appareil ne nécessite pas de protection thermique du sol du foyer; cependant, s'il est installé sur un plancher combustible, un protecteur de plancher non combustible doit être utilisé. La taille minimale de la protection de plancher est de: 35" x 43.125" (889 mm x 1096 mm) aux USA ou 47" x 53.125" (1194 mm x 1350 mm) au Canada.
Cet appareil est certifié conforme aux normes d'émission de particules 2020 utilisant du bois de lit (certifié selon les méthodes de test EPA 28R/5G avec un taux d'émission de 1.0 g/h). Il est contraire aux réglementations fédérales d'utiliser cet appareil d'une manière incompatible avec les instructions d'utilisation du manuel du propriétaire ou si la chambre de combustion catalytique est désactivée ou retirée. Cet appareil nécessite une inspection et une réparation périodiques pour un bon fonctionnement; consultez le manuel du propriétaire pour obtenir des instructions.
FONCTIONNER UNIQUEMENT AVEC LA PORTE FERMÉE; ouvrir la porte UNIQUEMENT pour alimenter le feu. NE PAS OBSTRUER LES OUVERTURES D'AIR DE COMBUSTION ou l'espace sous l'appareil. Fournir suffisamment d'air extérieur pour la combustion. À utiliser uniquement avec du bois de chauffage solide; ne brûlez pas d'autres combustibles car cela rendrait le catalyseur dans la chambre de combustion inactif. Les performances de la chambre de combustion ou sa durabilité n'ont pas été évaluées dans le cadre de la certification. Numéro de pièce OEM de la chambre de combustion: 115-1510-C2. Remplacez le verre par du verre céramique de 5 mm uniquement. Cet appareil doit être installé avec Blaze King Kit de jambe Z1713, Base Classique Kit Z4815, ou Piédestal Kit Z3903; fixer comme indiqué dans les instructions d'installation.

MANUFACTURED IN

☐ USA:
Blaze King Industries
146A Street
Walla Walla, WA.
99362

☐ CANADA:
Valley Comfort Systems
1290 Commercial Way
Penticton, B.C.
V2A 3H5

MANUFACTURE DATE

JAN ☐ FEB ☐ MAR ☐ APR ☐ MAY ☐ JUN ☐
JUL ☐ AUG ☐ SEP ☐ OCT ☐ NOV ☐ DEC ☐
2024 ☐ 2025 ☐ 2026 ☐ 2027 ☐ 2028 ☐ 2029 ☐

Dry Gas Meter Calibration

DUT	
Manufacturer:	APEX
Model:	XC-60
Lab ID #:	53
Serial #:	1902130
Calibration Date:	2/1/2024
Calibration Expiration:	8/1/2024
Barometric Pressure:	29.34 in. Hg

Equipment Used:	Ref. Std. DGM	Thermometer	Barometer	Manometer
Manufacturer:	Apex	NI	Aquatech	Dwyer
Model:	SK25DA	NI-9213	DBX2	475
Lab ID#:	47	215	202	174
Calibration Expiration Date:	4/17/2024	2/28/2024	5/23/2024	4/21/2024
Calibration γ Factor:	0.9988			

Use in accordance with EPA Method 5, sections 10.3 and 16.1. Use only calibrated, NIST traceable reference standard DGM. Caibrate over expected operating flow range of DUT.

Calibration Data	Run 1	Run 2	Run 3
Standard DGM Initial Volume (L)	0.000	0.000	0.000
Standard DGM Final Volume (L)	152.041	148.633	164.152
Standard DGM Temperature (°F)	74.0	75.0	75.0
Standard DGM Pressure (in H_2O)	0.00	0.00	0.0
DGM Initial Volume (ft^3)	0.000	0.000	0.000
DGM Final Volume (ft^3)	5.491	5.416	6.003
DGM Temperature (°F)	96.0	98.0	100.0
DGM Pressure (in H_2O)	4.55	1.83	2.90
Net Volume for Standard DGM (ft^3)	5.369	5.249	5.797
Net Volume for DGM (ft^3)	5.491	5.416	6.003

Dry Gas Meter γ Factor	1.005	1.005	1.002
γ Factor Deviation From Average	1.005	1.005	1.002

Average Gas Meter γ Factor: 1.004

Measurement Uncertainty: Total measurement uncertainty +/- 0.748% RD, K=2

Calculations:

1. Deviation = |Average value for all runs - current run value|
2. $\gamma = [V_{std} \times (\gamma_{Std}) \times (P_{bar}+P_{std}/13.6) \times (T_{DGM} + 460)] / [V_{DGM} \times (T_{std} + 460) \times (P_{bar} + P_{DGM}/ 13.6)]$

Dry Gas Meter Calibration

DUT	
Manufacturer:	APEX
Model:	XC-60
Lab ID #:	54
Serial #:	1902133
Calibration Date:	2/1/2024
Calibration Expiration:	8/1/2024
Barometric Pressure:	29.34 in. Hg

Equipment Used:	Ref. Std. DGM	Thermometer	Barometer	Manometer
Manufacturer:	Apex	NI	Aquatech	Dwyer
Model:	SK25DA	NI-9213	DBX2	475
Lab ID#:	47	215	202	174
Calibration Expiration Date:	4/17/2024	2/28/2024	5/23/2024	4/21/2024
Calibration γ Factor:	0.9988			

Use in accordance with EPA Method 5, sections 10.3 and 16.1. Use only calibrated, NIST traceable reference standard DGM. Caibrate over expected operating flow range of DUT.

Calibration Data	Run 1	Run 2	Run 3
Standard DGM Initial Volume (L)	0.000	0.000	0.000
Standard DGM Final Volume (L)	148.890	148.972	150.647
Standard DGM Temperature (°F)	75.0	75.0	75.0
Standard DGM Pressure (in H_2O)	0.00	0.00	0.0
DGM Initial Volume (ft^3)	0.000	0.000	0.000
DGM Final Volume (ft^3)	5.418	5.418	5.520
DGM Temperature (°F)	101.0	101.0	101.0
DGM Pressure (in H_2O)	3.96	4.95	2.02
Net Volume for Standard DGM (ft^3)	5.258	5.261	5.320
Net Volume for DGM (ft^3)	5.418	5.418	5.520

Dry Gas Meter γ Factor	1.006	1.005	1.004
γ Factor Deviation From Average	1.006	1.005	1.004

Average Gas Meter γ Factor: 1.005

Measurement Uncertainty: Total measurement uncertainty +/- 0.748% RD, K=2

Calculations:

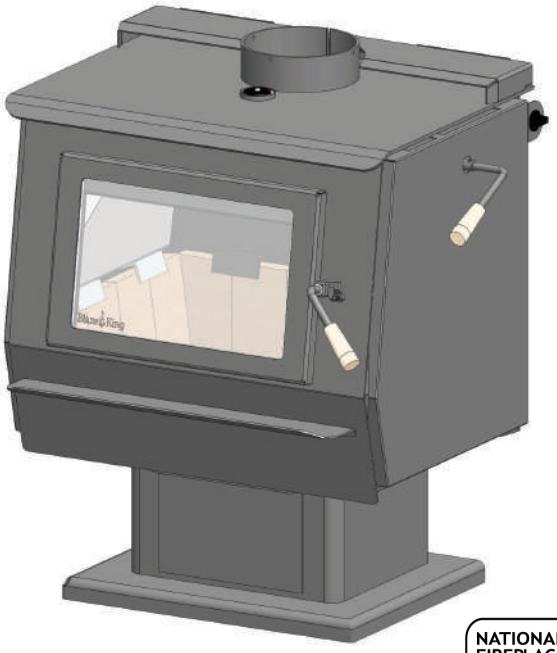
1. Deviation = |Average value for all runs - current run value|
2. $\gamma = [V_{std} \times (\gamma_{Std}) \times (P_{bar}+P_{std}/13.6) \times (T_{DGM} + 460)] / [V_{DGM} \times (T_{std} + 460) \times (P_{bar} + P_{DGM}/ 13.6)]$

Blaze King

KING KE40

SOLID FUEL CATALYTIC STOVE

OPERATION & INSTALLATION MANUAL



We recommend that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).

U.S. EPA CERTIFIED TO COMPLY WITH 2020 PARTICULATE EMISSION STANDARDS USING CRIB WOOD

PFS® C US

REPORT #F19-513

Installer: Please COMPLETE THE DETAILS ON THE LAST PAGE and leave this manual with the homeowner.
Homeowner: Please SAVE THESE INSTRUCTIONS for future reference.

MANUFACTURED BY
Valley Comfort Systems Inc., 1290 Commercial Way, Penticton BC, Canada, V2A 3H5
web: www.blazeking.com email: info@blazeking.com

ATTENTION: The authority having jurisdiction (municipal building department, fire department, etc.) should be consulted before installation to determine the need to obtain a permit.

Pour la version française de nos manuels S.V.P. vous référez à notre site web: www.blazeking.com

180-KE40 v3.00 April 15, 2024

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CERTIFICATION LABEL

For reference only - please refer to label on the appliance

PFS Report # F19-513

KING KE40

SN - 51.

BLAZE KING CATALYTIC STOVE - POÊLE À BOIS CATALYTIQUE

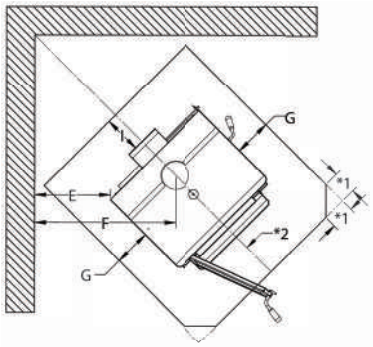
MODEL / MODÈLE: KE40
ROOM HEATER, SOLID FUEL TYPE / APPAREIL DE CHAUFFAGE, TYPE COMBUSTIBLE SOLIDE
TESTED TO / TESTÉ: UL 1482-11(R2022) & CAN/ULC-S627:2023
CERTIFIED FOR USE IN BOTH USA AND CANADA / CERTIFIÉ POUR UNE UTILISATION AUX ÉTATS-UNIS ET AU CANADA
APPROVED FOR USE IN MOBILE HOMES (USA) AND IN TRANSPORTABLE BUILDINGS (CAN) / APPROUVÉ POUR UNE UTILISATION DANS LES MAISONS MOBILES (USA) ET DANS LES BÂTIMENTS TRANSPORTABLES (CAN)

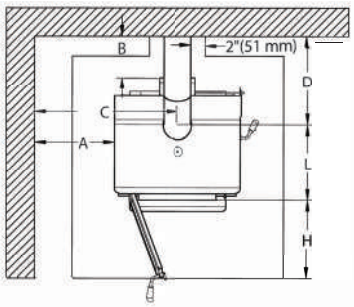
Install and use this appliance in accordance with Blaze King's installation and operation instructions. Contact local building or fire officials about restrictions and installation inspection in your area. To be installed as a freestanding space heater with the clearances listed below and in the installation instructions. Not to be installed in any fireplace. DO NOT CONNECT THIS APPLIANCE TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE. The flue diameter is 8". Except for the installation detailed below, use a 8" listed, factory built chimney suitable for use with solid fuels conforming to UL-103HT (USA) or CAN/ULC-S629 (CAN) or a code compliant, masonry chimney.
Mobile Home (USA) or Transportable Building (CAN) and residential close clearance installations require a 8" listed double wall, close clearance chimney connector with matching listed factory built chimney suitable for use with solid fuels and conforming to UL-103HT (USA) or CAN/ULC-S629 (CAN). Mobile Home (USA) or Transportable Buildings (CAN) installations are approved for roof exit only. Do not install in a sleeping room. Connection through a wall or ceiling requires special methods, see instructions and refer to local building codes to ensure proper installation.

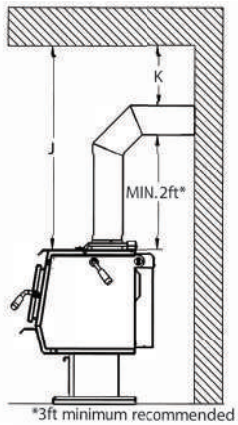
Installez et utilisez cet appareil conformément aux instructions d'installation et d'utilisation de Blaze King. Contactez les responsables locaux du bâtiment ou des pompiers au sujet des restrictions et de l'inspection de l'installation dans votre région. À installer en tant qu'appareil de chauffage autonome avec les dégagements indiqués ci-dessous et dans les instructions d'installation. Ne pas installer dans une cheminée. NE RACCORDEZ PAS CET APPAREIL À UN CONDUIT DE CHEMINÉE DESSERVANT UN AUTRE APPAREIL. Le diamètre du conduit est de 8". À l'exception de l'installation détaillée ci-dessous, utilisez une cheminée de 8" homologuée et fabriquée en usine adaptée à une utilisation avec des combustibles solides conformes à UL-103HT (USA) ou CAN/ULC-S629 (CAN) ou un code conforme, cheminée en maçonnerie.
Les installations de maisons mobiles (USA) ou de bâtiments transportables (CAN) et résidentielles à dégagement réduit nécessitent un connecteur de cheminée homologué à double paroi et à dégagement réduit avec une cheminée fabriquée en usine homologuée adaptée à une utilisation avec des combustibles solides et conforme à UL-103HT (USA) ou CAN/ULC-S629 (CAN). Les installations de maisons mobiles (USA) ou de bâtiments transportables (CAN) sont approuvées pour une sortie sur le toit uniquement. Ne pas installer dans une chambre à coucher. La connexion à travers un mur ou un plafond nécessite des méthodes spéciales, voir les instructions et se référer aux codes du bâtiment locaux pour assurer une installation correcte.

MINIMUM CLEARANCES TO COMBUSTIBLES (see owners manual for complete description of all requirements)
* In Canada, 18" clearances from single wall pipe is required. Check with local codes and pipe manufacturers for minimum pipe clearances.
DÉGAGEMENTS MINIMUM AUX COMBUSTIBLES (voir les directives d'installation pour la description complète de toutes les conditions)
* Au Canada, un dégagement de 18 po est exigé pour un tuyau à simple paroi. Vérifier avec le code du bâtiment local et avec le manufacturier de tuyaux pour les dégagements.

Residential Installations / Installations Résidentielles	A	B	* C	* D	E	* F	J
Roof Exit or Wall Exit, Parallel or Corner minimum clearances Dégagements minimaux de sortie de toit ou de sortie murale, parallèle ou d'angle	10" 254 mm	6" 153 mm	25.5" 648 mm	16.125" 410 mm	4" 102 mm	19.375" 492 mm	48.125" 1223 mm
Mobile Home (USA) or Transportable Building (CAN) / Maison mobile (USA) or Bâtiment transportable (CAN)							
Roof Exit, Parallel or Corner minimum clearances; outside Air Kit and Fan Kit or Rear Shield required Dégagements minimaux de sortie de toit, parallèles ou en coin; Kit d'air extérieur et kit de ventilateur ou écran arrière requis	10" 254 mm	6" 153 mm	25.5" 648 mm	16.125" 410 mm	4" 102 mm	19.375" 492 mm	48.125" 1223 mm







*1 = 2.125" (54 mm) in USA and 6.5" (165 mm) in Canada
*2 = 60.375" (1534 mm) in USA and 62.375" (1584 mm) in Canada

G = 2" (51 mm) in USA 8" (203 mm) in Canada	H = 16" (406 mm) in USA 18" (457 mm) in Canada	I = 0" (0 mm) in USA 8" (203 mm) in Canada	* K = 18" (457 mm) for single wall pipe in Canada	L = 17" (432 mm)

This appliance does not require thermal hearth pad floor protection; however, if installed on a combustible floor, a non-combustible floor shield must be used. Minimum floor protection size is: 35" x 43.125" (889 mm x 1096 mm) in USA or 47" x 53.125" (1194 mm x 1350 mm) in Canada.
This appliance is certified to comply with 2020 particulate emission standards using crib wood (certified to EPA test methods 28R/5G with an emission-rate of 1.0 g/hr). It is against federal regulations to operate this appliance in a manner inconsistent with operating instructions in the owner's manual or if the catalytic combustor is deactivated or removed. This appliance needs periodic inspection and repair for proper operation; consult the owner's manual for instruction.
ONLY OPERATE WITH DOOR CLOSED; open door to feed fire ONLY. DO NOT OBSTRUCT COMBUSTION AIR OPENINGS OR THE SPACE BENEATH THE APPLIANCE. Provide adequate outside air for combustion. For use with solid wood fuel only; do not burn other fuels as this will cause the catalyst in the combustor to become inactive. The performance of the combustor or its durability has not been evaluated as part of the certification. Combustor OEM part number: 115-1510-C2. Replace glass with 5mm ceramic glass only. This appliance must be installed with either Blaze King Leg Kit Z1713, Classic Base Kit Z4815, or Pedestal Kit Z3903; attach as instructed in the installation instructions.

Cet appareil ne nécessite pas de protection thermique du sol du foyer; cependant, s'il est installé sur un plancher combustible, un protecteur de plancher non combustible doit être utilisé. La taille minimale de la protection de plancher est de: 35" x 43.125" (889 mm x 1096 mm) aux USA ou 47" x 53.125" (1194 mm x 1350 mm) au Canada.
Cet appareil est certifié conforme aux normes d'émission de particules 2020 utilisant du bois de lit (certifié selon les méthodes de test EPA 28R/5G avec un taux d'émission de 1.0 g/h). Il est contraire aux réglementations fédérales d'utiliser cet appareil d'une manière incompatible avec les instructions d'utilisation du manuel du propriétaire ou si la chambre de combustion catalytique est désactivée ou retirée. Cet appareil nécessite une inspection et une réparation périodiques pour un bon fonctionnement; consultez le manuel du propriétaire pour obtenir des instructions.
FONCTIONNER UNIQUEMENT AVEC LA PORTE FERMÉE; ouvrir la porte UNIQUEMENT pour alimenter le feu. NE PAS OBSTRUER LES OUVERTURES D'AIR DE COMBUSTION ou l'espace sous l'appareil. Fournir suffisamment d'air extérieur pour la combustion. À utiliser uniquement avec du bois de chauffage solide; ne brûlez pas d'autres combustibles car cela rendrait le catalyseur dans la chambre de combustion inactif. Les performances de la chambre de combustion ou sa durabilité n'ont pas été évaluées dans le cadre de la certification. Numéro de pièce OEM de la chambre de combustion: 115-1510-C2. Remplacez le verre par du verre céramique de 5 mm uniquement. Cet appareil doit être installé avec Blaze King Kit de jambe Z1713, Base Classique Kit Z4815, ou Piédestal Kit Z3903; fixer comme indiqué dans les instructions d'installation.

MANUFACTURED IN

☐ **USA:**
Blaze King Industries
146A Street
Walla Walla, WA.
99362

☐ **CANADA:**
Valley Comfort Systems
1290 Commercial Way
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170-0261 [04 24]

The content within this manual describes the installation and operation of the Blaze King KE40. It is against federal regulations to operate this appliance in a manner inconsistent with the operating instructions in this manual. Blaze King grants no warranty, implied or stated, for the installation and maintenance of this appliance and assumes no responsibility of any consequential damage(s).

EPA CERTIFICATION TEST DATA		
Burn Category	**CO Avg**	**Emission Rate**
Low Burn	0.06 g/min	0.28 g/hr
Med-low Burn	0.65 g/min	1.07 g/hr
Med-high Burn	0.25 g/min	1.25 g/hr
High Burn	0.98 g/min	1.75 g/hr
EPA emission rate weighted average		1.0 g/hr

This appliance was tested and listed to CAN/ULC-S627:2023 & UL1482-11 (R2022) by PFS-TECO Testing Laboratories. This appliance is certified to comply with the 2020 U.S. Environmental Protection Agency's particulate emission standards using crib wood. Under specific test conditions, this appliance has been shown to deliver heat at rates ranging from 10,392 to 38,516 Btu/hr. This appliance has a manufacturer-set minimum low burn rate that must not be altered. It is against federal regulations to alter this setting.

This appliance contains a catalytic combustor which needs periodic inspection and may require replacement to ensure proper operation. It is against federal regulations to operate this appliance if the catalytic combustor is deactivated or removed.

⚠WARNING

IF THIS APPLIANCE IS NOT PROPERLY INSTALLED OR OPERATED, A HOUSE FIRE MAY RESULT LEADING TO SERIOUS BODILY HARM AND EVEN DEATH. TO REDUCE THE RISK OF FIRE, PLEASE READ THIS ENTIRE MANUAL BEFORE INSTALLING AND OPERATING THIS APPLIANCE. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

DO NOT OPERATE THIS APPLIANCE WITHOUT FULLY ASSEMBLING ALL COMPONENTS. DO NOT INSTALL DAMAGED, INCOMPLETE, OR SUBSTITUTE COMPONENTS. FAILURE TO POSITION COMPONENTS IN ACCORDANCE WITH THE DIAGRAMS IN THIS BOOKLET, OR FAILURE TO USE COMPONENTS SPECIFICALLY APPROVED WITH THIS APPLIANCE, MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY.

SMOKE DETECTORS, CARBON MONOXIDE DETECTORS, AND FIRE EXTINGUISHERS

IT IS VERY IMPORTANT TO HAVE AT LEAST ONE SMOKE DETECTOR AND ONE CARBON MONOXIDE MONITOR IN THE ROOM CONTAINING THE APPLIANCE. IT IS RECOMMENDED TO HAVE SEVERAL SMOKE DETECTORS AND CARBON MONOXIDE MONITORS POSITIONED IN KEY AREAS THROUGHOUT YOUR HOME. IF AN ALARM SOUNDS, EVACUATE THE HOME IMMEDIATELY. AFTER YOU HAVE DETERMINED THAT THERE IS NO RISK TO HEALTH OR PROPERTY, YOU MAY CORRECT THE CAUSE OF THE ALARM. DO NOT DE-ACTIVATE OR RELOCATE THE SMOKE DETECTORS OR CARBON MONOXIDE MONITORS. ALL HOMES WITH A SOLID FUEL BURNING APPLIANCE SHOULD HAVE AT LEAST ONE FIRE EXTINGUISHER IN A CENTRAL LOCATION THAT IS KNOWN TO ALL OCCUPANTS IN THE HOUSE.

CALIFORNIA PROPOSITION 65

WARNING: This product can expose you to chemicals including benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information: **www.P65Warnings.ca.gov**

SPECIFICATIONS

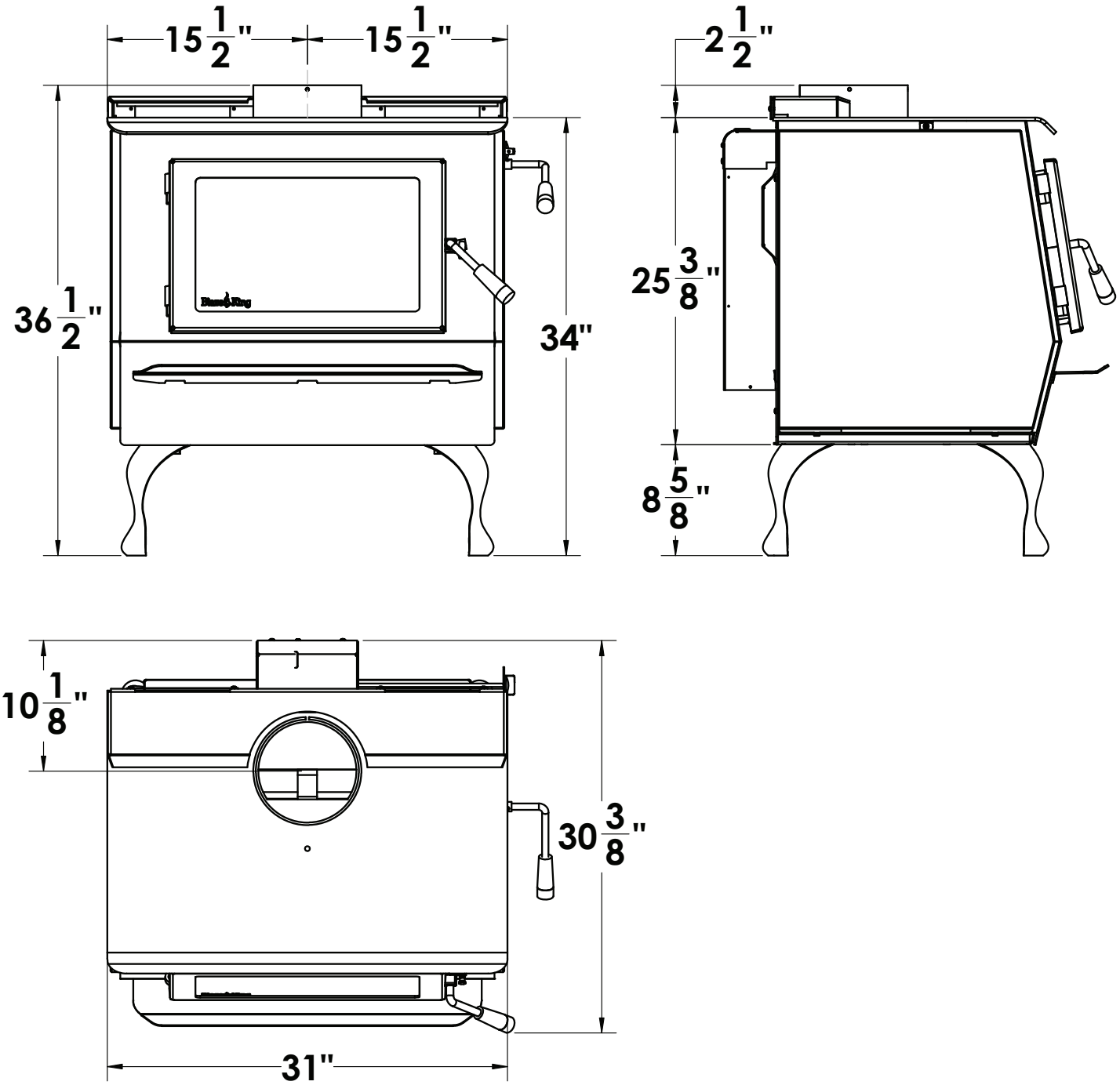
KING 40, KE40 SPECIFICATIONS	
Flue Collar Opening	8” I.D. (203 mm)
Firebox Door Opening	18 1/2” x 9 3/4” (470 mm x 247 mm)
Firebox Volume	4.35 ft^3 (0.123 m^3)
Tested Fuel Length	19” (483 mm)
Wood Capacity (approximate)	White Oak - 80 lb (36 kg) / Douglas Fir - 55lb (24 kg)
Shipping Weight (Firebox only)	420 lb (190.5 kg)
Shipping Weight (Pedestal Kit)	50 lb (22.7 kg)
Shipping Weight (Base Kit)	30 lb (13.6 kg)
Shipping Weight (Leg Kit)	20 lb (9.1 kg)

PARTS INCLUDED
1. Fire Poker
2. Manual Kit (w/ Warranty Cards, Catalytic Thermometer, Bypass Handle)

REQUIRED KIT	
1. S.Z4886 - Door	
REQUIRED KIT (MUST INSTALL ONE OPTION)	
1. S.Z1713 - Parlor Leg Kit	2. S.Z3903 - Ultra Pedestal Kit
3. S.Z4815 - Classic Base Kit	

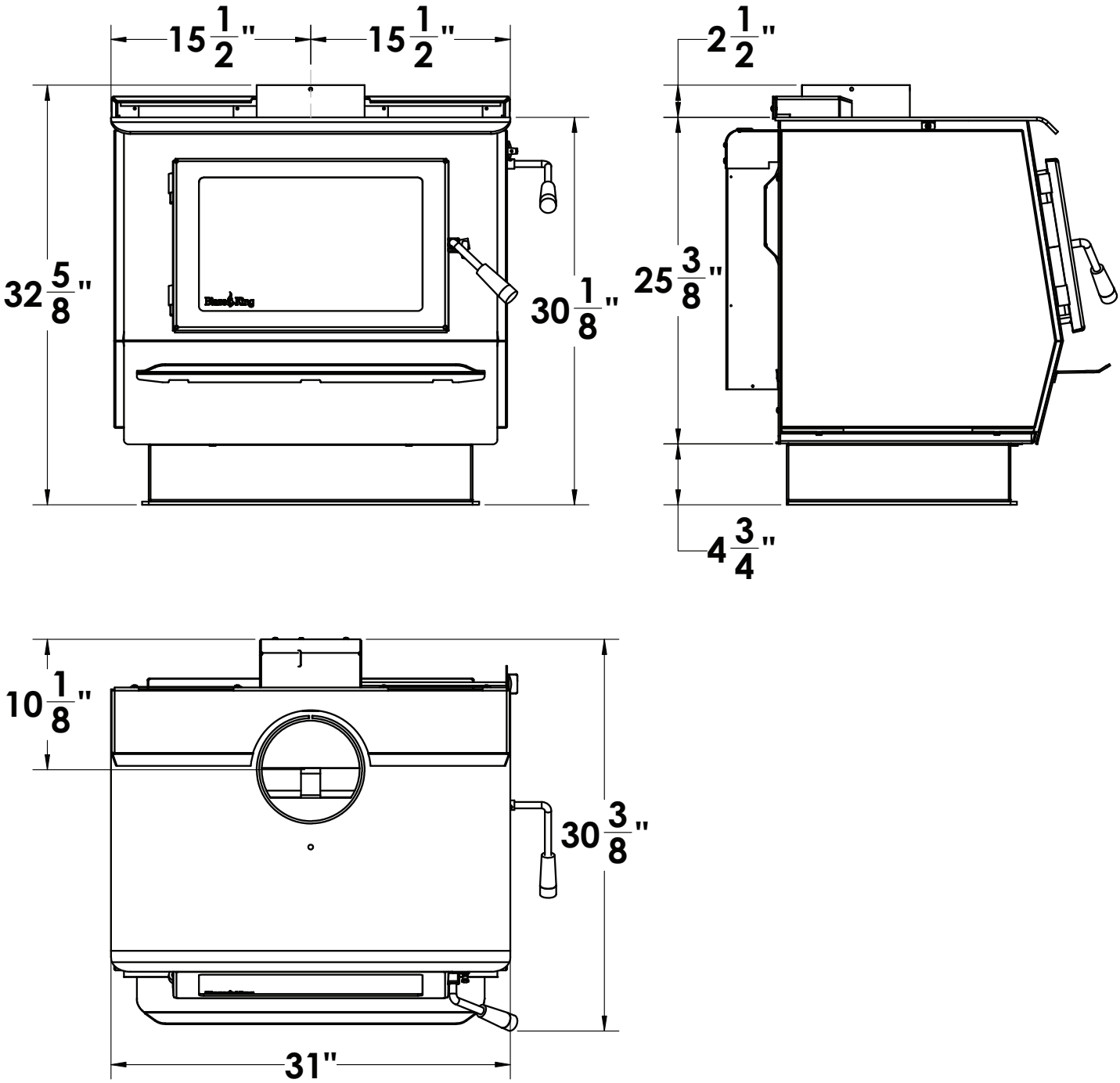
OPTIONAL ACCESSORIES	
1. S.Z1714 - Fan Kit	2. S.Z3820 - Leg Ash Drawer Kit
3. S.Z4710 - Rear Shield	4. S.Z1726B Fresh Air Kit 3”
5. S.Z1726 Fresh Air Kit 4”	

KE40 WITH PARLOR LEG KIT(S.Z1713)

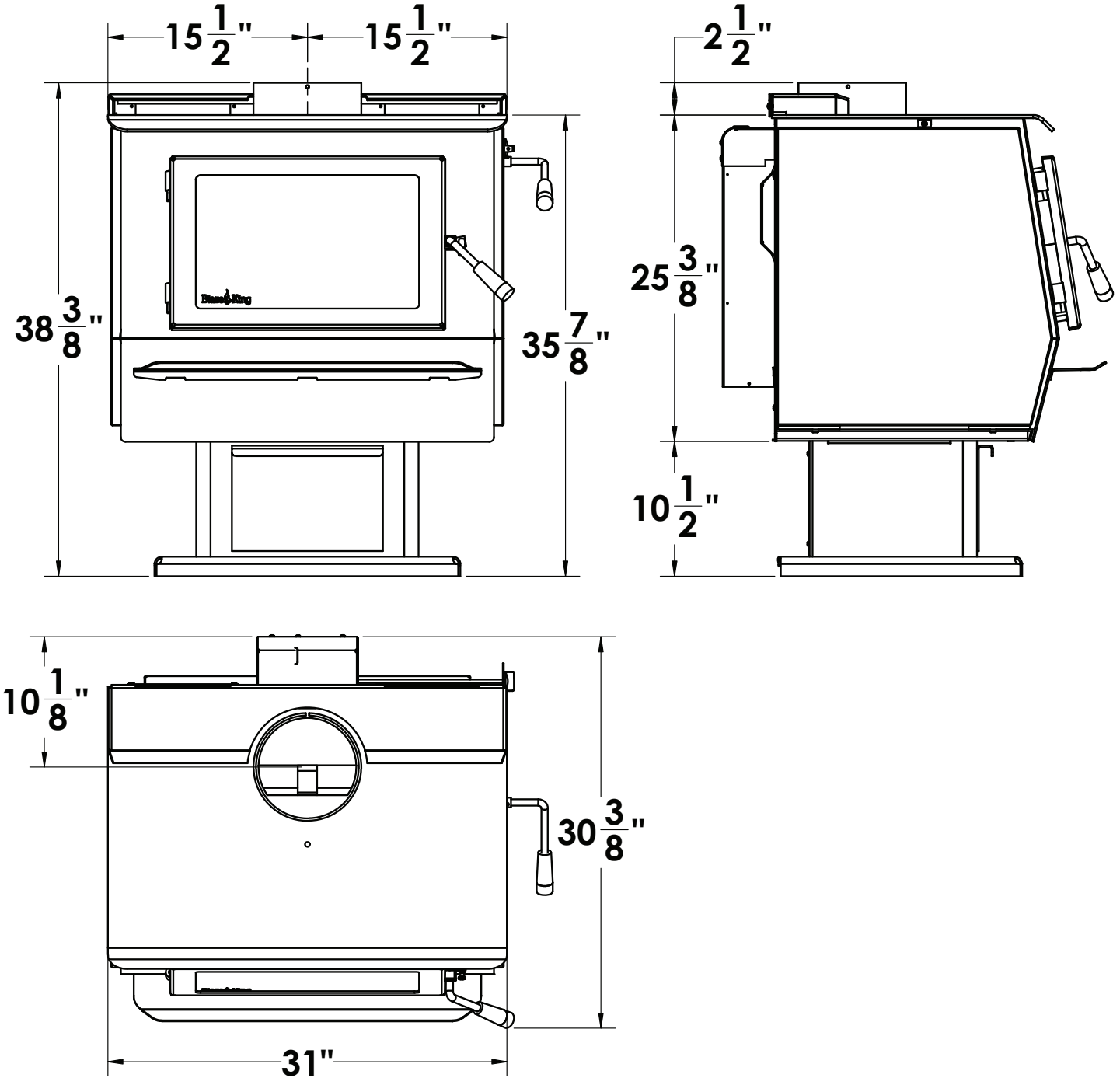


APPLIANCE DIMENSIONS

KE40 WITH CLASSIC BASE KIT (S.Z4815)



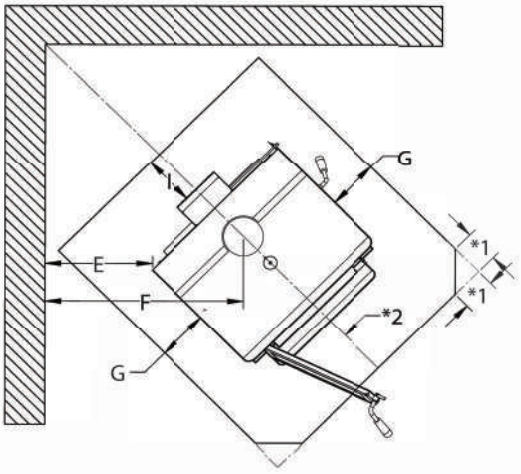
KE40 WITH ULTRA PEDESTAL KIT (S.Z3903)

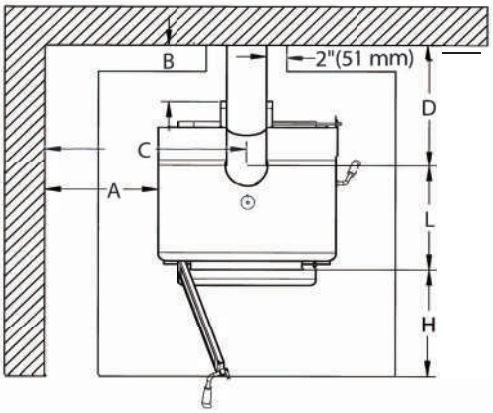


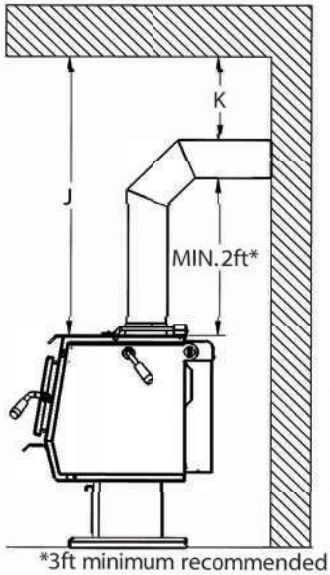
MINIMUM CLEARANCES

This appliance must be installed in compliance with all local codes and regulations. Minimum clearances may only be reduced by means approved by the regulatory authority. Flue pipe must be 8" diameter and 24 MSG steel construction. Do not use aluminum or galvanized steel. Refer to local codes and pipe manufacturer specs for required minimum clearances. ***In Canada, a minimum 18" (450 mm) clearance from single wall pipe is required.**

RESIDENTIAL INSTALLATION	A	B	* C	* D	E	* F	J
Roof or Wall exit; Parallel or Corner min clearances	10" 254 mm	6" 153 mm	25.5" 648 mm	16.125" 410 mm	4" 102 mm	19.375" 492 mm	48.125" 1223 mm
MOBILE HOME (USA) OR TRANSPORTABLE BUILDING (CAN) INSTALLATION							
Roof exit only; Parallel or Corner min clearances *Fan Kit or Rear Shield Kit + Outside Air Kit required	10" 254 mm	6" 153 mm	25.5" 648 mm	16.125" 410 mm	4" 102 mm	19.375" 492 mm	48.125" 1223 mm







*1 = 2.125" (54 mm) in USA and 6.5" (165 mm) in Canada
*2 = 60.375" (1534 mm) in USA and 62.375" (1584 mm) in Canada

G = 2" (51 mm) in USA 8" (203 mm) in Canada	H = 16" (406 mm) in USA 18" (456 mm) in Canada	I = 0" (0 mm) in USA 8" (203 mm) in Canada	* K = 18" (456 mm) for single wall pipe in Canada	L = 17" (432 mm)

FLOOR PROTECTION

This appliance does not require thermal hearth pad floor protection; however, if installed on a combustible floor, a non-combustible floor shield must be used. In the USA, this floor shield must extend 16" out from the front and 8" out from either side of the fuel-loading door. In Canada, to comply with CSA B365, any combustible covering beneath the appliance and/or within the area extending horizontally at least 18" (450 mm) beyond the appliance on any side equipped with a door, and at least 8" (200 mm) beyond the appliance on other sides, shall be protected by a continuous, durable, non-combustible pad that will provide ember protection. The 18" (450 mm) ember protection required on any side with a door shall extend for the full width of the appliance plus the 8" (200 mm) required on each side of the appliance without a door. Where an appliance is installed less than 8" (200 mm) from a wall, the ember pad need only extend to the base of the wall. An ember pad shall not be placed on top of a carpet unless the pad is structurally supported to prevent displacement and distortion. A non-combustible shield is also required underneath the chimney connector and extend at least 2" on either side of the chimney connector. This shield does not need an insulation value, but must be listed under UL 1618-2009 (Type 1) and have a minimum size of:

35" x 43.125" (889 x 1096 mm) in USA and 47" x 53.125" (1194 x 1350 mm) in Canada

Blaze King does not recommend adhesive based vinyl flooring in front of appliances due to thermal expansion and warping which could be permanent.

⚠WARNING

DO NOT CONNECT TO OR USE THIS APPLIANCE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCTWORK UNLESS SPECIFICALLY APPROVED FOR SUCH INSTALLATIONS
THIS APPLIANCE MUST BE CONNECTED TO: 1) A CHIMNEY COMPLYING WITH THE REQUIREMENTS FOR TYPE HT CHIMNEYS IN THE STANDARD FOR CHIMNEYS, FACTORY-BUILT, RESIDENTIAL TYPE AND BUILDING HEATING APPLIANCE, UL 103, OR 2) A CODE-APPROVED MASONRY CHIMNEY WITH A FLUE LINER. FAILURE TO DO SO MAY RESULT IN A HOUSE FIRE CAUSING SERIOUS BODILY HARM.

COMBUSTION AIR

In air tight homes (most modern construction), careful considerations must be taken into account before installing a wood burning appliance. It is important to ensure there is adequate intake (combustion) air for all exhausting type appliances within the dwelling. Heat recovery ventilator (HRV) systems along with constant running fan motors in air handlers are examples of appliances that must be taken into account when balancing intake air (others include fireplaces, range hoods, dryers, etc.). It is recommended that a fresh air intake inlet into the room where the appliance is located be installed. Failure to do so may result in air starvation, smoke spillage, and carbon monoxide threats. Consult a HVAC specialist for proper installation practices.

DRAFT PERFORMANCE

Draft is the movement of combustion air into the appliance and out through the chimney as exhaust gas. In essence, it is the difference in pressure between the exhaust gas inside the chimney and the outside air that creates this movement. Warmer, lighter exhaust gasses in the chimney tend to move upward. The amount of draft created by your chimney can depend on chimney length, horizontal offsets, insulating properties, local geography, external forces, and other factors. External factors (outdoor temperature, wind, barometric pressure, topography, etc.) or internal factors within the dwelling (negative pressure from exhaust fans, chimneys, air infiltration, etc.) may adversely affect draft.

Too much draft can yield very high temperatures within the appliance and may result in damage. An uncontrollable burn or excessive room temperatures are indicators of too much draft. Too little draft may cause back puffing (smoke spillage) into the room and plugging of the chimney, chimney cap, or spark arrestor screen. Inadequate draft can also lead to low heat output and the inability for the combustor to remain active at low burn rate settings. Your Blaze King heater is a high efficiency appliance and will require fine tuning of your chimney system in order to maximize draft performance. **Blaze King cannot be responsible for external forces leading to less than optimal draft performance.**

ROLE OF THE CHIMNEY

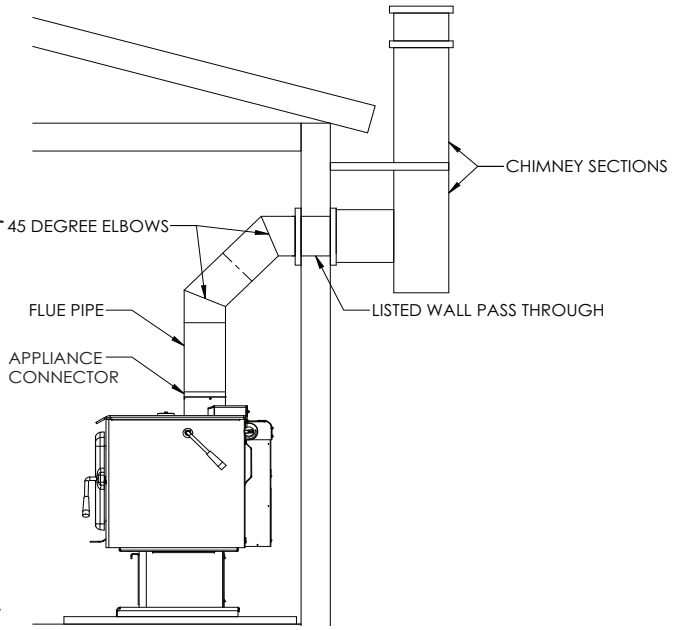
The role of the chimney is to maintain sufficient draft to achieve complete combustion. To ensure maximum performance, Blaze King recommends a minimum vertical chimney height of 15 ft (from stove top to termination) when installing an appliance at sea level (and up to 1000 ft of elevation). For freestanding installations, it is also recommended to use double wall pipe from stove top adaptor to ceiling support box. Double wall pipe helps to keep the chimney warm and improve draft performance. For wall exit installations, a vertical length of 3 ft from stove top to elbow is recommended. It is also recommended to use a pair of 45 degree elbows rather than a single 90 degree elbow to allow for a smoother transition of airflow. When possible, outside chimney systems should be isolated from the external environment by building a chase around the chimney. Doing so will help keep the chimney warm and maintain sufficient draft (please refer to the "***RECOMMENDED FLUE HEIGHTS***" section). **Without a properly installed chimney, this appliance will not operate at its maximum performance which could yield incomplete combustion.**

CHIMNEY CONNECTIONS

VENTING SYSTEM

A venting system consists of:

- Appliance Connector - a “stove top adaptor” that creates a positive connection between the appliance and flue pipe.
- Flue Pipe - either single or double wall pipe that is only used within the room, connecting the appliance to either a ceiling box or wall pass through.
- Chimney - a listed, factory built component with either 1” or 2” insulation that is suitable for use with solid fuels, conforming to CAN/ULC-S629 in Canada or UL 103HT in the USA. Note: This appliance may also be connected to a code compliant Masonry Chimney.

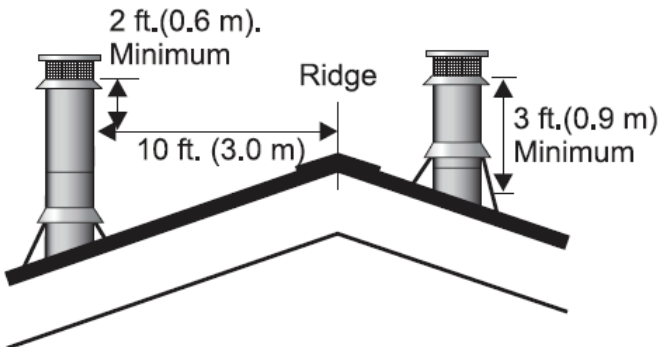


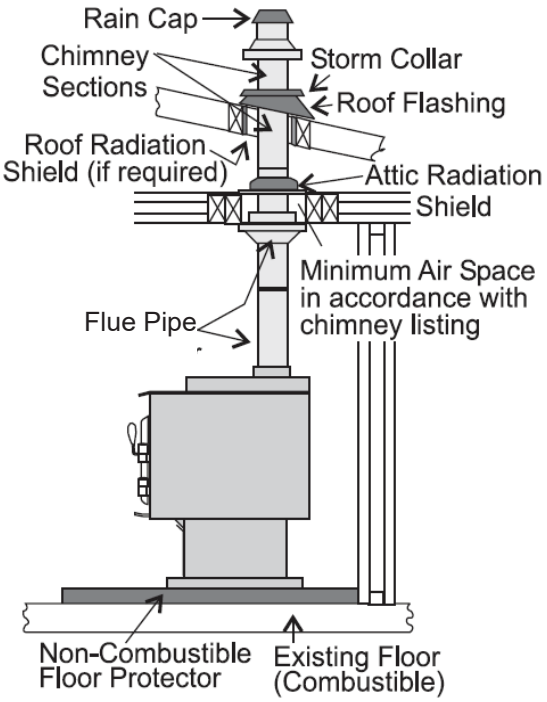
Do not install the chimney directly at the outlet of the appliance. A chimney connector is required unless the appliance is specifically approved for that type of installation. The flue pipe between the appliance connector and chimney should be kept as direct as possible. Do not use a flue pipe to pass through an attic or roof space, closet or similar concealed space, or a floor or ceiling. All joints within the venting system must be securely fastened with sheet metal screws. A chimney support package must be used when a connection is made through a ceiling to a listed prefabricated chimney. A listed wall thimble must be used when a connection is made through a combustible wall to a chimney. These accessories are necessary to provide safe clearances to combustible walls and ceilings as these components can get extremely hot during use. In the event of a creosote fire, temperatures inside the chimney may exceed 2000F (1100°C). An effective vapor barrier must be maintained at the location where the chimney or vent component penetrates the exterior structure. Do not connect this appliance to a chimney serving another appliance, doing so will affect the safe operation of both appliances and will void warranty. You must comply with the local authority having jurisdiction and, in Canada, CSA installation standard B365-M87.

CONNECTION TO A METAL PREFABRICATED CHIMNEY

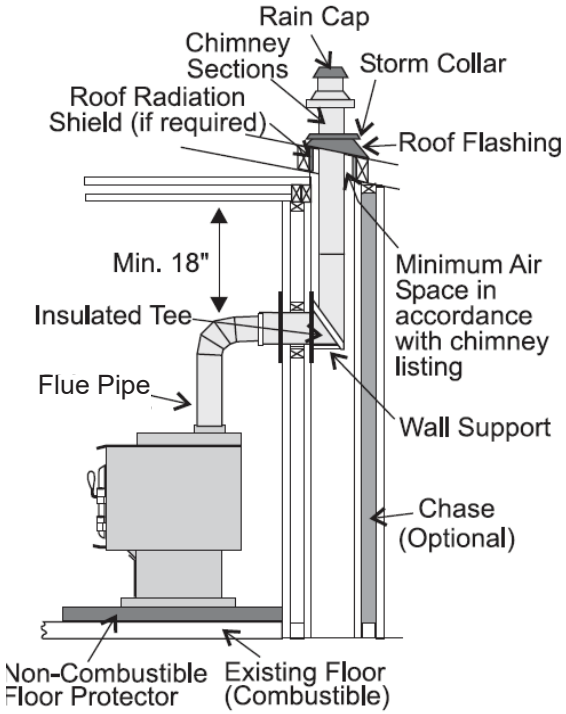
Refer to the prefabricated chimney manufacturer’s installation instructions to ensure safe clearance to combustibles are maintained when installing. All components (ceiling support package or wall pass through and “T” section package, fire stops, insulation shield, roof flashing, chimney cap, etc.) must be purchased from the same prefab chimney manufacturer. There are two common methods of a prefab chimney installation: the recommended method is to install the chimney inside the dwelling up through the ceiling(s) and the roof, while the alternative method is to install an exterior chimney that runs up the outside of the structure. Though not recommended, the alternative method is sometimes it is the only option. In that case it is recommended to build a chase around the external chimney.

The chimney must meet a minimum height above the roof and/or other obstruction(s) for safety purposes and to ensure sufficient draft. It is required that the chimney be at least 3ft higher than the highest point where it passes through the roof and at least 2ft higher than the highest part of the roof or any obstruction within 10ft (measured horizontally) of the chimney. Refer to the “***RECOMMENDED CHIMNEY HEIGHTS***” chart for minimum flue height recommendations and CAN/ULC-S629 in Canada or UL-103HT in the USA for installation codes.





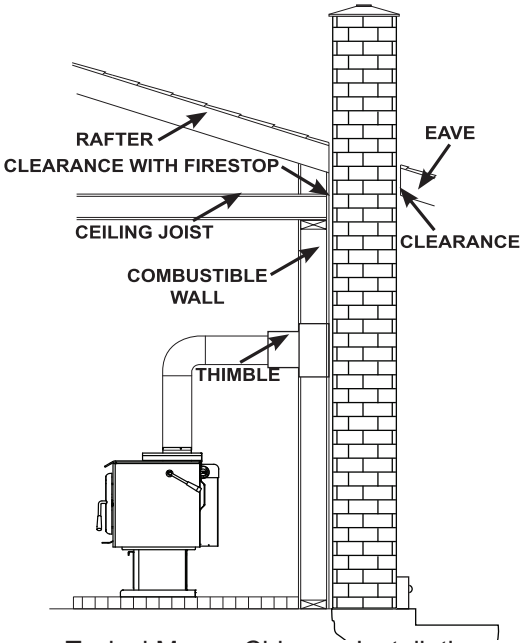
Prefab Chimney Through Ceiling Installation



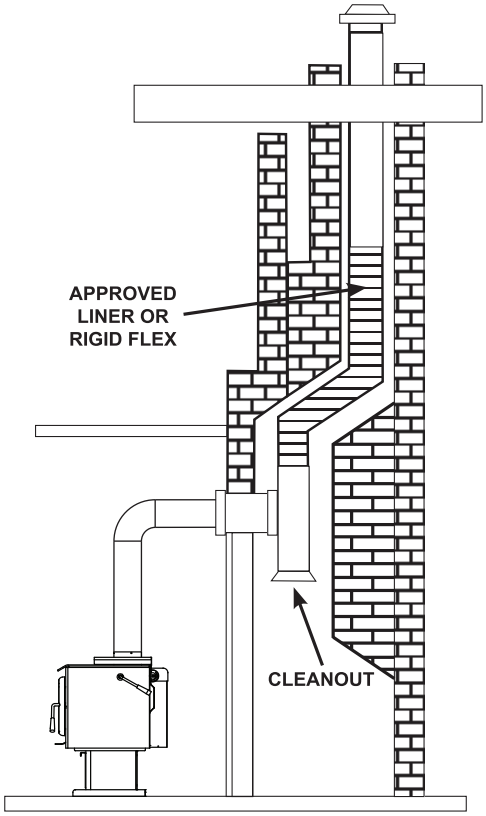
Prefab Chimney Exterior Installation

CONNECTION TO A MASONRY CHIMNEY

First and foremost, ensure the masonry chimney meets the minimum standards per the National Fire Protection Association by having it inspected by a certified professional. There must be no cracks, no loose mortar, and no signs of deterioration or blockage. Ensure the chimney is properly cleaned before installing the appliance. When connecting the appliance through a combustible wall, special methods are required; refer to local jurisdiction for the approved methods of passing a chimney connector through a combustible wall in your area (In the USA, refer to the NFPA minimum standards, and in Canada, refer to CAN/CSA-B365, the Installation Code for Solid Fuel Burning Appliances and Equipment). **Blaze King recommends the use of a stainless steel liner, preferably insulated, inside a masonry chimney. This is to help maintain a proper draft to achieve optimal performance of the appliance.**



Typical Mason Chimney Installation



Blaze King Recommend Installation

RECOMMENDED CHIMNEY HEIGHTS

Every installation is unique, especially when considering geographical location. As previously mentioned, maintaining sufficient draft is of utmost importance, but this can be a challenge as draft can be heavily influenced by topographical and geographical phenomena. The understanding of pressure planes and the stack effect are imperative in planning and executing a successful installation.

As previously mentioned, Blaze King recommends a minimum vertical chimney height of 15 feet (from stove top to termination) when installing an appliance at sea level (and up to 1000 feet of elevation). If the install is at a higher elevation, please refer to the table below for recommended chimney heights:

MINIMUM RECOMMENDED CHIMNEY HEIGHT				
ELEVATION ABOVE SEA LEVEL	**NUMBER OF ELBOWS**			
	0	**2 X 15°**	**2 X 30°**	**2 X 45°**
0 - 1000 ft 0 - 305 m	15 ft 4.6 m	16 ft 4.9 m	18 ft 5.5 m	19 ft 5.8 m
1000 - 2000 ft 305 - 610 m	15.5 ft 4.7 m	16.5 ft 5.0 m	18.5 ft 5.6 m	19.5 ft 5.9 m
2000 - 3000 ft 610 - 914 m	16 ft 4.9 m	17 ft 5.2 m	19 ft 5.8 m	20 ft 6.1 m
3000 - 4000 ft 914 - 1219 m	16.5 ft 5.0 m	17.5 ft 5.3 m	19.5 ft 5.9 m	20.5 ft 6.2 m
4000 - 5000 ft 1219 - 1524 m	17 ft 5.2 m	18 ft 5.5 m	20 ft 6.1 m	21 ft 6.4 m
5000 - 6000 ft 1524 - 1829 m	17.5 ft 5.3 m	18.5 ft 5.6 m	20.5 ft 6.2 m	21.5 ft 6.6 m
6000-7000 ft 1829 - 2134 m	18 ft 5.5 m	19 ft 5.8 m	21 ft 6.4 m	22 ft 6.7 m
7000 - 8000 ft 2134 - 2438 m	18.5 ft 5.6 m	19.5 ft 5.9 m	21.5 ft 6.6 m	22.5 ft 6.9 m
NOTE: No more than one offset (two elbows) are allowed. Two 45°elbows equal one 90° elbow				

For other common chimney components, use the following vertical height(s) to compensate for:

90° elbow = 2.0 ft (0.610 m)
"T" section = 3.0 ft (0.915 m)
1.0 ft (0.305 m) of horizontal run = 2 ft (0.610 m) of vertical rise

Example Chimny Height Calculation (at sea level):

Min Chimney Height	= 15.0 ft (4.575 m)
One 90° Elbow	= 2.0 ft (0.610 m)
2.0' Horizontal Run	= 4.0 ft (1.200 m)
One Base "T"	= 3.0 ft (0.915 m)
Final Chimney Height = 24.0 ft (7.3 m)	

The above figures are only guidelines, please refer to the "***DRAFT PERFORMANCE"*** section.

⚠WARNING

IF THIS APPLIANCE IS NOT PROPERLY INSTALLED OR OPERATED, A HOUSE FIRE AND/OR PERSONAL INJURY MAY RESULT. TO REDUCE THE RISK OF FIRE AND PERSONAL INJURY, FOLLOW THE INSTALLATION INSTRUCTIONS. CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

ALCOVES AND FIREPLACES

In Canada, DO NOT INSTALL THIS APPLIANCE IN AN ALCOVE OR FIREPLACE.
In USA, please adhere to minimum safe clearance dimensions.

ELECTRICAL CONNECTION

Your Blaze King fan kit is equipped with a three-prong (grounded) plug to decrease shock hazard. This plug should be inserted directly into a properly grounded, three hole receptacle. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THIS PLUG. DO NOT ROUTE THE POWER CORD IN FRONT OF OR UNDER THE APPLIANCE.

MOBILE HOME or TRANSPORTABLE BUILDING INSTALLATION

For Mobile Home (in USA) or Transportable Building (in Canada) installations, an Outside Air Kit (S.Z1726 / S.Z1726B) and either a Fan Kit (S.Z1714) or Rear Shield Kit (S.Z4710) are required. It is recommended that the kits be installed prior to appliance installation (refer to the instructions provided with the kits).

When a metal prefabricated chimney is used, the manufacturer's installation instructions must be followed precisely. The ceiling support package must be purchased from the same manufacturer (ie. fire stops, insulation shield and roof flashing, chimney cap, etc). Be sure to maintain required safe clearances to combustibles as recommended by the manufacturer. The flue pipe must be double wall, close clearance type with either CAN/ULC-S629 or ULCS610 designation (single wall pipe is not allowed). Insulated chimney components must be a listed factory built chimney suitable for use with solid fuels and conforming to, CAN/ULC-S629 in Canada or UL-103HT in the USA. Where the space heater is installed in mobile home or transportable building, removal of the chimney is required for transportation of the building

Note: Under no circumstances should the fresh air intake hose (Outside Air Kit) penetrate a wall at a location higher than the bottom of the intake air channel on the rear of the appliance (ie. the fresh air hose must feed up into the intake channel on the rear of the appliance).

CAUTION: THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.

⚠WARNING

THE APPLIANCE MAY ONLY BE INSTALLED IN AN OPEN AREA THAT IS NOT USED FOR SLEEPING. UNDER NO CIRCUMSTANCES SHOULD THE APPLIANCE BE INSTALLED INSIDE A BEDROOM. FAILURE TO COMPLY MAY LEAD TO SERIOUS BODILY HARM IN THE EVENT OF A HOUSE FIRE.

For mobile home or transportable building installations, the appliance must be securely fastened to the floor using the tie-downs provided in the Outside Air Kit.

- For Parlor Leg Kit (S.Z1713), use the S.ZR8039 Leg Anchor Kit to secure stove to the floor. **(Fig. 1)**
- For Ultra Pedestal Kit (S.Z3903), use #10 screws and washers through the two holes in the pedestal base to secure the stove to the floor. **(Fig. 2)**
- For Classic Base Kit (S.Z4815), use #10 screws and shipping brackets **(Fig. 3)** from the firebox crate to secure the stove to the floor. **(Fig. 4)**

Fig. 1

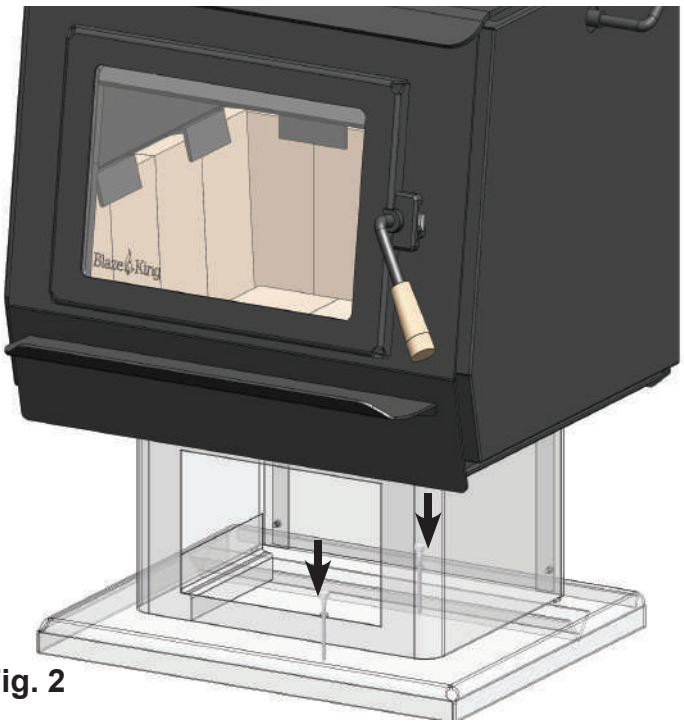


Fig. 2

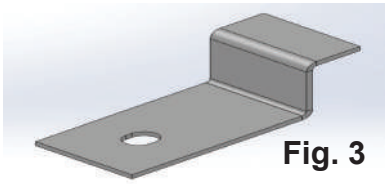


Fig. 3

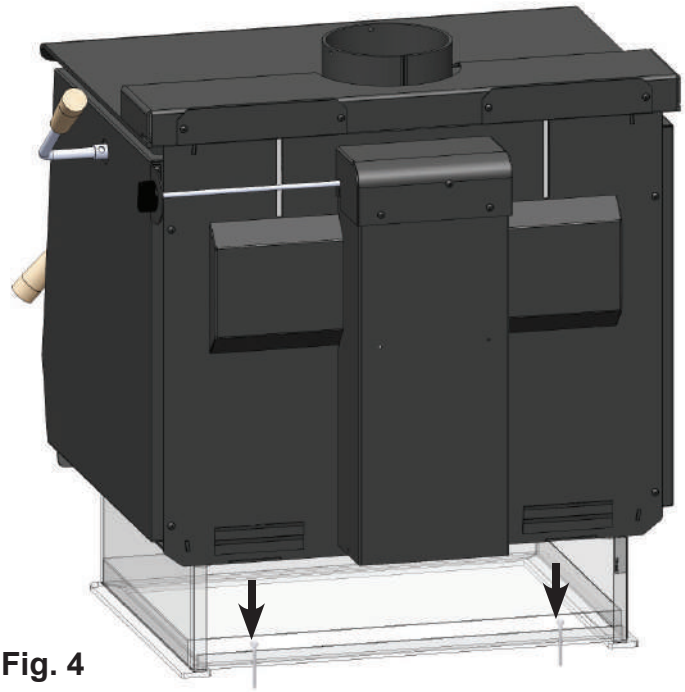


Fig. 4

OPTIONAL ACCESSORIES

- **REAR SHIELD KIT (S.Z4710)** - used to achieve minimum rear clearances; required for mobile home or alcove installations.
- **FAN KIT (S.Z1714)** - used to disperse super heated air from appliance throughout the dwelling; required for mobile home or alcove installations.
- **OUTSIDE AIR KIT (S.Z1726 / S.Z1726B)** - The fresh air intake hose is a flexible metal tube used to supply combustion air into the appliance from the outdoor environment. It can be installed through an external wall or up through the floor (DO NOT CHANGE THE STRUCTURAL INTEGRITY OF THE FLOOR). This hose must be kept open at all times. **Under no circumstances should the fresh air intake hose penetrate a wall at a location higher than the bottom of the intake air channel on the rear of the appliance (ie. the fresh air hose must feed up into the intake channel on the rear of the appliance).**

NOTE: EITHER S.Z1713 PARLOR LEG KIT, S.Z4815 CLASSIC BASE KIT, OR S.Z3903 ULTRA PEDESTAL KIT, MUST BE INSTALLED BEFORE THE APPLIANCE CAN BE CONNECTED TO THE CHIMNEY AND BE READY FOR USE.

PARLOR LEG KIT (S.Z1713)

TOOLS NEEDED FOR INSTALLATION: 3/4” wrench or socket wrench

INSTALLATION

1. Lean the appliance backwards onto the main air tube to gain access to the bottom side.
   NOTE: Use extreme caution when maneuvering the appliance to avoid injury and/or damage to the floor or appliance. It is recommended to place cardbaord inside the firebox to support the bricks when leaning the appliance over.

2. Position each leg accordingly, using alignment holes in appliance base as guides. Fasten the legs to the appliance using the hardware supplied with the kit. (**Fig. 5**)

3. Lift the appliance back to its upright position.

4. Adjust levelling bolts at the bottom of each leg in order to level appliance.

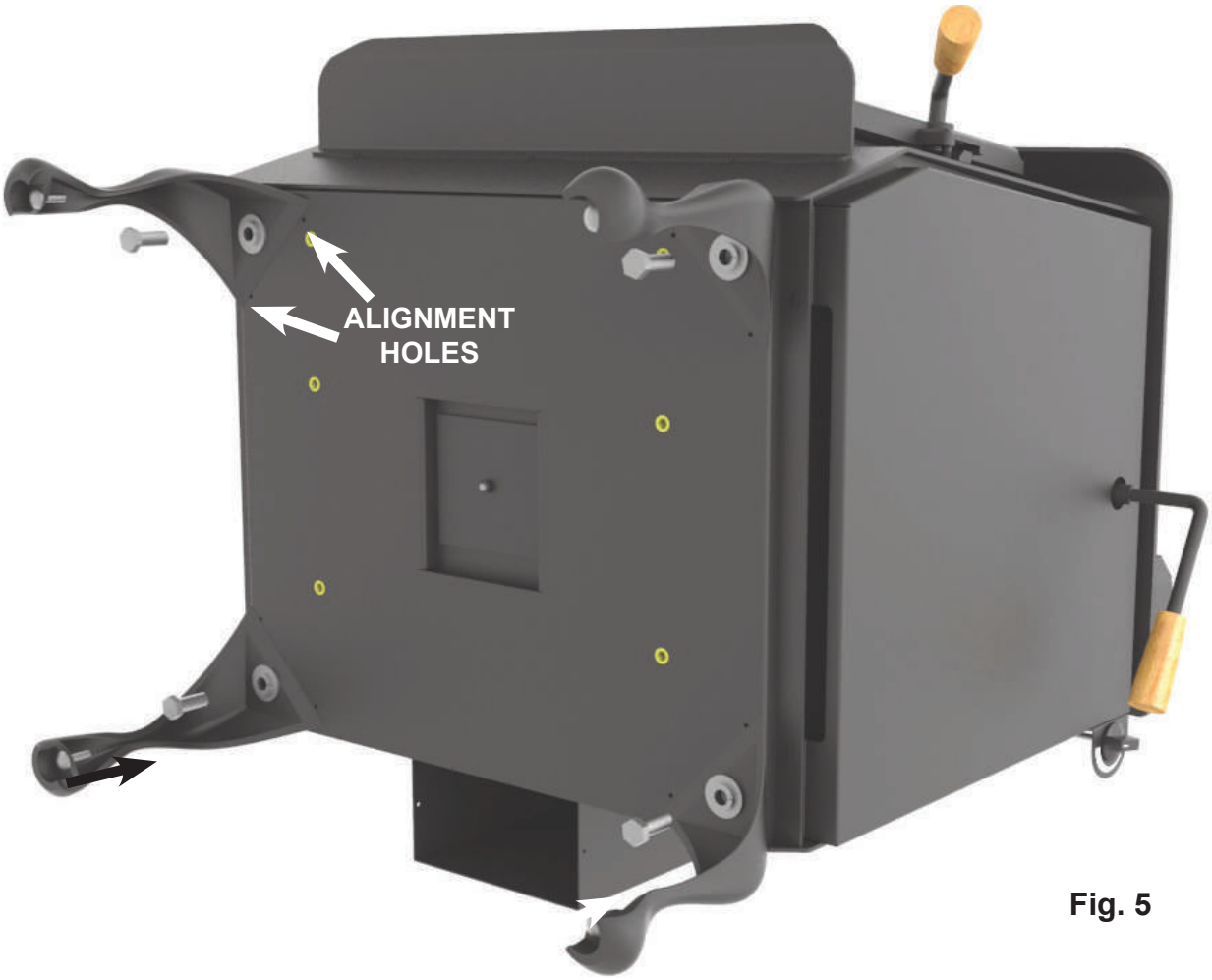


Fig. 5

CLASSIC BASE KIT (S.Z4815)

TOOLS NEEDED FOR INSTALLATION: 7/16” and 3/4” wrench or socket wrench

INSTALLATION

1. Lean the appliance backwards to gain access to the bottom side.
   NOTE: Use extreme caution when maneuvering the appliance to avoid injury and/or damage to the floor or appliance. It is recommended to place cardbaord inside the firebox to support the bricks when leaning the appliance over.

2. There are two 1/2” x 1/2” long bolts supplied with the classic base kit, thread them as shown, leave approximately a 1/4” of thread showing. (**Fig. 6)**

3. Slide the classic base slots onto the bolts from the previous step. (**Fig. 7)**

4. There are two 1/4-20 x 1/2” bolts supplied with the classic base kit, tighten until snug. (**Fig. 8**)

5. Tighten the 1/2” x 1/2” bolts until snug.

6. Lift the appliance back to its upright position.

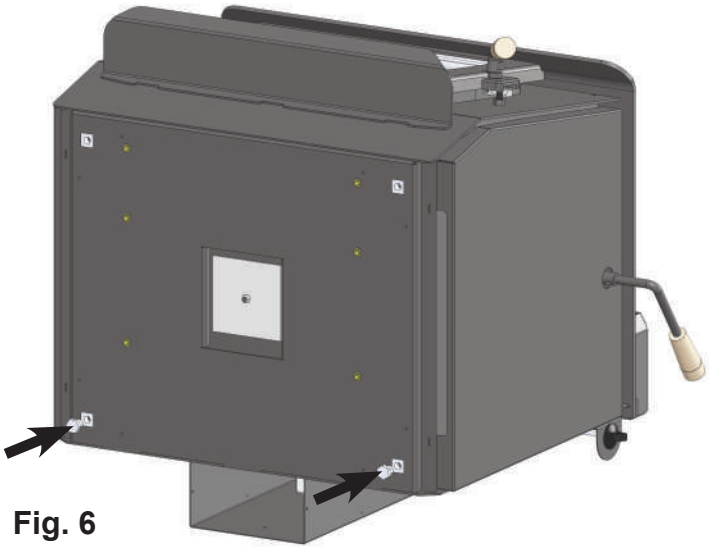


Fig. 6

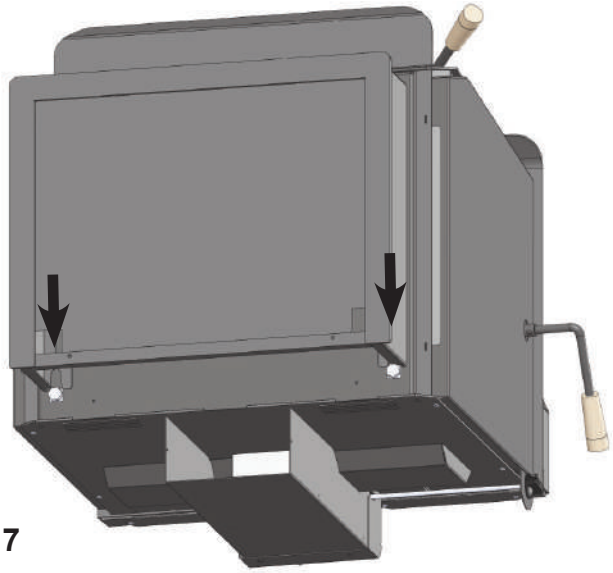


Fig. 7

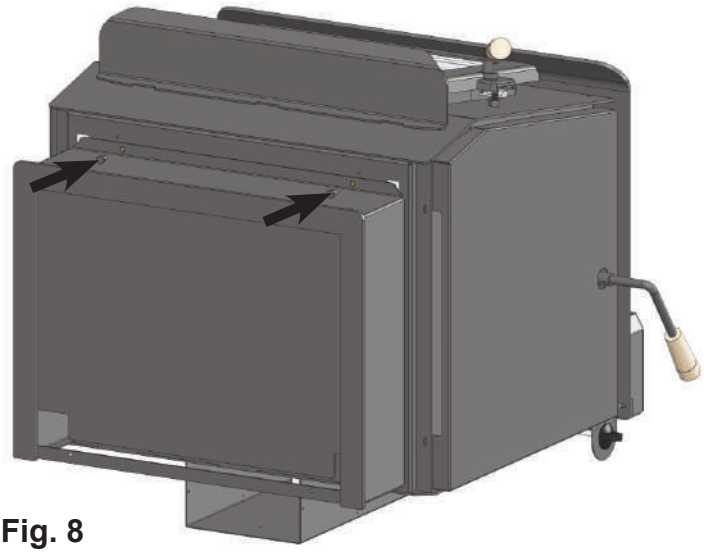


Fig. 8

ULTRA PEDESTAL KIT (S.Z3903)

TOOLS NEEDED FOR INSTALLATION: 7/16" wrench or socket wrench

INSTALLATION

1. Lean the appliance backwards to gain access to the bottom side. **NOTE: Use extreme caution when maneuvering the appliance to avoid injury and/or damage to the floor or appliance. It is recommended to place cardbaord inside the firebox to support the bricks when leaning the appliance over.**

2. Remove "ASH CHANNEL SEAL" by unscrewing the 1/4" nut. (**Fig. 9**)

3. Thread all four 1/4"-20 button head cap screws into the stove base until halfway in (included w/ Pedestal Kit). (**Fig. 10**)

4. Remove the ash drawer from the assembled pedestal. (Can also remove pedestal rear panel if required).

5. Utilizing the key holes on the top of the pedestal body, install the pedestal into place by pushing it against the bottom of the appliance and then sliding it downward (assuming appliance is on its back). (**Fig. 11**)

6. Once the pedestal is in position, fully tighten all four fasteners and then lift appliance back to its upright position.

7. Insert the ash drawer into the pedestal front. (Reattach pedestal rear panel if removed)

Fig. 9

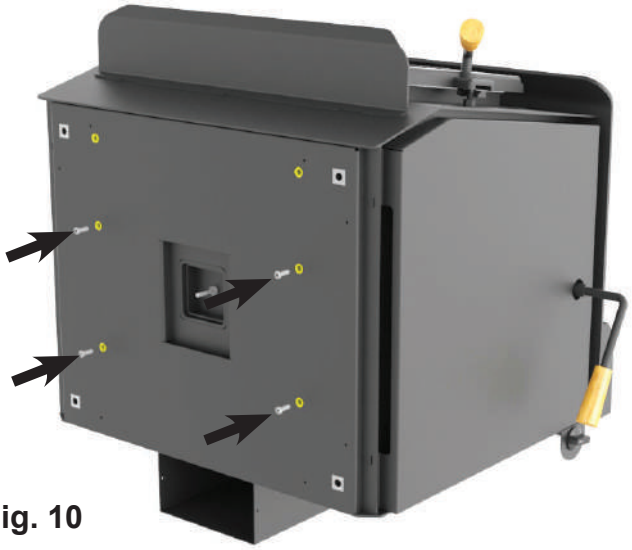


Fig. 10

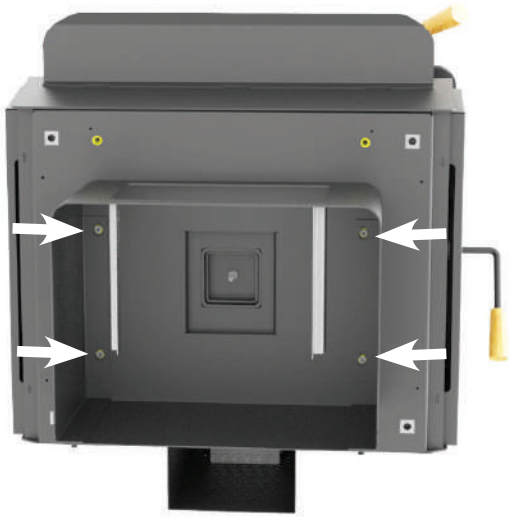


Fig. 11

DOOR INSTALLATION AND CHANGE-OUT (S.Z4886)

To install the door upon appliance installation or to change it out, follow these steps:

1. Align bottom door hinge hole with bottom firebox hinge pin. (**Fig. 12**)
   Note: Door is heavy, hold firmly.

2. Lower door onto bottom hinge pin, then align top door hinge hole with top firebox hinge pin.

3. Lower door onto pins until door hinge surface contacts firebox hinge surface.

   NOTE: If the door is satin or gold plated, please follow the instructions on the "PLATED DOOR & TRIM CARE" card found inside the manual kit.

Fig. 12

⚠WARNING

DO NOT OPERATE THIS APPLIANCE WITH THE LOADING DOOR UNINSTALLED OR LEFT OPEN. DOING SO MAY LEAD TO A RUN AWAY FIRE RESULTING IN PROPERTY DAMAGE.

YOUR FIRST FIRE!

The following pages contain information on the operation of the major components on your Blaze King appliance. Please take the time to read through this section as it will give you a better understanding of how your appliance works. This understanding will help you to operate your appliance at its optimum level thus extended its life while allowing you to get the highest efficiencies from your heater.

INTRODUCTION

All Blaze King wood burning appliances are designed as radiant room space heaters. They have been tested and certified to be installed in insulated, habitable rooms within your dwelling. The appliance has not been designed to be installed in a concrete, uninsulated basement or in a shop/garage environment. Such applications may cause the thermostat to be unresponsive due the constant call for heat resulting in appliance being in a constant over fire situation. **Consequential damage from this type of operation will deem the warranty null and void.**

All Blaze King wood appliances are designed to burn cord wood only. Dimensional timber off cuts, very low moisture content small diameter wood and pressed wood logs, when used in excess, may result in excessive internal firebox temperatures that can cause irreversible damage to the firebox's internal structure. Excessive temperatures can be caused by many small pieces of very low moisture content wood being used as a primary fuel source. This may be evident by warping or warped internal plates and retainers, possible cracking of the outer firebox and possibly premature failure of the catalytic combustor. All wood appliances should be cleaned out and inspected at the end of every burning season to identify if any internal components have been affected during the burning season. If problems are observed steps must be taken to identify and correct the problem before the subsequent burning season. Failure to do so will result in the warranty of the product being null and void.

EFFICIENCY

Efficiency was determined using the method outlined in B415.1-10 test method. It is represented by the Higher Heating Value (HHV) as the fuel used during testing contains between 19% - 25% water moisture included in the total calculated fuel weight. (Other test methods such as LHV or Low Heating Value, does not take the water moisture into account).

Annual Fuel Utilization Efficiency (AFUE) attempts to represent the actual, season long, average efficiency of an appliance. HHV is the actual, calculated average efficiency obtained under test conditions. Using correctly seasoned wood is important when trying to gain efficiency. The more seasoned (dry) the wood, the higher the efficiency (less energy wasted on eliminating moisture during combustion). Operating your Blaze King at lower settings will result in higher efficiencies as the fuel will undergo a more complete combustion. For maximum efficiency, the appliance should be installed in a location that provides adequate intake/combustion air as well as a location that will allow for the straightest run of optimal chimney length to establish necessary draft.

FAN OPERATION

Fans are an optional item for most Blaze King appliances. If fans are installed on your appliance, they should be turned off until the stove reaches normal operating temperatures. Approximately 30 minutes after a fire has been established within the appliance, the fan speed should match the thermostat control setting. (i.e. if your thermostat is set to a medium heat output then your fan should also be set at medium, low—low, high—high etc.). We recommend the use of fans on all of our wood appliances. The fan system recirculates room air over the hot surfaces of your appliance and helps spread this super heated air around your home.

SELECTING WOOD

It takes a great deal of energy to evaporate the moisture contained in green or wet wood and that energy will not be heating your home. Green or wet wood will also greatly increase creosote issues. To ensure that your wood fuel has a moisture content of 20% or lower, only use seasoned wood that has been split, stacked, and protected from rain or snow for at least 24 months. Firewood should be split and stacked in a manner that allows for air flow to all areas.

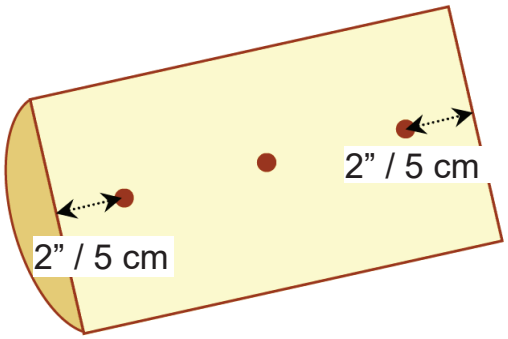
Both hardwood and softwood burn equally well in this appliance, but the more dense hardwood will weigh more per cord and burn a little slower and longer. Never burn salt-water driftwood as it is very corrosive and will deteriorate the structure of the appliance. The burning of salt-water driftwood will void the warranty. The only way to accurately determine wood moisture is to purchase and measure with a moisture meter.

⚠WARNING

THIS APPLIANCE IS DESIGNED TO BURN NATURAL WOOD ONLY. DO NOT BURN WET UNSEASONED WOOD. DOING SO CAN CAUSE EXCESSIVE CREOSOTE ACCUMULATION AND IF IGNITED, CAN CAUSE A CHIMNEY FIRE THAT MAY RESULT IN A HOUSE FIRE CAUSING SERIOUS BODILY HARM. BURNING AIR DRIED SEASONED WOOD WILL REDUCE THE RISK OF CHIMNEY FIRES AND YIELD HIGHER EFFICIENCIES AND LOWER EMISSIONS.

HOW TO USE MOISTURE METERS

1. Randomly select three logs from your wood pile and split each one down the middle.
2. Three points of measurement are required to determine the moisture content of each log: 2” (5 cm) from either end and in the middle of the split surface of the log. To take these measurements, insert the moisture meter pins at the points described, keeping the pins in line with the wood grain. Record each measurement.
3. Do this to all three logs and take an average of the readings (this is an approximate indication).



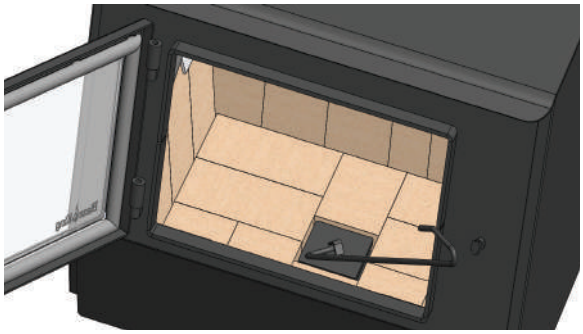
⚠WARNING

DO NOT BURN TREATED WOOD, COAL, CHARCOAL, COLORED PAPER, CARDBOARD, SOLVENTS OR GARBAGE. BURNING THESE MATERIALS MAY RESULT IN THE RELEASE OF TOXIC FUMES AND/OR CARBON MONOXIDE WHICH MAY RESULT IN POISONING. DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA, OR ENGINE GEL. DO NOT USE CHEMICALS OR FLUIDS SUCH AS GASOLINE TYPE LANTERN FUEL, KEROSENE, OR CHARCOAL LIGHTER FLUID TO START OR FRESHEN UP A FIRE IN THIS APPLIANCE. DOING SO MAY LEAD TO OVER FIRING RESULTING IN A HOUSE FIRE AND SERIOUS BODILY HARM.

FIRE POKER

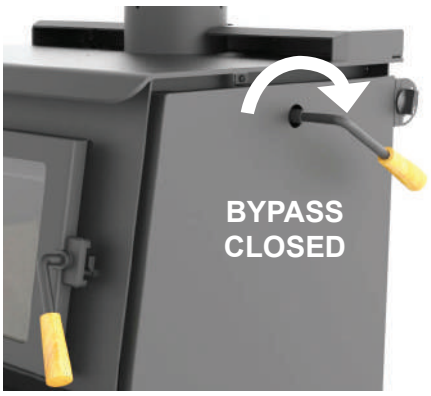
The steel fire poker that is provided with this appliance serves two purposes:

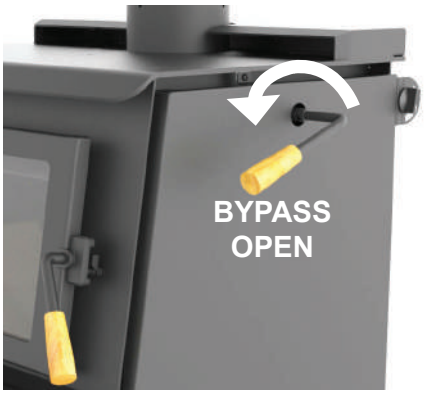
1) to manipulate fuel loads
2) to remove the ash plug via hook welded to the top plate.

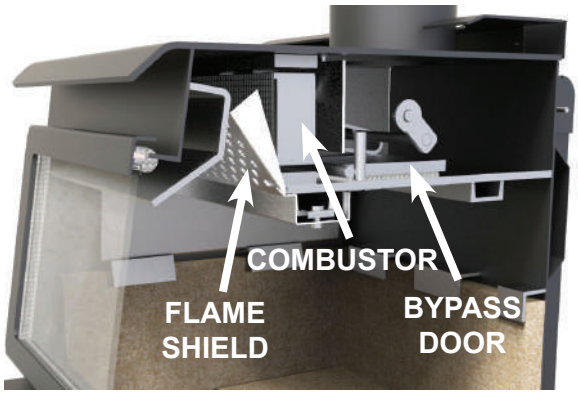


BYPASS DOOR

Your catalytic wood burning appliance is fitted with a bypass door which allows exhaust from the fire to temporarily bypass the catalytic combustor. The bypass door is located inside the dome of the firebox at the top of the appliance. It is a hinged, steel plate door and is controlled by the bypass handle located on the right side of the appliance. When the handle is pointing forward, the bypass door is open. To close the bypass door you must rotate the handle clockwise until it points to the rear of the appliance. To ensure the bypass door is fully closed, push down on the bypass handle until you hear a positive click.







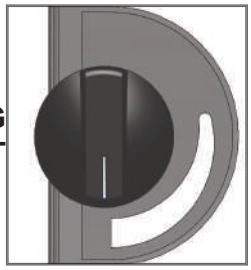
CATALYTIC THERMOMETER

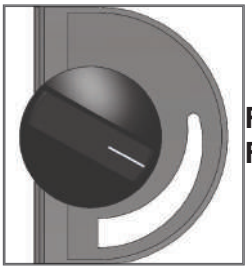
The catalytic thermometer is located on the top of the appliance. Its sole purpose is measure the exhaust gasses after they have passed through the combustor to indicate whether the combustor is ACTIVE or INACTIVE. It is important to ensure that the appliance is operated in the ACTIVE zone. When the thermometer reads INACTIVE it means that the combustor temperature is below 500F and is not producing a clean burn. For the most accurate reading, turn the fan off for approximately 5 minutes before reading the thermometer. For calibration instructions, please refer to the "***MAINTENANCE***" section.

THERMOSTAT

The thermostat is located at the rear of the appliance and is controlled by the thermostat knob which is located at the upper right rear corner of the appliance. When the knob is positioned at the HIGH setting, the appliance will operate at its highest burn rate and deliver its maximum heat output. As the knob is rotated counter clockwise the burn rate will decrease along with heat output. Burn rate is greatly influenced by location, installation, and external environment, so you may find it necessary to reposition the knob until you find the ideal setting to suit your situation. Please note that all adjustments to the thermostat should be done gradually as too rapid a change may cause the thermostat to operate improperly. The thermostat has a manufacturer-set minimum low burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instructions in this manual.

HIGH SETTING
MAXIMUM HEAT OUTPUT





ROTATE COUNTER CLOCKWISE
FOR REDUCED HEAT OUTPUT

LIGHTING THE FIRE

NOTE: As you heat up the appliance for the first time, the paint will go through a curing process and will give off a strong odor coupled with smoke. To minimize the inconvenience, burn the stove at a low temperature setting for several hours. It is recommended to open a door or window until the odor and smoke dissipates. You may also notice a change in color as the paint cures, this is normal and will appear uniform after subsequent firings.

1. **ENSURE ALL BRICKS ARE CORRECTLY POSITIONED INSIDE THE FIREBOX AND BUILD THE FIRE DIRECTLY ON THE BRICK IN THE BOTTOM OF THE STOVE. DO NOT USE A GRATE.**
2. Position the thermostat to the **HIGH** setting and turn the fan (if equipped) **OFF**.
3. Open the bypass then open the loading door.
4. Place 10 balls of non-glossy paper towards the front of the bottom of the firebox then stack 20 pieces of kindling on top of the paper in a crisscross fashion (leaving air gaps in between sticks).
5. Light the fire and allow it to get a good start while leaving the loading door cracked open. **DO NOT LEAVE THE STOVE UNATTENDED.**
6. Once the kindling is fully on fire, place two or three medium size logs onto the fire. Keeping the loading door unlatched, allow the logs to catch fire. **DO NOT LEAVE THE STOVE UNATTENDED.**
7. Once the logs are burning, latch the loading door shut. Once loading door is closed and combustor temperature begins to climb, close the bypass door, turn fan(s) on to high (if equipped). Leaving the loading door open after the wood load has caught fire may cause premature failure of the catalytic combustor.
8. When nearly all of the wood in the firebox is fully burning and the catalytic thermometer is in the active zone, open the bypass door and loading door, and finish loading the appliance. Lay the wood as far back in the stove as possible. Latch the loading door shut, and close the bypass door.
9. Let the fire burn with the thermostat at the **HIGH** setting until the fire is well established. This ensures that the stove, catalyst, and wood load are all stabilized at optimum operating temperatures. The temperature in the stove and the gases entering the combustor must be raised to at least 500F (indicated by the thermometer needle in the **ACTIVE ZONE**) for catalytic activity to be initiated.
10. Gradually turn the thermostat down to the desired heat output setting once the fire is well established. Please note that if the thermostat is turned down too low too quickly, the fire may go out or the combustor may stop working, indicated by the thermometer needle falling into the **INACTIVE ZONE**. If this happens, simply turn the thermostat back to a higher heat output setting to let the fire reestablish itself.
11. Turn the fan (if equipped) on after the initial warm up.

Probably the least understood requirement of maintaining a good fire is that of establishing a good base of coals or embers. A glowing hot coal bed will help to maintain more even temperatures as well as assist in relighting the next fuel load. Put as much wood into the appliance as needed, practice will teach the amount of wood necessary to keep the fire going until the next reloading time. Don't be afraid to fill it completely if necessary. With the Blaze King thermostat, the wood will only burn at the rate set on the thermostat. Once the fire is established, the appliance should be left to complete the full burn cycle. This is evident by a) only a glowing coal bed (ember bed) remaining or b) the catalytic thermometer hovers just inside the active zone. Following this procedure will maximize the efficiency of the appliance as well as limit exhaust emissions and smoke spillage.

RELOADING PROCEDURE

WHEN PREPARING TO RELOAD, IF THE NEEDLE ON THE CATALYTIC THERMOMETER IS STILL IN THE ACTIVE ZONE, FOLLOW THE PROCEDURE BELOW; IF THE NEEDLE HAS DROPPED INTO THE INACTIVE ZONE, REFER BACK TO THE "LIGHTING THE FIRE" PROCEDURE ON THE PREVIOUS PAGE.

It is important to note that the catalytic thermometer is simply displaying the temperature of the catalytic combustor. It may be used as an aid when it comes to identifying a reload point, but other factors such as lack of fuel in the firebox or dropping room temperatures should be used as well.

1. Have your next load of wood ready before beginning. Turn the thermostat to **HIGH** to ensure the remaining coal bed is active before reloading. Wait a few minutes for the air flow to stabilize.
2. To help minimize smoke spillage into the room, open the bypass door and again wait a few minutes for the air flow to stabilize.
3. Open the bypass door and crack open the loading door to allow ambient room air to be introduced into the firebox, this may take a minute to stabilize.
4. Slowly open the loading door and proceed to reload the firebox. If you experience excessive smoke spillage, slightly close the loading door to re-establish a draft through the chimney.
5. Once loaded, latch the loading door shut and (if opened) close the bypass door immediately. Let the fire burn on the HIGH thermostat setting until the fire is well established. At that point, turn the thermostat down to the desired setting. Keep in mind, you may not see a large amount of flame activity in the lower thermostat setting. The thermometer needle will remain in the active zone indicating that the burn cycle is continuing.
6. Should you burn the stove on a very low setting for extended periods of time, you will begin to see creosote deposits forming on the glass door. To remove these deposits, simply run the stove on **HIGH** for approximately 30 minutes. The **HIGH** setting will burn off most of the deposits.

Note: Our loading instructions are outlined in general terms due to the variables that arise with each installation. Such variables include type of wood fuel, chimney height and configuration, installation altitude, seasonal weather conditions, draft, and the desired heat output required. Over time you will learn which settings are necessary to achieve optimal performance with your specific installation.

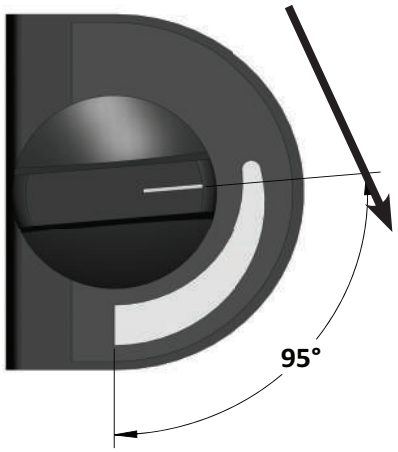
⚠WARNING

THIS APPLIANCE IS HOT WHILE IN OPERATION. CHILDREN AND PETS MUST BE KEPT FROM TOUCHING THE APPLIANCE WHEN IN USE. COMBUSTIBLE OBJECTS MUST BE KEPT A MINIMUM OF 48"(1219 MM) FROM THE FRONT OF THE APPLIANCE. COMBUSTIBLE MATERIAL SUCH AS CLOTHING OR FURNITURE PLACED TOO CLOSE TO THE APPLIANCE CAN CATCH FIRE. DO NOT STORE WOOD WITHIN THE SPECIFIED SAFETY CLEARANCES OR WITHIN THE SPACE REQUIRED FOR RE-FUELING AND ASH REMOVAL. FAILURE TO COMPLY MAY CAUSE SKIN BURNS OR RESULT IN A HOUSE FIRE CAUSING SERIOUS BODILY HARM.

OPTIMAL LOW BURN THERMOSTAT SETTING

Your Blaze King appliance was tested and certified in accordance to the New Source Performance Standards for Residential Wood Heaters. During this test series, the low burn rate of the unit was determined by setting the thermostat knob to a position that yielded the lowest burn rate achievable. If you find that you are setting your thermostat beyond the test setting, please note that if the thermostat is turned down too low the fire will go out or the combustor may stop working which is indicated by the thermometer needle falling into the **INACTIVE ZONE**. If this happens, simply turn the thermostat back to a higher heat output setting and let the fire reestablish itself.

TESTED LOW BURN SETTING



WOOD BURNING IN THE SHOULDER SEASON

There are a few things to consider if you choose to light a fire during the spring or fall seasons when the outside temperature is milder, perhaps 55F to 70F (13°C to 21°C).

You may notice smoke spillage out of the loading door when it is opened during start up or reloading. This is caused by a lack of natural draft within the chimney system. The temperature difference between the chimney system and the outside air causes flue gasses to be drawn up and out of the chimney. Smaller temperature differences produce less draft in your chimney system than larger temperature differences. This air movement, referred to as Stack Effect, is also influenced by air density and moisture differences. To eliminate the smoke spillage you may have to stoke the fire for longer than usual. Once the fire warms the chimney the draft will improve and spillage will be reduced. When operating the appliance on a lower thermostat setting, the resultant lower flue temperatures can cause your chimney system to cool down. This also decreases natural draft and spillage may occur.

General Rules for burning in the shoulder season:

- Run your appliance on **HIGH** for 30 minutes after start up and reloading before gradually turning the thermostat down to the desired heat output setting.
- The thermostat setting needs to be high enough to keep the catalytic thermometer in the active zone. If the thermometer will not stay in the active zone, turn the thermostat to a higher setting and then wait 15 minutes to confirm that the thermometer remains in the active zone. Repeat as required.
- If your appliance is producing too much heat, try to reduce the volume of wood fuel loads rather than turning your thermostat down. It is good burning practice to build smaller, hotter fires on milder days in the spring and fall.

ICE - FORMATION AND PREVENTION

Most of what you see coming from the chimney of a properly operating catalytic appliance is water vapor. In extremely cold weather, and with some exterior chimneys, this vapor may freeze in the chimney to the point of actually blocking the chimney and extinguishing the fire. In such weather, burn the appliance for 5 to 10 minutes with the thermostat set to **HIGH** to melt any possible ice build.

⚠WARNING

DO NOT OPERATE THIS APPLIANCE WITHOUT THE CATALYTIC COMBUSTOR INSTALLED. DOING SO WILL LEAD TO EXCESSIVE SMOKE AND TEMPERATURES THAT COULD RESULT IN A HOUSE FIRE CAUSING SERIOUS BODILY HARM. ONLY BURN SEASONED WOOD. FAILURE TO DO SO MAY DAMAGE THE COMBUSTOR AND WILL VOID ALL WARRANTIES.

COMBUSTOR MONITORING

It is good practice to monitor the catalytic combustor to ensure it is functioning properly. An improperly functioning combustor will result in a loss of heating efficiency and an increase in emissions and creosote buildup. The following list of items should be checked on a periodic basis:

- Combustors should be visually inspected at least three times during the heating season to determine if physical degradation has occurred. Actual removal of the combustor is not recommended unless more detailed inspection is warranted because of decreased performance. Please refer to the "***COMBUSTOR TROUBLESHOOTING***" section.
- This appliance is equipped with a catalytic thermometer to monitor combustor operation. A properly functioning combustor will maintain temperatures in excess of 500F (indicated by the thermometer needle in the ACTIVE zone) and often reach temperatures in excess of 1000F. If the combustor temperature falls below 500F (thermometer needle in the INACTIVE zone), refer to the "***COMBUSTOR TESTING***" section.
- A good way to determine whether the combustor is functioning properly is by comparing the amount of smoke exiting the chimney while the combustor is engaged (bypass door closed) versus when the combustor is bypassed (bypass door open).
  Note: After opening the bypass door, wait approximately 15 minutes before observing the smoke exiting the chimney. Smoke may be visible shortly after lighting the fire and shortly after reloading the fire so allow 20 to 30 minutes for the fire to stabilize before making observations.

COMBUSTOR TESTING

Follow these instructions to test the catalytic combustor:

1. Light a fire per the "***LIGHTING THE FIRE"*** instructions.
2. After burning a well established fire for 1 hour, position the thermostat knob to a medium-low burn rate setting.
3. After 5 minutes at the lower burn rate, observe the location of the thermometer needle. A properly functioning combustor will have a temperature greater than 500F with the thermometer needle in the ACTIVE zone. An improperly functioning combustor will yield thermometer reading in the INACTIVE zone.
4. Repeat step 3 for at least 3 burn cycles.
5. If the thermometer needled is still not reaching the ACTIVE zone, your combustor may require cleaning.
6. If, after cleaning the combustor and reburning, the thermometer needle is still not reaching the ACTIVE zone, your combustor may need replacing. Contact your Blaze King dealer for a replacement combustor.

Note - It is also possible that the catalytic thermometer itself may not be functioning properly. Before deeming the combustor "dysfunctional", please refer to the "***CATALYTIC THERMOMETER"*** section.

⚠WARNING

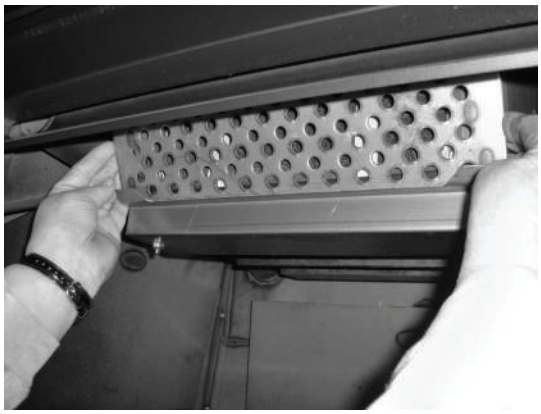
DO NOT PERFORM ANY CLEANING UNTIL THE FIRE IS OUT AND THE APPLIANCE IS COOL. HOT ASH IN A VACUUM CLEANER BAG COULD MELT THE VACUUM AND COULD RESULT IN A HOUSE FIRE CAUSING SERIOUS BODILY HARM.

COMBUSTOR CLEANING

Under certain conditions, ash particles may become attached to the face of the combustor. These particles may be seen while the combustor is glowing under fire or when the fire is out. Any deposits on the face of the combustor should be removed. There are two ways to clean the face of the combustor: (1) Brushing the combustor with a soft bristle paint brush, or (2) Passing a vacuum cleaner wand or brush near the face of the combustor. Limit cleaning to the face of the combustor (note - the flame shield will have to be removed to gain access to the face). Do not scrape the combustor with any hard tool or brush and do not run pipe cleaner through the individual cells of the combustor as this may do more harm than good. Do not remove the combustor during this process. **Note - simply burning a hot fire usually proves to be the best method of cleaning the combustor of deposits.**

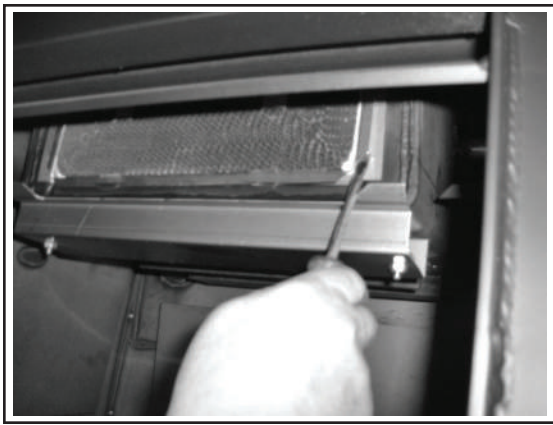
COMBUSTOR REPLACEMENT

If the catalytic combustor has been deemed "dysfunctional" per the guidelines in "***COMBUSTOR TESTING***", discontinue use of the appliance until the combustor is replaced. Follow the steps below to complete the replacement **(BLAZE KING RECOMMENDS THAT YOUR DEALER OR CERTIFIED INSTALLER PERFORM THIS PROCEDURE):**

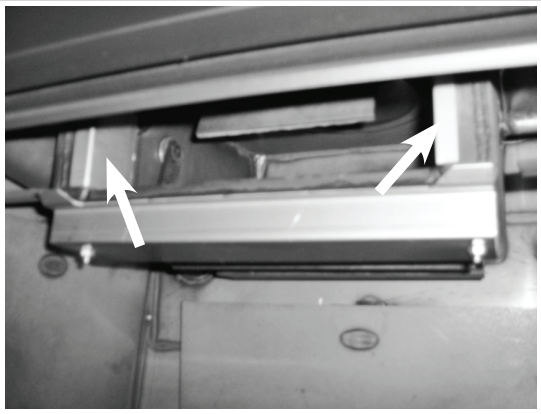


1. The appliance must be cool to touch, having gone at least 12 hours without being burned. A combustor can reach 1400F and hold temperatures for several hours, even after the fire is out. After waiting 12 hours, begin by removing the flame shield by simply lifting the shield off the two tabs at either lower corner. Pay particular attention to orientation of the flame shield in order to reinstall in the correct position.

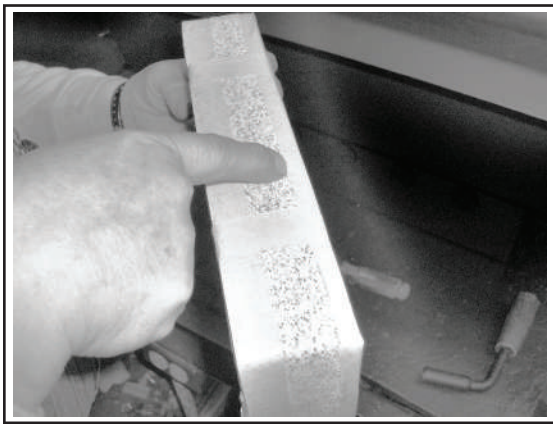
2. Once the flame shield is removed, you will have access to the combustor. The combustor can be made of different materials such as cordierite, mulite, or stainless steel. They are all the same with regard to removal and caution should be taken so as to not drop or damage the combustor. If your combustor has never been cleaned according the manufacturers directions, you may wish to clean the combustor before replacing it with a new combustor (please refer to the "***COMBUSTOR CLEANING***" section).



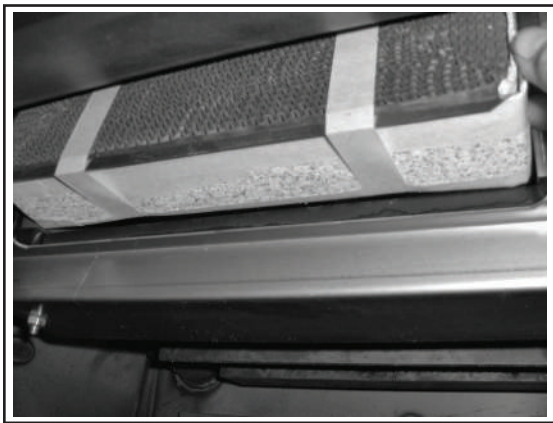
3. There are metal tabs across the bottom and on either side of the combustor. Using a flat blade screwdriver or pocket knife blade, slide the tip in between the metal tab on the left side of the combustor and the steel dome of the stove (the dome is the housing that encases the combustor). Apply slight pressure until the combustor begins to move forward. Repeat the process on the metal tab on the right side of the combustor. By working back and forth the combustor will work free of the dome housing. It is normal for the gasket that is wrapped around the combustor to fall apart during this process. New combustors are shipped with a new gasket.



4. With the combustor removed, you will see two bypass retainers on either side of the combustor opening within the dome. These retainers are not fixed in position and can fall into the firebox upon combustor removal. Ensure that they are put back into position before replacing the combustor. Use the screwdriver or pocket knife to scrape any old gasket from the surface areas of the dome. If you intend to reuse your existing combustor, you will need to order replacement combustor gasket. It is a good idea to have this combustor gasket on hand prior to performing this procedure.

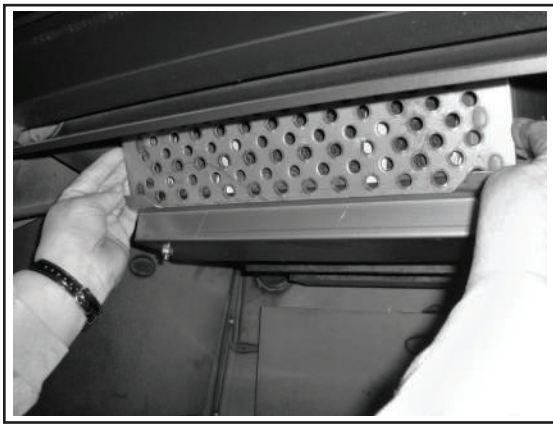


5. The new combustor will already be wrapped in gasket. Note the 1” wide masking tape - this will help to keep the leading edge of the gasket from snagging during installation. If you intend to reuse you original combustor, wrap the combustor gasket as you see here and use the 1” masking tape around the front and rear perimeter. During the first fire the masking tape will burn off and the combustor gasket will swell to provide a tight seal. This seal ensures optimal efficiency and performance. Do not burn the appliance without the combustor gasket installed.



6. Before installing, align the combustor within the opening of the dome housing. Slowly push the combustor in at the top and apply even pressure to the left and right corners. This will allow for a better view of the bottom edge for the final fitting. **DO NOT FORCE THE COMBUSTOR INTO THE OPENING. TAKE YOUR TIME AND WORK IT INTO PLACE SLOWLY.**

7. Once the combustor is fully reinserted into the opening of the dome housing, replace the flame shield. Note the flame shield sides are shaped like a triangle. The point of the triangle should face down to install correctly. Do not operate your appliance without the flame shield in place. The flame shield protects the face of the combustor against direct flame impingement and potential collisions when loading fuel.



8. When correctly installed, the flame shield will rest on the two tabs located on the dome guard and will lean slightly forward. Now that the combustor and flame shield have been properly reinstalled, the appliance can be relit.

A few reminders, do not burn anything other than dry, seasoned cordwood. Burning other materials may contaminate or ruin your new combustor. Also, remember to keep your firebox door gasket seal properly adjusted (please refer to the "***LOADING DOOR TENSION ADJUSTMENT"*** section). Doing so will ensure optimal performance of both the appliance and the combustor.

COMBUSTOR WARRANTY

This appliance contains a catalytic combustor, which needs periodic inspection and may require replacement for proper operation. It is against federal regulations to operate this appliance if the catalytic combustor is deactivated or removed.

The catalytic combustor supplied with this appliance is **OEM Blaze King part # S.CAT40**.

Please consult the catalytic combustor warranty info also supplied with this appliance. Warranty claims should be addressed to:

CANADA	USA
Blaze King Industries / Valley Comfort Systems Warranty Department 1290 Commercial Way Penticton, BC, Canada V2A 3H5	Blaze King Industries Warranty Department 146 A Street Walla Walla, Washington, USA 99362

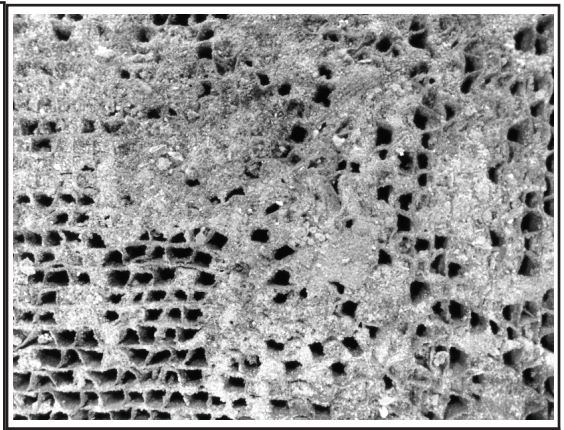
COMBUSTOR TROUBLESHOOTING

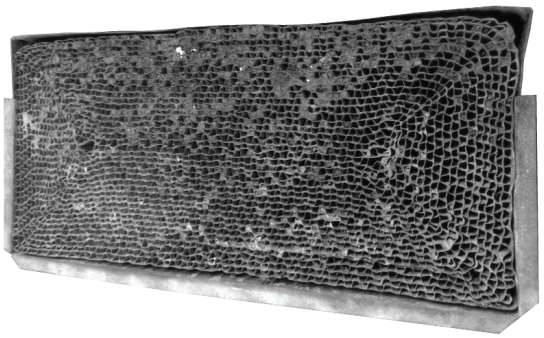
PROBLEM: CREOSOTE PLUGGING

Possible Cause: The combustor is coated with creosote burning material that produces substantial char and fly-ash.
Solution: Only burn dry, seasoned wood. Do not burn materials such as garbage, gift wrap, or cardboard.

Possible Cause: Burning wet, pitchy wood or burning large amounts of small diameter wood without the catalytic thermometer needle in the ACTIVE zone.
Solution: Burn dry, seasoned wood until temperatures are high enough to initiate catalyst light-off (indicated by the catalytic thermometer needle in the ACTIVE zone).

Possible Cause: Combustor not functioning.
Solution: If proper burning procedures have been followed and this problem persists, replace the combustor with an OEM Blaze King combustor (failure to do so will void your warranty).

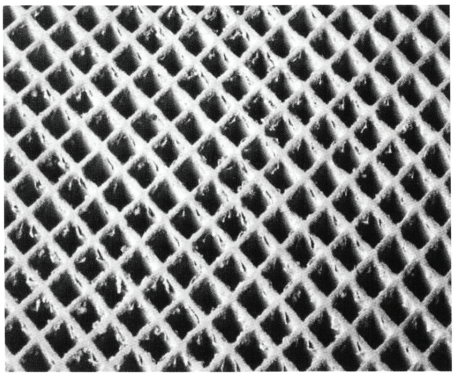




PROBLEM: COMBUSTOR PEELING

Possible Cause: Over firing and flame impingement can yield extreme temperatures (above 1800F/1000°C) at combustor surface and can cause peeling.
Solution: Avoid extreme temperatures by adjusting size of fuel loads. If peeling is severe, replace combustor.

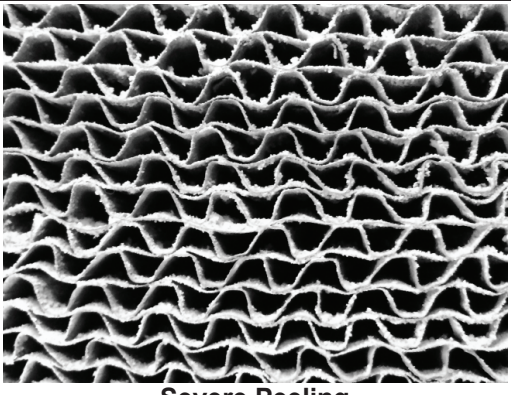
The images to the right are examples of minor peeling (does not affect proper combustor function) and severe peeling (closed or plugged combustor that needs replacement).



Minor Peeling

PROBLEM: CATALYTIC DEACTIVATION

Possible Cause: Burning improper fuels (ie. garbage, pressure-treated lumber, painted wood, etc.).
Solution: Burn good quality, dry, seasoned wood. If proper burning procedures have been followed and this problem persists, replace the combustor with an OEM Blaze King combustor (failure to do so will void your warranty).

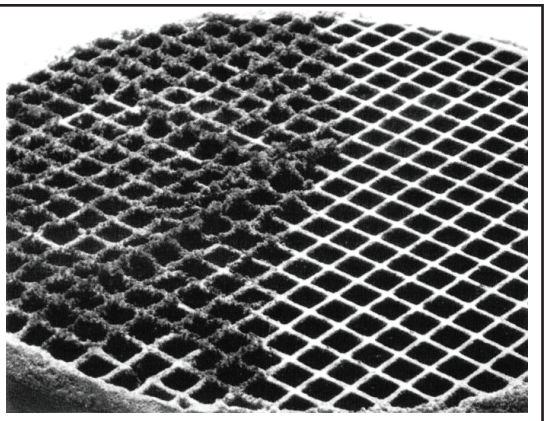


Severe Peeling

CATALYTIC COMBUSTOR

PROBLEM: COMBUSTOR MASKING

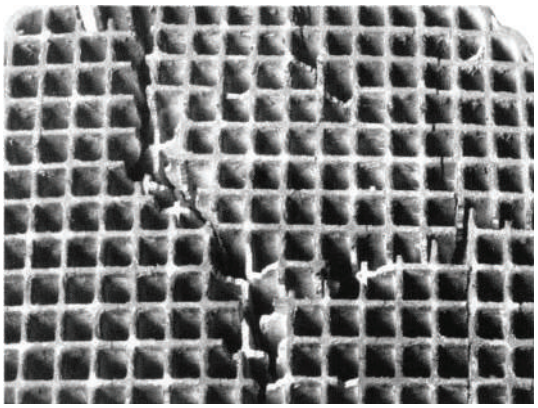
Possible Cause: The combustor is coated with a layer of fly-ash or soot from burning material that produces substantial char and fly-ash.
Solution: When the appliance is cool to touch, clean the front face of the combustor with a soft-bristled brush or vacuum lightly (refer to ***COMBUSTOR CLEANING*** for proper procedure).



PROBLEM: THERMAL CRACKING

Possible Cause: Extreme temperature fluctuations (ie. opening loading door while the combustor is in the ACTIVE zone) can cause thermal shock which can lead to cracking.
Solution: Avoid flooding a hot, active combustor with cool room air when reloading.

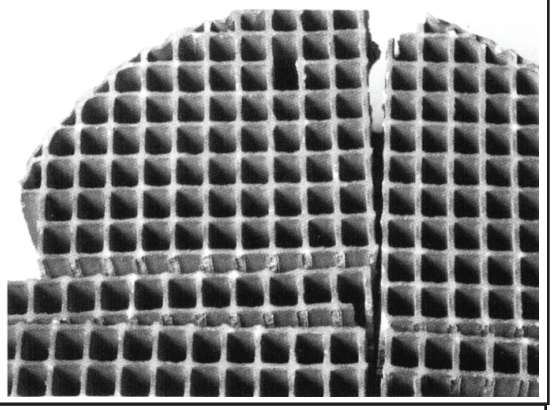
If cracking causes large pieces of the combustor to separate, replace the combustor with an OEM Blaze King combustor (failure to do so will void your warranty).



PROBLEM: MECHANICAL CRACKING

Possible Cause: Mishandling the combustor or operating the appliance without the proper gasket installed.
Solution: Handle with care. Ensure combustor is wrapped with gasket upon reinstallation.

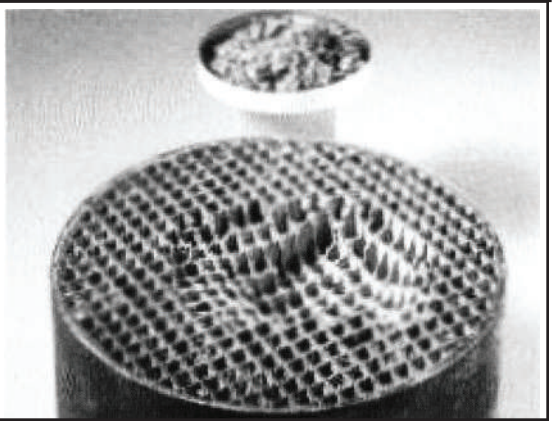
Possible Cause: Distortion of surrounding dome housing.
Solution: The combustor should slide in and out of the dome housing with relative ease. If this is not the case, contact your dealer for further inspection.



PROBLEM: COMBUSTOR CRUMBLING

Possible Cause: Excess air leaking into the firebox.
Solution: Ensure tight seal at loading door (see ***MAINTENANCE*** for instruction on gasket inspection).

Possible Cause: Excessive chimney draft.
Solution: Use a manometer to check and ensure chimney draft is within manufacturer specifications. Adjusting the appliance thermostat can help regulate chimney draft.



⚠WARNING

TO PREVENT SERIOUS BURNS, DO NOT PERFORM ANY MAINTENANCE UNTIL THE APPLIANCE IS COOL. APPLIANCE SURFACES, INCLUDING THE GLASS AND ANY ATTACHED COMPONENT, WILL REMAIN HOT FOR EXTENDED PERIODS OF TIME AFTER THE FIRE HAS BEEN PUT OUT.

RECOMMENDED MAINTENANCE

It is strongly recommended to complete the following tasks on a regular basis throughout the heating season:

1. Visually inspect Catalytic Combustor and clean as required (see "***COMBUSTOR CLEANING"***)
2. Clean behind internal baffles (where applicable) and inspect metal components for warping/distortion.
3. Check Catalytic Thermometer for proper calibration.
4. Check Thermostat for proper function.
5. Check Fan Assemblies for proper operation.
6. Remove all ash from firebox and ash drawer after final burn of season.
7. Check all gaskets for proper seal and adjust as required.
8. Inspect and clean the Venting System.

CATALYTIC THERMOMETER MAINTENANCE

The catalytic thermometer probe (shaft) should be cleaned regularly. Ensure the fire is out and the appliance is cool, then remove the thermometer and wipe the probe clean. While removed, confirm the thermometer indicator needle points towards the bottom of the INACTIVE zone (allow the thermometer to sit at room temperature for 10 minutes before checking). If the needle does not point towards the bottom of the INACTIVE zone, it may need adjustment. Grasp the probe with a pair of pliers then slightly loosen the bolt on the top of the dial. Turn the dial to align the needle to the bottom of the INACTIVE zone and then retighten the bolt. Once finished, reinsert the thermometer back into the appliance. **Note: If your appliance is equipped with a fan kit, turn it off and wait 10 minutes before observing the catalytic thermometer reading.**

THERMOSTAT or THERMOMETER MAINTENANCE

Any thermostat or thermometer maintenance must be completed by a certified installer. If the thermostat or thermometer malfunctions, contact your dealer for replacement.

OPTIONAL FAN ASSEMBLY MAINTENANCE

Fan assemblies should be inspected at the beginning of each burn season to ensure they are free from debris such as ash, dust, pet dander, lint, etc. The accumulation of such debris could prevent the fan blades/blower wheels from rotating freely and put excessive strain on the fan motors, ultimately leading to failure.

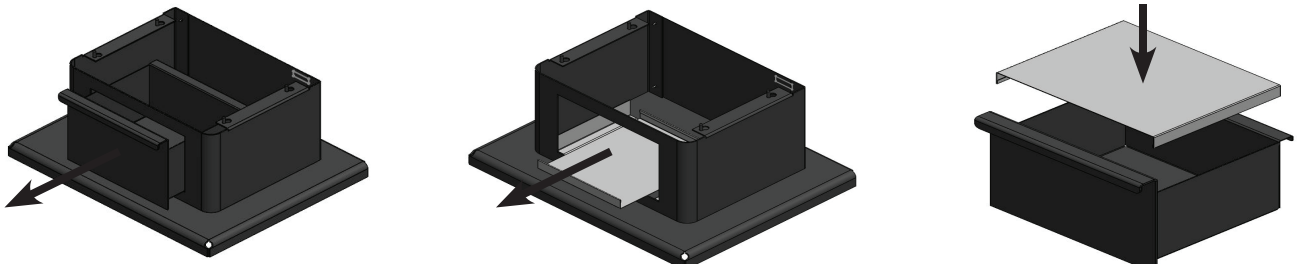
ASH REMOVAL

Ashes should be removed any time they come within one inch of the door opening, though it is not advisable to completely remove all of the ashes as wood burns best on a bed of ashes around 1/2" thick. When removing ashes, ensure the fire is out and the appliance is cool to touch. Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground (outside), well away from all combustible materials, while awaiting final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled. Do not place other waste in this container.

⚠WARNING

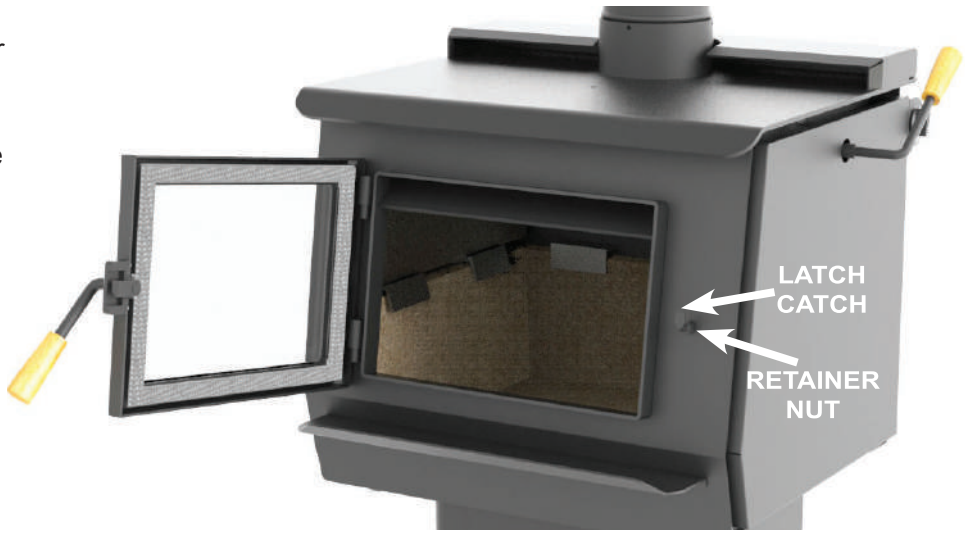
NEVER STORE HOT ASHES IN A GARAGE OR BASEMENT. HOT ASHES WILL GENERATE CARBON MONOXIDE AND / OR FLAMMABLE GASES. THESE GASES MAY CAUSE SUFFOCATION AND POSSIBLE DEATH.

ASH REMOVAL CONTINUED



LOADING DOOR TENSION ADJUSTMENT

To tighten the loading door seal, use a 9/16" wrench to loosen the retainer nut threaded onto the latch catch on the outer right face of the firebox. Once loose, tighten the nut on inside firebox (also threaded onto the latch catch) to secure the latch catch in a position closer to the firebox. Ensure the outer nut is tight and preform a paper test (see "DOOR GASKET PAPER TEST") to ensure the proper seal was achieved. DO NOT FORCE THE NUT LOOSE. Use penetrating oil if necessary to make loosening the nut easier.



LOADING DOOR GASKET INSPECTION

Inspect the loading door gasket for physical deterioration, missing sections, or obvious leakage. The appliance door flange should make a groove in the gasket material. The side of the gasket on the inside of the groove will be dark or black while the outer side will be light or white. Dark smudges on the outer side of the gasket may indicate an air leak. If the groove in the gasket is very shallow or if there is a heavy ash or creosote deposit along the bottom edge of the gasket, it may need to be replaced. Frayed or broken gasket material, or a gasket that is hard and unyielding, will also indicate a need for replacement. Any time a piece of gasket is missing or broken the entire gasket must be replaced. A way to physically check if the gasket needs replacing is by performing a paper test (see ***"DOOR GASKET PAPER TEST")***

LOADING DOOR GASKET REPLACEMENT

If door gasket replacement is required, only replace with OEM door gasket ordered through your Blaze King dealer. This gasket will be properly sized and ready to install. **Do not stretch or cut the gasket at any time during this installation. Ensure only high temperature silicone adhesive is used for this installation (do not use household silicone caulking). Blaze King recommends that your dealer perform this task:**

1. Ensure the fire is out and the appliance is cooled to touch before removing the loading door.
2. Use a pair of pliers to pull the old door gasket out of the channel and dispose of it.
3. Clean the gasket channel of any residual adhesive to ensure the new adhesive will adhere sufficiently.
4. To ensure proper fit, dry fit the new gasket by distributing it evenly around the frame and then remove.
5. Run a small bead of a high temperature silicone adhesive along the center of the gasket channel.
6. Starting in the lower right corner, insert the new gasket into the gasket channel. Be sure to distribute the gasket evenly around the entire channel frame.
7. Allow the adhesive to dry for at least 1 hour before reinstalling and closing the loading door.
8. Confirm proper gasket installation by performing a paper test (see ***"DOOR GASKET PAPER TEST").***

⚠WARNING

DO NOT OPERATE THIS APPLIANCE IF THE DOOR GASKET IS MISSING OR DAMAGED. OVER-FIRING MAY OCCUR WHICH CAN CAUSE DAMAGE TO THE APPLIANCE OR IGNITE CREOSOTE IN THE CHIMNEY WHICH COULD LEAD TO A HOUSE FIRE CAUSING SERIOUS BODILY HARM.

DOOR GASKET PAPER TEST

Perform this test when inspecting or replacing loading door gasket:

1. Ensure the fire is out and the appliance is cooled to touch.
2. Insert a piece of paper (ie. a dollar bill) into the door opening and then latch the door shut.
3. Pull the paper out of the door while noting any obvious resistance when doing so.
4. If no resistance is felt, adjust the door tension (see "***LOADING DOOR TENSION ADJUSTMENT***").
5. Repeat this process around the perimeter of the door until consistent resistance is achieved.

DOOR GLASS GASKET INSPECTION

To inspect the door glass gasket:

1. Ensure the fire is out and the appliance is cooled to touch.
2. Hold the glass by placing the palm of each hand on either side and try to move it; If the glass moves:
   a. Inspect the glass retainers and ensure the screws holding the retainers in place are tight (hand tight plus 1/4 turn). If loose, retighten, but do not over tighten.
   b. Inspect the door glass gasket. If the gasket is frayed or missing sections, replace the gasket.

⚠WARNING

REFRAIN FROM STRIKING THE GLASS OR SLAMMING THE DOOR SHUT. DO NOT OPERATE THIS APPLIANCE IF THE DOOR GLASS OR GASKET SEAL IS BROKEN. DOING SO MAY LEAD TO A RUN AWAY FIRE WHICH COULD RESULT IN PROPERTY DAMAGE.

DOOR GLASS GASKET REPLACEMENT

If door glass gasket replacement is required, only replace with OEM door glass gasket ordered through your Blaze King dealer. The OEM gasket will be ordered to size and ready to re-install. **Do not stretch or cut the gasket at any time during this installation. Blaze King recommends that your dealer perform this task:**

1. Ensure the fire is out and the appliance is cooled to touch.
2. Remove the old glass gasket.
3. Starting at the corner opposite of the "Blaze King" logo, carefully wrap the gasket around the edges of the door glass, pressing firmly onto the sides of the glass with the gasket centered on the edge. Finish the wrapping with a 1/2" overlap. Ensure the thickness of the gasket remains consistent and uniform.
4. Reposition the glass onto the door and then install the glass retainers with original fasteners. Ensure the glass is parallel to the frame and tighten the fasteners (hand tight plus 1/4 turn).

DOOR GLASS CLEANING

The best way to keep the glass clean is to leave the appliance on high burn for a period of time after each reloading The moisture which is driven from a new load of wood contributes much of the creosote on the inside of the glass. Removing that moisture at the beginning of the burn cycle helps to keep the glass clean. Leaving the thermostat on a higher setting for 30 minutes to an hour before turning to low for an overnight burn will also help. Heavier deposits may require hand cleaning. Manual glass cleaning should be done when the appliance and glass are cool. **DO NOT CLEAN THE GLASS WHILE IT IS HOT AND DO NOT USE ABRASIVE CLEANERS TO CLEAN THE GLASS.** Use a soft cloth. After using any cleaner, thoroughly rinse the glass with water to remove any deposits left by the cleaner. Failure to remove all traces of glass cleaner will result in the glass cleaner residue baking on. This residue may be very difficult to remove.

BYPASS DOOR GASKET INSPECTION

Visually note the amount of smoke exiting the chimney while the bypass door is both OPEN and CLOSED. There should be significantly less smoke when the door is in the CLOSED position. If this is not the case, the bypass gasket may need to be replaced.

Note: This inspection could also yield a dead combustor, see "*COMBUSTOR MONITORING*".

BYPASS DOOR GASKET REPLACEMENT

If bypass door gasket replacement is required, only replace with OEM 5/8" fiber glass gasket ordered through your Blaze King dealer. The OEM gasket will be ordered to size and ready to re-install. **Do not stretch or cut the gasket at any time during this installation. Ensure only THERMOSEAL® 1000F high-temperature resistant cement is used for this installation (do not use household silicone caulking). Blaze King recommends that your dealer perform this task:**

1. Ensure the fire is out and the appliance is cooled to touch
2. Remove the flue pipe from the appliance in order to have a clear view of the bypass door **(Fig. 13)**.
3. Remove the combustor (see "*COMBUSTOR REPLACEMENT*").
4. After removing the combustor you will notice stainless bypass retainers on both the left and right sides of the combustor opening **(Fig. 14)**. They secure the bypass door in position during operation. Remove the stainless bypass retainers and set aside.
5. Working down through the flue collar, unhinge the bypass door from the bypass rod (rotating the bypass handle into a neutral position will help), then rotate the bypass door 90 degrees to remove through the combustor opening **(Fig. 15)**.
6. Remove the old gasket and clean away any residual cement from the gasket channel.
7. Apply the new high-temperature cement along the channel.
8. Place the new gasket into the channel, tapping it down to seat it securely.
9. Apply high temp anti-seize lubricant to the under side of the bypass hook **(Fig. 16)** and then reinstall the bypass door by following the previous steps in reverse order.
10. Rotate the bypass handle several times to OPEN/CLOSE the bypass door to ensure smooth and proper operation. Once satisfied, reattach the flue pipe.
11. Reinstall stainless bypass retainers into combustor opening.
12. Refer back to "*COMBUSTOR REPLACEMENT*" to reinstall the combustor. **Note: if the gasket around the combustor is damaged, it will have to be replaced.**

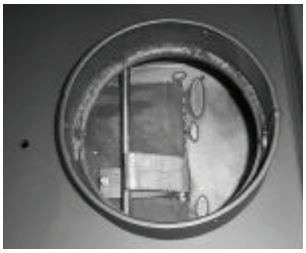


Fig. 13

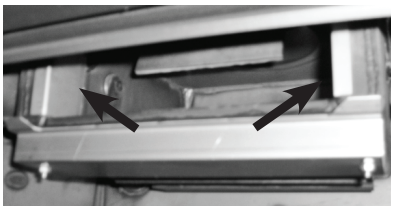


Fig. 14

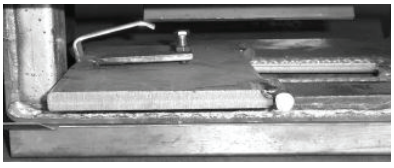


Fig. 15

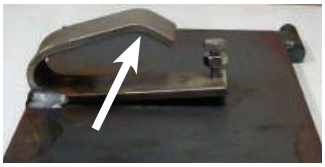


Fig. 16

VENTING SYSTEM MAINTENANCE

The entire chimney system must be cleaned and inspected regularly, especially during the coldest months of the burn season. The most efficient method to clean the chimney is to "sweep" it using a brush. Brush downwards so soot and creosote residues will come off the inner surface and fall to the bottom of the chimney where they can be removed easily. **Ensure the bypass door is OPEN prior to chimney cleaning so soot and creosote fall into the firebox.** Once cleaned, inspect the chimney for any possible damage. If damage is present, the chimney section in question must be replaced.

CREOSOTE FORMATION AND REMOVAL

When wood is burned slowly, it produces tar and other organic vapors which combine with expelled moisture to form creosote. These vapors condense in the relatively cooler chimney flue of a slow burning fire and when ignited, make an extremely hot fire. Be aware that the hotter the fire, the less creosote is deposited. The flue pipe and chimney should be inspected regularly during the heating season, until a safe frequency for cleaning is established to determine if a creosote build up has occurred. If creosote accumulation is excessive, cleaning is required. It is recommended that a professional chimney sweep does the cleaning. Both the chimney and the appliance have to be cleaned at least once a year or as often as necessary.

⚠WARNING

A CHIMNEY FIRE CAN PERMANENTLY DAMAGE YOUR VENTING SYSTEM, WHICH CAN ONLY BE REPAIRED BY REPLACING THE DAMAGED COMPONENTS. FAILURE TO REPAIR COULD LEAD TO FURTHER PROPERTY DAMAGE. DAMAGE FROM A CHIMNEY FIRE IS NOT COVERED BY THE LIMITED WARRANTY.

RUN-AWAY OR CHIMNEY FIRE

CAUSES:

1. Using incorrect fuel or small fuel pieces which would normally be used as kindling.
2. Leaving the door ajar too long and creating extreme temperatures as the air rushes in the open door.
3. Improperly installed or worn gaskets.
4. Creosote build up in the chimney.
5. Leaving the bypass door open too long.

SOLUTIONS:

1. Do not burn treated or processed wood, coal, charcoal, colored paper, or cardboard.
2. Be careful not to over fire the appliance by leaving the door open too long after the initial start-up.
3. Replace worn, dried out (inflexible) gaskets.
4. Have your chimney cleaned regularly.

WHAT TO DO IF A RUN-AWAY OR CHIMNEY FIRE STARTS:

1. Close the thermostat by rotating the knob fully counter clockwise and ensure the firebox door and the bypass door are closed.
2. Call the local fire department.
3. Examine the chimney, attic, and roof of the house to see if any part has become hot enough to catch fire. If necessary, hose area down with a fire extinguisher or water from a garden hose.
4. Do not operate the appliance again until you are certain the chimney has not been damaged

IT IS ADVISED TO HAVE A WELL UNDERSTOOD PLAN OF ACTION IN THE EVENT OF A CHIMNEY FIRE

Your Blaze King is designed to allow a wide selection of heat output levels. If you begin to lose control of the amount of heat the stove is emitting, determine the cause early so that major problems may be avoided.
The six major needs of a well-controlled fire are:

1. Knowledgeable operator.
2. Adequate air supply.
3. Firewood of good quality and proper size.
4. Catalytic combustor in good condition.
5. Clean chimney, properly sized and installed.
6. Door gasket tight and firm.

Considering all of the above, number one is the most important for safe and efficient operation of any wood stove. Please study the operation instructions carefully. Consult your BLAZE KING dealer if you have any questions not answered in this manual.

All of the six above mentioned needs are interrelated. A deficiency in any one will affect all of the others. If you encounter a problem, determine the source of the problem and then follow-up by checking the other needs as possible contributing factors.

PROBLEM: Chimney Fire	
CAUSE Act immediately regardless of cause	**SOLUTION** Turn the thermostat to lowest setting, make sure the loading door and the bypass door are tightly closed. **Call Fire Department.**
After the fire is out, have your chimney and flue connector inspected by a certified chimney sweep. A damaged masonry chimney should be repaired or rebuilt. A prefabricated chimney (factory built) that is damaged should be replaced. Any damage to the flue connector should be corrected before the system is used again. Possible causes of a chimney fire, and remedies for those causes, can be found further in this section: “Excessive Creosote Formation”, and “Spots of Creosote Accumulation in Chimney or Flue Pipe”.	

PROBLEM: Not enough heat.	
CAUSE Green or wet wood. Not enough fuel in stove.	**SOLUTION** Use a moisture meter to ensure you are burning seasoned wood. Don’t be afraid to FULLY load the stove. A FULL load of wood won’t burn any hotter than the thermostat is set.
Obstruction in chimney or cap screen. Combustor plugged or coated.	Remove obstruction. See “COMBUSTOR, TESTING” See “COMBUSTOR, CLEANING”
Combustor not functioning.	See “COMBUSTOR, TESTING”. If needed, replace combustor, See”“COMBUSTOR, REPLACING”.
Thermostat set too low.	Raise thermostat setting.
Thermostat not operating properly.	Consult your Blaze King dealer.
Poor draft caused by a poorly designed chimney system.	Measure draft with Manometer. See “CHIMNEY DRAFTS” Consult your Blaze King dealer or a chimney sweep.
Strong, gusting winds causing downdraft in chimney	Install wind-resistant chimney cap. Directional caps may not stay freely rotating. If you have a directional cap, check it frequently.
Tightly sealed house, inadequate air supply.	Slightly open a window, near the stove or install an outside air kit.
Reloading too much wood on top of too few coals.	Allow a larger bed of coals to build up.

PROBLEM: Too much heat.	
CAUSE	**SOLUTION**
Bypass door left open.	Close the bypass door.
Thermostat set too high.	Lower thermostat setting.
Loading door gasket leaking, admitting excess air into firebox.	Replace door gasket and/or adjust door. See “GASKET INSPECTION”
Excessive draft in the chimney.	Measure draft with a Manometer. See “DRAFTS”. Consult your Blaze King dealer or a chimney sweep. Install a cap.
Thermostat not operating properly.	Consult your Blaze King dealer.
Wood is too small.	Use larger pieces.

PROBLEM: One or both fans will not run, or there is no adjustment for fan speed.	
CAUSE	**SOLUTION**
Fans mounted improperly.	Check that fan blade’s not touch edges of hole.
Fan speed control.	Consult your Blaze King dealer for replacement.

PROBLEM: Fans minimum speed too fast or maximum speed too slow.	
CAUSE	**SOLUTION**
Fan speed control out of adjustment.	Consult your Blaze King Dealer.

PROBLEM: Excessive creosote formation in chimney and chimney Connector.	
CAUSE	**SOLUTION**
Bypass door left open.	Close bypass door.
Bypass door not sealing tightly.	Inspect bypass door and seal for warping. Ash or creosote buildup may occur on door or seat. With stove cold scrape and vacuum area around bypass. Be sure all mating steel surfaces are clean and smooth.
Improper operation.	Check thermostat setting and operating procedures. See “THERMOSTAT & OPTIMAL THERMOSTAT SETTING”
Wood too green or wet.	Use seasoned wood. Use a moisture meter to confirm.
Catalytic combustor not operating properly.	Inspect the combustor. See “CATALYTIC COMBUSTOR, TESTING”
Poor draft caused by a poorly designed chimney system.	Measure draft with Manometer. See “DRAFTS”. Consult your Blaze King dealer or a chimney sweep.
Chimney too cold or poorly insulated.	Upgrade chimney system. Consult your Blaze King dealer or a chimney sweep.

PROBLEM: Catalytic Thermometer (on top of stove) does not go into "Active" zone, or does not stay there for long. (Fans must be in “off” position for 10 minutes prior to checking)	
CAUSE	**SOLUTION**
Improper operation.	Check thermostat setting and operating procedures. See “THERMOSTAT & OPTIMAL THERMOSTAT SETTING”
Obstruction in chimney or cap.	Clean chimney, remove obstructions.
Faulty catalytic thermometer.	Check catalytic thermometer calibration.
Wood too green or wet.	Use seasoned wood.

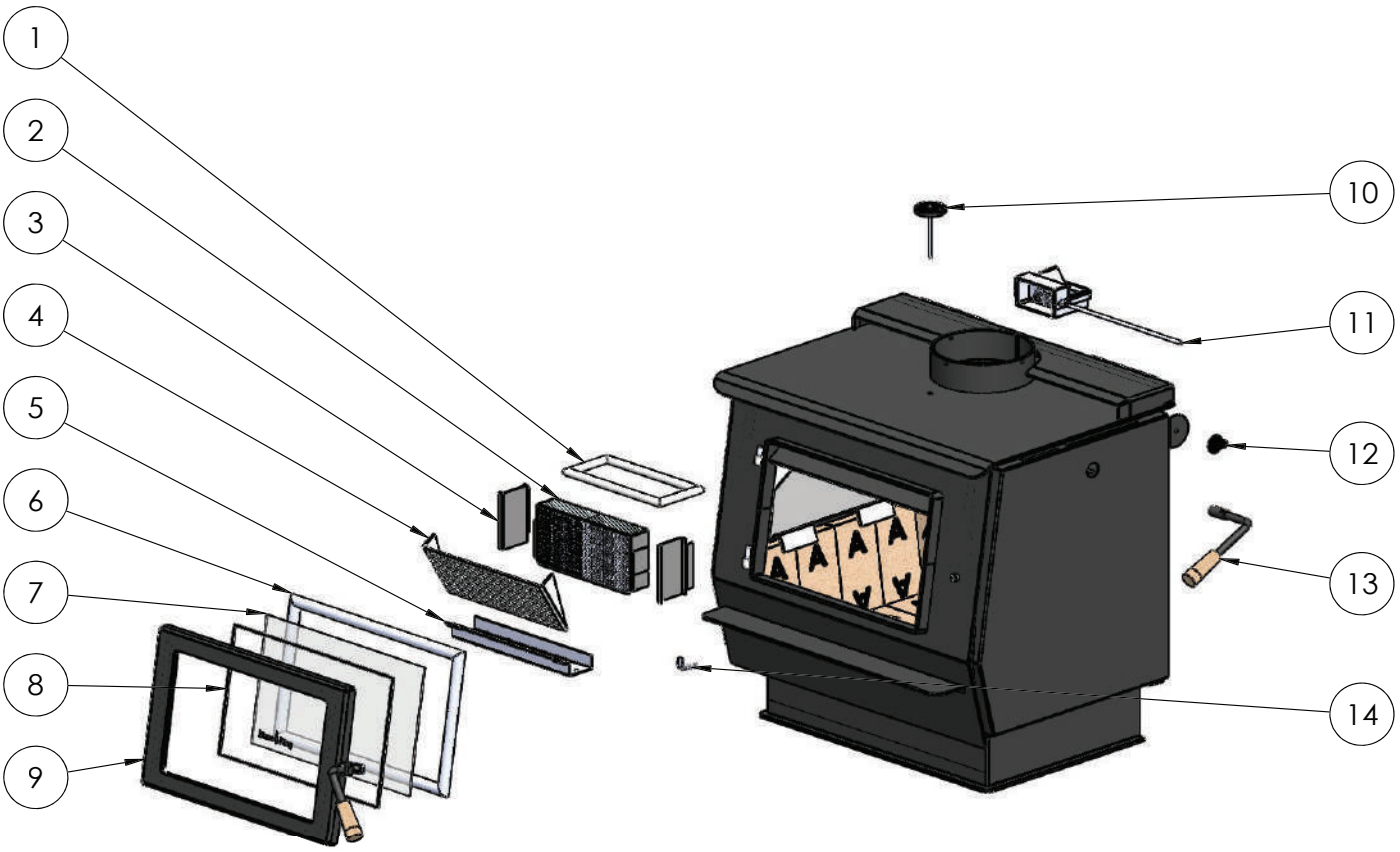
Combustor plugged or coated.	Clean combustor. See “CATALYTIC COMBUSTOR TESTING”
Combustor not functioning.	Check and test combustor. If needed replace combustor. See “CATALYTIC COMBUSTOR, REPLACING”
Thermostat not operating properly.	Consult your blaze King Dealer.
Bypass door leaking or not closing completely.	Inspect and clean area around bypass doors. Adjust or replace gasket if necessary. Consult your Blaze King Dealer.

PROBLEM: Spots of creosote accumulation in flue pipe or chimney.	
CAUSE Air leaks in flue pipe or chimney.	**SOLUTION** Inspect flue pipe and chimney. Repair or replace as necessary. Check to be sure that the flue pipe is installed correctly.
CAUTION: a leaking chimney system is a fire hazard and demands immediate attention.	
Poor draft caused by an oversize flue, single wall pipe, to many elbows, etc.	Measure draft with Manometer. See “DRAFTS”. Consult your Blaze King dealer or a chimney sweep.

PROBLEM: Door glass quickly becomes coated with creosote.	
CAUSE Low thermostat setting or lowering the thermostat setting too far, too quickly.	**SOLUTION** Turn the thermostat to the warmest setting during the first 20-30 minutes or until the fire is well established after each reloading.
Poor draft caused by an oversize or short flue, etc.	Measure draft with Manometer. See “DRAFTS”. Consult your Blaze King dealer or a chimney sweep.
Obstruction in chimney or cap screen.	Remove obstruction. Clean chimney and/or cap screen.
Strong, gusting winds causing downdraft in chimney.	Install wind-resistant chimney cap.
Tightly sealed house, inadequate air supply.	Open a window, slightly, near the stove. Install a Fresh Air Kit.
Burning poorly seasoned wet wood, or wood with high pitch content.	Use seasoned wood with low pitch content, such as some types of pine.

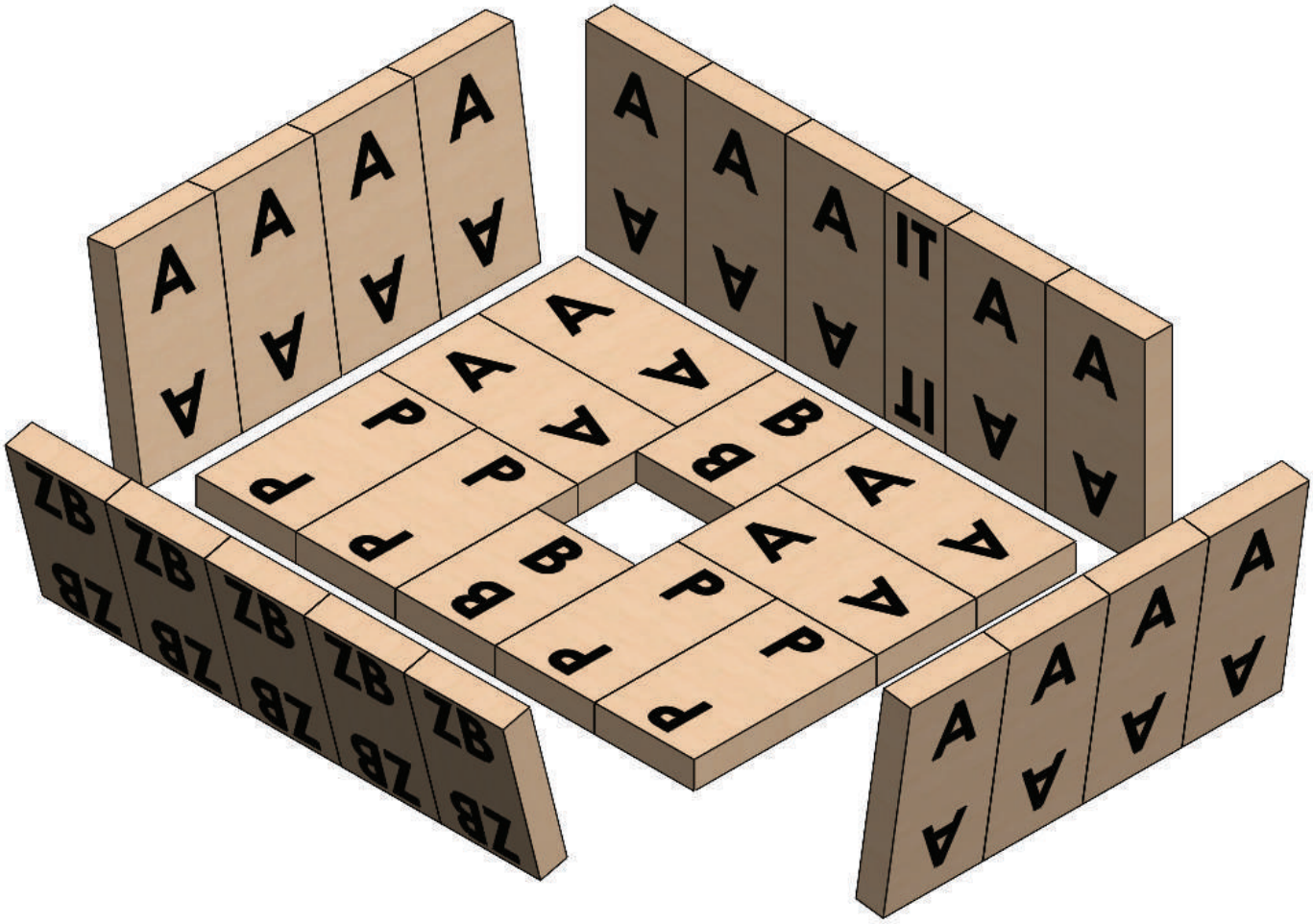
PROBLEM: The combustor temperature cannot be controlled. Turning the thermostat down often makes the combustor temperature go up.
CAUSE Turning the thermostat down, particularly in the first half of the burn cycle, causes the fire to emit more smoke, which is fuel for the combustor. The combustor temperature therefore climbs for up to several hours. This is normal, and is of no concern. As long as only the combustor temperature is elevated, there is nothing to worry about.

PROBLEM: Smoke spills from door opening when loading fuel	
CAUSE Spark arrestor screen on cap plugged.	**SOLUTION** Clean spark arrestor screen to bare metal wire.
Chimney too cold.	Make certain double wall stove pipe is used in installation.
Not enough vertical rise.	Make certain a minimum vertical rise of 36” is observed prior to elbows. Use two 45 elbows instead of 90 elbow.
Chimney not drafting.	Turn thermostat to highest setting, open bypass, leave loading door closed and wait 5-10 minutes to increase chimney or flue temperature.



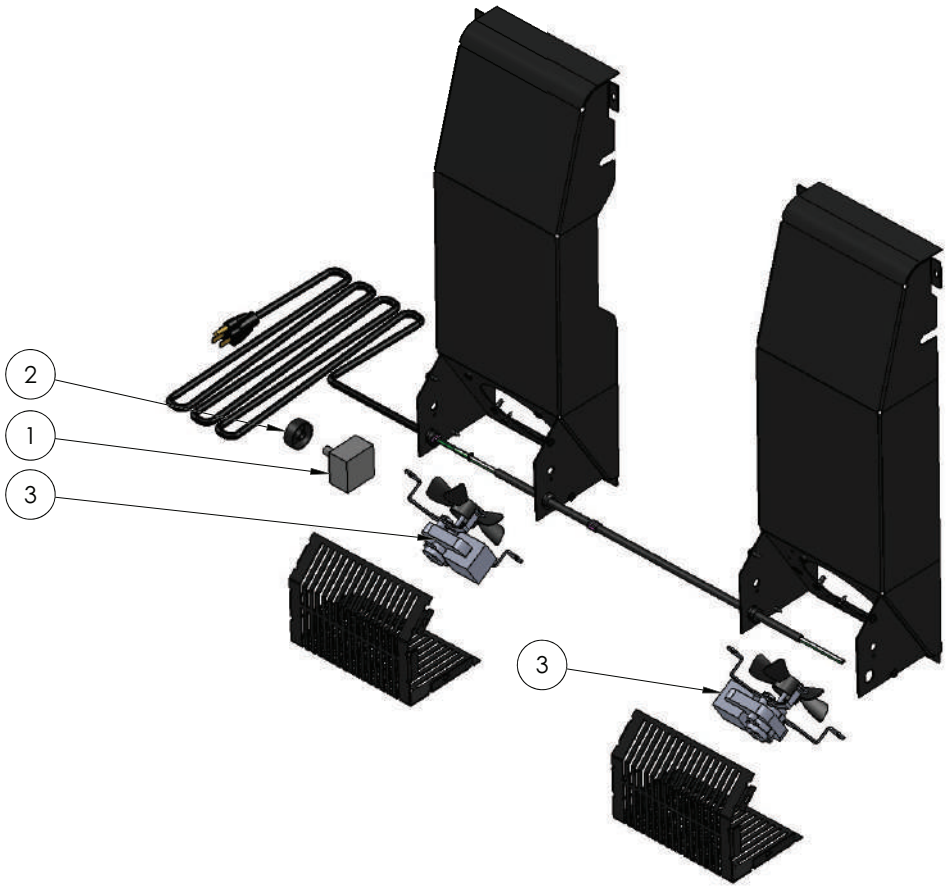
No. exploded view	Part #	Description	QTY
1	S.155.0255.B.3	BYPASS GASKET - 3 ft	1
2	S.CAT40	COMBUSTOR ASSEMBLY	1
3	S.Z4819	BYPASS RETAINER KIT	1
4	S.Z2430	FLAME SHIELD	1
5	S.Z4551	DOME GUARD REPLACEMENT KIT	1
6	S.155.0186.6	DOOR GASKET - 6 ft	1
7	130-0243	GLASS CERAMIC 5MM	1
8	S.155.0254.6	DOOR GLASS GASKET - 5 ft	1
9	S.Z4886	DOOR ASSEMBLY	1
10	120-0342-E	CATALYTIC THERMOMETER	1
11	S.Z3040	THERMOSTAT KE40	1
12	220-0102	THERMOSTAT KNOB	1
13	S.Z2452.M	BYPASS HANDLE	1
14	S.0693	LATCH CATCH	1

Brick Layout



Part #	QTY
A SIZE BRICK	17
B SIZE BRICK	2
P SIZE BRICK	4
IT SIZE BRICK	1
ZB SIZE BRICK	5

S.Z1714 Fan Kit



No. exploded view	Part #	Description	QTY
1	145-0136	RHEOSTAT WITH OFF (O/H/LOW)	1
2	220-0137	RHEOSTAT KNOB BLACK SILVER LINE	1
3	150-0175-C	FAN AXIAL SPIDER MOUNT	1

BLAZE KING WOOD LIMITED WARRANTY

Blaze King and Valley Comfort's respective brands extend the following warranty for wood fired appliances purchased from an authorized Blaze King / Valley Comfort dealer and installed in the United States of America or Canada. Warranty starts with date of purchase by the original owner (End User) except as noted for replacement parts.

Warranty Period		Components Covered	
Parts	Labor	Wood	
1 Year		X	All parts, materials and surface finishes (flaking and peeling) Subject to Conditions, Exclusion, and Limitations listed.
2 Years		X	Fan assemblies and motors, thermal sensors, catalytic thermometer, bi-metallic thermostat assembly, door handle metal components.
5 Years	2 Years	X	Firebox & Heat Exchanger, Bypass Door Steel Components
6 Years		X	Catalyst Combustor (see Conditions, Exclusions, and Limitations)
1 Year		X	Other Replacement Parts
SEE CONDITIONS, EXCLUSIONS, AND LIMITATIONS.			

Blaze King Wood Limited 5 Year Warranty

Blaze King is the manufacturer of the Blaze King line of heating products. At Blaze King, our commitment to the highest level of quality and customer service is the most important thing we do. Each Blaze King stove is built on a tradition of using only the finest materials and is backed by our limited warranty to the original purchaser. With Blaze King, you're not just buying a stove; you're buying a company with years of unequalled performance and quality.

Limited Six (6) Year Warranty:
The CATALYTIC COMBUSTOR is under warranty by Blaze King for six (6) years from the date of original retail purchase. The purchaser shall pay the following share of the then current retail price for the combustor: The first three (3) years no charge, 4th year 60%; 5th year 70%, 6th year 80%. The Combustor must be returned to your dealer along with a completed COMBUSTOR FAILURE REPORT and original proof of purchase document.

Limited (5) Year Warranty:
Under this warranty, Blaze King covers the stove body and accessories against defects in materials and workmanship, for part repair or replacement for the first five (5) years *** to the original purchaser. This Warranty covers: All Steel firebox components against defects in material and workmanship. Please see the exclusions and limitation section below as certain restrictions and exclusions apply this warranty.

Limited Two (2) Year Warranty:
Under this warranty, Blaze King covers, fan assemblies , modular thermostat and door handle steel components against defects in materials and workmanship, for part repair or replacement and limited labor for the first two (2) years to the original purchaser. Please see the exclusions and limitation section below as certain restrictions and exclusions apply to this warranty.

Limited One (1) Year Warranty:
Under this warranty, Blaze King covers all parts and materials against defects in materials and workmanship including exterior paint finishes, for part repair or replacement and limited labor for the first year to the original purchaser. Please see the exclusions and limitation section below as certain restrictions and exclusions apply to this warranty.

How the Warranty Works

1. All warranties by the manufacturer are set herein and no claim shall be made against the manufacturer on any oral warranty or representation. All claims under this Limited Warranty must be made in writing by your dealer.
2. Any stove or part thereof that is repaired or replaced during the Limited Warranty period will be warranted under the terms of the Limited Warranty for a period not exceeding the remaining term of the original Limited Warranty or six (6) months, whichever is longer.
3. For any part or parts of this stove, which in our judgment show evidence of defects, Blaze King reserves the option to repair or to replace the defective part(s) through an accredited distributor or agent, provided the defective part is returned to the distributor or agent, transportation prepaid, if requested.
4. If you discover a problem that you think may be covered by the Limited Warranty, you MUST REPORT it to your Blaze King dealer WITHIN 30 DAYS from the date the problem was first detected, giving them proof of purchase and the date of purchase. The dealer will investigate the problem and work with Blaze King to determine whether the problem:
   a) Is covered by the Limited Warranty or
   b) Can be fixed in your home or does the product need to be returned to Blaze King for repair.
5. If Blaze King determines that the stove needs to be returned to Blaze King for repair, the customer has the responsibility and the expense of removing it from their home and shipping it to Blaze King. If the problem is covered by the Warranty, Blaze King will repair or replace the item at their discretion and the customer will be responsible for return shipping and re-installation in their home.
6. If the problem is not covered by the Limited Warranty, the customer will be responsible for all repair costs, as well as all storage, shipping and the cost of removing and re-installing the stove.
   If you are not satisfied with the service provided by the Blaze King dealer, write to Blaze King at the address listed on the first page of the Owner's Manual. Include a copy of the original purchase invoice and a description of the problem.

Exclusions and Limitations:

1. This Warranty does not cover tarnish, discoloration or wear on the plated surfaces Painted finishes will change color after initial firing and will continue to change through the lifetime of the stove. This is normal occurrence for all high temperature coatings.
2. This Warranty does not cover gasket material or firebrick.
3. Blaze King strongly recommends installation by a certified installer. Failure to comply may adversely affect coverage under the terms of this warranty. This Limited Warranty covers defects in materials and workmanship only if the product has been installed in accordance with local building and fire codes; in their absence refer to the owner's manual. If the product is damaged or broken as a result of any alteration, wilful abuse, mishandling, accident, neglect, or misuse of the product, the Limited Warranty does not apply.
4. The stove must be operated and maintained at all times in accordance with the instructions in the Owner's Manual. If the unit shows signs of neglect or misuse, it is not covered under the terms of this Warranty policy. Performance problems due to operator error will not be covered by the Limited Warranty policy.
   Some minor expansion, contraction, or movement of certain parts and resulting noise, is normal and not a defect and, therefore, is not covered under this Limited Warranty.
5. Misuse includes over-firing. Over-firing can be identified later by warped plates and paint pigment being burnt off. Over-firing this appliance can cause serious damage and will nullify the Limited Warranty.
6. The Limited Warranty will cover glass thermal breakage only and will not cover misuse of the stove glass, including but not limited to:
   a) Glass that is struck, has surface contaminates or has had harsh or abrasive cleaners used on it.
   b) If the door is slammed or is closed while wood in the firebox is protruding out the stove opening thus striking the glass.
7. This warranty does not cover products made or provided by other manufacturers and used in conjunction with the operation of this stove without prior authorization from Blaze King The use of such products may nullify the Limited Warranty on this stove. If unsure as to the extent of this Limited Warranty, contact your authorized Blaze King dealer before installation.
8. Blaze King will not be responsible for inadequate performance caused by environmental conditions.
9. The Limited Warranty does not cover installation and operational related problems such as use of downdrafts or spillage caused by environmental conditions. Environmental conditions include but are not limited to nearby trees, buildings, roof tops, wind, hills, mountains, inadequate venting or ventilation, excessive offsets, negative air pressures or other influences caused by mechanical systems such as furnaces, fans, clothes dryers etc.
10. The Limited Warranty does not cover damage caused by burning salt-saturated wood, corrosive driftwood, chemically treated wood or any fuel not recommended in the Owner's Manual (use cord wood only).
11. The Limited Warranty is void if:
    a) The stove has been operated in atmospheres contaminated by chlorine, fluorine or other damaging chemicals.
    b) The stove is subject to submersion in water or prolonged periods of dampness or condensation.
    c) Any damage to the unit, combustion chamber or other components due to water, or weather damage which is the result of, but not limited to, improper chimney/venting installation.
    d) Salt air in coastal areas or high humidity can be corrosive to the finish; these environmental conditions can cause rusting. Damage caused by salt air or high humidity is not covered by the Limited Warranty.
12. Exclusions to the Limited Warranty include: injury, loss of use, damage, failure to function due to accident, negligence, misuse, improper installation, alteration or adjustment of the manufacturer's settings of components, lack of proper and regular maintenance, alteration, or act of God.
13. The Limited Warranty does not cover damage caused to the stove while in transit. If this occurs, do not operate the stove and contact your courier and/or dealer.
14. The Limited Warranty does not extend to or include paint, door or glass gaskets or firebricks damage caused by normal wear and tear, such as paint discoloration or chipping, worn or torn gaskets, chipped or cracked firebrick, etc.
15. The Limited Warranty does not include damage to the unit caused by abuse, improper installation, or modification of the unit.
16. Damage to plated surfaces caused by fingerprints, scratches, melted items, or other external scores and residues left on the plated surfaces from the use of abrasive cleaners or polishes is not covered in this warranty.

17. Blaze King is free of liability for any damages caused by the stove, as well as inconvenience expenses and materials. The Limited Warranty does not cover incidental or consequential damages.

18. The Limited Warranty does not cover any loss or damage incurred by the use or removal of any component or apparatus to or from the Blaze King stove without the express written permission of Blaze King and bearing a Blaze King label of approval.

19. Any statement or representation of Blaze King Products and their performance contained in Blaze King advertising, packaging literature, or printed material is not part of the Limited Warranty.

20. The Limited Warranty is automatically voided if the stove's serial number has been removed or altered in any way. If the stove is used for commercial purposes, it is excluded from the Limited Warranty.

21. No dealer, distributor, or similar person has the authority to represent or warrant Blaze King Products beyond the terms contained within the Limited Warranty. Blaze King assumes no liability for such warranties or representations.

22. Blaze King will not cover the cost of the removal or re-installation of the stove, hearth, facing, mantels, venting or other components.

23. Labor to replace or repair items under this Limited Warranty will be covered per our warranty service fee reimbursement and labor rates are set per component schedule. Labor rates vary from location to location and as such total labor costs may not be covered. Please consult with your dealer or service technician for any additional charges such as travel time or additional labor charges that may apply.

24. For parts of the Blaze King wood stove or fireplace insert warranted beyond the first year, the five year limited warranty will have the same obligations as described in this document, provided, however that the purchaser shall pay the following percentage of the then current retail cost of the repair or the replacement, according to the year after purchase in the which the defect is brought to the attention of Blaze King.*** During the 2nd year----purchaser pays 20%. 3rd year ----purchaser pays 40%. 4th year -----purchaser pays 60%. 5th year---- purchaser pays 80%.

25. If a defect or problem is determined by Blaze King to be non warrantable, Blaze King is not liable for travel costs for service work. In the event of in-home repair work, the customer will pay any in-home travel fees or service charges required by the Authorized Dealer.

26. At no time will Blaze King be liable for any consequential damages which exceed the purchase price of the unit. Blaze King has no obligation to enhance or modify any stove once manufactured (example: as a stove model evolves, field modifications or upgrades will not be performed).

27. This Limited Warranty is applicable only to the original purchaser and it is nontransferable.

28. This warranty only covers Blaze King Products that are purchased through an authorized Blaze King dealer.

29. If for any reason any section of the Limited Warranty is declared invalid, the balance of the warranty remains in effect and all other clauses shall remain in effect.

30. The Limited Warranty is the only warranty supplied by Blaze King, the manufacturer of the stove. All other warranties, whether express or implied, are hereby expressly disclaimed and the purchaser's recourse is expressly limited to the Limited Warranty.

31. Blaze King and its employees or representatives will not assume any liability for damages, either directly or indirectly, caused by improper usage, operation, installation, servicing or maintenance of this stove.

32. Blaze King reserves the right to make changes without notice. Please complete and mail the warranty registration card and have the installer fill in the installation data sheet in the back of the manual for warranty and future reference.

33. Blaze King is responsible for stocking parts for a maximum of seven (7) years after discontinuing the manufacture or incorporation of the item into its products. An exception to this would be if an OEM supplier is not able to supply a part.

INSTALLER NOTES

Installer - Please complete the following information:

Dealer Name & Address:_____

_____

Installer Name (print): _____

Installer Signature: _____

Installer Phone #: _____

Date Installed:_____

Appliance Serial No.: _____

Report and Certificate of Calibration

CAL-CERT CALIBRATION CERTIFICATION

www.Cal-Cert.com

Toll Free 800-356-4662

Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #: 33086-203325-4525 **Customer PO#:** 1109

Customer Name: PFS TECO

Customer Address: 1507 Matt Pass

City: Cottage Grove **State:** WI **Zip:** 53527

Contact: Ethan Frederick

Service Address: 11785 SE Highway 212, Suite 305 Clackamas, OR 97015

Calibration Standards

10-01442 | Compound Gauge | Fluke | SN: 4582643 | Cal: 01/26/2024 | Due: 01/31/2025 | Vendor: Fluke | Report #: EVL943251
LP-01782 | Thermo-Hygrometer | Comark | SN: 06247790052 | Cal: 01/24/2024 | Due: 01/31/2025 | Range: 122 °F 95 %RH | Report #: 32568-205513-3646

Instrument Data

Calibration Date:	February 26, 2024	**Reference:**	ASME B40.100
Recommended Due Date:	February 26, 2025	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Newport Industries	**Temperature:**	64 °F
Type:	Pressure Transducer	**Humidity:**	36% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	54B
Capacity:	1 PSI	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 1.00 **Range Resolution:** 0.01 **Mode Verified:** Pressure

UUT Reading PSI	Standard As Found PSI	Standard Verification Reading #1 PSI	Error PSI	Standard Verification Reading #2 PSI	Error PSI	Tolerance PSI	Expanded Uncertainty ± PSI
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.005
0.10	0.10	0.10	0.00	0.10	0.00	0.01	0.005
0.25	0.25	0.25	0.00	0.25	0.00	0.01	0.006
0.50	0.50	0.50	0.00	0.50	0.00	0.01	0.014
0.75	0.75	0.75	0.00	0.74	-0.01	0.01	0.018
1.00	1.00	1.00	0.00	0.99	-0.01	0.01	0.013
0.75	0.76	0.76	0.01	0.76	0.01	0.01	0.005
0.50	0.50	0.50	0.00	0.51	0.01	0.01	0.015
0.25	0.25	0.25	0.00	0.26	0.01	0.01	0.017
0.10	0.11	0.11	0.01	0.11	0.01	0.01	0.008
0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.005

Manufacturer: Newport Industries **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.
All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Steven White **Date:** February 26, 2024

Technical Manager: Marshall Doyle **Signature:** 

Report #: 33086-203325-4525

Report and Certificate of Calibration

CAL-CERT CALIBRATION CERTIFICATION

www.Cal-Cert.com

Toll Free 800-356-4662

Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #:	33086-203326-4525	**Customer PO#:**	1109		
Customer Name:	PFS TECO				
Customer Address:	1507 Matt Pass				
City:	Cottage Grove	**State:**	WI	**Zip:**	53527
Contact:	Ethan Frederick				
Service Address:	11785 SE Highway 212, Suite 305	Clackamas, OR 97015			

Calibration Standards

10-01442 | Compound Gauge | Fluke | SN: 4582643 | Cal: 01/26/2024 | Due: 01/31/2025 | Vendor: Fluke | Report #: EVL943251
LP-01782 | Thermo-Hygrometer | Comark | SN: 06247790052 | Cal: 01/24/2024 | Due: 01/31/2025 | Range: 122 °F 95 %RH | Report #: 32568-205513-3646

Instrument Data

Calibration Date:	February 26, 2024	**Reference:**	ASME B40.100
Recommended Due Date:	February 26, 2025	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Newport Industries	**Temperature:**	64 °F
Type:	Pressure Transducer	**Humidity:**	36% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	54C
Capacity:	5 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 5.00 **Range Resolution:** 0.01 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005
0.50	0.50	0.50	0.00	0.48	-0.02	0.05	0.045
1.25	1.25	1.25	0.00	1.23	-0.02	0.05	0.036
2.50	2.49	2.49	-0.01	2.49	-0.01	0.05	0.006
3.75	3.74	3.74	-0.01	3.74	-0.01	0.05	0.007
5.00	4.98	4.98	-0.02	4.99	-0.01	0.05	0.026
3.75	3.74	3.74	-0.01	3.74	-0.01	0.05	0.023
2.50	2.50	2.50	0.00	2.49	-0.01	0.05	0.014
1.25	1.26	1.26	0.01	1.24	-0.01	0.05	0.042
0.50	0.51	0.51	0.01	0.50	0.00	0.05	0.04
0.00	0.00	0.00	0.00	0.01	0.01	0.05	0.005

Manufacturer: Newport Industries **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.
All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Steven White **Date:** February 26, 2024

Technical Manager: Marshall Doyle **Signature:** 

Report #: 33086-203326-4525

Dry Gas Meter Calibration

DUT	
Manufacturer:	APEX
Model:	XC-60
Lab ID #:	55
Serial #:	1902130
Calibration Date:	2/5/2024
Calibration Expiration:	8/5/2024
Barometric Pressure:	29.39 in. Hg

Equipment Used:	Ref. Std. DGM	Thermometer	Barometer	Manometer
Manufacturer:	Apex	NI	Aquatech	Dwyer
Model:	SK25DA	NI-9213	DBX2	475
Lab ID#:	47	215	202	174
Calibration Expiration Date:	4/17/2024	2/28/2024	5/23/2024	4/21/2024
Calibration γ Factor:	0.9988			

Use in accordance with EPA Method 5, sections 10.3 and 16.1. Use only calibrated, NIST traceable reference standard DGM. Caibrate over expected operating flow range of DUT.

Calibration Data	Run 1	Run 2	Run 3
Standard DGM Initial Volume (L)	0.000	0.000	0.000
Standard DGM Final Volume (L)	202.311	156.489	164.235
Standard DGM Temperature (°F)	72.0	72.0	74.0
Standard DGM Pressure (in H_2O)	0.00	0.00	0.0
DGM Initial Volume (ft^3)	0.000	0.000	0.000
DGM Final Volume (ft^3)	7.085	5.526	5.749
DGM Temperature (°F)	77.0	77.0	78.0
DGM Pressure (in H_2O)	0.00	0.00	0.0
Net Volume for Standard DGM (ft^3)	7.145	5.526	5.800
Net Volume for DGM (ft^3)	7.085	5.526	5.749

Dry Gas Meter γ Factor	1.017	1.008	1.015
γ Factor Deviation From Average	1.017	1.008	1.015

Average Gas Meter γ Factor: 1.013

Measurement Uncertainty: Total measurement uncertainty +/- 0.748% RD, K=2

Calculations:

1. Deviation = |Average value for all runs - current run value|
2. $\gamma = [V_{std} \times (\gamma_{Std}) \times (P_{bar}+P_{std}/13.6) \times (T_{DGM} + 460)] / [V_{DGM} \times (T_{std} + 460) \times (P_{bar} + P_{DGM}/ 13.6)]$

Technician:

Dry Gas Meter Calibration

DUT	
Manufacturer:	APEX
Model:	XC-50-DIR
Lab ID #:	203
Serial #:	A2204292
Calibration Date:	2/2/2024
Calibration Expiration:	8/2/2024
Barometric Pressure:	29.55 in. Hg

Equipment Used:	Ref. Std. DGM	Thermometer	Barometer	Manometer
Manufacturer:	Apex	NI	Aquatech	Dwyer
Model:	SK25DA	NI-9213	DBX2	475
Lab ID#:	47	215	202	174
Calibration Expiration Date:	4/17/2024	2/28/2024	5/23/2024	4/21/2024
Calibration γ Factor:	0.9988			

Use in accordance with EPA Method 5, sections 10.3 and 16.1. Use only calibrated, NIST traceable reference standard DGM. Caibrate over expected operating flow range of DUT.

Calibration Data	Run 1	Run 2	Run 3
Standard DGM Initial Volume (L)	0.000	0.000	0.000
Standard DGM Final Volume (L)	137.050	146.311	151.880
Standard DGM Temperature (°F)	67.0	66.0	67.0
Standard DGM Pressure (in H_2O)	0.0	0.00	0.0
DGM Initial Volume (ft^3)	0.000	0.000	0.000
DGM Final Volume (ft^3)	5.006	5.317	5.489
DGM Temperature (°F)	88.0	86.0	88.0
DGM Pressure (in H_2O)	1.06	1.52	2.81
Net Volume for Standard DGM (ft^3)	4.840	5.167	5.364
Net Volume for DGM (ft^3)	5.006	5.317	5.489

Dry Gas Meter γ Factor	1.001	1.004	1.008
γ Factor Deviation From Average	1.001	1.004	1.008

Average Gas Meter γ Factor: 1.004

Measurement Uncertainty: Total measurement uncertainty +/- 0.748% RD, K=2

Calculations:

1. Deviation = |Average value for all runs - current run value|
2. $\gamma = [V_{std} \times (\gamma_{Std}) \times (P_{bar}+P_{std}/13.6) \times (T_{DGM} + 460)] / [V_{DGM} \times (T_{std} + 460) \times (P_{bar} + P_{DGM}/ 13.6)]$

Report and Certificate of Calibration

CAL-CERT CALIBRATION CERTIFICATION

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Toll Free 800-356-4662

Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #:	33086-203319-4525	**Customer PO#:** 1109		
Customer Name:	PFS TECO			
Customer Address:	1507 Matt Pass			
City:	Cottage Grove	**State:** WI	**Zip:** 53527	
Contact:	Ethan Frederick			
Service Address:	11785 SE Highway 212, Suite 305	Clackamas, OR 97015		

Calibration Standards

10-01442 | Compound Gauge | Fluke | SN: 4582643 | Cal: 01/26/2024 | Due: 01/31/2025 | Vendor: Fluke | Report #: EVL943251
LP-01782 | Thermo-Hygrometer | Comark | SN: 06247790052 | Cal: 01/24/2024 | Due: 01/31/2025 | Range: 122 °F 95 %RH | Report #: 32568-205513-3646

Instrument Data

Calibration Date:	February 26, 2024	**Reference:**	ASME B40.100
Recommended Due Date:	February 26, 2025	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Red Lion	**Temperature:**	65 °F
Type:	Pressure Transducer	**Humidity:**	36% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	203B
Capacity:	1 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 1.00 **Range Resolution:** 0.001 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.000	0.000	0.000	0.00	0.000	0.00	0.01	0.0005
0.100	0.098	0.098	0.00	0.099	0.00	0.01	0.0036
0.250	0.252	0.252	0.00	0.250	0.00	0.01	0.0055
0.500	0.502	0.502	0.00	0.499	0.00	0.01	0.0065
0.750	0.751	0.751	0.00	0.748	0.00	0.01	0.0086
1.000	1.001	1.001	0.00	0.998	0.00	0.01	0.0068
0.750	0.752	0.752	0.00	0.749	0.00	0.01	0.0073
0.500	0.501	0.501	0.00	0.499	0.00	0.01	0.0065
0.250	0.251	0.251	0.00	0.250	0.00	0.01	0.0024
0.100	0.103	0.103	0.00	0.101	0.00	0.01	0.0057
0.000	0.001	0.001	0.00	0.000	0.00	0.01	0.0005

Manufacturer: Red Lion **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.
All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Steven White **Date:** February 26, 2024

Technical Manager: Marshall Doyle **Signature:** 

Report #: 33086-203319-4525

Report and Certificate of Calibration

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Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #:	33086-203320-4525	**Customer PO#:**	1109	
Customer Name:	PFS TECO			
Customer Address:	1507 Matt Pass			
City:	Cottage Grove	**State:**	WI	**Zip:** 53527
Contact:	Ethan Frederick			
Service Address:	11785 SE Highway 212, Suite 305	Clackamas, OR 97015		

Calibration Standards

10-01442 | Compound Gauge | Fluke | SN: 4582643 | Cal: 01/26/2024 | Due: 01/31/2025 | Vendor: Fluke | Report #: EVL943251
LP-01782 | Thermo-Hygrometer | Comark | SN: 06247790052 | Cal: 01/24/2024 | Due: 01/31/2025 | Range: 122 °F 95 %RH | Report #: 32568-205513-3646

Instrument Data

Calibration Date:	February 26, 2024	**Reference:**	ASME B40.100
Recommended Due Date:	February 26, 2025	**Cal-Cert Procedure:**	CP-003
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Red Lion	**Temperature:**	66 °F
Type:	Pressure Transducer	**Humidity:**	38% RH
Model Number:	Unknown	**Cal Factor:**	None
Serial #:	Unknown	**Asset #:**	203C
Capacity:	5 In H2O	**Service Location:**	Service Address
Tolerance:	± 1.00% of Span	**As Found:**	Pass
Gauge Class:	A	**As Left:**	Pass

Instrument Range: 5.00 **Range Resolution:** 0.01 **Mode Verified:** Pressure

UUT Reading In H2O	Standard As Found In H2O	Standard Verification Reading #1 In H2O	Error In H2O	Standard Verification Reading #2 In H2O	Error In H2O	Tolerance In H2O	Expanded Uncertainty ± In H2O
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005
0.50	0.50	0.50	0.00	0.49	-0.01	0.05	0.038
1.25	1.25	1.25	0.00	1.22	-0.03	0.05	0.067
2.50	2.48	2.48	-0.02	2.47	-0.03	0.05	0.021
3.75	3.72	3.72	-0.03	3.71	-0.04	0.05	0.043
5.00	5.00	5.00	0.00	4.99	-0.01	0.05	0.045
3.75	3.72	3.72	-0.03	3.71	-0.04	0.05	0.034
2.50	2.49	2.49	-0.01	2.47	-0.03	0.05	0.05
1.25	1.23	1.23	-0.02	1.23	-0.02	0.05	0.008
0.50	0.50	0.50	0.00	0.49	-0.01	0.05	0.018
0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.005

Manufacturer: Red Lion **Type:** Pressure Transducer **Serial #:** Unknown

Remarks:

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
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All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Steven White **Date:** February 26, 2024

Technical Manager: Marshall Doyle **Signature:** 

Report #: 33086-203320-4525

Report and Certificate of Calibration

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CALIBRATION CERTIFICATION

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5777 SE International Way
Milwaukie, OR 97222
800-356-4662
503-654-9620

Anaheim Laboratory
120 S. Chaparral Ct Suite 110
Anaheim Hills, CA 92808
888-700-4100
714-696-5300

www.Cal-Cert.com

Report #:	30452-28785-3646	**Customer PO#:** 1100	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212, Suite 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	John Steinert		
Service Address:	5777 SE International Way Milwaukie, OR 97222		

Calibration Standards

LP-00051 | Electrical Meter | Fluke | SN: 9663004 | Cal: 01/10/2023 | Due: 01/10/2024 | Vendor: Fluke | Report #: EVL861119
LP-01333 | Electrical Meter | IET Labs, Inc. | SN: E3-1842499 | Cal: 01/19/2023 | Due: 01/31/2024 | Vendor: Transcat Calibration Lab | Report #: 5-G584Z-20-1
LP-01347 | Thermo-Hygrometer | Comark | SN: 06210350163 | Cal: 04/18/2023 | Due: 04/30/2024 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 28945-67214-3646

Instrument Data

Calibration Date:	August 9, 2023	**Reference:**	Manufactures Tolerances
Recommended Due Date:	August 9, 2024	**Cal-Cert Procedure:**	CP-080
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Delmhorst	**Temperature:**	74 °F
Type:	Resistivity Meter	**Humidity:**	36% RH
Model Number:	MCS-1	**Asset #:**	#094
Serial #:	#094	**Service Location:**	Cal-Cert Lab
Capacity:	120 Megaohms	**As Found:**	Pass
Tolerance:	3.00 % of indication	**As Left:**	Pass

Instrument Range: 120 Megaohms **Resolution:** 0.001 **Mode Verified:** Resistance

Standard Reading	UUT As Found	UUT Reading #1	Error	UUT Reading #2	Error
0.000	0.000	0.000	0.000	0.000	0.000
1.100	1.095	1.095	-0.005	1.095	-0.005
54.545	54.719	54.719	0.173	54.719	0.173
0.000	0.000	0.000	0.000	0.000	0.000

Expanded Uncertainty± **2.50 Megaohms**

Remarks:

100Mohm std Parallel with 120Mohm UUT= 54.545Mohms

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

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Service Engineer:	Brent Enbysk	**Date:**	August 9, 2023
Technical Manager:	Marshall Doyle	**Signature:**	

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Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #: 33086-206391-4525 **Customer PO#:** 1109
Customer Name: PFS TECO
Customer Address: 1507 Matt Pass
City: Cottage Grove **State:** WI **Zip:** 53527
Contact: Ethan Frederick
Service Address: 11785 SE Highway 212, Suite 305 Clackamas, OR 97015

Calibration Standards

13-01811 | Thermocouple Meter/Calibrator | Tegam | SN: 2454186 | Cal: 10/04/2023 | Due: 02/28/2024 | Range: 2400 °F | Report #: 31363-217443-3646
LP-01782 | Thermo-Hygrometer | Comark | SN: 06247790052 | Cal: 01/24/2024 | Due: 01/31/2025 | Range: 122 °F 95 %RH | Report #: 32568-205513-3646

Instrument Data

Calibration Date:	February 26, 2024	**Reference:**	Navair 17-20ST-95
Recommended Due Date:	February 26, 2025	**Cal-Cert Procedure:**	CP-013
Calibration Frequency:	12 Months	**Indicating System:**	Computer
Manufacturer:	National Instruments	**Temperature:**	64 °F
Type:	Data Logger	**Humidity:**	39% RH
Model Number:	NI 9213	**Asset #:**	215 Booth 1
Serial #:	1B182FB	**Service Location:**	Service Address
Resolution:	0.1 °F	**As Found:**	Pass
Capacity:	2,500 °F	**As Left:**	Pass
Tolerance:	± 3.0 °F		
Thermocouple Type:	K		

Thermocouple METER FUNCTION

Channel	Calibration Standard	UUT As Found	UUT As Left Reading 1	UUT As Left Reading 2	As Left Error	Expanded Uncertainty±
Tunnel	0.00	1.10	1.10	1.10	1.10	0.346
	500.00	501.10	501.10	501.10	1.10	
	1000.00	1001.10	1001.10	1001.10	1.10	
	1500.00	1501.20	1501.20	1501.20	1.20	
	2000.00	2001.30	2001.30	2001.30	1.30	
	2400.00	2401.40	2401.40	2401.40	1.40	
	0.00	1.20	1.20	1.20	1.20	

Thermocouple LOGGING FUNCTION

Channel	Calibration Standard	UUT As Found	UUT As Left Reading 1	UUT As Left Reading 2	As Left Error	Expanded Uncertainty±
Flue	0.00	0.80	0.80	0.80	0.80	0.346
	500.00	500.80	500.80	500.80	0.80	
	1000.00	1000.80	1000.80	1000.80	0.80	
	1500.00	1500.90	1500.90	1500.90	0.90	
	2000.00	2001.00	2001.00	2001.00	1.00	
	2400.00	2401.10	2401.10	2401.10	1.10	
	0.00	0.80	0.80	0.80	0.80	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Filter A	0.00	0.60	0.60	0.60	0.60	0.346
	500.00	500.60	500.60	500.60	0.60	
	1000.00	1000.70	1000.70	1000.70	0.70	
	1500.00	1500.70	1500.70	1500.70	0.70	
	2000.00	2000.80	2000.80	2000.80	0.80	
	2400.00	2400.00	2400.00	2400.00	0.00	
	0.00	0.60	0.60	0.60	0.60	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Back	0.00	0.40	0.40	0.40	0.40	0.346
	500.00	500.40	500.40	500.40	0.40	
	1000.00	1000.50	1000.50	1000.50	0.50	
	1500.00	1500.50	1500.50	1500.50	0.50	
	2000.00	2000.60	2000.60	2000.60	0.60	
	2400.00	2400.70	2400.70	2400.70	0.70	
	0.00	0.50	0.50	0.50	0.50	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Catalyst	0.00	0.30	0.30	0.30	0.30	0.346
	500.00	500.20	500.20	500.20	0.20	
	1000.00	1000.30	1000.30	1000.30	0.30	
	1500.00	1500.40	1500.40	1500.40	0.40	
	2000.00	2000.40	2000.40	2000.40	0.40	
	2400.00	2400.40	2400.40	2400.40	0.40	
	0.00	0.20	0.20	0.20	0.20	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Meter A	0.00	0.10	0.10	0.10	0.10	0.346
	500.00	500.10	500.10	500.10	0.10	
	1000.00	1000.20	1000.20	1000.20	0.20	
	1500.00	1500.20	1500.20	1500.20	0.20	
	2000.00	2000.30	2000.30	2000.30	0.30	
	2400.00	2400.30	2400.30	2400.30	0.30	
	0.00	0.10	0.10	0.10	0.10	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Left	0.00	0.10	0.10	0.10	0.10	0.346
	500.00	500.10	500.10	500.10	0.10	
	1000.00	1000.20	1000.20	1000.20	0.20	
	1500.00	1500.20	1500.20	1500.20	0.20	
	2000.00	2000.20	2000.20	2000.20	0.20	
	2400.00	2400.20	2400.20	2400.20	0.20	
	0.00	0.10	0.10	0.10	0.10	

Manufacturer: National Instruments **Type:** Data Logger **Serial #:** 1B182FB

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Right	0.00	0.00	0.00	0.00	0.00	
	500.00	500.00	500.00	500.00	0.00	
	1000.00	1000.10	1000.10	1000.10	0.10	
	1500.00	1500.10	1500.10	1500.10	0.10	0.346
	2000.00	2000.20	2000.20	2000.20	0.20	
	2400.00	2400.20	2400.20	2400.20	0.20	
	0.00	0.00	0.00	0.00	0.00	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Filter B	0.00	0.00	0.00	0.00	0.00	
	500.00	501.30	501.30	501.30	1.30	
	1000.00	1001.00	1001.00	1001.00	1.00	
	1500.00	1500.70	1500.70	1500.70	0.70	0.346
	2000.00	2000.40	2000.40	2000.40	0.40	
	2400.00	2400.00	2400.00	2400.00	0.00	
	0.00	0.00	0.00	0.00	0.00	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Top	0.00	-0.10	-0.10	-0.10	0.10	
	500.00	499.90	499.90	499.90	-0.10	
	1000.00	1000.10	1000.10	1000.10	0.10	
	1500.00	1500.10	1500.10	1500.10	0.10	0.346
	2000.00	2000.10	2000.10	2000.10	0.10	
	2400.00	2400.10	2400.10	2400.10	0.10	
	0.00	-0.10	-0.10	-0.10	0.10	

Remarks:

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
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All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Steven White **Date:** February 26, 2024

Technical Manager: Marshall Doyle **Signature:** 

Report #: 33086-206391-4525

Report and Certificate of Calibration

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A2LA ACCREDITED CERT #4986.01

Report #:	33086-206391-4525-B	**Customer PO#:**	1109		
Customer Name:	PFS TECO				
Customer Address:	1507 Matt Pass				
City:	Cottage Grove	**State:**	WI	**Zip:**	53527
Contact:	Ethan Frederick				
Service Address:	11785 SE Highway 212, Suite 305	Clackamas, OR 97015			

Calibration Standards

13-01811 | Thermocouple Meter/Calibrator | Tegam | SN: 2454186 | Cal: 10/04/2023 | Due: 02/28/2024 | Range: 2400 °F | Report #: 31363-217443-3646
LP-01782 | Thermo-Hygrometer | Comark | SN: 06247790052 | Cal: 01/24/2024 | Due: 01/31/2025 | Range: 122 °F 95 %RH | Report #: 32568-205513-3646

Instrument Data

Calibration Date:	February 26, 2024	**Reference:**	Navair 17-20ST-95
Recommended Due Date:	February 26, 2025	**Cal-Cert Procedure:**	CP-013
Calibration Frequency:	12 Months	**Indicating System:**	Computer
Manufacturer:	National Instruments	**Temperature:**	66 °F
Type:	Data Logger	**Humidity:**	34% RH
Model Number:	NI 9213	**Asset #:**	215 Booth 1
Serial #:	1B182FB	**Service Location:**	Service Address
Resolution:	0.1 °F	**As Found:**	Pass
Capacity:	2,500 °F	**As Left:**	Pass
Tolerance:	± 3.0 °F		
Thermocouple Type:	K		

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Bottom	0.00	-0.10	-0.10	-0.10	0.10	
	500.00	499.90	499.90	499.90	-0.10	
	1000.00	1000.00	1000.00	1000.00	0.00	
	1500.00	1500.10	1500.10	1500.10	0.10	0.346
	2000.00	2000.10	2000.10	2000.10	0.10	
	2400.00	2400.00	2400.00	2400.00	0.00	
	0.00	-0.10	-0.10	-0.10	0.10	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Meter B	0.00	-0.10	-0.10	-0.10	0.10	
	500.00	499.90	499.90	499.90	-0.10	
	1000.00	1000.10	1000.10	1000.10	0.10	
	1500.00	1500.10	1500.10	1500.10	0.10	0.346
	2000.00	2000.20	2000.20	2000.20	0.20	
	2400.00	2400.20	2400.20	2400.20	0.20	
	0.00	0.00	0.00	0.00	0.00	

Manufacturer: National Instruments **Type:** Data Logger **Serial #:** 1B182FB

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Meter C	0.00	-0.20	-0.20	-0.20	0.20	0.346
	500.00	499.90	499.90	499.90	-0.10	
	1000.00	1000.00	1000.00	1000.00	0.00	
	1500.00	1500.00	1500.00	1500.00	0.00	
	2000.00	2000.10	2000.10	2000.10	0.10	
	2400.00	2400.10	2400.10	2400.10	0.10	
	0.00	-0.10	-0.10	-0.10	0.10	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Filter C	0.00	-0.20	-0.20	-0.20	0.20	0.346
	500.00	499.90	499.90	499.90	-0.10	
	1000.00	1000.00	1000.00	1000.00	0.00	
	1500.00	1500.10	1500.10	1500.10	0.10	
	2000.00	2000.10	2000.10	2000.10	0.10	
	2400.00	2400.10	2400.10	2400.10	0.10	
	0.00	-0.10	-0.10	-0.10	0.10	

	Thermocouple LOGGING FUNCTION					
Channel	**Calibration Standard**	**UUT As Found**	**UUT As Left Reading 1**	**UUT As Left Reading 2**	**As Left Error**	**Expanded Uncertainty±**
Ambient	0.00	0.00	0.00	0.00	0.00	0.346
	20.00	18.70	18.70	18.70	-1.30	
	40.00	38.70	38.70	38.70	-1.30	
	60.00	58.90	58.90	58.90	-1.10	
	80.00	78.80	78.80	78.80	-1.20	
	100.00	98.80	98.80	98.80	-1.20	
	0.00	0.00	0.00	0.00	0.00	

Remarks:

15 Channels Tested, Ambient is Type T tested from 0-100°F per customer request.

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.

Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.

All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Steven White **Date:** February 26, 2024

Technical Manager: Marshall Doyle **Signature:** MDoyle

Report #: 33086-206391-4525-B

DICK MUNNS COMPANY
LIQUID & GAS FLOW CALIBRATION

ISO 17025:2017
ACCREDITED LABORATORY
Cert# CL-122

IAS ACCREDITED Calibration Laboratory

CERTIFICATE OF CALIBRATION

CUSTOMER:	**PFS-TECO :** CLACKAMAS, OR	**CALIBRATION DATE:**	05/23/2023
PO NUMBER:	1097	**CALIBRATION DUE:**	05/23/2024
INST. MANUFACTURER:	DWYER	**PROCEDURE:**	T.O.33K6-4-1769-1
INST. DESCRIPTION:	VELOMETER	**CALIBRATION FLUID:**	AIR @ 14.7 PSIA 70°F
MODEL NUMBER:	471	**RECEIVED CONDITION:**	WITHIN MFG. SPECS.
SERIAL NUMBER:	CP288559 ID# 095	**LEFT CONDITION:**	WITHIN MFG. SPECS.
RATED ACCURACY:	SEE NOTES BELOW.	**AMBIENT CONDITIONS:**	763mm HGA 53% RH 71°F
UNCERTAINTY GIVEN:	± 0.43% RD ; k=2	**CERTIFICATE FILE #:**	490265.2023

NOTES: ± 3.0% FS (0-500 / 0-1500) ** ± 4.0% F.S. (0-5000) **± 5.0% F.S. (0-15000) ** ± 2 °F

Q.MANUAL IM 2.0 REV 2020.2 DATED 7-27-2020

DECISION RULE: SIMPLE ACCEPTANCE. MEASUREMENT UNCERTAINTIES NOT TAKEN INTO CONSIDERATION WHEN DETERMINING PASS/FAIL

UUT INDICATED FT/MIN	DM.STD. ACTUAL FT/MIN	UUT INDICATED DEG. F	DM STD. ACTUAL DEG. F
74	77	0 TO 200°F	0 TO 200°F
118	121	45.0	44.5
253	259	73.9	73.2
491	502	100.3	99.8
515	525		
1028	1049		
1492	1526		
502	514		
3145	3224		
4993	5135		
6892	7061		
14821	15229		

STANDARDS USED:		
A310: TEMP. STANDARD | ± 0.024 F | TRACE# 1649766843	DUE	02/09/2024
A800: FLOW-DYNE SONIC NOZZLE SYSTEM | 0 – 1086 CFM ± 0.46% RD. | TRACE# 144613547, 1424683640, 1583314714	DUE	12/10/2023

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) and the Unit Under Test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed according to the shown procedure. The use of IAS/ILAC logo indicates calibrations are in accordance to ISO/IEC 17025:2017.

Dick Munns Company · 11133 Winners Circle, Los Alamitos, CA 90720
Phone: 714-827-1215 · www.dickmunns.com

Issuing Date: 5-23-2023

Approved By:

Cal. Technician: DC

Calibrated at: ✓ Lab
___ On-Site (Customer's)

Report and Certificate of Calibration

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CALIBRATION CERTIFICATION

www.Cal-Cert.com

Toll Free
800-356-4662

Address
5777 SE International Way
Milwaukie, OR 97222

Local
503-654-9620

ACCREDITED
CERT #4986.01

Report #:	31538-218157-14	**Customer PO#:**	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212, Suite 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212, Suite 305	Clackamas, OR 97015	

Calibration Standards

10-00209 | Weight | Rice Lake | SN: 43334 | Cal: 02/02/2022 | Due: 02/28/2024 | Vendor: Oregon Dept of Ag | Report #: 20220092
19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 08/14/2023 | Due: 08/31/2024 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 30530-30694-3646

Instrument Data

Calibration Date:	October 12, 2023	**Reference:**	ASTM E898-20, D4753-15
Calibration Due Date:	April 12, 2024	**Cal-Cert Procedure:**	CP-002
Calibration Frequency:	6 Months	**Indicating System:**	Digital
Manufacturer:	Sartorius	**Temperature:**	73 °F
Model Number:	ENTRIS224	**Humidity:**	52% RH
Type:	Digital Balance	**Asset #:**	107
Serial #:	34307497	**Service Location:**	Service Address
Scale Capacity:	200 grams	**As Found:**	PASS
		As Left:	PASS

Scale Linear Test

Instrument Range: 200.0000 grams **Resolution:** 0.0001 grams

Calibration Standard grams	As Found UUT grams	As Found Error grams	As Left UUT grams	As Left Error grams	As Left % of Error	Tolerance (As Left) Allowable Error		
						Error	Condition	Expanded Unc. (grams)
0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	PASS	0.00000
20.0000	19.9998	-0.0002	19.9998	-0.0002	0.00	0.0200	PASS	0.00463
40.0000	39.9997	-0.0003	40.0000	0.0000	0.00	0.0400	PASS	0.00924
60.0000	59.9996	-0.0004	60.0001	0.0001	0.00	0.0600	PASS	0.01386
80.0000	79.9995	-0.0005	80.0001	0.0001	0.00	0.0800	PASS	0.01848
100.0000	99.9994	-0.0006	99.9999	-0.0001	0.00	0.1000	PASS	0.02310
120.0000	119.9993	-0.0007	119.9999	-0.0001	0.00	0.1200	PASS	0.02771
140.0000	139.9991	-0.0009	140.0000	0.0000	0.00	0.1400	PASS	0.03233
160.0000	159.9990	-0.0010	160.0001	0.0001	0.00	0.1600	PASS	0.03695
180.0000	179.9990	-0.0010	180.0000	0.0000	0.00	0.1800	PASS	0.03926
200.0000	199.9989	-0.0011	200.0000	0.0000	0.00	0.2000	PASS	0.04619
100.0000	99.9994	-0.0006	99.9999	-0.0001	0.00	0.1000	PASS	0.02310
0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	PASS	0.00000

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A2LA ACCREDITED
CERTIFICATE #1550.01

PFS Teco
11785 SE Hwy 212 STE#305
Clackamas, OR 97015

Report Number: DIRI01C101887027231228

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Scale	Mettler	IND570 - 1000lbx0.	C101887027	#189	Lab
Units	**Readability**	**SOP**	**Cal Date**	**Last Cal Date**	**Cal Due Date**
lbs	0.02	QC033	12/28/23	12/14/22	12/2024

FUNCTIONAL CHECKS

SHIFT TEST	LINEARITY	REPEATABILITY	ENVIRONMENTAL CONDITIONS
Test Wt: 400 Tol: 0.10	Test Wt: HB44 Tol: HB44	Test Wt: 200 Tol: 0.04	☐ Good ☑ Fair ☐ Poor
As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	Temperature: 18.2°C
As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
1000	999.98	999.98	0.012
600	599.98	599.98	0.011
400	399.96	399.96	0.011
200	200.00	200.00	0.011
100	100.00	100.00	0.011
50	50.00	50.00	0.011

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Avoirdupois Cast W	Rice Lake	25 and 50lb	PWO990-CA	7/18/22	7/2024	20221688

Permanent Information Concerning this Equipment:

Comments/Information Concerning this Calibration

12/23 RH = 40.5%

Report prepared/reviewed by: R.B. **Date:** 12-28-23 **Technician:** R. Butcher

Signature: R. Butcher

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

PT ID: DIRI01

Manufacturer: Sartorius **Type:** Digital Balance **Serial #:** 34307497

FUNCTIONAL CHECKS					
ECCENTRIC LOAD TEST:		**HYSTERESIS: Load Increments**		**REPEATABILITY:**	
Loading position	100.0000	Test Weight Applied. % of load	Readings	Test Weight Applied	100.0000
Right	99.9999	0%	0.0000	1st	99.9999
Left	99.9998	(R1) 50%	99.9999	2nd	100.0000
Front	99.9998	100%	200.0000	3rd	99.9999
Back	99.9999	(R2)50%	99.9999	4th	100.0000
Center	99.9999	0%	0.0000	5th	100.0000
As Left	PASS	As Left	PASS	As Left	PASS
Tolerance: The maximum error of the eccentric loading must be less than .1% of center load value.		Tolerance: The Difference of R1 and R2 must be within 0.1%		Tolerance: Deviation of lowest and highest reading within 0.1%	

Remarks:

The scale was adjusted prior to taking the As Left readings.

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.
Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated. All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Jon Rau **Date:** October 12, 2023

Technical Manager: Marshall Doyle **Signature:** 

REPORT#: 31538-218157-14

Report and Certificate of Calibration

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Address
5777 SE International Way
Milwaukie, OR 97222

Local
503-654-9620

ACCREDITED
CERT #4986.01

Report #:	31538-218157-14	**Customer PO#:**	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212, Suite 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Aaron Kravitz		
Service Address:	11785 SE Highway 212, Suite 305	Clackamas, OR 97015	

Calibration Standards

10-00209 | Weight | Rice Lake | SN: 43334 | Cal: 02/02/2022 | Due: 02/28/2024 | Vendor: Oregon Dept of Ag | Report #: 20220092
19-00269 | Thermo-Hygrometer | Comark | SN: 6237360167 | Cal: 08/14/2023 | Due: 08/31/2024 | Vendor: Cal-Cert | Range: 122 °F 95 %RH | Report #: 30530-30694-3646

Instrument Data

Calibration Date:	October 12, 2023	**Reference:**	ASTM E898-20, D4753-15
Calibration Due Date:	April 12, 2024	**Cal-Cert Procedure:**	CP-002
Calibration Frequency:	6 Months	**Indicating System:**	Digital
Manufacturer:	Sartorius	**Temperature:**	73 °F
Model Number:	ENTRIS224	**Humidity:**	52% RH
Type:	Digital Balance	**Asset #:**	107
Serial #:	34307497	**Service Location:**	Service Address
Scale Capacity:	200 grams	**As Found:**	PASS
		As Left:	PASS

Scale Linear Test

Instrument Range: 200.0000 grams **Resolution:** 0.0001 grams

Calibration Standard grams	As Found UUT grams	As Found Error grams	As Left UUT grams	As Left Error grams	As Left % of Error	Tolerance (As Left) Allowable Error		
						Error	Condition	Expanded Unc. (grams)
0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	PASS	0.00000
20.0000	19.9998	-0.0002	19.9998	-0.0002	0.00	0.0200	PASS	0.00463
40.0000	39.9997	-0.0003	40.0000	0.0000	0.00	0.0400	PASS	0.00924
60.0000	59.9996	-0.0004	60.0001	0.0001	0.00	0.0600	PASS	0.01386
80.0000	79.9995	-0.0005	80.0001	0.0001	0.00	0.0800	PASS	0.01848
100.0000	99.9994	-0.0006	99.9999	-0.0001	0.00	0.1000	PASS	0.02310
120.0000	119.9993	-0.0007	119.9999	-0.0001	0.00	0.1200	PASS	0.02771
140.0000	139.9991	-0.0009	140.0000	0.0000	0.00	0.1400	PASS	0.03233
160.0000	159.9990	-0.0010	160.0001	0.0001	0.00	0.1600	PASS	0.03695
180.0000	179.9990	-0.0010	180.0000	0.0000	0.00	0.1800	PASS	0.03926
200.0000	199.9989	-0.0011	200.0000	0.0000	0.00	0.2000	PASS	0.04619
100.0000	99.9994	-0.0006	99.9999	-0.0001	0.00	0.1000	PASS	0.02310
0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	PASS	0.00000

Manufacturer: Sartorius **Type:** Digital Balance **Serial #:** 34307497

FUNCTIONAL CHECKS					
ECCENTRIC LOAD TEST:		**HYSTERESIS: Load Increments**		**REPEATABILITY:**	
Loading position	100.0000	Test Weight Applied. % of load	Readings	Test Weight Applied	100.0000
Right	99.9999	0%	0.0000	1st	99.9999
Left	99.9998	(R1) 50%	99.9999	2nd	100.0000
Front	99.9998	100%	200.0000	3rd	99.9999
Back	99.9999	(R2)50%	99.9999	4th	100.0000
Center	99.9999	0%	0.0000	5th	100.0000
As Left	PASS	As Left	PASS	As Left	PASS
Tolerance: The maximum error of the eccentric loading must be less than .1% of center load value.		Tolerance: The Difference of R1 and R2 must be within 0.1%		Tolerance: Deviation of lowest and highest reading within 0.1%	

Remarks:

The scale was adjusted prior to taking the As Left readings.

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

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Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated. All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Jon Rau **Date:** October 12, 2023

Technical Manager: Marshall Doyle **Signature:** 

REPORT#: 31538-218157-14

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ACCREDITED
CERTIFICATE #1550.01

Report of Calibration

Firm: PFS-TECO
Address: 11785 SE Hwy 212, Ste 305
City/State/Zip: Clackamas, OR 97015

Test Completed: 05/09/22
Purchase Order: 1067
Traceable Number: 20220682

Test Item: 200 mg and 100 mg Individual Weights
Serial No.: Listed in Table

Manufacturer: Troemner
Customer ID: Listed in Table

Material	Assumed Density	Range	Tolerance Class
Stainless Steel	7.95 g/cm^3	200 mg & 100 mg	ASTM Class 1

Method and Traceability
The procedure used for this calibration is NIST IR 6969 SOP 4 Double Substitution Weighing Design. Standards used for comparison are traceable to the National Institute of Standards and Technology (reports on file) and are part of a comprehensive measurement assurance program for ensuring continued accuracy and traceability within the level of uncertainty reported. The Traceable Number listed above is Traceable to National Standards through an unbroken chain of comparison each having stated uncertainties.

Standards Used:
100 g to 1 mg Working Standards Were Calibrated: 07/02/21 Due: 07/31/22 Standards ID: 723318
Mass Comparators Used: MET-05 **Tested by:** D. Thompson

Conventional Mass: "The conventional value of the result of weighing a body in air is equal to the mass of a standard, of conventionally chosen density, at a conventionally chosen temperature, which balances this body at this reference temperature in air of conventionally chosen density. International Recommendation 33 (OIML IR 33 1973, 1979). "Conventional Value of the Result of Weighing in Air" **(Previously known as "Apparent Mass vs. 8.0 g/cm^3).**

Uncertainty Statement: The uncertainty conforms to the ISO Guide to the Expressions of Uncertainty in Measurement. Uncertainty as reported is based on a coverage factor k=2 for an approximate 95 percent level of uncertainty. Uncertainty components include the standard deviation of the process, the uncertainty of the standard used, an uncertainty component associated with the potential drift of the standard used, and the estimated uncertainty related to measuring and determining the air buoyancy effect.

Conventional Mass Values are listed on page 2 of this report.

Quality Control Services, Inc.
Metrology Laboratory Manager
E-mail dthompson@qc-services.com

Date: 05/09/22

Signature David S. Thompson

Established 1974

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ACCREDITED
CERTIFICATE #1550.01

Report of Calibration

Firm: PFS-TECO
Address: 11785 SE Hwy 212, Ste 305
City/State/Zip: Clackamas, OR 97015

Test Completed: 05/09/22
Purchase Order: 1067
Traceable Number: 20220682

Test Item: 200 mg and 100 mg Individual Weights
Serial No.: Listed in Table

Manufacturer: Troemner
Customer ID: Listed in Table

Laboratory Environment at time of test

Temperature °C	Pressure mmHg	Humidity %RH
21.93 to 21.94	760.7 to 760.8	47.8 to 47.9

Conventional Mass Value

Nominal Value	As Found Value (g)	As Found Correction* (mg)	As Left Value (g)	As Left Correction* (mg)	Uncertainty (mg)	Tolerance (mg)
200 mg, 1000101395, #109-B	0.2000082	0.0082	0.2000082	0.0082	0.0014	0.010
100 mg, 1000126267, #109-A	0.1000065	0.0065	0.1000065	0.0065	0.0014	0.010

*Correction is the difference between the conventional mass value of a weight and its nominal value.

Comments: These weights were received in good condition and were within ASTM Class 1 tolerances As Found.

Recalibration Due: The customer has requested a 5-year calibration cycle. The calibration due date for these weights is 05/09/27. The values listed above were found at the time of calibration. Any number of factors may cause these items to drift out of calibration before the calibration interval has expired.

Accredited by the American Association for Laboratory Accreditation (A2LA) under Calibration Laboratory Code 115953 and Certificate Number 1550.01. This laboratory meets the requirements of ISO/IEC 17025:2017 *General Requirements for the Competence of Testing and Calibration Laboratories.* This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and any additional program requirements in the field of calibration.

Quality Control Services, Inc.
Metrology Laboratory Manager
E-mail dthompson@qc-services.com

Date: 05/09/22

Signature David S. Thompson

Established 1974

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A2LA ACCREDITED
CERTIFICATE #1550.01

PFS Teco
11785 SE Hwy 212 STE#305
Clackamas, OR 97015

Report Number: DIRI01C101887027231228

A2LA ACCREDITED
CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Scale	Mettler	IND570 - 1000lbx0.	C101887027	#189	Lab
Units	**Readability**	**SOP**	**Cal Date**	**Last Cal Date**	**Cal Due Date**
lbs	0.02	QC033	12/28/23	12/14/22	12/2024

FUNCTIONAL CHECKS

SHIFT TEST	LINEARITY	REPEATABILITY	ENVIRONMENTAL CONDITIONS
Test Wt: 400 Tol: 0.10	Test Wt: HB44 Tol: HB44	Test Wt: 200 Tol: 0.04	☐ Good ☑ Fair ☐ Poor
As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	As-Found: Pass:☑ Fail:☐	Temperature: 18.2°C
As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	As-Left: Pass:☑ Fail:☐	

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
1000	999.98	999.98	0.012
600	599.98	599.98	0.011
400	399.96	399.96	0.011
200	200.00	200.00	0.011
100	100.00	100.00	0.011
50	50.00	50.00	0.011

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Avoirdupois Cast W	Rice Lake	25 and 50lb	PWO990-CA	7/18/22	7/2024	20221688

Permanent Information Concerning this Equipment:

Comments/Information Concerning this Calibration

12/23 RH = 40.5%

Report prepared/reviewed by: R.B. **Date:** 12-28-23 **Technician:** R. Butcher

Signature: R. Butcher

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

PT ID: DIRI01

DICK MUNNS COMPANY
LIQUID & GAS FLOW CALIBRATION

ISO 17025:2017
ACCREDITED LABORATORY
Cert# CL-122

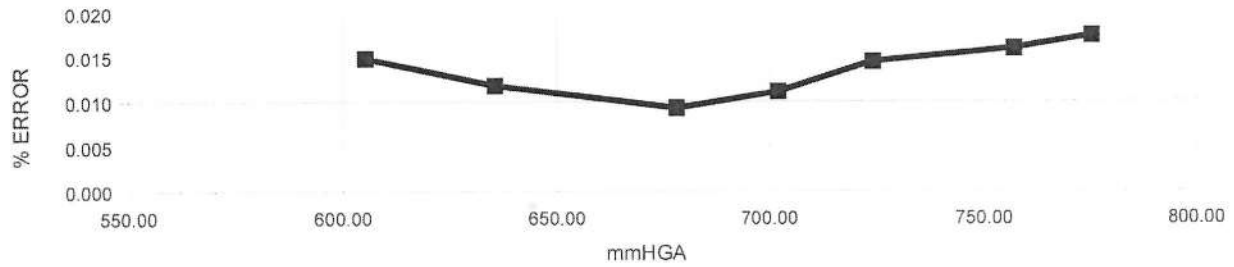
IAS ACCREDITED
Calibration Laboratory

CERTIFICATE OF CALIBRATION

CUSTOMER:	PFS-TECO; CLACKAMAS, OR	**CALIBRATION DATE:**	05/23/2023
PO NUMBER:	1096	**CALIBRATION DUE:**	05/23/2024
INST. MANUFACTURER:	AQUATECH SCIENTIFIC INSTRUMENTS	**PROCEDURE:**	NAVAIR-17-20MP-03
INST. DESCRIPTION:	DIGITAL BAROMETER	**CALIBRATION FLUID:**	AIR @ 70F
MODEL NUMBER:	DBX2	**STANDARD(S) USED:**	A321, A22 DUE 3-2024
SERIAL NUMBER:	118222	**NIST TRACE #' S:**	1236086968,1583142077
RATED ACCURACY:	+/- .18 mmHGA	**AMBIENT CONDITIONS:**	757 mmHGA, 60% RH, 68F
UNCERTAINTY GIVEN:	+/- ..03mmHGA.;k=2	**CERTIFICATE FILE #:**	533813

NOTES: AS REC./AS LEFT WITHIN SPECS. ** DECISION RULE: PFA NOT USED TO DETERMINE CONFORMITY **

TEST POINT NUMBER	UUT INDICATED mmHGA	DM.STD. ACTUAL mmHGA	% RD. ERROR
1	605.24	605.330	0.015
2	635.45	635.525	0.012
3	678.24	678.303	0.009
4	702.18	702.258	0.011
5	724.19	724.295	0.014
6	757.11	757.231	0.016
7	775.39	775.525	0.017



All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) and the Unit Under Test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed according to the shown procedure. The use of IAS/ILAC logo indicates calibrations are in accordance to ISO/IEC 17025:2017.

Dick Munns Company · 11133 Winners Circle, Los Alamitos, CA 90720
Phone: 714-827-1215 · www.dickmunns.com

Issuing Date: 5-23-2023

Approved By:

Cal. Technician:

Calibrated at: ✓ Lab
___ On-Site (Customer's)

Report and Certificate of Calibration

CAL-CERT CALIBRATION CERTIFICATION

www.Cal-Cert.com

Toll Free 800-356-4662

Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #: 32102-201251-4686 **Customer PO#:** 1102
Customer Name: PFS TECO
Customer Address: 11785 SE Highway 212, Suite 305
City: Clackamas **State:** OR **Zip:** 97015
Contact: Ethan Frederick
Service Address: 5777 SE International Way Milwaukie, OR 97222

Calibration Standards

10-00954 | Gage Block Set | Shars | SN: 120018 | Cal: 05/26/2023 | Due: 05/26/2025 | Vendor: American Gage | Report #: 109141
LP-00397 | Gage Block Set | Mitutoyo | SN: 509020 | Cal: 12/28/2022 | Due: 12/28/2024 | Vendor: BHD Test and Measurement | Report #: 99826
LP-01757 | Thermo-Hygrometer | Comark | SN: 06257740560 | Cal: 04/28/2023 | Due: 04/28/2024 | Report #: 29096-209333-4201

Instrument Data

Calibration Date:	December 6, 2023	**Reference:**	Manufacturer's Spec
Calibration Due Date:	December 6, 2024	**Cal-Cert Procedure:**	CP-115
Calibration Frequency:	12 Months	**Indicating System:**	Stamped
Manufacturer:	Starrett	**Temperature:**	69 °F
Type:	Tape Measure	**Humidity:**	51% RH
Model Number:	Exact	**Asset #:**	207
Serial #:	138054-2203-00002249	**Service Location:**	Cal-Cert Lab
Capacity:	192.00 Inches	**As Found:**	Pass
		As Left:	Pass

Instrument Range: 192.000 Inches **Range Resolution:** 0.06250 Inches

Calibration Standard	As Found Reading	Verification Reading #1	Verification Reading #2
0.2500	0.2500	0.2500	0.2500
1.0000	1.0000	1.0000	1.0000
6.0000	6.0000	6.0000	6.0000
12.0000	12.0000	12.0000	12.0000
64.0000	64.0000	64.0000	64.0000
128.0000	128.0000	128.0000	128.0000
192.0000	192.0000	192.0000	192.0000

Expanded Uncertainty ± 0.07217 Inches

Remarks:

Metric scale not calibrated.

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above. Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.
All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Scott McGuire **Date:** December 6, 2023

Technical Manager: Marshall Doyle **Signature:** 

Report and Certificate of Calibration

CAL-CERT CALIBRATION CERTIFICATION

www.Cal-Cert.com

Toll Free 800-356-4662

Address 5777 SE International Way Milwaukie, OR 97222

Local 503-654-9620

A2LA ACCREDITED CERT #4986.01

Report #:	31621-201253-5	**Customer PO#:** 1102	
Customer Name:	PFS TECO		
Customer Address:	11785 SE Highway 212, Suite 305		
City:	Clackamas	**State:** OR	**Zip:** 97015
Contact:	Ethan Frederick		
Service Address:	5777 SE International Way Milwaukie, OR 97222		

Calibration Standards

LP-00397 | Gage Block Set | Mitutoyo | SN: 509020 | Cal: 12/28/2022 | Due: 12/28/2024 | Vendor: BHD Test and Measurement | Report #: 99826
LP-01782 | Thermo-Hygrometer | Comark | SN: 06247790052 | Cal: 01/30/2023 | Due: 01/31/2024 | Range: 122 °F 95 %RH | Report #: 27747-205513-4239

Instrument Data

Calibration Date:	October 23, 2023	**Reference:**	ASME B89.1.14 2018
Calibration Due Date:	October 23, 2024	**Cal-Cert Procedure:**	CP-008
Calibration Frequency:	12 Months	**Indicating System:**	Digital
Manufacturer:	Mitutoyo	**Temperature:**	66 °F
Type:	Digital Caliper	**Humidity:**	51% RH
Model Number:	CD-P6"S	**Asset #:**	208
Serial #:	B22159310	**Service Location:**	Cal-Cert Lab
Capacity:	6 Inches	**As Found:**	PASS
Resolution:	0.0005 Inches	**As Left:**	PASS

Instrument Range: 6.0000 Inches **Range Resolution:** 0.0005 Inches

Outside Jaws / Linearity

Calibration Standard Inches	As Found Inches	As Left Reading 1 Inches	As Left Reading 2 Inches	Tolerance ± Inches
0.0000	0.0000	0.0000	0.0000	0.0000
0.0500	0.0495	0.0495	0.0495	0.0010
0.3000	0.3000	0.3000	0.3000	0.0010
0.6000	0.6000	0.6000	0.6000	0.0010
1.2000	1.1995	1.1995	1.1995	0.0010
2.4000	2.4000	2.4000	2.4000	0.0010
3.5000	3.5000	3.5000	3.5000	0.0010
5.0000	5.0000	5.0000	5.0000	0.0010
6.0000	5.9995	5.9995	5.9995	0.0010

Expanded Uncertainty ± 0.00036 Inches

Scale Shift Verification

	Target	Measured	Tolerance ±
Resolution Check	0.1005	0.10050	N/A
Depth	1.000	1.00000	0.001
Step	1.000	1.00000	0.001
Inside Jaws	1.000	0.99950	0.001

Inspections

Jaws Parallel	Acceptable

Remarks:

We sincerely thank you for your business. Please call us at 503-654-9620 for all your sales and calibration needs.
Cleaning and preventative maintenance were performed as part of this service.

Cal-Cert is accredited by A2LA under Calibration Laboratory Code #4986.01.
A2LA is recognized under the ILAC mutual recognition agreement (MRA).

This certificate is hereby issued that the above instrument was tested for accuracy with calibrated standards traceable to the National Institute of Standards and Technology (NIST). The information provided on this form complies with the data gathering and reporting requirements of ISO/IEC 17025 and ANSI/NCSL Z540.1, and meets the requirements of all applicable references and Cal-Cert procedures listed above.

Any stated measurement uncertainty includes the uncertainty of the Calibration standards used, combined with the uncertainty of the measurement process using the RSS method with a k=2 for an approximate 95% level of confidence. The calibration process meets or exceeds a ratio of 4:1 unless otherwise stated.

All tolerances were derived from the applicable standards and pass/fail determination is based on those tolerances. The customer determined any recommended due dates indicated on the certificate.

Service Engineer: Cameron Walling **Date:** October 23, 2023

Technical Manager: Marshall Doyle **Signature:**

PRAXAIR
Making our planet more productive

DocNumber: 271687

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22019

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information

PXPKG TUALATIN OR H
10450 SW TUALATIN SHERWOOD ROAD
TUALATIN OR 97062-9547

Certificate Issuance Date: 10/16/2019
Praxair Order Number: 71120745
Part Number: NI CD10CO33E-AS
Customer PO Number: 79106732

Fill Date: 10/08/2019
Lot Number: 70086928102
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure and Volume: 2000 psig 140 ft3

Certified Concentration

ProSpec EZ Cert

Expiration Date:	10/16/2027	NIST Traceable
Cylinder Number:	CC139173	Expanded Uncertainty
10.09 %	Carbon dioxide	± 0.4 %
2.53 %	Carbon monoxide	± 0.6 %
10.48 %	Oxygen	± 0.4 %
Balance	Nitrogen	

Certification Information:

Certification Date: 10/16/2019 Term: 96 Months Expiration Date: 10/16/2027

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.

Do Not Use this Standard if Pressure is less than 100 PSIG.

CO2 responses have been corrected for Oxygen IR Broadening effect. O2 responses have been corrected for CO2 interference.

Analytical Data:

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

1. **Component:** Carbon dioxide

Requested Concentration: 10 %
Certified Concentration: 10.09 %
Instrument Used: Horiba VIA-510 S/N 20C194WK
Analytical Method: NDIR
Last Multipoint Calibration: 09/18/2019

First Analysis Data:						Date	10/16/2019
Z:	0	R:	14	C:	10.09	Conc:	10.09
R:	14	Z:	0	C:	10.1	Conc:	10.1
Z:	0	C:	10.1	R:	14.01	Conc:	10.1
UOM:	%				Mean Test Assay:		10.09 %

Reference Standard: Type / Cylinder #: GMIS / CC164230
Concentration / Uncertainty: 14.00 % ±0.265%
Expiration Date: 04/16/2027
Traceable to: SRM # / Sample # / Cylinder #: SRM 1675b / 6-F-51 / CAL014538
SRM Concentration / Uncertainty: 13.963% / ±0.034%
SRM Expiration Date: 05/16/2022

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

2. **Component:** Carbon monoxide

Requested Concentration: 2.5 %
Certified Concentration: 2.53 %
Instrument Used: Horiba VIA-510 S/N UB9UCSYX
Analytical Method: NDIR
Last Multipoint Calibration: 09/19/2019

First Analysis Data:						Date	10/16/2019
Z:	0	R:	5	C:	2.53	Conc:	2.53
R:	5	Z:	0	C:	2.53	Conc:	2.53
Z:	0	C:	2.54	R:	5.01	Conc:	2.54
UOM:	%				Mean Test Assay:		2.53 %

Reference Standard: Type / Cylinder #: GMIS / CC242633
Concentration / Uncertainty: 5.00 % ±0.543%
Expiration Date: 04/03/2025
Traceable to: SRM # / Sample # / Cylinder #: SRM 2642a / 51-D-23 / FF23106
SRM Concentration / Uncertainty: 7.859% / ±0.039%
SRM Expiration Date: 07/15/2019

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

3. **Component:** Oxygen

Requested Concentration: 10.5 %
Certified Concentration: 10.48 %
Instrument Used: OXYMAT 5E
Analytical Method: Paramagnetic
Last Multipoint Calibration: 09/18/2019

First Analysis Data:						Date	10/16/2019
Z:	0	R:	9.88	C:	10.49	Conc:	10.48
R:	9.88	Z:	0	C:	10.49	Conc:	10.48
Z:	0	C:	10.5	R:	9.89	Conc:	10.49
UOM:	%				Mean Test Assay:		10.48 %

Reference Standard: Type / Cylinder #: NTRM / DT0010384
Concentration / Uncertainty: 9.875 % ±0.4%
Expiration Date: 11/18/2022
Traceable to: SRM # / Sample # / Cylinder #: NTRM / 170701 / NTRM DT0010384
SRM Concentration / Uncertainty: 9.875% / ±0.040%
SRM Expiration Date: 11/18/2022

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

Analyzed By: Jose Vasquez

Certified By: Jenna Lockman