

**CLIENT:** **Soelberg Industries**  
 248 S. Mountain Way Dr.  
 Orem, UT 84058

<b>Test Report Number :</b> RJ5792F-1	<b>Date:</b> October 31, 2017
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**SAMPLE ID:** The client identified the following test material as:  
**Muto 1/2"CAN/ULC**

**SAMPLING DETAIL:** Test Samples were submitted to the Laboratory directly by the client. No sampling or sample preparation were observed by QAI staff.

**DATE OF RECEIPT:** Samples were received at QAI facilities on: October 4, 2017

**TESTING PERIOD:** October 23, 2017 and October 26, 2017.

**AUTHORIZATION:** Testing was authorized by Angus Blaiklock for proposal 17MB10034 signed October 5, 2017

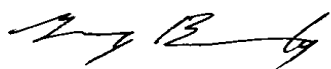
**TEST REQUESTED:** Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with CAN/ULC S102-10 standard test method for "Standard Method of Test for Surface Burning Characteristics of building Materials and Assemblies."

**Flame Spread**

**Smoke Developed**

<b>TEST 1 RESULTS:</b>	<b>13</b>	*UNROUNDED	<b>240</b>	*UNROUNDED
<b>TEST 2 RESULTS:</b>	<b>1</b>	*UNROUNDED	<b>227</b>	*UNROUNDED
<b>TEST 3 RESULTS:</b>	<b>1</b>	*UNROUNDED	<b>187</b>	*UNROUNDED
<b>AVERAGE ROUNDED:</b>	<b>5</b>		<b>220</b>	

**Prepared By**



Gregory Banasky  
 Senior Fire Technician

**Signed for and on behalf of  
 QAI Laboratories, Inc.**



Brian Ortega  
 Senior Analyst / Fire Technology

**PREPARATION AND CONDITIONING:**

The sample Material was delivered to QAI in pieces 24" wide by 24" long specimens. (See Photos in Appendix of this report). The specimen was placed in the conditioning room (maintained at  $73.4 \pm 5^\circ$  F and a relative humidity of  $50 \pm 5\%$ ) for a minimum of 72 hours prior to testing.

**MOUNTING METHOD:**

The sample was supported during testing by 2" hexagonal mesh poultry netting running the length of the test chamber and 1/4" round metal rods placed at two foot intervals across the width of the test chamber.

**CAN/ULC S102 TEST RESULTS:****CLIENT:** Soelberg Industries**TEST DATE:** 10/23/2017**TEST #1 OF 3:****SAMPLE ID:** Muto 1/2"CAN/ULC**SAMPLE IGNITION:** 33 seconds**MAX FLAME FRONT:** 19.5 Feet**TIME TO MAXIMUM SPREAD:** 09:42 Minutes / Seconds**TEST DURATION:** 10 minutes, 00 seconds**SUMMARY:** FLAME SPREAD: 13 *Unrounded*SMOKE DEVELOPED: 240 *Unrounded***OBSERVATIONS:**

Sample was resistant to ignition until 0:33 when the sample ignited and flame progressed down chamber.

**PREPARATION AND CONDITIONING:**

The sample Material was delivered to QAI in pieces 24" wide by 24" long specimens. (See Photos in Appendix of this report). The specimen was placed in the conditioning room (maintained at  $73.4 \pm 5^\circ$  F and a relative humidity of  $50 \pm 5\%$ ) for a minimum of 72 hours prior to testing..

**CAN/ULC S102 TEST RESULTS:****MOUNTING METHOD:**

The sample was supported during testing by 2" hexagonal mesh poultry netting running the length of the test chamber and 1/4" round metal rods placed at two foot intervals across the width of the test chamber.

**CLIENT:** Soelberg Industries**TEST DATE:** 10/23/2017**TEST #2 OF 3:****SAMPLE ID:** Muto 1/2"CAN/ULC**SAMPLE IGNITION:** 35 seconds**MAX FLAME FRONT:** 10.4 Feet**TIME TO MAXIMUM SPREAD:** 09:59 Minutes / Seconds**TEST DURATION:** 10 minutes, 00 seconds**SUMMARY:** FLAME SPREAD: 1 Unrounded  
SMOKE DEVELOPED: 227 Unrounded**OBSERVATIONS:**

Sample was resistant to ignition until 0:35 when the sample ignited and flame progressed down chamber.

**PREPARATION AND CONDITIONING:**

The sample Material was delivered to QAI in pieces 24" wide by 24" long specimens. (See Photos in Appendix of this report). The specimen was placed in the conditioning room (maintained at  $73.4 \pm 5^\circ$  F and a relative humidity of  $50 \pm 5\%$ ) for a minimum of 72 hours prior to testing..

**CAN/ULC S102 TEST RESULTS:****MOUNTING METHOD:**

The sample was supported during testing by 2" hexagonal mesh poultry netting running the length of the test chamber and 1/4" round metal rods placed at two foot intervals across the width of the test chamber.

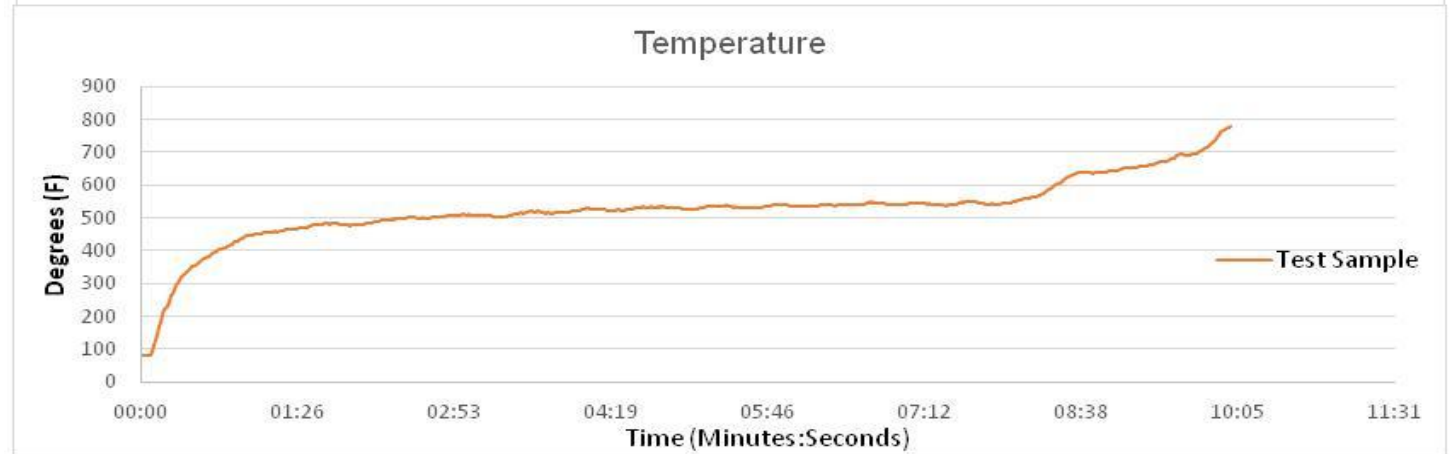
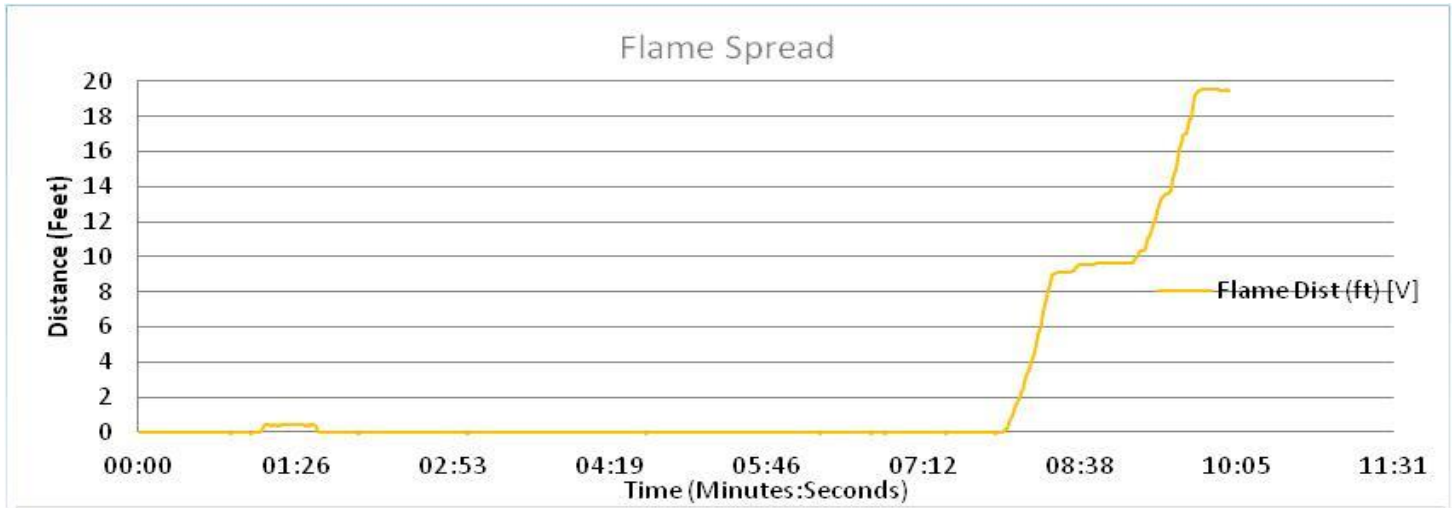
**CLIENT:** Soelberg Industries**TEST DATE:** 10/26/2017**TEST #3 OF 3:****SAMPLE ID:** Muto 1/2"CAN/ULC**SAMPLE IGNITION:** 37 seconds**MAX FLAME FRONT:** 9.3 Feet**TIME TO MAXIMUM SPREAD:** 9 minutes, 59 seconds**TEST DURATION:** 10 minutes, 00 seconds**SUMMARY:** FLAME SPREAD: 1 Unrounded  
SMOKE DEVELOPED: 187 Unrounded**OBSERVATIONS:**

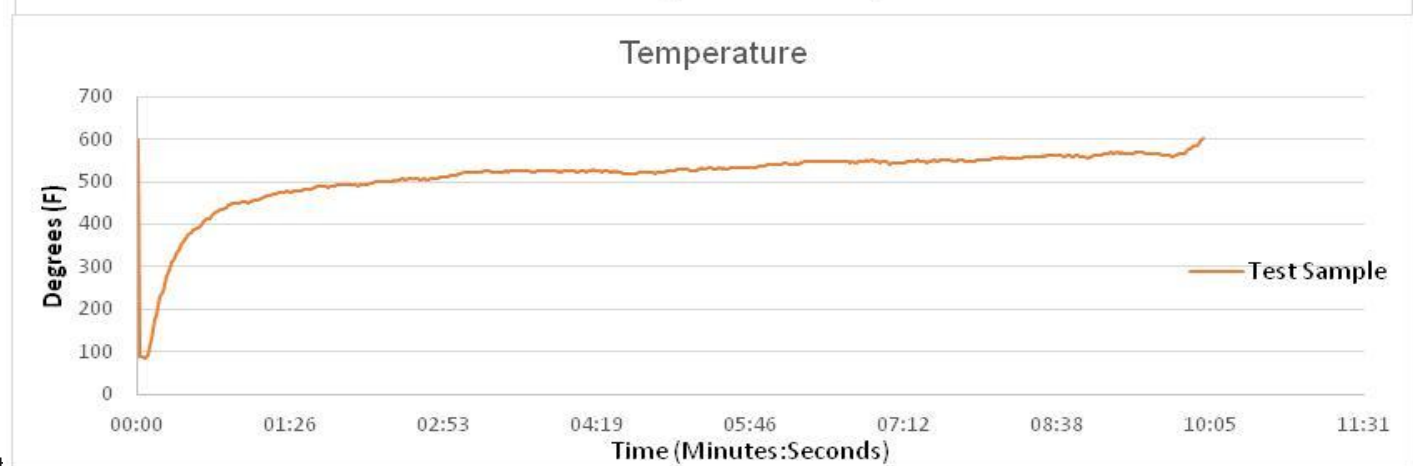
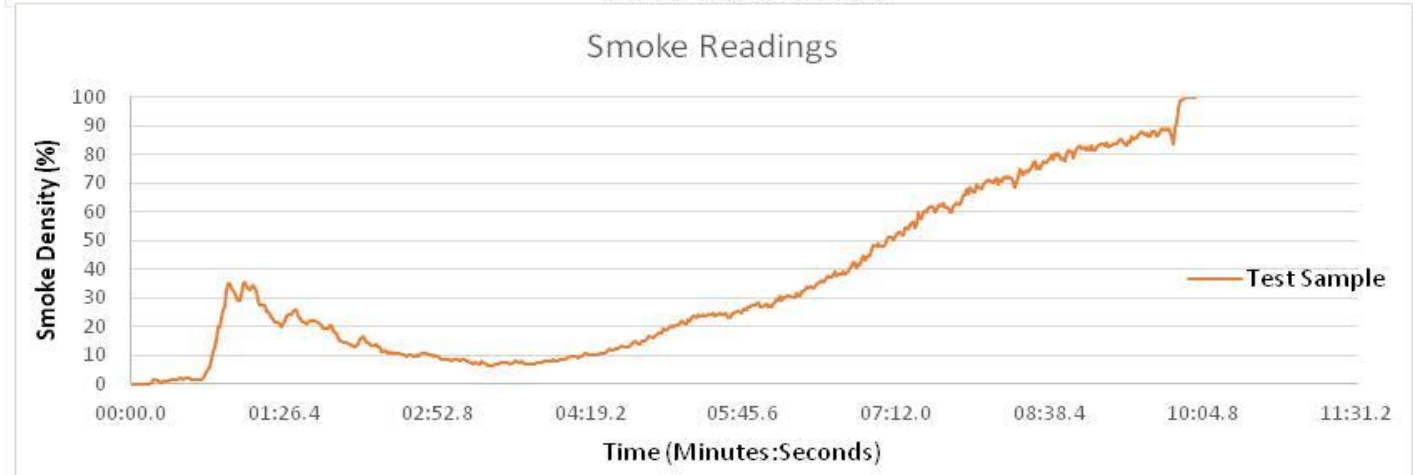
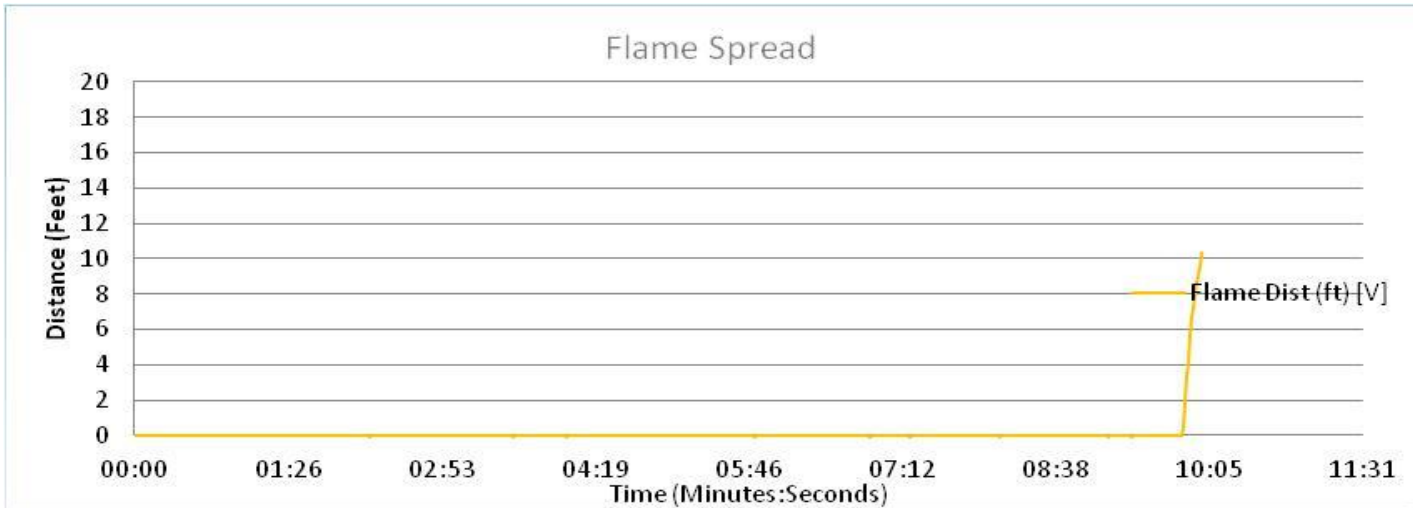
Sample was resistant to ignition until 0:37 when the sample ignited and flame progressed down chamber.

**CALIBRATION DATA:**

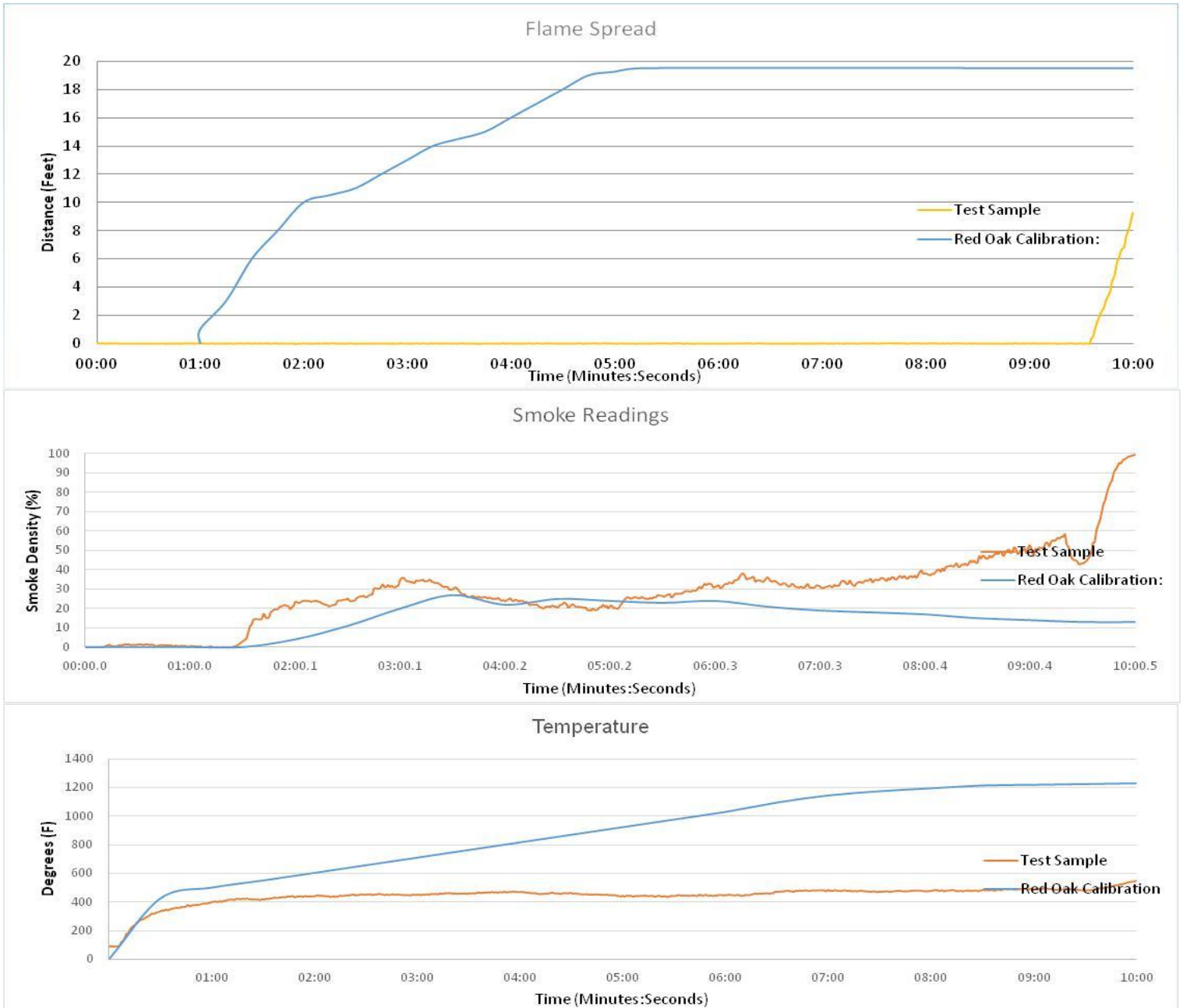
Time to Ignition of Last Red Oak (sec):	115
Red Oak Smoke Area (%A*Min):	152
Total Fuel Burned (ft <sup>3</sup> )	55.0

**TEST #1 OF 3 GRAPHS:**

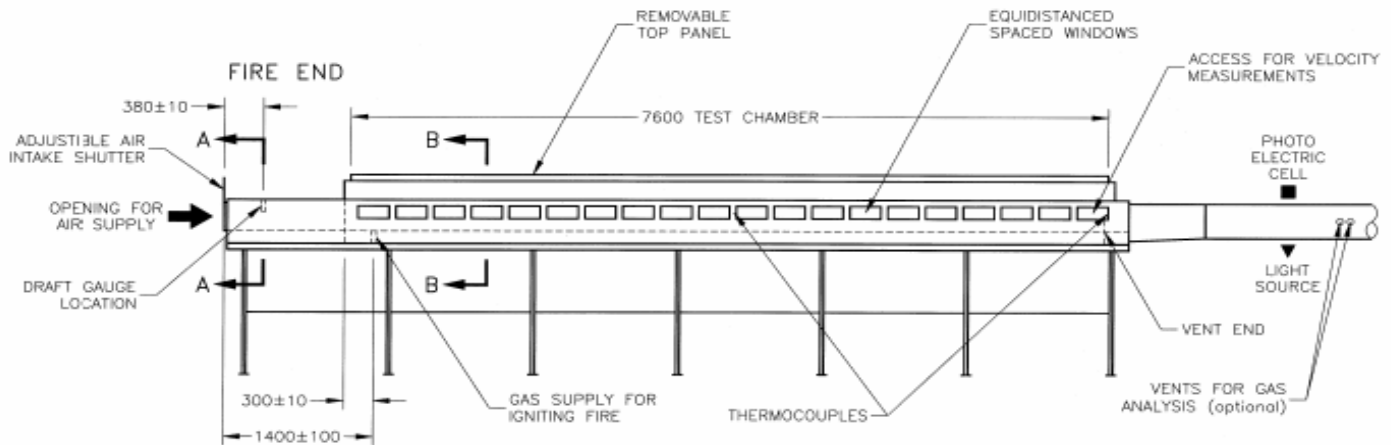




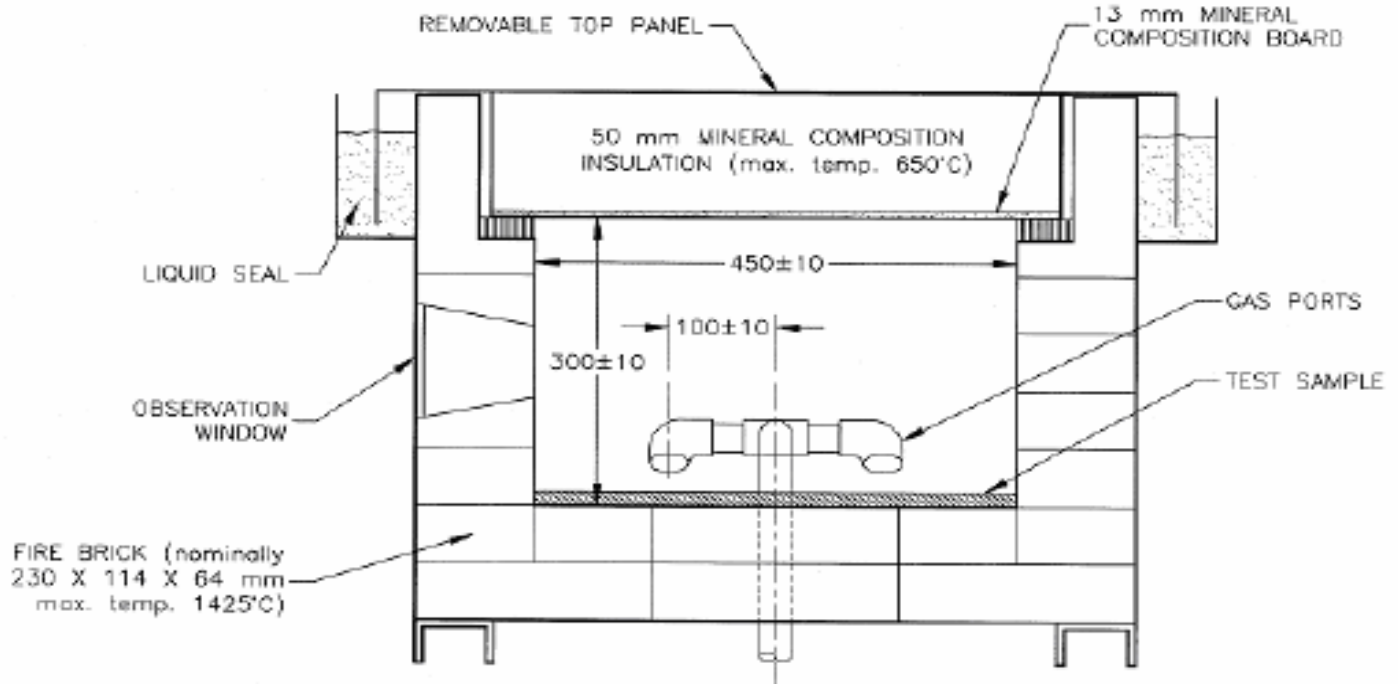
**TEST #3 OF 3 GRAPHS:**



**APPENDIX**



**Diagram 1.** Test Chamber side view showing critical dimensions.



**Diagram 2.** Test Chamber looking down chamber showing critical dimensions.

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**Photo 1.** Surface of Specimen Tested

**\*\*\*<<<END OF TEST REPORT>>>\*\*\***