

# TEST REPORT



Accepted for Use

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**RENDERED TO**

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Fort Worth, TX 76109

	AREVA NP Inc.
58-9224201-000	

PRODUCTS EVALUATED: Dow Corning® 732 Multi-Purpose Sealant and  
Unifrax Durablanket® S

EVALUATION PROPERTY: Pressure Resistance (Pressure Test 10)

**Report of Testing pressure resistance capabilities for  
compliance with the applicable requirements of AREVA  
NP Inc. Test Plan, Document No. 51-9209319-000**

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## 2 Introduction

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Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the pressure resistance capabilities of Dow Corning® 732 Multi-Purpose Sealant (DC-732) and Unifrax Durablanket® S (Durablanket) through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9209319-000, *Detailed Test Plan for Conducting MOX Pressure Test 10 [Test Plan]*. This evaluation took place on January 9, 2014.

This project was undertaken to evaluate the pressure resistance capability of caulk and fiber (C&F) internal conduit seals installed around cables within conduits at air pressure increments above atmospheric pressure.

## 3 Test Samples

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### 3.1. SAMPLE SELECTION

The sealant materials were not independently selected for testing; they were supplied by AREVA NP Inc., and were received on June 13 and September 10, 2013. The samples were received with Certificates of Conformance and are considered traceable. Basic information on sealant material(s) is presented in the table below.

Sealant Material	Lot /Batch#	Expiration Date
Dow Corning® 732	0007251823	5/29/2015
Unifrax Durablanket® S	32039	NA

Information regarding receiving dates and origin can be found in Appendix F: Quality Documents. All samples were received in good condition at the Evaluation Center.

### 3.2. SAMPLE AND ASSEMBLY DESCRIPTION

The test deck was used to simulate a confinement zone or HVAC boundary in which the penetration seal assemblies may be installed. The test deck was not considered an integral part of the penetration seal assembly being tested and therefore was not intended to replicate MOX-specific plant conditions and not considered integral in bounding the performance of the penetration seal assemblies (e.g., concrete blend, compressive strength, rebar size and spacing). The test deck was constructed of normal weight reinforced concrete.

A detailed description of each penetration can be found in Appendix D, AREVA NP Inc. Engineering Information Record, Document No. 51-9209319-000. Included in that document is a table of revision history with a description of changes made to the approved plan. The installation and documentation of penetration seal assemblies contained within the test slab was performed by AREVA under AREVA's Quality Assurance Program [Reference 12.4 in the test plan found in Appendix D].

The test deck consisted of a 12" thick concrete slab measuring approximately 96" x 96" (8' x 8'). Within this slab were six (6) precast conduit segments sized to replicate cast-in-place conduit

penetrations found in the MOX facility. The test deck was horizontally oriented with a hemispherical 72" diameter steel pressure vessel mounted above and below the precast openings in the slab.

Additionally, most of the openings (penetrations) in the MOX facility have been cast with a  $\frac{3}{4}$ " bevel on both sides of the opening. However, the penetrations in this pressure test consist of conduits cast into the slab, which do not contain beveled edges; therefore, the bevel feature was not included in this test.

The openings sealed and tested in Pressure Test 10 were small, medium and large sized conduits of stainless steel (SS) and rigid galvanized steel (RGS) cast into concrete. Cables were installed in the conduits. The test was performed with the test deck oriented in the horizontal position, and pressurized on the top side.

Conduit sizes of  $\frac{3}{4}$ ", 3" and 4" SS and  $\frac{3}{4}$ ", 3" and 6" RGS were selected because they represent the lower and upper bounding conditions expected at the MOX facility (with 3" added as a size in between).

The penetrating items for this test deck included the following:

- (1)  $\frac{3}{4}$ " diameter stainless steel (SS) conduit with a single CPSE jacketed cable installed in the conduit.
- (1) 3" diameter stainless steel (SS) conduit with a single piece of two different XLPE jacketed cables installed in the conduit.
- (1) 4" diameter stainless steel (SS) conduit with two pieces of Modified XLPO jacketed cable and two pieces of LSZH-XLPO jacketed cable installed in the conduit.
- (1) 6" diameter rigid galvanized steel (RGS) conduit with two pieces of Modified XLPO jacketed cable and two pieces of LSZH-XLPO jacketed cable installed in the conduit.
- (1) 3" diameter rigid galvanized steel (RGS) conduit with single piece of two different XLPE jacketed cables installed in the conduit.
- (1)  $\frac{3}{4}$ " diameter rigid galvanized steel (RGS) conduit with a single CPSE jacketed cable installed in the conduit.

According to the Test Plan description and drawings contained in Appendix A, the cables were to be routed in an inverted "U" shape, such that no cut cable ends existed on the top side (pressurized side) of the penetration. This implied that the bottom side of the test slab would have the cut ends of the cable. However, the actual method of cable routing for Pressure Test 10 was slightly different than the Test Plan description. Specifically, a decision was made by the AREVA Test Engineer to loop the cables such that the cut ends could be joined and sealed using heat shrink material. The splice area was then positioned near the center of the slab inside a conduit penetration. This resulted in the splice area being located between the caulk and fiber penetration seal on each side of the test slab. This alternate method of cable routing was used based on lessons learned from previous pressure and seismic pressure tests.

In Pressure Test 5 (Intertek Report No. 101276459SAT-001A; AREVA document 58-9224197-000) and Seismic Pressure Test 2 (Intertek Report No. 101276459SAT-003; AREVA document 58-9224227-000), the inverted "U" method of cable routing was used with a single cable support on the top side of the penetration and no cable supports on the bottom side of the penetration.



Post test inspection following Seismic Pressure Test 2 revealed that all cables appeared to have been pushed up through the seal as a result of pressure being applied to the side of the test assembly with the cut cable ends (bottom side). In an attempt to prevent cable movement, Pressure Test 5A (Intertek Report No. 101276459SAT-010; AREVA document 58-9224198-000) and Seismic Pressure Test 2A (Intertek Report No. 101276459SAT-011; AREVA document 58-9224228-000) used a similar inverted "U" method of cable routing with two cable supports on the top side of the assembly and two cable supports on the bottom side of the assembly. Post test inspection following Seismic Pressure Test 2A revealed that again, each cable appeared to have been pushed up through the seal when pressure was applied to the bottom of the test assembly. While the amount of cable movement was less in this test than in previous tests, the cable still moved.

The thought process for looping the cables in Pressure Test 10 (and subsequent Seismic Pressure Test 8) was that if no cut cable ends existed, then potential cable movement due to the application of pressure on either side of the test assembly could be minimized. For this reason, the loop method of cable routing was applied to Pressure Test 10.

The ends of the conduits (both top and bottom) were sealed with an approximate 2 inch thick layer of Unifrax Fiberfrax® Durablanket® S topped with an approximate ½ inch thick layer of Dow Corning® 732 Multi-Purpose Sealant.

## **4 Testing and Evaluation Methods**

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The Test Plan in Appendix D defines the test methods, acceptance criteria and test report documentation requirements for penetration seal Pressure Test 10. Additionally, this detailed test plan defines the roles and responsibilities of MOX Services, AREVA, the selected testing laboratory, and any other subcontracted entity engaged in support of pressure testing efforts.

The detailed test plan also describes the procurement plan for materials associated with penetration seal Pressure Test 10 and identifies the entities responsible for procuring the various components of the test assemblies based on the quality level assigned to each component.

The Test Plan also establishes minimum quality requirements for the penetration seal materials used in the test assemblies and links quality requirements in the AREVA Quality Assurance (QA) program to customer/project quality requirements.

### **4.1. TEST APPARATUS**

In the absence of any consensus codes or standards related to the pressure testing of penetration seal assemblies, the MOX Penetration Seal Program has developed a standardized method for conducting pressure testing of MOX penetration seal designs. In support of this effort, Intertek assisted in the design and construction of a pressure test apparatus to be use in the conduct of MOX penetration seal pressure tests.

The pressure chamber apparatus consists of two hemispherical 72" diameter steel pressure vessels, calibrated equipment and a data acquisition system. The apparatus accurately maintains the desired air pressure, using one of two sensitive, manually adjustable pressure regulators; a high (0-15 psi) and a low (0-2 psi) range. The sealed collection chamber feeds

any leakage air back to the test device, where it is channeled through one of two calibrated flow meters, once again, a high (0-200 L/min) and a low (0-20 L/min) range. A calibrated electronic pressure transducer (0-5 psi) measures the differential pressure between the two chambers and the data acquisition software determines the net pressure drop across the test seal and the leakage through the seal. The chambers are interchangeable and the direction can be reversed very quickly so both can serve as the pressure or the collection chamber.

The primary components described above include the following devices:

Pressure Chamber	2-piece hemispherical 72" diameter steel vessel
	3 connection ports per piece
	16 flange attachment points per piece
	Flange attachment via 3/8" diameter holes @ 22-1/2° spacing



Pressure Cart Stainless steel rolling cart with control equipment and associated  
Data Acquisition System



Regulator (low)                      Control Air, Inc., Amherst, NH  
Type 700  
0-2 psi

Regulator (high)                    Control Air, Inc., Amherst, NH  
Type 700  
0-15 psi



Mass Flow Meter      Omega Engineering, Inc., Stamford, CT  
Model No. FMA-872A-V-NIST  
Serial No. 4270050001001  
0-20 lpm



Mass Flow Meter      Omega Engineering, Inc., Stamford, CT  
Model No. FMA-875A-V-NIST  
Serial No. 4270050003001  
0-200 lpm





Pressure Transducer      Omegadyne Inc., Sunbury, OH  
Model No. PX409-005 DWUV  
Serial No. 406707  
Pressure Range: 0-5 psi  
Input 0-100mVdc



Power Supply	Omega Engineering, Inc., Stamford, CT Model No. PSS-10 +10V @ 400 mA Input 115 VAC 50/60 Hz
Multifunction DAQ	National Instruments, Model No. NI USB-6210 16 Input, 16-bit, 250 kS/s, Multifunction I/O





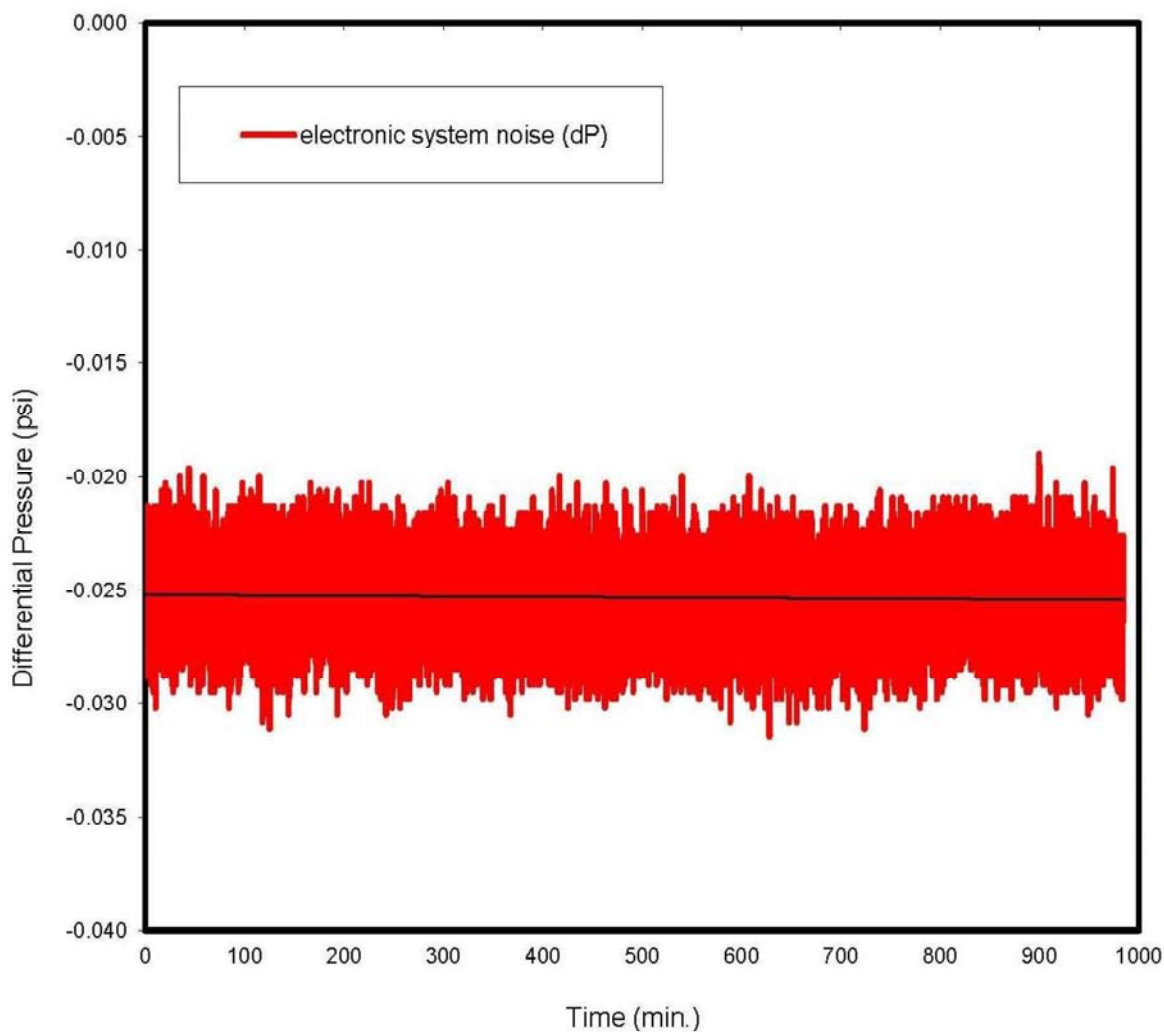
Dedicated CPU

HP Compaq Pro-6300 Microtower  
Serial No. MXL3090LN6  
OS Windows 7 Pro



Additionally, during initial system start-up testing and verification, it was discovered that the data acquisition system (DAQ) was so sensitive that “signal noise” resulted in data fluctuations for reported differential pressure even when the system was at equilibrium (i.e., both high side and low side pressure chambers were at atmospheric conditions). After collecting data for 16 hours overnight, the average fluctuation was -0.025 psi.

### 16-hr Average Electronic Noise (dP = -0.0253 psi)



Since the initial pressure stage prescribed by the AREVA NP Test Plan is 1.0 inches of water (0.0361 psi) and the average data fluctuation due to “signal noise” was almost 70% of this value (-0.025 psi), it was decided that an inclined-plane manometer would be used to ensure that the Stage 1 differential pressure was applied at precisely 1.0 inches of water.



For subsequent pressure stages (i.e., Stages 2-5), the Test Plan required pressure was applied and maintained using the DAQ reported differential pressure without consideration for any “signal noise”. Since the “signal noise” always reported some level of negative pressure at the beginning of the test, this method assured that the tests were conducted with additional margin, as the actual differential pressure that the test specimen was subjected to was equal to the DAQ reported differential pressure plus the additional pressure needed to overcome the negative

“signal noise” reported at the beginning of the test when both pressure chambers were at atmospheric conditions.

## 4.2. TEST STANDARD

### AREVA NP Inc. Document No. 51-9209319-000

Pressure rated penetration seals at the MOX facility are required to remain “sufficiently leak-tight” at various pressure levels in order to support the functional goals of the various pressure rating requirements (i.e., confinement, suppression system clean agent concentration, fire induced pressure loads or HVAC pressure boundary loads). The term “sufficiently leak-tight” indicated that the penetration seal meets the predetermined acceptance criteria for the pressure level(s) being tested.

The acceptance criteria that constitutes “sufficiently leak-tight” varies based on the pressure requirement and the operating mode of the plant. For most pressure conditions and operating modes, “sufficiently leak-tight” means that the penetration seal assembly must remain in place but is allowed to leak (i.e., the penetration seal cannot become dislodged from the opening or otherwise catastrophically fail such that a substantial leakage path is created).

Per MOX Services Calculation “Confinement Boundary Air Leakage Criteria” [Reference 12.1], penetration seals that function as confinement zone 3b boundary components must maintain a leakage rate less than 0.01 cfm/sq. ft. of penetration area when tested at a pressure that bounds C3b to non-C3b zone pressures during normal operating conditions.

The table below identifies the differential pressure levels (stages) for conducting pressures tests, as well as, the acceptance criteria in order to be considered “sufficiently leak-tight”.

**Differential Pressure Test Levels**

Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
1	1.0	30	Leakage $\leq$ 0.01 cfm/sq. ft. of penetration area	Testing at this differential pressure bounds the 0.51 inches w.g. pressure for C3b to C2 areas during normal operation [Test Plan Reference 12.9]
2	5.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 4.0 inches w.g. pressure anticipated as a result of clean agent suppression system discharge [Test Plan Reference 12.7].
3	10.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 7.0 inches w.g. pressure used as the screening pressure cutoff for fire induced pressures [Test Plan References 12.7 and 12.8] and some of the HVAC pressure boundaries [Test Plan Reference 12.9].



Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
4	20.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the calculated fire induced pressures [Test Plan Reference 12.8] and many of the HVAC pressure boundaries [Test Plan Reference 12.9].
5	40.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the HVAC pressure boundaries [Test Plan Reference 12.9].

The test assembly shall be attached to the pressure test apparatus and subjected to air pressure tests at the select pressure levels identified in the table above, beginning with the Stage 1 pressure of 1.0 inch w.g. Once this pressure has been obtained, the pressure shall be maintained for the hold time specified. The maximum leakage rate observed during the hold time shall be recorded. If the leakage rate exceeds the acceptance criteria during Stage 1 testing, the time of failure shall be noted and the test shall be continued, since leakage alone does not constitute failure after Stage 1.

Once the designated hold time has been achieved, the pressure shall be increased to the next pressure level identified (Stage 2, then Stage 3, then Stage 4 and finally Stage 5) and held for the designated hold time. The maximum leakage rate observed during each hold time shall be recorded.

Following completion of Stage 5 pressure testing, the test may continue at the discretion of the AREVA test engineer and the testing laboratory manager in charge. Subsequent pressures, hold times and maximum leakage rates shall be recorded as directed by the AREVA test engineer.

If at any pressure level (or test stage) the penetration seal becomes dislodged from the opening or otherwise catastrophically fails, the pressure test shall be terminated and the time to failure and pressure at which the failure occurred shall be recorded.

## 5 Testing and Evaluation Results

### 5.1. RESULTS AND OBSERVATIONS

The test deck was mounted horizontally between two 72" diameter hemispherical pressure vessels. The deck was fixed to the pressure chamber using (16) 5/16" x 2-1/2" long sleeve anchors (Red Head) through 16 pre-drilled holes. Silicone II caulk (GE) was used to create a pressure tight seal between the pressure chamber and the test deck.

The test was initiated at 10:26 a.m. on January 9, 2014. Aaron Adrian, representing AREVA NP Inc., was present to witness the test. The ambient temperature at the start of the test was 59°F, with a relative humidity of 92%.

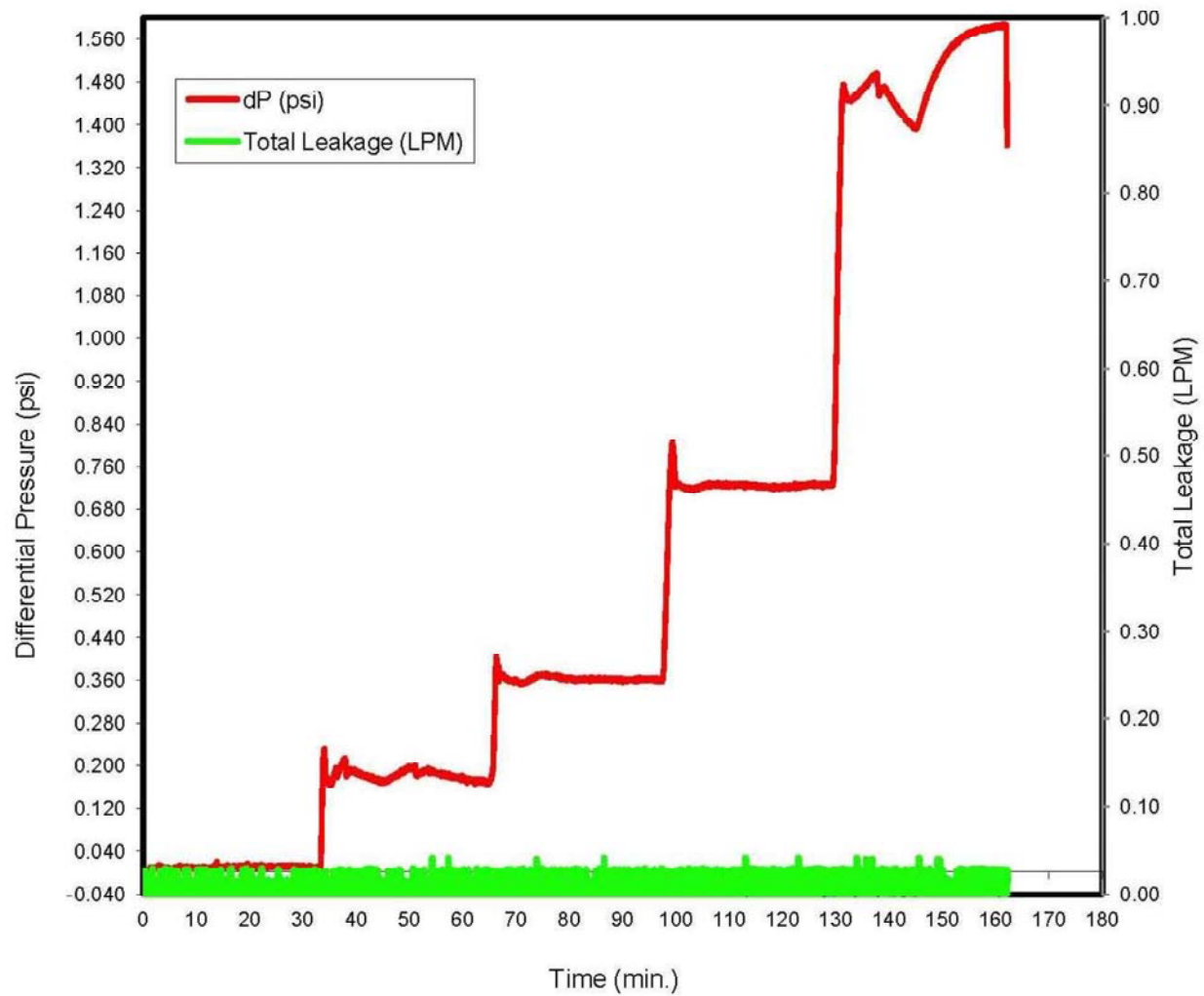
The test procedure followed that presented in Section 9.0 of the Test Plan. The graph and table

on the following pages provides a summary of results and observations for the five pressure stages, any observed leakage, and the maximum leakage rate. Additionally, the raw data for Pressure Test 10 is contained in Appendix B of this test report. The official start and stop times for each pressure stage were timed using a traceable, calibrated stopwatch. The approximate start and stop times for each pressure stage are recorded below. These start and stop times can be correlated to the data in Appendix B using the heading "Time (min)".

**Pressure Test 10 Start and Stop Times**

<b>Stage</b>	<b>Start Time</b>	<b>Stop Time</b>
1	1.3	31.3
2	33.8	63.8
3	66.2	96.2
4	98.8	128.8
5	131	161

**Chamber Differential Pressure and Seal Leakage  
Pressure Test 10**





#### Test Results and Observations

Test Stage	Differential Pressure inch w.g. (psi)	Required Hold Time (minutes)	Acceptance Criteria	PASS/ FAIL	Max Leakage (Total LPM)	Max Leakage (Total cfm)
1	1.0 (0.036)	30	Leakage $\leq$ 0.01 cfm/sq. ft. of penetration area	PASS <sup>1</sup>	0.00	0.00
2	5.0 (0.181)	30	Seal Remains In Place	PASS	0.00	0.00
3	10.0 (0.361)	30	Seal Remains In Place	PASS	0.00	0.00
4	20.0 (0.722)	30	Seal Remains In Place	PASS	0.00	0.00
5	40.0 (1.44)	30	Seal Remains In Place	PASS	0.00	0.00

<sup>1</sup> Based on the table above and the allowable leakage for Pressure Test 10 per the Test Plan, the test specimen was allowed to have up to 0.11 lpm of leakage at Stage 1. There was zero actual leakage.

#### 5.2. POST TEST EXAMINATION

Because the test assembly was intended to undergo seismic pressure testing soon after the pressure test (Seismic Test 8), the pressure chamber was not removed and no post test examination was performed.

Refer to the test report for MOX Seismic Pressure Test 8 for additional information (Intertek Test Report 101276459SAT-016 or AREVA NP, Inc. document number 58-9224234-000).

## 6 Conclusion

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Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the pressure resistance capabilities of Dow Corning® 732 Multi-Purpose Sealant (DC-732) and Unifrax Durablanket® S (Durablanket) through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9209319-000, *Detailed Test Plan for Conducting MOX Pressure Test 10*. This evaluation took place on January 9, 2014.

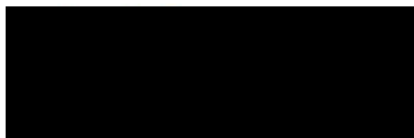
The seals in Pressure Test 10 met the acceptance criteria as defined in the Test Plan.

This project was undertaken to evaluate the pressure resistance capability of caulk and fiber (C&F) internal conduit seals installed around cables within conduits at air pressure increments above atmospheric pressure.

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

### INTERTEK TESTING SERVICES NA

Reported by:



Mike Dey  
Staff Engineer

Reviewed by:



Project Engineer, Fire Resistance

Reviewed by:



Michael A. Brown  
Quality Supervisor

## APPENDIX A Assembly Drawings

Controlled Document



Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

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**APPENDIX A: TEST DECK/TEST SLAB DRAWINGS**

This appendix contains a drawing outlining the basic layout of the test deck/test slab to be used for this fire test. Concrete reinforcement details and additional test deck features, such as perimeter framing details and lug locations for lifting the test deck, are the responsibility of the testing laboratory. Additionally, this appendix contains notes that are to be used in conjunction with the layout drawing to construct the test deck.

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Page A-1

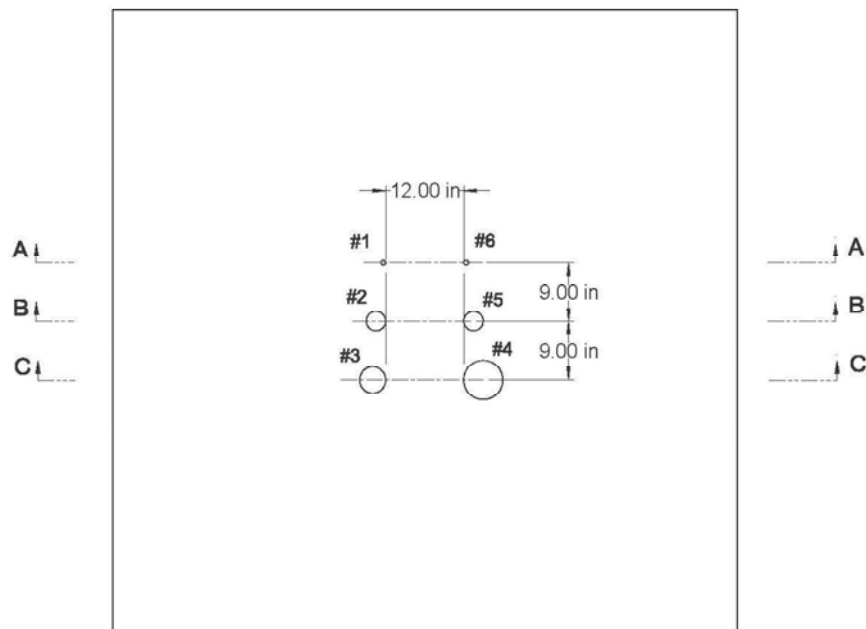
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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

**Pressure Test P10**



NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. \* INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. SEE PAGE A-3 FOR PENETRATION DESCRIPTION.
4. SEE PAGE A-4 FOR SECTION A - A, PAGE A-5 FOR SECTION B-B AND PAGE A-6 FOR SECTION C - C.

Controlled Document



Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

**Table A-1: Cable Descriptions**

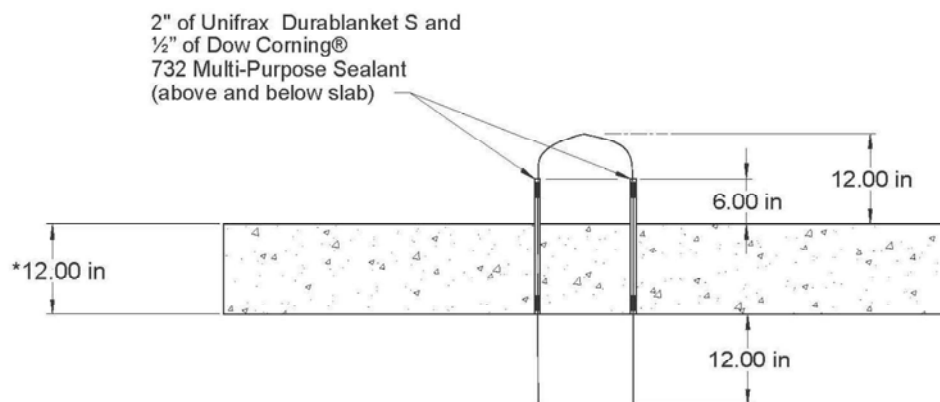
Penetration Identification	Mark No.	Cable Description
P1	wfb-7	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V
P2	wbe-1	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey
P2	whd-3	4/C 20 AWG 7/S TC 20 MILS XLPE, 15 MIL XLPE JKT 600V
P3	whe-8	2 pieces of COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)
P3	wfa-26	2 pieces of 3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V
P4	whe-8	2 pieces of COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)
P4	wfa-26	2 pieces of 3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V
P5	wbe-1	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey
P5	whd-3	4/C 20 AWG 7/S TC 20 MILS XLPE, 15 MIL XLPE JKT 600V
P6	wfb-7	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V

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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10



**Section A-A**

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. \* INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLES TO BE SECURELY TIED OFF, ABOVE AND BELOW SLAB TO PRECLUDE SLIPPING.

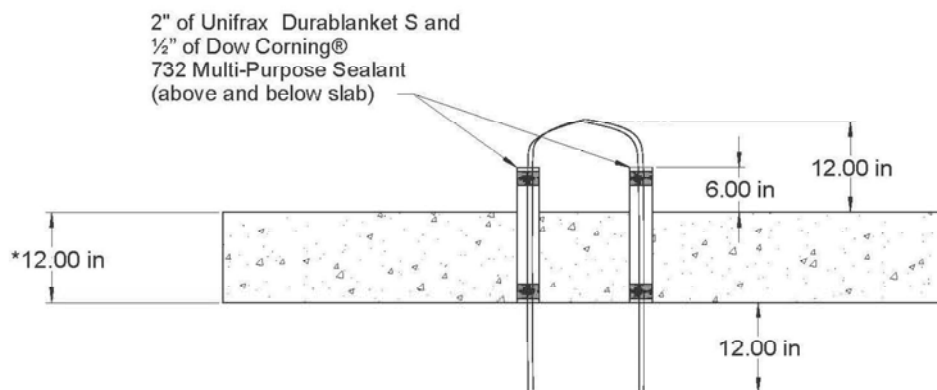


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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10



**Section B-B**

NOTES:

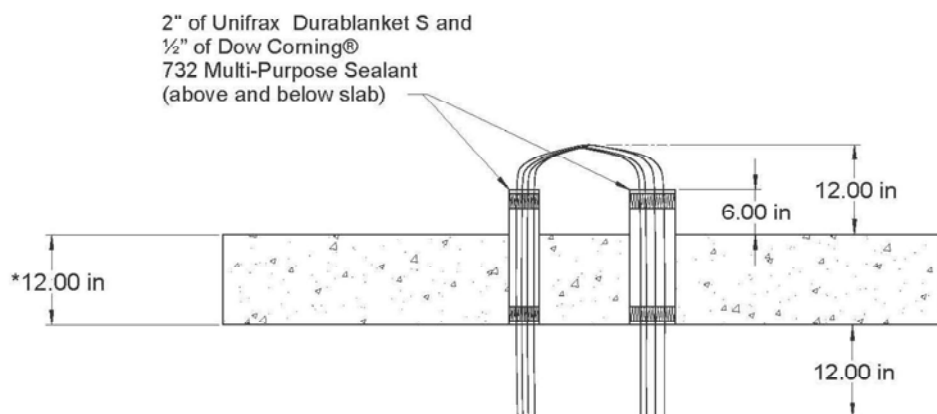
1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10



**Section C-C**

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. \* INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLES TO BE SECURELY TIED OFF, ABOVE AND BELOW SLAB TO PRECLUDE SLIPPING.

## APPENDIX B

### Test Data

Areva NP Inc.

Project No. G101276459SAT-013

January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
0	-0.0229	0	0.0001	0.0001
0.0333	-0.0236	0	0.0001	0.0001
0.0667	-0.0236	0	0.0001	0.0001
0.1	-0.0236	0	0.0001	0.0001
0.1333	-0.0255	0	0.0001	0.0001
0.1667	-0.0259	0.0131	0.0001	0.0133
0.2	-0.0246	0	0.0001	0.0001
0.2333	-0.0223	0.0263	0.0001	0.0264
0.2667	-0.0219	0	0.0001	0.0001
0.3	-0.0236	0	0.0027	0.0027
0.3333	-0.0209	0	0.0001	0.0001
0.3667	-0.0249	0	0.0001	0.0001
0.4	-0.0223	0	0.0001	0.0001
0.4333	-0.0265	0	0.0001	0.0001
0.4667	-0.0242	0	0	0
0.5	-0.0269	0	0.0014	0.0014
0.5333	-0.0242	0	0.0014	0.0014
0.5667	-0.0236	0	0.0001	0.0001
0.6	-0.0242	0	0.0001	0.0001
0.6333	-0.0255	0	0.0014	0.0014
0.6667	-0.0219	0	0.0014	0.0014
0.7	-0.0209	0	0.0001	0.0001
0.7333	-0.0262	0.0131	0.0014	0.0146
0.7667	-0.0239	0	0.0001	0.0001
0.8	-0.0223	0.0131	0.0001	0.0133
0.8333	-0.0236	0.0131	0.0014	0.0146
0.8667	-0.0203	0	0.0014	0.0014
0.9	-0.018	0	0.0014	0.0014
0.9333	-0.0127	0	0	0
0.9667	-0.0104	0	0	0
1	-0.0048	0	0	0
1.0333	-0.0048	0.0131	0.0014	0.0146
1.0667	-0.0009	0	0.0001	0.0001
1.1	0.0047	0	0.0014	0.0014
1.1333	0.0064	0.0131	0	0.0131
1.1667	0.0064	0	0.0001	0.0001
1.2	0.008	0	0	0
1.2333	0.0074	0	0.0027	0.0027
1.2667	0.0097	0.0131	0.0001	0.0133
1.3	0.01	0	0	0
1.3333	0.0074	0.0131	0.0014	0.0146
1.3667	0.01	0	0.0001	0.0001
1.4	0.008	0	0.0001	0.0001

Areva NP Inc.

Project No. G101276459SAT-013

January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
1.4333	0.009	0	0.0001	0.0001
1.4667	0.0093	0	0.0014	0.0014
1.5	0.01	0	0.0001	0.0001
1.5333	0.0113	0	0	0
1.5667	0.0084	0	0.0014	0.0014
1.6	0.011	0	0.0001	0.0001
1.6333	0.0107	0	0	0
1.6667	0.007	0	0.0001	0.0001
1.7	0.0107	0.0131	0.0001	0.0133
1.7333	0.0074	0.0263	0.0027	0.029
1.7667	0.0103	0.0263	0	0.0263
1.8	0.008	0	0.0014	0.0014
1.8333	0.007	0	0.0001	0.0001
1.8667	0.008	0	0.0001	0.0001
1.9	0.0057	0	0.0001	0.0001
1.9333	0.0093	0	0.0001	0.0001
1.9667	0.009	0	0.0001	0.0001
2	0.0041	0	0.0001	0.0001
2.0333	0.0077	0.0131	0.0001	0.0133
2.0667	0.0077	0	0	0
2.1	0.008	0.0131	0.0001	0.0133
2.1333	0.0084	0	0	0
2.1667	0.0044	0.0131	0	0.0131
2.2	0.0044	0	0.0014	0.0014
2.2333	0.007	0	0.0001	0.0001
2.2667	0.0067	0	0.0014	0.0014
2.3	0.0084	0.0131	0.0027	0.0159
2.3333	0.0093	0.0131	0	0.0131
2.3667	0.0047	0	0.0001	0.0001
2.4	0.0084	0	0	0
2.4333	0.0074	0	0.0014	0.0014
2.4667	0.0064	0	0	0
2.5	0.0047	0	0.0001	0.0001
2.5333	0.0064	0	0.0001	0.0001
2.5667	0.0047	0	0	0
2.6	0.008	0	0	0
2.6333	0.0074	0	0.0001	0.0001
2.6667	0.009	0	0.0001	0.0001
2.7	0.01	0.0131	0	0.0131
2.7333	0.0123	0.0131	0.0001	0.0133
2.7667	0.01	0	0.0001	0.0001
2.8	0.0116	0.0131	0.0001	0.0133
2.8333	0.011	0	0.0014	0.0014

Areva NP Inc.

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January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
2.8667	0.0116	0.0131	0	0.0131
2.9	0.0084	0.0131	0.0001	0.0133
2.9333	0.0097	0.0131	0.0001	0.0133
2.9667	0.0146	0	0.0014	0.0014
3	0.01	0	0	0
3.0333	0.012	0	0.0001	0.0001
3.0667	0.0146	0	0.0014	0.0014
3.1	0.0087	0.0131	0.0001	0.0133
3.1333	0.012	0	0	0
3.1667	0.012	0	0	0
3.2	0.0116	0	0	0
3.2333	0.013	0	0.0014	0.0014
3.2667	0.011	0.0263	0	0.0263
3.3	0.0126	0	0	0
3.3333	0.012	0	0.0001	0.0001
3.3667	0.0103	0.0131	0	0.0131
3.4	0.01	0	0.0001	0.0001
3.4333	0.0087	0	0.0001	0.0001
3.4667	0.01	0	0.0001	0.0001
3.5	0.0067	0.0131	0.0014	0.0146
3.5333	0.0077	0.0131	0.0001	0.0133
3.5667	0.0077	0.0131	0.0001	0.0133
3.6	0.0074	0	0	0
3.6333	0.006	0.0131	0.0001	0.0133
3.6667	0.0116	0	0.0001	0.0001
3.7	0.0093	0.0131	0.0001	0.0133
3.7333	0.0084	0	0.0001	0.0001
3.7667	0.0084	0	0.0001	0.0001
3.8	0.0074	0.0131	0	0.0131
3.8333	0.0087	0	0.0001	0.0001
3.8667	0.009	0	0.0001	0.0001
3.9	0.0093	0	0.0001	0.0001
3.9333	0.01	0	0.0014	0.0014
3.9667	0.0087	0	0.0014	0.0014
4	0.007	0	0	0
4.0333	0.0077	0	0	0
4.0667	0.009	0	0.0014	0.0014
4.1	0.0097	0.0131	0.0014	0.0146
4.1333	0.008	0	0.0001	0.0001
4.1667	0.0077	0	0.0001	0.0001
4.2	0.0093	0	0	0
4.2333	0.0067	0.0263	0.0027	0.029
4.2667	0.007	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
4.3	0.0051	0.0131	0	0.0131
4.3333	0.0093	0	0.0014	0.0014
4.3667	0.0084	0	0.0001	0.0001
4.4	0.0067	0	0.0014	0.0014
4.4333	0.0047	0.0131	0.0014	0.0146
4.4667	0.0054	0	0.0001	0.0001
4.5	0.007	0	0.0014	0.0014
4.5333	0.0087	0.0131	0	0.0131
4.5667	0.008	0	0	0
4.6	0.006	0	0.0014	0.0014
4.6333	0.0087	0.0131	0.0014	0.0146
4.6667	0.0107	0	0.0001	0.0001
4.7	0.0087	0.0131	0.0014	0.0146
4.7333	0.007	0.0131	0.0014	0.0146
4.7667	0.0051	0	0.0014	0.0014
4.8	0.0067	0	0.0001	0.0001
4.8333	0.0064	0.0131	0.0001	0.0133
4.8667	0.0057	0	0	0
4.9	0.0064	0	0.0001	0.0001
4.9333	0.0057	0	0.0001	0.0001
4.9667	0.0044	0	0	0
5	0.007	0.0131	0	0.0131
5.0333	0.0051	0	0	0
5.0667	0.0077	0	0.0014	0.0014
5.1	0.0051	0.0131	0	0.0131
5.1333	0.0054	0	0	0
5.1667	0.0084	0	0.0014	0.0014
5.2	0.0077	0.0131	0.0014	0.0146
5.2333	0.006	0	0.0014	0.0014
5.2667	0.0077	0.0263	0.0014	0.0277
5.3	0.0044	0	0.0014	0.0014
5.3333	0.008	0.0131	0.0001	0.0133
5.3667	0.0057	0	0.0014	0.0014
5.4	0.007	0	0	0
5.4333	0.009	0.0131	0.0014	0.0146
5.4667	0.0047	0.0131	0.0014	0.0146
5.5	0.0074	0	0	0
5.5333	0.0051	0.0131	0.0014	0.0146
5.5667	0.006	0.0131	0.0014	0.0146
5.6	0.0041	0.0131	0.0001	0.0133
5.6333	0.0074	0.0131	0.0001	0.0133
5.6667	0.0087	0.0131	0.0014	0.0146
5.7	0.0057	0	0	0



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
5.7333	0.0064	0	0.0001	0.0001
5.7667	0.0084	0.0131	0	0.0131
5.8	0.01	0.0131	0.0014	0.0146
5.8333	0.0077	0.0131	0.0014	0.0146
5.8667	0.01	0	0.0014	0.0014
5.9	0.0093	0	0	0
5.9333	0.0074	0	0.0014	0.0014
5.9667	0.0107	0	0.0001	0.0001
6	0.0087	0	0	0
6.0333	0.0107	0	0.0027	0.0027
6.0667	0.0093	0	0.0001	0.0001
6.1	0.0103	0	0.0014	0.0014
6.1333	0.0087	0	0.0001	0.0001
6.1667	0.0064	0.0131	0.0001	0.0133
6.2	0.006	0	0.0014	0.0014
6.2333	0.0074	0	0	0
6.2667	0.01	0	0.0001	0.0001
6.3	0.0093	0.0263	0.0001	0.0264
6.3333	0.0107	0.0131	0	0.0131
6.3667	0.0107	0	0.0001	0.0001
6.4	0.0084	0	0.0001	0.0001
6.4333	0.0087	0	0	0
6.4667	0.012	0	0.0001	0.0001
6.5	0.0107	0	0	0
6.5333	0.0093	0.0131	0.0001	0.0133
6.5667	0.01	0.0131	0.0001	0.0133
6.6	0.01	0	0	0
6.6333	0.0126	0	0.0014	0.0014
6.6667	0.0123	0	0.0001	0.0001
6.7	0.0107	0	0.0001	0.0001
6.7333	0.009	0	0.0001	0.0001
6.7667	0.0097	0.0131	0.0014	0.0146
6.8	0.011	0	0.0027	0.0027
6.8333	0.012	0	0.0014	0.0014
6.8667	0.012	0	0.0001	0.0001
6.9	0.0113	0	0.0014	0.0014
6.9333	0.0143	0.0131	0.0014	0.0146
6.9667	0.01	0	0.0001	0.0001
7	0.0116	0.0131	0.0014	0.0146
7.0333	0.0123	0	0.0027	0.0027
7.0667	0.012	0.0131	0.0014	0.0146
7.1	0.0097	0	0	0
7.1333	0.0126	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
7.1667	0.011	0	0.0001	0.0001
7.2	0.011	0.0131	0.0014	0.0146
7.2333	0.0093	0.0131	0	0.0131
7.2667	0.007	0.0131	0	0.0131
7.3	0.0103	0	0.0014	0.0014
7.3333	0.0126	0	0.0001	0.0001
7.3667	0.01	0	0.0001	0.0001
7.4	0.008	0	0.0014	0.0014
7.4333	0.0093	0.0131	0.0001	0.0133
7.4667	0.012	0	0.0001	0.0001
7.5	0.0093	0	0.0001	0.0001
7.5333	0.01	0	0.0001	0.0001
7.5667	0.0097	0	0.0001	0.0001
7.6	0.007	0	0.0001	0.0001
7.6333	0.008	0	0.0014	0.0014
7.6667	0.01	0	0.0001	0.0001
7.7	0.006	0	0.0014	0.0014
7.7333	0.0097	0	0.0001	0.0001
7.7667	0.0077	0	0.0014	0.0014
7.8	0.0084	0	0.0014	0.0014
7.8333	0.008	0.0131	0.0001	0.0133
7.8667	0.0097	0.0263	0.0014	0.0277
7.9	0.0084	0	0.0001	0.0001
7.9333	0.006	0	0	0
7.9667	0.007	0.0131	0.0001	0.0133
8	0.01	0.0131	0.0014	0.0146
8.0333	0.0093	0	0.0014	0.0014
8.0667	0.0087	0.0131	0.0014	0.0146
8.1	0.013	0.0131	0.0001	0.0133
8.1333	0.0084	0	0.0001	0.0001
8.1667	0.0093	0	0	0
8.2	0.0074	0	0.0001	0.0001
8.2333	0.0064	0	0.0001	0.0001
8.2667	0.0103	0	0.0014	0.0014
8.3	0.0087	0.0263	0.0014	0.0277
8.3333	0.0103	0	0.0014	0.0014
8.3667	0.0093	0.0131	0.0014	0.0146
8.4	0.0097	0	0	0
8.4333	0.006	0.0263	0.0014	0.0277
8.4667	0.0113	0.0131	0.0014	0.0146
8.5	0.01	0.0131	0.0014	0.0146
8.5333	0.0074	0	0.0001	0.0001
8.5667	0.0067	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
8.6	0.006	0	0.0014	0.0014
8.6333	0.0074	0.0131	0.0014	0.0146
8.6667	0.0087	0	0.0014	0.0014
8.7	0.01	0.0131	0.0001	0.0133
8.7333	0.01	0	0.0001	0.0001
8.7667	0.0087	0	0.0014	0.0014
8.8	0.011	0	0.0014	0.0014
8.8333	0.009	0	0	0
8.8667	0.008	0	0.0001	0.0001
8.9	0.01	0.0131	0	0.0131
8.9333	0.0103	0	0.0001	0.0001
8.9667	0.0084	0	0.0001	0.0001
9	0.0107	0.0131	0.0001	0.0133
9.0333	0.0113	0	0.0014	0.0014
9.0667	0.008	0.0131	0.0001	0.0133
9.1	0.0113	0	0.0001	0.0001
9.1333	0.012	0.0131	0.0001	0.0133
9.1667	0.0097	0.0131	0.0014	0.0146
9.2	0.0084	0	0.0001	0.0001
9.2333	0.009	0.0131	0.0014	0.0146
9.2667	0.0113	0	0.0014	0.0014
9.3	0.01	0	0.0014	0.0014
9.3333	0.009	0	0.0001	0.0001
9.3667	0.0051	0.0131	0.0014	0.0146
9.4	0.0077	0	0.0014	0.0014
9.4333	0.0067	0	0.0014	0.0014
9.4667	0.008	0.0131	0.0001	0.0133
9.5	0.007	0	0.0001	0.0001
9.5333	0.01	0.0131	0.0001	0.0133
9.5667	0.0064	0	0	0
9.6	0.011	0.0131	0.0001	0.0133
9.6333	0.01	0.0131	0.0014	0.0146
9.6667	0.0093	0	0.0014	0.0014
9.7	0.007	0.0131	0	0.0131
9.7333	0.0093	0	0	0
9.7667	0.0084	0.0131	0.0014	0.0146
9.8	0.0107	0.0131	0	0.0131
9.8333	0.0074	0	0.0001	0.0001
9.8667	0.0087	0	0.0001	0.0001
9.9	0.0097	0.0131	0	0.0131
9.9333	0.0077	0	0.0014	0.0014
9.9667	0.0077	0.0131	0.0027	0.0159
10	0.009	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
10.0333	0.01	0.0131	0.0001	0.0133
10.0667	0.0077	0.0131	0.0014	0.0146
10.1	0.009	0.0131	0	0.0131
10.1333	0.009	0.0131	0.0014	0.0146
10.1667	0.0084	0	0.0001	0.0001
10.2	0.0074	0	0.0014	0.0014
10.2333	0.0093	0.0263	0.0014	0.0277
10.2667	0.0103	0	0	0
10.3	0.0057	0	0.0001	0.0001
10.3333	0.0057	0.0131	0.0001	0.0133
10.3667	0.006	0	0.0014	0.0014
10.4	0.008	0	0.0014	0.0014
10.4333	0.0077	0.0131	0	0.0131
10.4667	0.01	0	0	0
10.5	0.01	0	0.0014	0.0014
10.5333	0.0084	0	0.0001	0.0001
10.5667	0.0113	0.0263	0.0001	0.0264
10.6	0.0093	0	0	0
10.6333	0.0074	0.0131	0	0.0131
10.6667	0.01	0	0.0014	0.0014
10.7	0.0084	0.0263	0	0.0263
10.7333	0.0077	0	0.0001	0.0001
10.7667	0.0084	0	0	0
10.8	0.0084	0.0131	0.0014	0.0146
10.8333	0.0093	0.0131	0.0014	0.0146
10.8667	0.009	0.0263	0.0014	0.0277
10.9	0.01	0	0.0001	0.0001
10.9333	0.0077	0	0.0014	0.0014
10.9667	0.011	0	0	0
11	0.0051	0.0131	0.0001	0.0133
11.0333	0.0084	0.0263	0.0014	0.0277
11.0667	0.01	0	0.0001	0.0001
11.1	0.0064	0.0131	0	0.0131
11.1333	0.0074	0	0.0001	0.0001
11.1667	0.008	0	0.0001	0.0001
11.2	0.01	0	0	0
11.2333	0.0093	0	0.0001	0.0001
11.2667	0.0074	0	0	0
11.3	0.0074	0.0131	0.0001	0.0133
11.3333	0.0126	0.0131	0	0.0131
11.3667	0.0087	0.0131	0.0001	0.0133
11.4	0.0093	0	0.0014	0.0014
11.4333	0.0077	0.0131	0.0027	0.0159

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
11.4667	0.0087	0	0.0001	0.0001
11.5	0.0097	0	0.0001	0.0001
11.5333	0.0116	0.0131	0.0014	0.0146
11.5667	0.011	0.0131	0.0014	0.0146
11.6	0.0103	0	0.0001	0.0001
11.6333	0.0074	0	0.0014	0.0014
11.6667	0.011	0	0.0001	0.0001
11.7	0.006	0	0	0
11.7333	0.009	0	0	0
11.7667	0.009	0	0	0
11.8	0.0093	0.0131	0.0014	0.0146
11.8333	0.0113	0	0	0
11.8667	0.0093	0.0263	0.0014	0.0277
11.9	0.0093	0	0.0014	0.0014
11.9333	0.0051	0.0131	0.0001	0.0133
11.9667	0.0097	0	0	0
12	0.0087	0.0131	0.0001	0.0133
12.0333	0.0054	0	0.0014	0.0014
12.0667	0.007	0	0	0
12.1	0.006	0	0	0
12.1333	0.0064	0.0131	0.0001	0.0133
12.1667	0.0057	0.0131	0.0014	0.0146
12.2	0.0057	0	0.0027	0.0027
12.2333	0.0087	0	0	0
12.2667	0.0107	0.0131	0.0001	0.0133
12.3	0.0084	0	0.0001	0.0001
12.3333	0.008	0	0	0
12.3667	0.0087	0.0131	0.0014	0.0146
12.4	0.0093	0	0.0001	0.0001
12.4333	0.0054	0	0.0001	0.0001
12.4667	0.0064	0	0.0014	0.0014
12.5	0.006	0.0131	0.0001	0.0133
12.5333	0.0074	0	0.0014	0.0014
12.5667	0.0054	0.0131	0.0014	0.0146
12.6	0.0087	0	0.0014	0.0014
12.6333	0.006	0	0	0
12.6667	0.008	0.0131	0	0.0131
12.7	0.006	0	0.0001	0.0001
12.7333	0.0087	0	0.0001	0.0001
12.7667	0.008	0	0.0001	0.0001
12.8	0.0054	0	0.0001	0.0001
12.8333	0.0093	0	0.0001	0.0001
12.8667	0.006	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
12.9	0.0097	0	0.0001	0.0001
12.9333	0.009	0	0.0001	0.0001
12.9667	0.0077	0	0.0001	0.0001
13	0.0087	0	0.0001	0.0001
13.0333	0.0077	0	0.0014	0.0014
13.0667	0.0097	0.0131	0.0001	0.0133
13.1	0.01	0	0.0001	0.0001
13.1333	0.0103	0.0131	0.0001	0.0133
13.1667	0.012	0.0263	0.0001	0.0264
13.2	0.009	0	0	0
13.2333	0.0136	0	0.0014	0.0014
13.2667	0.011	0	0.0001	0.0001
13.3	0.0139	0	0	0
13.3333	0.0126	0	0.0001	0.0001
13.3667	0.0149	0	0	0
13.4	0.0143	0	0	0
13.4333	0.0139	0	0.0014	0.0014
13.4667	0.0113	0	0	0
13.5	0.0123	0	0.0001	0.0001
13.5333	0.0123	0	0.0014	0.0014
13.5667	0.0126	0	0	0
13.6	0.0143	0	0.0001	0.0001
13.6333	0.0163	0.0131	0	0.0131
13.6667	0.0172	0	0.0014	0.0014
13.7	0.0153	0.0131	0.0014	0.0146
13.7333	0.0172	0	0.0014	0.0014
13.7667	0.0186	0.0131	0.0014	0.0146
13.8	0.0153	0	0.0014	0.0014
13.8333	0.0159	0.0131	0.0001	0.0133
13.8667	0.0202	0	0.0027	0.0027
13.9	0.0146	0	0.0014	0.0014
13.9333	0.01	0.0131	0.0014	0.0146
13.9667	0.006	0.0131	0.0014	0.0146
14	-0.0018	0	0.0001	0.0001
14.0333	0.0041	0.0131	0.0001	0.0133
14.0667	0.0057	0	0.0014	0.0014
14.1	0.0064	0.0131	0.0014	0.0146
14.1333	0.0074	0	0	0
14.1667	0.0074	0.0131	0.0014	0.0146
14.2	0.0067	0	0.0027	0.0027
14.2333	0.0064	0	0.0027	0.0027
14.2667	0.007	0.0131	0.0001	0.0133
14.3	0.01	0	0	0

Areva NP Inc.

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January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
14.3333	0.0103	0	0.0001	0.0001
14.3667	0.0103	0	0.0014	0.0014
14.4	0.01	0.0131	0.0001	0.0133
14.4333	0.009	0.0131	0.0001	0.0133
14.4667	0.0067	0	0.0001	0.0001
14.5	0.01	0	0.0001	0.0001
14.5333	0.0107	0.0263	0.0014	0.0277
14.5667	0.0051	0	0.0001	0.0001
14.6	0.0074	0	0.0001	0.0001
14.6333	0.01	0	0.0027	0.0027
14.6667	0.0116	0	0.0014	0.0014
14.7	0.01	0	0.0014	0.0014
14.7333	0.008	0	0.0001	0.0001
14.7667	0.0084	0	0.0001	0.0001
14.8	0.0103	0	0.0014	0.0014
14.8333	0.0097	0.0131	0.0014	0.0146
14.8667	0.012	0	0.0001	0.0001
14.9	0.007	0.0131	0.0014	0.0146
14.9333	0.006	0	0.0014	0.0014
14.9667	0.0077	0	0.0001	0.0001
15	0.0107	0	0	0
15.0333	0.0097	0	0.0014	0.0014
15.0667	0.0097	0	0.0027	0.0027
15.1	0.007	0	0.0001	0.0001
15.1333	0.012	0	0.0014	0.0014
15.1667	0.0116	0	0	0
15.2	0.0097	0	0.0014	0.0014
15.2333	0.0107	0	0	0
15.2667	0.011	0	0.0001	0.0001
15.3	0.011	0.0131	0	0.0131
15.3333	0.011	0	0	0
15.3667	0.0084	0.0131	0.0001	0.0133
15.4	0.0097	0	0	0
15.4333	0.012	0	0.0001	0.0001
15.4667	0.011	0.0131	0.0027	0.0159
15.5	0.0116	0	0.0001	0.0001
15.5333	0.012	0	0.0001	0.0001
15.5667	0.0093	0	0.0001	0.0001
15.6	0.0077	0	0.0014	0.0014
15.6333	0.008	0.0131	0.0001	0.0133
15.6667	0.0097	0	0.0001	0.0001
15.7	0.0103	0	0.0001	0.0001
15.7333	0.011	0	0.0014	0.0014



Areva NP Inc.

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January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
15.7667	0.01	0	0.0014	0.0014
15.8	0.0107	0	0	0
15.8333	0.0146	0	0.0001	0.0001
15.8667	0.008	0	0.0001	0.0001
15.9	0.01	0.0131	0.0014	0.0146
15.9333	0.009	0	0.0001	0.0001
15.9667	0.0107	0.0131	0.0001	0.0133
16	0.01	0	0.0014	0.0014
16.0333	0.011	0	0.0014	0.0014
16.0667	0.013	0	0.0001	0.0001
16.1	0.013	0	0.0001	0.0001
16.1333	0.0126	0	0.0014	0.0014
16.1667	0.009	0	0.0001	0.0001
16.2	0.0077	0.0131	0	0.0131
16.2333	0.0113	0	0.0001	0.0001
16.2667	0.0097	0.0263	0.0014	0.0277
16.3	0.0113	0.0131	0.0001	0.0133
16.3333	0.011	0	0.0014	0.0014
16.3667	0.01	0.0131	0.0001	0.0133
16.4	0.0116	0.0131	0	0.0131
16.4333	0.0126	0.0131	0.0001	0.0133
16.4667	0.012	0	0.0014	0.0014
16.5	0.0087	0.0263	0.0014	0.0277
16.5333	0.011	0.0131	0.0014	0.0146
16.5667	0.0113	0.0263	0.0027	0.029
16.6	0.0107	0	0.0014	0.0014
16.6333	0.0077	0	0.0014	0.0014
16.6667	0.0126	0	0	0
16.7	0.01	0	0	0
16.7333	0.008	0	0.0001	0.0001
16.7667	0.009	0	0.0014	0.0014
16.8	0.0116	0	0.0001	0.0001
16.8333	0.012	0	0.0014	0.0014
16.8667	0.0123	0	0.0014	0.0014
16.9	0.0136	0	0.0014	0.0014
16.9333	0.012	0	0.0001	0.0001
16.9667	0.0107	0	0.0027	0.0027
17	0.0097	0	0.0014	0.0014
17.0333	0.0133	0.0131	0.0001	0.0133
17.0667	0.011	0	0.0014	0.0014
17.1	0.0107	0.0131	0	0.0131
17.1333	0.0126	0.0131	0	0.0131
17.1667	0.0113	0.0131	0.0001	0.0133

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January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
17.2	0.0103	0	0.0014	0.0014
17.2333	0.0107	0	0.0001	0.0001
17.2667	0.011	0	0.0014	0.0014
17.3	0.0103	0.0131	0.0001	0.0133
17.3333	0.0103	0.0131	0.0014	0.0146
17.3667	0.008	0	0.0014	0.0014
17.4	0.0113	0.0131	0.0001	0.0133
17.4333	0.011	0	0.0014	0.0014
17.4667	0.0107	0	0.0014	0.0014
17.5	0.008	0	0.0001	0.0001
17.5333	0.0103	0.0131	0.0014	0.0146
17.5667	0.0097	0	0	0
17.6	0.01	0	0.0001	0.0001
17.6333	0.0087	0	0.0014	0.0014
17.6667	0.0107	0	0.0001	0.0001
17.7	0.0097	0	0	0
17.7333	0.0123	0	0.0014	0.0014
17.7667	0.0107	0	0.0014	0.0014
17.8	0.0116	0	0.0014	0.0014
17.8333	0.0113	0.0131	0	0.0131
17.8667	0.0087	0	0.0001	0.0001
17.9	0.0077	0	0	0
17.9333	0.0107	0.0131	0.0001	0.0133
17.9667	0.0093	0	0.0014	0.0014
18	0.0133	0.0131	0.0001	0.0133
18.0333	0.01	0.0131	0.0014	0.0146
18.0667	0.011	0	0.0001	0.0001
18.1	0.0097	0	0.0014	0.0014
18.1333	0.012	0.0131	0.0001	0.0133
18.1667	0.0107	0	0.0001	0.0001
18.2	0.0113	0.0131	0.0001	0.0133
18.2333	0.0107	0	0.0014	0.0014
18.2667	0.0084	0.0131	0.0014	0.0146
18.3	0.006	0	0.0001	0.0001
18.3333	0.013	0	0.0014	0.0014
18.3667	0.0133	0	0.0014	0.0014
18.4	0.0087	0	0.0014	0.0014
18.4333	0.0123	0	0.0001	0.0001
18.4667	0.0116	0	0.0014	0.0014
18.5	0.011	0.0131	0.0001	0.0133
18.5333	0.0126	0.0131	0.0014	0.0146
18.5667	0.009	0	0.0001	0.0001
18.6	0.0093	0.0131	0.0027	0.0159

Areva NP Inc.

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January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
18.6333	0.012	0.0263	0.0014	0.0277
18.6667	0.0116	0.0131	0	0.0131
18.7	0.012	0.0131	0	0.0131
18.7333	0.0116	0	0.0014	0.0014
18.7667	0.0103	0.0131	0.0001	0.0133
18.8	0.0136	0	0.0001	0.0001
18.8333	0.012	0	0.0014	0.0014
18.8667	0.011	0.0131	0.0001	0.0133
18.9	0.013	0	0.0014	0.0014
18.9333	0.0113	0	0	0
18.9667	0.0103	0	0.0014	0.0014
19	0.0126	0	0.0014	0.0014
19.0333	0.0103	0	0	0
19.0667	0.0123	0	0.0014	0.0014
19.1	0.0116	0	0.0001	0.0001
19.1333	0.011	0.0131	0	0.0131
19.1667	0.0123	0.0131	0.0001	0.0133
19.2	0.01	0.0131	0.0001	0.0133
19.2333	0.0077	0.0131	0.0001	0.0133
19.2667	0.011	0.0131	0.0014	0.0146
19.3	0.0074	0	0.0001	0.0001
19.3333	0.0123	0.0131	0.0014	0.0146
19.3667	0.013	0.0131	0	0.0131
19.4	0.0123	0.0263	0.0027	0.029
19.4333	0.0139	0	0.0001	0.0001
19.4667	0.0087	0	0.0014	0.0014
19.5	0.011	0.0131	0.0014	0.0146
19.5333	0.0077	0.0131	0	0.0131
19.5667	0.0107	0	0	0
19.6	0.011	0.0131	0.0014	0.0146
19.6333	0.0176	0	0.0001	0.0001
19.6667	0.009	0	0.0001	0.0001
19.7	0.01	0	0.0001	0.0001
19.7333	0.0107	0	0.0001	0.0001
19.7667	0.0084	0	0.0001	0.0001
19.8	0.0116	0	0.0014	0.0014
19.8333	0.0093	0	0.0001	0.0001
19.8667	0.0087	0	0.0001	0.0001
19.9	0.012	0.0131	0	0.0131
19.9333	0.0116	0	0.0001	0.0001
19.9667	0.009	0	0.0001	0.0001
20	0.0093	0	0	0
20.0333	0.012	0.0131	0.0001	0.0133

Areva NP Inc.

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January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
20.0667	0.01	0.0131	0.0001	0.0133
20.1	0.0113	0	0.0001	0.0001
20.1333	0.009	0	0.0014	0.0014
20.1667	0.0107	0	0	0
20.2	0.01	0	0.0014	0.0014
20.2333	0.0107	0.0131	0.0001	0.0133
20.2667	0.0097	0	0	0
20.3	0.013	0.0263	0.0001	0.0264
20.3333	0.01	0	0	0
20.3667	0.0097	0	0.0014	0.0014
20.4	0.011	0.0131	0.0001	0.0133
20.4333	0.0126	0	0.0014	0.0014
20.4667	0.0107	0	0	0
20.5	0.011	0.0131	0	0.0131
20.5333	0.012	0.0131	0.0001	0.0133
20.5667	0.01	0.0131	0.0014	0.0146
20.6	0.0123	0.0131	0.0001	0.0133
20.6333	0.0093	0	0.0001	0.0001
20.6667	0.012	0	0.0014	0.0014
20.7	0.0077	0.0131	0.0027	0.0159
20.7333	0.0087	0	0	0
20.7667	0.0133	0	0.0014	0.0014
20.8	0.0077	0.0131	0.0001	0.0133
20.8333	0.0084	0	0.0001	0.0001
20.8667	0.0116	0	0.0001	0.0001
20.9	0.0146	0	0.0014	0.0014
20.9333	0.009	0.0131	0	0.0131
20.9667	0.012	0	0.0001	0.0001
21	0.012	0	0.0001	0.0001
21.0333	0.0126	0	0	0
21.0667	0.013	0	0	0
21.1	0.0103	0.0131	0.0027	0.0159
21.1333	0.012	0.0131	0.0014	0.0146
21.1667	0.01	0	0.0014	0.0014
21.2	0.0067	0.0131	0.0014	0.0146
21.2333	0.011	0.0131	0.0014	0.0146
21.2667	0.0116	0.0131	0	0.0131
21.3	0.011	0.0131	0	0.0131
21.3333	0.0107	0.0131	0.0014	0.0146
21.3667	0.0136	0	0.0014	0.0014
21.4	0.0107	0	0.0014	0.0014
21.4333	0.0107	0	0	0
21.4667	0.0087	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
21.5	0.0093	0	0.0001	0.0001
21.5333	0.01	0	0.0014	0.0014
21.5667	0.0113	0.0131	0.0001	0.0133
21.6	0.0077	0	0.0001	0.0001
21.6333	0.0116	0	0.0001	0.0001
21.6667	0.0113	0.0131	0.0014	0.0146
21.7	0.0113	0.0131	0.0027	0.0159
21.7333	0.0113	0.0131	0.0001	0.0133
21.7667	0.0126	0	0	0
21.8	0.0116	0.0131	0	0.0131
21.8333	0.008	0	0.0014	0.0014
21.8667	0.0133	0	0.0001	0.0001
21.9	0.011	0.0131	0.0001	0.0133
21.9333	0.01	0	0.0001	0.0001
21.9667	0.0116	0.0131	0.0001	0.0133
22	0.0113	0	0	0
22.0333	0.0113	0	0.0001	0.0001
22.0667	0.0093	0	0.0014	0.0014
22.1	0.0126	0	0.0001	0.0001
22.1333	0.0153	0.0131	0.0014	0.0146
22.1667	0.009	0	0	0
22.2	0.0097	0	0.0014	0.0014
22.2333	0.012	0	0.0001	0.0001
22.2667	0.012	0.0263	0.0027	0.029
22.3	0.013	0.0131	0	0.0131
22.3333	0.0123	0	0.0014	0.0014
22.3667	0.008	0	0.0027	0.0027
22.4	0.012	0	0.0027	0.0027
22.4333	0.008	0	0.0001	0.0001
22.4667	0.009	0	0.0014	0.0014
22.5	0.0087	0.0131	0	0.0131
22.5333	0.0126	0	0.0001	0.0001
22.5667	0.0133	0.0131	0.0014	0.0146
22.6	0.012	0.0131	0.0014	0.0146
22.6333	0.0113	0	0.0014	0.0014
22.6667	0.0126	0	0.0001	0.0001
22.7	0.013	0.0131	0.0001	0.0133
22.7333	0.011	0	0.0027	0.0027
22.7667	0.0107	0.0131	0.0014	0.0146
22.8	0.0116	0	0	0
22.8333	0.0116	0.0131	0	0.0131
22.8667	0.0116	0	0.0001	0.0001
22.9	0.0126	0	0.0014	0.0014

Areva NP Inc.

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January 9, 2014

Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
22.9333	0.0116	0	0.0001	0.0001
22.9667	0.0113	0	0	0
23	0.012	0	0.0001	0.0001
23.0333	0.0103	0	0	0
23.0667	0.0087	0	0.0014	0.0014
23.1	0.0113	0.0131	0.0001	0.0133
23.1333	0.0087	0	0.0001	0.0001
23.1667	0.012	0	0.0001	0.0001
23.2	0.0126	0.0131	0.0001	0.0133
23.2333	0.0103	0	0.0014	0.0014
23.2667	0.011	0	0.0014	0.0014
23.3	0.0113	0	0	0
23.3333	0.0087	0	0.0014	0.0014
23.3667	0.0077	0	0.0014	0.0014
23.4	0.0126	0.0131	0.0027	0.0159
23.4333	0.012	0	0.0014	0.0014
23.4667	0.0113	0.0131	0.0001	0.0133
23.5	0.0116	0.0131	0.0001	0.0133
23.5333	0.01	0	0.0001	0.0001
23.5667	0.0113	0.0131	0.0001	0.0133
23.6	0.0133	0.0131	0.0014	0.0146
23.6333	0.0113	0	0.0001	0.0001
23.6667	0.0103	0	0.0014	0.0014
23.7	0.0107	0	0.0014	0.0014
23.7333	0.0113	0	0	0
23.7667	0.0113	0	0.0001	0.0001
23.8	0.012	0	0	0
23.8333	0.0116	0	0	0
23.8667	0.0107	0.0131	0	0.0131
23.9	0.0123	0	0	0
23.9333	0.0107	0	0.0001	0.0001
23.9667	0.0123	0	0.0027	0.0027
24	0.0136	0.0131	0.0001	0.0133
24.0333	0.0123	0	0.0014	0.0014
24.0667	0.0116	0	0.0014	0.0014
24.1	0.0139	0	0.0014	0.0014
24.1333	0.013	0	0	0
24.1667	0.0093	0	0.0014	0.0014
24.2	0.0084	0.0131	0.0014	0.0146
24.2333	0.0103	0.0131	0	0.0131
24.2667	0.008	0	0	0
24.3	0.0116	0	0.0014	0.0014
24.3333	0.009	0.0131	0	0.0131

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
24.3667	0.0116	0	0.0001	0.0001
24.4	0.013	0	0.0001	0.0001
24.4333	0.011	0	0.0014	0.0014
24.4667	0.0116	0	0	0
24.5	0.012	0.0131	0.0014	0.0146
24.5333	0.0107	0	0.0014	0.0014
24.5667	0.0093	0	0	0
24.6	0.009	0	0.0014	0.0014
24.6333	0.0087	0	0.0014	0.0014
24.6667	0.01	0.0131	0.0001	0.0133
24.7	0.0093	0.0131	0.0014	0.0146
24.7333	0.0103	0.0131	0.0014	0.0146
24.7667	0.009	0	0.0014	0.0014
24.8	0.0097	0	0.0001	0.0001
24.8333	0.0103	0.0131	0.0014	0.0146
24.8667	0.0087	0.0131	0.0014	0.0146
24.9	0.0097	0.0131	0.0014	0.0146
24.9333	0.0113	0	0.0001	0.0001
24.9667	0.0103	0	0.0014	0.0014
25	0.0107	0	0.0014	0.0014
25.0333	0.011	0	0.0014	0.0014
25.0667	0.0123	0	0.0001	0.0001
25.1	0.0123	0	0	0
25.1333	0.011	0	0.0001	0.0001
25.1667	0.0084	0.0131	0	0.0131
25.2	0.011	0	0.0001	0.0001
25.2333	0.01	0	0.0001	0.0001
25.2667	0.008	0.0131	0.0001	0.0133
25.3	0.01	0.0263	0.0014	0.0277
25.3333	0.0143	0	0	0
25.3667	0.011	0.0131	0.0001	0.0133
25.4	0.013	0	0.0001	0.0001
25.4333	0.0103	0.0131	0.0001	0.0133
25.4667	0.0107	0	0.0001	0.0001
25.5	0.01	0	0.0014	0.0014
25.5333	0.0136	0	0.0001	0.0001
25.5667	0.0123	0	0.0014	0.0014
25.6	0.011	0	0.0001	0.0001
25.6333	0.0093	0	0.0001	0.0001
25.6667	0.0136	0	0.0001	0.0001
25.7	0.009	0	0.0014	0.0014
25.7333	0.013	0.0131	0.0014	0.0146
25.7667	0.0093	0	0.0001	0.0001



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
25.8	0.0126	0	0.0014	0.0014
25.8333	0.0113	0	0.0014	0.0014
25.8667	0.009	0.0131	0.0001	0.0133
25.9	0.0136	0.0131	0.0014	0.0146
25.9333	0.0097	0	0.0001	0.0001
25.9667	0.0126	0	0.0001	0.0001
26	0.0126	0	0.0001	0.0001
26.0333	0.013	0	0.0014	0.0014
26.0667	0.0123	0	0.0001	0.0001
26.1	0.013	0.0131	0.0027	0.0159
26.1333	0.009	0	0.0014	0.0014
26.1667	0.0116	0	0.0014	0.0014
26.2	0.0113	0	0.0001	0.0001
26.2333	0.0087	0	0.0014	0.0014
26.2667	0.0139	0.0131	0.0014	0.0146
26.3	0.0103	0	0.0001	0.0001
26.3333	0.0136	0	0.0014	0.0014
26.3667	0.009	0	0.0001	0.0001
26.4	0.0097	0	0.0001	0.0001
26.4333	0.013	0.0131	0.0001	0.0133
26.4667	0.0143	0.0131	0.0014	0.0146
26.5	0.011	0	0.0001	0.0001
26.5333	0.0087	0	0.0001	0.0001
26.5667	0.0116	0.0131	0.0014	0.0146
26.6	0.013	0.0131	0.0001	0.0133
26.6333	0.01	0	0	0
26.6667	0.0093	0	0.0014	0.0014
26.7	0.0136	0	0.0001	0.0001
26.7333	0.011	0	0.0001	0.0001
26.7667	0.0133	0	0.0001	0.0001
26.8	0.0103	0.0131	0	0.0131
26.8333	0.009	0	0.0001	0.0001
26.8667	0.01	0	0.0001	0.0001
26.9	0.0113	0	0	0
26.9333	0.0113	0.0131	0	0.0131
26.9667	0.0143	0.0131	0.0001	0.0133
27	0.0097	0.0131	0.0027	0.0159
27.0333	0.0107	0	0	0
27.0667	0.011	0	0	0
27.1	0.0116	0	0.0001	0.0001
27.1333	0.0087	0	0.0001	0.0001
27.1667	0.0107	0	0.0001	0.0001
27.2	0.0103	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
27.2333	0.0113	0	0	0
27.2667	0.009	0	0.0001	0.0001
27.3	0.009	0.0131	0.0001	0.0133
27.3333	0.0103	0	0	0
27.3667	0.0093	0.0131	0	0.0131
27.4	0.0093	0	0	0
27.4333	0.0143	0.0131	0.0014	0.0146
27.4667	0.0087	0	0	0
27.5	0.0113	0	0	0
27.5333	0.012	0.0131	0.0014	0.0146
27.5667	0.0123	0	0.0001	0.0001
27.6	0.01	0	0.0001	0.0001
27.6333	0.0103	0	0.0001	0.0001
27.6667	0.0116	0	0.0001	0.0001
27.7	0.0107	0.0131	0.0014	0.0146
27.7333	0.0146	0	0.0001	0.0001
27.7667	0.0107	0	0	0
27.8	0.0126	0.0131	0.0014	0.0146
27.8333	0.0116	0	0.0014	0.0014
27.8667	0.0116	0.0131	0.0014	0.0146
27.9	0.0093	0.0131	0.0014	0.0146
27.9333	0.0116	0.0131	0.0001	0.0133
27.9667	0.0123	0	0.0001	0.0001
28	0.0103	0	0.0014	0.0014
28.0333	0.0126	0	0.0001	0.0001
28.0667	0.0113	0.0131	0.0014	0.0146
28.1	0.0123	0	0.0014	0.0014
28.1333	0.0113	0.0131	0.0001	0.0133
28.1667	0.0087	0	0.0014	0.0014
28.2	0.01	0	0.0001	0.0001
28.2333	0.013	0.0131	0.0014	0.0146
28.2667	0.0103	0	0	0
28.3	0.0103	0.0131	0.0001	0.0133
28.3333	0.0084	0.0263	0.0014	0.0277
28.3667	0.011	0	0.0027	0.0027
28.4	0.0097	0	0.0014	0.0014
28.4333	0.0136	0	0.0014	0.0014
28.4667	0.011	0.0131	0.0014	0.0146
28.5	0.0113	0	0	0
28.5333	0.0103	0	0.0014	0.0014
28.5667	0.0103	0	0.0001	0.0001
28.6	0.013	0.0131	0.0014	0.0146
28.6333	0.0113	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
28.6667	0.0123	0	0.0001	0.0001
28.7	0.013	0	0	0
28.7333	0.0136	0.0131	0.0014	0.0146
28.7667	0.0107	0.0131	0	0.0131
28.8	0.011	0	0.0027	0.0027
28.8333	0.0097	0	0	0
28.8667	0.0107	0	0.0001	0.0001
28.9	0.012	0	0.0014	0.0014
28.9333	0.012	0.0131	0.0014	0.0146
28.9667	0.011	0	0.0014	0.0014
29	0.01	0.0131	0	0.0131
29.0333	0.0133	0	0.0014	0.0014
29.0667	0.012	0.0131	0.0001	0.0133
29.1	0.0093	0	0.0014	0.0014
29.1333	0.011	0.0263	0.0001	0.0264
29.1667	0.0133	0	0.0014	0.0014
29.2	0.0097	0	0	0
29.2333	0.0139	0	0.0014	0.0014
29.2667	0.009	0	0.0001	0.0001
29.3	0.011	0	0	0
29.3333	0.0113	0	0.0001	0.0001
29.3667	0.01	0	0.0014	0.0014
29.4	0.0126	0.0131	0.0014	0.0146
29.4333	0.0126	0	0.0014	0.0014
29.4667	0.0103	0	0.0001	0.0001
29.5	0.012	0	0.0001	0.0001
29.5333	0.0103	0	0	0
29.5667	0.0107	0	0.0001	0.0001
29.6	0.0103	0	0.0014	0.0014
29.6333	0.0126	0.0131	0.0014	0.0146
29.6667	0.0097	0	0.0014	0.0014
29.7	0.013	0	0	0
29.7333	0.009	0	0.0001	0.0001
29.7667	0.0113	0	0.0014	0.0014
29.8	0.01	0	0.0001	0.0001
29.8333	0.0116	0	0.0001	0.0001
29.8667	0.01	0	0	0
29.9	0.0123	0	0.0001	0.0001
29.9333	0.0126	0	0.0001	0.0001
29.9667	0.009	0	0.0001	0.0001
30	0.0123	0	0.0001	0.0001
30.0333	0.0133	0	0.0014	0.0014
30.0667	0.0123	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
30.1	0.008	0.0263	0.0001	0.0264
30.1333	0.0093	0.0131	0.0001	0.0133
30.1667	0.0074	0.0131	0.0014	0.0146
30.2	0.0097	0.0131	0.0014	0.0146
30.2333	0.011	0.0131	0.0001	0.0133
30.2667	0.0103	0	0.0014	0.0014
30.3	0.0093	0	0.0014	0.0014
30.3333	0.0107	0.0131	0.0001	0.0133
30.3667	0.009	0.0131	0.0001	0.0133
30.4	0.011	0	0.0001	0.0001
30.4333	0.0107	0	0.0001	0.0001
30.4667	0.0113	0	0	0
30.5	0.0103	0	0.0014	0.0014
30.5333	0.012	0	0	0
30.5667	0.007	0	0.0001	0.0001
30.6	0.0087	0	0	0
30.6333	0.0093	0	0.0001	0.0001
30.6667	0.0093	0.0131	0.0001	0.0133
30.7	0.0097	0	0	0
30.7333	0.0084	0	0.0001	0.0001
30.7667	0.009	0	0.0014	0.0014
30.8	0.011	0	0.0001	0.0001
30.8333	0.0093	0	0	0
30.8667	0.009	0	0.0001	0.0001
30.9	0.0087	0	0.0001	0.0001
30.9333	0.0084	0	0.0001	0.0001
30.9667	0.01	0	0.0027	0.0027
31	0.009	0.0131	0	0.0131
31.0333	0.008	0	0.0014	0.0014
31.0667	0.009	0	0.0014	0.0014
31.1	0.0084	0	0.0014	0.0014
31.1333	0.0093	0.0263	0.0001	0.0264
31.1667	0.009	0	0.0001	0.0001
31.2	0.0107	0.0131	0.0014	0.0146
31.2333	0.008	0	0.0001	0.0001
31.2667	0.0133	0	0.0014	0.0014
31.3	0.009	0	0.0001	0.0001
31.3333	0.0084	0.0131	0.0001	0.0133
31.3667	0.0123	0	0	0
31.4	0.0093	0	0.0027	0.0027
31.4333	0.0107	0	0.0014	0.0014
31.4667	0.013	0.0131	0.0014	0.0146
31.5	0.0077	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
31.5333	0.0077	0	0.0014	0.0014
31.5667	0.0103	0	0.0014	0.0014
31.6	0.0087	0	0	0
31.6333	0.0044	0.0131	0	0.0131
31.6667	0.0074	0	0.0001	0.0001
31.7	0.0074	0	0.0001	0.0001
31.7333	0.0077	0.0131	0	0.0131
31.7667	0.009	0	0.0014	0.0014
31.8	0.0087	0	0.0001	0.0001
31.8333	0.01	0.0131	0.0014	0.0146
31.8667	0.0064	0	0	0
31.9	0.0093	0.0131	0.0027	0.0159
31.9333	0.01	0	0.0001	0.0001
31.9667	0.0077	0	0.0001	0.0001
32	0.0077	0	0	0
32.0333	0.01	0	0.0014	0.0014
32.0667	0.0087	0	0.0014	0.0014
32.1	0.0107	0	0.0014	0.0014
32.1333	0.0074	0.0263	0.0014	0.0277
32.1667	0.0074	0	0.0001	0.0001
32.2	0.009	0.0263	0.0001	0.0264
32.2333	0.0067	0	0.0014	0.0014
32.2667	0.0103	0	0.0001	0.0001
32.3	0.0074	0.0131	0.0001	0.0133
32.3333	0.0074	0	0.0014	0.0014
32.3667	0.0093	0.0131	0.0001	0.0133
32.4	0.0103	0	0.0001	0.0001
32.4333	0.011	0	0.0014	0.0014
32.4667	0.0103	0	0	0
32.5	0.0074	0	0.0027	0.0027
32.5333	0.0093	0	0.0014	0.0014
32.5667	0.0107	0	0.0014	0.0014
32.6	0.01	0	0	0
32.6333	0.0116	0	0.0001	0.0001
32.6667	0.0087	0.0131	0.0014	0.0146
32.7	0.0126	0	0.0001	0.0001
32.7333	0.007	0	0.0014	0.0014
32.7667	0.0126	0	0	0
32.8	0.01	0	0.0014	0.0014
32.8333	0.0097	0.0263	0	0.0263
32.8667	0.0074	0	0.0014	0.0014
32.9	0.0097	0	0.0001	0.0001
32.9333	0.0084	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
32.9667	0.0084	0	0.0001	0.0001
33	0.0074	0	0.0001	0.0001
33.0333	0.008	0.0131	0.0001	0.0133
33.0667	0.0064	0	0.0014	0.0014
33.1	0.0116	0.0131	0.0014	0.0146
33.1333	0.0064	0.0131	0.0014	0.0146
33.1667	0.0084	0	0.0001	0.0001
33.2	0.009	0	0.0014	0.0014
33.2333	0.008	0.0131	0	0.0131
33.2667	0.0123	0	0.0001	0.0001
33.3	0.0126	0	0	0
33.3333	0.0133	0	0	0
33.3667	0.0199	0	0.0014	0.0014
33.4	0.0271	0	0.0014	0.0014
33.4333	0.0455	0	0.0014	0.0014
33.4667	0.0623	0	0.0001	0.0001
33.5	0.0814	0	0.0014	0.0014
33.5333	0.0949	0	0.0027	0.0027
33.5667	0.1173	0	0.0014	0.0014
33.6	0.1334	0	0.0014	0.0014
33.6333	0.1509	0.0131	0.0014	0.0146
33.6667	0.1667	0	0.0001	0.0001
33.7	0.1802	0.0131	0.0001	0.0133
33.7333	0.194	0	0.0001	0.0001
33.7667	0.2039	0	0.0014	0.0014
33.8	0.2137	0.0131	0.0001	0.0133
33.8333	0.2236	0	0.0014	0.0014
33.8667	0.2256	0	0.0001	0.0001
33.9	0.2305	0.0131	0.0001	0.0133
33.9333	0.2299	0	0.0014	0.0014
33.9667	0.2276	0.0131	0	0.0131
34	0.2322	0.0131	0.0001	0.0133
34.0333	0.2295	0.0131	0.0014	0.0146
34.0667	0.2243	0	0.0001	0.0001
34.1	0.216	0	0.0001	0.0001
34.1333	0.2108	0	0.0001	0.0001
34.1667	0.2029	0.0131	0.0014	0.0146
34.2	0.196	0	0.0001	0.0001
34.2333	0.1923	0.0263	0.0001	0.0264
34.2667	0.1838	0.0131	0.0001	0.0133
34.3	0.1775	0	0.0001	0.0001
34.3333	0.1811	0.0131	0	0.0131
34.3667	0.1765	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
34.4	0.1795	0	0.0001	0.0001
34.4333	0.1746	0	0.0001	0.0001
34.4667	0.1756	0.0131	0.0014	0.0146
34.5	0.1749	0.0131	0.0001	0.0133
34.5333	0.1729	0	0.0027	0.0027
34.5667	0.1756	0	0.0001	0.0001
34.6	0.1756	0	0.0001	0.0001
34.6333	0.1746	0	0.0001	0.0001
34.6667	0.1729	0	0.0001	0.0001
34.7	0.1703	0	0.0014	0.0014
34.7333	0.1709	0	0.0001	0.0001
34.7667	0.1703	0	0.0001	0.0001
34.8	0.1667	0	0.0001	0.0001
34.8333	0.167	0	0	0
34.8667	0.1706	0.0131	0.0027	0.0159
34.9	0.168	0	0.0001	0.0001
34.9333	0.1696	0	0.0014	0.0014
34.9667	0.1667	0.0131	0.0001	0.0133
35	0.1667	0	0	0
35.0333	0.1673	0	0.0001	0.0001
35.0667	0.1644	0	0.0001	0.0001
35.1	0.1677	0	0.0001	0.0001
35.1333	0.1644	0	0.0014	0.0014
35.1667	0.168	0	0.0001	0.0001
35.2	0.164	0	0.0014	0.0014
35.2333	0.1653	0.0131	0.0014	0.0146
35.2667	0.1667	0	0.0001	0.0001
35.3	0.1653	0.0131	0.0001	0.0133
35.3333	0.1673	0	0.0001	0.0001
35.3667	0.1677	0	0.0014	0.0014
35.4	0.1667	0.0131	0.0014	0.0146
35.4333	0.1703	0.0131	0.0001	0.0133
35.4667	0.1686	0.0131	0.0001	0.0133
35.5	0.1713	0	0.0014	0.0014
35.5333	0.1756	0.0131	0.0001	0.0133
35.5667	0.1723	0.0131	0.0014	0.0146
35.6	0.1759	0	0.0014	0.0014
35.6333	0.1749	0.0131	0.0001	0.0133
35.6667	0.1742	0	0.0014	0.0014
35.7	0.1792	0.0131	0.0014	0.0146
35.7333	0.1792	0.0263	0.0001	0.0264
35.7667	0.1792	0	0.0001	0.0001
35.8	0.1825	0	0.0001	0.0001



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
35.8333	0.1838	0	0.0014	0.0014
35.8667	0.1851	0.0131	0	0.0131
35.9	0.1861	0.0131	0.0001	0.0133
35.9333	0.1854	0.0131	0.0014	0.0146
35.9667	0.1884	0	0.0001	0.0001
36	0.1861	0.0131	0.0001	0.0133
36.0333	0.1904	0	0.0001	0.0001
36.0667	0.19	0.0131	0	0.0131
36.1	0.1914	0	0.0014	0.0014
36.1333	0.1943	0	0.0014	0.0014
36.1667	0.1953	0.0131	0.0001	0.0133
36.2	0.1937	0	0.0014	0.0014
36.2333	0.194	0	0	0
36.2667	0.194	0	0.0014	0.0014
36.3	0.1943	0.0131	0.0001	0.0133
36.3333	0.189	0.0263	0	0.0263
36.3667	0.1795	0	0.0001	0.0001
36.4	0.1788	0	0.0014	0.0014
36.4333	0.1815	0.0131	0.0014	0.0146
36.4667	0.1848	0.0131	0	0.0131
36.5	0.1831	0.0131	0.0014	0.0146
36.5333	0.1874	0	0.0001	0.0001
36.5667	0.1877	0.0131	0	0.0131
36.6	0.1867	0	0.0014	0.0014
36.6333	0.1864	0	0.0001	0.0001
36.6667	0.1877	0	0.0014	0.0014
36.7	0.1887	0	0	0
36.7333	0.1923	0	0	0
36.7667	0.191	0.0263	0.0014	0.0277
36.8	0.194	0	0.0001	0.0001
36.8333	0.1897	0.0131	0.0014	0.0146
36.8667	0.1927	0	0.0001	0.0001
36.9	0.1946	0.0131	0.0014	0.0146
36.9333	0.1973	0	0.0001	0.0001
36.9667	0.1973	0	0.0001	0.0001
37	0.1976	0.0131	0.0001	0.0133
37.0333	0.1966	0	0.0001	0.0001
37.0667	0.1953	0.0131	0.0014	0.0146
37.1	0.1996	0.0131	0.0001	0.0133
37.1333	0.1969	0	0	0
37.1667	0.1986	0	0	0
37.2	0.2016	0.0131	0.0014	0.0146
37.2333	0.2032	0.0131	0	0.0131

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
37.2667	0.2032	0	0.0014	0.0014
37.3	0.2032	0	0	0
37.3333	0.2029	0	0.0001	0.0001
37.3667	0.2068	0	0.0014	0.0014
37.4	0.2052	0.0263	0.0014	0.0277
37.4333	0.2068	0	0	0
37.4667	0.2045	0.0263	0	0.0263
37.5	0.2088	0	0.0014	0.0014
37.5333	0.2062	0.0131	0.0001	0.0133
37.5667	0.2065	0	0.0001	0.0001
37.6	0.2101	0.0131	0.0014	0.0146
37.6333	0.2127	0	0.0001	0.0001
37.6667	0.2104	0	0.0001	0.0001
37.7	0.2124	0.0131	0.0027	0.0159
37.7333	0.2141	0	0.0001	0.0001
37.7667	0.2101	0.0131	0.0001	0.0133
37.8	0.2127	0	0.0001	0.0001
37.8333	0.2118	0	0.0014	0.0014
37.8667	0.2098	0	0.0014	0.0014
37.9	0.2144	0.0131	0.0014	0.0146
37.9333	0.2134	0	0.0001	0.0001
37.9667	0.2108	0	0.0001	0.0001
38	0.2039	0.0131	0.0014	0.0146
38.0333	0.1979	0	0.0001	0.0001
38.0667	0.192	0	0.0001	0.0001
38.1	0.1851	0	0.0001	0.0001
38.1333	0.1802	0	0.0014	0.0014
38.1667	0.1844	0	0.0014	0.0014
38.2	0.1851	0.0131	0.0014	0.0146
38.2333	0.1858	0.0131	0.0001	0.0133
38.2667	0.1877	0.0131	0	0.0131
38.3	0.1844	0	0.0001	0.0001
38.3333	0.19	0	0.0001	0.0001
38.3667	0.1858	0	0.0001	0.0001
38.4	0.1877	0	0.0001	0.0001
38.4333	0.1867	0	0	0
38.4667	0.1864	0.0131	0.0001	0.0133
38.5	0.189	0	0.0001	0.0001
38.5333	0.1848	0	0.0001	0.0001
38.5667	0.19	0	0.0001	0.0001
38.6	0.1874	0	0.0014	0.0014
38.6333	0.1867	0	0.0014	0.0014
38.6667	0.1884	0.0131	0	0.0131

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
38.7	0.1917	0.0131	0.0001	0.0133
38.7333	0.1923	0.0263	0.0014	0.0277
38.7667	0.1923	0.0131	0.0027	0.0159
38.8	0.192	0	0.0014	0.0014
38.8333	0.191	0.0131	0.0014	0.0146
38.8667	0.1887	0	0.0001	0.0001
38.9	0.1917	0.0131	0.0014	0.0146
38.9333	0.1943	0.0131	0.0014	0.0146
38.9667	0.192	0	0.0014	0.0014
39	0.192	0	0	0
39.0333	0.1904	0	0.0014	0.0014
39.0667	0.1923	0	0.0001	0.0001
39.1	0.189	0	0.0001	0.0001
39.1333	0.193	0	0	0
39.1667	0.1917	0.0131	0.0001	0.0133
39.2	0.1907	0.0131	0	0.0131
39.2333	0.1877	0	0.0001	0.0001
39.2667	0.1914	0	0.0014	0.0014
39.3	0.1914	0.0131	0.0014	0.0146
39.3333	0.1923	0	0.0001	0.0001
39.3667	0.1923	0	0.0014	0.0014
39.4	0.1897	0	0.0001	0.0001
39.4333	0.191	0.0131	0.0014	0.0146
39.4667	0.1907	0.0131	0.0001	0.0133
39.5	0.1881	0.0131	0.0001	0.0133
39.5333	0.19	0	0.0027	0.0027
39.5667	0.1907	0	0	0
39.6	0.1871	0	0.0001	0.0001
39.6333	0.189	0	0.0014	0.0014
39.6667	0.193	0	0	0
39.7	0.1864	0.0131	0.0014	0.0146
39.7333	0.1923	0	0.0014	0.0014
39.7667	0.1867	0	0	0
39.8	0.1881	0	0.0014	0.0014
39.8333	0.1914	0.0131	0.0001	0.0133
39.8667	0.1897	0	0	0
39.9	0.1884	0	0.0014	0.0014
39.9333	0.1864	0.0131	0.0014	0.0146
39.9667	0.189	0	0.0027	0.0027
40	0.1887	0.0263	0.0001	0.0264
40.0333	0.1864	0	0	0
40.0667	0.1874	0.0131	0	0.0131
40.1	0.1848	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
40.1333	0.1884	0	0.0014	0.0014
40.1667	0.1877	0.0131	0	0.0131
40.2	0.1838	0	0	0
40.2333	0.1871	0.0131	0.0014	0.0146
40.2667	0.1874	0	0.0014	0.0014
40.3	0.1874	0	0.0001	0.0001
40.3333	0.1887	0	0.0001	0.0001
40.3667	0.1877	0	0.0001	0.0001
40.4	0.1864	0	0.0027	0.0027
40.4333	0.1851	0.0131	0.0001	0.0133
40.4667	0.1887	0	0.0014	0.0014
40.5	0.1864	0.0131	0.0014	0.0146
40.5333	0.1831	0.0131	0.0014	0.0146
40.5667	0.1871	0	0.0014	0.0014
40.6	0.1871	0	0.0001	0.0001
40.6333	0.1861	0	0.0014	0.0014
40.6667	0.1828	0.0131	0	0.0131
40.7	0.1858	0	0.0014	0.0014
40.7333	0.1874	0	0.0001	0.0001
40.7667	0.1838	0	0.0014	0.0014
40.8	0.1825	0.0131	0	0.0131
40.8333	0.1867	0	0.0014	0.0014
40.8667	0.1841	0	0.0014	0.0014
40.9	0.1851	0.0131	0.0001	0.0133
40.9333	0.1844	0.0131	0.0014	0.0146
40.9667	0.1831	0	0.0001	0.0001
41	0.1805	0	0.0001	0.0001
41.0333	0.1841	0	0	0
41.0667	0.1815	0.0263	0.0001	0.0264
41.1	0.1821	0	0.0001	0.0001
41.1333	0.1815	0	0.0001	0.0001
41.1667	0.1838	0	0.0014	0.0014
41.2	0.1835	0	0.0014	0.0014
41.2333	0.1815	0	0	0
41.2667	0.1808	0	0.0001	0.0001
41.3	0.1831	0	0.0001	0.0001
41.3333	0.1844	0	0.0001	0.0001
41.3667	0.1818	0	0.0001	0.0001
41.4	0.1811	0.0131	0.0014	0.0146
41.4333	0.1815	0	0.0014	0.0014
41.4667	0.1825	0.0131	0.0014	0.0146
41.5	0.1805	0.0131	0	0.0131
41.5333	0.1835	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
41.5667	0.1838	0	0.0001	0.0001
41.6	0.1811	0	0.0014	0.0014
41.6333	0.1828	0	0.0001	0.0001
41.6667	0.1818	0	0.0014	0.0014
41.7	0.1825	0.0263	0.0014	0.0277
41.7333	0.1811	0.0131	0	0.0131
41.7667	0.1785	0	0.0014	0.0014
41.8	0.1808	0	0.0001	0.0001
41.8333	0.1798	0.0131	0.0014	0.0146
41.8667	0.1818	0	0.0014	0.0014
41.9	0.1831	0.0131	0.0014	0.0146
41.9333	0.1785	0	0.0001	0.0001
41.9667	0.1808	0.0131	0	0.0131
42	0.1811	0.0131	0.0001	0.0133
42.0333	0.1798	0	0.0014	0.0014
42.0667	0.1805	0	0.0001	0.0001
42.1	0.1811	0	0.0001	0.0001
42.1333	0.1821	0	0.0001	0.0001
42.1667	0.1798	0.0131	0.0014	0.0146
42.2	0.1808	0.0263	0.0027	0.029
42.2333	0.1785	0	0.0014	0.0014
42.2667	0.1772	0	0.0001	0.0001
42.3	0.1788	0	0.0027	0.0027
42.3333	0.1769	0	0.0001	0.0001
42.3667	0.1815	0.0131	0.0014	0.0146
42.4	0.1808	0.0131	0.0014	0.0146
42.4333	0.1798	0.0131	0.0001	0.0133
42.4667	0.1802	0.0131	0.0001	0.0133
42.5	0.1792	0	0.0014	0.0014
42.5333	0.1802	0	0.0001	0.0001
42.5667	0.1792	0	0.0014	0.0014
42.6	0.1752	0.0131	0.0001	0.0133
42.6333	0.1782	0	0.0001	0.0001
42.6667	0.1802	0	0.0014	0.0014
42.7	0.1765	0.0131	0.0027	0.0159
42.7333	0.1772	0.0131	0.0001	0.0133
42.7667	0.1749	0	0	0
42.8	0.1762	0.0263	0.0027	0.029
42.8333	0.1792	0	0.0014	0.0014
42.8667	0.1795	0	0	0
42.9	0.1749	0	0.0001	0.0001
42.9333	0.1775	0	0	0
42.9667	0.1765	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
43	0.1808	0	0.0001	0.0001
43.0333	0.1765	0	0.0014	0.0014
43.0667	0.1746	0.0131	0.0014	0.0146
43.1	0.1775	0.0263	0	0.0263
43.1333	0.1736	0	0.0014	0.0014
43.1667	0.1775	0	0.0001	0.0001
43.2	0.1765	0.0131	0	0.0131
43.2333	0.1762	0	0.0001	0.0001
43.2667	0.1742	0	0.0001	0.0001
43.3	0.1732	0	0.0001	0.0001
43.3333	0.1729	0.0131	0.0001	0.0133
43.3667	0.1746	0.0131	0.0001	0.0133
43.4	0.1762	0	0.0014	0.0014
43.4333	0.1726	0.0131	0	0.0131
43.4667	0.1746	0	0.0014	0.0014
43.5	0.1762	0	0	0
43.5333	0.1729	0	0.0014	0.0014
43.5667	0.1716	0	0.0001	0.0001
43.6	0.1719	0.0131	0.0001	0.0133
43.6333	0.1739	0	0.0014	0.0014
43.6667	0.1746	0	0.0014	0.0014
43.7	0.1736	0	0	0
43.7333	0.1742	0	0.0001	0.0001
43.7667	0.1736	0.0131	0.0014	0.0146
43.8	0.1765	0.0131	0.0001	0.0133
43.8333	0.1736	0	0.0001	0.0001
43.8667	0.1759	0.0263	0.0014	0.0277
43.9	0.1732	0	0.0001	0.0001
43.9333	0.1713	0	0.0001	0.0001
43.9667	0.1746	0	0.0014	0.0014
44	0.1732	0	0.0014	0.0014
44.0333	0.1706	0	0.0014	0.0014
44.0667	0.1742	0.0263	0.0001	0.0264
44.1	0.1742	0	0.0014	0.0014
44.1333	0.1713	0.0131	0.0001	0.0133
44.1667	0.1723	0.0131	0.0001	0.0133
44.2	0.1769	0	0	0
44.2333	0.1729	0.0131	0.0001	0.0133
44.2667	0.1719	0.0131	0.0014	0.0146
44.3	0.1746	0.0131	0.0001	0.0133
44.3333	0.1729	0	0	0
44.3667	0.1706	0.0131	0.0001	0.0133
44.4	0.1732	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
44.4333	0.1706	0	0.0001	0.0001
44.4667	0.1683	0.0131	0.0014	0.0146
44.5	0.1709	0	0.0014	0.0014
44.5333	0.1749	0	0.0001	0.0001
44.5667	0.1752	0	0.0001	0.0001
44.6	0.1696	0	0.0001	0.0001
44.6333	0.17	0.0131	0.0027	0.0159
44.6667	0.1736	0.0131	0.0001	0.0133
44.7	0.1713	0.0131	0.0027	0.0159
44.7333	0.1713	0	0.0014	0.0014
44.7667	0.1723	0.0131	0.0014	0.0146
44.8	0.1703	0.0131	0	0.0131
44.8333	0.1732	0	0.0014	0.0014
44.8667	0.1713	0	0.0014	0.0014
44.9	0.1706	0	0.0001	0.0001
44.9333	0.1719	0	0.0014	0.0014
44.9667	0.1719	0	0.0014	0.0014
45	0.1739	0.0131	0	0.0131
45.0333	0.1716	0	0.0014	0.0014
45.0667	0.169	0.0131	0.0001	0.0133
45.1	0.1716	0	0	0
45.1333	0.1693	0	0.0014	0.0014
45.1667	0.1723	0	0	0
45.2	0.1719	0	0.0014	0.0014
45.2333	0.1736	0	0.0014	0.0014
45.2667	0.1726	0	0.0001	0.0001
45.3	0.169	0	0.0001	0.0001
45.3333	0.1719	0	0.0014	0.0014
45.3667	0.1686	0	0.0014	0.0014
45.4	0.17	0	0	0
45.4333	0.1706	0	0.0001	0.0001
45.4667	0.1723	0	0.0001	0.0001
45.5	0.1716	0.0131	0.0014	0.0146
45.5333	0.1726	0	0.0001	0.0001
45.5667	0.1703	0	0.0001	0.0001
45.6	0.1719	0	0.0001	0.0001
45.6333	0.1706	0	0.0001	0.0001
45.6667	0.1732	0	0.0001	0.0001
45.7	0.17	0	0.0001	0.0001
45.7333	0.1713	0	0	0
45.7667	0.1703	0	0	0
45.8	0.1716	0	0.0001	0.0001
45.8333	0.1756	0	0	0



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
45.8667	0.1723	0.0131	0.0027	0.0159
45.9	0.1716	0.0131	0.0027	0.0159
45.9333	0.1716	0.0131	0.0014	0.0146
45.9667	0.1726	0.0263	0.0001	0.0264
46	0.1716	0	0.0001	0.0001
46.0333	0.1713	0	0	0
46.0667	0.1726	0.0131	0.0014	0.0146
46.1	0.1729	0	0.0001	0.0001
46.1333	0.1726	0	0.0014	0.0014
46.1667	0.1732	0.0131	0.0014	0.0146
46.2	0.1759	0	0	0
46.2333	0.1746	0	0.0001	0.0001
46.2667	0.1762	0	0.0001	0.0001
46.3	0.1772	0	0.0014	0.0014
46.3333	0.1749	0	0.0014	0.0014
46.3667	0.1762	0	0.0027	0.0027
46.4	0.1739	0.0131	0.0001	0.0133
46.4333	0.1746	0.0131	0.0001	0.0133
46.4667	0.1765	0	0.0001	0.0001
46.5	0.1779	0	0	0
46.5333	0.1746	0	0.0014	0.0014
46.5667	0.1805	0.0131	0.0014	0.0146
46.6	0.1788	0	0.0014	0.0014
46.6333	0.1785	0	0.0014	0.0014
46.6667	0.1775	0	0	0
46.7	0.1762	0.0131	0.0014	0.0146
46.7333	0.1785	0.0131	0.0014	0.0146
46.7667	0.1762	0	0	0
46.8	0.1769	0	0.0001	0.0001
46.8333	0.1785	0.0131	0.0001	0.0133
46.8667	0.1811	0.0131	0.0014	0.0146
46.9	0.1798	0	0.0001	0.0001
46.9333	0.1808	0	0.0014	0.0014
46.9667	0.1811	0	0	0
47	0.1798	0	0.0014	0.0014
47.0333	0.1795	0	0.0014	0.0014
47.0667	0.1805	0	0.0027	0.0027
47.1	0.1818	0	0.0014	0.0014
47.1333	0.1785	0.0263	0.0001	0.0264
47.1667	0.1782	0.0131	0.0014	0.0146
47.2	0.1815	0	0.0001	0.0001
47.2333	0.1811	0	0.0014	0.0014
47.2667	0.1805	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
47.3	0.1831	0.0131	0.0001	0.0133
47.3333	0.1818	0.0131	0.0014	0.0146
47.3667	0.1802	0.0131	0.0001	0.0133
47.4	0.1811	0.0131	0.0014	0.0146
47.4333	0.1844	0	0.0014	0.0014
47.4667	0.1821	0	0.0014	0.0014
47.5	0.1808	0	0.0001	0.0001
47.5333	0.1844	0	0	0
47.5667	0.1798	0.0131	0.0027	0.0159
47.6	0.1811	0	0	0
47.6333	0.1848	0.0131	0	0.0131
47.6667	0.1841	0.0263	0.0001	0.0264
47.7	0.1835	0	0.0001	0.0001
47.7333	0.1851	0	0.0001	0.0001
47.7667	0.1821	0.0131	0.0001	0.0133
47.8	0.1828	0.0131	0.0001	0.0133
47.8333	0.1811	0.0131	0.0014	0.0146
47.8667	0.1831	0	0.0001	0.0001
47.9	0.1848	0.0131	0.0001	0.0133
47.9333	0.1838	0	0.0014	0.0014
47.9667	0.1828	0.0131	0.0001	0.0133
48	0.1864	0	0	0
48.0333	0.1877	0.0131	0.0001	0.0133
48.0667	0.1844	0.0131	0.0001	0.0133
48.1	0.1838	0.0263	0.0014	0.0277
48.1333	0.1871	0	0.0001	0.0001
48.1667	0.1841	0.0131	0.0001	0.0133
48.2	0.1871	0.0131	0.0014	0.0146
48.2333	0.1874	0.0131	0.0014	0.0146
48.2667	0.1851	0	0.0001	0.0001
48.3	0.1887	0.0263	0.0001	0.0264
48.3333	0.1894	0	0.0014	0.0014
48.3667	0.1907	0	0.0001	0.0001
48.4	0.1874	0	0.0001	0.0001
48.4333	0.1884	0.0131	0.0027	0.0159
48.4667	0.1884	0.0131	0.0001	0.0133
48.5	0.1867	0.0131	0.0001	0.0133
48.5333	0.1917	0	0	0
48.5667	0.19	0.0131	0.0001	0.0133
48.6	0.19	0	0.0014	0.0014
48.6333	0.1867	0	0	0
48.6667	0.1897	0.0131	0.0001	0.0133
48.7	0.1881	0.0131	0.0027	0.0159

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
48.7333	0.1864	0.0131	0.0001	0.0133
48.7667	0.1894	0.0131	0.0001	0.0133
48.8	0.1867	0.0131	0	0.0131
48.8333	0.1907	0	0.0001	0.0001
48.8667	0.1907	0.0131	0.0014	0.0146
48.9	0.193	0.0131	0.0001	0.0133
48.9333	0.1897	0	0.0027	0.0027
48.9667	0.1917	0	0.0014	0.0014
49	0.193	0.0131	0.0014	0.0146
49.0333	0.1887	0.0131	0.0014	0.0146
49.0667	0.1897	0	0.0001	0.0001
49.1	0.1914	0	0.0001	0.0001
49.1333	0.1881	0.0131	0.0001	0.0133
49.1667	0.1917	0.0131	0.0001	0.0133
49.2	0.1943	0.0131	0	0.0131
49.2333	0.192	0	0.0001	0.0001
49.2667	0.1946	0	0.0014	0.0014
49.3	0.1923	0.0131	0.0014	0.0146
49.3333	0.1914	0.0131	0.0014	0.0146
49.3667	0.1923	0.0131	0.0014	0.0146
49.4	0.193	0	0.0001	0.0001
49.4333	0.1923	0	0	0
49.4667	0.1943	0	0.0001	0.0001
49.5	0.1946	0.0131	0.0001	0.0133
49.5333	0.1953	0	0.0014	0.0014
49.5667	0.1943	0	0.0014	0.0014
49.6	0.1943	0.0131	0.0001	0.0133
49.6333	0.1923	0	0.0014	0.0014
49.6667	0.1943	0.0131	0.0001	0.0133
49.7	0.1953	0.0131	0.0001	0.0133
49.7333	0.193	0.0131	0.0001	0.0133
49.7667	0.196	0	0.0014	0.0014
49.8	0.1943	0.0131	0.0001	0.0133
49.8333	0.194	0.0131	0.0001	0.0133
49.8667	0.193	0	0.0001	0.0001
49.9	0.1953	0	0.0014	0.0014
49.9333	0.1986	0	0	0
49.9667	0.1933	0.0131	0.0014	0.0146
50	0.1946	0	0.0001	0.0001
50.0333	0.1946	0.0131	0.0014	0.0146
50.0667	0.1933	0.0131	0.0014	0.0146
50.1	0.192	0	0.0014	0.0014
50.1333	0.1933	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
50.1667	0.194	0.0131	0.0001	0.0133
50.2	0.1966	0	0.0027	0.0027
50.2333	0.1979	0	0.0014	0.0014
50.2667	0.1943	0	0.0014	0.0014
50.3	0.194	0	0.0014	0.0014
50.3333	0.196	0	0.0001	0.0001
50.3667	0.1979	0.0131	0.0001	0.0133
50.4	0.1943	0.0131	0.0014	0.0146
50.4333	0.195	0.0131	0.0014	0.0146
50.4667	0.1963	0	0	0
50.5	0.1976	0.0131	0.0014	0.0146
50.5333	0.1956	0	0.0001	0.0001
50.5667	0.1983	0	0	0
50.6	0.1979	0.0131	0	0.0131
50.6333	0.1943	0.0263	0.0027	0.029
50.6667	0.1976	0	0.0014	0.0014
50.7	0.1963	0	0.0001	0.0001
50.7333	0.1943	0	0.0001	0.0001
50.7667	0.1956	0.0263	0.0014	0.0277
50.8	0.1986	0	0.0001	0.0001
50.8333	0.1963	0.0131	0.0001	0.0133
50.8667	0.1983	0	0.0014	0.0014
50.9	0.1986	0	0.0001	0.0001
50.9333	0.194	0	0.0014	0.0014
50.9667	0.196	0.0131	0.0014	0.0146
51	0.2002	0	0.0001	0.0001
51.0333	0.1969	0	0.0014	0.0014
51.0667	0.1983	0	0.0014	0.0014
51.1	0.1999	0	0.0001	0.0001
51.1333	0.1976	0	0.0014	0.0014
51.1667	0.1976	0	0	0
51.2	0.1815	0	0.0001	0.0001
51.2333	0.1825	0	0.0014	0.0014
51.2667	0.1821	0	0.0027	0.0027
51.3	0.1841	0.0131	0.0014	0.0146
51.3333	0.1841	0	0.0001	0.0001
51.3667	0.1805	0	0.0014	0.0014
51.4	0.1831	0	0.0014	0.0014
51.4333	0.1838	0	0.0014	0.0014
51.4667	0.1831	0.0131	0.0014	0.0146
51.5	0.1844	0	0.0001	0.0001
51.5333	0.1841	0	0.0014	0.0014
51.5667	0.1848	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
51.6	0.1854	0.0131	0.0001	0.0133
51.6333	0.1835	0	0	0
51.6667	0.1861	0	0.0014	0.0014
51.7	0.1831	0.0263	0.0001	0.0264
51.7333	0.1874	0	0.0014	0.0014
51.7667	0.1848	0	0.0001	0.0001
51.8	0.1887	0	0.0027	0.0027
51.8333	0.1838	0	0.0014	0.0014
51.8667	0.1881	0	0.0001	0.0001
51.9	0.1874	0	0.0001	0.0001
51.9333	0.1884	0.0131	0.0014	0.0146
51.9667	0.1871	0.0131	0.0001	0.0133
52	0.1861	0.0131	0	0.0131
52.0333	0.1867	0.0131	0.0014	0.0146
52.0667	0.1871	0.0131	0.0001	0.0133
52.1	0.1844	0	0.0001	0.0001
52.1333	0.1877	0.0131	0.0001	0.0133
52.1667	0.189	0	0.0001	0.0001
52.2	0.1874	0.0131	0	0.0131
52.2333	0.1861	0	0.0014	0.0014
52.2667	0.1881	0.0131	0.0001	0.0133
52.3	0.1887	0	0.0001	0.0001
52.3333	0.1887	0.0131	0.0014	0.0146
52.3667	0.1894	0	0.0014	0.0014
52.4	0.1851	0.0131	0.0014	0.0146
52.4333	0.1884	0	0.0014	0.0014
52.4667	0.1914	0	0.0014	0.0014
52.5	0.1881	0.0131	0.0001	0.0133
52.5333	0.19	0	0.0001	0.0001
52.5667	0.1871	0.0131	0.0014	0.0146
52.6	0.1907	0	0.0014	0.0014
52.6333	0.189	0	0.0001	0.0001
52.6667	0.189	0	0.0001	0.0001
52.7	0.1871	0	0.0001	0.0001
52.7333	0.1881	0	0	0
52.7667	0.189	0.0263	0.0014	0.0277
52.8	0.1917	0	0.0014	0.0014
52.8333	0.1923	0.0131	0	0.0131
52.8667	0.19	0.0131	0.0001	0.0133
52.9	0.189	0	0.0014	0.0014
52.9333	0.1894	0	0.0014	0.0014
52.9667	0.189	0	0.0001	0.0001
53	0.192	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
53.0333	0.1894	0	0.0014	0.0014
53.0667	0.19	0	0.0014	0.0014
53.1	0.1907	0.0131	0	0.0131
53.1333	0.1904	0	0.0001	0.0001
53.1667	0.1914	0	0.0001	0.0001
53.2	0.1904	0	0.0014	0.0014
53.2333	0.1897	0	0.0001	0.0001
53.2667	0.189	0	0.0014	0.0014
53.3	0.192	0.0131	0.0014	0.0146
53.3333	0.192	0	0	0
53.3667	0.1923	0	0.0014	0.0014
53.4	0.1917	0	0.0001	0.0001
53.4333	0.192	0	0.0001	0.0001
53.4667	0.194	0.0131	0.0001	0.0133
53.5	0.191	0.0131	0.0001	0.0133
53.5333	0.1927	0	0.0014	0.0014
53.5667	0.1914	0.0131	0.0014	0.0146
53.6	0.1956	0	0.0001	0.0001
53.6333	0.1946	0	0.0014	0.0014
53.6667	0.1867	0	0.0001	0.0001
53.7	0.1858	0.0131	0.0027	0.0159
53.7333	0.1884	0	0.0001	0.0001
53.7667	0.1907	0	0.0001	0.0001
53.8	0.1904	0	0.0001	0.0001
53.8333	0.1881	0.0131	0.0001	0.0133
53.8667	0.189	0	0.0014	0.0014
53.9	0.1861	0.0131	0.0027	0.0159
53.9333	0.19	0.0131	0.0001	0.0133
53.9667	0.1877	0	0	0
54	0.1871	0.0131	0.0014	0.0146
54.0333	0.1874	0	0.0001	0.0001
54.0667	0.1881	0	0.0014	0.0014
54.1	0.1887	0	0	0
54.1333	0.1881	0.0131	0.0014	0.0146
54.1667	0.1887	0.0131	0.0014	0.0146
54.2	0.1874	0.0131	0.0014	0.0146
54.2333	0.1917	0.0131	0.0014	0.0146
54.2667	0.1894	0.0394	0.0014	0.0409
54.3	0.1884	0.0131	0.0014	0.0146
54.3333	0.1867	0	0	0
54.3667	0.1867	0.0131	0.0001	0.0133
54.4	0.1887	0	0	0
54.4333	0.1874	0.0131	0.0027	0.0159



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
54.4667	0.1894	0	0.0014	0.0014
54.5	0.1877	0.0131	0.0014	0.0146
54.5333	0.1867	0	0.0014	0.0014
54.5667	0.1877	0	0.0001	0.0001
54.6	0.1881	0.0131	0.0001	0.0133
54.6333	0.1864	0	0.0001	0.0001
54.6667	0.1867	0	0.0001	0.0001
54.7	0.1904	0.0131	0.0014	0.0146
54.7333	0.1877	0	0.0014	0.0014
54.7667	0.1884	0	0.0001	0.0001
54.8	0.1887	0	0.0014	0.0014
54.8333	0.189	0	0.0014	0.0014
54.8667	0.1884	0.0131	0.0001	0.0133
54.9	0.1867	0	0.0027	0.0027
54.9333	0.1877	0	0	0
54.9667	0.1867	0	0.0014	0.0014
55	0.1851	0	0.0001	0.0001
55.0333	0.1881	0	0.0001	0.0001
55.0667	0.1871	0	0.0014	0.0014
55.1	0.1851	0	0.0014	0.0014
55.1333	0.1844	0.0131	0.0027	0.0159
55.1667	0.1864	0.0131	0.0001	0.0133
55.2	0.1867	0	0.0014	0.0014
55.2333	0.1861	0	0.0001	0.0001
55.2667	0.1844	0	0.0001	0.0001
55.3	0.1861	0.0263	0.0001	0.0264
55.3333	0.1864	0	0.0014	0.0014
55.3667	0.1835	0.0131	0.0001	0.0133
55.4	0.1831	0.0131	0.0001	0.0133
55.4333	0.1854	0	0.0014	0.0014
55.4667	0.1861	0	0.0014	0.0014
55.5	0.1874	0	0.0001	0.0001
55.5333	0.1851	0	0.0001	0.0001
55.5667	0.1864	0	0.0001	0.0001
55.6	0.1851	0.0131	0.0001	0.0133
55.6333	0.1838	0	0	0
55.6667	0.1835	0	0	0
55.7	0.1858	0	0.0001	0.0001
55.7333	0.1854	0.0263	0.0001	0.0264
55.7667	0.1858	0.0131	0.0014	0.0146
55.8	0.1864	0	0.0001	0.0001
55.8333	0.1877	0	0.0014	0.0014
55.8667	0.1831	0	0.0001	0.0001



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
55.9	0.1838	0.0131	0.0014	0.0146
55.9333	0.1811	0	0.0014	0.0014
55.9667	0.1825	0.0131	0.0001	0.0133
56	0.1831	0	0.0014	0.0014
56.0333	0.1864	0	0	0
56.0667	0.1864	0	0.0014	0.0014
56.1	0.1835	0.0263	0.0014	0.0277
56.1333	0.1871	0.0131	0.0001	0.0133
56.1667	0.1815	0	0.0014	0.0014
56.2	0.1861	0	0.0001	0.0001
56.2333	0.1854	0	0.0014	0.0014
56.2667	0.1854	0	0.0001	0.0001
56.3	0.1841	0.0131	0.0001	0.0133
56.3333	0.1838	0	0.0014	0.0014
56.3667	0.1864	0.0131	0.0001	0.0133
56.4	0.1825	0.0131	0.0001	0.0133
56.4333	0.1854	0	0.0014	0.0014
56.4667	0.1848	0.0131	0.0001	0.0133
56.5	0.1825	0.0263	0.0001	0.0264
56.5333	0.1828	0.0131	0.0014	0.0146
56.5667	0.1871	0	0	0
56.6	0.1811	0	0	0
56.6333	0.1861	0	0.0027	0.0027
56.6667	0.1838	0.0131	0.0014	0.0146
56.7	0.1851	0.0131	0.0014	0.0146
56.7333	0.1825	0	0.0014	0.0014
56.7667	0.1811	0	0.0001	0.0001
56.8	0.1844	0.0131	0.0001	0.0133
56.8333	0.1838	0.0131	0.0001	0.0133
56.8667	0.1828	0.0263	0.0014	0.0277
56.9	0.1838	0.0131	0	0.0131
56.9333	0.1818	0	0.0014	0.0014
56.9667	0.1851	0	0	0
57	0.1835	0.0131	0.0001	0.0133
57.0333	0.1828	0.0131	0.0014	0.0146
57.0667	0.1858	0	0.0001	0.0001
57.1	0.1851	0	0.0001	0.0001
57.1333	0.1831	0.0131	0.0014	0.0146
57.1667	0.1828	0.0131	0	0.0131
57.2	0.1828	0	0.0014	0.0014
57.2333	0.1815	0.0131	0.0014	0.0146
57.2667	0.1854	0.0131	0.0014	0.0146
57.3	0.1838	0.0394	0.0014	0.0409

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
57.3333	0.1802	0.0263	0.0001	0.0264
57.3667	0.1811	0	0.0001	0.0001
57.4	0.1785	0	0.0014	0.0014
57.4333	0.1811	0.0131	0.0001	0.0133
57.4667	0.1835	0.0131	0.0014	0.0146
57.5	0.1825	0.0131	0.0014	0.0146
57.5333	0.1802	0	0.0014	0.0014
57.5667	0.1802	0	0.0001	0.0001
57.6	0.1818	0.0131	0.0014	0.0146
57.6333	0.1835	0	0.0001	0.0001
57.6667	0.1811	0.0131	0.0014	0.0146
57.7	0.1792	0.0131	0.0001	0.0133
57.7333	0.1782	0	0.0001	0.0001
57.7667	0.1798	0	0.0014	0.0014
57.8	0.1821	0	0.0014	0.0014
57.8333	0.1825	0.0131	0.0014	0.0146
57.8667	0.1782	0.0131	0.0001	0.0133
57.9	0.1811	0.0131	0.0001	0.0133
57.9333	0.1805	0.0131	0.0014	0.0146
57.9667	0.1818	0	0	0
58	0.1762	0	0.0001	0.0001
58.0333	0.1802	0.0263	0.0014	0.0277
58.0667	0.1798	0.0131	0.0027	0.0159
58.1	0.1811	0	0.0014	0.0014
58.1333	0.1802	0	0.0014	0.0014
58.1667	0.1808	0.0131	0.0027	0.0159
58.2	0.1825	0.0131	0.0001	0.0133
58.2333	0.1815	0.0131	0.0014	0.0146
58.2667	0.1798	0.0263	0.0001	0.0264
58.3	0.1811	0.0131	0.0027	0.0159
58.3333	0.1811	0.0131	0.0001	0.0133
58.3667	0.1811	0.0131	0.0014	0.0146
58.4	0.1792	0.0131	0	0.0131
58.4333	0.1769	0.0263	0.0001	0.0264
58.4667	0.1788	0	0.0001	0.0001
58.5	0.1802	0.0131	0	0.0131
58.5333	0.1805	0	0.0014	0.0014
58.5667	0.1792	0.0131	0.0001	0.0133
58.6	0.1802	0	0.0001	0.0001
58.6333	0.1775	0	0.0014	0.0014
58.6667	0.1805	0.0131	0	0.0131
58.7	0.1795	0.0263	0	0.0263
58.7333	0.1795	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
58.7667	0.1795	0	0.0001	0.0001
58.8	0.1762	0	0.0001	0.0001
58.8333	0.1792	0.0131	0.0001	0.0133
58.8667	0.1779	0	0	0
58.9	0.1785	0.0263	0	0.0263
58.9333	0.1795	0.0131	0.0001	0.0133
58.9667	0.1805	0.0131	0.0027	0.0159
59	0.1802	0	0.0001	0.0001
59.0333	0.1779	0	0.0001	0.0001
59.0667	0.1798	0.0131	0.0001	0.0133
59.1	0.1775	0	0.0001	0.0001
59.1333	0.1779	0	0.0001	0.0001
59.1667	0.1798	0	0	0
59.2	0.1772	0.0263	0.0001	0.0264
59.2333	0.1762	0	0.0001	0.0001
59.2667	0.1779	0	0.0014	0.0014
59.3	0.1772	0.0131	0.0027	0.0159
59.3333	0.1765	0.0131	0.0001	0.0133
59.3667	0.1746	0	0	0
59.4	0.1788	0	0.0014	0.0014
59.4333	0.1765	0	0.0014	0.0014
59.4667	0.1759	0.0131	0.0014	0.0146
59.5	0.1765	0.0131	0.0001	0.0133
59.5333	0.1792	0.0131	0.0014	0.0146
59.5667	0.1742	0	0.0001	0.0001
59.6	0.1752	0.0131	0.0014	0.0146
59.6333	0.1762	0.0131	0.0001	0.0133
59.6667	0.1762	0	0	0
59.7	0.1779	0	0.0014	0.0014
59.7333	0.1752	0	0.0001	0.0001
59.7667	0.1785	0.0131	0.0001	0.0133
59.8	0.1821	0	0.0014	0.0014
59.8333	0.1772	0	0.0001	0.0001
59.8667	0.1739	0.0131	0.0001	0.0133
59.9	0.1782	0.0131	0.0001	0.0133
59.9333	0.1772	0	0.0014	0.0014
59.9667	0.1779	0.0131	0.0014	0.0146
60	0.1782	0	0.0014	0.0014
60.0333	0.1775	0	0.0014	0.0014
60.0667	0.1746	0	0.0001	0.0001
60.1	0.1775	0.0131	0.0014	0.0146
60.1333	0.1742	0.0131	0.0001	0.0133
60.1667	0.1732	0.0263	0.0014	0.0277

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
60.2	0.1765	0.0131	0.0014	0.0146
60.2333	0.1746	0	0.0014	0.0014
60.2667	0.1732	0	0.0027	0.0027
60.3	0.1752	0	0.0001	0.0001
60.3333	0.1769	0.0131	0	0.0131
60.3667	0.1772	0.0131	0.0014	0.0146
60.4	0.1782	0	0.0001	0.0001
60.4333	0.1736	0	0.0014	0.0014
60.4667	0.1742	0.0131	0	0.0131
60.5	0.1765	0.0131	0.0001	0.0133
60.5333	0.1765	0	0.0001	0.0001
60.5667	0.1756	0	0.0014	0.0014
60.6	0.1749	0.0131	0.0001	0.0133
60.6333	0.1742	0.0131	0.0001	0.0133
60.6667	0.1746	0	0.0001	0.0001
60.7	0.1772	0.0131	0.0027	0.0159
60.7333	0.169	0	0	0
60.7667	0.1769	0	0.0014	0.0014
60.8	0.1752	0	0.0014	0.0014
60.8333	0.1746	0.0131	0.0027	0.0159
60.8667	0.1723	0.0131	0.0001	0.0133
60.9	0.1726	0	0	0
60.9333	0.1769	0	0.0014	0.0014
60.9667	0.1726	0	0.0001	0.0001
61	0.1765	0	0.0014	0.0014
61.0333	0.1736	0.0263	0.0014	0.0277
61.0667	0.1723	0	0.0014	0.0014
61.1	0.1749	0	0.0014	0.0014
61.1333	0.1769	0	0.0014	0.0014
61.1667	0.1713	0.0131	0.0014	0.0146
61.2	0.1759	0	0.0014	0.0014
61.2333	0.1726	0	0.0001	0.0001
61.2667	0.1742	0	0.0014	0.0014
61.3	0.1746	0	0.0014	0.0014
61.3333	0.1762	0	0.0014	0.0014
61.3667	0.1729	0	0.0001	0.0001
61.4	0.1749	0.0131	0.0001	0.0133
61.4333	0.1759	0.0131	0.0014	0.0146
61.4667	0.1719	0	0	0
61.5	0.1739	0	0.0014	0.0014
61.5333	0.1752	0	0.0001	0.0001
61.5667	0.1742	0	0.0001	0.0001
61.6	0.1749	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
61.6333	0.1732	0	0.0014	0.0014
61.6667	0.1709	0.0131	0.0027	0.0159
61.7	0.1752	0	0.0027	0.0027
61.7333	0.1713	0.0131	0.0014	0.0146
61.7667	0.1739	0.0131	0.0001	0.0133
61.8	0.1732	0	0.0014	0.0014
61.8333	0.1746	0	0	0
61.8667	0.1736	0	0.0027	0.0027
61.9	0.1742	0.0131	0	0.0131
61.9333	0.1746	0	0.0014	0.0014
61.9667	0.1746	0	0.0014	0.0014
62	0.1726	0.0131	0.0014	0.0146
62.0333	0.1736	0.0131	0.0027	0.0159
62.0667	0.1736	0	0.0001	0.0001
62.1	0.1739	0	0.0001	0.0001
62.1333	0.1749	0.0131	0.0014	0.0146
62.1667	0.1746	0	0.0001	0.0001
62.2	0.1732	0	0.0001	0.0001
62.2333	0.1667	0.0131	0.0014	0.0146
62.2667	0.17	0.0131	0.0001	0.0133
62.3	0.1732	0.0131	0.0014	0.0146
62.3333	0.1729	0.0131	0.0014	0.0146
62.3667	0.1726	0	0.0001	0.0001
62.4	0.1719	0	0	0
62.4333	0.1746	0	0.0001	0.0001
62.4667	0.1709	0	0.0001	0.0001
62.5	0.1709	0.0131	0.0014	0.0146
62.5333	0.1759	0.0131	0.0001	0.0133
62.5667	0.1709	0.0263	0.0027	0.029
62.6	0.1726	0.0131	0.0001	0.0133
62.6333	0.1713	0	0.0014	0.0014
62.6667	0.1736	0	0	0
62.7	0.1677	0	0.0014	0.0014
62.7333	0.1739	0	0	0
62.7667	0.1749	0.0131	0.0001	0.0133
62.8	0.1739	0.0263	0.0014	0.0277
62.8333	0.1709	0.0131	0.0001	0.0133
62.8667	0.1709	0.0131	0	0.0131
62.9	0.1706	0	0.0014	0.0014
62.9333	0.1739	0.0131	0.0014	0.0146
62.9667	0.1729	0	0.0001	0.0001
63	0.1726	0	0.0014	0.0014
63.0333	0.1723	0	0.0027	0.0027

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
63.0667	0.1726	0.0131	0.0014	0.0146
63.1	0.1696	0.0131	0.0001	0.0133
63.1333	0.1719	0.0131	0	0.0131
63.1667	0.17	0	0	0
63.2	0.1719	0	0.0014	0.0014
63.2333	0.1752	0.0131	0.0014	0.0146
63.2667	0.1736	0	0.0001	0.0001
63.3	0.1723	0	0.0001	0.0001
63.3333	0.1723	0.0131	0.0014	0.0146
63.3667	0.1706	0.0131	0.0014	0.0146
63.4	0.1719	0	0.0014	0.0014
63.4333	0.1723	0	0.0001	0.0001
63.4667	0.1696	0.0131	0.0014	0.0146
63.5	0.1713	0	0.0001	0.0001
63.5333	0.169	0	0.0014	0.0014
63.5667	0.1723	0.0131	0	0.0131
63.6	0.1723	0	0.0027	0.0027
63.6333	0.1696	0	0.0014	0.0014
63.6667	0.1719	0	0	0
63.7	0.1706	0	0	0
63.7333	0.1706	0	0	0
63.7667	0.1709	0	0.0001	0.0001
63.8	0.1729	0.0131	0.0014	0.0146
63.8333	0.1696	0	0.0014	0.0014
63.8667	0.1739	0	0.0014	0.0014
63.9	0.1732	0	0.0014	0.0014
63.9333	0.1746	0.0263	0.0014	0.0277
63.9667	0.1686	0.0131	0.0014	0.0146
64	0.1706	0.0131	0.0014	0.0146
64.0333	0.17	0.0131	0.0001	0.0133
64.0667	0.1683	0.0131	0.0014	0.0146
64.1	0.1703	0	0.0014	0.0014
64.1333	0.1719	0.0131	0.0001	0.0133
64.1667	0.1726	0.0131	0.0001	0.0133
64.2	0.168	0.0131	0.0014	0.0146
64.2333	0.169	0.0131	0.0014	0.0146
64.2667	0.1667	0	0.0001	0.0001
64.3	0.1693	0	0.0027	0.0027
64.3333	0.1713	0	0.0001	0.0001
64.3667	0.1683	0	0.0001	0.0001
64.4	0.1719	0.0263	0.0014	0.0277
64.4333	0.169	0	0.0014	0.0014
64.4667	0.1686	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
64.5	0.1696	0.0131	0.0001	0.0133
64.5333	0.1723	0.0131	0.0027	0.0159
64.5667	0.17	0.0131	0.0014	0.0146
64.6	0.168	0	0.0014	0.0014
64.6333	0.1716	0	0.0027	0.0027
64.6667	0.168	0	0.0014	0.0014
64.7	0.1716	0	0	0
64.7333	0.1686	0.0131	0	0.0131
64.7667	0.1713	0	0.0014	0.0014
64.8	0.1706	0.0263	0.0014	0.0277
64.8333	0.1667	0	0.0001	0.0001
64.8667	0.1696	0.0131	0.0014	0.0146
64.9	0.1723	0	0.0001	0.0001
64.9333	0.1693	0	0.0001	0.0001
64.9667	0.1709	0	0.0001	0.0001
65	0.1673	0	0.0001	0.0001
65.0333	0.1713	0.0131	0.0001	0.0133
65.0667	0.1703	0	0.0014	0.0014
65.1	0.1696	0.0131	0.0014	0.0146
65.1333	0.1756	0.0131	0.0001	0.0133
65.1667	0.1732	0	0.0001	0.0001
65.2	0.1749	0.0131	0.0014	0.0146
65.2333	0.1769	0	0.0001	0.0001
65.2667	0.1756	0.0263	0.0001	0.0264
65.3	0.1749	0	0	0
65.3333	0.1765	0.0131	0	0.0131
65.3667	0.1772	0	0.0001	0.0001
65.4	0.1815	0.0131	0.0014	0.0146
65.4333	0.1835	0.0131	0	0.0131
65.4667	0.1835	0	0.0001	0.0001
65.5	0.1851	0	0.0001	0.0001
65.5333	0.1838	0.0131	0.0001	0.0133
65.5667	0.1867	0.0131	0.0014	0.0146
65.6	0.1904	0.0131	0.0027	0.0159
65.6333	0.1943	0.0131	0.0014	0.0146
65.6667	0.1917	0	0.0014	0.0014
65.7	0.192	0	0.0001	0.0001
65.7333	0.2002	0.0131	0.0001	0.0133
65.7667	0.2108	0.0131	0	0.0131
65.8	0.2262	0	0.0001	0.0001
65.8333	0.2381	0.0263	0	0.0263
65.8667	0.2552	0.0131	0.0027	0.0159
65.9	0.2667	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
65.9333	0.2812	0	0.0001	0.0001
65.9667	0.2934	0	0.0001	0.0001
66	0.3052	0	0.0001	0.0001
66.0333	0.322	0.0131	0.0014	0.0146
66.0667	0.3339	0.0131	0.0014	0.0146
66.1	0.348	0	0.0001	0.0001
66.1333	0.3566	0	0.0001	0.0001
66.1667	0.3724	0.0131	0.0001	0.0133
66.2	0.3852	0.0131	0.0014	0.0146
66.2333	0.3911	0.0131	0.0001	0.0133
66.2667	0.3971	0.0131	0	0.0131
66.3	0.404	0.0131	0	0.0131
66.3333	0.401	0.0131	0.0001	0.0133
66.3667	0.3987	0.0263	0.0001	0.0264
66.4	0.3911	0.0131	0.0001	0.0133
66.4333	0.3799	0.0263	0	0.0263
66.4667	0.377	0.0131	0.0001	0.0133
66.5	0.3684	0	0.0014	0.0014
66.5333	0.3632	0	0.0001	0.0001
66.5667	0.3681	0	0.0001	0.0001
66.6	0.3737	0	0.0001	0.0001
66.6333	0.3757	0.0131	0.0001	0.0133
66.6667	0.3786	0.0131	0.0014	0.0146
66.7	0.3849	0	0.0001	0.0001
66.7333	0.376	0.0131	0.0014	0.0146
66.7667	0.3605	0	0.0014	0.0014
66.8	0.3579	0	0.0027	0.0027
66.8333	0.3609	0	0.0001	0.0001
66.8667	0.3678	0	0.0027	0.0027
66.9	0.3671	0	0.0014	0.0014
66.9333	0.3694	0.0131	0.0001	0.0133
66.9667	0.3688	0	0	0
67	0.3671	0	0	0
67.0333	0.3701	0	0.0001	0.0001
67.0667	0.3717	0.0131	0.0014	0.0146
67.1	0.3701	0	0.0001	0.0001
67.1333	0.372	0.0131	0.0014	0.0146
67.1667	0.3711	0	0.0014	0.0014
67.2	0.3668	0	0.0001	0.0001
67.2333	0.3684	0	0.0001	0.0001
67.2667	0.3678	0	0.0014	0.0014
67.3	0.3674	0	0.0014	0.0014
67.3333	0.3681	0	0	0

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
67.3667	0.3691	0.0131	0.0027	0.0159
67.4	0.3648	0	0.0001	0.0001
67.4333	0.3681	0.0131	0.0027	0.0159
67.4667	0.3674	0.0131	0.0014	0.0146
67.5	0.3707	0	0.0001	0.0001
67.5333	0.3691	0	0.0001	0.0001
67.5667	0.3674	0	0	0
67.6	0.3658	0	0.0001	0.0001
67.6333	0.3681	0	0	0
67.6667	0.3632	0.0263	0.0001	0.0264
67.7	0.3671	0.0131	0.0027	0.0159
67.7333	0.3638	0.0131	0.0001	0.0133
67.7667	0.3651	0	0.0014	0.0014
67.8	0.3622	0.0263	0.0001	0.0264
67.8333	0.3641	0	0.0001	0.0001
67.8667	0.3609	0	0.0001	0.0001
67.9	0.3615	0.0131	0.0001	0.0133
67.9333	0.3655	0.0131	0.0014	0.0146
67.9667	0.3622	0.0131	0.0001	0.0133
68	0.3632	0.0131	0.0001	0.0133
68.0333	0.3632	0.0131	0.0014	0.0146
68.0667	0.3638	0.0131	0.0001	0.0133
68.1	0.3645	0	0.0001	0.0001
68.1333	0.3658	0.0131	0.0041	0.0172
68.1667	0.3609	0.0131	0.0001	0.0133
68.2	0.3592	0.0263	0.0014	0.0277
68.2333	0.3618	0.0131	0.0001	0.0133
68.2667	0.3615	0.0131	0.0014	0.0146
68.3	0.3632	0.0131	0.0001	0.0133
68.3333	0.3622	0	0.0001	0.0001
68.3667	0.3595	0	0.0001	0.0001
68.4	0.3632	0	0	0
68.4333	0.3599	0	0.0027	0.0027
68.4667	0.3618	0	0.0014	0.0014
68.5	0.3618	0.0263	0.0014	0.0277
68.5333	0.3625	0.0131	0.0001	0.0133
68.5667	0.3589	0.0131	0.0001	0.0133
68.6	0.3622	0	0.0014	0.0014
68.6333	0.3618	0	0.0001	0.0001
68.6667	0.3569	0	0.0001	0.0001
68.7	0.3595	0	0.0001	0.0001
68.7333	0.3615	0.0131	0	0.0131
68.7667	0.3618	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
68.8	0.3592	0.0131	0.0001	0.0133
68.8333	0.3599	0.0131	0.0001	0.0133
68.8667	0.3599	0.0131	0.0014	0.0146
68.9	0.3602	0	0.0014	0.0014
68.9333	0.3569	0.0131	0.0001	0.0133
68.9667	0.3579	0.0263	0.0001	0.0264
69	0.3592	0.0131	0.0014	0.0146
69.0333	0.3599	0	0.0014	0.0014
69.0667	0.3586	0	0.0001	0.0001
69.1	0.3566	0.0263	0.0014	0.0277
69.1333	0.3592	0	0.0014	0.0014
69.1667	0.3589	0	0.0001	0.0001
69.2	0.3569	0.0131	0.0014	0.0146
69.2333	0.3572	0.0131	0.0014	0.0146
69.2667	0.3602	0	0.0014	0.0014
69.3	0.3589	0.0131	0.0001	0.0133
69.3333	0.3586	0	0.0014	0.0014
69.3667	0.3589	0	0.0001	0.0001
69.4	0.3582	0.0131	0.0001	0.0133
69.4333	0.3579	0	0.0001	0.0001
69.4667	0.3569	0.0131	0.0001	0.0133
69.5	0.3602	0	0.0001	0.0001
69.5333	0.3592	0.0131	0.0001	0.0133
69.5667	0.3562	0	0.0014	0.0014
69.6	0.3569	0.0131	0.0001	0.0133
69.6333	0.3553	0	0.0014	0.0014
69.6667	0.3586	0.0131	0.0014	0.0146
69.7	0.3543	0.0131	0	0.0131
69.7333	0.3546	0	0.0001	0.0001
69.7667	0.3572	0	0.0001	0.0001
69.8	0.3576	0.0131	0.0001	0.0133
69.8333	0.3572	0	0.0001	0.0001
69.8667	0.3625	0.0131	0	0.0131
69.9	0.3566	0.0131	0.0001	0.0133
69.9333	0.3556	0	0	0
69.9667	0.3559	0	0.0014	0.0014
70	0.3576	0.0131	0.0001	0.0133
70.0333	0.3595	0	0.0001	0.0001
70.0667	0.3569	0.0131	0.0014	0.0146
70.1	0.3579	0	0.0001	0.0001
70.1333	0.3576	0.0131	0.0014	0.0146
70.1667	0.3553	0.0131	0.0001	0.0133
70.2	0.3572	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
70.2333	0.3553	0.0131	0.0027	0.0159
70.2667	0.3553	0.0131	0.0001	0.0133
70.3	0.3566	0	0.0027	0.0027
70.3333	0.3582	0.0131	0.0014	0.0146
70.3667	0.3572	0	0.0014	0.0014
70.4	0.3562	0.0131	0.0001	0.0133
70.4333	0.3546	0.0263	0.0014	0.0277
70.4667	0.3549	0.0131	0.0014	0.0146
70.5	0.3566	0	0.0014	0.0014
70.5333	0.3553	0	0.0014	0.0014
70.5667	0.3556	0.0131	0.0001	0.0133
70.6	0.3569	0	0.0027	0.0027
70.6333	0.3562	0.0131	0.0014	0.0146
70.6667	0.3569	0	0	0
70.7	0.3533	0.0131	0.0001	0.0133
70.7333	0.3562	0	0.0001	0.0001
70.7667	0.3536	0	0.0027	0.0027
70.8	0.352	0	0.0014	0.0014
70.8333	0.3559	0	0.0014	0.0014
70.8667	0.3549	0	0.0014	0.0014
70.9	0.3556	0.0131	0.0001	0.0133
70.9333	0.3549	0	0.0001	0.0001
70.9667	0.3539	0	0.0014	0.0014
71	0.3536	0	0.0014	0.0014
71.0333	0.3533	0	0.0001	0.0001
71.0667	0.3536	0.0263	0.0014	0.0277
71.1	0.3533	0	0.0014	0.0014
71.1333	0.3539	0.0131	0.0001	0.0133
71.1667	0.352	0	0.0014	0.0014
71.2	0.3549	0	0.0001	0.0001
71.2333	0.3572	0	0.0001	0.0001
71.2667	0.3556	0.0131	0.0014	0.0146
71.3	0.3526	0.0263	0.0027	0.029
71.3333	0.3566	0.0131	0.0014	0.0146
71.3667	0.3562	0	0.0001	0.0001
71.4	0.3536	0.0131	0.0014	0.0146
71.4333	0.353	0	0.0014	0.0014
71.4667	0.3549	0.0263	0.0001	0.0264
71.5	0.3559	0.0131	0.0001	0.0133
71.5333	0.3566	0.0263	0.0001	0.0264
71.5667	0.3536	0	0.0001	0.0001
71.6	0.3559	0.0263	0	0.0263
71.6333	0.3559	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
71.6667	0.3559	0	0.0001	0.0001
71.7	0.3569	0	0.0001	0.0001
71.7333	0.3579	0.0263	0.0001	0.0264
71.7667	0.3579	0	0.0014	0.0014
71.8	0.3549	0	0.0001	0.0001
71.8333	0.3562	0	0.0014	0.0014
71.8667	0.3549	0.0131	0.0001	0.0133
71.9	0.3572	0	0.0001	0.0001
71.9333	0.3572	0	0	0
71.9667	0.3569	0.0131	0.0001	0.0133
72	0.3566	0.0131	0.0001	0.0133
72.0333	0.3592	0.0131	0.0014	0.0146
72.0667	0.3566	0.0131	0	0.0131
72.1	0.3569	0.0131	0	0.0131
72.1333	0.3546	0	0.0014	0.0014
72.1667	0.3569	0.0131	0.0014	0.0146
72.2	0.3605	0.0131	0.0014	0.0146
72.2333	0.3586	0.0131	0.0001	0.0133
72.2667	0.3595	0	0.0001	0.0001
72.3	0.3599	0	0	0
72.3333	0.3599	0.0131	0.0014	0.0146
72.3667	0.3582	0.0131	0.0001	0.0133
72.4	0.3582	0	0.0014	0.0014
72.4333	0.3609	0.0131	0.0001	0.0133
72.4667	0.3586	0	0.0001	0.0001
72.5	0.3628	0.0131	0	0.0131
72.5333	0.3605	0	0.0014	0.0014
72.5667	0.3618	0.0131	0.0027	0.0159
72.6	0.3605	0	0	0
72.6333	0.3622	0.0263	0.0014	0.0277
72.6667	0.3576	0.0131	0.0001	0.0133
72.7	0.3615	0.0263	0.0014	0.0277
72.7333	0.3628	0	0.0014	0.0014
72.7667	0.3592	0	0	0
72.8	0.3628	0	0.0014	0.0014
72.8333	0.3622	0	0.0001	0.0001
72.8667	0.3605	0	0.0014	0.0014
72.9	0.3638	0.0131	0.0014	0.0146
72.9333	0.3638	0	0.0014	0.0014
72.9667	0.3612	0.0131	0.0014	0.0146
73	0.3645	0	0.0014	0.0014
73.0333	0.3632	0.0131	0.0014	0.0146
73.0667	0.3612	0	0.0027	0.0027

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
73.1	0.3641	0	0.0014	0.0014
73.1333	0.3651	0	0.0001	0.0001
73.1667	0.3658	0.0131	0.0014	0.0146
73.2	0.3628	0.0131	0.0001	0.0133
73.2333	0.3638	0	0.0001	0.0001
73.2667	0.3651	0	0.0014	0.0014
73.3	0.3648	0	0.0001	0.0001
73.3333	0.3648	0	0.0014	0.0014
73.3667	0.3612	0	0	0
73.4	0.3661	0.0131	0	0.0131
73.4333	0.3665	0.0131	0.0014	0.0146
73.4667	0.3681	0.0131	0.0014	0.0146
73.5	0.3678	0.0131	0	0.0131
73.5333	0.3668	0.0131	0.0001	0.0133
73.5667	0.3651	0	0.0014	0.0014
73.6	0.3668	0	0.0001	0.0001
73.6333	0.3641	0.0131	0.0027	0.0159
73.6667	0.3641	0	0	0
73.7	0.3661	0	0.0001	0.0001
73.7333	0.3684	0.0131	0.0014	0.0146
73.7667	0.3681	0.0263	0.0001	0.0264
73.8	0.3661	0.0131	0.0001	0.0133
73.8333	0.3661	0	0.0001	0.0001
73.8667	0.3661	0.0394	0.0001	0.0396
73.9	0.3674	0	0.0001	0.0001
73.9333	0.3697	0	0.0001	0.0001
73.9667	0.3674	0	0.0014	0.0014
74	0.3704	0.0131	0.0014	0.0146
74.0333	0.3671	0.0131	0.0001	0.0133
74.0667	0.3668	0	0	0
74.1	0.3711	0	0	0
74.1333	0.3655	0	0.0014	0.0014
74.1667	0.3684	0	0.0001	0.0001
74.2	0.3681	0.0131	0.0001	0.0133
74.2333	0.3681	0.0263	0.0014	0.0277
74.2667	0.3707	0	0.0014	0.0014
74.3	0.3684	0.0131	0.0001	0.0133
74.3333	0.3688	0.0131	0	0.0131
74.3667	0.3681	0.0131	0.0027	0.0159
74.4	0.3674	0	0.0001	0.0001
74.4333	0.3684	0.0131	0.0014	0.0146
74.4667	0.3684	0	0.0001	0.0001
74.5	0.3697	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
74.5333	0.3707	0	0.0014	0.0014
74.5667	0.3707	0.0131	0.0014	0.0146
74.6	0.3668	0	0.0001	0.0001
74.6333	0.3707	0	0.0014	0.0014
74.6667	0.3707	0.0131	0.0014	0.0146
74.7	0.3697	0	0.0014	0.0014
74.7333	0.3691	0.0131	0.0001	0.0133
74.7667	0.3711	0	0.0014	0.0014
74.8	0.3714	0	0.0014	0.0014
74.8333	0.3674	0.0131	0.0014	0.0146
74.8667	0.3701	0.0131	0.0014	0.0146
74.9	0.3671	0.0263	0.0027	0.029
74.9333	0.3684	0.0131	0	0.0131
74.9667	0.3707	0	0.0001	0.0001
75	0.3668	0.0131	0.0014	0.0146
75.0333	0.3701	0	0.0014	0.0014
75.0667	0.3707	0	0.0001	0.0001
75.1	0.3684	0	0.0001	0.0001
75.1333	0.3684	0	0.0001	0.0001
75.1667	0.3697	0	0.0001	0.0001
75.2	0.3707	0	0.0001	0.0001
75.2333	0.3681	0	0.0014	0.0014
75.2667	0.3668	0.0131	0.0014	0.0146
75.3	0.3714	0.0131	0.0014	0.0146
75.3333	0.3691	0.0131	0.0001	0.0133
75.3667	0.3684	0	0.0001	0.0001
75.4	0.3684	0	0	0
75.4333	0.3697	0	0.0001	0.0001
75.4667	0.3674	0	0.0001	0.0001
75.5	0.3661	0.0131	0.0014	0.0146
75.5333	0.3694	0.0263	0.0001	0.0264
75.5667	0.3691	0.0131	0.0014	0.0146
75.6	0.3674	0	0.0001	0.0001
75.6333	0.3681	0.0263	0.0001	0.0264
75.6667	0.3688	0	0.0014	0.0014
75.7	0.3665	0	0.0001	0.0001
75.7333	0.3658	0	0.0001	0.0001
75.7667	0.3701	0	0.0001	0.0001
75.8	0.3691	0	0.0001	0.0001
75.8333	0.372	0	0	0
75.8667	0.3684	0.0131	0.0014	0.0146
75.9	0.3688	0.0131	0.0014	0.0146
75.9333	0.3674	0.0131	0.0014	0.0146



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
75.9667	0.3678	0	0.0001	0.0001
76	0.3681	0	0	0
76.0333	0.3697	0	0.0001	0.0001
76.0667	0.3697	0.0131	0.0001	0.0133
76.1	0.3661	0	0.0001	0.0001
76.1333	0.3651	0	0.0001	0.0001
76.1667	0.3665	0	0.0001	0.0001
76.2	0.3681	0.0131	0.0001	0.0133
76.2333	0.3674	0	0.0001	0.0001
76.2667	0.3697	0.0131	0.0001	0.0133
76.3	0.3648	0	0.0001	0.0001
76.3333	0.3681	0	0.0014	0.0014
76.3667	0.3684	0	0.0014	0.0014
76.4	0.3658	0.0131	0.0014	0.0146
76.4333	0.3674	0	0.0001	0.0001
76.4667	0.3684	0.0131	0.0001	0.0133
76.5	0.3688	0.0131	0.0014	0.0146
76.5333	0.3674	0	0.0001	0.0001
76.5667	0.3668	0.0131	0.0014	0.0146
76.6	0.3668	0.0263	0	0.0263
76.6333	0.3694	0.0263	0.0014	0.0277
76.6667	0.3661	0.0131	0.0027	0.0159
76.7	0.3671	0.0131	0.0001	0.0133
76.7333	0.3691	0.0131	0.0001	0.0133
76.7667	0.3674	0	0.0014	0.0014
76.8	0.3684	0	0.0014	0.0014
76.8333	0.3665	0	0.0014	0.0014
76.8667	0.3668	0	0.0014	0.0014
76.9	0.3688	0	0.0001	0.0001
76.9333	0.3655	0.0131	0.0014	0.0146
76.9667	0.3671	0	0.0001	0.0001
77	0.3671	0	0.0014	0.0014
77.0333	0.3668	0.0131	0	0.0131
77.0667	0.3688	0.0131	0.0001	0.0133
77.1	0.3678	0	0.0014	0.0014
77.1333	0.3694	0	0.0001	0.0001
77.1667	0.3668	0	0.0014	0.0014
77.2	0.3671	0.0131	0.0014	0.0146
77.2333	0.3671	0.0131	0.0001	0.0133
77.2667	0.3661	0	0.0014	0.0014
77.3	0.3671	0	0.0014	0.0014
77.3333	0.3665	0	0.0027	0.0027
77.3667	0.3668	0.0263	0.0014	0.0277

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
77.4	0.3671	0.0131	0.0027	0.0159
77.4333	0.3665	0	0.0027	0.0027
77.4667	0.3668	0	0.0014	0.0014
77.5	0.3655	0.0131	0.0001	0.0133
77.5333	0.3641	0	0.0001	0.0001
77.5667	0.3661	0.0131	0.0001	0.0133
77.6	0.3635	0	0.0014	0.0014
77.6333	0.3697	0	0.0014	0.0014
77.6667	0.3632	0.0131	0.0014	0.0146
77.7	0.3688	0.0131	0.0014	0.0146
77.7333	0.3671	0	0.0001	0.0001
77.7667	0.3658	0.0131	0.0014	0.0146
77.8	0.3655	0.0131	0.0001	0.0133
77.8333	0.3648	0.0131	0.0014	0.0146
77.8667	0.3645	0	0.0014	0.0014
77.9	0.3628	0.0131	0.0014	0.0146
77.9333	0.3628	0	0	0
77.9667	0.3668	0.0131	0.0001	0.0133
78	0.3648	0.0263	0.0001	0.0264
78.0333	0.3661	0.0131	0.0001	0.0133
78.0667	0.3638	0	0	0
78.1	0.3671	0	0.0001	0.0001
78.1333	0.3678	0.0131	0	0.0131
78.1667	0.3648	0	0	0
78.2	0.3648	0	0.0014	0.0014
78.2333	0.3635	0	0.0014	0.0014
78.2667	0.3665	0	0.0001	0.0001
78.3	0.3605	0.0263	0.0014	0.0277
78.3333	0.3648	0.0131	0.0014	0.0146
78.3667	0.3635	0	0.0014	0.0014
78.4	0.3648	0	0.0014	0.0014
78.4333	0.3661	0	0.0014	0.0014
78.4667	0.3655	0.0131	0.0001	0.0133
78.5	0.3635	0.0131	0.0001	0.0133
78.5333	0.3625	0.0131	0.0014	0.0146
78.5667	0.3635	0.0131	0.0001	0.0133
78.6	0.3655	0	0.0014	0.0014
78.6333	0.3668	0	0.0014	0.0014
78.6667	0.3628	0	0.0014	0.0014
78.7	0.3632	0.0131	0.0014	0.0146
78.7333	0.3615	0	0.0001	0.0001
78.7667	0.3651	0	0.0001	0.0001
78.8	0.3622	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
78.8333	0.3658	0.0131	0.0014	0.0146
78.8667	0.3658	0	0.0014	0.0014
78.9	0.3638	0.0131	0.0001	0.0133
78.9333	0.3612	0	0.0014	0.0014
78.9667	0.3632	0	0	0
79	0.3635	0	0.0027	0.0027
79.0333	0.3632	0.0131	0.0014	0.0146
79.0667	0.3645	0.0131	0.0014	0.0146
79.1	0.3615	0	0.0014	0.0014
79.1333	0.3625	0.0131	0	0.0131
79.1667	0.3632	0	0.0001	0.0001
79.2	0.3615	0.0131	0	0.0131
79.2333	0.3609	0.0131	0.0001	0.0133
79.2667	0.3638	0	0.0014	0.0014
79.3	0.3618	0	0.0001	0.0001
79.3333	0.3615	0	0.0001	0.0001
79.3667	0.3622	0.0131	0.0001	0.0133
79.4	0.3595	0.0263	0.0014	0.0277
79.4333	0.3645	0.0131	0.0001	0.0133
79.4667	0.3625	0	0	0
79.5	0.3651	0	0	0
79.5333	0.3595	0	0.0014	0.0014
79.5667	0.3622	0	0.0014	0.0014
79.6	0.3635	0.0131	0.0001	0.0133
79.6333	0.3635	0	0.0014	0.0014
79.6667	0.3648	0	0.0014	0.0014
79.7	0.3648	0.0131	0.0014	0.0146
79.7333	0.3641	0.0131	0.0001	0.0133
79.7667	0.3628	0.0131	0.0014	0.0146
79.8	0.3615	0	0.0014	0.0014
79.8333	0.3645	0.0131	0.0014	0.0146
79.8667	0.3622	0.0131	0.0027	0.0159
79.9	0.3602	0.0131	0.0001	0.0133
79.9333	0.3622	0.0131	0.0014	0.0146
79.9667	0.3622	0	0.0001	0.0001
80	0.3632	0.0263	0.0001	0.0264
80.0333	0.3632	0	0.0014	0.0014
80.0667	0.3635	0.0131	0	0.0131
80.1	0.3612	0	0.0014	0.0014
80.1333	0.3599	0.0131	0.0001	0.0133
80.1667	0.3625	0	0.0014	0.0014
80.2	0.3615	0.0131	0.0001	0.0133
80.2333	0.3615	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
80.2667	0.3602	0.0131	0.0001	0.0133
80.3	0.3625	0	0.0014	0.0014
80.3333	0.3655	0.0131	0	0.0131
80.3667	0.3615	0	0	0
80.4	0.3638	0	0.0001	0.0001
80.4333	0.3592	0	0.0001	0.0001
80.4667	0.3628	0	0.0014	0.0014
80.5	0.3612	0.0131	0.0027	0.0159
80.5333	0.3641	0.0263	0.0014	0.0277
80.5667	0.3589	0.0131	0.0001	0.0133
80.6	0.3586	0	0.0014	0.0014
80.6333	0.3599	0	0.0001	0.0001
80.6667	0.3618	0.0131	0.0001	0.0133
80.7	0.3618	0	0.0014	0.0014
80.7333	0.3589	0	0.0014	0.0014
80.7667	0.3602	0	0.0014	0.0014
80.8	0.3632	0	0	0
80.8333	0.3638	0	0.0001	0.0001
80.8667	0.3602	0.0131	0.0001	0.0133
80.9	0.3595	0	0.0014	0.0014
80.9333	0.3592	0	0.0014	0.0014
80.9667	0.3612	0.0131	0.0001	0.0133
81	0.3589	0	0.0014	0.0014
81.0333	0.3595	0	0.0001	0.0001
81.0667	0.3599	0.0131	0.0001	0.0133
81.1	0.3586	0.0131	0.0014	0.0146
81.1333	0.3569	0.0263	0.0001	0.0264
81.1667	0.3618	0	0.0001	0.0001
81.2	0.3615	0	0.0014	0.0014
81.2333	0.3586	0.0263	0.0027	0.029
81.2667	0.3609	0.0131	0.0001	0.0133
81.3	0.3625	0.0131	0.0014	0.0146
81.3333	0.3612	0	0.0014	0.0014
81.3667	0.3599	0	0	0
81.4	0.3618	0.0131	0.0001	0.0133
81.4333	0.3579	0	0.0014	0.0014
81.4667	0.3586	0.0131	0.0001	0.0133
81.5	0.3612	0.0131	0.0014	0.0146
81.5333	0.3615	0	0.0001	0.0001
81.5667	0.3618	0	0.0001	0.0001
81.6	0.3609	0	0.0014	0.0014
81.6333	0.3595	0.0131	0	0.0131
81.6667	0.3628	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
81.7	0.3612	0	0.0014	0.0014
81.7333	0.3589	0	0.0014	0.0014
81.7667	0.3599	0	0.0001	0.0001
81.8	0.3582	0	0.0014	0.0014
81.8333	0.3595	0.0131	0.0001	0.0133
81.8667	0.3612	0.0263	0.0014	0.0277
81.9	0.3595	0	0.0014	0.0014
81.9333	0.3612	0.0131	0.0014	0.0146
81.9667	0.3595	0.0263	0.0014	0.0277
82	0.3595	0	0.0014	0.0014
82.0333	0.3618	0.0131	0.0014	0.0146
82.0667	0.3586	0.0131	0.0001	0.0133
82.1	0.3615	0	0.0027	0.0027
82.1333	0.3586	0	0.0014	0.0014
82.1667	0.3599	0	0	0
82.2	0.3638	0.0263	0.0001	0.0264
82.2333	0.3618	0	0.0014	0.0014
82.2667	0.3618	0.0131	0	0.0131
82.3	0.3625	0	0.0001	0.0001
82.3333	0.3615	0.0131	0.0014	0.0146
82.3667	0.3625	0.0131	0.0014	0.0146
82.4	0.3595	0	0.0001	0.0001
82.4333	0.3592	0	0.0014	0.0014
82.4667	0.3625	0	0.0001	0.0001
82.5	0.3622	0	0.0014	0.0014
82.5333	0.3622	0.0131	0.0014	0.0146
82.5667	0.3625	0.0131	0	0.0131
82.6	0.3605	0	0.0014	0.0014
82.6333	0.3612	0.0131	0	0.0131
82.6667	0.3615	0.0131	0.0014	0.0146
82.7	0.3628	0	0.0001	0.0001
82.7333	0.3589	0	0.0001	0.0001
82.7667	0.3645	0	0.0014	0.0014
82.8	0.3628	0.0131	0.0001	0.0133
82.8333	0.3628	0	0.0014	0.0014
82.8667	0.3592	0	0.0014	0.0014
82.9	0.3615	0	0.0014	0.0014
82.9333	0.3628	0.0131	0.0027	0.0159
82.9667	0.3628	0	0.0001	0.0001
83	0.3602	0	0.0001	0.0001
83.0333	0.3628	0.0131	0.0014	0.0146
83.0667	0.3599	0	0	0
83.1	0.3622	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
83.1333	0.3615	0.0131	0.0001	0.0133
83.1667	0.3625	0.0263	0.0014	0.0277
83.2	0.3632	0.0131	0.0014	0.0146
83.2333	0.3622	0	0.0014	0.0014
83.2667	0.3609	0	0.0014	0.0014
83.3	0.3625	0.0131	0.0014	0.0146
83.3333	0.3615	0.0131	0.0014	0.0146
83.3667	0.3635	0.0131	0.0014	0.0146
83.4	0.3618	0	0	0
83.4333	0.3638	0.0131	0.0027	0.0159
83.4667	0.3638	0.0131	0.0001	0.0133
83.5	0.3592	0	0.0001	0.0001
83.5333	0.3602	0	0.0001	0.0001
83.5667	0.3632	0	0.0014	0.0014
83.6	0.3625	0.0131	0.0014	0.0146
83.6333	0.3632	0	0.0014	0.0014
83.6667	0.3628	0.0131	0.0001	0.0133
83.7	0.3602	0.0131	0	0.0131
83.7333	0.3622	0	0.0001	0.0001
83.7667	0.3592	0	0.0014	0.0014
83.8	0.3569	0	0.0014	0.0014
83.8333	0.3612	0	0.0014	0.0014
83.8667	0.3599	0	0.0014	0.0014
83.9	0.3635	0	0.0001	0.0001
83.9333	0.3628	0	0	0
83.9667	0.3618	0.0131	0.0001	0.0133
84	0.3612	0	0.0001	0.0001
84.0333	0.3635	0	0.0001	0.0001
84.0667	0.3655	0.0131	0	0.0131
84.1	0.3612	0	0.0014	0.0014
84.1333	0.3612	0	0.0014	0.0014
84.1667	0.3628	0.0131	0.0014	0.0146
84.2	0.3609	0.0131	0.0014	0.0146
84.2333	0.3615	0.0131	0.0014	0.0146
84.2667	0.3586	0	0.0014	0.0014
84.3	0.3625	0	0.0001	0.0001
84.3333	0.3599	0.0131	0.0001	0.0133
84.3667	0.3615	0.0131	0.0014	0.0146
84.4	0.3638	0	0.0014	0.0014
84.4333	0.3628	0.0131	0.0014	0.0146
84.4667	0.3589	0.0131	0.0014	0.0146
84.5	0.3586	0.0131	0	0.0131
84.5333	0.3605	0	0	0



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
84.5667	0.3622	0.0131	0.0014	0.0146
84.6	0.3615	0	0.0014	0.0014
84.6333	0.3609	0	0.0001	0.0001
84.6667	0.3618	0.0131	0.0014	0.0146
84.7	0.3592	0	0.0014	0.0014
84.7333	0.3622	0	0.0027	0.0027
84.7667	0.3618	0	0.0014	0.0014
84.8	0.3599	0	0.0014	0.0014
84.8333	0.3625	0	0.0014	0.0014
84.8667	0.3612	0	0.0014	0.0014
84.9	0.3612	0	0.0001	0.0001
84.9333	0.3618	0.0263	0.0001	0.0264
84.9667	0.3632	0.0263	0.0001	0.0264
85	0.3605	0.0131	0.0001	0.0133
85.0333	0.3635	0.0263	0.0001	0.0264
85.0667	0.3615	0	0.0001	0.0001
85.1	0.3628	0.0131	0.0014	0.0146
85.1333	0.3586	0.0263	0.0001	0.0264
85.1667	0.3641	0.0131	0.0027	0.0159
85.2	0.3628	0.0131	0.0014	0.0146
85.2333	0.3622	0	0.0014	0.0014
85.2667	0.3632	0.0131	0.0001	0.0133
85.3	0.3625	0.0263	0.0001	0.0264
85.3333	0.3628	0	0.0014	0.0014
85.3667	0.3628	0	0	0
85.4	0.3602	0	0.0014	0.0014
85.4333	0.3628	0.0131	0.0014	0.0146
85.4667	0.3589	0	0.0027	0.0027
85.5	0.3651	0.0131	0.0014	0.0146
85.5333	0.3595	0.0131	0.0001	0.0133
85.5667	0.3592	0	0.0001	0.0001
85.6	0.3595	0.0131	0	0.0131
85.6333	0.3632	0	0.0014	0.0014
85.6667	0.3595	0.0263	0.0014	0.0277
85.7	0.3638	0.0263	0.0027	0.029
85.7333	0.3602	0	0.0001	0.0001
85.7667	0.3635	0	0.0001	0.0001
85.8	0.3632	0	0	0
85.8333	0.3628	0.0131	0.0014	0.0146
85.8667	0.3618	0	0.0001	0.0001
85.9	0.3625	0	0.0014	0.0014
85.9333	0.3632	0.0131	0.0001	0.0133
85.9667	0.3622	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
86	0.3612	0.0131	0.0001	0.0133
86.0333	0.3615	0.0131	0.0014	0.0146
86.0667	0.3628	0.0131	0.0014	0.0146
86.1	0.3595	0	0.0001	0.0001
86.1333	0.3612	0	0.0001	0.0001
86.1667	0.3609	0.0263	0.0001	0.0264
86.2	0.3605	0.0131	0.0014	0.0146
86.2333	0.3592	0.0263	0.0014	0.0277
86.2667	0.3615	0	0	0
86.3	0.3605	0.0131	0.0001	0.0133
86.3333	0.3632	0	0.0014	0.0014
86.3667	0.3582	0	0.0014	0.0014
86.4	0.3612	0	0.0001	0.0001
86.4333	0.3622	0	0.0001	0.0001
86.4667	0.3618	0	0	0
86.5	0.3582	0.0131	0.0001	0.0133
86.5333	0.3632	0.0394	0.0014	0.0409
86.5667	0.3602	0	0	0
86.6	0.3612	0	0.0001	0.0001
86.6333	0.3648	0	0.0014	0.0014
86.6667	0.3618	0	0.0001	0.0001
86.7	0.3595	0.0131	0.0001	0.0133
86.7333	0.3605	0.0263	0.0001	0.0264
86.7667	0.3612	0.0131	0	0.0131
86.8	0.3605	0.0263	0.0001	0.0264
86.8333	0.3615	0.0131	0.0001	0.0133
86.8667	0.3605	0	0.0014	0.0014
86.9	0.3592	0.0131	0.0001	0.0133
86.9333	0.3605	0	0.0027	0.0027
86.9667	0.3622	0	0.0001	0.0001
87	0.3605	0	0.0014	0.0014
87.0333	0.3612	0	0	0
87.0667	0.3618	0	0.0014	0.0014
87.1	0.3618	0.0263	0.0001	0.0264
87.1333	0.3609	0.0131	0.0014	0.0146
87.1667	0.3641	0	0.0014	0.0014
87.2	0.3615	0	0.0014	0.0014
87.2333	0.3628	0.0131	0.0001	0.0133
87.2667	0.3628	0.0131	0.0014	0.0146
87.3	0.3612	0	0.0014	0.0014
87.3333	0.3609	0.0131	0.0014	0.0146
87.3667	0.3586	0	0.0014	0.0014
87.4	0.3599	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
87.4333	0.3632	0	0.0027	0.0027
87.4667	0.3605	0.0263	0	0.0263
87.5	0.3622	0	0.0014	0.0014
87.5333	0.3635	0	0.0001	0.0001
87.5667	0.3618	0	0.0014	0.0014
87.6	0.3589	0	0.0014	0.0014
87.6333	0.3609	0	0.0014	0.0014
87.6667	0.3628	0	0.0014	0.0014
87.7	0.3632	0.0131	0.0001	0.0133
87.7333	0.3632	0	0.0001	0.0001
87.7667	0.3612	0.0131	0	0.0131
87.8	0.3615	0.0131	0.0001	0.0133
87.8333	0.3602	0	0.0014	0.0014
87.8667	0.3605	0	0	0
87.9	0.3628	0.0131	0.0014	0.0146
87.9333	0.3628	0	0.0014	0.0014
87.9667	0.3602	0.0131	0.0014	0.0146
88	0.3579	0.0131	0.0014	0.0146
88.0333	0.3582	0	0.0014	0.0014
88.0667	0.3632	0	0.0014	0.0014
88.1	0.3609	0.0263	0.0014	0.0277
88.1333	0.3618	0.0263	0.0001	0.0264
88.1667	0.3605	0.0263	0.0014	0.0277
88.2	0.3628	0	0.0027	0.0027
88.2333	0.3635	0	0	0
88.2667	0.3612	0	0	0
88.3	0.3622	0.0131	0.0014	0.0146
88.3333	0.3582	0	0.0001	0.0001
88.3667	0.3618	0	0.0001	0.0001
88.4	0.3589	0	0.0001	0.0001
88.4333	0.3609	0	0.0014	0.0014
88.4667	0.3609	0.0131	0.0001	0.0133
88.5	0.3609	0	0.0014	0.0014
88.5333	0.3609	0.0131	0.0001	0.0133
88.5667	0.3615	0.0131	0.0014	0.0146
88.6	0.3599	0.0131	0.0001	0.0133
88.6333	0.3589	0.0263	0.0014	0.0277
88.6667	0.3599	0	0.0014	0.0014
88.7	0.3605	0	0.0001	0.0001
88.7333	0.3615	0	0.0001	0.0001
88.7667	0.3635	0	0.0014	0.0014
88.8	0.3592	0.0131	0.0014	0.0146
88.8333	0.3628	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
88.8667	0.3599	0	0.0001	0.0001
88.9	0.3599	0.0131	0.0014	0.0146
88.9333	0.3595	0.0131	0	0.0131
88.9667	0.3612	0.0131	0.0001	0.0133
89	0.3602	0	0.0014	0.0014
89.0333	0.3615	0	0.0014	0.0014
89.0667	0.3615	0.0131	0	0.0131
89.1	0.3572	0.0131	0.0014	0.0146
89.1333	0.3609	0	0.0027	0.0027
89.1667	0.3622	0.0131	0.0014	0.0146
89.2	0.3622	0	0.0001	0.0001
89.2333	0.3641	0	0.0001	0.0001
89.2667	0.3632	0	0.0014	0.0014
89.3	0.3602	0.0131	0	0.0131
89.3333	0.3641	0	0.0027	0.0027
89.3667	0.3632	0.0263	0.0014	0.0277
89.4	0.3602	0.0131	0.0014	0.0146
89.4333	0.3609	0	0	0
89.4667	0.3595	0.0131	0.0014	0.0146
89.5	0.3622	0	0.0014	0.0014
89.5333	0.3576	0.0131	0.0001	0.0133
89.5667	0.3602	0	0	0
89.6	0.3622	0	0.0014	0.0014
89.6333	0.3586	0	0.0014	0.0014
89.6667	0.3582	0	0.0001	0.0001
89.7	0.3618	0	0.0014	0.0014
89.7333	0.3612	0	0.0014	0.0014
89.7667	0.3622	0	0.0014	0.0014
89.8	0.3599	0.0131	0.0014	0.0146
89.8333	0.3618	0.0131	0	0.0131
89.8667	0.3618	0.0263	0.0001	0.0264
89.9	0.3628	0	0.0014	0.0014
89.9333	0.3595	0.0131	0.0014	0.0146
89.9667	0.3602	0	0.0014	0.0014
90	0.3589	0.0131	0.0014	0.0146
90.0333	0.3562	0	0.0014	0.0014
90.0667	0.3592	0.0131	0.0001	0.0133
90.1	0.3602	0.0131	0.0001	0.0133
90.1333	0.3602	0	0.0001	0.0001
90.1667	0.3615	0	0.0001	0.0001
90.2	0.3579	0.0131	0.0001	0.0133
90.2333	0.3625	0	0	0
90.2667	0.3586	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
90.3	0.3599	0.0263	0.0014	0.0277
90.3333	0.3589	0.0131	0.0014	0.0146
90.3667	0.3579	0.0131	0	0.0131
90.4	0.3599	0.0131	0.0001	0.0133
90.4333	0.3615	0.0131	0.0014	0.0146
90.4667	0.3599	0	0.0014	0.0014
90.5	0.3618	0	0.0014	0.0014
90.5333	0.3612	0	0.0001	0.0001
90.5667	0.3622	0.0131	0.0001	0.0133
90.6	0.3622	0	0.0014	0.0014
90.6333	0.3602	0	0	0
90.6667	0.3615	0.0131	0.0001	0.0133
90.7	0.3586	0	0.0001	0.0001
90.7333	0.3595	0.0131	0	0.0131
90.7667	0.3609	0.0131	0.0001	0.0133
90.8	0.3586	0.0131	0.0014	0.0146
90.8333	0.3592	0.0131	0.0001	0.0133
90.8667	0.3579	0.0131	0.0001	0.0133
90.9	0.3609	0	0.0014	0.0014
90.9333	0.3615	0.0131	0.0014	0.0146
90.9667	0.3615	0.0131	0.0027	0.0159
91	0.3602	0.0263	0	0.0263
91.0333	0.3622	0.0263	0.0014	0.0277
91.0667	0.3612	0	0.0001	0.0001
91.1	0.3602	0.0131	0.0001	0.0133
91.1333	0.3605	0.0131	0.0014	0.0146
91.1667	0.3602	0	0.0014	0.0014
91.2	0.3595	0	0.0001	0.0001
91.2333	0.3605	0	0.0001	0.0001
91.2667	0.3586	0.0131	0	0.0131
91.3	0.3582	0.0131	0.0014	0.0146
91.3333	0.3586	0	0.0001	0.0001
91.3667	0.3599	0.0131	0.0001	0.0133
91.4	0.3586	0	0.0001	0.0001
91.4333	0.3622	0.0131	0.0014	0.0146
91.4667	0.3625	0	0	0
91.5	0.3602	0.0131	0.0014	0.0146
91.5333	0.3586	0	0.0001	0.0001
91.5667	0.3586	0.0131	0.0014	0.0146
91.6	0.3589	0.0131	0.0014	0.0146
91.6333	0.3589	0.0263	0.0001	0.0264
91.6667	0.3599	0	0.0014	0.0014
91.7	0.3592	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
91.7333	0.3618	0.0131	0.0014	0.0146
91.7667	0.3622	0.0131	0.0001	0.0133
91.8	0.3602	0.0131	0.0014	0.0146
91.8333	0.3602	0	0.0014	0.0014
91.8667	0.3615	0	0.0001	0.0001
91.9	0.3589	0	0	0
91.9333	0.3592	0.0131	0.0014	0.0146
91.9667	0.3602	0	0.0014	0.0014
92	0.3576	0	0.0014	0.0014
92.0333	0.3579	0	0.0014	0.0014
92.0667	0.3615	0.0131	0	0.0131
92.1	0.3612	0	0.0014	0.0014
92.1333	0.3589	0.0131	0.0014	0.0146
92.1667	0.3622	0.0131	0.0014	0.0146
92.2	0.3602	0	0.0014	0.0014
92.2333	0.3579	0.0131	0	0.0131
92.2667	0.3609	0.0263	0.0001	0.0264
92.3	0.3595	0.0131	0	0.0131
92.3333	0.3599	0	0.0014	0.0014
92.3667	0.3602	0.0131	0.0001	0.0133
92.4	0.3595	0.0131	0.0014	0.0146
92.4333	0.3599	0	0.0014	0.0014
92.4667	0.3602	0.0263	0.0001	0.0264
92.5	0.3638	0.0131	0.0014	0.0146
92.5333	0.3582	0	0	0
92.5667	0.3628	0	0.0014	0.0014
92.6	0.3625	0.0131	0.0027	0.0159
92.6333	0.3586	0.0263	0.0014	0.0277
92.6667	0.3586	0	0.0014	0.0014
92.7	0.3632	0.0131	0.0014	0.0146
92.7333	0.3572	0.0131	0.0014	0.0146
92.7667	0.3609	0	0.0001	0.0001
92.8	0.3602	0	0.0014	0.0014
92.8333	0.3609	0.0131	0.0014	0.0146
92.8667	0.3625	0.0131	0	0.0131
92.9	0.3586	0.0131	0.0014	0.0146
92.9333	0.3609	0.0263	0.0014	0.0277
92.9667	0.3615	0.0131	0.0014	0.0146
93	0.3622	0	0.0001	0.0001
93.0333	0.3612	0.0131	0	0.0131
93.0667	0.3602	0.0131	0.0001	0.0133
93.1	0.3645	0.0131	0.0014	0.0146
93.1333	0.3586	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
93.1667	0.3618	0	0.0014	0.0014
93.2	0.3609	0.0131	0.0027	0.0159
93.2333	0.3605	0	0.0001	0.0001
93.2667	0.3615	0.0131	0.0014	0.0146
93.3	0.3648	0	0.0001	0.0001
93.3333	0.3602	0	0.0001	0.0001
93.3667	0.3612	0.0131	0.0014	0.0146
93.4	0.3605	0	0.0014	0.0014
93.4333	0.3625	0	0.0001	0.0001
93.4667	0.3618	0	0	0
93.5	0.3612	0	0.0014	0.0014
93.5333	0.3605	0	0.0014	0.0014
93.5667	0.3605	0.0131	0.0001	0.0133
93.6	0.3602	0.0131	0.0014	0.0146
93.6333	0.3615	0.0263	0.0014	0.0277
93.6667	0.3618	0.0131	0.0014	0.0146
93.7	0.3589	0	0.0014	0.0014
93.7333	0.3622	0	0	0
93.7667	0.3622	0	0.0001	0.0001
93.8	0.3599	0	0.0001	0.0001
93.8333	0.3625	0.0131	0	0.0131
93.8667	0.3605	0.0131	0.0001	0.0133
93.9	0.3592	0	0.0001	0.0001
93.9333	0.3625	0	0.0014	0.0014
93.9667	0.3602	0.0131	0	0.0131
94	0.3612	0.0131	0.0001	0.0133
94.0333	0.3618	0	0.0001	0.0001
94.0667	0.3602	0	0.0001	0.0001
94.1	0.3628	0.0131	0.0014	0.0146
94.1333	0.3641	0	0.0001	0.0001
94.1667	0.3595	0.0263	0.0027	0.029
94.2	0.3609	0.0131	0.0001	0.0133
94.2333	0.3582	0	0.0001	0.0001
94.2667	0.3615	0	0.0001	0.0001
94.3	0.3592	0.0131	0	0.0131
94.3333	0.3599	0.0131	0.0001	0.0133
94.3667	0.3615	0.0131	0.0027	0.0159
94.4	0.3599	0	0.0014	0.0014
94.4333	0.3615	0	0.0014	0.0014
94.4667	0.3618	0	0.0027	0.0027
94.5	0.3622	0.0131	0	0.0131
94.5333	0.3632	0.0131	0.0027	0.0159
94.5667	0.3586	0.0263	0.0001	0.0264



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
94.6	0.3612	0.0131	0.0014	0.0146
94.6333	0.3609	0	0.0001	0.0001
94.6667	0.3622	0.0131	0.0014	0.0146
94.7	0.3618	0	0	0
94.7333	0.3612	0.0131	0.0014	0.0146
94.7667	0.3589	0.0263	0.0001	0.0264
94.8	0.3641	0	0.0014	0.0014
94.8333	0.3635	0	0.0014	0.0014
94.8667	0.3605	0	0.0001	0.0001
94.9	0.3595	0	0.0014	0.0014
94.9333	0.3605	0.0131	0.0014	0.0146
94.9667	0.3641	0.0131	0.0014	0.0146
95	0.3602	0.0131	0.0027	0.0159
95.0333	0.3641	0	0.0014	0.0014
95.0667	0.3622	0	0.0001	0.0001
95.1	0.3599	0	0.0014	0.0014
95.1333	0.3599	0.0131	0.0014	0.0146
95.1667	0.3622	0	0.0001	0.0001
95.2	0.3609	0.0131	0.0001	0.0133
95.2333	0.3622	0	0.0001	0.0001
95.2667	0.3625	0	0.0014	0.0014
95.3	0.3605	0.0131	0.0014	0.0146
95.3333	0.3609	0	0.0001	0.0001
95.3667	0.3612	0.0131	0.0014	0.0146
95.4	0.3599	0	0.0014	0.0014
95.4333	0.3625	0	0.0014	0.0014
95.4667	0.3618	0	0.0001	0.0001
95.5	0.3618	0.0131	0.0014	0.0146
95.5333	0.3615	0	0.0014	0.0014
95.5667	0.3615	0	0.0001	0.0001
95.6	0.3615	0.0131	0.0014	0.0146
95.6333	0.3602	0.0131	0.0014	0.0146
95.6667	0.3595	0	0.0014	0.0014
95.7	0.3625	0	0.0014	0.0014
95.7333	0.3586	0	0.0014	0.0014
95.7667	0.3609	0	0.0001	0.0001
95.8	0.3628	0.0131	0.0014	0.0146
95.8333	0.3632	0	0.0001	0.0001
95.8667	0.3595	0.0131	0.0014	0.0146
95.9	0.3595	0	0.0001	0.0001
95.9333	0.3609	0.0263	0.0014	0.0277
95.9667	0.3582	0	0	0
96	0.3638	0	0.0001	0.0001



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
96.0333	0.3622	0	0.0014	0.0014
96.0667	0.3579	0	0.0014	0.0014
96.1	0.3615	0	0.0001	0.0001
96.1333	0.3641	0.0131	0.0027	0.0159
96.1667	0.3615	0.0131	0.0014	0.0146
96.2	0.3612	0	0.0001	0.0001
96.2333	0.3615	0.0131	0.0001	0.0133
96.2667	0.3645	0	0	0
96.3	0.3599	0	0.0001	0.0001
96.3333	0.3632	0	0.0014	0.0014
96.3667	0.3618	0.0131	0.0001	0.0133
96.4	0.3595	0.0131	0.0014	0.0146
96.4333	0.3622	0.0131	0.0014	0.0146
96.4667	0.3569	0	0.0014	0.0014
96.5	0.3566	0	0.0014	0.0014
96.5333	0.3586	0	0.0014	0.0014
96.5667	0.3599	0.0263	0.0001	0.0264
96.6	0.3599	0.0131	0.0001	0.0133
96.6333	0.3605	0	0.0014	0.0014
96.6667	0.3612	0.0131	0.0014	0.0146
96.7	0.3622	0.0131	0.0014	0.0146
96.7333	0.3576	0.0131	0.0001	0.0133
96.7667	0.3589	0	0.0014	0.0014
96.8	0.3582	0.0131	0.0001	0.0133
96.8333	0.3579	0	0	0
96.8667	0.3602	0	0.0014	0.0014
96.9	0.3592	0.0131	0	0.0131
96.9333	0.3569	0.0131	0.0001	0.0133
96.9667	0.3605	0	0.0014	0.0014
97	0.3592	0	0.0001	0.0001
97.0333	0.3612	0.0131	0.0027	0.0159
97.0667	0.3618	0	0.0001	0.0001
97.1	0.3572	0	0.0014	0.0014
97.1333	0.3605	0.0131	0.0027	0.0159
97.1667	0.3579	0.0131	0.0001	0.0133
97.2	0.3589	0	0.0001	0.0001
97.2333	0.3579	0.0131	0.0001	0.0133
97.2667	0.3615	0	0.0001	0.0001
97.3	0.3609	0	0.0014	0.0014
97.3333	0.3576	0.0263	0.0027	0.029
97.3667	0.3572	0.0131	0.0001	0.0133
97.4	0.3599	0.0131	0.0014	0.0146
97.4333	0.3586	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
97.4667	0.3602	0.0131	0.0014	0.0146
97.5	0.3658	0.0131	0.0027	0.0159
97.5333	0.3635	0.0263	0.0014	0.0277
97.5667	0.3641	0	0.0001	0.0001
97.6	0.3688	0.0131	0	0.0131
97.6333	0.372	0.0131	0.0014	0.0146
97.6667	0.378	0	0.0027	0.0027
97.7	0.3816	0.0131	0.0014	0.0146
97.7333	0.3895	0.0131	0.0014	0.0146
97.7667	0.4007	0	0.0014	0.0014
97.8	0.4102	0.0131	0.0014	0.0146
97.8333	0.4214	0.0131	0.0014	0.0146
97.8667	0.4313	0	0	0
97.9	0.4385	0	0.0027	0.0027
97.9333	0.4497	0	0.0014	0.0014
97.9667	0.4586	0	0.0014	0.0014
98	0.4724	0.0263	0.0001	0.0264
98.0333	0.48	0.0131	0.0014	0.0146
98.0667	0.4922	0.0263	0.0001	0.0264
98.1	0.503	0	0.0001	0.0001
98.1333	0.5149	0.0131	0.0001	0.0133
98.1667	0.5231	0	0.0001	0.0001
98.2	0.5333	0	0.0001	0.0001
98.2333	0.5455	0	0.0027	0.0027
98.2667	0.555	0.0131	0.0001	0.0133
98.3	0.5712	0.0131	0.0001	0.0133
98.3333	0.5794	0	0.0014	0.0014
98.3667	0.5916	0	0.0014	0.0014
98.4	0.6031	0	0.0014	0.0014
98.4333	0.6126	0	0.0014	0.0014
98.4667	0.6271	0	0	0
98.5	0.6393	0	0	0
98.5333	0.6482	0	0	0
98.5667	0.6571	0	0.0014	0.0014
98.6	0.6686	0.0263	0.0001	0.0264
98.6333	0.6801	0	0.0027	0.0027
98.6667	0.6903	0.0131	0.0014	0.0146
98.7	0.6992	0	0.0001	0.0001
98.7333	0.7097	0	0.0014	0.0014
98.7667	0.7203	0	0.0001	0.0001
98.8	0.7275	0	0.0001	0.0001
98.8333	0.7341	0	0.0014	0.0014
98.8667	0.7453	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
98.9	0.7486	0	0.0001	0.0001
98.9333	0.7555	0	0.0001	0.0001
98.9667	0.7624	0	0.0001	0.0001
99	0.766	0.0131	0.0014	0.0146
99.0333	0.7746	0	0.0027	0.0027
99.0667	0.7772	0	0.0014	0.0014
99.1	0.7861	0	0.0027	0.0027
99.1333	0.7907	0.0131	0.0014	0.0146
99.1667	0.79	0	0.0001	0.0001
99.2	0.7989	0	0.0001	0.0001
99.2333	0.8009	0.0131	0.0001	0.0133
99.2667	0.8032	0	0.0001	0.0001
99.3	0.8052	0.0131	0.0001	0.0133
99.3333	0.8012	0.0131	0.0001	0.0133
99.3667	0.8022	0.0131	0.0001	0.0133
99.4	0.7973	0.0131	0.0014	0.0146
99.4333	0.7937	0	0.0014	0.0014
99.4667	0.7914	0	0.0001	0.0001
99.5	0.7871	0	0	0
99.5333	0.7851	0	0.0014	0.0014
99.5667	0.7808	0.0131	0.0014	0.0146
99.6	0.7749	0.0131	0.0001	0.0133
99.6333	0.7703	0	0	0
99.6667	0.764	0	0.0014	0.0014
99.7	0.7575	0	0.0014	0.0014
99.7333	0.7496	0.0131	0.0014	0.0146
99.7667	0.742	0.0131	0.0001	0.0133
99.8	0.7374	0.0131	0.0027	0.0159
99.8333	0.7328	0	0.0001	0.0001
99.8667	0.7232	0	0.0014	0.0014
99.9	0.7219	0	0.0001	0.0001
99.9333	0.7219	0	0.0014	0.0014
99.9667	0.7259	0.0263	0.0001	0.0264
100	0.7265	0.0131	0.0014	0.0146
100.0333	0.7275	0.0131	0.0014	0.0146
100.0667	0.7278	0	0.0014	0.0014
100.1	0.7288	0	0.0014	0.0014
100.1333	0.7278	0.0263	0.0001	0.0264
100.1667	0.7262	0.0131	0.0001	0.0133
100.2	0.7295	0	0.0001	0.0001
100.2333	0.7292	0	0.0014	0.0014
100.2667	0.7269	0	0.0001	0.0001
100.3	0.7288	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
100.3333	0.7301	0.0131	0.0001	0.0133
100.3667	0.7278	0.0131	0.0014	0.0146
100.4	0.7272	0	0.0027	0.0027
100.4333	0.7278	0.0131	0.0027	0.0159
100.4667	0.7269	0	0.0014	0.0014
100.5	0.7292	0.0131	0.0001	0.0133
100.5333	0.7265	0	0.0014	0.0014
100.5667	0.7288	0.0131	0.0001	0.0133
100.6	0.7272	0	0.0001	0.0001
100.6333	0.7285	0.0263	0.0014	0.0277
100.6667	0.7269	0.0131	0.0014	0.0146
100.7	0.7272	0.0263	0.0001	0.0264
100.7333	0.7252	0.0131	0	0.0131
100.7667	0.7236	0	0.0014	0.0014
100.8	0.7275	0.0131	0.0027	0.0159
100.8333	0.7252	0	0.0014	0.0014
100.8667	0.7242	0.0263	0.0001	0.0264
100.9	0.7236	0	0.0001	0.0001
100.9333	0.7245	0	0.0014	0.0014
100.9667	0.7229	0.0131	0.0014	0.0146
101	0.7232	0	0.0001	0.0001
101.0333	0.7222	0.0263	0.0014	0.0277
101.0667	0.7216	0.0131	0	0.0131
101.1	0.7242	0	0.0014	0.0014
101.1333	0.7236	0	0.0014	0.0014
101.1667	0.7216	0	0.0014	0.0014
101.2	0.7209	0.0263	0.0001	0.0264
101.2333	0.7196	0.0131	0.0001	0.0133
101.2667	0.7196	0	0	0
101.3	0.7229	0.0131	0.0014	0.0146
101.3333	0.7213	0.0131	0.0001	0.0133
101.3667	0.7213	0.0131	0.0014	0.0146
101.4	0.7209	0.0263	0.0001	0.0264
101.4333	0.7216	0	0.0014	0.0014
101.4667	0.7239	0	0.0014	0.0014
101.5	0.7226	0.0131	0.0001	0.0133
101.5333	0.7213	0	0.0001	0.0001
101.5667	0.7222	0	0.0027	0.0027
101.6	0.718	0.0131	0.0001	0.0133
101.6333	0.7219	0	0.0014	0.0014
101.6667	0.7219	0.0131	0.0001	0.0133
101.7	0.7196	0	0.0001	0.0001
101.7333	0.7213	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
101.7667	0.7206	0.0131	0.0014	0.0146
101.8	0.7222	0.0131	0	0.0131
101.8333	0.7203	0	0.0014	0.0014
101.8667	0.718	0.0131	0.0001	0.0133
101.9	0.7183	0	0.0001	0.0001
101.9333	0.7206	0	0	0
101.9667	0.7209	0.0131	0.0001	0.0133
102	0.7183	0.0131	0	0.0131
102.0333	0.7213	0.0131	0.0014	0.0146
102.0667	0.7183	0	0.0001	0.0001
102.1	0.7199	0.0131	0.0014	0.0146
102.1333	0.717	0	0.0014	0.0014
102.1667	0.719	0	0.0001	0.0001
102.2	0.717	0	0.0001	0.0001
102.2333	0.7216	0.0131	0.0014	0.0146
102.2667	0.7203	0	0	0
102.3	0.7196	0	0	0
102.3333	0.7196	0	0	0
102.3667	0.719	0	0.0014	0.0014
102.4	0.7213	0.0263	0.0027	0.029
102.4333	0.7209	0	0.0014	0.0014
102.4667	0.7219	0	0.0001	0.0001
102.5	0.7209	0.0263	0.0014	0.0277
102.5333	0.7196	0.0131	0.0014	0.0146
102.5667	0.719	0	0	0
102.6	0.7196	0	0.0001	0.0001
102.6333	0.7193	0.0131	0.0014	0.0146
102.6667	0.7186	0.0131	0.0014	0.0146
102.7	0.7166	0.0131	0.0001	0.0133
102.7333	0.7176	0.0131	0.0014	0.0146
102.7667	0.7153	0.0131	0.0014	0.0146
102.8	0.7199	0	0.0001	0.0001
102.8333	0.7199	0.0131	0.0014	0.0146
102.8667	0.718	0	0.0027	0.0027
102.9	0.7173	0.0131	0.0014	0.0146
102.9333	0.7183	0	0	0
102.9667	0.7186	0	0	0
103	0.7163	0	0.0001	0.0001
103.0333	0.716	0	0.0014	0.0014
103.0667	0.7173	0	0.0014	0.0014
103.1	0.7153	0.0131	0.0001	0.0133
103.1333	0.7153	0	0.0001	0.0001
103.1667	0.719	0.0131	0	0.0131

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
103.2	0.718	0	0.0014	0.0014
103.2333	0.718	0	0.0014	0.0014
103.2667	0.7173	0.0131	0.0001	0.0133
103.3	0.7147	0	0.0014	0.0014
103.3333	0.7176	0.0131	0.0001	0.0133
103.3667	0.7153	0	0.0001	0.0001
103.4	0.7186	0	0.0001	0.0001
103.4333	0.7166	0.0131	0.0001	0.0133
103.4667	0.7166	0.0131	0.0001	0.0133
103.5	0.7183	0.0263	0.0014	0.0277
103.5333	0.7216	0	0.0014	0.0014
103.5667	0.7173	0.0131	0.0027	0.0159
103.6	0.7183	0	0.0001	0.0001
103.6333	0.717	0.0131	0.0001	0.0133
103.6667	0.7199	0	0.0014	0.0014
103.7	0.7186	0.0263	0.0014	0.0277
103.7333	0.718	0.0131	0.0027	0.0159
103.7667	0.7203	0.0131	0.0014	0.0146
103.8	0.7213	0	0.0001	0.0001
103.8333	0.717	0.0131	0.0014	0.0146
103.8667	0.7193	0.0131	0.0001	0.0133
103.9	0.7222	0.0131	0.0014	0.0146
103.9333	0.7199	0.0131	0.0014	0.0146
103.9667	0.719	0.0131	0.0014	0.0146
104	0.7229	0.0131	0.0014	0.0146
104.0333	0.7213	0.0131	0.0001	0.0133
104.0667	0.7183	0	0.0001	0.0001
104.1	0.717	0	0.0014	0.0014
104.1333	0.718	0.0263	0.0014	0.0277
104.1667	0.7232	0	0.0001	0.0001
104.2	0.7209	0.0131	0.0014	0.0146
104.2333	0.7209	0	0	0
104.2667	0.7232	0	0.0001	0.0001
104.3	0.7173	0.0131	0.0014	0.0146
104.3333	0.7183	0	0.0001	0.0001
104.3667	0.7236	0	0.0027	0.0027
104.4	0.7199	0.0263	0.0001	0.0264
104.4333	0.7209	0	0.0001	0.0001
104.4667	0.7199	0.0131	0.0014	0.0146
104.5	0.7213	0	0.0001	0.0001
104.5333	0.7229	0.0263	0.0014	0.0277
104.5667	0.7222	0.0131	0.0014	0.0146
104.6	0.7232	0.0263	0.0014	0.0277



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
104.6333	0.7239	0	0.0001	0.0001
104.6667	0.7213	0.0131	0.0014	0.0146
104.7	0.7242	0	0.0014	0.0014
104.7333	0.7245	0	0.0001	0.0001
104.7667	0.7232	0.0131	0.0027	0.0159
104.8	0.7219	0.0131	0.0027	0.0159
104.8333	0.7245	0.0263	0.0014	0.0277
104.8667	0.7255	0	0.0001	0.0001
104.9	0.7242	0.0131	0.0014	0.0146
104.9333	0.7249	0	0	0
104.9667	0.7242	0.0263	0.0014	0.0277
105	0.7262	0	0.0027	0.0027
105.0333	0.7272	0.0263	0.0027	0.029
105.0667	0.7242	0	0.0014	0.0014
105.1	0.7236	0.0131	0.0001	0.0133
105.1333	0.7209	0.0131	0.0001	0.0133
105.1667	0.7252	0	0.0001	0.0001
105.2	0.7232	0.0131	0.0014	0.0146
105.2333	0.7262	0.0131	0.0001	0.0133
105.2667	0.7255	0	0.0014	0.0014
105.3	0.7252	0	0.0014	0.0014
105.3333	0.7252	0.0131	0.0014	0.0146
105.3667	0.7265	0.0263	0.0014	0.0277
105.4	0.7239	0.0131	0.0014	0.0146
105.4333	0.7262	0	0.0014	0.0014
105.4667	0.7232	0	0.0014	0.0014
105.5	0.7232	0	0.0001	0.0001
105.5333	0.7226	0	0.0001	0.0001
105.5667	0.7259	0.0131	0.0014	0.0146
105.6	0.7242	0.0131	0.0014	0.0146
105.6333	0.7236	0	0.0001	0.0001
105.6667	0.7265	0	0.0001	0.0001
105.7	0.7242	0.0131	0.0001	0.0133
105.7333	0.7249	0.0131	0.0014	0.0146
105.7667	0.7269	0	0	0
105.8	0.7288	0.0131	0.0001	0.0133
105.8333	0.7232	0.0131	0.0014	0.0146
105.8667	0.7219	0	0.0027	0.0027
105.9	0.7265	0.0131	0.0001	0.0133
105.9333	0.7219	0.0131	0.0014	0.0146
105.9667	0.7269	0.0131	0.0027	0.0159
106	0.7262	0.0263	0.0014	0.0277
106.0333	0.7288	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
106.0667	0.7259	0.0131	0	0.0131
106.1	0.7272	0.0131	0.0014	0.0146
106.1333	0.7249	0.0131	0.0001	0.0133
106.1667	0.7239	0	0.0027	0.0027
106.2	0.7301	0	0	0
106.2333	0.7249	0.0131	0.0001	0.0133
106.2667	0.7239	0.0131	0.0014	0.0146
106.3	0.7249	0	0.0001	0.0001
106.3333	0.7222	0	0.0014	0.0014
106.3667	0.7275	0.0131	0.0001	0.0133
106.4	0.7236	0.0131	0.0027	0.0159
106.4333	0.7255	0.0131	0.0014	0.0146
106.4667	0.7272	0.0131	0.0014	0.0146
106.5	0.7229	0	0.0001	0.0001
106.5333	0.7252	0	0.0041	0.0041
106.5667	0.7272	0.0131	0.0014	0.0146
106.6	0.7259	0	0.0014	0.0014
106.6333	0.7269	0.0131	0.0014	0.0146
106.6667	0.7288	0	0.0014	0.0014
106.7	0.7278	0	0.0001	0.0001
106.7333	0.7252	0.0131	0	0.0131
106.7667	0.7282	0.0131	0.0014	0.0146
106.8	0.7242	0.0131	0.0014	0.0146
106.8333	0.7242	0.0131	0.0014	0.0146
106.8667	0.7288	0.0131	0.0014	0.0146
106.9	0.7275	0	0.0027	0.0027
106.9333	0.7249	0.0131	0.0014	0.0146
106.9667	0.7252	0.0131	0.0001	0.0133
107	0.7255	0.0131	0.0001	0.0133
107.0333	0.7275	0.0131	0.0014	0.0146
107.0667	0.7278	0	0.0001	0.0001
107.1	0.7262	0	0.0014	0.0014
107.1333	0.7265	0	0.0001	0.0001
107.1667	0.7245	0.0131	0.0001	0.0133
107.2	0.7278	0	0.0027	0.0027
107.2333	0.7249	0.0263	0.0014	0.0277
107.2667	0.7282	0.0131	0.0027	0.0159
107.3	0.7252	0	0.0014	0.0014
107.3333	0.7259	0.0263	0.0014	0.0277
107.3667	0.7262	0.0263	0.0014	0.0277
107.4	0.7285	0	0.0001	0.0001
107.4333	0.7282	0.0131	0.0014	0.0146
107.4667	0.7242	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
107.5	0.7252	0	0.0014	0.0014
107.5333	0.7269	0.0131	0.0014	0.0146
107.5667	0.7292	0	0.0014	0.0014
107.6	0.7249	0.0131	0.0014	0.0146
107.6333	0.7272	0.0263	0.0014	0.0277
107.6667	0.7282	0	0.0014	0.0014
107.7	0.7245	0	0.0001	0.0001
107.7333	0.7265	0	0	0
107.7667	0.7259	0.0131	0	0.0131
107.8	0.7308	0.0131	0.0014	0.0146
107.8333	0.7242	0	0.0014	0.0014
107.8667	0.7272	0.0131	0	0.0131
107.9	0.7288	0	0.0001	0.0001
107.9333	0.7272	0.0131	0.0027	0.0159
107.9667	0.7305	0	0.0014	0.0014
108	0.7269	0.0131	0.0014	0.0146
108.0333	0.7252	0.0131	0.0014	0.0146
108.0667	0.7269	0.0131	0.0001	0.0133
108.1	0.7275	0	0.0001	0.0001
108.1333	0.7242	0.0131	0	0.0131
108.1667	0.7275	0.0131	0.0001	0.0133
108.2	0.7249	0.0131	0.0014	0.0146
108.2333	0.7255	0	0.0014	0.0014
108.2667	0.7278	0.0131	0.0014	0.0146
108.3	0.7265	0.0131	0	0.0131
108.3333	0.7275	0	0.0014	0.0014
108.3667	0.7259	0	0.0001	0.0001
108.4	0.7272	0	0.0001	0.0001
108.4333	0.7269	0	0.0014	0.0014
108.4667	0.7285	0.0131	0.0001	0.0133
108.5	0.7255	0	0.0001	0.0001
108.5333	0.7288	0	0.0014	0.0014
108.5667	0.7255	0.0263	0.0001	0.0264
108.6	0.7275	0.0131	0.0014	0.0146
108.6333	0.7252	0.0131	0.0014	0.0146
108.6667	0.7265	0.0263	0.0014	0.0277
108.7	0.7278	0.0131	0.0014	0.0146
108.7333	0.7222	0.0131	0.0001	0.0133
108.7667	0.7242	0	0.0001	0.0001
108.8	0.7262	0.0131	0.0001	0.0133
108.8333	0.7245	0.0131	0.0014	0.0146
108.8667	0.7265	0	0.0001	0.0001
108.9	0.7265	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
108.9333	0.7269	0.0131	0.0014	0.0146
108.9667	0.7242	0.0131	0.0014	0.0146
109	0.7259	0.0131	0.0014	0.0146
109.0333	0.7255	0.0131	0.0014	0.0146
109.0667	0.7262	0.0131	0	0.0131
109.1	0.7262	0.0131	0.0014	0.0146
109.1333	0.7259	0	0.0014	0.0014
109.1667	0.7278	0.0131	0.0014	0.0146
109.2	0.7282	0.0131	0	0.0131
109.2333	0.7285	0.0131	0.0001	0.0133
109.2667	0.7255	0.0263	0	0.0263
109.3	0.7262	0	0.0001	0.0001
109.3333	0.7278	0	0.0014	0.0014
109.3667	0.7249	0.0263	0.0001	0.0264
109.4	0.7229	0	0	0
109.4333	0.7259	0	0.0001	0.0001
109.4667	0.7301	0.0131	0.0001	0.0133
109.5	0.7245	0.0131	0.0014	0.0146
109.5333	0.7242	0	0.0014	0.0014
109.5667	0.7249	0.0131	0.0014	0.0146
109.6	0.7242	0	0.0014	0.0014
109.6333	0.7259	0.0131	0.0027	0.0159
109.6667	0.7278	0.0131	0.0001	0.0133
109.7	0.7255	0.0131	0	0.0131
109.7333	0.7242	0.0131	0.0001	0.0133
109.7667	0.7262	0	0.0014	0.0014
109.8	0.7249	0	0.0001	0.0001
109.8333	0.7249	0.0131	0.0014	0.0146
109.8667	0.7262	0	0.0001	0.0001
109.9	0.7242	0	0.0001	0.0001
109.9333	0.7252	0	0.0014	0.0014
109.9667	0.7265	0	0.0001	0.0001
110	0.7249	0.0263	0.0001	0.0264
110.0333	0.7275	0.0131	0.0014	0.0146
110.0667	0.7229	0.0131	0.0001	0.0133
110.1	0.7245	0	0.0014	0.0014
110.1333	0.7245	0	0.0014	0.0014
110.1667	0.7249	0.0131	0.0014	0.0146
110.2	0.7265	0.0131	0.0001	0.0133
110.2333	0.7282	0	0.0027	0.0027
110.2667	0.7259	0.0131	0.0027	0.0159
110.3	0.7262	0	0	0
110.3333	0.7259	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
110.3667	0.7236	0	0.0014	0.0014
110.4	0.7278	0.0131	0.0014	0.0146
110.4333	0.7272	0.0263	0.0001	0.0264
110.4667	0.7255	0.0131	0.0014	0.0146
110.5	0.7272	0	0.0001	0.0001
110.5333	0.7245	0.0263	0.0014	0.0277
110.5667	0.7269	0	0.0014	0.0014
110.6	0.7262	0.0131	0	0.0131
110.6333	0.7245	0.0131	0.0014	0.0146
110.6667	0.7259	0.0131	0.0014	0.0146
110.7	0.7272	0	0.0014	0.0014
110.7333	0.7275	0	0.0014	0.0014
110.7667	0.7252	0.0131	0.0001	0.0133
110.8	0.7255	0	0.0014	0.0014
110.8333	0.7275	0.0131	0.0027	0.0159
110.8667	0.7236	0.0263	0.0014	0.0277
110.9	0.7255	0	0	0
110.9333	0.7229	0	0.0027	0.0027
110.9667	0.7275	0	0.0001	0.0001
111	0.7242	0.0131	0.0001	0.0133
111.0333	0.7245	0.0131	0.0001	0.0133
111.0667	0.7245	0.0131	0.0001	0.0133
111.1	0.7288	0	0.0014	0.0014
111.1333	0.7265	0.0131	0.0014	0.0146
111.1667	0.7262	0	0.0001	0.0001
111.2	0.7252	0.0131	0.0001	0.0133
111.2333	0.7265	0.0131	0.0014	0.0146
111.2667	0.7252	0.0131	0.0001	0.0133
111.3	0.7242	0	0.0027	0.0027
111.3333	0.7278	0.0131	0.0014	0.0146
111.3667	0.7245	0.0131	0.0014	0.0146
111.4	0.7272	0.0131	0.0001	0.0133
111.4333	0.7272	0	0.0001	0.0001
111.4667	0.7272	0.0263	0.0001	0.0264
111.5	0.7236	0.0131	0.0027	0.0159
111.5333	0.7245	0.0131	0.0014	0.0146
111.5667	0.7236	0.0131	0.0014	0.0146
111.6	0.7259	0.0131	0.0014	0.0146
111.6333	0.7245	0	0.0027	0.0027
111.6667	0.7249	0.0263	0.0014	0.0277
111.7	0.7242	0.0263	0.0014	0.0277
111.7333	0.7275	0	0.0014	0.0014
111.7667	0.7239	0	0.0027	0.0027

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
111.8	0.7265	0	0.0014	0.0014
111.8333	0.7259	0.0131	0.0014	0.0146
111.8667	0.7288	0	0.0014	0.0014
111.9	0.7245	0.0131	0	0.0131
111.9333	0.7242	0	0.0001	0.0001
111.9667	0.7252	0	0.0001	0.0001
112	0.7259	0.0263	0.0014	0.0277
112.0333	0.7275	0.0131	0.0001	0.0133
112.0667	0.7236	0.0131	0.0001	0.0133
112.1	0.7259	0.0263	0.0014	0.0277
112.1333	0.7269	0	0.0014	0.0014
112.1667	0.7249	0	0.0014	0.0014
112.2	0.7252	0	0.0001	0.0001
112.2333	0.7272	0	0.0014	0.0014
112.2667	0.7255	0	0.0014	0.0014
112.3	0.7236	0.0131	0.0014	0.0146
112.3333	0.7265	0.0131	0.0014	0.0146
112.3667	0.7269	0	0.0001	0.0001
112.4	0.7245	0	0.0014	0.0014
112.4333	0.7259	0.0131	0.0027	0.0159
112.4667	0.7288	0.0131	0.0001	0.0133
112.5	0.7262	0.0131	0.0001	0.0133
112.5333	0.7269	0.0131	0	0.0131
112.5667	0.7269	0.0263	0.0001	0.0264
112.6	0.7275	0.0131	0.0001	0.0133
112.6333	0.7229	0	0.0014	0.0014
112.6667	0.7249	0	0.0014	0.0014
112.7	0.7236	0.0131	0.0014	0.0146
112.7333	0.7252	0.0131	0.0014	0.0146
112.7667	0.7272	0.0131	0.0014	0.0146
112.8	0.7269	0.0131	0.0014	0.0146
112.8333	0.7275	0.0263	0.0001	0.0264
112.8667	0.7249	0	0.0014	0.0014
112.9	0.7262	0.0131	0.0014	0.0146
112.9333	0.7209	0	0.0001	0.0001
112.9667	0.7285	0.0131	0.0014	0.0146
113	0.7242	0.0131	0	0.0131
113.0333	0.7265	0	0.0014	0.0014
113.0667	0.7278	0.0394	0.0014	0.0409
113.1	0.7259	0.0131	0.0001	0.0133
113.1333	0.7259	0	0.0027	0.0027
113.1667	0.7245	0.0263	0.0001	0.0264
113.2	0.7245	0.0263	0.0014	0.0277

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
113.2333	0.7242	0.0131	0.0014	0.0146
113.2667	0.7232	0.0131	0.0027	0.0159
113.3	0.7269	0.0131	0.0014	0.0146
113.3333	0.7282	0.0131	0.0014	0.0146
113.3667	0.7242	0	0.0014	0.0014
113.4	0.7278	0.0131	0.0014	0.0146
113.4333	0.7265	0.0131	0.0014	0.0146
113.4667	0.7269	0.0263	0.0014	0.0277
113.5	0.7255	0	0.0014	0.0014
113.5333	0.7249	0.0263	0	0.0263
113.5667	0.7269	0	0.0014	0.0014
113.6	0.7255	0.0131	0.0014	0.0146
113.6333	0.7249	0.0131	0.0001	0.0133
113.6667	0.7262	0	0.0001	0.0001
113.7	0.7229	0	0.0027	0.0027
113.7333	0.7269	0	0.0014	0.0014
113.7667	0.7245	0.0131	0.0014	0.0146
113.8	0.7272	0.0131	0.0014	0.0146
113.8333	0.7236	0.0131	0.0001	0.0133
113.8667	0.7245	0.0131	0.0001	0.0133
113.9	0.7249	0.0263	0.0027	0.029
113.9333	0.7265	0.0263	0.0001	0.0264
113.9667	0.7265	0	0.0014	0.0014
114	0.7259	0.0131	0.0014	0.0146
114.0333	0.7219	0	0.0014	0.0014
114.0667	0.7236	0	0.0001	0.0001
114.1	0.7262	0.0131	0.0014	0.0146
114.1333	0.7255	0.0131	0.0001	0.0133
114.1667	0.7278	0.0263	0.0027	0.029
114.2	0.7252	0.0263	0.0014	0.0277
114.2333	0.7245	0.0131	0.0027	0.0159
114.2667	0.7249	0	0.0001	0.0001
114.3	0.7226	0.0263	0.0014	0.0277
114.3333	0.7278	0.0131	0.0014	0.0146
114.3667	0.7275	0.0131	0	0.0131
114.4	0.7269	0	0.0014	0.0014
114.4333	0.7245	0.0131	0.0001	0.0133
114.4667	0.7278	0	0.0014	0.0014
114.5	0.7242	0	0.0001	0.0001
114.5333	0.7265	0.0131	0.0014	0.0146
114.5667	0.7269	0.0263	0.0027	0.029
114.6	0.7252	0.0263	0.0027	0.029
114.6333	0.7229	0	0.0001	0.0001



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
114.6667	0.7226	0	0.0001	0.0001
114.7	0.7249	0	0.0001	0.0001
114.7333	0.7239	0.0131	0	0.0131
114.7667	0.7272	0.0131	0.0014	0.0146
114.8	0.7219	0.0131	0.0014	0.0146
114.8333	0.7245	0	0.0014	0.0014
114.8667	0.7232	0	0	0
114.9	0.7262	0.0131	0.0014	0.0146
114.9333	0.7222	0.0263	0.0014	0.0277
114.9667	0.7226	0	0.0001	0.0001
115	0.7269	0	0.0027	0.0027
115.0333	0.7272	0	0.0014	0.0014
115.0667	0.7245	0	0.0014	0.0014
115.1	0.7259	0.0131	0.0014	0.0146
115.1333	0.7262	0	0.0001	0.0001
115.1667	0.7252	0.0263	0.0014	0.0277
115.2	0.7209	0	0.0014	0.0014
115.2333	0.7249	0.0131	0.0001	0.0133
115.2667	0.7236	0	0.0001	0.0001
115.3	0.7236	0	0.0001	0.0001
115.3333	0.7262	0	0.0014	0.0014
115.3667	0.7239	0	0.0001	0.0001
115.4	0.7209	0.0131	0	0.0131
115.4333	0.7242	0.0131	0.0014	0.0146
115.4667	0.7222	0.0131	0.0001	0.0133
115.5	0.7252	0.0131	0.0014	0.0146
115.5333	0.7249	0.0263	0.0014	0.0277
115.5667	0.7242	0.0131	0.0014	0.0146
115.6	0.7245	0	0.0001	0.0001
115.6333	0.7229	0	0.0014	0.0014
115.6667	0.7242	0.0131	0.0027	0.0159
115.7	0.7259	0.0131	0.0014	0.0146
115.7333	0.7245	0.0131	0.0001	0.0133
115.7667	0.7242	0	0.0014	0.0014
115.8	0.7213	0.0131	0.0001	0.0133
115.8333	0.7229	0	0.0014	0.0014
115.8667	0.7232	0	0.0014	0.0014
115.9	0.7255	0.0131	0.0001	0.0133
115.9333	0.7252	0.0263	0.0001	0.0264
115.9667	0.7236	0	0.0001	0.0001
116	0.7213	0.0131	0.0014	0.0146
116.0333	0.7242	0.0263	0.0014	0.0277
116.0667	0.7236	0	0.0001	0.0001



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
116.1	0.7242	0.0131	0.0014	0.0146
116.1333	0.7206	0	0.0001	0.0001
116.1667	0.7249	0	0	0
116.2	0.7216	0	0.0027	0.0027
116.2333	0.7259	0.0131	0.0001	0.0133
116.2667	0.7226	0	0.0027	0.0027
116.3	0.7236	0	0.0014	0.0014
116.3333	0.7242	0.0131	0.0001	0.0133
116.3667	0.7245	0.0131	0	0.0131
116.4	0.7219	0	0.0014	0.0014
116.4333	0.7236	0	0.0001	0.0001
116.4667	0.7216	0.0131	0.0014	0.0146
116.5	0.7239	0.0131	0.0014	0.0146
116.5333	0.7255	0	0.0001	0.0001
116.5667	0.7259	0.0131	0.0014	0.0146
116.6	0.7222	0	0.0001	0.0001
116.6333	0.7245	0.0263	0.0014	0.0277
116.6667	0.7252	0	0.0001	0.0001
116.7	0.7236	0.0131	0.0001	0.0133
116.7333	0.7222	0.0131	0.0027	0.0159
116.7667	0.7242	0.0131	0.0001	0.0133
116.8	0.7252	0.0263	0.0014	0.0277
116.8333	0.7229	0.0131	0.0001	0.0133
116.8667	0.7209	0.0131	0	0.0131
116.9	0.7236	0	0.0001	0.0001
116.9333	0.7222	0	0.0014	0.0014
116.9667	0.7232	0	0.0001	0.0001
117	0.7239	0.0131	0.0014	0.0146
117.0333	0.7242	0.0263	0.0001	0.0264
117.0667	0.7242	0	0.0001	0.0001
117.1	0.7229	0.0131	0.0014	0.0146
117.1333	0.7236	0.0131	0.0014	0.0146
117.1667	0.7232	0	0.0014	0.0014
117.2	0.7239	0	0.0014	0.0014
117.2333	0.7216	0	0.0001	0.0001
117.2667	0.7222	0	0.0001	0.0001
117.3	0.7216	0	0.0027	0.0027
117.3333	0.7229	0.0131	0.0014	0.0146
117.3667	0.7239	0	0.0014	0.0014
117.4	0.7236	0	0.0001	0.0001
117.4333	0.7222	0.0131	0.0001	0.0133
117.4667	0.7222	0.0131	0.0014	0.0146
117.5	0.7219	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
117.5333	0.7232	0.0131	0.0014	0.0146
117.5667	0.7229	0.0131	0.0027	0.0159
117.6	0.7236	0.0131	0.0014	0.0146
117.6333	0.7193	0.0131	0.0014	0.0146
117.6667	0.7226	0.0131	0.0001	0.0133
117.7	0.7219	0.0131	0.0014	0.0146
117.7333	0.7216	0	0.0001	0.0001
117.7667	0.7216	0	0.0001	0.0001
117.8	0.7226	0	0.0014	0.0014
117.8333	0.7239	0	0.0001	0.0001
117.8667	0.7226	0	0.0014	0.0014
117.9	0.7216	0	0.0014	0.0014
117.9333	0.7213	0	0.0014	0.0014
117.9667	0.7216	0.0131	0.0014	0.0146
118	0.7199	0	0.0014	0.0014
118.0333	0.7216	0.0263	0.0014	0.0277
118.0667	0.7196	0.0131	0.0014	0.0146
118.1	0.7209	0.0263	0.0014	0.0277
118.1333	0.7232	0.0263	0.0027	0.029
118.1667	0.7203	0.0131	0.0014	0.0146
118.2	0.7216	0	0.0014	0.0014
118.2333	0.7232	0.0263	0.0001	0.0264
118.2667	0.7203	0.0263	0.0001	0.0264
118.3	0.7176	0	0.0001	0.0001
118.3333	0.7199	0	0.0027	0.0027
118.3667	0.7259	0	0.0001	0.0001
118.4	0.7183	0.0131	0.0014	0.0146
118.4333	0.7206	0	0	0
118.4667	0.7236	0	0	0
118.5	0.7229	0	0.0014	0.0014
118.5333	0.7203	0.0131	0.0001	0.0133
118.5667	0.7209	0	0	0
118.6	0.7206	0.0131	0.0014	0.0146
118.6333	0.7209	0	0.0014	0.0014
118.6667	0.7213	0.0131	0.0014	0.0146
118.7	0.7209	0.0263	0.0014	0.0277
118.7333	0.7209	0.0131	0.0001	0.0133
118.7667	0.7209	0.0131	0.0001	0.0133
118.8	0.7219	0.0131	0.0027	0.0159
118.8333	0.7213	0.0131	0.0001	0.0133
118.8667	0.719	0	0.0014	0.0014
118.9	0.7203	0.0131	0.0014	0.0146
118.9333	0.7206	0	0.0001	0.0001

Areva NP Inc.

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
118.9667	0.7213	0.0131	0.0001	0.0133
119	0.7203	0.0131	0.0027	0.0159
119.0333	0.7216	0.0131	0.0014	0.0146
119.0667	0.7199	0	0.0014	0.0014
119.1	0.7213	0.0131	0.0014	0.0146
119.1333	0.7222	0	0.0001	0.0001
119.1667	0.7206	0.0131	0.0014	0.0146
119.2	0.7226	0.0263	0.0001	0.0264
119.2333	0.7206	0	0.0014	0.0014
119.2667	0.7226	0.0131	0.0001	0.0133
119.3	0.7183	0.0131	0.0027	0.0159
119.3333	0.7242	0	0.0001	0.0001
119.3667	0.7222	0	0.0014	0.0014
119.4	0.7213	0.0131	0.0001	0.0133
119.4333	0.7222	0	0.0001	0.0001
119.4667	0.7209	0.0131	0.0001	0.0133
119.5	0.7209	0	0.0014	0.0014
119.5333	0.7203	0.0131	0.0014	0.0146
119.5667	0.7216	0.0263	0.0014	0.0277
119.6	0.7229	0	0.0014	0.0014
119.6333	0.7219	0	0.0014	0.0014
119.6667	0.719	0.0131	0.0014	0.0146
119.7	0.7226	0	0.0001	0.0001
119.7333	0.7199	0.0131	0.0001	0.0133
119.7667	0.7209	0.0131	0.0014	0.0146
119.8	0.7186	0.0131	0.0014	0.0146
119.8333	0.7196	0.0131	0.0001	0.0133
119.8667	0.7242	0	0	0
119.9	0.7213	0	0.0014	0.0014
119.9333	0.7213	0	0	0
119.9667	0.7222	0	0.0014	0.0014
120	0.7206	0	0.0014	0.0014
120.0333	0.7199	0.0131	0.0001	0.0133
120.0667	0.7226	0.0131	0.0001	0.0133
120.1	0.7222	0.0131	0.0014	0.0146
120.1333	0.7216	0	0.0014	0.0014
120.1667	0.7262	0	0.0014	0.0014
120.2	0.7229	0.0131	0.0014	0.0146
120.2333	0.7229	0	0.0027	0.0027
120.2667	0.7232	0.0263	0.0001	0.0264
120.3	0.7236	0	0	0
120.3333	0.7245	0.0131	0.0001	0.0133
120.3667	0.7219	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
120.4	0.7213	0	0.0001	0.0001
120.4333	0.7249	0.0131	0	0.0131
120.4667	0.7219	0.0131	0	0.0131
120.5	0.7219	0	0.0014	0.0014
120.5333	0.7222	0	0.0014	0.0014
120.5667	0.7239	0	0.0001	0.0001
120.6	0.7242	0	0.0014	0.0014
120.6333	0.7209	0.0131	0.0014	0.0146
120.6667	0.7209	0.0131	0	0.0131
120.7	0.7206	0.0131	0	0.0131
120.7333	0.7239	0	0.0014	0.0014
120.7667	0.7206	0.0131	0.0001	0.0133
120.8	0.7239	0	0.0014	0.0014
120.8333	0.7196	0.0263	0.0014	0.0277
120.8667	0.7245	0	0.0014	0.0014
120.9	0.7216	0	0.0014	0.0014
120.9333	0.7226	0.0131	0.0014	0.0146
120.9667	0.7242	0	0.0027	0.0027
121	0.7239	0.0131	0.0001	0.0133
121.0333	0.7226	0	0	0
121.0667	0.7222	0.0131	0.0001	0.0133
121.1	0.7236	0.0131	0.0001	0.0133
121.1333	0.7236	0.0263	0	0.0263
121.1667	0.7245	0.0131	0.0001	0.0133
121.2	0.7249	0.0131	0.0001	0.0133
121.2333	0.7222	0.0263	0.0001	0.0264
121.2667	0.7249	0	0.0001	0.0001
121.3	0.7222	0	0.0014	0.0014
121.3333	0.7222	0.0131	0.0001	0.0133
121.3667	0.7199	0.0131	0.0014	0.0146
121.4	0.7252	0.0263	0.0014	0.0277
121.4333	0.7229	0.0131	0.0014	0.0146
121.4667	0.7262	0	0.0014	0.0014
121.5	0.7222	0	0.0014	0.0014
121.5333	0.7249	0	0.0014	0.0014
121.5667	0.7242	0.0131	0	0.0131
121.6	0.7219	0.0131	0.0014	0.0146
121.6333	0.7236	0	0.0001	0.0001
121.6667	0.7226	0.0263	0.0001	0.0264
121.7	0.7209	0	0.0001	0.0001
121.7333	0.7239	0	0.0014	0.0014
121.7667	0.7229	0	0	0
121.8	0.7229	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
121.8333	0.7232	0.0131	0.0014	0.0146
121.8667	0.7239	0	0.0014	0.0014
121.9	0.7222	0.0263	0.0001	0.0264
121.9333	0.7219	0.0263	0.0027	0.029
121.9667	0.7222	0.0131	0.0014	0.0146
122	0.7222	0	0.0001	0.0001
122.0333	0.7226	0	0.0001	0.0001
122.0667	0.7219	0.0131	0.0027	0.0159
122.1	0.7242	0.0131	0.0014	0.0146
122.1333	0.7259	0.0263	0.0001	0.0264
122.1667	0.7229	0.0131	0.0014	0.0146
122.2	0.7242	0.0131	0.0014	0.0146
122.2333	0.7232	0	0.0001	0.0001
122.2667	0.7252	0.0131	0.0014	0.0146
122.3	0.7242	0	0.0014	0.0014
122.3333	0.7288	0.0131	0.0001	0.0133
122.3667	0.7262	0.0131	0.0001	0.0133
122.4	0.7226	0.0131	0.0014	0.0146
122.4333	0.7196	0	0.0014	0.0014
122.4667	0.7222	0	0.0001	0.0001
122.5	0.7242	0.0131	0.0014	0.0146
122.5333	0.7259	0.0131	0.0001	0.0133
122.5667	0.7249	0	0.0001	0.0001
122.6	0.7255	0.0131	0.0014	0.0146
122.6333	0.7232	0	0.0014	0.0014
122.6667	0.7245	0.0131	0.0014	0.0146
122.7	0.7255	0	0.0001	0.0001
122.7333	0.7252	0.0131	0.0014	0.0146
122.7667	0.7236	0	0.0001	0.0001
122.8	0.7249	0.0131	0.0014	0.0146
122.8333	0.7255	0.0131	0	0.0131
122.8667	0.7259	0.0131	0.0014	0.0146
122.9	0.7226	0	0.0027	0.0027
122.9333	0.7269	0	0.0001	0.0001
122.9667	0.7216	0	0.0014	0.0014
123	0.7232	0.0394	0.0014	0.0409
123.0333	0.7269	0.0131	0.0014	0.0146
123.0667	0.7249	0.0131	0.0014	0.0146
123.1	0.7249	0	0.0014	0.0014
123.1333	0.7272	0	0.0014	0.0014
123.1667	0.7245	0	0.0001	0.0001
123.2	0.7216	0	0.0014	0.0014
123.2333	0.7232	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
123.2667	0.7222	0.0131	0.0014	0.0146
123.3	0.7236	0.0263	0.0001	0.0264
123.3333	0.7249	0.0131	0.0014	0.0146
123.3667	0.7255	0	0.0014	0.0014
123.4	0.7232	0.0131	0.0014	0.0146
123.4333	0.7239	0.0131	0.0001	0.0133
123.4667	0.7229	0	0.0014	0.0014
123.5	0.7216	0.0131	0.0027	0.0159
123.5333	0.7236	0.0131	0.0014	0.0146
123.5667	0.7249	0	0.0027	0.0027
123.6	0.7278	0	0.0001	0.0001
123.6333	0.7262	0.0131	0.0001	0.0133
123.6667	0.7252	0.0131	0.0001	0.0133
123.7	0.7265	0.0131	0.0014	0.0146
123.7333	0.7245	0.0131	0.0014	0.0146
123.7667	0.7259	0.0131	0.0027	0.0159
123.8	0.7259	0	0.0001	0.0001
123.8333	0.7245	0.0131	0.0027	0.0159
123.8667	0.7239	0	0.0001	0.0001
123.9	0.7265	0.0263	0.0014	0.0277
123.9333	0.7265	0	0.0001	0.0001
123.9667	0.7262	0	0.0014	0.0014
124	0.7236	0.0263	0.0001	0.0264
124.0333	0.7236	0	0.0027	0.0027
124.0667	0.7242	0.0131	0.0014	0.0146
124.1	0.7239	0.0131	0.0014	0.0146
124.1333	0.7249	0.0131	0.0014	0.0146
124.1667	0.7255	0.0131	0.0001	0.0133
124.2	0.7249	0	0.0014	0.0014
124.2333	0.7255	0.0131	0.0014	0.0146
124.2667	0.7229	0.0263	0.0001	0.0264
124.3	0.7269	0	0	0
124.3333	0.7262	0	0.0001	0.0001
124.3667	0.7232	0.0131	0.0014	0.0146
124.4	0.7255	0.0131	0	0.0131
124.4333	0.7259	0	0.0014	0.0014
124.4667	0.7278	0.0131	0.0001	0.0133
124.5	0.7236	0.0131	0.0014	0.0146
124.5333	0.7252	0	0.0014	0.0014
124.5667	0.7275	0.0131	0.0014	0.0146
124.6	0.7269	0.0131	0.0014	0.0146
124.6333	0.7232	0	0.0014	0.0014
124.6667	0.7282	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
124.7	0.7265	0.0131	0.0001	0.0133
124.7333	0.7245	0	0.0001	0.0001
124.7667	0.7239	0.0263	0.0014	0.0277
124.8	0.7245	0	0.0014	0.0014
124.8333	0.7239	0	0	0
124.8667	0.7239	0	0	0
124.9	0.7262	0.0131	0	0.0131
124.9333	0.7236	0	0.0001	0.0001
124.9667	0.7282	0.0263	0.0001	0.0264
125	0.7269	0.0131	0.0001	0.0133
125.0333	0.7262	0	0.0001	0.0001
125.0667	0.7275	0	0	0
125.1	0.7242	0	0	0
125.1333	0.7249	0.0131	0.0001	0.0133
125.1667	0.7239	0.0263	0.0014	0.0277
125.2	0.7252	0.0263	0	0.0263
125.2333	0.7236	0.0131	0.0001	0.0133
125.2667	0.7259	0.0263	0.0001	0.0264
125.3	0.7239	0	0.0014	0.0014
125.3333	0.7236	0.0131	0.0014	0.0146
125.3667	0.7242	0	0.0014	0.0014
125.4	0.7262	0.0131	0.0001	0.0133
125.4333	0.7249	0.0131	0.0027	0.0159
125.4667	0.7269	0.0263	0.0001	0.0264
125.5	0.7249	0	0.0014	0.0014
125.5333	0.7278	0.0131	0.0001	0.0133
125.5667	0.7275	0.0131	0.0014	0.0146
125.6	0.7285	0	0.0027	0.0027
125.6333	0.7282	0.0131	0.0014	0.0146
125.6667	0.7242	0.0131	0.0014	0.0146
125.7	0.7259	0	0.0001	0.0001
125.7333	0.7292	0	0.0014	0.0014
125.7667	0.7249	0	0.0001	0.0001
125.8	0.7255	0.0131	0.0014	0.0146
125.8333	0.7262	0.0263	0.0014	0.0277
125.8667	0.7278	0	0.0014	0.0014
125.9	0.7255	0.0131	0.0014	0.0146
125.9333	0.7232	0.0263	0.0014	0.0277
125.9667	0.7311	0.0131	0	0.0131
126	0.7275	0.0131	0.0001	0.0133
126.0333	0.7298	0.0263	0.0027	0.029
126.0667	0.7245	0	0.0001	0.0001
126.1	0.7249	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
126.1333	0.7249	0.0131	0.0014	0.0146
126.1667	0.7262	0.0131	0.0014	0.0146
126.2	0.7282	0.0131	0.0001	0.0133
126.2333	0.7259	0	0.0014	0.0014
126.2667	0.7239	0.0131	0.0041	0.0172
126.3	0.7278	0	0.0014	0.0014
126.3333	0.7282	0	0.0001	0.0001
126.3667	0.7262	0.0131	0.0001	0.0133
126.4	0.7275	0.0131	0.0027	0.0159
126.4333	0.7282	0.0131	0	0.0131
126.4667	0.7245	0	0.0014	0.0014
126.5	0.7265	0	0.0014	0.0014
126.5333	0.7285	0.0131	0.0001	0.0133
126.5667	0.7278	0.0131	0.0014	0.0146
126.6	0.7239	0.0131	0.0001	0.0133
126.6333	0.7239	0.0263	0.0014	0.0277
126.6667	0.7262	0.0263	0.0001	0.0264
126.7	0.7262	0	0	0
126.7333	0.7259	0	0.0027	0.0027
126.7667	0.7242	0.0131	0.0027	0.0159
126.8	0.7242	0.0131	0.0001	0.0133
126.8333	0.7252	0.0131	0.0014	0.0146
126.8667	0.7265	0	0.0001	0.0001
126.9	0.7272	0.0131	0.0001	0.0133
126.9333	0.7242	0.0131	0.0001	0.0133
126.9667	0.7282	0.0263	0.0027	0.029
127	0.7282	0.0131	0.0027	0.0159
127.0333	0.7245	0.0131	0.0014	0.0146
127.0667	0.7262	0	0.0014	0.0014
127.1	0.7255	0	0.0027	0.0027
127.1333	0.7272	0.0131	0.0001	0.0133
127.1667	0.7255	0	0.0027	0.0027
127.2	0.7272	0.0131	0.0014	0.0146
127.2333	0.7262	0.0263	0.0001	0.0264
127.2667	0.7265	0	0.0001	0.0001
127.3	0.7249	0.0131	0.0014	0.0146
127.3333	0.7242	0.0131	0.0014	0.0146
127.3667	0.7272	0.0131	0.0014	0.0146
127.4	0.7285	0.0263	0.0014	0.0277
127.4333	0.7288	0.0131	0.0014	0.0146
127.4667	0.7259	0.0263	0.0014	0.0277
127.5	0.7288	0.0131	0	0.0131
127.5333	0.7272	0.0131	0.0041	0.0172

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
127.5667	0.7216	0.0131	0.0001	0.0133
127.6	0.7278	0.0263	0.0014	0.0277
127.6333	0.7285	0.0131	0	0.0131
127.6667	0.7259	0.0263	0	0.0263
127.7	0.7278	0	0.0014	0.0014
127.7333	0.7265	0.0131	0.0014	0.0146
127.7667	0.7249	0.0263	0.0001	0.0264
127.8	0.7265	0.0263	0.0014	0.0277
127.8333	0.7255	0.0131	0.0014	0.0146
127.8667	0.7272	0.0131	0.0001	0.0133
127.9	0.7292	0.0131	0.0014	0.0146
127.9333	0.7272	0	0.0014	0.0014
127.9667	0.7278	0	0.0014	0.0014
128	0.7285	0	0.0014	0.0014
128.0333	0.7259	0.0131	0.0014	0.0146
128.0667	0.7249	0.0263	0.0014	0.0277
128.1	0.7285	0	0.0014	0.0014
128.1333	0.7292	0.0263	0.0014	0.0277
128.1667	0.7282	0.0131	0.0014	0.0146
128.2	0.7262	0	0.0027	0.0027
128.2333	0.7288	0	0.0027	0.0027
128.2667	0.7272	0	0.0014	0.0014
128.3	0.7278	0	0.0001	0.0001
128.3333	0.7252	0	0.0014	0.0014
128.3667	0.7288	0.0131	0.0014	0.0146
128.4	0.7278	0.0263	0.0001	0.0264
128.4333	0.7275	0	0.0027	0.0027
128.4667	0.7262	0.0131	0.0027	0.0159
128.5	0.7242	0.0131	0.0001	0.0133
128.5333	0.7252	0	0.0001	0.0001
128.5667	0.7252	0.0131	0.0001	0.0133
128.6	0.7285	0.0131	0.0014	0.0146
128.6333	0.7272	0.0131	0.0027	0.0159
128.6667	0.7282	0	0.0001	0.0001
128.7	0.7295	0.0263	0.0001	0.0264
128.7333	0.7242	0	0.0001	0.0001
128.7667	0.7239	0	0.0001	0.0001
128.8	0.7249	0	0	0
128.8333	0.7265	0.0131	0.0014	0.0146
128.8667	0.7269	0	0.0014	0.0014
128.9	0.7275	0.0131	0.0014	0.0146
128.9333	0.7265	0.0131	0.0014	0.0146
128.9667	0.7242	0.0263	0.0001	0.0264

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
129	0.7262	0.0131	0.0027	0.0159
129.0333	0.7265	0	0.0014	0.0014
129.0667	0.7269	0.0131	0.0014	0.0146
129.1	0.7269	0	0.0014	0.0014
129.1333	0.7252	0.0263	0.0001	0.0264
129.1667	0.7262	0.0263	0	0.0263
129.2	0.7269	0.0131	0.0001	0.0133
129.2333	0.7245	0	0.0027	0.0027
129.2667	0.7265	0.0131	0.0001	0.0133
129.3	0.7285	0	0.0001	0.0001
129.3333	0.7278	0.0131	0.0014	0.0146
129.3667	0.7292	0.0131	0	0.0131
129.4	0.7259	0	0.0027	0.0027
129.4333	0.7295	0.0131	0.0014	0.0146
129.4667	0.7331	0.0263	0.0014	0.0277
129.5	0.7318	0.0131	0.0001	0.0133
129.5333	0.7331	0.0131	0.0001	0.0133
129.5667	0.7397	0.0131	0.0014	0.0146
129.6	0.7479	0.0131	0.0001	0.0133
129.6333	0.7532	0.0131	0.0014	0.0146
129.6667	0.7621	0	0.0014	0.0014
129.7	0.7673	0.0263	0.0014	0.0277
129.7333	0.7825	0.0131	0.0014	0.0146
129.7667	0.795	0.0131	0.0001	0.0133
129.8	0.8157	0.0131	0.0014	0.0146
129.8333	0.8322	0.0131	0.0014	0.0146
129.8667	0.8503	0.0131	0.0027	0.0159
129.9	0.8681	0	0.0014	0.0014
129.9333	0.8875	0.0131	0.0014	0.0146
129.9667	0.9029	0	0.0001	0.0001
130	0.9233	0	0.0001	0.0001
130.0333	0.9431	0.0131	0.0001	0.0133
130.0667	0.9622	0.0131	0.0027	0.0159
130.1	0.9816	0.0131	0.0014	0.0146
130.1333	1	0	0.0014	0.0014
130.1667	1.0185	0	0.0014	0.0014
130.2	1.0349	0.0131	0.0001	0.0133
130.2333	1.053	0.0131	0.0014	0.0146
130.2667	1.0718	0	0.0001	0.0001
130.3	1.0869	0	0.0014	0.0014
130.3333	1.1027	0	0.0014	0.0014
130.3667	1.1221	0.0263	0.0014	0.0277
130.4	1.1356	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
130.4333	1.1537	0.0131	0.0001	0.0133
130.4667	1.1682	0	0.0014	0.0014
130.5	1.186	0	0.0027	0.0027
130.5333	1.2021	0.0131	0.0014	0.0146
130.5667	1.2159	0.0131	0.0001	0.0133
130.6	1.2311	0.0131	0.0001	0.0133
130.6333	1.2449	0.0263	0.0014	0.0277
130.6667	1.2591	0	0.0001	0.0001
130.7	1.2788	0	0.0014	0.0014
130.7333	1.2913	0.0131	0.0014	0.0146
130.7667	1.3051	0.0131	0.0014	0.0146
130.8	1.318	0	0.0001	0.0001
130.8333	1.3334	0.0131	0.0014	0.0146
130.8667	1.342	0.0131	0.0014	0.0146
130.9	1.3581	0.0263	0.0014	0.0277
130.9333	1.3713	0.0131	0.0014	0.0146
130.9667	1.3851	0.0263	0.0014	0.0277
131	1.3914	0	0.0014	0.0014
131.0333	1.4059	0.0131	0.0027	0.0159
131.0667	1.4167	0.0131	0.0014	0.0146
131.1	1.4309	0.0131	0	0.0131
131.1333	1.4401	0.0131	0.0001	0.0133
131.1667	1.4506	0.0131	0.0001	0.0133
131.2	1.4556	0.0131	0.0014	0.0146
131.2333	1.4615	0.0131	0.0014	0.0146
131.2667	1.4635	0.0263	0.0014	0.0277
131.3	1.4658	0.0263	0.0014	0.0277
131.3333	1.469	0.0263	0.0027	0.029
131.3667	1.473	0	0.0014	0.0014
131.4	1.476	0.0131	0	0.0131
131.4333	1.4733	0.0131	0.0014	0.0146
131.4667	1.4704	0.0131	0.0001	0.0133
131.5	1.4746	0	0.0001	0.0001
131.5333	1.4727	0.0263	0.0001	0.0264
131.5667	1.4707	0	0.0014	0.0014
131.6	1.4671	0.0131	0.0001	0.0133
131.6333	1.4651	0.0263	0.0014	0.0277
131.6667	1.4641	0.0131	0.0027	0.0159
131.7	1.4658	0.0131	0.0001	0.0133
131.7333	1.4608	0	0.0001	0.0001
131.7667	1.4598	0.0263	0.0014	0.0277
131.8	1.4611	0.0263	0.0014	0.0277
131.8333	1.4602	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
131.8667	1.4562	0	0.0014	0.0014
131.9	1.4569	0.0131	0.0014	0.0146
131.9333	1.4539	0.0131	0.0014	0.0146
131.9667	1.4536	0.0131	0.0014	0.0146
132	1.4549	0.0131	0.0014	0.0146
132.0333	1.4523	0.0131	0.0001	0.0133
132.0667	1.4513	0	0.0001	0.0001
132.1	1.45	0.0131	0	0.0131
132.1333	1.447	0.0131	0.0001	0.0133
132.1667	1.4467	0	0	0
132.2	1.4483	0	0.0001	0.0001
132.2333	1.4483	0	0.0014	0.0014
132.2667	1.4444	0.0131	0	0.0131
132.3	1.4477	0.0263	0.0014	0.0277
132.3333	1.446	0	0.0014	0.0014
132.3667	1.4477	0	0.0014	0.0014
132.4	1.447	0.0131	0.0001	0.0133
132.4333	1.445	0.0131	0.0001	0.0133
132.4667	1.4444	0	0.0014	0.0014
132.5	1.4454	0	0.0014	0.0014
132.5333	1.445	0	0.0014	0.0014
132.5667	1.448	0.0131	0	0.0131
132.6	1.4463	0.0131	0.0014	0.0146
132.6333	1.4447	0.0131	0.0014	0.0146
132.6667	1.4463	0.0131	0.0027	0.0159
132.7	1.4463	0.0131	0.0001	0.0133
132.7333	1.447	0	0	0
132.7667	1.4467	0	0.0001	0.0001
132.8	1.4434	0.0131	0.0014	0.0146
132.8333	1.4454	0.0131	0.0014	0.0146
132.8667	1.447	0.0131	0.0014	0.0146
132.9	1.445	0.0131	0.0001	0.0133
132.9333	1.4444	0.0131	0.0001	0.0133
132.9667	1.4463	0	0	0
133	1.445	0.0131	0.0014	0.0146
133.0333	1.447	0	0.0014	0.0014
133.0667	1.4473	0.0263	0.0014	0.0277
133.1	1.4463	0.0263	0.0014	0.0277
133.1333	1.4473	0.0131	0.0014	0.0146
133.1667	1.4496	0.0131	0	0.0131
133.2	1.4483	0.0131	0.0014	0.0146
133.2333	1.4486	0.0131	0.0014	0.0146
133.2667	1.447	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
133.3	1.4477	0.0131	0.0014	0.0146
133.3333	1.4513	0.0131	0.0001	0.0133
133.3667	1.4506	0.0131	0.0014	0.0146
133.4	1.4513	0.0131	0.0014	0.0146
133.4333	1.45	0	0.0014	0.0014
133.4667	1.4483	0	0.0014	0.0014
133.5	1.4493	0.0263	0.0014	0.0277
133.5333	1.4503	0.0263	0.0014	0.0277
133.5667	1.4506	0.0131	0.0014	0.0146
133.6	1.4532	0	0.0014	0.0014
133.6333	1.4506	0	0.0014	0.0014
133.6667	1.4519	0.0131	0.0014	0.0146
133.7	1.4519	0	0.0014	0.0014
133.7333	1.4569	0.0131	0.0014	0.0146
133.7667	1.4539	0	0.0014	0.0014
133.8	1.4539	0	0.0014	0.0014
133.8333	1.4516	0.0131	0.0014	0.0146
133.8667	1.4556	0.0263	0	0.0263
133.9	1.4552	0.0131	0.0014	0.0146
133.9333	1.4552	0.0394	0.0014	0.0409
133.9667	1.4513	0.0263	0.0014	0.0277
134	1.4536	0.0131	0.0001	0.0133
134.0333	1.4556	0.0131	0.0001	0.0133
134.0667	1.4569	0	0.0001	0.0001
134.1	1.4552	0	0.0001	0.0001
134.1333	1.4569	0.0263	0.0001	0.0264
134.1667	1.4536	0	0.0014	0.0014
134.2	1.4559	0.0131	0.0001	0.0133
134.2333	1.4585	0.0131	0.0001	0.0133
134.2667	1.4572	0	0.0001	0.0001
134.3	1.4595	0.0131	0.0014	0.0146
134.3333	1.4592	0	0.0001	0.0001
134.3667	1.4628	0.0131	0.0001	0.0133
134.4	1.4565	0.0131	0.0001	0.0133
134.4333	1.4602	0	0.0001	0.0001
134.4667	1.4592	0.0131	0.0014	0.0146
134.5	1.4585	0.0131	0.0014	0.0146
134.5333	1.4625	0.0131	0	0.0131
134.5667	1.4618	0.0131	0.0014	0.0146
134.6	1.4625	0.0131	0.0001	0.0133
134.6333	1.4608	0	0.0001	0.0001
134.6667	1.4661	0	0.0014	0.0014
134.7	1.4618	0.0131	0.0027	0.0159



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
134.7333	1.4635	0.0131	0.0027	0.0159
134.7667	1.4631	0.0131	0.0014	0.0146
134.8	1.4644	0	0.0014	0.0014
134.8333	1.4658	0.0131	0.0001	0.0133
134.8667	1.4628	0	0.0014	0.0014
134.9	1.4648	0	0.0001	0.0001
134.9333	1.4638	0.0131	0.0014	0.0146
134.9667	1.4654	0.0263	0.0001	0.0264
135	1.4671	0.0263	0.0001	0.0264
135.0333	1.4664	0.0131	0.0001	0.0133
135.0667	1.4674	0.0263	0.0014	0.0277
135.1	1.4664	0	0	0
135.1333	1.4681	0.0131	0.0001	0.0133
135.1667	1.4681	0	0.0001	0.0001
135.2	1.4707	0	0.0014	0.0014
135.2333	1.4677	0	0.0014	0.0014
135.2667	1.4714	0	0	0
135.3	1.4694	0	0.0014	0.0014
135.3333	1.471	0	0.0014	0.0014
135.3667	1.4684	0.0131	0	0.0131
135.4	1.471	0	0.0001	0.0001
135.4333	1.4714	0.0131	0.0027	0.0159
135.4667	1.472	0.0131	0	0.0131
135.5	1.4746	0.0131	0.0001	0.0133
135.5333	1.473	0.0131	0.0014	0.0146
135.5667	1.4714	0	0.0014	0.0014
135.6	1.475	0	0	0
135.6333	1.474	0.0131	0.0014	0.0146
135.6667	1.474	0.0394	0.0001	0.0396
135.7	1.474	0.0131	0.0027	0.0159
135.7333	1.4717	0.0131	0.0014	0.0146
135.7667	1.4737	0.0263	0.0001	0.0264
135.8	1.4733	0	0.0014	0.0014
135.8333	1.474	0.0131	0.0014	0.0146
135.8667	1.4779	0	0.0001	0.0001
135.9	1.4783	0	0	0
135.9333	1.4773	0	0.0014	0.0014
135.9667	1.4789	0.0131	0.0001	0.0133
136	1.4793	0.0131	0.0014	0.0146
136.0333	1.4786	0.0131	0.0014	0.0146
136.0667	1.4793	0	0.0001	0.0001
136.1	1.4766	0.0131	0.0014	0.0146
136.1333	1.4819	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
136.1667	1.4799	0.0131	0.0001	0.0133
136.2	1.4796	0	0.0014	0.0014
136.2333	1.4802	0	0.0001	0.0001
136.2667	1.4812	0.0131	0.0014	0.0146
136.3	1.4835	0	0	0
136.3333	1.4819	0.0131	0.0014	0.0146
136.3667	1.4825	0.0131	0.0014	0.0146
136.4	1.4835	0	0.0027	0.0027
136.4333	1.4822	0.0131	0.0014	0.0146
136.4667	1.4822	0.0131	0.0001	0.0133
136.5	1.4822	0	0.0001	0.0001
136.5333	1.4842	0.0131	0.0001	0.0133
136.5667	1.4845	0.0131	0.0027	0.0159
136.6	1.4839	0.0263	0.0001	0.0264
136.6333	1.4885	0.0263	0.0027	0.029
136.6667	1.4825	0.0131	0.0001	0.0133
136.7	1.4868	0	0.0014	0.0014
136.7333	1.4865	0.0131	0.0014	0.0146
136.7667	1.4865	0	0	0
136.8	1.4852	0.0131	0	0.0131
136.8333	1.4921	0.0394	0.0001	0.0396
136.8667	1.4875	0.0131	0.0014	0.0146
136.9	1.4895	0.0131	0.0001	0.0133
136.9333	1.4858	0.0131	0.0014	0.0146
136.9667	1.4885	0.0263	0	0.0263
137	1.4881	0.0131	0.0014	0.0146
137.0333	1.4872	0	0.0001	0.0001
137.0667	1.4878	0	0.0014	0.0014
137.1	1.4891	0	0.0001	0.0001
137.1333	1.4911	0	0.0001	0.0001
137.1667	1.4904	0	0	0
137.2	1.4911	0.0263	0.0001	0.0264
137.2333	1.4904	0.0131	0.0014	0.0146
137.2667	1.4901	0.0131	0.0014	0.0146
137.3	1.4918	0	0.0001	0.0001
137.3333	1.4901	0.0131	0.0014	0.0146
137.3667	1.4927	0	0.0014	0.0014
137.4	1.4941	0.0131	0.0014	0.0146
137.4333	1.4931	0.0131	0.0014	0.0146
137.4667	1.4944	0.0263	0.0001	0.0264
137.5	1.4921	0	0.0001	0.0001
137.5333	1.4931	0	0.0001	0.0001
137.5667	1.495	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
137.6	1.4941	0	0.0014	0.0014
137.6333	1.496	0.0131	0.0001	0.0133
137.6667	1.4924	0.0131	0.0001	0.0133
137.7	1.4954	0.0131	0.0014	0.0146
137.7333	1.4957	0.0131	0.0014	0.0146
137.7667	1.495	0.0131	0.0014	0.0146
137.8	1.4901	0.0263	0.0001	0.0264
137.8333	1.4848	0.0131	0.0014	0.0146
137.8667	1.4766	0.0131	0.0001	0.0133
137.9	1.4727	0.0131	0.0014	0.0146
137.9333	1.4723	0.0263	0.0001	0.0264
137.9667	1.4654	0	0.0014	0.0014
138	1.4615	0.0263	0.0001	0.0264
138.0333	1.4565	0.0131	0.0014	0.0146
138.0667	1.4536	0.0131	0	0.0131
138.1	1.4536	0	0.0014	0.0014
138.1333	1.4539	0.0263	0.0014	0.0277
138.1667	1.4565	0.0131	0.0014	0.0146
138.2	1.4579	0	0.0014	0.0014
138.2333	1.4569	0.0263	0.0001	0.0264
138.2667	1.4582	0	0.0027	0.0027
138.3	1.4595	0.0131	0.0001	0.0133
138.3333	1.4585	0.0131	0.0001	0.0133
138.3667	1.4602	0	0.0014	0.0014
138.4	1.4608	0.0131	0.0001	0.0133
138.4333	1.4615	0.0131	0.0014	0.0146
138.4667	1.4625	0	0.0001	0.0001
138.5	1.4611	0.0263	0.0001	0.0264
138.5333	1.4605	0.0131	0.0001	0.0133
138.5667	1.4621	0.0131	0.0001	0.0133
138.6	1.4618	0	0	0
138.6333	1.4641	0.0131	0.0001	0.0133
138.6667	1.4631	0.0131	0.0001	0.0133
138.7	1.4671	0.0131	0.0014	0.0146
138.7333	1.4641	0	0.0014	0.0014
138.7667	1.4651	0.0131	0.0001	0.0133
138.8	1.4664	0.0263	0.0027	0.029
138.8333	1.4661	0	0.0014	0.0014
138.8667	1.4687	0.0131	0.0001	0.0133
138.9	1.4667	0	0.0001	0.0001
138.9333	1.4648	0	0.0014	0.0014
138.9667	1.4661	0	0.0014	0.0014
139	1.4667	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
139.0333	1.471	0	0.0001	0.0001
139.0667	1.4717	0.0131	0.0014	0.0146
139.1	1.4717	0.0131	0.0014	0.0146
139.1333	1.4658	0	0.0014	0.0014
139.1667	1.4687	0	0.0027	0.0027
139.2	1.4704	0	0.0001	0.0001
139.2333	1.4664	0.0131	0.0014	0.0146
139.2667	1.4677	0	0.0014	0.0014
139.3	1.4664	0	0.0001	0.0001
139.3333	1.4694	0	0.0001	0.0001
139.3667	1.4677	0.0263	0.0014	0.0277
139.4	1.4658	0.0131	0.0014	0.0146
139.4333	1.4651	0.0131	0.0014	0.0146
139.4667	1.4654	0	0.0027	0.0027
139.5	1.4644	0	0.0014	0.0014
139.5333	1.4625	0	0.0001	0.0001
139.5667	1.4602	0.0131	0.0014	0.0146
139.6	1.4618	0.0131	0.0014	0.0146
139.6333	1.4592	0.0131	0.0001	0.0133
139.6667	1.4621	0.0263	0.0014	0.0277
139.7	1.4562	0.0131	0.0001	0.0133
139.7333	1.4605	0.0131	0.0001	0.0133
139.7667	1.4575	0.0131	0.0014	0.0146
139.8	1.4585	0.0131	0.0014	0.0146
139.8333	1.4595	0	0	0
139.8667	1.4579	0	0.0014	0.0014
139.9	1.4556	0	0.0001	0.0001
139.9333	1.4572	0	0.0001	0.0001
139.9667	1.4569	0.0131	0.0001	0.0133
140	1.4542	0.0131	0.0014	0.0146
140.0333	1.4565	0	0.0001	0.0001
140.0667	1.4513	0.0131	0.0014	0.0146
140.1	1.4516	0.0131	0.0014	0.0146
140.1333	1.4565	0.0131	0.0014	0.0146
140.1667	1.4513	0.0131	0.0014	0.0146
140.2	1.4523	0.0131	0.0027	0.0159
140.2333	1.4513	0.0131	0.0001	0.0133
140.2667	1.4513	0	0.0014	0.0014
140.3	1.447	0	0.0014	0.0014
140.3333	1.4519	0.0131	0.0014	0.0146
140.3667	1.4503	0	0.0001	0.0001
140.4	1.4477	0.0131	0.0014	0.0146
140.4333	1.4496	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
140.4667	1.4473	0.0131	0.0027	0.0159
140.5	1.449	0	0.0001	0.0001
140.5333	1.4483	0	0.0001	0.0001
140.5667	1.4454	0	0.0001	0.0001
140.6	1.444	0.0263	0.0014	0.0277
140.6333	1.4434	0.0131	0.0001	0.0133
140.6667	1.443	0.0131	0.0014	0.0146
140.7	1.445	0.0263	0.0014	0.0277
140.7333	1.4404	0	0.0014	0.0014
140.7667	1.443	0	0.0014	0.0014
140.8	1.4424	0	0.0014	0.0014
140.8333	1.4391	0.0131	0.0001	0.0133
140.8667	1.4384	0	0.0014	0.0014
140.9	1.4401	0.0131	0.0001	0.0133
140.9333	1.4407	0.0263	0.0014	0.0277
140.9667	1.4414	0.0131	0.0014	0.0146
141	1.4371	0.0263	0.0014	0.0277
141.0333	1.4375	0.0131	0.0014	0.0146
141.0667	1.4398	0.0131	0.0014	0.0146
141.1	1.4345	0.0131	0.0014	0.0146
141.1333	1.4368	0.0131	0.0001	0.0133
141.1667	1.4384	0.0131	0	0.0131
141.2	1.4365	0.0131	0.0027	0.0159
141.2333	1.4365	0.0131	0.0001	0.0133
141.2667	1.4345	0.0263	0.0027	0.029
141.3	1.4332	0.0131	0.0027	0.0159
141.3333	1.4319	0.0131	0.0014	0.0146
141.3667	1.4361	0.0131	0.0001	0.0133
141.4	1.4332	0	0	0
141.4333	1.4335	0	0.0014	0.0014
141.4667	1.4348	0	0.0001	0.0001
141.5	1.4348	0	0.0001	0.0001
141.5333	1.4322	0	0.0014	0.0014
141.5667	1.4292	0.0131	0.0027	0.0159
141.6	1.4319	0.0131	0.0014	0.0146
141.6333	1.4286	0.0131	0.0014	0.0146
141.6667	1.4299	0.0263	0.0001	0.0264
141.7	1.4292	0.0131	0.0014	0.0146
141.7333	1.4282	0	0	0
141.7667	1.4256	0.0131	0.0001	0.0133
141.8	1.4249	0	0.0001	0.0001
141.8333	1.4259	0.0131	0.0014	0.0146
141.8667	1.4263	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
141.9	1.4243	0.0131	0.0001	0.0133
141.9333	1.4259	0.0131	0.0014	0.0146
141.9667	1.4249	0.0263	0.0001	0.0264
142	1.4253	0.0131	0.0014	0.0146
142.0333	1.4253	0	0.0001	0.0001
142.0667	1.4256	0.0263	0.0001	0.0264
142.1	1.422	0	0.0001	0.0001
142.1333	1.4226	0	0	0
142.1667	1.422	0	0.0001	0.0001
142.2	1.424	0.0131	0.0014	0.0146
142.2333	1.4233	0.0131	0.0014	0.0146
142.2667	1.4236	0.0131	0.0014	0.0146
142.3	1.4243	0	0.0014	0.0014
142.3333	1.4217	0.0131	0.0014	0.0146
142.3667	1.4213	0.0131	0.0014	0.0146
142.4	1.422	0.0263	0.0001	0.0264
142.4333	1.4207	0.0131	0.0014	0.0146
142.4667	1.4187	0.0131	0.0014	0.0146
142.5	1.42	0.0131	0.0001	0.0133
142.5333	1.4193	0.0131	0.0014	0.0146
142.5667	1.4157	0.0131	0.0001	0.0133
142.6	1.4187	0.0131	0.0014	0.0146
142.6333	1.4164	0.0131	0.0001	0.0133
142.6667	1.418	0.0131	0.0014	0.0146
142.7	1.4167	0.0131	0.0014	0.0146
142.7333	1.4144	0.0131	0.0014	0.0146
142.7667	1.4144	0.0131	0.0001	0.0133
142.8	1.4174	0.0131	0.0014	0.0146
142.8333	1.4138	0.0131	0.0027	0.0159
142.8667	1.4144	0.0131	0.0027	0.0159
142.9	1.4147	0.0131	0	0.0131
142.9333	1.4147	0.0263	0.0014	0.0277
142.9667	1.4154	0.0131	0.0014	0.0146
143	1.4091	0.0131	0.0027	0.0159
143.0333	1.4118	0.0263	0.0014	0.0277
143.0667	1.4108	0.0131	0.0041	0.0172
143.1	1.4131	0.0131	0.0001	0.0133
143.1333	1.4091	0.0131	0.0001	0.0133
143.1667	1.4088	0.0131	0.0014	0.0146
143.2	1.4085	0	0.0001	0.0001
143.2333	1.4082	0.0131	0.0014	0.0146
143.2667	1.4082	0	0.0014	0.0014
143.3	1.4111	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
143.3333	1.4088	0	0.0001	0.0001
143.3667	1.4059	0	0.0014	0.0014
143.4	1.4078	0	0.0014	0.0014
143.4333	1.4075	0.0131	0.0014	0.0146
143.4667	1.4072	0.0131	0.0027	0.0159
143.5	1.4078	0.0131	0.0014	0.0146
143.5333	1.4055	0.0131	0	0.0131
143.5667	1.4042	0.0131	0.0014	0.0146
143.6	1.4052	0	0.0014	0.0014
143.6333	1.4045	0.0131	0.0001	0.0133
143.6667	1.4065	0.0131	0.0014	0.0146
143.7	1.4065	0.0131	0.0001	0.0133
143.7333	1.4016	0.0131	0.0027	0.0159
143.7667	1.4036	0.0131	0.0027	0.0159
143.8	1.4049	0.0131	0.0014	0.0146
143.8333	1.4029	0.0263	0.0001	0.0264
143.8667	1.4055	0.0131	0.0014	0.0146
143.9	1.4029	0	0	0
143.9333	1.4022	0.0131	0.0014	0.0146
143.9667	1.4045	0.0131	0.0014	0.0146
144	1.4026	0.0263	0.0001	0.0264
144.0333	1.4019	0	0.0001	0.0001
144.0667	1.4026	0.0263	0.0014	0.0277
144.1	1.4016	0.0131	0.0001	0.0133
144.1333	1.4003	0	0.0027	0.0027
144.1667	1.3989	0.0131	0.0014	0.0146
144.2	1.3999	0.0263	0.0001	0.0264
144.2333	1.3993	0.0131	0.0001	0.0133
144.2667	1.4016	0.0131	0.0014	0.0146
144.3	1.398	0.0131	0.0027	0.0159
144.3333	1.4003	0.0131	0.0001	0.0133
144.3667	1.3976	0.0131	0.0014	0.0146
144.4	1.3963	0	0.0001	0.0001
144.4333	1.396	0.0131	0.0014	0.0146
144.4667	1.3973	0.0131	0.0014	0.0146
144.5	1.3966	0.0131	0.0027	0.0159
144.5333	1.3963	0	0.0014	0.0014
144.5667	1.393	0.0131	0.0014	0.0146
144.6	1.3957	0.0131	0.0014	0.0146
144.6333	1.3933	0.0131	0.0014	0.0146
144.6667	1.3953	0.0131	0	0.0131
144.7	1.3963	0.0131	0.0001	0.0133
144.7333	1.3943	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
144.7667	1.3937	0	0.0014	0.0014
144.8	1.3953	0.0131	0.0001	0.0133
144.8333	1.395	0.0263	0.0014	0.0277
144.8667	1.3957	0.0131	0.0014	0.0146
144.9	1.392	0	0.0014	0.0014
144.9333	1.3943	0.0263	0.0014	0.0277
144.9667	1.3914	0.0131	0.0001	0.0133
145	1.3953	0.0263	0.0001	0.0264
145.0333	1.394	0.0131	0.0027	0.0159
145.0667	1.3937	0.0131	0.0014	0.0146
145.1	1.3947	0.0131	0.0014	0.0146
145.1333	1.394	0.0131	0	0.0131
145.1667	1.3976	0.0131	0.0001	0.0133
145.2	1.393	0.0131	0.0027	0.0159
145.2333	1.395	0.0131	0.0014	0.0146
145.2667	1.3953	0	0.0001	0.0001
145.3	1.3986	0	0.0014	0.0014
145.3333	1.3963	0	0.0027	0.0027
145.3667	1.3989	0.0131	0.0001	0.0133
145.4	1.398	0.0131	0.0027	0.0159
145.4333	1.4006	0.0131	0.0014	0.0146
145.4667	1.4029	0	0.0001	0.0001
145.5	1.4012	0.0131	0.0014	0.0146
145.5333	1.4032	0.0131	0.0014	0.0146
145.5667	1.4032	0.0131	0.0014	0.0146
145.6	1.4065	0.0394	0.0014	0.0409
145.6333	1.4062	0	0.0014	0.0014
145.6667	1.4075	0.0263	0.0027	0.029
145.7	1.4082	0.0131	0.0014	0.0146
145.7333	1.4085	0	0.0001	0.0001
145.7667	1.4088	0.0131	0.0014	0.0146
145.8	1.4114	0	0.0014	0.0014
145.8333	1.4098	0.0131	0.0001	0.0133
145.8667	1.4134	0.0131	0.0027	0.0159
145.9	1.4161	0.0263	0.0001	0.0264
145.9333	1.4197	0.0131	0.0001	0.0133
145.9667	1.418	0	0.0001	0.0001
146	1.4203	0.0131	0.0014	0.0146
146.0333	1.421	0	0.0014	0.0014
146.0667	1.4213	0.0131	0.0014	0.0146
146.1	1.423	0.0263	0.0001	0.0264
146.1333	1.4249	0	0.0001	0.0001
146.1667	1.4249	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
146.2	1.4269	0	0.0027	0.0027
146.2333	1.4259	0.0263	0.0014	0.0277
146.2667	1.4282	0.0131	0.0027	0.0159
146.3	1.4299	0.0131	0.0014	0.0146
146.3333	1.4296	0.0131	0.0001	0.0133
146.3667	1.4348	0	0.0014	0.0014
146.4	1.4332	0.0131	0.0014	0.0146
146.4333	1.4332	0	0	0
146.4667	1.4351	0.0131	0.0014	0.0146
146.5	1.4365	0.0263	0.0014	0.0277
146.5333	1.4384	0.0131	0.0014	0.0146
146.5667	1.4368	0.0131	0.0001	0.0133
146.6	1.4391	0	0.0014	0.0014
146.6333	1.4411	0	0.0014	0.0014
146.6667	1.4427	0.0131	0.0001	0.0133
146.7	1.4404	0.0131	0.0014	0.0146
146.7333	1.4421	0.0131	0.0001	0.0133
146.7667	1.4444	0.0263	0.0001	0.0264
146.8	1.4473	0	0.0014	0.0014
146.8333	1.4463	0	0.0014	0.0014
146.8667	1.4483	0.0131	0.0014	0.0146
146.9	1.4516	0.0131	0.0027	0.0159
146.9333	1.4473	0.0131	0.0001	0.0133
146.9667	1.4516	0.0131	0.0014	0.0146
147	1.4536	0.0131	0.0014	0.0146
147.0333	1.4529	0.0131	0.0001	0.0133
147.0667	1.4529	0	0.0001	0.0001
147.1	1.4529	0.0131	0.0014	0.0146
147.1333	1.4582	0.0131	0	0.0131
147.1667	1.4542	0	0.0014	0.0014
147.2	1.4605	0	0.0014	0.0014
147.2333	1.4592	0.0131	0.0001	0.0133
147.2667	1.4598	0.0131	0.0014	0.0146
147.3	1.4608	0.0131	0.0014	0.0146
147.3333	1.4595	0	0.0027	0.0027
147.3667	1.4648	0	0.0014	0.0014
147.4	1.4635	0.0131	0.0001	0.0133
147.4333	1.4648	0	0.0014	0.0014
147.4667	1.4641	0.0131	0.0027	0.0159
147.5	1.4641	0.0131	0.0027	0.0159
147.5333	1.469	0.0263	0.0027	0.029
147.5667	1.469	0.0131	0.0014	0.0146
147.6	1.4684	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
147.6333	1.4714	0.0131	0.0014	0.0146
147.6667	1.4723	0	0.0001	0.0001
147.7	1.4737	0.0263	0.0014	0.0277
147.7333	1.473	0.0131	0.0014	0.0146
147.7667	1.472	0.0263	0	0.0263
147.8	1.4766	0.0131	0.0014	0.0146
147.8333	1.4766	0.0131	0.0014	0.0146
147.8667	1.4769	0.0131	0.0014	0.0146
147.9	1.4776	0.0131	0.0001	0.0133
147.9333	1.4776	0	0.0014	0.0014
147.9667	1.4789	0.0131	0.0014	0.0146
148	1.4793	0	0.0001	0.0001
148.0333	1.4802	0	0.0001	0.0001
148.0667	1.4802	0	0.0014	0.0014
148.1	1.4822	0.0131	0.0014	0.0146
148.1333	1.4809	0.0131	0.0001	0.0133
148.1667	1.4842	0	0.0014	0.0014
148.2	1.4835	0.0131	0.0014	0.0146
148.2333	1.4862	0.0131	0.0001	0.0133
148.2667	1.4875	0.0131	0.0001	0.0133
148.3	1.4878	0.0131	0	0.0131
148.3333	1.4872	0	0.0001	0.0001
148.3667	1.4855	0	0.0001	0.0001
148.4	1.4898	0.0131	0.0014	0.0146
148.4333	1.4875	0.0131	0.0014	0.0146
148.4667	1.4901	0	0	0
148.5	1.4934	0	0.0014	0.0014
148.5333	1.4888	0	0.0014	0.0014
148.5667	1.4937	0.0131	0.0014	0.0146
148.6	1.4944	0.0131	0.0001	0.0133
148.6333	1.4967	0	0.0001	0.0001
148.6667	1.4941	0	0.0014	0.0014
148.7	1.496	0.0131	0.0014	0.0146
148.7333	1.4921	0.0131	0.0014	0.0146
148.7667	1.498	0	0	0
148.8	1.4964	0.0131	0.0014	0.0146
148.8333	1.4947	0.0131	0.0001	0.0133
148.8667	1.4997	0.0131	0.0001	0.0133
148.9	1.4987	0	0.0001	0.0001
148.9333	1.4993	0.0131	0.0001	0.0133
148.9667	1.5016	0	0.0027	0.0027
149	1.5026	0.0131	0.0027	0.0159
149.0333	1.502	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
149.0667	1.501	0.0131	0.0014	0.0146
149.1	1.5043	0	0.0014	0.0014
149.1333	1.5029	0.0394	0.0001	0.0396
149.1667	1.5059	0.0131	0.0014	0.0146
149.2	1.5056	0.0263	0.0014	0.0277
149.2333	1.5046	0.0131	0.0001	0.0133
149.2667	1.5066	0.0131	0.0014	0.0146
149.3	1.5076	0	0.0001	0.0001
149.3333	1.5108	0	0.0001	0.0001
149.3667	1.5089	0.0263	0	0.0263
149.4	1.5076	0.0131	0.0001	0.0133
149.4333	1.5115	0.0131	0.0001	0.0133
149.4667	1.5099	0.0394	0.0001	0.0396
149.5	1.5085	0.0131	0.0014	0.0146
149.5333	1.5112	0.0131	0.0001	0.0133
149.5667	1.5132	0	0.0014	0.0014
149.6	1.5141	0	0.0014	0.0014
149.6333	1.5132	0.0131	0.0001	0.0133
149.6667	1.5155	0.0131	0.0001	0.0133
149.7	1.5174	0	0.0001	0.0001
149.7333	1.5135	0.0263	0.0014	0.0277
149.7667	1.5155	0.0131	0.0001	0.0133
149.8	1.5194	0	0.0001	0.0001
149.8333	1.5191	0.0131	0.0001	0.0133
149.8667	1.5164	0	0.0001	0.0001
149.9	1.5197	0.0131	0.0014	0.0146
149.9333	1.5197	0.0131	0.0001	0.0133
149.9667	1.5184	0.0131	0.0014	0.0146
150	1.5207	0.0131	0.0014	0.0146
150.0333	1.5191	0.0263	0.0014	0.0277
150.0667	1.5227	0.0131	0.0014	0.0146
150.1	1.5234	0.0131	0.0027	0.0159
150.1333	1.5217	0	0.0014	0.0014
150.1667	1.5214	0	0.0001	0.0001
150.2	1.5257	0.0131	0.0001	0.0133
150.2333	1.524	0.0131	0.0014	0.0146
150.2667	1.525	0	0.0001	0.0001
150.3	1.5263	0.0131	0.0001	0.0133
150.3333	1.5253	0	0.0027	0.0027
150.3667	1.526	0	0.0014	0.0014
150.4	1.5266	0	0.0001	0.0001
150.4333	1.5276	0.0131	0.0014	0.0146
150.4667	1.5273	0	0.0001	0.0001

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150.5	1.5306	0	0.0027	0.0027
150.5333	1.5299	0.0131	0.0014	0.0146
150.5667	1.5293	0.0131	0.0014	0.0146
150.6	1.5303	0	0.0001	0.0001
150.6333	1.5339	0.0131	0.0041	0.0172
150.6667	1.5303	0.0131	0.0014	0.0146
150.7	1.5313	0	0.0014	0.0014
150.7333	1.5326	0.0131	0.0014	0.0146
150.7667	1.5336	0	0.0001	0.0001
150.8	1.5332	0	0.0014	0.0014
150.8333	1.5316	0.0131	0.0014	0.0146
150.8667	1.5332	0	0.0014	0.0014
150.9	1.5332	0.0131	0.0014	0.0146
150.9333	1.5352	0.0131	0.0001	0.0133
150.9667	1.5345	0	0.0027	0.0027
151	1.5365	0.0131	0	0.0131
151.0333	1.5372	0.0131	0.0014	0.0146
151.0667	1.5382	0	0.0014	0.0014
151.1	1.5355	0	0.0001	0.0001
151.1333	1.5375	0	0.0014	0.0014
151.1667	1.5362	0.0131	0.0001	0.0133
151.2	1.5398	0.0131	0.0027	0.0159
151.2333	1.5372	0.0131	0.0014	0.0146
151.2667	1.5405	0	0	0
151.3	1.5382	0.0131	0.0001	0.0133
151.3333	1.5408	0	0	0
151.3667	1.5411	0.0131	0.0014	0.0146
151.4	1.5415	0	0.0014	0.0014
151.4333	1.5411	0	0.0001	0.0001
151.4667	1.5405	0	0.0014	0.0014
151.5	1.5444	0.0131	0.0014	0.0146
151.5333	1.5428	0	0.0027	0.0027
151.5667	1.5451	0	0	0
151.6	1.5428	0.0131	0.0001	0.0133
151.6333	1.5441	0.0131	0.0001	0.0133
151.6667	1.5444	0.0131	0.0014	0.0146
151.7	1.5461	0	0.0014	0.0014
151.7333	1.5441	0.0131	0	0.0131
151.7667	1.5431	0	0.0001	0.0001
151.8	1.5464	0	0.0014	0.0014
151.8333	1.5497	0	0	0
151.8667	1.5471	0.0131	0	0.0131
151.9	1.5464	0	0	0



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
151.9333	1.5451	0	0.0001	0.0001
151.9667	1.5477	0.0131	0.0014	0.0146
152	1.5494	0	0.0014	0.0014
152.0333	1.5497	0.0131	0.0014	0.0146
152.0667	1.549	0	0.0014	0.0014
152.1	1.5484	0.0131	0.0014	0.0146
152.1333	1.5457	0.0131	0.0001	0.0133
152.1667	1.5477	0	0.0014	0.0014
152.2	1.551	0	0.0001	0.0001
152.2333	1.5523	0	0.0001	0.0001
152.2667	1.5487	0.0131	0.0001	0.0133
152.3	1.5497	0	0.0001	0.0001
152.3333	1.5507	0.0131	0.0001	0.0133
152.3667	1.5517	0	0.0014	0.0014
152.4	1.552	0.0131	0.0014	0.0146
152.4333	1.5523	0	0	0
152.4667	1.5536	0	0.0027	0.0027
152.5	1.5487	0	0.0001	0.0001
152.5333	1.5526	0.0131	0.0001	0.0133
152.5667	1.5513	0.0131	0.0014	0.0146
152.6	1.553	0	0.0014	0.0014
152.6333	1.5533	0.0131	0.0014	0.0146
152.6667	1.5517	0.0131	0.0001	0.0133
152.7	1.5559	0.0263	0.0001	0.0264
152.7333	1.5563	0.0131	0.0001	0.0133
152.7667	1.5563	0.0131	0.0014	0.0146
152.8	1.5573	0.0131	0.0001	0.0133
152.8333	1.5523	0.0131	0.0014	0.0146
152.8667	1.5566	0	0.0014	0.0014
152.9	1.5517	0	0.0014	0.0014
152.9333	1.5573	0.0131	0.0014	0.0146
152.9667	1.5563	0	0.0001	0.0001
153	1.555	0.0263	0	0.0263
153.0333	1.5559	0.0131	0.0014	0.0146
153.0667	1.5563	0	0.0014	0.0014
153.1	1.5579	0.0131	0.0001	0.0133
153.1333	1.5609	0.0131	0.0014	0.0146
153.1667	1.5596	0	0.0001	0.0001
153.2	1.5596	0	0.0014	0.0014
153.2333	1.5569	0	0.0014	0.0014
153.2667	1.5596	0	0.0014	0.0014
153.3	1.5609	0.0131	0.0001	0.0133
153.3333	1.5609	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
153.3667	1.5582	0.0131	0.0001	0.0133
153.4	1.5635	0.0131	0.0014	0.0146
153.4333	1.5612	0.0263	0.0027	0.029
153.4667	1.5609	0.0131	0.0001	0.0133
153.5	1.5592	0.0131	0.0001	0.0133
153.5333	1.5596	0.0263	0.0014	0.0277
153.5667	1.5609	0.0131	0.0001	0.0133
153.6	1.5635	0.0131	0.0014	0.0146
153.6333	1.5609	0	0.0001	0.0001
153.6667	1.5599	0.0131	0.0014	0.0146
153.7	1.5635	0.0131	0.0014	0.0146
153.7333	1.5622	0.0131	0.0027	0.0159
153.7667	1.5655	0.0263	0.0001	0.0264
153.8	1.5622	0	0.0014	0.0014
153.8333	1.5652	0.0131	0.0014	0.0146
153.8667	1.5609	0	0.0014	0.0014
153.9	1.5612	0	0.0001	0.0001
153.9333	1.5645	0.0263	0	0.0263
153.9667	1.5645	0	0.0001	0.0001
154	1.5652	0.0131	0.0001	0.0133
154.0333	1.5658	0	0.0001	0.0001
154.0667	1.5655	0	0.0027	0.0027
154.1	1.5658	0	0.0001	0.0001
154.1333	1.5655	0	0.0014	0.0014
154.1667	1.5648	0.0263	0.0001	0.0264
154.2	1.5665	0.0131	0.0001	0.0133
154.2333	1.5635	0	0	0
154.2667	1.5652	0.0263	0.0014	0.0277
154.3	1.5671	0	0.0027	0.0027
154.3333	1.5635	0.0131	0.0014	0.0146
154.3667	1.5661	0.0131	0.0027	0.0159
154.4	1.5665	0.0131	0.0014	0.0146
154.4333	1.5645	0	0.0014	0.0014
154.4667	1.5638	0.0131	0.0014	0.0146
154.5	1.5708	0.0131	0.0014	0.0146
154.5333	1.5658	0.0131	0.0014	0.0146
154.5667	1.5668	0.0131	0	0.0131
154.6	1.5681	0.0131	0.0014	0.0146
154.6333	1.5704	0	0	0
154.6667	1.5698	0.0131	0.0014	0.0146
154.7	1.5684	0	0.0014	0.0014
154.7333	1.5714	0.0131	0.0014	0.0146
154.7667	1.5668	0	0.0001	0.0001

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
154.8	1.5668	0.0263	0	0.0263
154.8333	1.5661	0	0.0014	0.0014
154.8667	1.5711	0.0131	0.0027	0.0159
154.9	1.5684	0	0.0014	0.0014
154.9333	1.5717	0.0131	0.0001	0.0133
154.9667	1.5675	0.0131	0.0027	0.0159
155	1.5701	0.0131	0.0014	0.0146
155.0333	1.5737	0	0.0014	0.0014
155.0667	1.5698	0	0.0014	0.0014
155.1	1.5688	0	0.0014	0.0014
155.1333	1.5714	0	0.0001	0.0001
155.1667	1.5721	0.0131	0.0001	0.0133
155.2	1.5708	0	0.0001	0.0001
155.2333	1.5731	0.0263	0.0014	0.0277
155.2667	1.5694	0.0131	0.0014	0.0146
155.3	1.5701	0.0131	0.0014	0.0146
155.3333	1.5737	0	0	0
155.3667	1.574	0.0263	0.0014	0.0277
155.4	1.5727	0.0263	0.0001	0.0264
155.4333	1.5721	0	0.0014	0.0014
155.4667	1.5708	0.0131	0.0027	0.0159
155.5	1.5727	0.0131	0.0001	0.0133
155.5333	1.5714	0	0.0001	0.0001
155.5667	1.574	0.0131	0.0001	0.0133
155.6	1.5731	0.0131	0.0014	0.0146
155.6333	1.5747	0.0131	0.0001	0.0133
155.6667	1.5744	0.0131	0.0027	0.0159
155.7	1.5747	0.0131	0.0014	0.0146
155.7333	1.5721	0	0.0014	0.0014
155.7667	1.5731	0	0.0014	0.0014
155.8	1.574	0.0263	0.0014	0.0277
155.8333	1.574	0	0.0027	0.0027
155.8667	1.575	0.0263	0.0027	0.029
155.9	1.574	0.0263	0.0014	0.0277
155.9333	1.5734	0	0.0001	0.0001
155.9667	1.5731	0.0131	0.0001	0.0133
156	1.5757	0.0263	0.0014	0.0277
156.0333	1.5714	0.0131	0.0014	0.0146
156.0667	1.5744	0.0131	0.0014	0.0146
156.1	1.5763	0	0.0027	0.0027
156.1333	1.5734	0.0131	0.0014	0.0146
156.1667	1.577	0	0	0
156.2	1.5747	0.0131	0.0014	0.0146

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
156.2333	1.5754	0	0.0001	0.0001
156.2667	1.5773	0	0.0014	0.0014
156.3	1.5737	0.0131	0.0014	0.0146
156.3333	1.5777	0.0131	0.0001	0.0133
156.3667	1.5754	0.0131	0.0001	0.0133
156.4	1.576	0.0131	0.0001	0.0133
156.4333	1.5757	0.0131	0.0014	0.0146
156.4667	1.5734	0	0.0014	0.0014
156.5	1.5786	0.0131	0	0.0131
156.5333	1.5754	0.0131	0	0.0131
156.5667	1.5737	0.0131	0.0027	0.0159
156.6	1.5767	0.0131	0.0014	0.0146
156.6333	1.5773	0.0131	0.0014	0.0146
156.6667	1.576	0.0131	0.0001	0.0133
156.7	1.5767	0	0.0014	0.0014
156.7333	1.5777	0.0131	0.0014	0.0146
156.7667	1.5773	0.0263	0.0001	0.0264
156.8	1.5773	0.0131	0	0.0131
156.8333	1.5773	0	0.0001	0.0001
156.8667	1.578	0.0263	0.0014	0.0277
156.9	1.5757	0	0	0
156.9333	1.5763	0	0.0027	0.0027
156.9667	1.5786	0.0263	0.0027	0.029
157	1.5767	0.0131	0.0001	0.0133
157.0333	1.578	0.0131	0.0014	0.0146
157.0667	1.5783	0	0.0001	0.0001
157.1	1.5767	0.0131	0.0014	0.0146
157.1333	1.58	0	0	0
157.1667	1.5773	0	0.0014	0.0014
157.2	1.5793	0.0131	0.0014	0.0146
157.2333	1.578	0.0131	0.0027	0.0159
157.2667	1.5767	0	0.0014	0.0014
157.3	1.578	0.0263	0.0001	0.0264
157.3333	1.5773	0.0131	0.0014	0.0146
157.3667	1.577	0.0263	0.0014	0.0277
157.4	1.576	0.0131	0.0014	0.0146
157.4333	1.5806	0.0131	0	0.0131
157.4667	1.578	0	0.0014	0.0014
157.5	1.5813	0.0263	0.0001	0.0264
157.5333	1.577	0.0263	0.0027	0.029
157.5667	1.5773	0.0131	0.0014	0.0146
157.6	1.5806	0	0.0001	0.0001
157.6333	1.5767	0	0.0014	0.0014

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
157.6667	1.578	0	0.0014	0.0014
157.7	1.579	0.0131	0.0014	0.0146
157.7333	1.5783	0.0131	0.0027	0.0159
157.7667	1.5813	0.0131	0.0001	0.0133
157.8	1.581	0.0263	0.0027	0.029
157.8333	1.5793	0.0131	0.0027	0.0159
157.8667	1.5777	0	0.0014	0.0014
157.9	1.5773	0	0.0014	0.0014
157.9333	1.5829	0	0.0014	0.0014
157.9667	1.5813	0.0131	0.0014	0.0146
158	1.5819	0.0131	0.0014	0.0146
158.0333	1.5806	0.0131	0.0001	0.0133
158.0667	1.5767	0.0263	0.0014	0.0277
158.1	1.5793	0	0.0027	0.0027
158.1333	1.5813	0	0.0001	0.0001
158.1667	1.5806	0	0.0014	0.0014
158.2	1.5819	0.0131	0.0014	0.0146
158.2333	1.58	0	0.0014	0.0014
158.2667	1.5806	0	0.0014	0.0014
158.3	1.58	0.0131	0.0001	0.0133
158.3333	1.5813	0	0.0001	0.0001
158.3667	1.5796	0.0131	0.0027	0.0159
158.4	1.5806	0.0131	0.0001	0.0133
158.4333	1.5806	0.0131	0.0014	0.0146
158.4667	1.5783	0	0.0014	0.0014
158.5	1.5823	0.0131	0.0014	0.0146
158.5333	1.5819	0	0.0014	0.0014
158.5667	1.5806	0.0263	0.0014	0.0277
158.6	1.5786	0.0131	0.0001	0.0133
158.6333	1.5803	0.0131	0	0.0131
158.6667	1.5826	0	0.0014	0.0014
158.7	1.5819	0.0263	0.0014	0.0277
158.7333	1.581	0	0.0014	0.0014
158.7667	1.5793	0.0131	0.0001	0.0133
158.8	1.5793	0	0.0001	0.0001
158.8333	1.5806	0.0131	0.0001	0.0133
158.8667	1.5826	0	0.0001	0.0001
158.9	1.5793	0	0.0014	0.0014
158.9333	1.5786	0.0131	0.0027	0.0159
158.9667	1.5786	0	0.0014	0.0014
159	1.5813	0	0.0014	0.0014
159.0333	1.5826	0.0263	0.0014	0.0277
159.0667	1.581	0.0131	0.0001	0.0133

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
159.1	1.579	0	0.0001	0.0001
159.1333	1.5819	0.0131	0.0001	0.0133
159.1667	1.5816	0.0131	0.0001	0.0133
159.2	1.5813	0.0263	0.0014	0.0277
159.2333	1.5816	0.0263	0.0001	0.0264
159.2667	1.5846	0	0.0014	0.0014
159.3	1.5806	0	0.0014	0.0014
159.3333	1.5819	0	0	0
159.3667	1.5793	0.0131	0.0014	0.0146
159.4	1.5819	0	0.0027	0.0027
159.4333	1.5823	0.0131	0.0027	0.0159
159.4667	1.581	0.0131	0.0001	0.0133
159.5	1.5833	0.0131	0.0014	0.0146
159.5333	1.5806	0.0131	0.0001	0.0133
159.5667	1.5823	0	0	0
159.6	1.5819	0	0.0001	0.0001
159.6333	1.5806	0	0.0014	0.0014
159.6667	1.5856	0.0263	0.0001	0.0264
159.7	1.581	0	0.0014	0.0014
159.7333	1.5836	0.0131	0.0001	0.0133
159.7667	1.5833	0.0131	0.0001	0.0133
159.8	1.5829	0.0131	0.0001	0.0133
159.8333	1.5836	0	0.0001	0.0001
159.8667	1.5852	0.0131	0.0001	0.0133
159.9	1.5842	0.0131	0.0014	0.0146
159.9333	1.5846	0.0131	0.0014	0.0146
159.9667	1.5826	0.0263	0.0014	0.0277
160	1.5849	0.0131	0.0014	0.0146
160.0333	1.5826	0	0.0001	0.0001
160.0667	1.5849	0.0131	0.0001	0.0133
160.1	1.5833	0.0131	0.0001	0.0133
160.1333	1.5826	0	0	0
160.1667	1.5836	0.0131	0.0014	0.0146
160.2	1.5833	0.0131	0.0001	0.0133
160.2333	1.5819	0.0131	0.0014	0.0146
160.2667	1.5862	0	0.0014	0.0014
160.3	1.5819	0	0.0014	0.0014
160.3333	1.5826	0.0263	0.0014	0.0277
160.3667	1.5813	0.0131	0.0001	0.0133
160.4	1.5859	0.0131	0.0027	0.0159
160.4333	1.5839	0.0131	0.0014	0.0146
160.4667	1.5849	0.0131	0.0001	0.0133
160.5	1.5842	0	0.0014	0.0014



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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
160.5333	1.5842	0.0131	0.0001	0.0133
160.5667	1.5836	0.0131	0.0001	0.0133
160.6	1.5846	0.0131	0.0014	0.0146
160.6333	1.5826	0.0131	0.0014	0.0146
160.6667	1.5836	0	0.0027	0.0027
160.7	1.5859	0.0131	0.0014	0.0146
160.7333	1.5833	0.0263	0.0014	0.0277
160.7667	1.5833	0.0131	0	0.0131
160.8	1.5839	0.0131	0	0.0131
160.8333	1.5849	0.0131	0.0014	0.0146
160.8667	1.5833	0.0263	0.0001	0.0264
160.9	1.5852	0.0131	0.0014	0.0146
160.9333	1.5813	0.0263	0.0001	0.0264
160.9667	1.5836	0.0131	0.0014	0.0146
161	1.5846	0.0131	0.0001	0.0133
161.0333	1.5839	0.0263	0.0001	0.0264
161.0667	1.5852	0.0131	0.0001	0.0133
161.1	1.5859	0	0.0014	0.0014
161.1333	1.5833	0	0	0
161.1667	1.5829	0.0131	0.0001	0.0133
161.2	1.5862	0.0131	0.0014	0.0146
161.2333	1.5819	0	0.0001	0.0001
161.2667	1.5865	0	0.0027	0.0027
161.3	1.5852	0.0131	0.0001	0.0133
161.3333	1.5829	0.0263	0.0014	0.0277
161.3667	1.5882	0.0131	0.0001	0.0133
161.4	1.5823	0.0131	0.0027	0.0159
161.4333	1.5852	0	0.0014	0.0014
161.4667	1.5819	0.0131	0	0.0131
161.5	1.5865	0	0.0014	0.0014
161.5333	1.5852	0.0131	0.0001	0.0133
161.5667	1.5836	0	0.0014	0.0014
161.6	1.5836	0	0.0001	0.0001
161.6333	1.5859	0	0.0014	0.0014
161.6667	1.5862	0.0131	0.0014	0.0146
161.7	1.5839	0	0.0014	0.0014
161.7333	1.5846	0.0131	0.0014	0.0146
161.7667	1.5872	0.0131	0.0014	0.0146
161.8	1.5846	0	0.0001	0.0001
161.8333	1.5859	0	0.0001	0.0001
161.8667	1.5852	0	0.0001	0.0001
161.9	1.5846	0	0.0014	0.0014
161.9333	1.5852	0.0263	0.0001	0.0264

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Time (min)	Ch 1 dP (psi)	Ch 2 High Flow (LPM)	Ch 3 Low Flow (LPM)	Total Flow (LPM)
161.9667	1.5875	0	0.0001	0.0001
162	1.5615	0.0131	0.0014	0.0146
162.0333	1.5243	0.0131	0.0001	0.0133
162.0667	1.4852	0	0.0001	0.0001
162.1	1.4493	0	0.0001	0.0001
162.1333	1.3996	0.0263	0.0014	0.0277
162.1667	1.3611	0.0131	0.0001	0.0133

## APPENDIX C

### Photographs



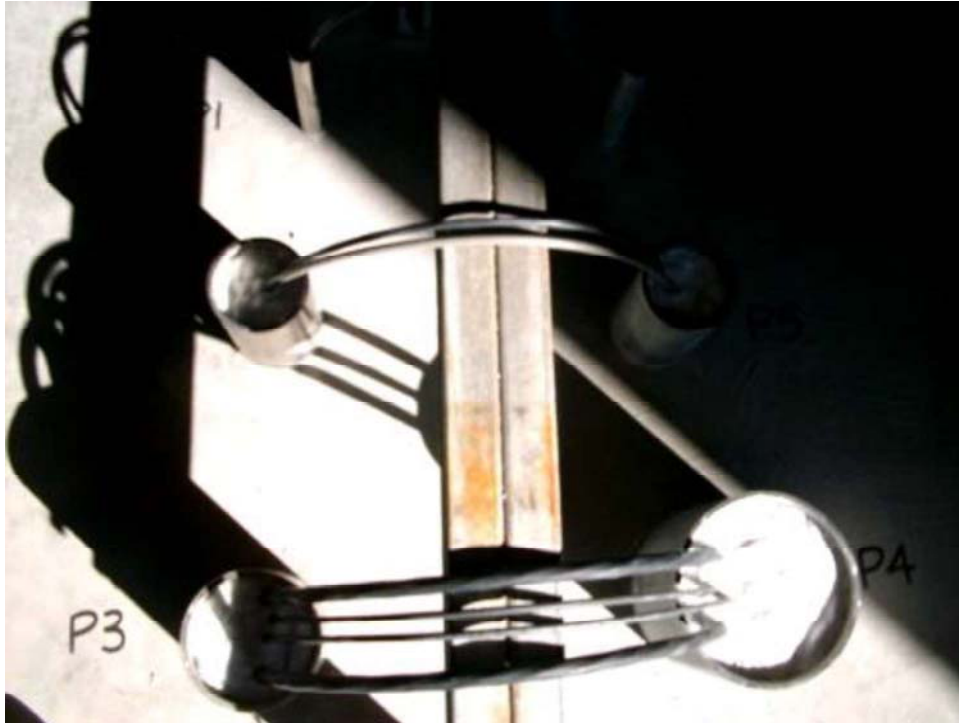


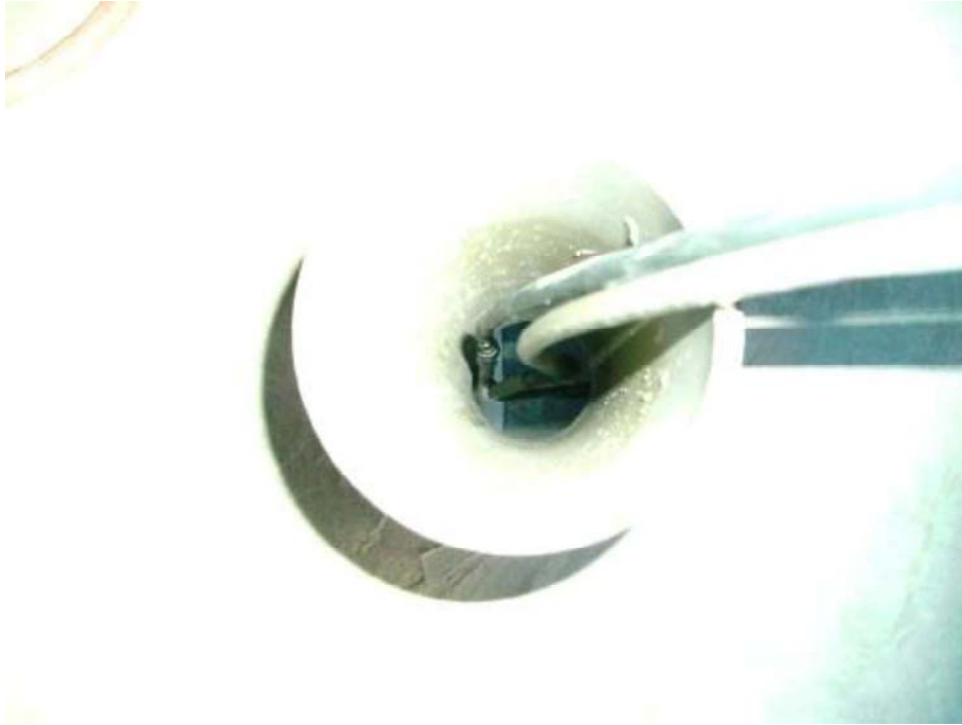






















## APPENDIX D

### Test Plan

Controlled Document

20004-019 (11/20/2012)



AREVA NP Inc.

Engineering Information Record

Document No.: 51 - 9209319 - 000

Detailed Test Plan for Conducting MOX Pressure Test 10

Mike Dey  
Staff Engineer

Michael A. Brown  
Quality Supervisor

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## Controlled Document



20004-019 (11/20/2012)  
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### Detailed Test Plan for Conducting MOX Pressure Test 10

Safety Related? ☒ YES ☐ NO

Does this document establish design or technical requirements? ☐ YES ☒ NO

Does this document contain assumptions requiring verification? ☐ YES ☒ NO

Does this document contain Customer Required Format? ☐ YES ☒ NO

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**ACRONYMS**

C&F	Caulk and Fiber
CGD	Commercial Grade Dedication
CGI	Commercial Grade Item
IROFS	Items Relied On For Safety
MOX	Mixed Oxide
MFFF	Mixed Oxide Fuel Fabrication Facility
PCF	Pounds per Cubic Foot
QA	Quality Assurance
QL	Quality Level
RGS	Rigid Galvanized Steel
SS	Stainless Steel
SSC	Structures, Systems and Components
w.g.	Water Gauge
CSPE	Chlorosulfonated Polyethylene
LSZH	Low Smoke Zero Halogen
XLPE	Cross Linked Polyethylene
XLPO	Cross Linked Polyolefin

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#### BACKGROUND

AREVA NP (AREVA) is assisting Shaw AREVA MOX Services (MOX Services) in the development and implementation of a penetration seal program for the Mixed Oxide Fuel Fabrication Facility (MFFF). One aspect of the MOX penetration seal program includes conducting various types of qualification tests of penetration seal assemblies to substantiate the performance capabilities of specific penetration seal designs. Pressure testing is one type of qualification testing that needs to be performed in order to demonstrate the pressure retaining capability of MOX penetration seal designs. The data collected during pressure testing is needed to determine acceptable levels of leakage to maintain the necessary pressure differentials between confinement zones within the MFFF under various conditions, such as normal operation or inadvertent clean agent discharge. Other types of qualification testing, such as fire testing and testing for seismic qualification of penetration seal assemblies, are addressed by other test plans.

#### 1.0 PURPOSE

The purpose of this test plan is to define the test assembly, test methods and acceptance criteria for conducting pressure test in support of the MOX penetration seal program.

This test plan defines the test methods, acceptance criteria and test report documentation requirements for penetration seal Pressure Test 10. Additionally, this detailed test plan defines the roles and responsibilities of MOX Services, AREVA, the selected testing laboratory, and any other subcontracted entity engaged in support of pressure testing efforts.

This detailed test plan also describes the procurement plan for materials associated with penetration seal Pressure Test 10 and identifies the entities responsible for procuring the various components of the test assemblies based on the quality level assigned to each component.

This test plan also establishes minimum quality requirements for the penetration seal materials used in the test assemblies and links quality requirements in the AREVA Quality Assurance (QA) program to customer/project quality requirements.

#### 2.0 OBJECTIVE

The primary objective of this test plan is to evaluate the pressure resistance capability of caulk and fiber (C&F) internal conduit seals installed around cables within conduits at air pressure increments above atmospheric pressure provided in Section 9.2.

The specific configuration to be tested is described below. Critical characteristics and the associated limiting parameters that will be substantiated by a successful test are also provided.

#### 2.1 Test Deck Description

The test deck will consist of a 12" thick concrete slab measuring approximately 96" x 96" (8' x 8') [Note: Final test slab size to be determined by Intertek and documented in the final test report]. Within this slab will be six (6) precast conduit segments sized to replicate cast-in-place conduit penetrations found in the MOX facility. The test deck will be horizontally oriented with a hemispherical 72" diameter steel pressure vessel mounted above and below the precast openings in the slab.

Additionally, most of the openings (penetrations) in the MOX facility have been cast with a ¼" bevel on both sides of the opening. However, the penetrations in this pressure test consist of conduits cast into the slab, which do not contain beveled edges; therefore, the bevel feature will not be included in this test plan.

Drawings showing the general layout of the test deck (test slab) for this pressure test can be found in Appendix A.

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#### 2.2 Test Description

The openings to be sealed and tested in Pressure Test 10 are small, medium and large sized conduits of stainless steel (SS) and ridged galvanized steel (RGS) cast into concrete. Cables will be installed in the conduits. The test will be performed with the test deck oriented in the horizontal position, and pressurized on the top side.

Conduit sizes of ¾", 3" and 4" SS and ¾", 3" and 6" RGS were selected because they represent the lower and upper bounding conditions (with 3" added as a size in between) expected at the MOX facility.

The penetrating items for this test deck will include the following:

- (1) ¾" diameter stainless steel (SS) conduit with a single CPSE jacketed cable installed in the conduit.
- (1) 3" diameter stainless steel (SS) conduit with a single piece of two different XLPE jacketed cables installed in the conduit.
- (1) 4" diameter stainless steel (SS) conduit with two pieces of Modified XLPO jacketed cable and two pieces of LSZH-XLPO jacketed cable installed in the conduit.
- (1) 6" diameter rigid galvanized steel (RGS) conduit with two pieces of Modified XLPO jacketed cable and two pieces of LSZH-XLPO jacketed cable installed in the conduit.
- (1) 3" diameter rigid galvanized steel (RGS) conduit with single piece of two different XLPE jacketed cables installed in the conduit.
- (1) ¾" diameter rigid galvanized steel (RGS) conduit with a single CPSE jacketed cable installed in the conduit.

The cables will be routed such that no cut cable ends will exist on the top side (pressurized side) of the penetration. This configuration will prevent the possibility of air leakage through the inside of a cable from influencing the results of the test. See Appendix A drawings for additional details.

The ends of the conduits (both top and bottom) will be sealed with an approximate 2 inch thick layer of Unifrax Fiberfrax® Durablanket® S topped with an approximate ½ inch thick layer of Dow Corning® 732 Multi-Purpose Sealant.

#### 2.3 Critical Characteristics and Limiting Parameters Being Tested

The specific critical characteristics and associated limiting parameters being tested for Pressure Test 10 are as follows.

This test will evaluate pressure resistance capabilities of internal conduit seals installed in a range of various sized galvanized and stainless steel conduits to evaluate the pressure resistance capability of the caulk and fiber seal assembly at the interface of these commodities. A successful test will substantiate the acceptability of this seal configuration to function as a pressure seal when installed in and around the following types of commodities:

- ¾" to 6" RGS conduits including seal interface with CPSE jacketed cable, XLPE jacketed cable, Modified XLPO jacketed cable and LSZH-XLPO jacketed cable cables
- ¾" to 4" SS conduits including seal interface with CPSE jacketed cable, XLPE jacketed cable, Modified XLPO jacketed cable and LSZH-XLPO jacketed cable cables

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### Detailed Test Plan for Conducting MOX Pressure Test 10

#### 3.0 ACCEPTANCE CRITERIA

Pressure rated penetration seals at the MOX facility are required to remain "sufficiently leak-tight" at various pressure levels in order to support the functional goals of the various pressure rating requirements (i.e., confinement, suppression system clean agent concentration, fire induced pressure loads or HVAC pressure boundary loads). The term "sufficiently leak-tight" indicated that the penetration seal meets the predetermined acceptance criteria for the pressure level(s) being tested.

The acceptance criteria that constitutes "sufficiently leak-tight" varies based on the pressure requirement and the operating mode of the plant. For most pressure conditions and operating modes, "sufficiently leak-tight" means that the penetration seal assembly must remain in place but is allowed to leak (i.e., the penetration seal cannot become dislodged from the opening or otherwise catastrophically fail such that a substantial leakage path is created).

Per MOX Services Calculation "Confinement Boundary Air Leakage Criteria" [Reference 12.1], penetration seals that function as confinement zone 3b boundary components must maintain a leakage rate less than 0.01 cfm/sq. ft. of penetration area when tested at a pressure that bounds C3b to non-C3b zone pressures during normal operating conditions.

Table 9-1 identifies the differential pressure levels (stages) for conducting pressure tests, as well as, the acceptance criteria in order to be considered "sufficiently leak-tight".

#### 4.0 RESPONSIBILITIES

The following roles and responsibilities apply to this test plan.

##### 4.1 MOX Services

- 4.1.1 Provide review and concurrence of this detailed pressure test plan.
- 4.1.2 Provide concurrence for any revisions made to this test plan during test specimen construction activities.
- 4.1.3 Provide some of the materials for test assembly construction from MOX Services surplus or scrap (if available).
- 4.1.4 Witness pressure tests (if desired).

##### 4.2 AREVA

- 4.2.1 Develop and revise (if necessary) this detailed pressure test plan.
- 4.2.2 Provide management and oversight of all aspects of the MOX penetration seal test program.
- 4.2.3 Select the pressure testing facility and establish sub-contract agreements. The testing laboratory selected for performance of this pressure test is Intertek Testing Services NA, Inc., Elmhurst, TX.
- 4.2.4 Provide engineering instructions to the testing laboratory for performance of the test including test parameters, acceptance criteria, requirements for documenting the test results in a final test report, etc.
- 4.2.5 Procure all primary penetration seal materials, devices and components (i.e., any materials, devices and components intended to replicate future Safety Related (QL-1) designs to be installed in the MOX facility) as designated in the procurement plan section (Section 5.0) of this test plan.
- 4.2.6 Notify MOX Services at least 10 days prior to test date to facilitate MOX Services decision to witness the pressure test.



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- 4.2.7 Witness pressure test.
- 4.2.8 Perform post-test examinations.
- 4.2.9 Review, approve and issue final test reports.

#### 4.3 Testing Laboratory (Intertek Testing Services NA, Inc.)

- 4.3.1 Notify AREVA at least 5 days prior to the start of test assembly construction activities.
- 4.3.2 Construct test decks in accordance with this test plan and AREVA direction.
- 4.3.3 Procure test deck materials and any other test assembly components identified under the Testing Laboratory scope in the procurement plan section (Section 5.0) of this test plan.
- 4.3.4 Procure testing equipment necessary for pressure testing services in accordance with this test plan and verify that the testing equipment is properly calibrated.
- 4.3.5 Provide pressure testing services in accordance with this test plan.
- 4.3.6 Assist AREVA, as necessary, in conducting detailed post-test destructive examinations of the test assemblies.
- 4.3.7 Dispose of test assemblies upon completion of the pressure tests.
- 4.3.8 Generate final test reports in accordance with test plan requirements (Section 11.0).

#### 4.4 Other Subcontracted Entities

There are no other Subcontractors for this pressure test plan.

### 5.0 PROCUREMENT PLAN

This penetration seal pressure test plan involves many elements beyond the penetration seal material being qualified. Some of these elements include the test deck or test slab, various fasteners for securing laboratory instrumentation to the test assembly, etc. Not all elements of the test assembly are required to be procured to the same quality level as the penetration seal material, which must be capable of satisfying the quality requirements of the end product (i.e., QL-1 qualified penetration seal assemblies for plant applications). The following procurement plan takes into consideration the required quality level of the various materials required for these penetration seal pressure tests and prescribes an approach for material procurement which considers cost, schedule and quality requirements.

#### 5.1 Penetration Seal Materials

The vast majority of penetration seals that will be installed throughout the MFFF are designated QL-1. MOX Services defines QL-1 in PP9-1, "SSC Quality Levels & Marking Design Documents" [Reference 12.2] as follows:

*QL-1 SSCs are typically IROFS (all IROFS are QL-1 and may be either SSCs or Administrative Controls) credited in the Integrated Safety Analysis with a required function to prevent or mitigate design basis events such that high-consequence events are made highly unlikely; intermediate-consequence events are made unlikely; or to prevent criticality. For example, the failure of an IROFS item could cause:*

1. *Loss of a primary confinement feature leading to release of material resulting in exceeding 10CFR70.61 performance requirements;*
2. *Failure to satisfy the double contingency principle for the prevention of a criticality accident; or*
3. *Loss of other safety function required to meet 10CFR70.61 performance requirements.*

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This definition correlates with the following definition of "Nuclear Safety Related" in AREVA Administrative Procedure (AP) 1702-25, "Assignment of Nuclear Safety Classification to Products and Services" [Reference 12.3]:

#### *Definition of "Nuclear Safety Related"*

*Company products and services are considered to be nuclear safety related if they involve the evaluation, specification, design or change in design, operation, or performance of structures, systems, and components which must function directly, or must support other systems which function, to ensure any of the following:*

- *The integrity of the reactor coolant pressure boundary*
- *The capability to shut down the reactor and maintain it in a safe shutdown condition*
- *The capability to prevent or mitigate the consequences of accidents which could result in potential offsite radiation exposures greater than accepted limits.*

On this basis, permanent penetration seal materials used in this test program shall be procured by AREVA or supplied by MOX Services and suitably base-lined so that future procurements of the same commercial materials can undergo the commercial grade dedication process in support of Nuclear Safety Related (i.e., MOX QL-1) plant installations. Only the primary seal material specified as a part of the final seal design and which are left in place during testing become an integral part of the seal assembly and need to be base-lined for future dedication of similarly procured materials.

The quality level of the penetration seal materials procured for this test plan is **Non-Safety**.

Note: Commercial Grade Dedication (CGD) must be performed for Commercial Grade Items (CGIs) used in Safety Related applications when procured from suppliers where specific quality controls for nuclear applications cannot be imposed in a practical manner in accordance with 56-9141754-001, "AREVA NP Inc. Quality Assurance Program" [Reference 12.4]. However, none of the seal materials to be procured and used in the test program are intended or approved for installation in the MOX facility. Therefore, CGD of penetration seal materials used for test purposes is not required.

For this pressure test, the following materials shall be procured by AREVA and base-lined for future dedication activities.

- Unifrax Fiberfrax® Durablanket® S (6 pcf density)
- Dow Corning® 732 Multi-Purpose Sealant

#### **5.2 Test Deck/Test Slab**

The test deck will be used to simulate a confinement zone or HVAC boundary in which the penetration seal assemblies may be installed. The test deck is not considered an integral part of the penetration seal assembly being tested and therefore is not intended to replicate MOX-specific plant conditions and not considered integral in bounding the performance of the penetration seal assemblies (e.g., concrete blend, compressive strength, rebar size and spacing). The test deck will be comprised of normal weight reinforced concrete.

The testing laboratory shall be responsible for procuring all materials and components associated with the construction of the test deck, unless otherwise specified below. The test deck shall comply with the requirements of the approved detailed test plan drawings contained in Appendix A, and in accordance with the testing facility's Quality Assurance Program.

The quality level of the test deck is **Non-safety**.

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#### 5.3 Penetrating Items

Penetrating items (e.g., conduits and cables) will be used in this pressure test to simulate MOX-specific plant commodities during the pressure test but are not considered an integral part of the penetration seal assembly being tested. Therefore, the quality level of the penetrating items is **Non-safety**.

Penetrating items for this pressure test will come from one of two sources: MOX Services or the testing laboratory. MOX Services supplied items are identified on the MOX Services Bill of Materials in Section B.2 of Appendix B. Items provided by the testing laboratory are identified on the Testing Laboratory Bill of Materials in Section B.3 of Appendix B.

#### 6.0 SPECIAL PRECAUTIONS

##### 6.1 Precautions for Construction of Test Assemblies

Observe testing facilities safe work practices for construction, lifting, and moving of test assemblies.

##### 6.2 Precautions for Installation of Seal Assemblies

Observe specific precautions recommended by seal material manufacturer as noted on product literature and material safety data sheets contained in AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.5].

##### 6.3 Precautions for Conducting Pressure Tests

Proper safety precautions shall be exercised to preclude personnel from direct exposure to loss of pressure events, unexpected disengaging of testing equipment from the test deck, and all other related hazards.

#### 7.0 PREREQUISITES

##### 7.1 General Test Configuration Requirements

The test assembly, including slab layout and penetration seal configurations shall be as specified by AREVA and in accordance with the drawings and information contained in Appendix A of this test plan, and AREVA NP Inc. Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program* [Reference 12.5].

##### 7.2 Safety Related Materials

Penetration seal materials that are purchased **Non-Safety** for this test program but are to be base-lined for future Nuclear Safety Related via the Commercial Grade Dedication process are indicated on the AREVA Bill of Materials (Appendix B.1).

##### 7.3 Dimensioned Drawings

All test articles shall conform to the dimensioned drawings supplied by AREVA and contained in Appendix A of this test plan. Any differences between designed and constructed/tested assemblies shall be noted in final drawings contained within the test report.

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#### 7.4 Test Configuration

All test articles shall be securely fastened to the test apparatus by the laboratory. All openings shall be sealed in accordance with test plan instructions, drawings (Appendix A) and AREVA Document 01-9198306 [Reference 12.5].

#### 8.0 TEST ASSEMBLY CONSTRUCTION

##### 8.1 Test Slab Construction

The Testing Laboratory shall construct the test slab, including placement of penetrating items, in accordance with the drawings contained in Appendix A of this pressure test plan.

AREVA QC (or approved designee) shall conduct an inspection of the test slab for compliance with the approved Test Plan drawings prior to installation of individual penetration seal test assemblies. Any differences between the approved Test Plan drawings and the as-built test slab configuration shall be corrected (if deemed necessary by the AREVA Test Engineer) or noted by the QC Inspector (if correction is not required). Completion of this verification shall be documented as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

##### 8.2 Penetration Seal Installation

AREVA (or approved designee) shall install the penetration seal test assemblies in accordance with the drawings contained in Appendix A of this Test Plan and in accordance with AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

QA/QC verification of penetration seal installations shall be documented as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

##### 8.3 Pre-Test Verifications

Prior to conducting the pressure test for each test assembly, the AREVA Test Engineer shall sign-off indicating that the test article (test penetration) is complete and ready for testing as required by AREVA Document 01-9198306, *Installation Instruction Manual for MOX Penetration Seal Test Program*.

#### 9.0 PROCEDURE

##### 9.1 Pressure Test Apparatus

The pressure test apparatus to be used for these pressure tests shall be constructed and maintained by the testing laboratory. Two hemispherical 72" diameter steel pressure vessels shall be used to construct the assembly. One side shall be used to induce the testing pressures above atmospheric pressure based on Table 9-1, while the other side shall measure the pressure increase or "leakage" through the penetration. The test apparatus shall be "leak-tight" and substantial enough to withstand the pressures created for test purposes. Attachment shall be sufficient to withstand the forces imposed on the pressure vessels during the test.

##### 9.2 Process

The anticipated differential pressures, as they apply to MFFF penetration seal designs, are discussed in DCS01-BRA-DS-TRD-B-01365-0 [Reference 12.6]. Depending upon its location in the plant, a penetration seal may be subjected to differential pressures from one or more of the following sources:

- Clean agent suppression system discharge (inadvertent or in response to a fire)



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- Normal HVAC operation in support of facility confinement zone separation
- Fire induced pressure
- HVAC pressure boundary

The full range of differential pressures under various conditions is identified in Calculations DCS01-XGA-DS-CAL-B-01105-0 [Reference 12.7], DCS01-ASI-DS-CAL-R-10552-0 [Reference 12.8], and DCS01-QJJ-DS-CAL-V-10421-0 [Reference 12.9].

The pressure levels specified in Table 9-1 are to be used in the pressure tests. These pressures are intended to bound a range of calculated differential pressures anticipated based on the various pressure conditions described above and detailed in the referenced calculations, with additional margin. The bounding differential pressures to be used for each penetration seal pressure test, the test hold time at each pressure, the acceptance criteria to be considered "sufficiently leak-tight", and the basis for each pressure, are identified in Table 9-1.

A hold time of 30 minutes has been established for each pressure level to ensure that sufficient time at pressure is maintained to; 1) confirm that no leakage occurs at that pressure, or 2) stabilize make up air and attain reasonably accurate leakage rate information for those configurations where leakage is detected.

**Table 9-1: Differential Pressure Test Levels**

Test Stage	Differential Pressure (inch w.g.)	Required Hold Time (minutes)	Acceptance Criteria	Basis for the Selected Differential Pressure
1	1.0	30	Leakage $\leq 0.01$ cfm/sq. ft. of penetration area <sup>*1</sup>	Testing at this differential pressure bounds the 0.51 inches w.g. pressure for C3b to C2 areas during normal operation [Reference 12.9]
2	5.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 4.0 inches w.g. pressure anticipated as a result of clean agent suppression system discharge [Reference 12.7].
3	10.0	30	Seal Remains In Place	Testing at this differential pressure bounds the 7.0 inches w.g. pressure used as the screening pressure cutoff for fire induced pressures [References 12.7 and 12.8] and some of the HVAC pressure boundaries [Reference 12.9].
4	20.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the calculated fire induced pressures [Reference 12.8] and many of the HVAC pressure boundaries [Reference 12.9].
5	40.0	30	Seal Remains In Place	Testing at this differential pressure bounds all of the HVAC pressure boundaries [Reference 12.9].

<sup>\*1</sup> For Pressure Test 10 the allowable leakage rate based on the combined seal surface area of all six conduit seals is 0.11 lpm (converted from 0.00388 cfm at 0.01 cfm/sq. ft. and a total combined seal surface area of 0.38793 sq. ft.)

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The test assembly shall be attached to the pressure test apparatus and subjected to the pressures identified in Table 9-1 as described below.

- 9.2.1 The test assembly shall be attached to the pressure test apparatus and subjected to air pressure tests at the select pressure levels identified in Table 9-1, beginning with the Stage 1 pressure of 1.0 inches w.g. Once this pressure has been obtained, the pressure shall be maintained for the hold time specified in Table 9-1. The maximum leakage rate observed during the hold time shall be recorded. If the leakage rate exceeds the acceptance criteria during Stage 1 testing, the time of failure shall be noted and the test shall be continued, since leakage alone does not constitute failure after Stage 1.
- 9.2.2 Once the designated hold time has been achieved, the pressure shall be increased to the next pressure level identified in Table 9-1 (Stage 2, then Stage 3, then Stage 4 and finally Stage 5) and held for the designated hold time. The maximum leakage rate observed during each hold time shall be recorded.
- 9.2.3 Following completion of Stage 5 pressure testing, the test may continue at the discretion of the AREVA test engineer and the testing laboratory manager in charge. Subsequent pressures, hold times and maximum leakage rates shall be recorded as directed by the AREVA test engineer.
- 9.2.4 If at any pressure level (or test stage) the penetration seal becomes dislodged from the opening or otherwise catastrophically fails, the pressure test shall be terminated and the time to failure and pressure at which the failure occurred shall be recorded.

### 9.3 Post Test Examination

Following completion of the pressure test, visual and destructive (if deemed necessary) post-test examinations shall be performed. These examinations shall include, but not necessarily be limited to, the following:

Visual observations of penetration seal condition including:

- Integrity of seal and conditions on the exposed and unexposed side of the penetration
- Location of any penetration seal degradation
- Condition of seal to barrier interface
- Condition of seal to penetrating item interfaces

Once visual observations are complete, destructive examinations may be used to obtain additional information or gain extra insights into penetration seal performance during the pressure tests.

### 10.0 DATA SYSTEMS

During the pressure tests, the various data systems connected to the test apparatus (blowers, anemometers, manometers, etc.) shall be controlled and monitored by the testing laboratory. Data recorded for these components shall be compiled and contained in the pressure test report.

### 11.0 TEST REPORT

The testing laboratory shall submit a report on the results of the test. The test report shall contain the collected data and required quality control documentation. The final test report shall be prepared in sufficient detail to summarize the total testing activity. The final report shall include as a minimum:

- Date of test
- Location of test



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- Description of test apparatus and test articles
- Calibration documentation for all data systems connected to the test apparatus
- Test procedures used
- Acceptance criteria
- Provide quality control records
- Results of the pressure test
- Color digital photographs of the test project

## 12.0 REFERENCES

- 12.1 Shaw AREVA MOX Services Calculation DCS01-QJJ-DS-CAL-V-13312-0, "Confinement Boundary Air Leakage Criteria"
- 12.2 Shaw AREVA MOX Services Procedure PP9-1, Revision 14, SSC "Quality Levels & Marking Design Documents"
- 12.3 AREVA NP Inc. Procedure 1702-25, Revision 018, "Assignment of Nuclear Safety Classification to Products and Services"
- 12.4 AREVA NP Inc. Document 56-9141754-001, "AREVA NP Inc. Quality Assurance Program"
- 12.5 AREVA NP Inc. Document 01-9198306 (latest revision), "Installation Instruction Manual for MOX Penetration Seal Test Program"
- 12.6 Shaw AREVA MOX Services Document DCS01-BRA-DS-TRD-B-01365-0, "Technical Requirements Document for MFFF Penetration Seals"
- 12.7 Shaw AREVA MOX Services Calculation DCS01-XGA-DS-CAL-B-01105-0, "BMF HVAC and Fire Induced Pressure Loads"
- 12.8 Shaw AREVA MOX Services Calculation DCS01-ASI-DS-CAL-R-10552-0, "Fire Induced Room Pressure Analysis"
- 12.9 Shaw AREVA MOX Services Calculation DCS01-QJJ-DS-CAL-V-10421-0, "Pressure Differentials Across Internal Barriers within the MOX Facility"

### Retrieval of Reference Documents

References 12.1, 12.2, 12.6, 12.7, 12.8 and 12.9 of this document were not entered into the AREVA NP Records Management system because they can be retrieved using the Shaw AREVA MOX Services Records Management system. These documents have been authorized for use as design information in this document with the AREVA NP Project Manager's written authorization as indicated by the PM's signature on Page 2.

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Detailed Test Plan for Conducting MOX Pressure Test 10

**APPENDIX A: TEST DECK/TEST SLAB DRAWINGS**

This appendix contains a drawing outlining the basic layout of the test deck/test slab to be used for this fire test. Concrete reinforcement details and additional test deck features, such as perimeter framing details and lug locations for lifting the test deck, are the responsibility of the testing laboratory. Additionally, this appendix contains notes that are to be used in conjunction with the layout drawing to construct the test deck.

Page A-1

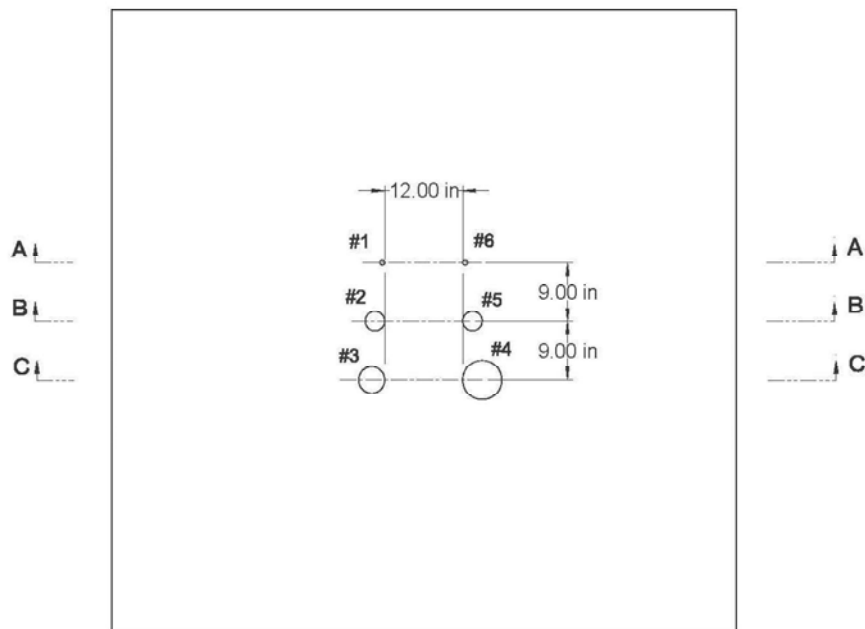
Controlled Document



Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

**Pressure Test P10**



NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. \* INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. SEE PAGE A-3 FOR PENETRATION DESCRIPTION.
4. SEE PAGE A-4 FOR SECTION A - A, PAGE A-5 FOR SECTION B-B AND PAGE A-6 FOR SECTION C - C.

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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

**Table A-1: Cable Descriptions**

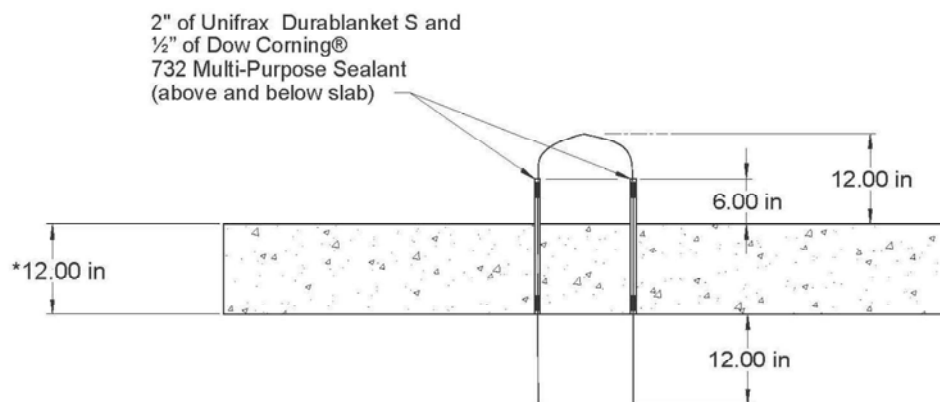
Penetration Identification	Mark No.	Cable Description
P1	wfb-7	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V
P2	wbe-1	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey
P2	whd-3	4/C 20 AWG 7/S TC 20 MILS XLPE, 15 MIL XLPE JKT 600V
P3	whe-8	2 pieces of COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)
P3	wfa-26	2 pieces of 3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V
P4	whe-8	2 pieces of COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19-81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56)
P4	wfa-26	2 pieces of 3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X-LINK® 600V
P5	wbe-1	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL® SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey
P5	whd-3	4/C 20 AWG 7/S TC 20 MILS XLPE, 15 MIL XLPE JKT 600V
P6	wfb-7	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III® 600V

Controlled Document



Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10



**Section A-A**

NOTES:

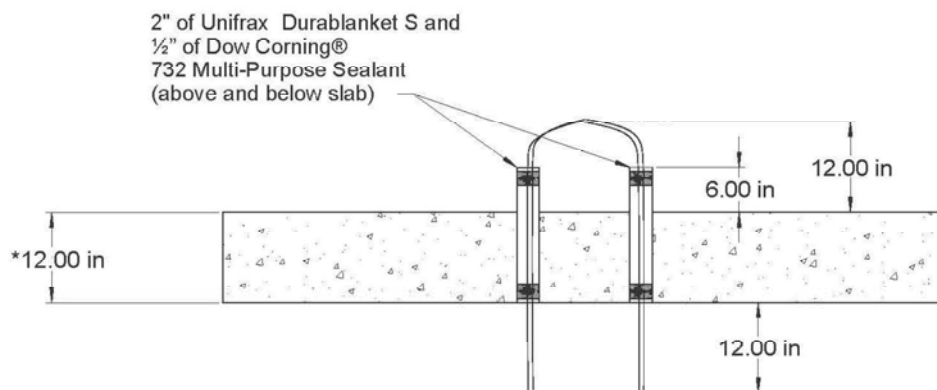
1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. \* INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLES TO BE SECURELY TIED OFF, ABOVE AND BELOW SLAB TO PRECLUDE SLIPPING.

Controlled Document



Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10



**Section B-B**

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. \* INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLES TO BE SECURELY TIED OFF, ABOVE AND BELOW SLAB TO PRECLUDE SLIPPING.

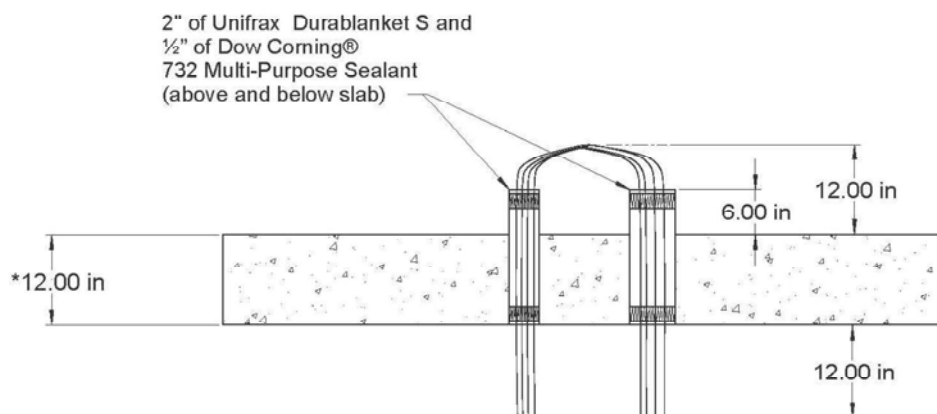


Controlled Document



Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10



**Section C-C**

NOTES:

1. TOLERANCE ON ALL SLAB DIMENSIONS IS +/- 1/4"
2. \* INDICATES DIMENSIONS TO BE VERIFIED BY AREVA QC.
3. CABLES TO BE SECURELY TIED OFF, ABOVE AND BELOW SLAB TO PRECLUDE SLIPPING.

Controlled Document



Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

**APPENDIX B: BILL OF MATERIALS**

This appendix contains the Bill of Materials for this fire test. The Bill of Materials in Section B.1 identifies materials to be provided by AREVA. The Bill of Materials in Section B.2 identifies materials to be provided by MOX Services. The Bill of Materials in Section B.3 identifies materials to be provided by Intertek.

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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

**B.1 Table Bill of Materials for AREVA Supplied Items**

Bill of Material for AREVA Supplied Items					
Item	Description	Part Number	Quantity	Units	Total
1	Dow Corning® 732 Multi-Purpose Sealant	N/A	N/A	N/A	N/A*
2	Unifrax Durablanket S – 6 lbs./cu. ft. x 1.0 inch thick	N/A	N/A	N/A	N/A*

\*Previously purchased for earlier test plans.

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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

**B.2 Bill of Materials for MOX Services Supplied Items**

Bill of Material for MOX Services Supplied Items					
Item	Description	Part Number	Quantity	Units	Total
1	1/C 8 AWG 7/S TC 45 MILS XLPE, 15 MILS CSPE FIREWALL III 600V [CSPE Jacket]	wfb-7	10	Ft.	10 Ft.
2	1/C 6 AWG 7/S TC Class B Strand 60 MILS XLPE FIREWALL SIS 600V Type SIS/XHHW-2 (UL) Listed Colored Grey [XLPE Jacket]	wbe-1	10	Ft.	10 Ft.
3	4/C 20 AWG 7/S TC 20 MILS XLPE, 15 MIL XLPE JKT 600V [XLPE Jacket]	whd-3	10	Ft.	10 Ft.
4	COAX CABLE WITH RG TYPE 59/U, or equal / 22 AWG FOR 62 OHMS (RSS-6-104/LE) Except Not UL Listed & Meets ICEA S-19- 81 Paragraph 6.19.6 (IEEE-383 Paragraph 2.56) [Modified XLPO Jacket]	whe-8	20	Ft.	20 Ft.
5	3/C 10 AWG 7/S TC, 20 MILS XLPE, 1-#10 AWG CU GW, O/A TINNED COPPER BRAID SHIELD, 35 MIL ZH-XLPO JKT X- LINK 600V [LSZH-XLPO Jacket]	wfa-26	20	Ft.	20 Ft.

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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

**B.3 Bill of Materials for Intertek Supplied Items**

Bill of Material for Intertek Supplied Items*					
Item	Description	Part Number	Quantity	Units	Total
1	3/4" Diameter Stainless Steel Conduit– Calbrite Stainless Steel Conduit Systems, Type 304, or Equal (Need 1 @ 1.5 LF)	S40710CT00	N/A	Ft.	0 Ft. * <sup>†</sup>
2	3/4" Diameter Galvanized Conduit– Calconduit or Equal (Need 1 @ 1.5 LF)	ST0710CT00	N/A	Ft.	0 Ft. * <sup>†</sup>
3	3" Diameter Stainless Steel Conduit– Calbrite Stainless Steel Conduit Systems, Type 304, or Equal (Need 1 @ 1.5 LF)	S43010CT00	N/A	Ft.	0 Ft. * <sup>†</sup>
4	3" Diameter Galvanized Conduit– Calconduit or Equal (Need 1 @ 1.5 LF)	ST3010CT00	N/A	Ft.	0 Ft. * <sup>†</sup>
5	4" Diameter Stainless Steel Conduit – Calbrite Stainless Steel Conduit Systems, Type 304, or Equal (Need 1 @ 1.5 FL)	S44010CT00	N/A	Ft.	0 Ft. * <sup>†</sup>
6	6" Diameter Galvanized Conduit – Calconduit or Equal (Need 1 @ 1.5 LF)	ST6010CT00	N/A	Ft.	0 Ft. * <sup>†</sup>

\* This BOM applies to Intertek Supplied Items other than materials required to construct the test slab. Construction of the test slab, including procurement of any materials required for the test slab and commodity supports, is the responsibility of Intertek.

\*<sup>†</sup> These items are available from the Surplus Bin of left-over materials from previous MOX tests.

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Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

APPENDIX C: DESIGN VERIFICATION CHECKLIST

22410-8 (02/25/2013) Page 1 of 2

AREVA		DESIGN VERIFICATION CHECKLIST			
Document Identifier 51 - 9209319 - 000					
Title Detailed Test Plan for Conducting MOX Pressure Test 10					
1.	Were the inputs correctly selected and incorporated into design or analysis?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
2.	Are assumptions necessary to perform the design or analysis activity adequately described and reasonable? Where necessary, are the assumptions identified for subsequent re-verifications when the detailed design activities are completed? <small>Note: If there are no assumptions (of any type), then N/A shall be checked.</small>	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A	
3.	Are the appropriate quality and quality assurance requirements specified? Or, for documents prepared per AREVA NP Inc. procedures, have the procedural requirements been met?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
4.	If the design or analysis cites or is required to cite requirements or criteria based upon applicable codes, standards, specific regulatory requirements, including issue and addenda, are these properly identified, and are the requirements/criteria for design or analysis met?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
5.	Have applicable construction and operating experience been considered?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
6.	Have the design interface requirements been satisfied?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
7.	Was an appropriate design or analytical method used?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
8.	Is the output reasonable compared to inputs?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
9.	Are the specified parts, equipment and processes suitable for the required application?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
10.	Are the specified materials compatible with each other and the design environmental conditions to which the material will be exposed?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
11.	Have adequate maintenance features and requirements been specified?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A	
12.	Are accessibility and other design provisions adequate for performance of needed maintenance and repair?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A	
13.	Has adequate accessibility been provided to perform the in-service inspection expected to be required during the plant life?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A	
14.	Has the design properly considered radiation exposure to the public and plant personnel?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A	
15.	Are the acceptance criteria incorporated in the design documents sufficient to allow verification that design requirements have been satisfactorily accomplished?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
16.	Have adequate preoperational and subsequent periodic test requirements been appropriately specified?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input checked="" type="checkbox"/> N/A	
17.	Are adequate handling, storage, cleaning and shipping requirements specified?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
18.	Are adequate identification requirements specified?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	
19.	Is the document prepared and being released under the AREVA NP Inc. Quality Assurance Program? If not, are requirements for record preparation review, approval, retention, etc., adequately specified?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A	



Controlled Document



Document No.: 51-9209319-000

Detailed Test Plan for Conducting MOX Pressure Test 10

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<b>DESIGN VERIFICATION CHECKLIST</b>	
Document Identifier <u>51</u> - <u>9209319</u> - <u>000</u>	
Comments on the preceding responses: None.	
Verified By: <u>Andrew J. Ochsankohl</u> (First, MI, Last)	<u>8/20/2013</u> Date

## APPENDIX E

### Commercial Grade Dedication-Related Documents

The vast majority of penetration seals that will be installed throughout the MFFF will be designated as quality level QL-1. For this reason, permanent penetration seal materials used in this test program were procured by AREVA or supplied by MOX Services and suitably base-lined so that future procurements of the same commercial materials can undergo the Commercial Grade Dedication process in support Nuclear Safety Related (i.e., MOX QL-1) plant installations.

Only the primary seal material(s) that were specified as a part of the final penetration seal design and left in place during the test needed to be base-lined for future dedication of similarly procured materials. For this test, the following AREVA documents contain information associated with materials that underwent the base-lining process. These documents establish material critical characteristics as a baseline for future Commercial Grade Dedication.

- AREVA Document 51-9212666-000, "Dow Corning 732 Multi-Purpose Sealant Critical Characteristics"
- AREVA Document 51-9212670-000, "Unifrax Durablanket S Critical Characteristics"

These documents are available from the AREVA Records Management System or the MOX Records Management System.

## APPENDIX F

### Quality Documents









Document No.: 01-9198308-004

Installation Instruction Manual for MOX Penetration Seal Test Program

A.2 Quality Verification for Installation of Caulk and Fiber Seals

Page 1 of 1

01-9198306-F02 (OC-F02)

Attribute	Requirement	Initial / Date
9.1.2	Record the test penetration's unique identification number Test Penetration Number <u>9209319-P1 thru P6</u>	 12-16-13
QC	Verify critical attributes of the test slab and the applicable penetration are correct. Critical attributes are identified in the test plan (i.e., dimensions marked with an asterisk).	 12-17-13
9.1.5	Record the lot number for the Durablanket® S damming material Lot Number: <u>32039 764521000 *</u>	 12-17-13
QC	Verify the dam depth is as specified in the test plan and confirm that the penetration is clean and free of dirt, oil, and any other foreign materials.	 12-17-13
9.2.1	Record the material type, lot number and expiration date for the sealant Material Type: <u>DC-732</u> Lot Number: <u>0007251823</u> Expiration Date: <u>29 MAY 15</u>	 12-17-13
QC	Verify that the completed seal assembly is in accordance with the test plan design (i.e., temporary damming has been removed, and the installed seal configuration(s) and depth(s) are per the test plan. Any approved deviations from the test plan shall be clearly noted below	 12-19-13

Comments (can be continued on back):

\* Installed  $\approx 2"$  depth of fiber in each end of each conduit, recessed  $\approx 1/2"$  for caulk installation.  $3/4"$  Conduits used  $1/2$  of a  $2" \times 2"$  patch of fiber.  $3"$  conduits used  $\approx 20"$  of  $2"$  fiber.  $4"$  conduit used  $\approx 30"$  of  $2"$  fiber.  $6"$  conduit used  $\approx 40"$  of  $2"$  fiber.

Penetration Seal Assembly Complete:

12/19/13  
Date

Penetration Ready for Testing:

12/19/13  
Date

AREVA Test Engineer



PO Box 710290, Houston, TX 77271-0290  
11707 S Sam Houston Parkway W, Ste K, Houston, TX 77031  
Phone: 281-933-7222 Fax: 281-933-7774  
info@promatec.com  
www.promatec.com

### CERTIFICATE OF CONFORMANCE

CERTIFICATION 45550/13-805  
NUMBER:

CERT DATE: SEPTEMBER 10, 2013

JOB NUMBER: 2860

SHIP DATE: SEPTEMBER 10, 2013

CUSTOMER: AREVA NP INC.  
c/o INTERTEK TESTING SERVICES NA, INC.  
16015 SHADY FALLS ROAD  
ELMENDORF, TX 78112-9784

PRODUCT: DURABLANKET S  
Unifrax Fiberfrax Durablanket S  
6-lb Density, 1"x24"x25'  
50SF/Roll

CUSTOMER P.O. No. 1013037393, Rev. 4  
ORDER NUMBER: ITEM 50  
[MAT'L #D027563]

VENDOR: PCI PROMATEC

CUSTOMER  
SPECIFICATION  
NUMBER: N/A

QUANTITY: 2 BOXES @ 50 SF Per Box  
1" x 24" X 25 Feet Per Roll  
100 SQUARE FEET TOTAL

IDENTIFICATION  
NUMBER: 32039

EXPIRATION  
DATE: N/A

#### CERTIFICATION REQUIREMENTS:

We hereby certify that all items furnished herein meet the requirements of the applicable product specifications, the above referenced customer order number, and supporting specifications. Vendor material certification on file and available upon written request.

Shelf Life - Not Applicable for This Item.

This material is provided in accordance with Promatec Quality Assurance Program QAM20188, Issue F, dated 06/20/03.

[REDACTED]  
DORCAS SMITHWICK COMBS  
QUALITY ASSURANCE MANAGER





PO Box 710290, Houston, TX 77271-0290  
11707 S Sam Houston Parkway W, Ste K, Houston, TX 77031  
Phone: 281-933-7222 Fax: 281-933-7774  
info@promatec.com  
www.promatec.com

### CERTIFICATE OF CONFORMANCE

CERTIFICATION 45550/13-579  
NUMBER:

CERT DATE: JUNE 12, 2013

JOB NUMBER: 2860

SHIP DATE: JUNE 12, 2013

CUSTOMER: AREVA NP INC.  
c/o INTERTEK TESTING SERVICES NA, INC.  
16015 SHADY FALLS ROAD  
ELMENDORF, TX 78112-9784

PRODUCT: DC-732-BLACK, 10.1oz  
Dow Corning 732 Multi-Purpose  
Sealant; 10.1oz Tubes  
BLACK in color

CUSTOMER P.O. No. 1013021586, REV. 1  
ORDER NUMBER: ITEM 2

VENDOR: PCI PROMATEC

CUSTOMER  
SPECIFICATION  
NUMBER: N/A

QUANTITY: 4 CASES @ 12 EA 10.1oz Tubes  
48 TUBES TOTAL

IDENTIFICATION 0007251823  
NUMBER:

EXPIRATION  
DATE: 29 MAY 2015

#### **CERTIFICATION REQUIREMENTS:**

We hereby certify that all items furnished herein meet the requirements of the applicable product specifications, the above referenced customer order number, and supporting specifications. Vendor material certification on file and available upon written request.

Shelf Life – Thirty (30) months from date of manufacture, December, 2012. Note – Dow Corning calendar year based on 360-day cycle.

This material is provided in accordance with Promatec Quality Assurance Program QAM20188, Issue F, dated 06/20/03.

QUALITY ASSURANCE DEPT.  
DORCAS SMITHWICK COMBS  
QUALITY ASSURANCE MANAGER

## Q/A RECEIVING REPORT



Client/Project Name:  
Client or Project No.:  
Received From:  
Project Location:

Areva NP  
G101147165SAT-001  
Areva NP Hard Delivered  
INTERTEK -Elmendorf, TX

Report No: 33-G101147165SAT-001  
Date Received: 9/10/2013  
Date Inspected: 9/10/2013  
Inspected By: MABrow

ITEM DESCRIPTION	P.O. NO.	QUANTITY		BIO	I.D. NO.	Court Mail Y/N	Cert Rec'd Y/N	Safety Rec'd Y/N	Com. Inspected Y/N	ACCEPTANCE			REMARKS
		Order	Rec'd							Aspl.	Req.	Met	
150NH™ Promatec® SF-150NH™ High Density Silicone Elastomer Part "A" and "B" (NH093B04 A&B (5gal) Lot No NH093B04A & NH093B04B	Client	1 set	1 set	-	SAT1309101351-001	Y	Y	Y	G	✓			Receiving Only: Used immediately w/ remainder stored in the conditioning room
150NH™ Promatec® SF-150NH™ High Density Silicone Elastomer Part "A" and "B" (NH093B04 A&B (5gal) Lot No NH093B04A & NH093B04B	Client	1 set	1 set	-	SAT1309101351-002	Y	Y	Y	G	✓			
150NH™ Promatec® SF-150NH™ High Density Silicone Elastomer Part "A" and "B" (NH093B04 A&B (5gal) Lot No NH093B04A & NH093B04B	Client	1 set	1 set	-	SAT1309101351-003	Y	Y	Y	G	✓			
150NH™ Promatec® SF-150NH™ High Density Silicone Elastomer Part "A" and "B" (NH093B04 A&B (5gal) Lot No NH093B04A & NH093B04B	Client	1 set	1 set	-	SAT1309101351-004	Y	Y	Y	G	✓			
Durablanket S Unifrax Fiberfrax (32039) 24" W x 25' L x 1" T	Client	1box	1box		SAT1309101351-005	Y	Y	Y	G	✓			
Durablanket S Unifrax Fiberfrax (32039) 24" W x 25' L x 1" T	Client	1box	1box		SAT1309101351-006	Y	Y	Y	G	✓			

912-NOAP-005.7.1

## Q/A RECEIVING REPORT



Client/Project Name:	Areva NP	Report No:	07-G101147165SAT-001
Client or Project No.:	G101147165SAT-001	Date Received:	6/13/2013
Received From:	Areva Federal Services, c/o PCI	Date Inspected:	6/17/2013
Project Location:	INTERTEK -Elmendorf, TX	Inspected By:	MAE

[illegible]

## Q/A RECEIVING REPORT



Client/Project Name:  
Client or Project No.:  
Received From:  
Project Location:

Report No:	01-G101276459SAT-013
Date Received:	10/15/2013
Date Inspected:	10/16/2013
Inspected By:	MABrown

[illegible]

9/12-NQAP-005.7.1

## Q/A RECEIVING REPORT



Client/Project Name:  
Client/Project No.:  
Received From:  
Project Location:

Areva Mox Services  
G101147165SAT-001

Mox (GOVERNMENT MATERIAL)  
Intertek Testing Services-Elmendorf, TX

Report No: 01- G101147165SAT-001  
Date Received: 4/3/2013  
Date Inspected: 5/2/2013  
Inspected By: MA Brown

ITEM DESCRIPTION	P.O. NO.	QUANTITY		I.D. NO.	Cost Used Y/N	Cust. Rec'd Y/N	Safety Rec'd Y/N	Open Inventory	ACCEPTANCE		REMARKS
		Order	Rec'd						Accept	Test	
4" x 4" Stainless Steel Wire Way (5ft.)	(Client)	1	1	0	Y	N	N	G	✓		
8" x 8" Stainless Steel Wire Way (5ft.)	(Client)	1	1	0	Y	N	N	G	✓		
3/4" Diameter Galvanized conduit (2 X 10ft.)	(Client)	2	2	0	Y	N	N	G	✓		
3/4" Diameter Stainless Steel conduit (10ft.)	(Client)	1	1	0	Y	N	N	G	✓		
3" Diameter Galvanized conduit (10ft.)	(Client)	1	1	0	Y	N	N	G	✓		
3" Diameter Stainless Steel conduit (10ft.)	(Client)	1	1	0	Y	N	N	G	✓		
4" Diameter Stainless Steel conduit (10ft.)	(Client)	1	1	0	Y	N	N	G	✓		
12" x 4" Galvanized ladder back cable tray (10ft.)	(Client)	1	1	0	Y	N	N	G	✓		
12" x 4" Galvanized solid back cable tray (10ft.)	(Client)	1	1	0	Y	N	N	G	✓		
24" x 4" Galvanized ladder back cable tray (10ft.)	(Client)	1	1	0	Y	N	N	G	✓		
24" x 4" Galvanized solid back cable tray (10ft.)	(Client)	1	1	0	Y	N	N	G	✓		

09-016-7105



## Q/A RECEIVING REPORT

**Intertek**

Client/Project Name:  
Client or Project No.:  
Received From:  
Project Location:

Areva NP  
G101147165SAT-001  
Texas Specialty Steel  
INTERTEK - Elmhurst, TX

Report No: 24-G101147165SAT-001  
Date Received: 8/15/2013  
Date Inspected: 8/15/2013  
Inspected By: MABrown

ITEM DESCRIPTION	P.O. NO.	QUANTITY		I.D. NO.	Cmt Y/N	Cmt Y/N	Safety Y/N	Cmt Y/N	ACCEPTANCE			REMARKS
		Order	Rec'd						Aspc	Req	Test	
1pc. - 6" x 10ft. Galvanized Conduit	218315	1	1	-	Y	N	N	N	✓			Receiving Only:
3pc. - 3/4" x 10ft. Galvanized Conduit	217703	3	3	-	Y	N	N	N	✓			
3pcs. - 3/4" Galvanized Caps	217703	3	3	-	Y	N	N	N	✓			
3pcs. - 3/4" Galvanized Couplings	217703	3	3	-	Y	N	N	N	✓			
3pcs. - 6" x 10ft. Galvanized Conduit (rec'd w/o caps)	217703	3	3	-	Y	N	N	N	✓			
3pcs. - 6" Couplings	217703	3	3	-	Y	N	N	N	✓			
1pc. - 3/4" x 10ft. SS conduit	217703	1	1	-	Y	N	N	N	✓			
1pc. - 3/4" SS cap	217703	1	1	-	Y	N	N	N	✓			
1pc. - 3/4" SS Coupling	217703	1	1	-	Y	N	N	N	✓			
2pcs. - 1/8" x 5ft. SS pipe Sch.80	217703	2	2	-	Y	N	N	N	✓			
1pc. 6" x 10ft. Gal. Conduit	217862	1	1	-	Y	N	N	N	✓			
3pcs. - 4" x 5ft. Sch 80 A106 pipe	218315	3	3	-	Y	N	N	N	✓			
1pc. - 4" x 5ft. SS pipe	218315	1	1	-	Y	N	N	N	✓			
1pc. - 8" x 5ft. SS pipe	218315	-1	1	-	Y	N	N	N	✓			
1 pc. - 4" x 10' Stainless Steel Pipe	217703	1	1	-	Y	N	N	N	✓			

9/12-NDAP-405.7.1



## LIST OF CALIBRATED EQUIPMENT

Description	Serial No.	Calibration Due Date
Thermo-Hygrometer	130548237	9/19/15
Data Acquisition System	18041FE	1/16/2013*
Pressure Transducer	406707	7/16/2014*
Mass Flowmeter	4270050001001	2/1/2014*
Mass Flowmeter	4270050003001	2/7/2014*
Stop watch	122601005	10/23/2014

\*See Intertek Corrective Action Request (CAR) 51-AMER-SAT-2014-INT and AREVA Contract Variation Approval Request (CVAR) 87-9224669-000



Calibration  
Certificate No. 1750.01

Calibration complies with ISO/IEC  
17025, ANSI/NCSL Z540-1, and 9001

Build B  
1001/2014



Cert. No.: 4096-5373559

**Traceable® Certificate of Calibration for Digital Humidity/Temp. Meter**

Manufactured for and distributed by: Fisher Scientific, 300 Industry Drive, Pittsburgh, PA 15275-1001

**Instrument Identification:**

Model Numbers: 11-661-13, FB61254, 245C5 S/N: 130548237 Manufacturer: Control Company

**Standards/Equipment:**

Description	Serial Number	Due Date	NIST Traceable Reference
Chilled Mirror Hygrometer	31874/H2048MCR	6/14/15	11081
Digital Thermometer	41334977/41335007	9/26/13	4000-4643082

**Certificate Information:**

Technician: 104 Procedure: CAL-17  
Test Conditions: 23.0°C 51.0 %RH 1013 mBar

Cal Date: 9/19/13

Cal Due: 9/19/15

**Calibration Data: (New Instrument)**

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±U	TUR
%RH		N.A.		42.95	42	Y	39	47	1.30	3.1:1
°C		N.A.		24.218	24	Y	23	25	0.590	1.7:1

This instrument was calibrated in compliance with ISO/IEC 17025:2005 and ANSI/NCSL Z540-1-1994 Part 1.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor  $k=2$  to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable to NIST and through NIST to the International System of Units (SI).

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±U=Expanded Measurement Uncertainty; TUR=Test Uncertainty Ratio;  
Accuracy= $\pm(\text{Max-Min})/2$ ; Min = As Left Nominal(Rounded) - Tolerance; Max = As Left Nominal(Rounded) + Tolerance; Date=MM/DD/YY

Robert Rodriguez, Quality Manager

Adam Vasquez, Technical Manager

**Maintaining Accuracy:**

In our opinion once calibrated your Digital Humidity/Temp. Meter should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Humidity/Temp. Meters change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

**Recalibration:**

This device was calibrated using a single test point. Should additional test points be required, please contact Control Company for factory calibration and re-certification traceable to National Institute of Standards and Technology.

CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA  
Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com

Control Company is an ISO 17025:2005 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.  
Control Company is ISO 9001:2008 Quality Certified by (DNV) Det Norske Veritas, Certificate No. CERT-01805-2008-AQ-HOU-RvA.  
International Laboratory Accreditation Cooperation (ILAC) - Multilateral Recognition Arrangement (MRA).

## Certificate of Calibration

Certificate Number:	2994344	Date:	28-MAY-2014
Serial Number:	18041FE	Part Number:	194710E-04L
Description:	CCA\USB-6210		
Calibration Date:	06-DEC-2012	Shelf Life:	0 Days
Calibration Due Date:	-	Recommended Calibration Interval:	12 Months
Temperature:	22.26 °C	Humidity:	40.7% RH

### Standards Used

Manufacturer	Model	Tracking Number	Calibration Date	Calibration Due
NATIONAL INSTRUMENTS	PXI-4070	6712	26-JUN-12	26-JUN-13
NATIONAL INSTRUMENTS	PXI-6259	6871	27-JUN-12	27-JUN-13
NATIONAL INSTRUMENTS	PXI-5421	7591	25-JUN-12	25-JUN-13
VAISALA	HMT33 1	7885	24-MAY-12	24-MAY-13

National Instruments certifies that at the time of test, the above product was calibrated in accordance with applicable National Instruments procedures. The procedures are designed to ensure that the product listed above meets or exceeds National Instruments specifications.

We further certify that the environment in which this product was calibrated is maintained within the operating specifications of the instrument(s) standards. The measurement standards used during calibration are traceable to NIST and/or other International Measurement Institutes (NMI's) that signatories of the International Committee of Weights and Measure (CIPM) Mutual Recognition Agreement (MRA).

The information shown on this certificate applies only to the instrument identified above and this certificate may not be reproduced, except in full, without prior written consent of National Instruments.

\*Optional field, **Calibration Due Date**, may be established by combining the **Recommended Calibration Interval**, **Calibration Date** and, when applicable, accounting for **Shelf Life**. Shelf life defines how long an instrument may be stored, after calibration, without impact to its specifications.

The instrument's Calibration Due Date can be calculated using the following methods:

- If date placed in service is within **Calibration Date + Shelf Life**: **Calibration Due Date** = date placed in service + **Recommended Calibration Interval**
- If date placed in service is outside **Calibration Date + Shelf Life**: **Calibration Due Date** = **Calibration Date** + **Shelf Life** + **Recommended Calibration Interval**

For questions or comments, please contact National Instruments Technical Support.

Andrew Krupp  
Vice President, Quality and Continuous Improvement

## OMEGADYNE INC. CERTIFICATE OF CALIBRATION

**Model Number:** PX409-005DWUV  
**Serial Number:** 406707  
**Date:** 7/15/2011  
**Job:** R3274

**Capacity:** 5.00 PSID  
**Excitation:** 10.00 Vdc  
**Technician:** KAPOME

**Pressure Connection:** 1/4-18 NPT Male

### WIRING CODE

**Electrical Connection:** Integral Cable 4-Cond  
BLACK = - EXCITATION  
WHITE = + SIGNAL  
GREEN = - SIGNAL  
RED = + EXCITATION

### CALIBRATION WORKSHEET

### NOTES

Pressure PSID	OUTPUT mVdc
0.00	0.007
2.50	50.008
5.00	100.016
2.50	50.007
0.00	0.007

### NIST Traceable Number(s): C-1954, C-1289

Omegadyne Inc. certifies that the above instrumentation has been calibrated and tested to meet or to exceed the published specifications. This calibration was performed using instrumentation and standards that are traceable to the National Institute of Standards and Technology. This document also ensures that all testing performed complies with MIL-STD 45662-A, ISO 10012-1, and ANSI/NCSL Z540-1-1994 requirements. After Final Calibration our products are stored in an environmentally controlled stock room and are considered in bonded storage. Depending on environmental conditions and severity of use, factory calibration is recommended every one to three years after the initial service installation date.

\_\_\_\_\_  
Accepted and Certified By

7/15/2011  
Date



CERTIFICATE OF ACCURACY

This is to certify that meter serial number 4270050001001 is certified to an accuracy of +/- 1 % of 20 GPM of N2 and has been calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technology (N.I.S.T.) according to our procedures.

All traceable certifications and related procedures for the equipment used are on file.

Barometer Number: N/A  
Vol-U-Meter Number: Base 1920  
cell 1898  
Type of Gas: N2  
Gas Used for Calibration: N2  
Pressure Gauge Number: 1122  
Timer Number: N/A  
Thermometer Number: N/A  
Voltmeter: NA  
Calibrated By: [REDACTED]  
Date Calibrated: 2-1-13

Uncertainty of measurements: +/- 0.3 % of reading

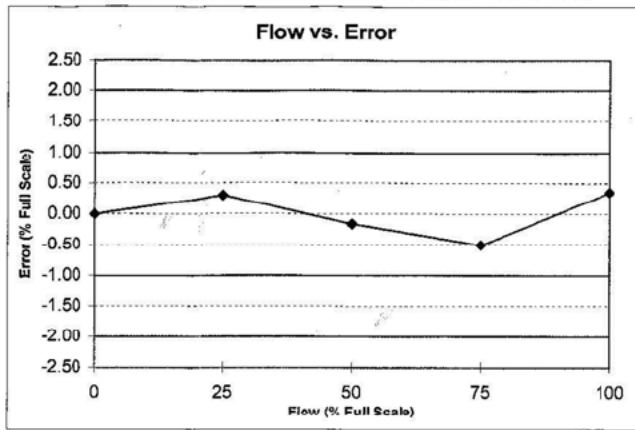
Calibrations were performed under a controlled Quality System Manual, which incorporates the requirements of ISO Guide 25, ISO 10012-1, ISO 9001 (1994) and ISO 13485. The released ISO 13485 registration (Medical Devices – Quality Management Systems – System Requirements for Regulatory Purposes) includes Design Controls and Metrology Systems.

0122220B

FM-1011 REV B



**Mass Flowmeter/Flow Controller Calibration Data Sheet**



**Calibration Data**

Setpoint (SLPM)	Flow Signal (Volts)	Device Flow (SLPM)	Actual Flow (SLPM)	% FS Error *
00.00	0.000	00.00	00.00	0.00
05.00	1.253	05.01	05.07	0.30
10.00	2.502	10.01	09.98	-0.16
15.00	3.752	15.01	14.91	-0.50
20.00	5.000	20.00	20.07	0.35

\* % Full Scale (FS) Error = (100)(Actual Flow - Device Flow) / Full Scale Flow

DATE 2/1/2013  
TIME 7:59:59 AM  
Shop Order No. 427005  
Serial No. 4270050001001

**GAS**  
Nameplate (Actual) Nitrogen  
Surrogate (Calibration) Nitrogen (N2)

**STANDARD CONDITIONS**  
Std. Pressure 101.32 kPa (760 Torr)  
Std. Temperature 21.1 °C

**PRESSURE**  
Inlet (P<sub>1</sub>) 20 PSIG  
Outlet (P<sub>2</sub>) N/A

**TEMPERATURE**  
Calib. Temperature 21.9 °C  
Oper. Temperature 70 °F

Max. Flow Rate 20 SLPM  
Gas Factor 1

Calibrator MT  
Flow Standard PICO 1898-1  
Unit Accuracy 1.0 FS & 0.0 Rate  
Calib. Attitude Horizontal (base down)

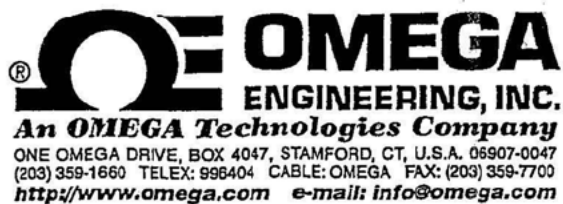
**LEAK TEST DATA**

Inboard (Externally Pressurized) Helium Leak Rate:  $< 1 \times 10^{-8}$  atm cc/sec  
Vacuum Pressure:  $< 5$  milliTorr

Tested By: [Redacted] Date: 2-1-13

FM-1119 Rev. K





CERTIFICATE OF ACCURACY

This is to certify that meter serial number 4270050003001 is certified to an accuracy of  $\pm$  1 % of 200 slpm of N<sub>2</sub> and has been calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technology (N.I.S.T.) according to our procedures.

All traceable certifications and related procedures for the equipment used are on file.

Barometer Number:	<u>1667</u>
Vol-U-Meter Number:	<u>613</u>
Type of Gas:	<u>N<sub>2</sub></u>
Gas Used for Calibration:	<u>N<sub>2</sub></u>
Pressure Gauge Number:	<u>1950</u>
Timer Number:	<u>1876</u>
Thermometer Number:	<u>985</u>
Voltmeter:	<u>NA</u>
Calibrated By:	<u>[REDACTED]</u>
Date Calibrated:	<u>2-7-13</u>

Uncertainty of measurements:  $\pm$  0.3 % of reading

Calibrations were performed under a controlled Quality System: Manual, which incorporates the requirements of ISO Guide 25, ISO 10012-1, ISO 9001 (1994) and ISO 13485. The released ISO 13485 registration (Medical Devices – Quality Management Systems – System Requirements for Regulatory Purposes) includes Design Controls and Metrology Systems.

0122220B

FM-1011 REV B



## MASS FLOWMETER/FLOW CONTROLLER CALIBRATION DATA SHEET

### SPECIFICATIONS

MODEL #: FMA-875A-V-NIST SERIAL #: 4270050003001  
FLOW RANGE: 200 SLPM OPERATING TEMPERATURE: 70 F  
NAMEPLATE (PROCESS) GAS: N2 SURROGATE (CALIBRATION) GAS: N2  
STANDARD TEMPERATURE: 21.1 C STANDARD PRESSURE: 101.32 kPa (760 Torr)  
P1 (INLET PRESSURE): 20 PSIG P2 (OUTLET PRESSURE): N/A  
CALIBRATION TEMPERATURE: 18.7°C  
CALIBRATION ATTITUDE (calibration attitude checked):  
☒ Horizontal (base down) ☐ Horizontal (upside down)  
☐ Horizontal (front down) ☐ Horizontal (back down)  
☐ Vertical (inlet up) ☐ Vertical (inlet down)  
CALIBRATION ACCURACY: ± 1 % OF FULL SCALE FLOW

### CALIBRATION DATA

% FULL SCALE (Nominal)	FLOW SIGNAL OUTPUT (signal type checked) <input checked="" type="checkbox"/> Vdc <input type="checkbox"/> mAdc	STANDARD VOLUMETRIC FLOW (Units: SLPM)		ERROR * (% Full Scale)
		DEVICE	MEASURED	
100	5.000	200.000	200.079	.5395
75	3.750	150.000	149.317	-.3415
50	2.500	100.000	100.488	.2440
25	1.250	50.000	50.852	.4260
0	0.00	0.000	0.000	-----

\* % FULL SCALE ERROR = (100) (MEASURED FLOW - DEVICE FLOW) ÷ FULL SCALE FLOW

CALIBRATED BY: [REDACTED] DATE: 2-7-13

### LEAK TEST DATA

INBOARD (EXTERNALLY-PRESSURIZED) HELIUM LEAK RATE: <1x 10<sup>-8</sup> atm cc/sec

VACUUM PRESSURE: <5 millitorr

TESTED BY: [REDACTED] DATE: 2-1-13

FM-355-OE Rev. 0



Calibration complies with ISO 9001  
ISO/IEC 17025 AND ANSI/NCSL Z540-1

Calibration  
Certificate No. 1750.01

Cert. No.: 1042-4689088

**Traceable® Certificate of Calibration for Waterproof Stopwatch**

Manufactured for and distributed by: Fisher Scientific, 300 Industry Drive, Pittsburgh, PA 15275-1001

**Instrument Identification:**

Model Numbers: 0666256, FB70240 S/N: 122601005 Manufacturer: Control Company

**Standards/Equipment:**

Description	Serial Number	Due Date	NIST Traceable Reference
Non-contact Frequency Counter	26.6 2025	3/06/13	1000313632

**Certificate Information:**

Technician: 67 Procedure: CAL-01 Cal Date: 10/23/12 Cal Due: 10/23/14  
Test Conditions: 22.5°C 45.0 %RH 1015 mBar

**Calibration Data: (New Instrument)**

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±U	TUR
Sec/24hr		N.A.		0.000	-0.600	Y	-8.640	8.640	0.130	>4:1

**This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.**

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±U=Expanded Measurement Uncertainty; TUR=Test Uncertainty Ratio;  
Accuracy=±(Max-Min)/2; Min = Nominal(Rounded) - Tolerance; Max = Nominal(Rounded) + Tolerance; Date=MM/DD/YY

**Maintaining Accuracy:**

In our opinion once calibrated your Waterproof Stopwatch should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Waterproof Stopwatches change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

**Recalibration:**

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA  
Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com

Control Company is an ISO 17025:2005 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.  
Control Company is ISO 9001:2008 Quality Certified by (DNV) Det Norske Veritas, Certificate No. CERT-01805-2008-AQ-HOU-ANAB.  
International Laboratory Accreditation Cooperation (ILAC) - Multilateral Recognition Arrangement (MRA).

### TEST ARTICLE ATTRIBUTE CHECKLIST

PROJECT NO: 6101276459-013 CLIENT: AREVA

Project Description PRESSURE #10

	SAT	UNSAT
<b>I. ASSEMBLY</b>		
Proper materials used .....	X	
Material documentation complete.....	X	
Configuration/dimensions in accordance w/ approved drawings...	X	
Description of assembly: <u>NOX AREVA PRESSURE #10</u>	X	
<b>II. ELECTRICAL CABLE</b>		
Correct material used .....	X	
Material documentation complete .....	X	
Correct cable lay-in and fill requirements .....	X	
Description of electrical cable: <u>PER TEST PLAN</u>		
<b>III. THERMOCOUPLES</b>		
Correct thermocouple type, certs received .....		
Thermocouples positioned in accordance with test plan .....		
Adequately labeled and secured .....		
Quality Assurance verification done .....		
Description of thermocouples: .....		
<b>IV. FIRE BARRIER</b>		
Name or type of material <u>DC 732 + CFB</u>		
INTERTEK received material documentation provided by Client.....	X	
Materials provided by INTERTEK properly documented .....	X	
Materials installed by INTERTEK in accordance with test plan .....	X	
INTERTEK Quality Assurance responsibilities determined .....	X	
QA responsibilities of Client installation determined .....		
Moisture check required .....	Yes	No <u>X</u>
Special requirements .....		
<b>V. FINAL PREBURN VERIFICATION</b>		
Final visual inspection & approval (initials) INTERTEK <u>[REDACTED]</u> Client <u>[REDACTED]</u>		
CALIBRATION DOCUMENTATION (S/N and calibration due date)		
Data Acquisition Equipment: <u>SEE TEST DATA PACKAGE</u>		
Other Measurement Devices: .....		
Temperature <u>5A</u> Humidity <u>92</u> Date <u>1/9/14</u> Time of Test start <u>10:26A</u>		
INTERTEK pre-burn checklist performed by <u>[REDACTED]</u>		
Client representative present to witness test <u>[REDACTED]</u>		
Note: Verification to be made using initials by INTERTEK Quality Assurance or test personnel.		

9/12 NQAP-007.7.3

Certificate of Conformance

Client Name: Areva NP Inc.

Date: July 22, 2014

Project No: G101276459SAT-013

Intertek Testing Services NA (Intertek) has conducted testing for AREVA NP Inc., on the pressure resistance capabilities of Dow Corning® 732 Multi-Purpose Sealant (DC-732) and Unifrax Durablanket® S (Durablanket) through a 12" thick concrete deck for compliance with the applicable requirements of and in accordance with AREVA NP Inc. Document No. 51-9209319-000, *Detailed Test Plan for Conducting MOX Pressure Test IQ*. This evaluation took place on January 9, 2014.

The materials, processes, and deliverable(s) in this project were managed under and conform to the test laboratory's 10CFR50 Appendix B Quality Assurance Program.

Michael A Brown  
Quality Supervisor

July 22, 2014

Date

Intertek Testing Laboratory  
16015 Shady Falls Road, Elmendorf TX 78112  
210-635-8100



### **Quality Assurance Statement**

Intertek is devoted to engineering, inspection, quality assurance and testing of building materials, products and assemblies. Intertek has developed and implemented a Quality Assurance Program designed to provide its clients with a planned procedure of order and document processing for inspection and testing services it provides to assure conformity to requirements, codes, standards and specifications. The Program is designed to meet the intent of ANSI 45.2 Quality Assurance Program Requirements for Nuclear Power Plants, and complies with the requirements of the ASME Code, SPPE, Military Standards and other less stringent programs. It is the Laboratory's intention to adhere strictly to this Program, to assure that the services offered to its clients remains of the highest quality and accuracy possible.

All QA Surveillance documents remain on file at the Laboratory, and are available for inspection by authorized personnel in the performance of an on-site QA Audit. All materials, services and supplies used herein were obtained with appropriate QA Certifications of Compliance.

## REVISION SUMMARY

DATE	SUMMARY
July 22, 2014	Original Issue Date