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Altitude Exposure Technical Edition

Study Info
ARE Labs Project # withheld

Date: date withheld

Key Parameters:
- Eyelash Serum
- Altitude Change Simulation
- Leak Resistance Testing

Purpose: This study aimed to evaluate the leak resistance of the Anonymized cosmetic serum variants under simulated altitude conditions. Three altitudes were selected for simulation, they were 18,000ft, 26,000ft, and 40,000ft.

Background: Fifty-four (54) anonymized samples were tested for integrity after altitude simulation testing. Eighteen (18) samples each of Variant A Variant B and Variant C were tested at three different simulated altitudes. Six (6) samples were used for each of the altitude simulations.

Methods: All the samples were inspected before starting the simulated tests. Twenty-seven (27) samples were inspected immediately after the simulated test and the remaining twenty-seven (27) samples were inspected after 4 hours of room temperature and pressure storage. Three altitudes (18,000ft, 26,000ft, and 40,000ft) were simulated by pulling a vacuum of -15.0, -19.5, and -24.5 in. of Hg gauge pressure respectively, inside a sealed aluminum vacuum chamber.

Results: All the samples passed the initial inspection before being tested. All the caps have a two-stage locking mechanism, which was tightened completely before testing. After simulation, the samples were analyzed at two-time points – immediate and 4 hours. All the samples passed the inspections at both time points and none leaked serum.

Conclusion: From the inspections, it was seen that none of the samples behaved unexpectedly, and all the samples post-simulation studies had the same properties as before. The loss of sample weight was minimal and it could be concluded that the samples were not affected by the change in altitude.

Original compliance statement withheld in this unsigned edition.

INTRODUCTION

Altitude simulation testing is a critical process used to evaluate the structural and functional integrity of products exposed to varying atmospheric pressures and temperatures. This type of testing replicates high-altitude conditions, ensuring that products maintain performance, durability, and safety standards under extreme environmental stress. In this study, anonymized cosmetic serum samples were subjected to three altitude settings to test their resilience and integrity in simulated air transport and high-altitude storage.

The testing was performed inside a sealed aluminum vacuum chamber measuring 39.5in x 29.5in x 42.5in (L x W x H) (See **Figure 1**). A rotary vane vacuum pump was used to pull the air out of the sealed chamber.

The chamber was maintained at a set gauge pressure for 15 minutes before slowly bringing it back to the atmospheric pressure.

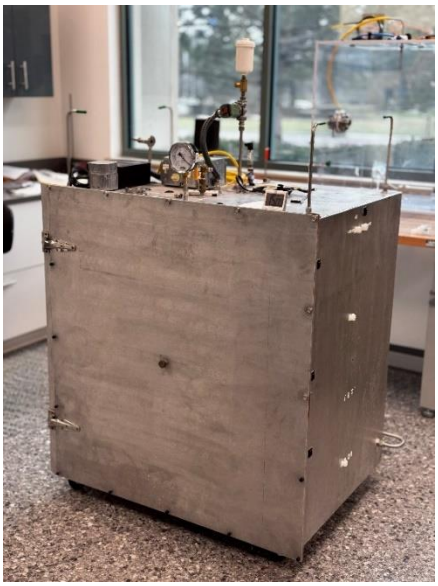

***Figure 1**: The Sealed Aluminum Vacuum Chamber Used for Altitude Simulations.*

Product Image	Representative product images removed		
Manufacturer			
Product Name	Variant A	Variant C	Variant A
Product Type	Eyelid Conditioner	Eyelid Conditioner	Eyelid Conditioner
Product ID	A	C	B
Lot #	withheld	withheld	withheld
Testing Performed	Altitude Simulation	Altitude Simulation	Altitude Simulation
# of Samples Tested	18	18	18

***Figure 2**: Representative anonymized samples tested in this study.*

The rate of air removal and addition from and to the chamber simulated the typical operation of a Boing 737 aircraft (which was 2000ft/min).

PRODUCT DESCRIPTION AND TEST CRITERIA

the sponsor provided ARE Labs with labeled test products (See **Figure 2**) and testing metrics detailing what observations were to be made to evaluate the product. The products tested in this study were Variant A Variant B and Variant C

Three altitudes were simulated in this study, namely, 18,000ft, 26,000ft, and 40,000ft. Eighteen (18) samples of each product type were provided for the altitude simulation testing. Of the eighteen samples, the first set of six (6) samples were tested at a simulated 18,000ft, the second set of six (6) samples were tested at a simulated 26,000ft, and the last set of six (6) samples were tested at simulated 40,000ft. See **Table 1** for the Testing Matrix used for the altitude simulation testing.

the sponsor provided ARE Labs with a testing metric. The testing metric was as stated below:

1. Pre-Testing:
    a. Assembled Tube – is there any solution on the outside of the tube?
    b. Assembled Tube – is the bottom peekaboo window visible and moving?
    c. Cap – is the cap closed completely? Using two fingers, does the cap move using a slight pressure in the tightening direction?
2. Post Testing:
    a. Assembled Tube – is there any solution on the outside of the tube?
    b. Assembled Tube – does the bottom peekaboo window reveal a bubble?
    c. Cap – remove the cap, is there any solution on the tube neck?

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Testing Matrix

Set #	Product Tested	Product ID	Altitude Simulated (ft)	Equivalent Pressure (psi)	# Samples Tested
1	Variant A		18,000	7.6	6
			26,000	5.2	6
			40,000	2.7	6
2	Variant B		18,000	7.6	6
			26,000	5.2	6
			40,000	2.7	6
3	Variant C		18,000	7.6	6
			26,000	5.2	6
			40,000	2.7	6

***Table 1**: Test matrix used for performing the Altitude Simulation Testing.*

Each product sample was evaluated before and after the altitude simulation testing. Six samples of each product were tested at each altitude setting. Of those samples, three samples were evaluated immediately after testing while the rest of the samples were evaluated after 4hrs of room temperature and pressure storage. The samples were evaluated by the same engineer, at every timepoint of the testing to maintain consistency in evaluation metrics. Also, if there were any anomalies in the samples, pictures would be taken of such samples and shown in this report. Samples were also weighed before and after testing to see if there were any losses in the product tested due to the simulation.

TESTING METHODS

PRE-TEST INSPECTION METHOD

Each product sample was inspected for its integrity before starting the evaluation. Each sample was individually evaluated using the provided metrics, then labeled with an identifier sticker, and weighed using a Mettler Toledo calibrated scale before they were placed into the chamber for altitude testing. The placement of the samples in the chamber was such that it simulated normal product storage in a makeup bag, which meant that the samples were close to horizontal. See **Figure 3** depicting the positioning of samples inside the pressure chamber.

ALTITUDE TEST METHOD

The decrease in air pressure inside the chamber was done to simulate the ascend (take-off) and descent (landing) of a Boeing 737, which on average was 2000ft/min. Since we were simulating the altitudes of 18,000ft, 26,000ft, and 40,000ft, the simulation time was ~9 minutes, ~13 minutes, and ~20 minutes. The pressure inside the chamber decreased using a vacuum pump which pulled air out of the chamber. After the pressure chamber reached the required internal pressure, the pressure was maintained, and the samples were subjected to the set pressure for a 15-minute dwell time. The pressure inside the chamber was maintained constant and there was no loss of vacuum. At the end of 15 minutes, the vacuum was slowly released such that the normalization time was similar to the pressurization time.

Altitude Simulation Metrics

Simulated Altitude	Chamber Internal Pressure (psi)	Gauge Pressure (in. Hg)	Time Used to reach Pressure(mins)
18,000	7.6	-15.0	9
26,000	5.2	-19.5	13
40,000	2.7	-24.5	20

***Table 2**: Settings used to simulate altitudes in this study*

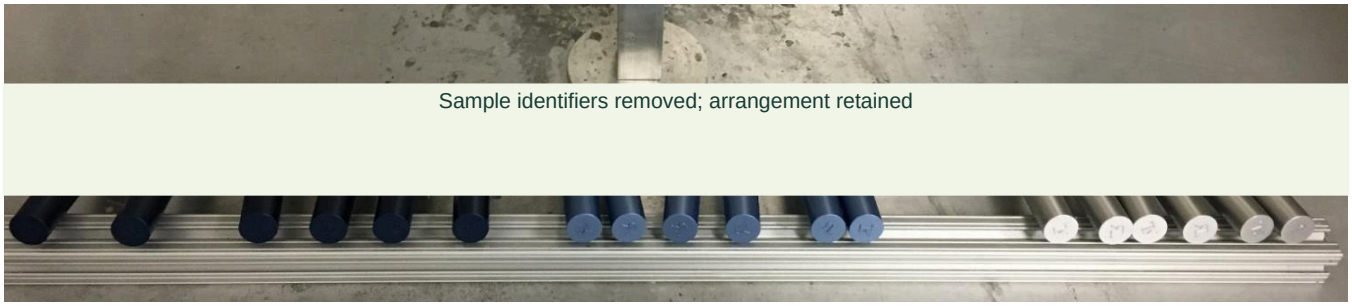

***Figure 3:** Arrangement of the samples inside the sealed vacuum chamber.*

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The simulated altitudes were achieved by pulling air out of a sealed chamber with a vacuum pump until the desired pressure was achieved. See **Table 2** for the pressure conditions that were used for this testing.

The 18,000ft altitude was simulated when the internal chamber pressure reached 7.6 psi which was -15.0 in. Hg gauge pressure. The 26,000ft altitude was simulated when the internal chamber pressure reached 5.2 psi which was -19.5 in. Hg gauge pressure. The 40,000ft altitude was simulated when the internal chamber pressure reached 2.7 psi which was -24.5 in. Hg gauge pressure.

RESULTS

For each product, samples labeled 1 through 6 were used for the 18,000ft simulation, samples labeled 7 through 12 were used for the 26,000ft simulation, and samples labeled 13 through 18 were used for the 40,000ft simulation. Samples 1,2,3,7,8,9,13,14,15 were analyzed immediately after the simulation and samples 4,5,6,10,11,12,16,17,18 were analyzed after 4 hours of atmospheric pressure exposure.

INITIAL OBSERVATIONS

A total of 54 samples were evaluated for their initial observations. None of the 54 samples had any anomalous observations per the inspection metrics. This means that there was no liquid on the outside of the tube, the peekaboo window had a bubble when inverted, and the cap was securely seated. However, it was noted that the cap had a two-stage closing mechanism and the second stage of closing was achieved by using two fingers and slightly applying pressure in the tightening direction. It should be noted that this behavior was observed when handling the sample for the first time. After consecutive uses, the cap always went to the fully closed position. The tubes tested in this study were in a fully closed position during the simulation.

SAMPLE TUBE WEIGHT TRACKING

Of the 54 samples tested, some samples lost weight during the altitude simulation testing. However, the loss was 1-2mg which could be considered insignificant. Upon inspection of samples that lost some weight, no differences were observed between the initial and final observations. Considering the overall data, it can be said that the

are not adversely affected by changes in altitude. See **Table 3** for sample weight tracking of A samples.

Variant A

Sample Altitude Simulation Weight Loss

Product ID	Sample #	Pre Weight (gms)	Post Weight (gms)	Net Change (mg)
18,000ft	1	23.546	23.545	1.000
	2	23.594	23.594	0.000
	3	23.555	23.555	0.000
	4	23.581	23.581	0.000
	5	23.539	23.539	0.000
	6	23.564	23.564	0.000
	Average			0.167
	Std. Dev			0.408

Product ID	Sample #	Pre Weights (gms)	Post Weights (gms)	Net Change (mg)
26,000ft	7	23.589	23.589	0.000
	8	23.57	23.57	0.000
	9	23.591	23.591	0.000
	10	23.593	23.593	0.000
	11	23.605	23.604	1.000
	12	23.592	23.591	1.000
	Average			0.333
	Std. Dev			0.516

Product ID	Sample #	Pre Weights (gms)	Post Weights (gms)	Net Change (mg)
40,000ft	13	23.583	23.582	1.000
	14	23.499	23.498	1.000
	15	23.541	23.541	0.000
	16	23.566	23.565	1.000
	17	23.609	23.609	0.000
	18	23.595	23.593	2.000
	Average			0.833
	Std. Dev			0.753

Variant B

Sample Altitude Simulation Weight Loss

Product ID	Sample #	Pre Weight (gms)	Post Weight (gms)	Net Change (mg)
-18,000ft	1	23.593	23.592	1.000
	2	23.570	23.569	1.000
	3	23.592	23.590	2.000
	4	23.618	23.618	0.000
	5	23.562	23.562	0.000
	6	23.593	23.593	0.000
	Average			0.667
	Std. Dev			0.816

Product ID	Sample #	Pre Weights (gms)	Post Weights (gms)	Net Change (mg)
-26,000ft	7	23.589	23.589	0.000
	8	23.570	23.570	0.000
	9	23.591	23.591	0.000
	10	23.593	23.593	0.000
	11	23.605	23.604	1.000
	12	23.592	23.591	1.000
	Average			0.333
	Std. Dev			0.516

Product ID	Sample #	Pre Weights (gms)	Post Weights (gms)	Net Change (mg)
-40,000ft	13	23.641	23.641	0.000
	14	23.621	23.620	1.000
	15	23.614	23.614	0.000
	16	23.595	23.595	0.000
	17	23.595	23.594	1.000
	18	23.622	23.621	1.000
	Average			0.500
	Std. Dev			0.548

Variant C

Sample Altitude Simulation Weight Loss

Product ID	Sample #	Pre Weight (gms)	Post Weight (gms)	Net Change (mg)
-18,000ft	1	23.509	23.508	1.000
	2	23.593	23.592	1.000
	3	23.584	23.583	1.000
	4	23.594	23.594	0.000
	5	23.536	23.536	0.000
	6	23.587	23.587	0.000
	Average			0.500
	Std. Dev			0.548

Product ID	Sample #	Pre Weights (gms)	Post Weights (gms)	Net Change (mg)
-26,000ft	7	23.58	23.579	1.000
	8	23.619	23.619	0.000
	9	23.574	23.573	1.000
	10	23.609	23.609	0.000
	11	23.608	23.607	1.000
	12	23.522	23.521	1.000
	Average			0.667
	Std. Dev			0.516

Product ID	Sample #	Pre Weights (gms)	Post Weights (gms)	Net Change (mg)
-40,000ft	13	23.583	23.582	1.000
	14	23.499	23.498	1.000
	15	23.541	23.541	0.000
	16	23.566	23.565	1.000
	17	23.609	23.609	0.000
	18	23.595	23.593	2.000
	Average			0.833
	Std. Dev			0.753

Altitude Simulation Testing Summary

Product ID	Sample #	Pre Simulation Inspection: Solution Outside Tube	Pre Simulation Inspection: Tube Bubble Moving	Pre Simulation Inspection: Cap Securely Seated	Post Simulation Inspection: Solution Outside Tube	Post Simulation Inspection: Tube Bubble Moving	Post Simulation Inspection: Solution on Tube Neck
18,000ft	1	PASS	PASS	PASS	PASS	PASS	PASS
	2	PASS	PASS	PASS	PASS	PASS	PASS
	3	PASS	PASS	PASS	PASS	PASS	PASS
	4	PASS	PASS	PASS	PASS	PASS	PASS
	5	PASS	PASS	PASS	PASS	PASS	PASS
	6	PASS	PASS	PASS	PASS	PASS	PASS
26,000ft	7	PASS	PASS	PASS	PASS	PASS	PASS
	8	PASS	PASS	PASS	PASS	PASS	PASS
	9	PASS	PASS	PASS	PASS	PASS	PASS
	10	PASS	PASS	PASS	PASS	PASS	PASS
	11	PASS	PASS	PASS	PASS	PASS	PASS
	12	PASS	PASS	PASS	PASS	PASS	PASS
40,000ft	13	PASS	PASS	PASS	PASS	PASS	PASS
	14	PASS	PASS	PASS	PASS	PASS	PASS
	15	PASS	PASS	PASS	PASS	PASS	PASS
	16	PASS	PASS	PASS	PASS	PASS	PASS
	17	PASS	PASS	PASS	PASS	PASS	PASS
	18	PASS	PASS	PASS	PASS	PASS	PASS

Product ID	Sample #	Pre Simulation Inspection: Solution Outside Tube	Pre Simulation Inspection: Tube Bubble Moving	Pre Simulation Inspection: Cap Securely Seated	Post Simulation Inspection: Solution Outside Tube	Post Simulation Inspection: Tube Bubble Moving	Post Simulation Inspection: Solution on Tube Neck
18,000ft	1	PASS	PASS	PASS	PASS	PASS	PASS
	2	PASS	PASS	PASS	PASS	PASS	PASS
	3	PASS	PASS	PASS	PASS	PASS	PASS
	4	PASS	PASS	PASS	PASS	PASS	PASS
	5	PASS	PASS	PASS	PASS	PASS	PASS
	6	PASS	PASS	PASS	PASS	PASS	PASS
26,000ft	7	PASS	PASS	PASS	PASS	PASS	PASS
	8	PASS	PASS	PASS	PASS	PASS	PASS
	9	PASS	PASS	PASS	PASS	PASS	PASS
	10	PASS	PASS	PASS	PASS	PASS	PASS
	11	PASS	PASS	PASS	PASS	PASS	PASS
	12	PASS	PASS	PASS	PASS	PASS	PASS
40,000ft	13	PASS	PASS	PASS	PASS	PASS	PASS
	14	PASS	PASS	PASS	PASS	PASS	PASS
	15	PASS	PASS	PASS	PASS	PASS	PASS
	16	PASS	PASS	PASS	PASS	PASS	PASS
	17	PASS	PASS	PASS	PASS	PASS	PASS
	18	PASS	PASS	PASS	PASS	PASS	PASS

Product ID	Sample #	Pre Simulation Inspection: Solution Outside Tube	Pre Simulation Inspection: Tube Bubble Moving	Pre Simulation Inspection: Cap Securely Seated	Post Simulation Inspection: Solution Outside Tube	Post Simulation Inspection: Tube Bubble Moving	Post Simulation Inspection: Solution on Tube Neck
18,000ft	1	PASS	PASS	PASS	PASS	PASS	PASS
	2	PASS	PASS	PASS	PASS	PASS	PASS
	3	PASS	PASS	PASS	PASS	PASS	PASS
	4	PASS	PASS	PASS	PASS	PASS	PASS
	5	PASS	PASS	PASS	PASS	PASS	PASS
	6	PASS	PASS	PASS	PASS	PASS	PASS
26,000ft	7	PASS	PASS	PASS	PASS	PASS	PASS
	8	PASS	PASS	PASS	PASS	PASS	PASS
	9	PASS	PASS	PASS	PASS	PASS	PASS
	10	PASS	PASS	PASS	PASS	PASS	PASS
	11	PASS	PASS	PASS	PASS	PASS	PASS
	12	PASS	PASS	PASS	PASS	PASS	PASS
40,000ft	13	PASS	PASS	PASS	PASS	PASS	PASS
	14	PASS	PASS	PASS	PASS	PASS	PASS
	15	PASS	PASS	PASS	PASS	PASS	PASS
	16	PASS	PASS	PASS	PASS	PASS	PASS
	17	PASS	PASS	PASS	PASS	PASS	PASS
	18	PASS	PASS	PASS	PASS	PASS	PASS

***Table 4**: Summary of Observations Made on the* Variant A *Samples.*

FINAL OBSERVATIONS

After simulation observations were performed in two stages. The samples 1,2,3,7,8,9,13,14,15 were inspected immediately. None of the samples from all the product groups tested had any anomalies observed. This meant that there was no liquid on the outside of the tube, the air bubble was moving and visible in the peekaboo window, and when the cap was removed the neck was clear of any serum solution in the threaded area.

After 4 hours of atmospheric pressure exposure, samples 4,5,6,10,11,12,16,17,18 of all the product groups were evaluated. None of the samples from any of the product groups tested had any anomalies observed. This meant that there was no liquid outside the tube, an air bubble was moving and visible in the peekaboo window, and the neck was clear of any serum solution in the threaded area when the cap was removed. Since there were no anomalous observations made, no images were taken of samples during an inspection. See **Figure 4** for sample observations made while testing A samples when tested at 18,000ft altitude settings.

SUMMARY OF RESULTS

Fifty-four (54) anonymized samples were tested for integrity after altitude simulation testing. Eighteen (18) samples each of Variant A Variant B and Variant C were tested at three different simulated altitudes.

All the samples were inspected before starting the simulated tests, of which twenty-seven (27) samples were inspected immediately after the simulated tests, and the remaining twenty-seven (27) samples were inspected after 4 hours at room temperature and atmospheric pressure. From the inspections, it was seen that none of the samples behaved unexpectedly, and all the samples in post-simulation inspection had the same properties. The loss of sample weight was negligible and it could be concluded that the samples were not affected by the change in altitude. It could be concluded that the A products were leak-resistant during changing altitudes. See Table 4 for a summary of all the observations made during the altitude simulation testing.

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ANONYMIZED EDITION NOTICE

The original signature, personnel, project-identification, date, and compliance-statement content on this page has been removed. This anonymized technical edition is unsigned and does not independently assert regulatory status, accreditation scope, or reviewer identity.

Scientific methods, results, tables, figures, and appendices remain on their original report pages. The exact anonymization and omission record is summarized on this notice page.

Editorial evidence note: the report summary records the internal-visual criterion as PASS and describes a moving or visible bubble. The individual inspection sheets mark the bottom viewing window as CLOUDY throughout. This edition preserves both records; no reconciliation is inferred.

Edition changes: identifying names, codes, dates, personnel, signatures, and representative product-lineup images were removed. Retained evidentiary images were pixel-redacted only where identifiers appeared. Scientific tables, figures, and appendices remain on their source pages.

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APPENDIX A
INSPECTION SHEETS

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Product: Variant A Variant A
Altitude: Altitude leak test - at 18,000ft (7.6psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 1:00 PM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant A Variant A	1	2	3	4	5	6
2	Tube ID Number	1-A	2-A	3-A	4-A	5-A	6-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 18,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO

Product: Variant A Variant A
Altitude: Altitude leak test - at 26,000ft (5.2psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 12:06PM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant A Variant A	7	8	9	10	11	12
2	Tube ID Number	7-A	8-A	9-A	10-A	11-A	12-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 26,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO

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Product: Variant A Variant A
Altitude: Altitude leak test - at 40,000ft (2.7psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 11:00AM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant A Variant A	13	14	15	16	17	18
2	Tube ID Number	13-A	14-A	15-A	16-A	17-A	18-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 40,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO

Product: Variant B Variant B
Altitude: Altitude leak test - at 18,000ft (7.6psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 1:00 PM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant B Variant B	1	2	3	4	5	6
2	Tube ID Number	1-A	2-A	3-A	4-A	5-A	6-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 18,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO

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Product: Variant B Variant B
Altitude: Altitude leak test - at 26,000ft (5.2psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 12:06PM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant B Variant B	7	8	9	10	11	12
2	Tube ID Number	7-A	8-A	9-A	10-A	11-A	12-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 26,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO

Product: Variant B Variant B
Altitude: Altitude leak test - at 40,000ft (2.7psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 11:00AM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant B Variant B	13	14	15	16	17	18
2	Tube ID Number	13-A	14-A	15-A	16-A	17-A	18-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 40,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO

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Product: Variant C Variant C
Altitude: Altitude leak test - at 18,000ft (7.6psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 1:00 PM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant C Variant C	1	2	3	4	5	6
2	Tube ID Number	1-A	2-A	3-A	4-A	5-A	6-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 18,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO

Product: Variant C Variant C
Altitude: Altitude leak test - at 26,000ft (5.2psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 12:06PM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant C Variant C	7	8	9	10	11	12
2	Tube ID Number	7-A	8-A	9-A	10-A	11-A	12-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 26,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO

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Product: Variant C Variant C
Altitude: Altitude leak test - at 40,000ft (2.7psi)
Dwell Time: Altitude leak test - dwell time 15 minutes at each altitude
Instructions: Follow instructions as per written Procedure.

Inspector: withheld
Date: date withheld
Time: 11:00AM

		Initial Read Observations					
Number		Tube	Tube	Tube	Tube	Tube	Tube
1	Variant C Variant C	13	14	15	16	17	18
2	Tube ID Number	13-A	14-A	15-A	16-A	17-A	18-A
Observations	**Criteria Type**	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered	As Delivered
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window bubble visible and moving?	YES	YES	YES	YES	YES	YES
3	Cap - is it securely seated, no additional movement is felt?	YES	YES	YES	YES	YES	YES

		Post 40,000ft - Altitude Test Observations					
Observations	**Criteria Type**	Immediate inspection	Immediate inspection	Immediate inspection	4-hour inspection	4-hour inspection	4-hour inspection
1	Assembled tube - is there solution on the outside of the tube?	NO	NO	NO	NO	NO	NO
2	Assembled tube - bottom peekaboo window cloudy or clear?	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY	CLOUDY
3	Cap - remove the cap, is there solution on the tube neck? (Thread area)	NO	NO	NO	NO	NO	NO