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GOVERNMENT OF VANUATU
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Quality Analysis Report: Jason Windo Snacks

Date of Report: 04 December 2025

Product: Jason Windo Snacks (Zesty Tomato)

Brand: Jason

Net weight: 100g

Best Before Date: 04 December 2025

1. Executive Summary

A sample of "Baked Windo Snacks" was analysed on its exact Best Before date (December 4, 2025). The analysis focused on Total Fat, Peroxide Value (PV), Moisture Content, and Free Fatty Acids (FFA).

Overall Verdict: UNACCEPTABLE / QUALITY FAILURE: The product exhibits signs of significant hydrolytic rancidity and moisture absorption. The Free Fatty Acid (FFA) level is critically high (2.5%), suggesting the fat has broken down significantly, likely resulting in a soapy or bitter taste. Combined with high moisture content, the texture is likely compromised. The product is not suitable for sale or consumption as a premium quality item.

2. Laboratory Results & Interpretation

The following table compares the obtained results against general industry standards for baked savory snacks.

Parameter	Test Result	Industry Standard (Approx.)	Status
Total Fat	21.4 %	15% – 25% (Baked)	**Normal**
Peroxide Value (PV)	4.9 meQ/kg	< 5.0 - 10 meQ/kg	**Borderline / Elevated**
Moisture Content	3.97 %	< 2.5% - 3.0%	**High (Failed)**
Free Fatty Acids (FFA)	2.5 %	< 0.5% - 1.0%	**CRITICAL FAILURE**

3. Detailed Parameter Analysis

A. Fats

- Observation: The fat content is consistent with baked snack formulations, which typically contain less oil than fried counterparts (30%+).

- Conclusion: The fat quantity is normal, but the *quality* of this fat (as seen below) has degraded significantly.

B. Peroxide Value

- Definition: Measures primary oxidation (early-stage rancidity).
- Analysis: A PV of 4.9 meQ/kg is approaching the sensory threshold where sensitive consumers might detect off-notes. While often legally "safe" up to 10 meQ/kg, a value of ~5.0 on the Best Before date indicates the product has little to no shelf life remaining regarding oxidative stability.
- Sensory Impact: Potential for slight stale oil notes.

C. Moisture

- Definition: Measures water activity and texture stability.
- Analysis: For shelf-stable crisp snacks, moisture above 3% usually triggers loss of crispness. A level of 3.97% is significantly elevated.
- Cause: This likely indicates a seal failure in the packaging or poor barrier properties, allowing humidity ingress.
- Sensory Impact: The snack will likely be soft, chewy, or "tough" rather than crisp.

D. Free Fatty Acids (2.5%) — Major Concern

- Definition: Measures hydrolytic rancidity (breakdown of triglycerides into free fatty acids).
- Analysis: An FFA level of 2.5% is exceptionally high for a processed snack food. Typical limits are below 1.0%, with premium targets below 0.5%.
- Cause: This can be caused by high moisture (which accelerates hydrolysis) or the use of poor-quality oil ingredients initially.
- Sensory Impact: High FFA correlates strongly with a soapy, bitter, or astringent taste. It can cause throat irritation (catch) upon swallowing.

4. Conclusion and Recommendation

Conclusion: Although the product is technically being tested *on* its Best Before date, it has failed to maintain acceptable quality parameters**.**

1. **Texture:** Compromised due to high moisture (3.97%).
2. **Flavor:** Compromised due to critically high FFA (2.5%), likely rendering the product unpalatable**.**

Recommendation: DO NOT DISTRIBUTE. The stock should be withdrawn. The high FFA combined with high moisture suggests a systemic failure in preservation (packaging seal or barrier) or

the use of unstable ingredients. Consumption will likely lead to consumer complaints regarding taste (bitter/soapy) and texture (stale).

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Prepared By: VBS Laboratory Team