

### TEST REPORT –GLUTEN ELISA TESTING

Client details Boston Breweries  
 48 Carlisle street  
 Paarden Island  
 Cape Town  
 For Attention Jason Wittshire

Date of Report: 06/07/2016  
 Date of Sample Receipt: 29/06/2016  
 Date of Analysis: 06/07/2016  
 Customer Order No: COD

Analysis ID.: 7435  
 Invoice No: 160704/1474  
 No. of pages 1  
 Enquiries: Jana du Plessis

#### Sample details

Client sample identification: Boston Lager Gluten Free - Batch 1888 Sample ID No.: 6036  
 Sample conditions: Wet, Shelf-stable Issue: 1  
 No. of samples submitted: 4 x bottles Known sample deviations: None  
 Sample drawn by: Client

#### Analysis details

Test description: Quantitative Gluten Testing (ELISA) Method identification: SOP-TM-001 (reference available on request)  
 Additional method information: R5 Mendez, AOAC-OMA (2012.01), certified at AOAC-RI (12061), Codex Method (Type I) Deviations from standard method: None  
 Method cross-reactivity: The ELISA specifically detects gluten prolamins in wheat, barley and rye. No cross reaction with soy, oats, maize, rice, millet, teff, buckwheat, quinoa and amaranth. Known factors influencing test results: None

#### Regulatory Aspects

According to the South African Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972) - Regulations Relating to the Labelling and Advertising of Foodstuffs, No. R. 146 (1 March 2010):

- Gluten must be declared on food product labels when present in the product, its ingredients or in its packaging material.
- The claim 'gluten-free' is not permitted for a food that: contains an ingredients that is or has been derived from any species of the significant cereals; and/or contains equal or more than 20 mg/kg gluten in the end product, when the level is determined by the R5 Mendez Enzyme-Linked Immunosorbent Assay (ELISA) for gluten, or other Codex-recommended methods.

#### TEST RESULTS

Method:	Method ID:	Method range of quantification:	MoU:	Your sample results (tested in duplicate)				Regulatory limits:
				Lab ref.	Gluten ^:	Unit	Interpretation:	
ELISA	SOP-TM-001	5.0 – 80.0 mg/kg (ppm) gluten	10 ppm	6036	<5.0	mg/kg (ppm)	<LLOQ	^^
				6036	<5.0	mg/kg (ppm)	<LLOQ	

**Comments:** Results are below the lower limit of quantification of the ELISA. Such results indicate that there may be zero or a very low level of gluten in the sample, too low to be accurately quantified with the ELISA.

<LLOQ = Below lower level of quantification of the method  
 WROQ = Within range of reliable quantification of the method  
 >ULOQ = Above the upper limit of quantification of the method

MoU = Measurement of Uncertainty  
 Method is not SANAS accredited

^^ There are currently no specified allowable levels set for gluten in South Africa. Stipulations for 'gluten-free' claims are indicated in R.146/2010 and summarised above.

Approved by:

Jana du Plessis  
 (MSc Genetics, US)  
 Laboratory Manager

alternatively

Cheryl Fox  
 (Msc Biochemistry, US)

Dr. Harris Steinman  
 (MB.Ch.B. (UCT), D.Ch. (SA), D. Av. Med)

Please note that:

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 Sample conditions: Wet, Shelf-stable Issue: 1  
 No. of samples submitted: 4 x bottles Known sample deviations: None  
 Sample drawn by: Client

#### Analysis details

Test description: Quantitative Gluten Testing (ELISA) Method identification: SOP-TM-101 (reference available on request)  
 Additional method information: The method is used for the analysis of fermented and hydrolysed food which are decalred as gluten-free. Deviations from standard method: None  
 Method cross-reactivity: The ELISA specifically detects gluten prolamins in wheat, barley and rye. No cross reaction with soy, oats, maize, rice, millet, teff, buckwheat, quinoa and amaranth. Known factors influencing test results: None

#### Regulatory Aspects

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#### TEST RESULTS

Method:	Method ID:	Method range of quantification:	MoU:	Your sample results (tested in duplicate)				Regulatory limits:
				Lab ref.	Hydrolysed Gluten ^:	Unit	Interpretation:	
ELISA	SOP-TM-101	10.0 – 270.0 mg/kg (ppm) gluten		6036	<10.0	mg/kg (ppm)	<LLOQ	^^
				6036	<10.0	mg/kg (ppm)	<LLOQ	

**Comments:** Results are below the lower limit of quantification of the ELISA. Such results indicate that there may be zero or a very low level of gluten in the sample, too low to be accurately quantified with the ELISA.

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