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Allergy Consulting & Testing Services **TEST REPORT –GLUTEN ELISA TESTING** Date of Report: 26/09/2016 Analysis ID.: 8193 Client details Boston Breweries Date of Sample Receipt: 48 Carlisle street 20/09/2016 Invoice No: 160922/1750 Paarden Island Date of Analysis: 23/09/2016 No. of pages 1 Cape Town Customer Order No: C.O.D Enquiries: Jana du Plessis For Attention Jason Wittshire Sample details Client sample identification: Arid Light B1940 Boston Brewery Sample ID No.: 6621 Wet. Shelf-stable Sample conditions: Issue: 1 4 x 440ml bottles No. of samples submitted: Known sample deviations: None Sample drawn by: Client Analysis details Method identification: SOP-TM-001 (reference available on request) Test description: Quantitative Gluten Testing (ELISA) Additional method information: R5 Mendez, AOAC-OMA (2012.01), Deviations from standard method: None certified at AOAC-RI (12061), Codex Method (Type I) Method cross-reactivity: The ELISA specifically detects gluten Known factors influencing test results: None prolamins in wheat, barley and rye. No cross reaction with soy, oats, maize, rice, millet, teff, buckwheat, quinoa and amaranth. **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 MoU: Regulatory Your sample results (tested in duplicate) quantification: limits: Lab ref. Gluten ^: Unit Interpretation: ^^ ELISA SOP-TM-001 5.0 - 80.0 mg/kg 10 ppm 6621 <5.0 mg/kg (ppm) <LLOQ (ppm) gluten 6621 <5.0 <LLOQ mg/kg (ppm) 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 Comments: gluten in the sample, too low to be accurately guantified with the ELISA. <LLOQ = Below lower level of quantification of the method MoU = Measurement of Uncertainty WROQ = Within range of reliable quantification of the method Method is SANAS accredited >ULOQ = Above the upper limit of quantification of the method ^ 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 alternatively Cheryl Fox Dr. Harris Steinman (MSc Genetics, US) (Msc Biochemistry, US) (MB.Ch.B. (UCT), D.Ch. (SA), D. Av. Laboratory Manager Med) Please note that: 1. Test results relate only to the sample tested 5. Due to the deterioration of the samples, perishable samples are not stored for future enquiries, whereas non-perishables will be stored for 2. The integrity of the reported result is valid only from the time of sample a period of 30 days after testing has been conducted. receipt by FACTS. 6. This report may not be reproduced, except in full. When only certain 3. This report is issued by FACTS under its General Terms and Conditions of Service, available online at www.factssa.com/TermsConditions.htm pages or sections of the full report are reproduced, written permission must be obtained from FACTS. 4. This report is further issued under the Service Agreement as signed by the parties thereof, and the Acceptance Note as completed and 7. All opinions and interpretations expressed herein are based on test confirmed by the parties thereof. method literature, relevant legislation, sound guidance documents

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and/or technical knowledge and experience.



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| Food & All | lergy (| Consulting a | & Testing Services | | | | | | | | | |
|-------------------------------|---|---|--|--|---|-----------------------------------|--|-----------------|---|---------------|------------|--|
| | | | TES | T REP | ORT -GLU1 | TEN | ELISA TESTI | NG | | | | |
| Client de | etails | Boston Bre 48 Carlisle Paarden Is | e street Da sland Da | | Date of Report: Date of Sample Receipt: Date of Analysis: Customer Order No: | | 20/09/16 I 29/09/16 I | | Analysis ID.: 8194 Invoice No: 160922/1750 No. of pages 1 | | | |
| For Atter | ntion | Cape Town | | Cus | tomer Order No: | | C.O.D | En | quiries: J | Jana du Ple | SSIS | |
| 1 01 7 (10) | naon | ouson with | Shire | | Sample | dotai | le | | | | | |
| Client sam | nle ide | ntification: | Arid Light B1940 Bos | ton Brewe | - | uctai | 13 | | Samn | No · f | 621 | |
| Sample co | • | | Wet, Shelf-stable | | | Sample ID No.: 6621 Issue: 1 | | | | | | |
| No. of samples submitted: | | | 4 x 440ml bottles Known sample deviations: None | | | | | | I | | | |
| Sample dra | awn by | : | Client | | | | | | | | | |
| | | | | | Analysis | detai | ls | | | | | |
| Test description: | | | Quantitative Gluten Testing (ELISA) Method identification: SOP-TM-101 (reference available on request) | | | | | | | | | |
| Additional method information | | | : The method is used fermented and hydro decalred as gluten-fr | , | Deviations from standard method: None | | | | | | | |
| Method cross-reactivity: | | | The ELISA specifica prolamins in wheat, cross reaction with s millet, teff, buckwhea amaranth. | Known factors influencing test results: None | | | | | | | | |
| | | | | | Regulatory | Aspe | ects | | | | | |
| Accordi | ing to t | he South A | frican Foodstuffs, Cosi Ad | | | | 72 (Act 54 of 1972) 46 (1 March 2010): | - Regulation: | s Relating to | the Labelli | ing and | |
| | | | be declared on food pr | | • | | | | | | | |
| | | | t permitted for a food t or more than 20 mg/kg Immunosorbent A | g gluten in | the end product | t, wher | | nined by the F | R5 Mendez E | | | |
| | | | | | TEST RE | SULI | ſS | | | | | |
| Method: | Me | ethod ID: | Method range of quantification: | MoU: | | Your sample results (tested in du | | ested in duplic | uplicate) | | Regulatory | |
| | | | | | Lab ref. | Hydrol | ysed Gluten ^: | Unit | Interpr | retation: | limits: | |
| ELISA | SOP-TM-101 | P-TM-101 | 10.0 – 270.0 mg/kg (ppm) gluten | | 6621 | | <10.0 | mg/kg (ppm |) <li< td=""><td>LOQ</td><td>~</td></li<> | LOQ | ~ | |
| | | | | | 6621 | | <10.0 | mg/kg (ppm |) <li< td=""><td>LOQ</td><td></td></li<> | LOQ | | |
| Commen | | gluten in th | e below the lower limit ne sample, too low to b | e accurat | | | | e that there m | ay be zero o | or a very lov | w level of | |
| WROQ = | Within | range of re | of quantification of the eliable quantification of limit of quantification o | the metho | bd | | leasurement of Uno | , | | | ľ | |
| South Afri | ica. St | | pecified allowable level or 'gluten-free' claims a ed above. | | | | | | | | | |
| Approved b | y: fdd | uples | c_{1} | | A | Tx. | | | Per | Junan | L. | |
| | Jana du Plessis alternatively Che (MSc Genetics, US) (Msc Bioch Laboratory Manager | | | | | | n Fox Dr. Harris Steinman mistry, US) (MB.Ch.B. (UCT), D.Ch. (SA), D. Av. Med) | | | | | |
| Please note | e that: | | | | | | | | | , | | |
| | egrity o | f the reporte | the sample tested ed result is valid only fr | rom the tin | ne of sample | 5 | Due to the deteriora stored for future end a period of 30 days | quiries, where | as non-peris | shables will | | |
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 All opinions and interpretations expressed herein are based on test method literature, relevant legislation, sound guidance documents and/or technical knowledge and experience.

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confirmed by the parties thereof.