

## Supplementary information:

### Consistency of urban background black carbon concentration measurements by portable AE51 and reference AE22 Aethalometers: Effect of corrections for filter loading.

Nicola Masey<sup>1,4</sup>, Eliani Ezani<sup>1,2</sup>, Jonathan Gillespie<sup>1</sup>, Fiona Sutherland<sup>1</sup>,  
Chun Lin<sup>3</sup>, Scott Hamilton<sup>4</sup>, Mathew R. Heal<sup>3</sup>, Iain J. Beverland<sup>1\*</sup>

<sup>1</sup>Department of Civil and Environmental Engineering, University of Strathclyde,  
James Weir Building, 75 Montrose Street, Glasgow, G1 1XJ, UK

<sup>2</sup>Department of Environmental and Occupational Health, Faculty of Medicine and Health Science, Universiti Putra  
Malaysia, 43400 Serdang, Selangor, Malaysia

<sup>3</sup>School of Chemistry, Joseph Black Building, University of Edinburgh,  
David Brewster Road, Edinburgh, EH9 3FJ, UK

<sup>4</sup>Ricardo Energy and Environment, 18 Blythswood Square,  
Glasgow, G2 4BG, UK

\*CORRESPONDING AUTHOR: Dr Iain J. Beverland,

Department of Civil and Environmental Engineering, University of Strathclyde,  
505F James Weir Building, 75 Montrose Street,

Glasgow, G1 1XJ, UK;

Email: [iain.beverland@strath.ac.uk](mailto:iain.beverland@strath.ac.uk); Tel: +44 141 548 3202

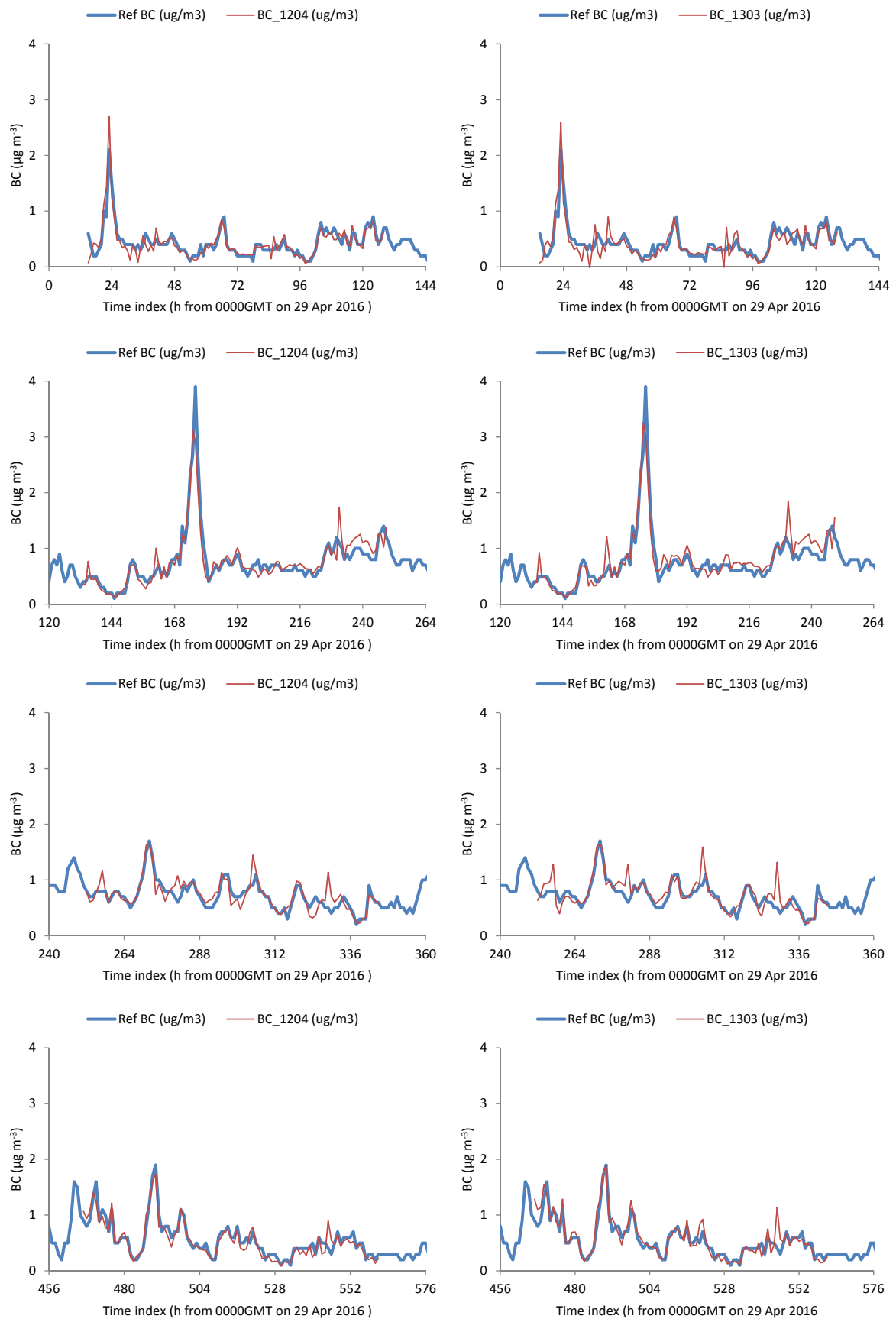


Figure S1: Time series of adjusted hourly-average eBC concentrations from reference AE22 aethalometer and unadjusted concentrations measured by two AE51 micro-aethalometers for individual deployment periods between 29/04/16 - 26/05/16 and 08/08/16 - 22/08/16.

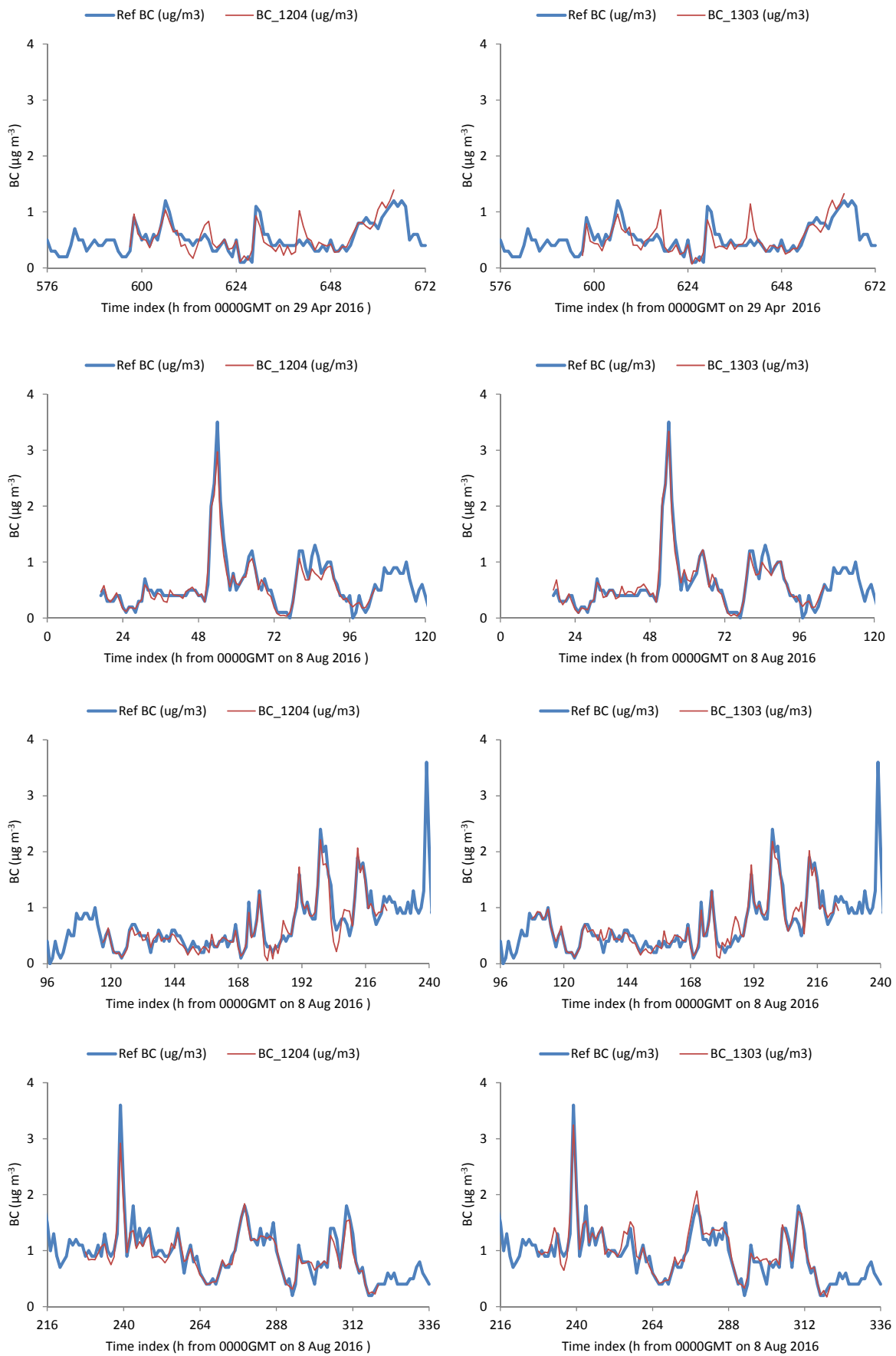


Figure S1 (continued): Time series of adjusted hourly-average eBC concentrations from reference AE22 aethalometer and unadjusted concentrations measured by two AE51 micro-aethalometers for individual deployment periods between 29/04/16 - 26/05/16 and 08/08/16 - 22/08/16.

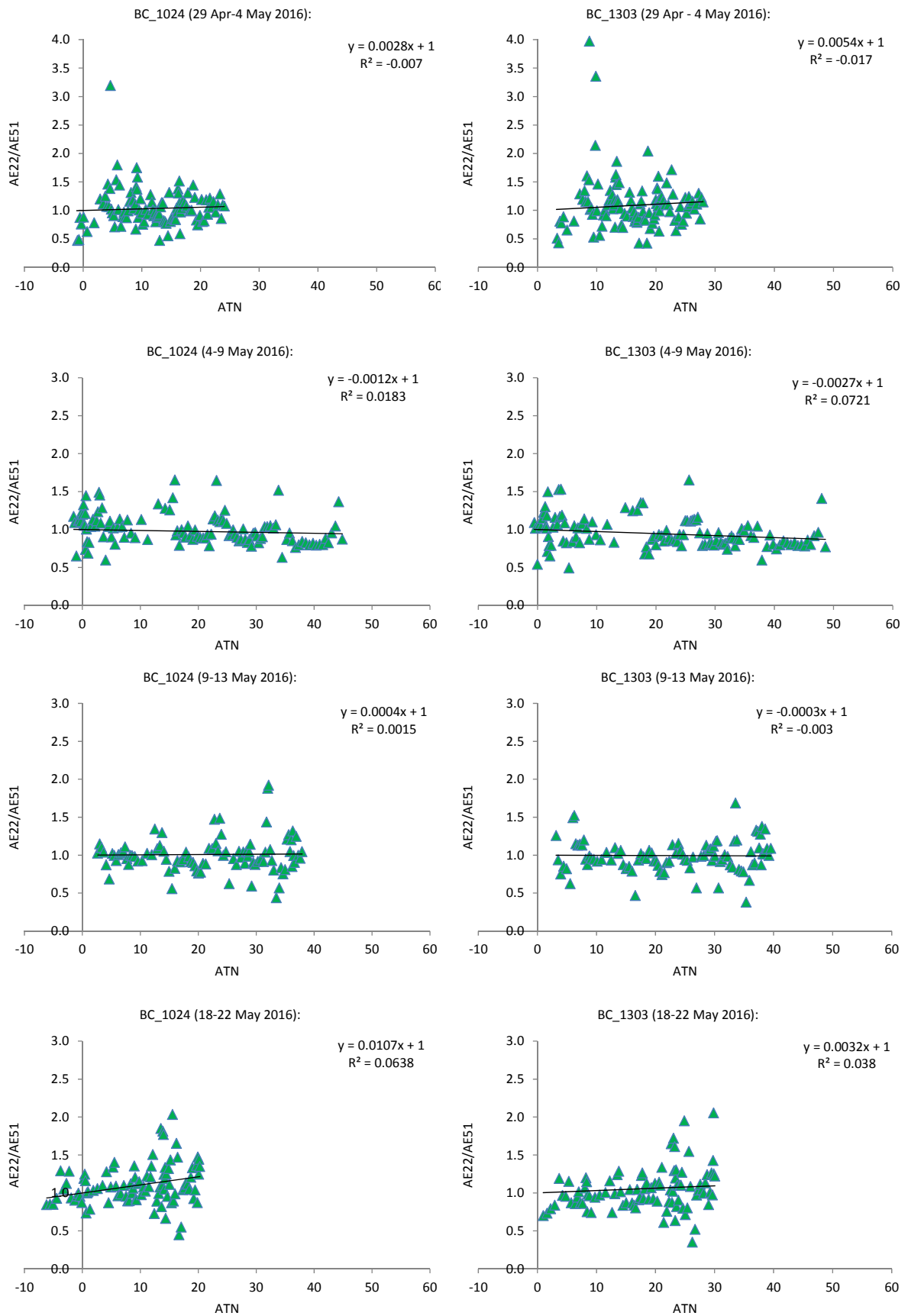


Figure S2: Scatter plots of eBC concentrations ratios of hourly-average eBC concentrations from reference AE22 aethalometer (adjusted) / AE51 micro-aethalometers (non-adjusted and adjusted) for individual periods between 29/04/16 - 26/05/16 and 08/08/16 - 22/08/16.

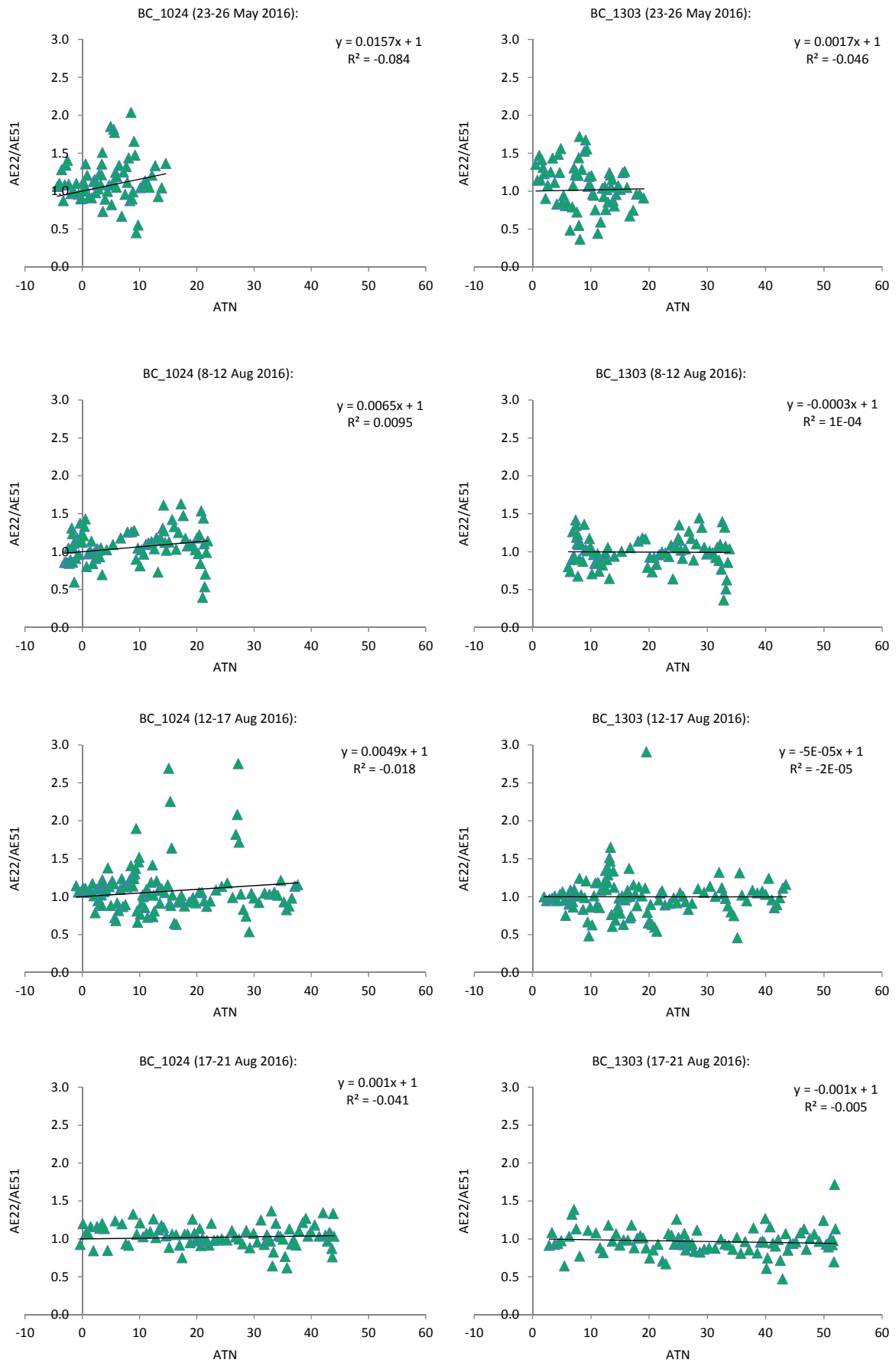


Figure S2 (continued): Scatter plots of eBC concentrations ratios of hourly-average eBC concentrations from reference AE22 aethalometer (adjusted) / AE51 micro-aethalometers (non-adjusted and adjusted) for individual periods between 29/04/16 - 26/05/16 and 08/08/16 - 22/08/16.