

**CMAQ PERFORMANCE AND ASSESSMENT OF THE TRANSBOUNDARY INFLUENCES DURING
LONG-TERM MODELLING IN ONTARIO**

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The results of five months of CMAQ simulations (May through September, 1998) have been used to assess the model's performance and the influence of transboundary flows on concentrations of ozone and PM_{2.5} in Ontario.

The modelled results were compared with monitored data separately for 12 most populated communities across the province. There is a

good overall correspondence in time series and frequency distributions between modelled and observed data.

The transboundary influences have a wide range of spatial and temporal variability, which originates from location relative to the USA-Canada border, dominant airflows and seasonal variations in ammonia emissions.

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