

SPATIAL DISTRIBUTIONS OF ORGANIC AND INORGANIC POLLUTANTS AT AN INDUSTRIAL CITY ON THE NORTHWESTERN TURKEY

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OUTLINE

- INTRODUCTION
- DATA PRODUCTION
- PRELIMINARY RESULTS



INTRODUCTION

to investigate **spatial distributions** of VOC, and other conventional air pollutants

Consist of:

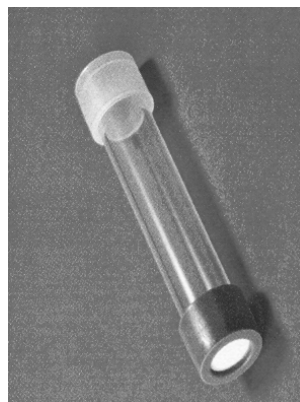
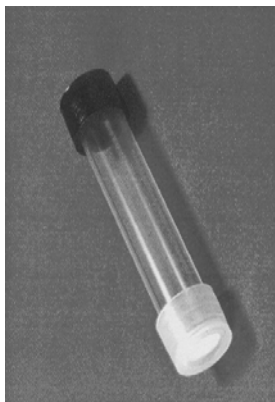
Summer season sampling

Winter season sampling

Sample Preparation and Handling... con't

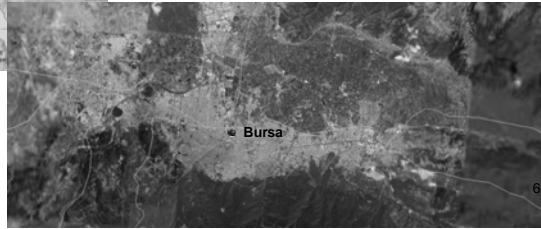
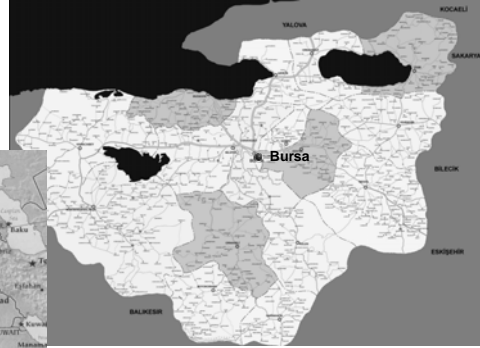
- Commercially available passive inorganic tubes for SO₂, NO₂ and O₃
- Exposure time: **1 weeks or 2 weeks**
- Gradko Ltd.

Sample Preparation and Handling... con't



Passive Tubes

Study area



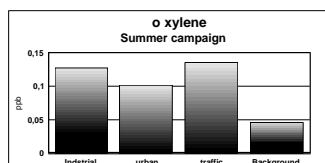
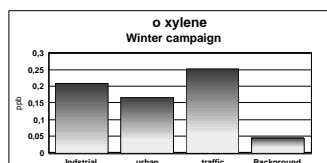
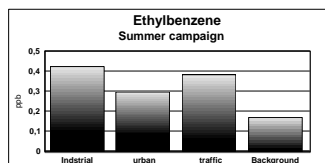
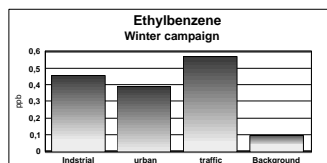
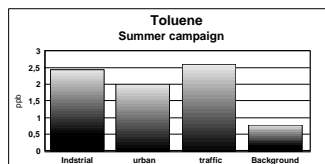
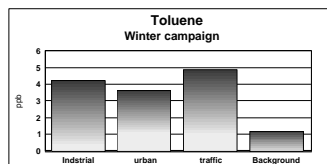
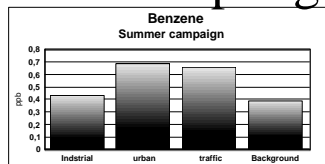
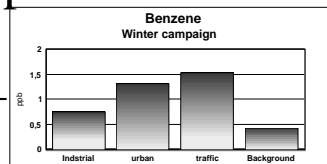
Study area

Sampling Locations include:

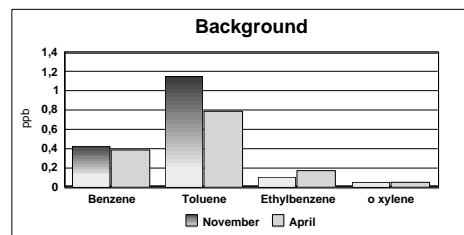
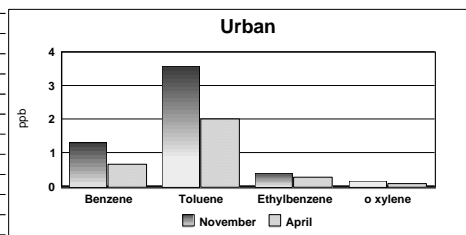
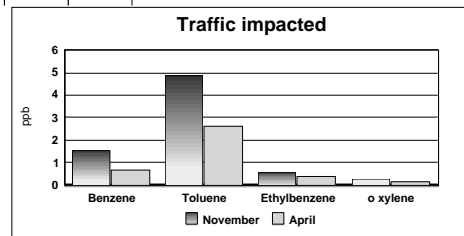
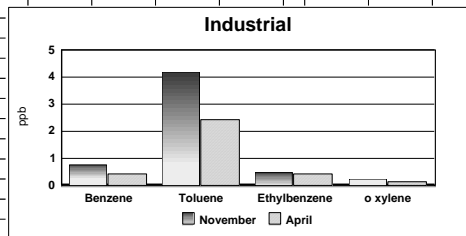
- ✓ **Residential Areas**
- ✓ **Roads and Junctions**
- ✓ **Industries**
- ✓ **Background**



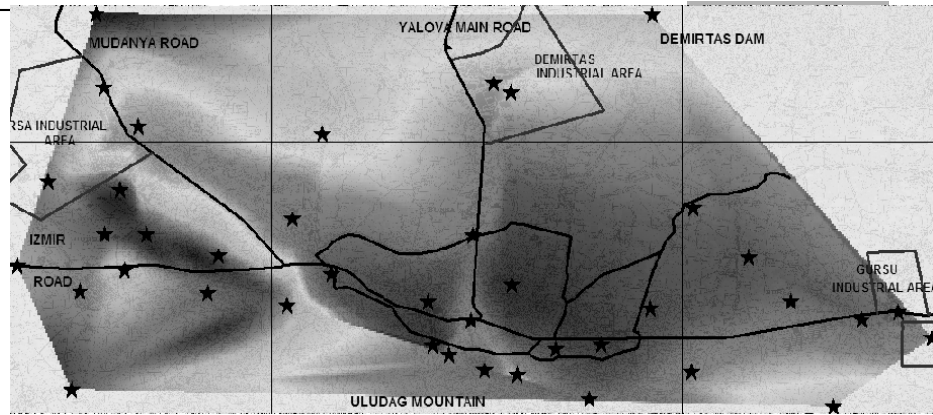
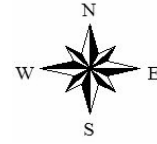
Comparison of 1st and 2nd Sampling Period



Comparison of the Sampling Site

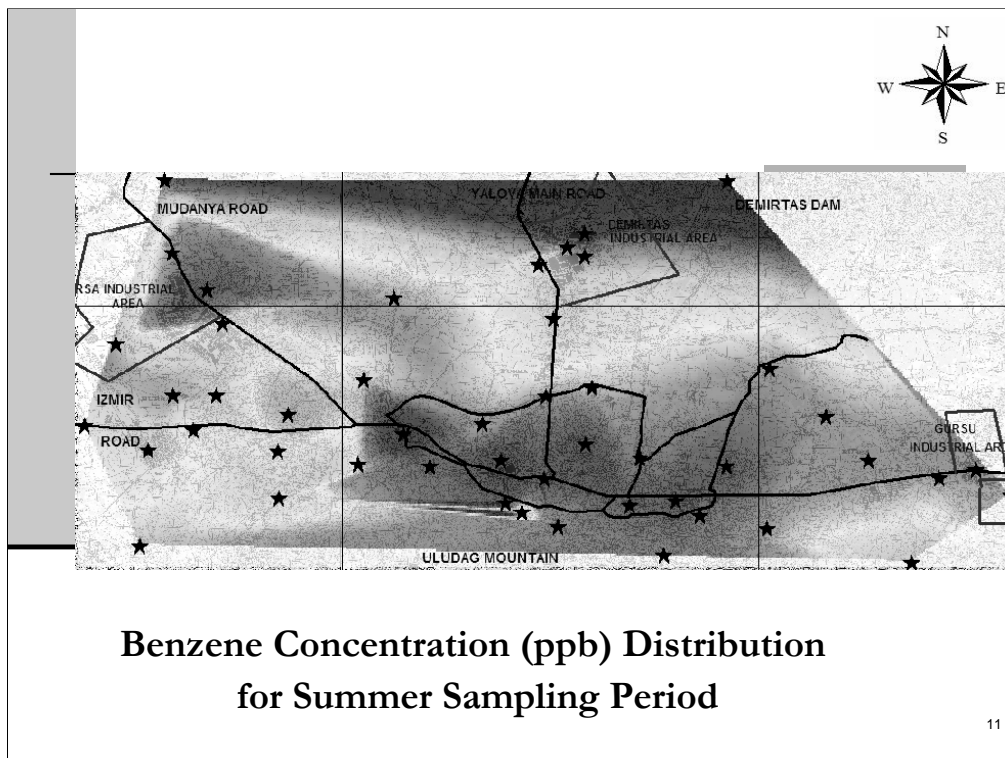


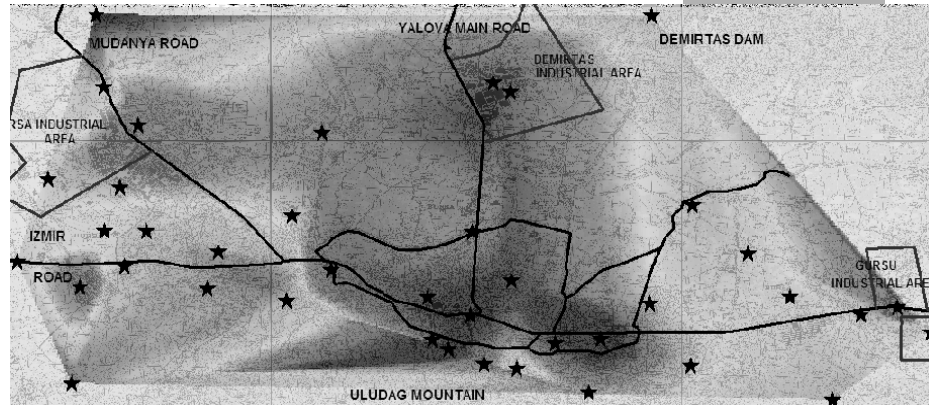
Pollutant Distribution Map



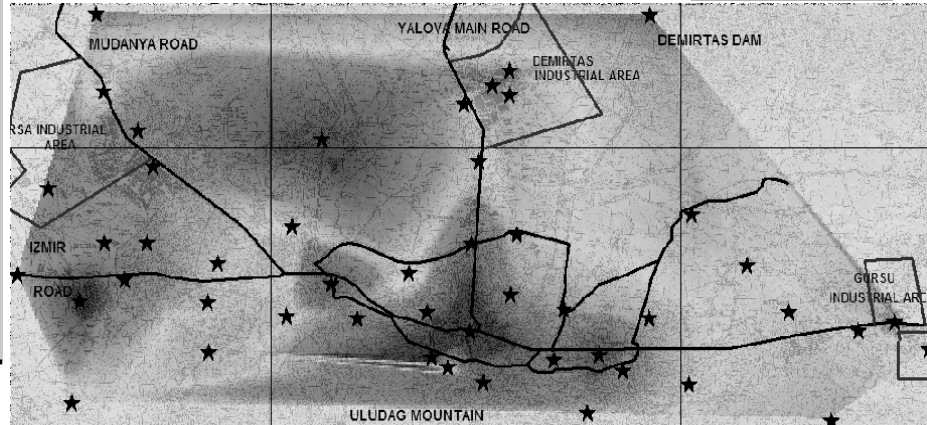
**Benzene Concentration (ppb) Distribution
for Winter Sampling Period**

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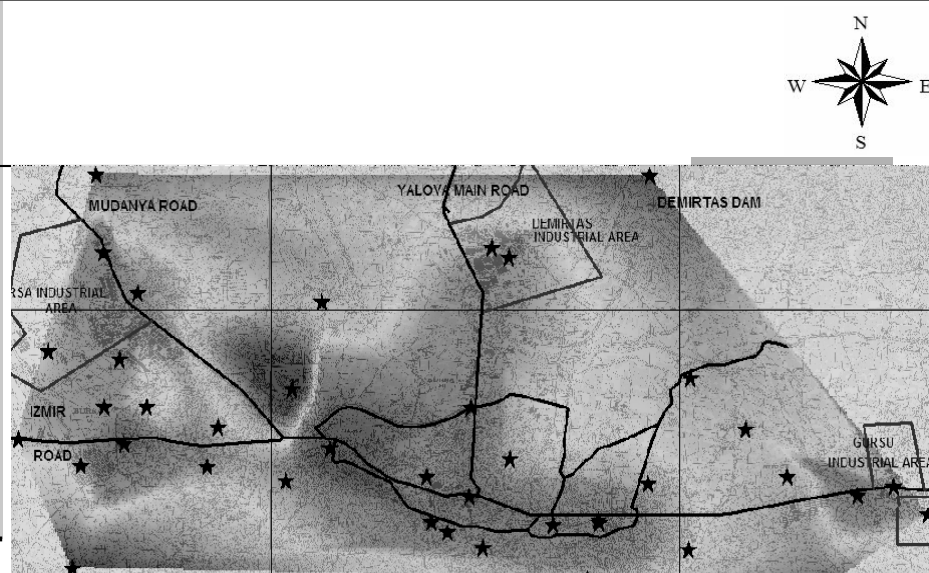


**Toluene Concentration (ppb) Distribution
for Winter Sampling Period**

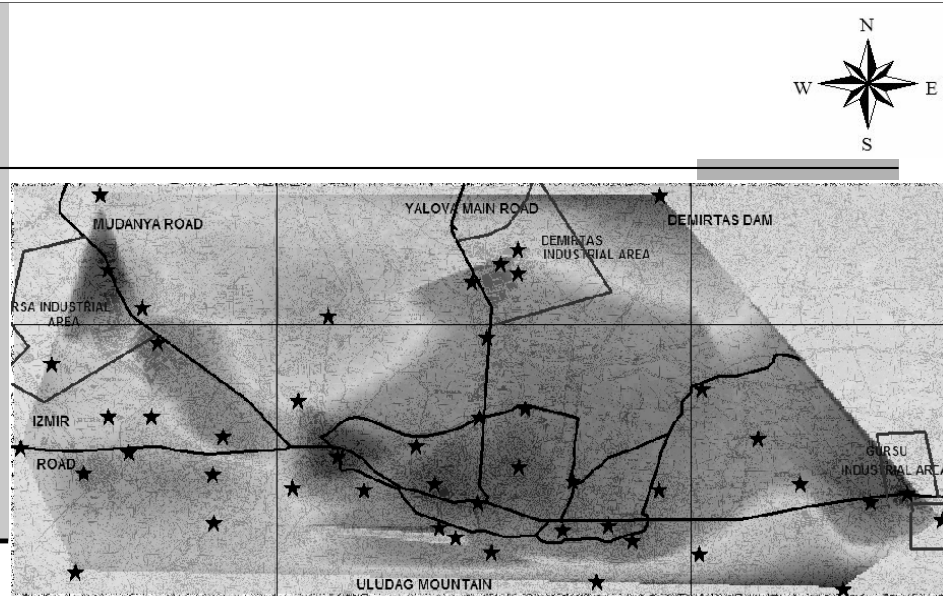


**Toluene Concentration (ppb) Distribution
for Summer Sampling Period**

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**NO₂ Concentration (ug/m³) Distribution
for Winter Sampling Period**



**NO₂ Concentration (ug/m³) Distribution
for Summer Sampling Period**

Future Works....

- Sources giving rise to observed distributions will be determined by multivariate statistics and investigation of ratios
- Distribution health risk associated with VOCs will be determined
- Complete QA/QC procedure

**THANK YOU FOR YOUR
PATIENCE!!!**

