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

Mihriban Civan, **Semra Tuncel and Gurdal Tuncel**

April 2007

1

OUTLINE

- INTRODUCTION
- DATA PRODUCTION
- PRELIMINARY RESULTS



INTRODUCTION

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

Consist of:

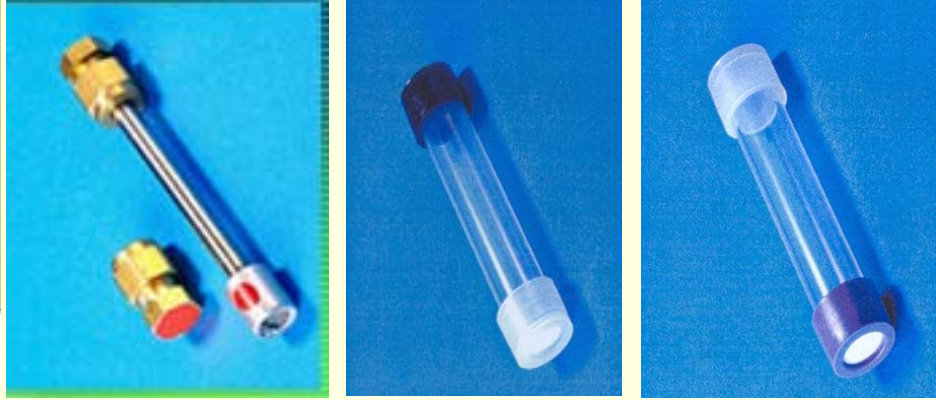
Summer season sampling

Winter season sampling

Sample Preparation and Handling... con't

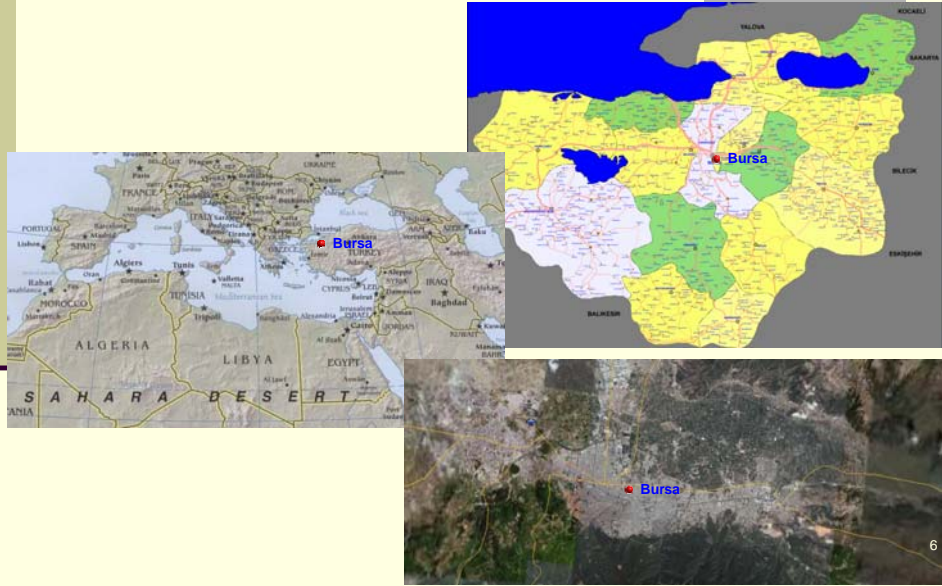
- Commercially available passive inorganic tubes for SO₂, NO₂ and O₃
- Exposure time: **1 weeks or 2 weeks**
- Gradko Ltd.

Sample Preparation and Handling... con't



Passive Tubes

Study area



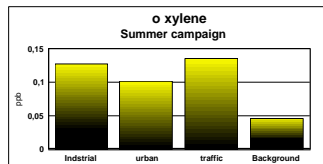
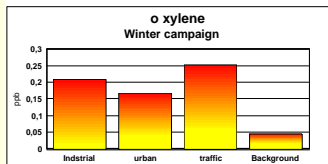
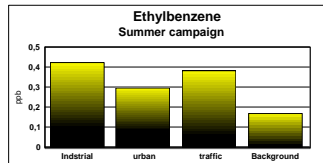
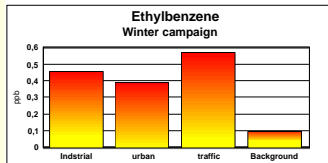
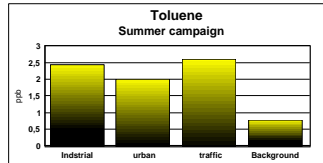
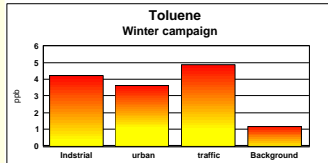
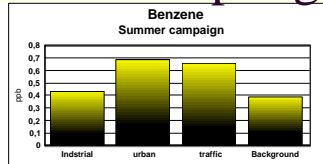
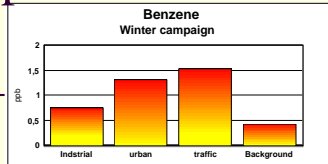
Study area

Sampling Locations include:

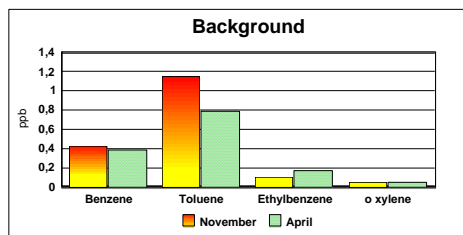
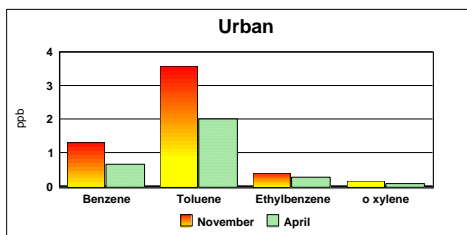
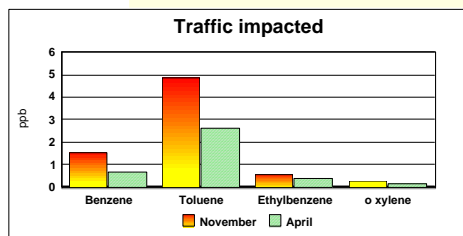
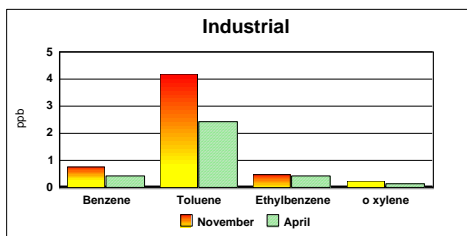
- ✓ Residential Areas
- ✓ Roads and Junctions
- ✓ Industries
- ✓ Background



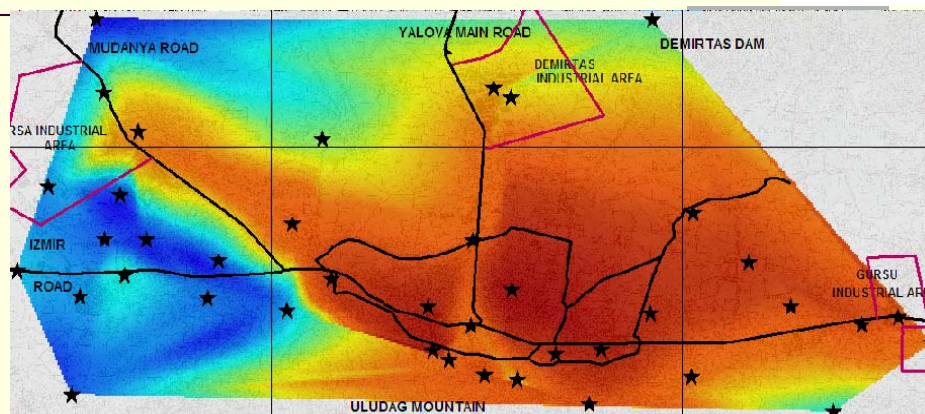
Comparison of 1st and 2nd Sampling Period



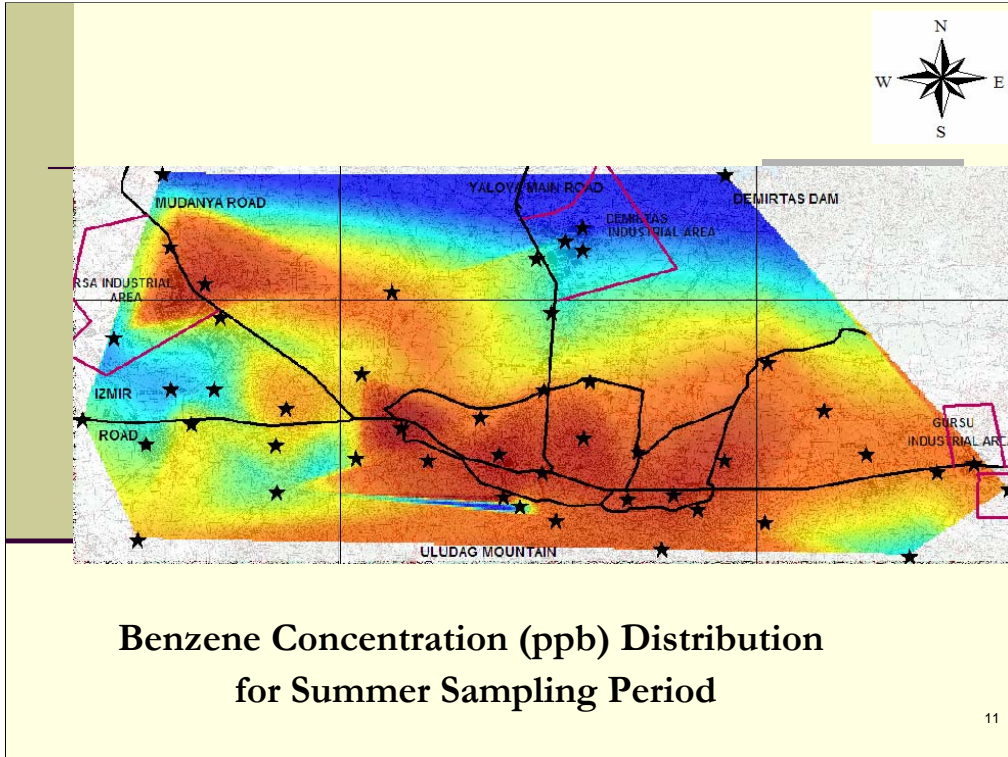
Comparison of the Sampling Site

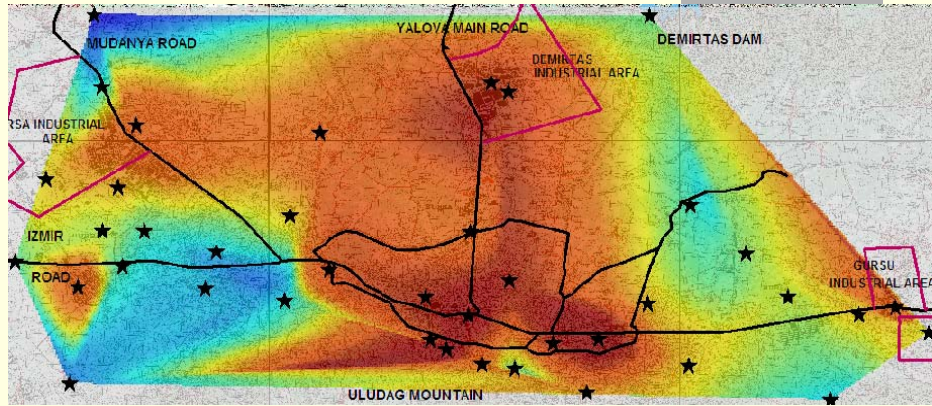


Pollutant Distribution Map

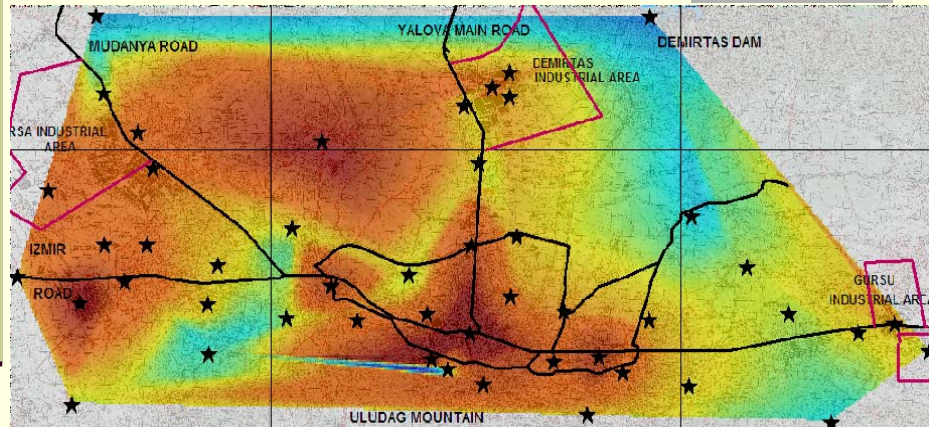


**Benzene Concentration (ppb) Distribution
for Winter Sampling Period**

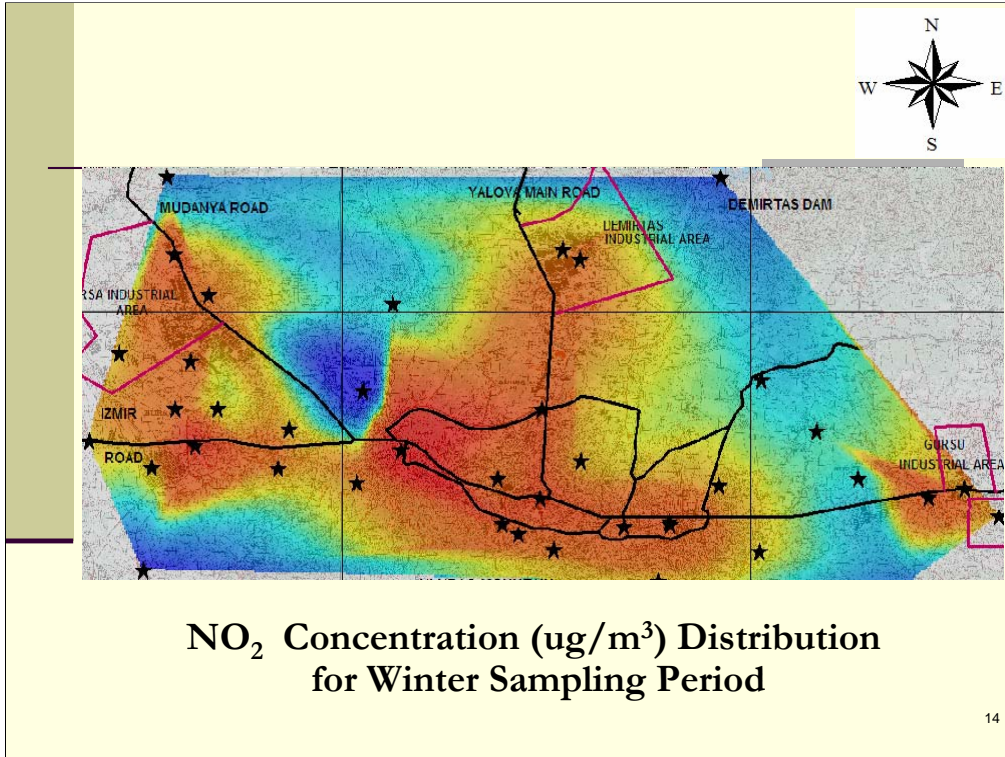


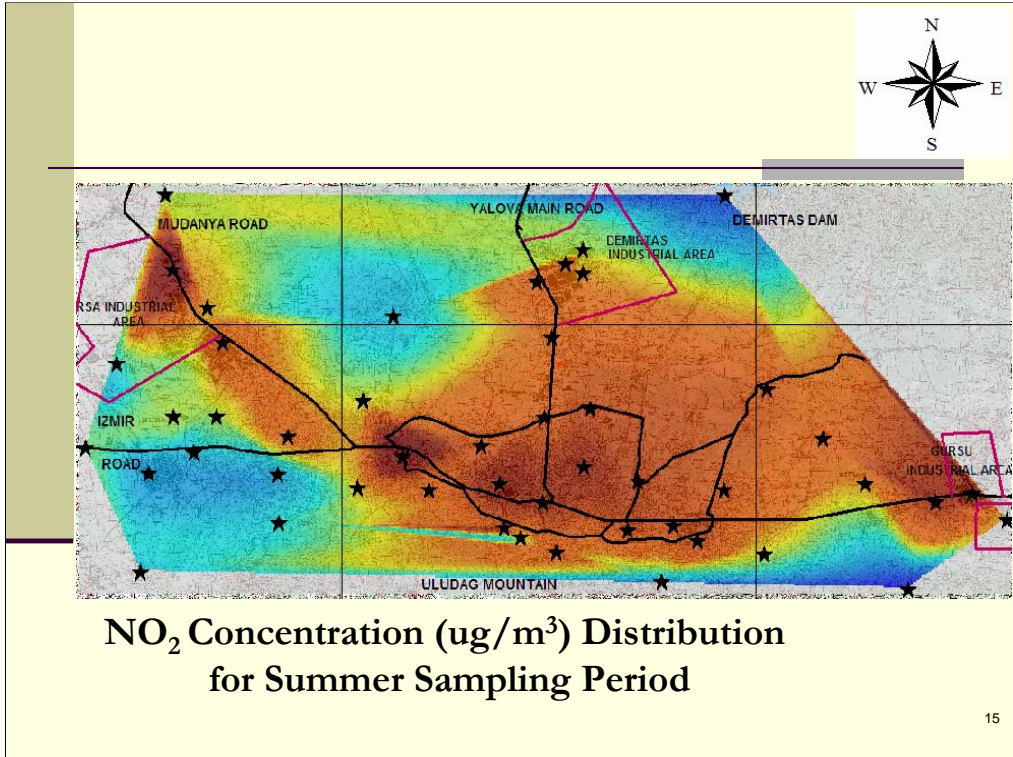


**Toluene Concentration (ppb) Distribution
for Winter Sampling Period**



**Toluene Concentration (ppb) 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!!!**

