Comments on the Columbus Waste-to-Energy Site

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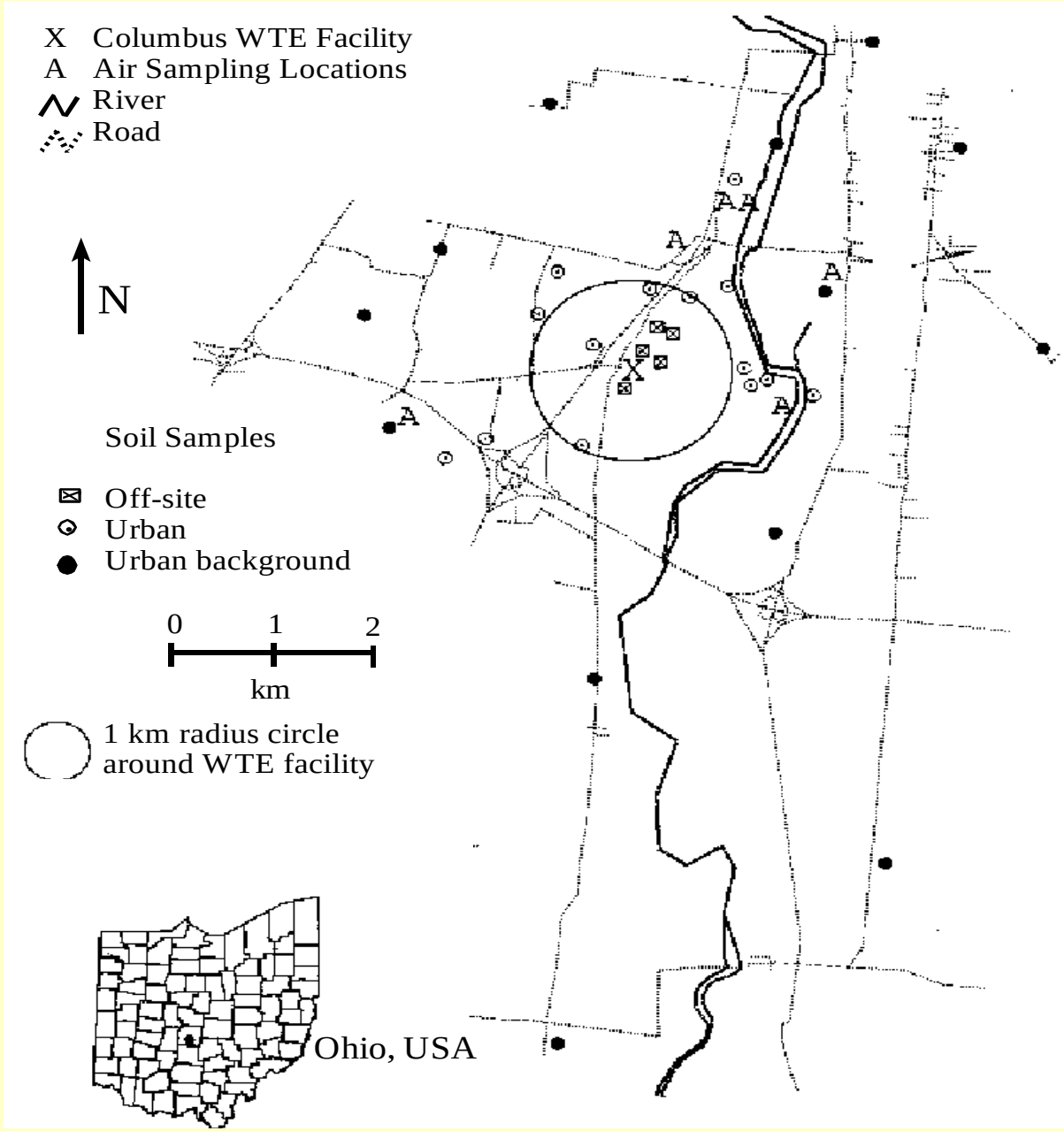
San Francisco, CA

Overview

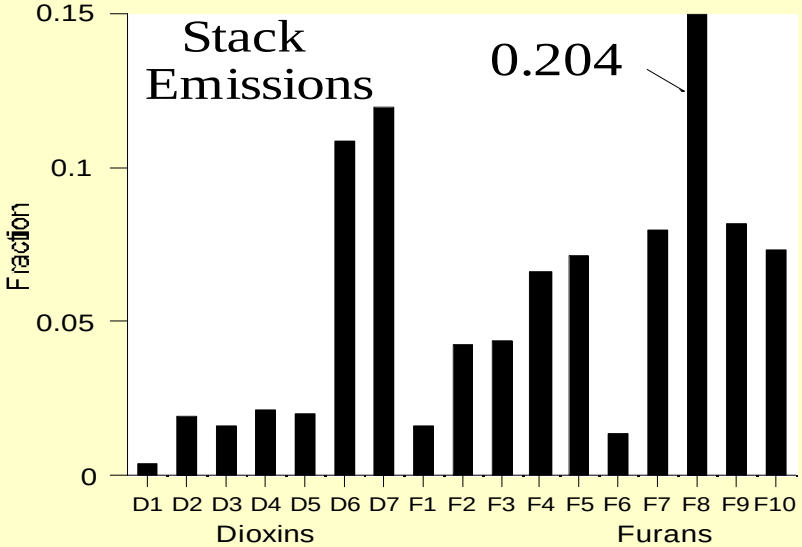
- "How do you use monitoring and modeling tools in your areas of expertise and how can these tools be used to support exposure assessment at various geographic scales?"

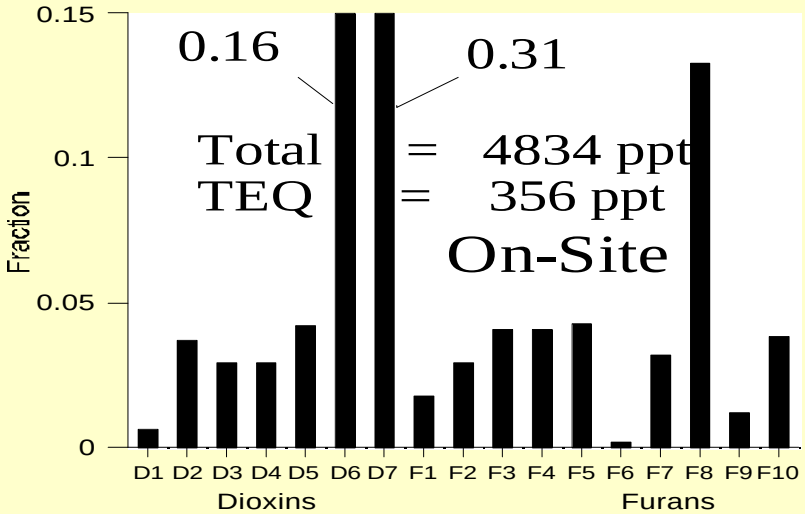
- Applications:
  - Stack monitoring/modeling: Risk Assessment in support of regulations - See Thursday Talk on Multipathway Assessment
  - Monitoring including stack, ambient air, ash, and soil: evaluation of the relationship between stack emissions and environmental impacts
  - Monitoring and modeling: model validation

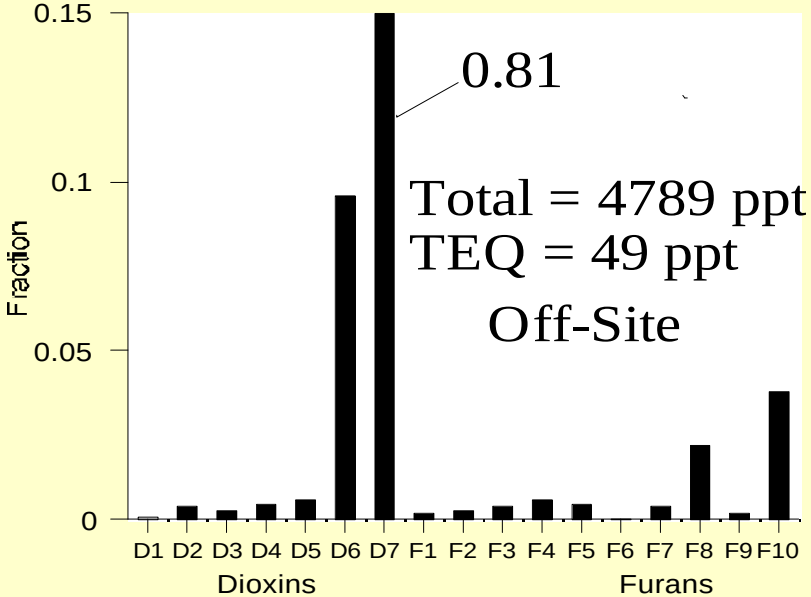
- Context
  - Dioxin Reassessment
  - Dioxin Exposure Initiative
  - Regional Support on Dioxin Issues

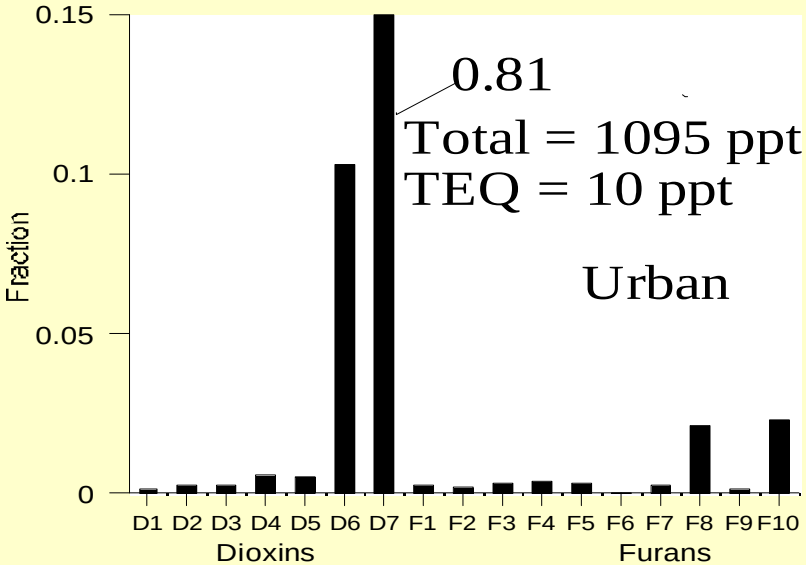

X Columbus WTE Facility
A Air Sampling Locations
River
Road
N
Soil Samples
Off-site
Urban
Urban background
0
1
2
km
1 km radius circle
around WTE facility
Ohio, USA

Relationship between stack emissions and soil profiles of dioxin

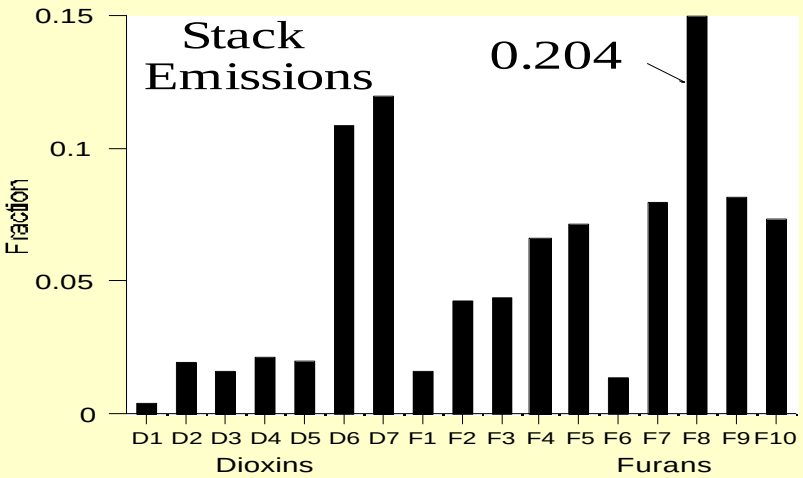


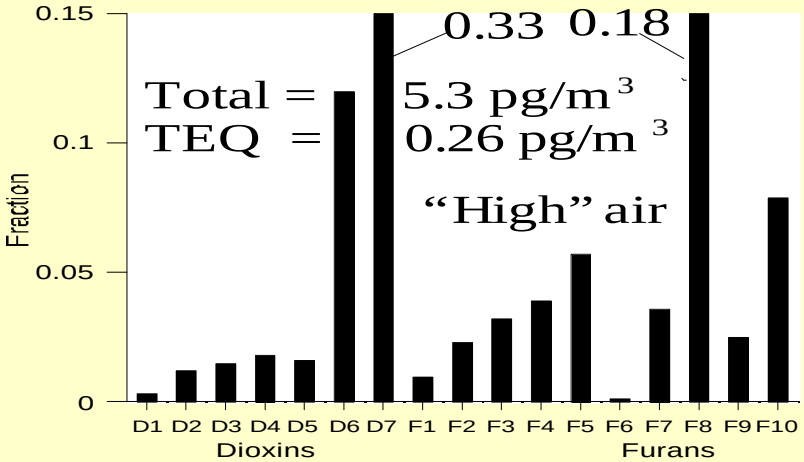


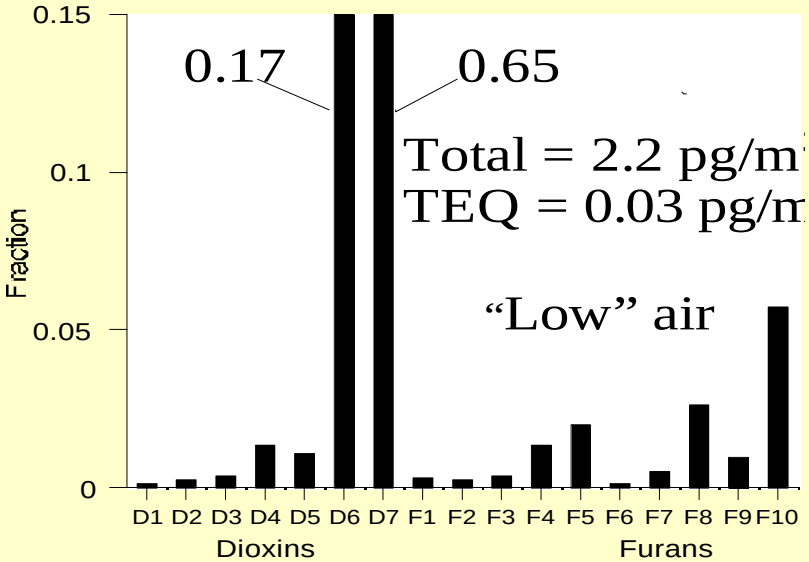


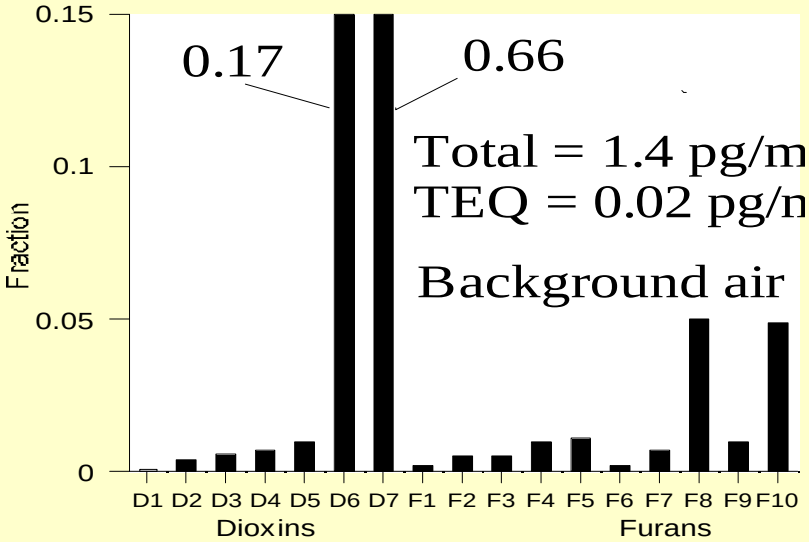


Relationship between stack emissions and air profiles of dioxin

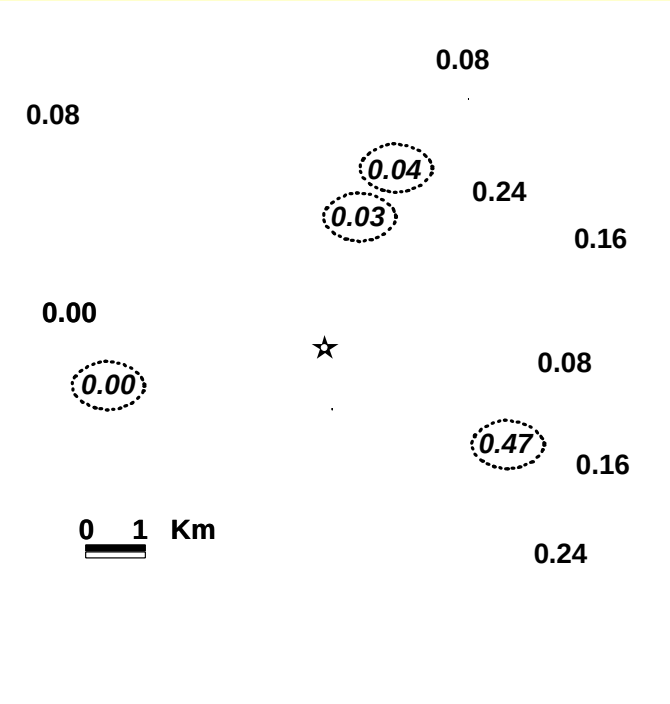






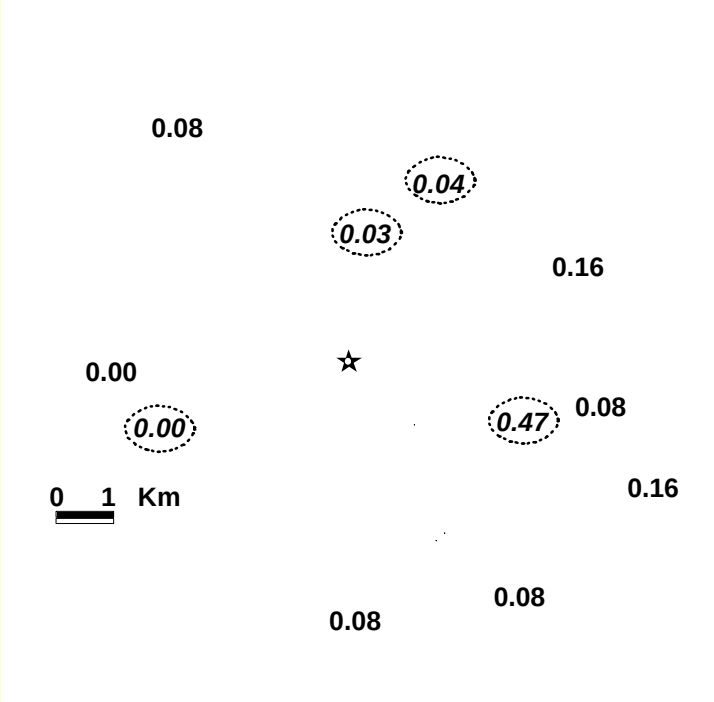


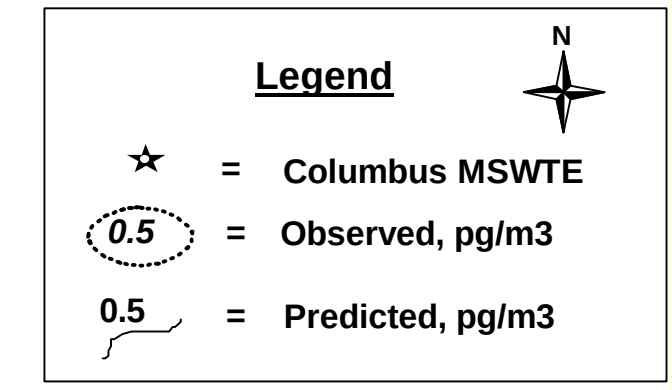
ISC3 Model Validation



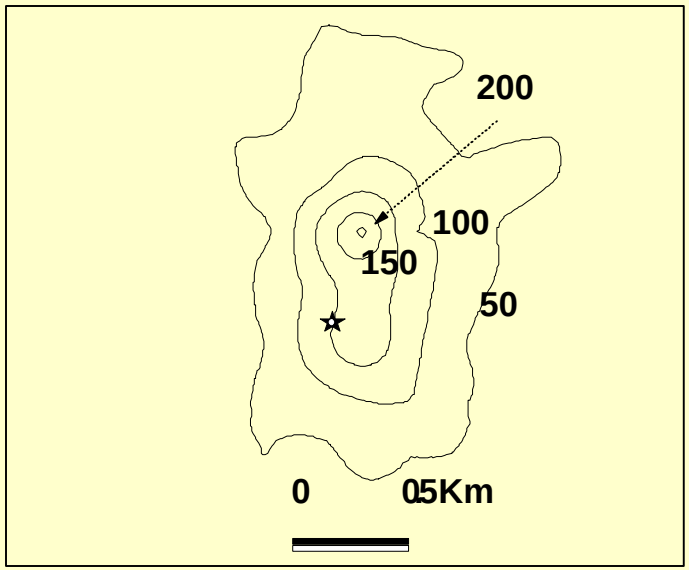
TCDD, on-site met data

TCDD, airport met data

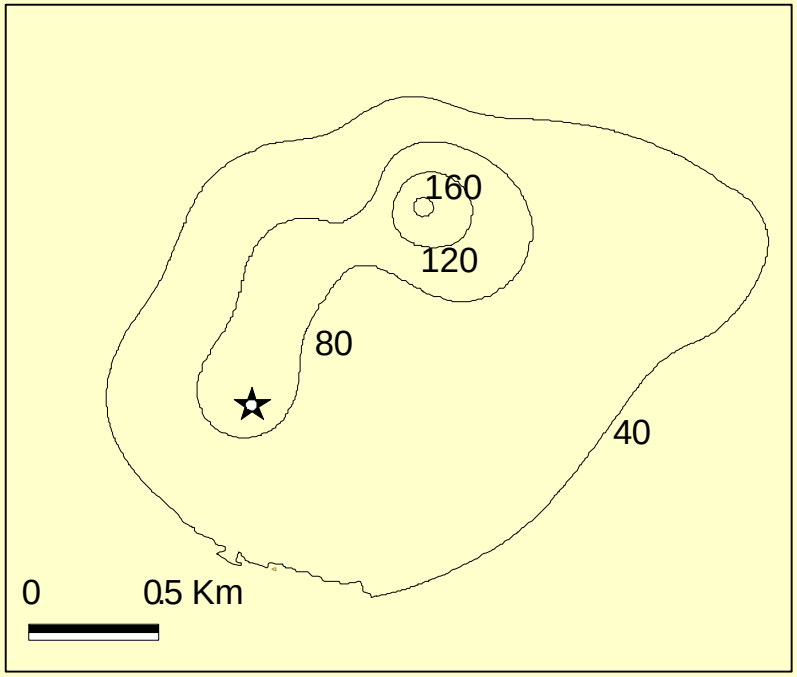




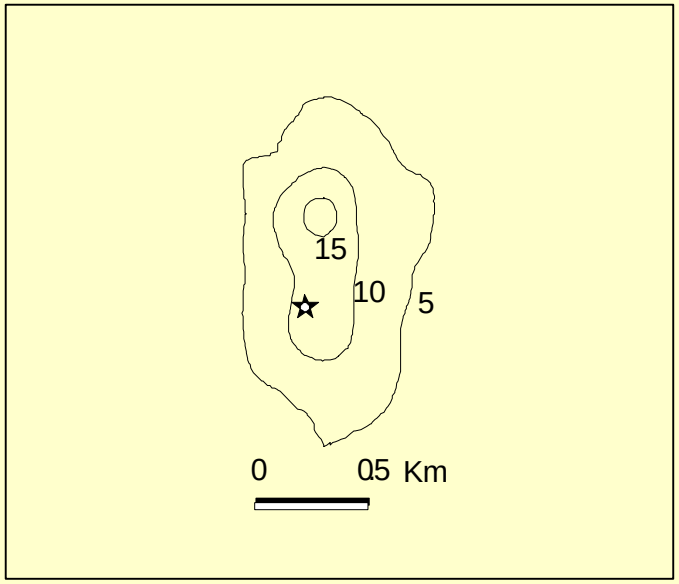
ISC3 + Deposition Soil Model Validation



TCDD, ‘92 stack test, ppt



TCDD, observed, ppt



TCDD, ‘94 stack test, ppt