

Trenton/Black River Production Trends and History

- **Geographic trends tied to geology**
- *Identifying fairways for future play development*
- *Identifying key wells*
- **Historical trends**
- *Resource assessment*

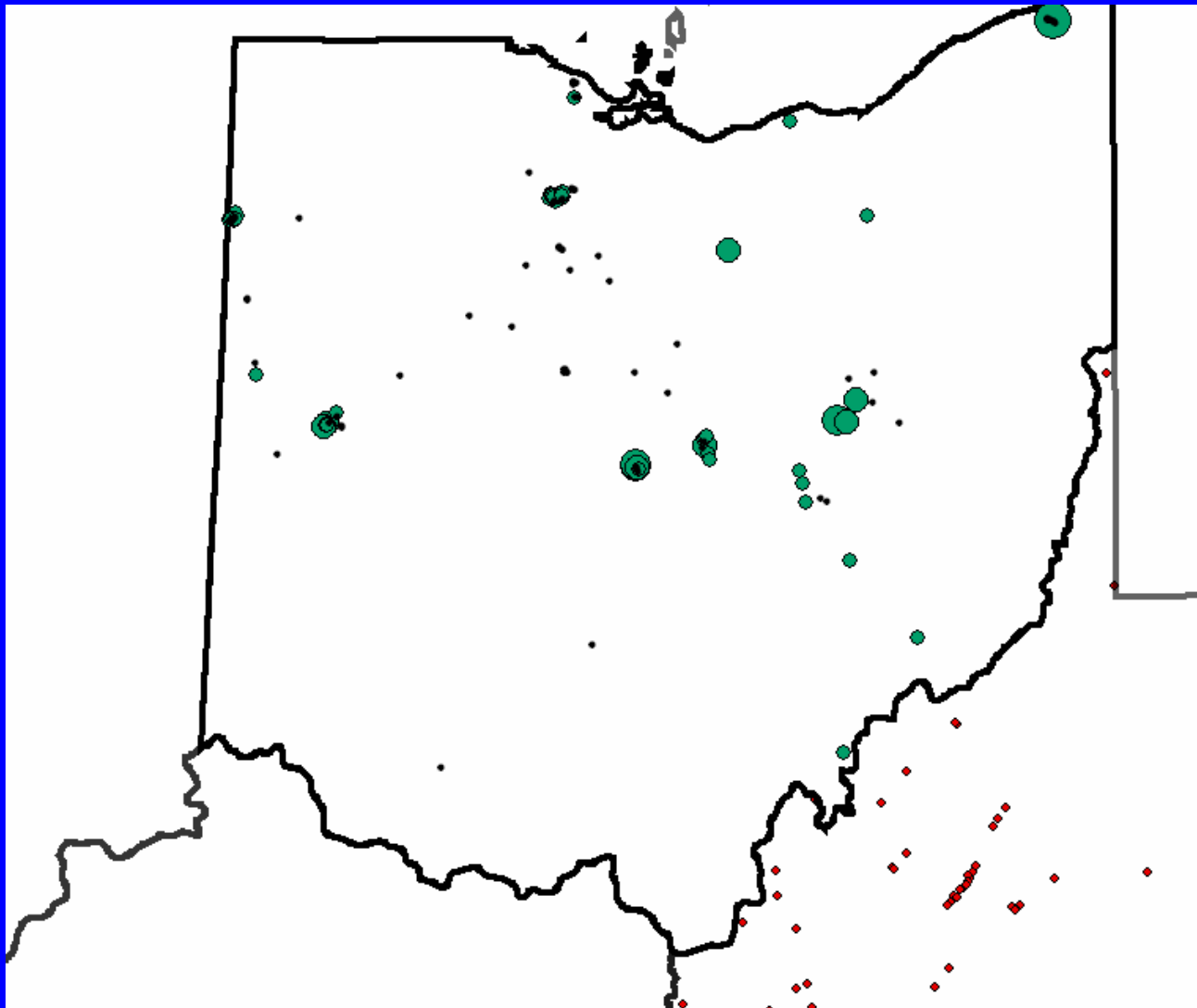
Current Status

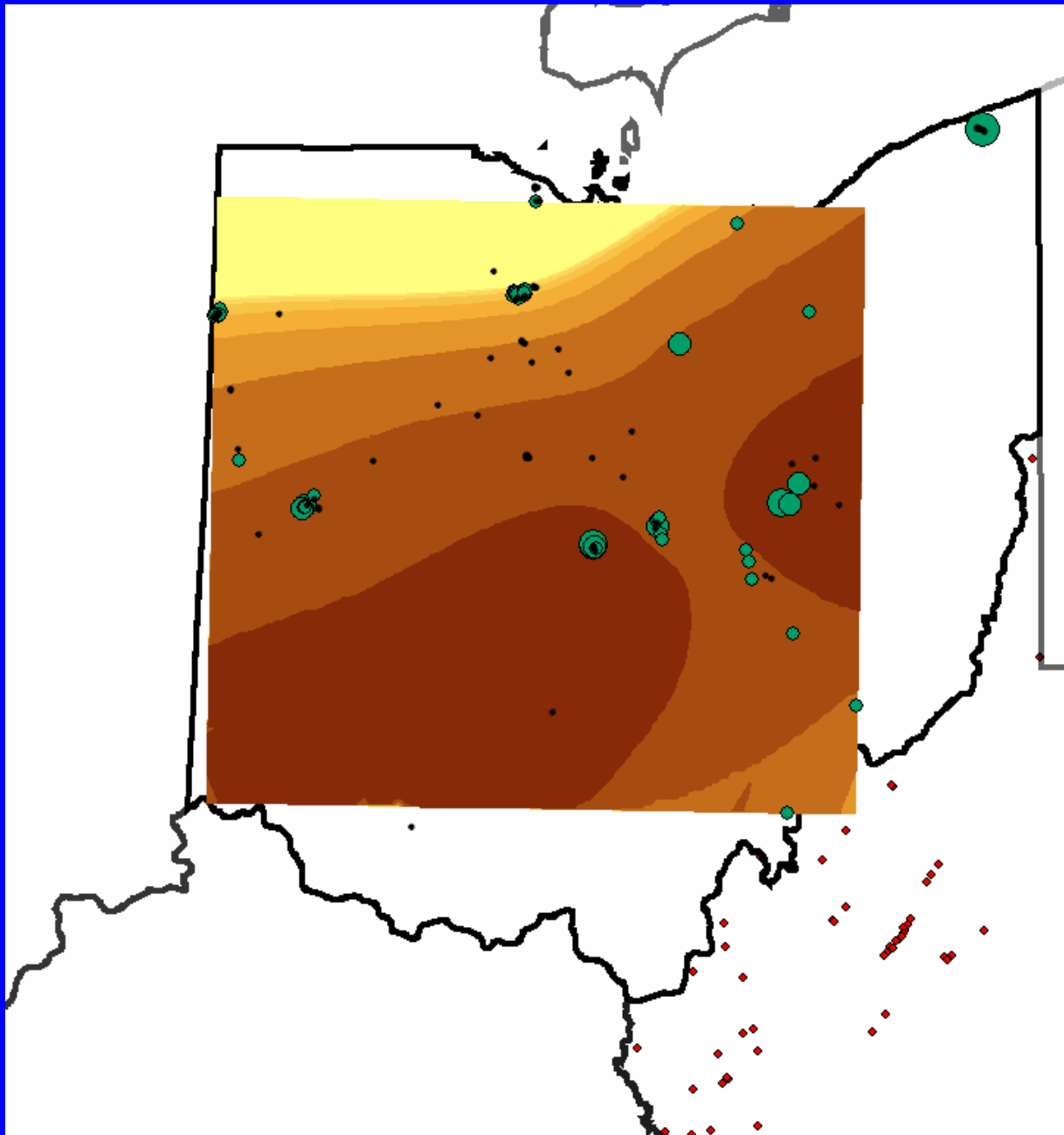
- **Extensive dataset from OH, KY, NY**
- **Data from PA, WV limited**
- **Some mapping and graphing for data from OH, NY**

Geographic Trends

Trenton/ Black River Wells in Ohio

Size of Circle
proportional to
Cumulative
Production





Trenton/Black River Wells in Ohio

Trend Surface

Look for:

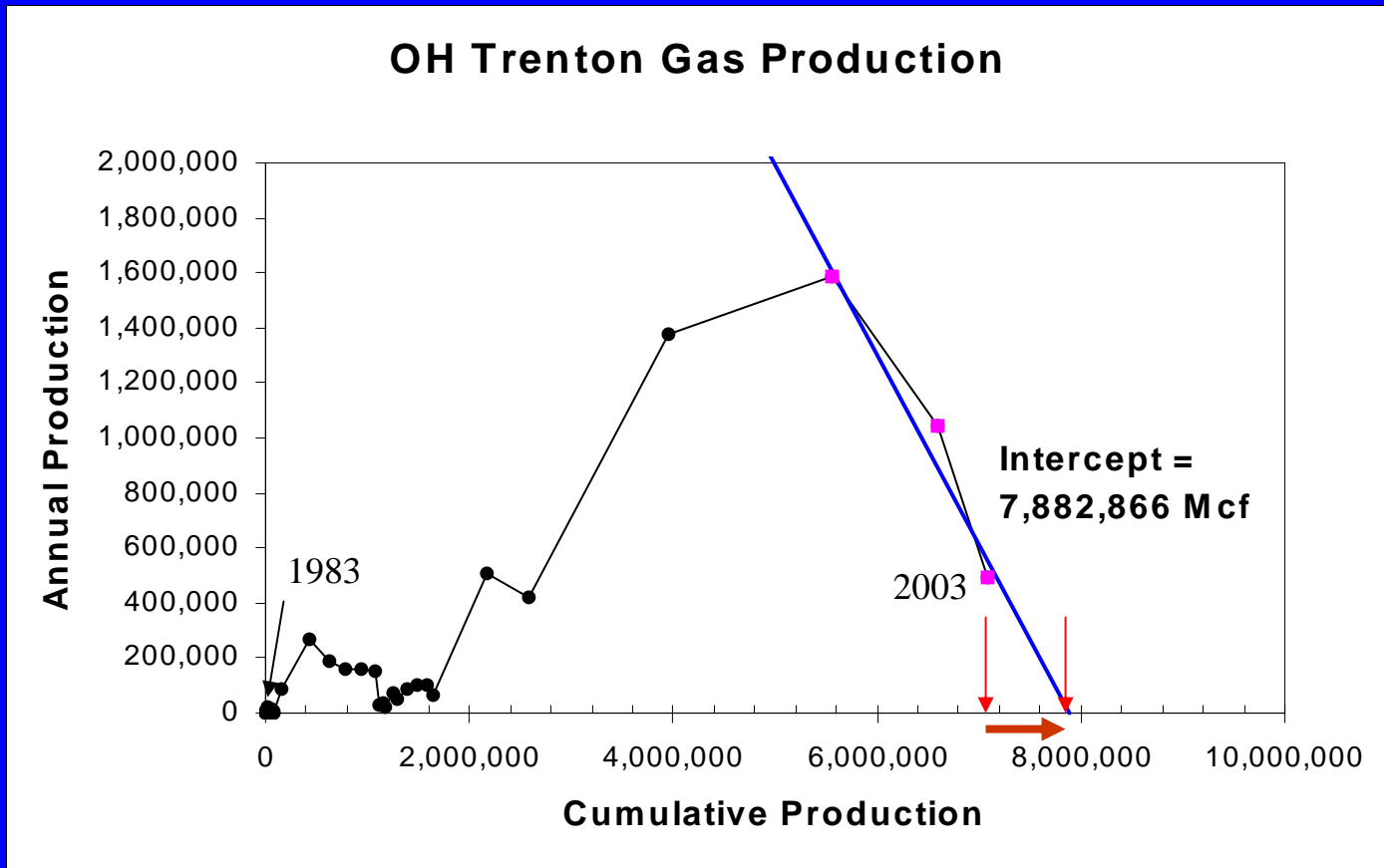
- Regional patterns that match geologic features
- Production “outliers” that do not fit regional trends

History

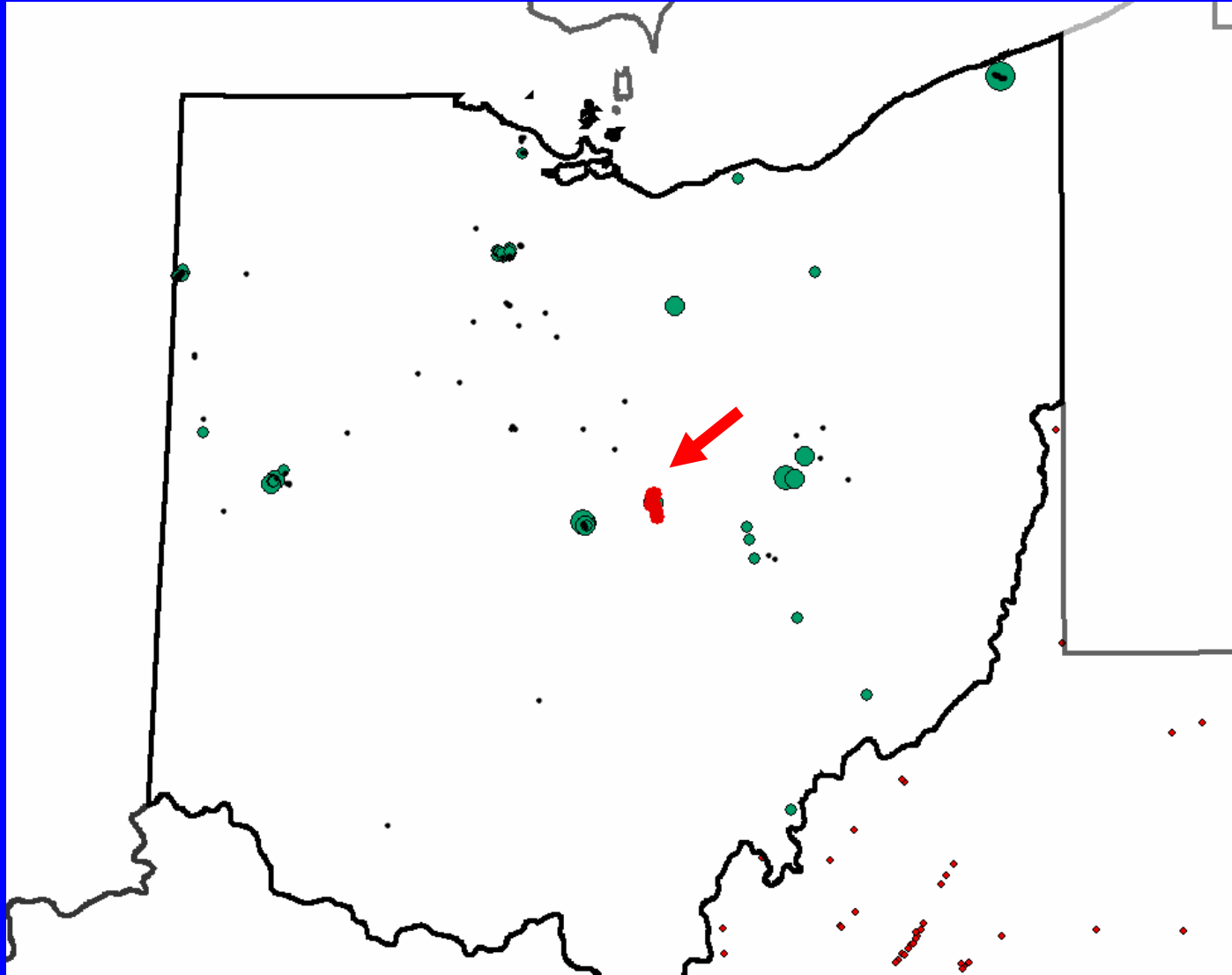
(including Ultimate Recovery)

Estimating Ultimate Recovery in Ohio

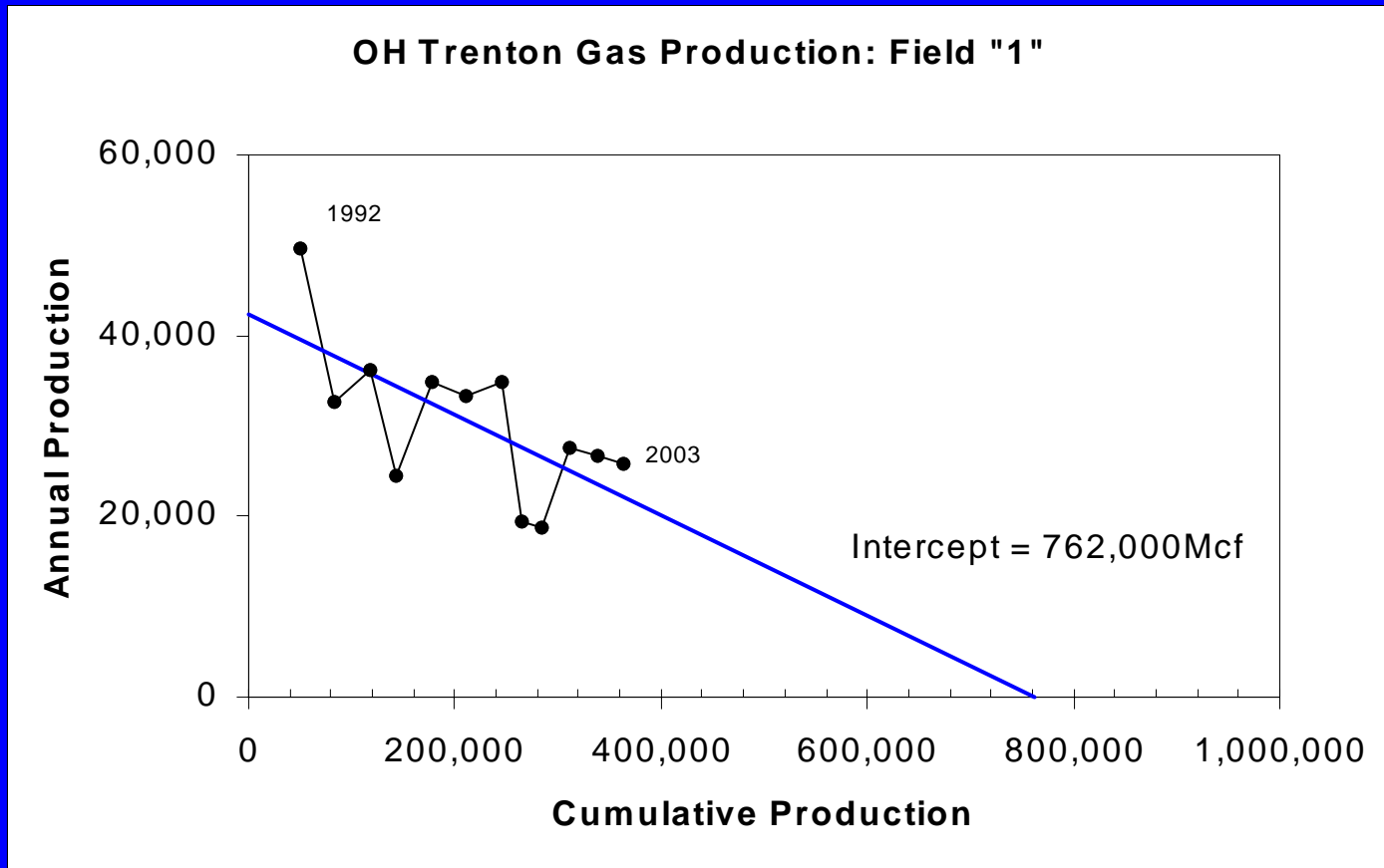
Annual-Cumulative Production Graphs



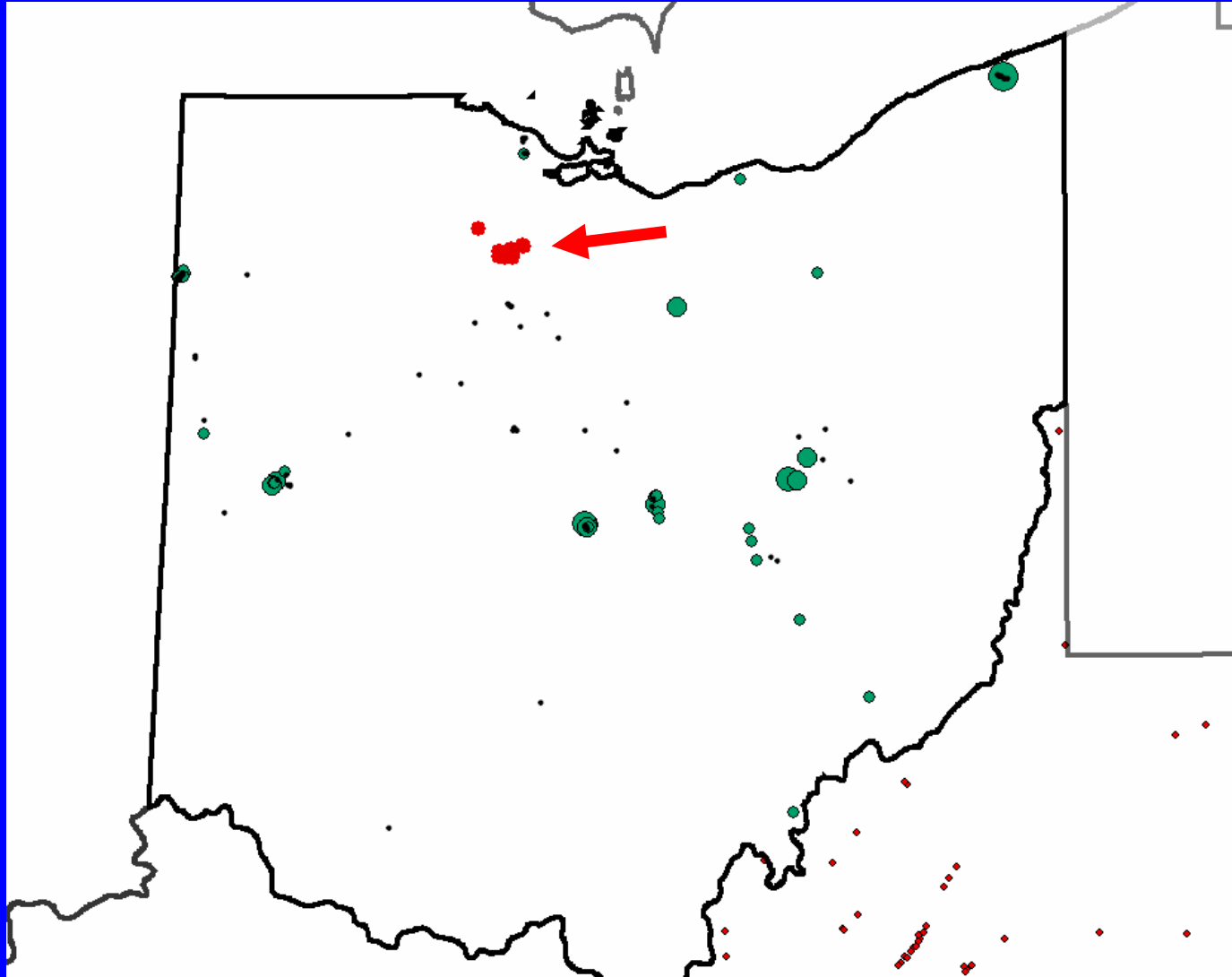
Estimating Ultimate Recovery in Field "1"



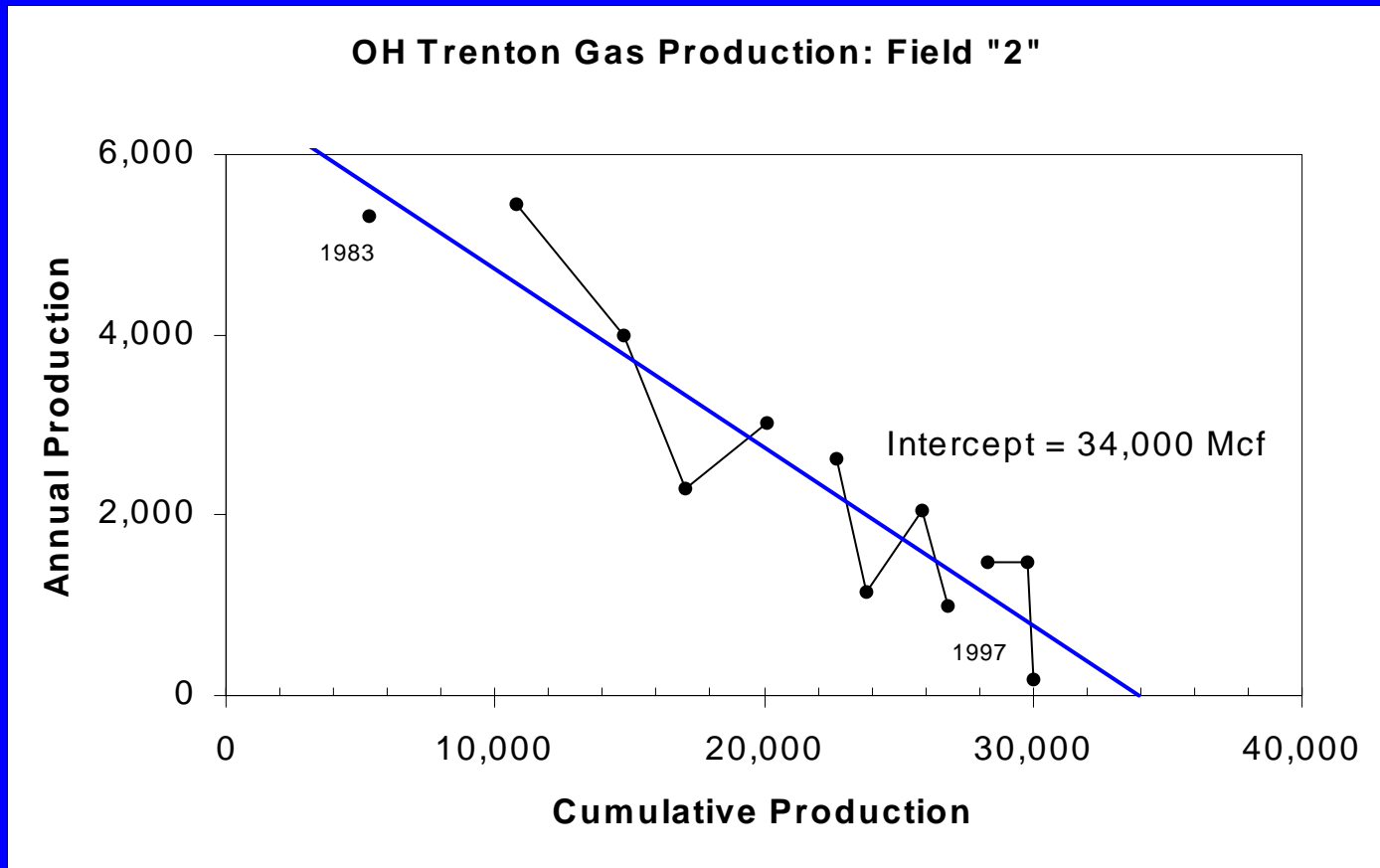
Estimating Ultimate Recovery in Field "1"



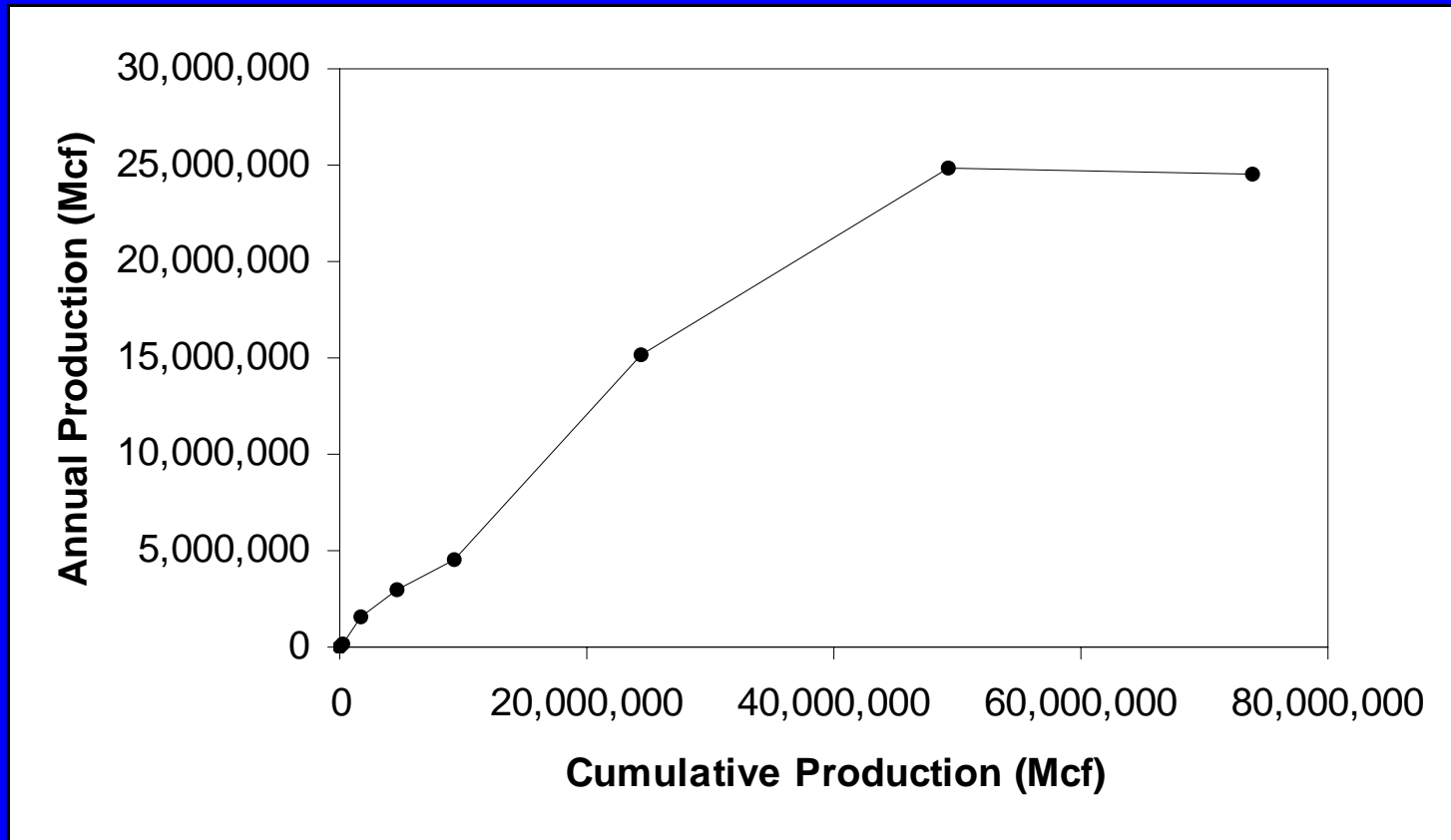
Estimating Ultimate Recovery in Field "2"



Estimating Ultimate Recovery in Field "2"



Annual-Cumulative Production Graph for NY



Estimating Ultimate Recovery from Annual-Cumulative Plots

- **Easy to construct, *but***
- **Assume no new (large) field discoveries and reserve growth**

Future

- **Decide on method: meeting among interested project members, USGS, and possibly industry expert**
- **Update data obtained from states**
- **Complete resource assessment**