

US EPA ARCHIVE DOCUMENT

---

# U.S. EPA Region 5-Draft

## **Clinton Landfill Inc Chemical Waste Landfill PCB Disposal**

---

Presentation to DeWitt County Land Use Committee  
April 7, 2009 at 7:00PM, Clinton, IL

Steve Johnson, TSCA Permits, Geologist  
Gary Cygan, Senior Geologist  
Rafael Gonzalez, Community Involvement Coordinator

# U.S. EPA Region 5-Draft

## Agenda

- 1) Status of Permit
- 2) Process for Decision
- 3) Schedule
- 4) Factual Information

# U.S. EPA Region 5-Draft

## ■ **Process Steps**

- ❑ “IN REVIEW”... Which means the decision to approve the application has not been made.
- ❑ “Post Draft-Approval”...Which means we have enough information to support going public with the results
- ❑ “Pre-Public Comment”...Which means we have not put together or made public an Administrative Record, the documents we considered in our review.

# U.S. EPA Region 5-Draft

| <b><u>Process</u></b>   | <b><u>Schedule</u></b>       | <b><u>Status</u></b>                             |
|---|------------------------------|--|
| Receive Application   | Oct. 2007, begin Jun. 2008   | Completed  |
| Current activity<br>Review of application                             | 180 days                     | Completed 1/09                                   |
| EPA Notice of Deficiencies<br>Clinton response to NOD                 | 120 days                     | Preliminary 9/08<br>Final 12/09<br>Response 3/09 |
| EPA review of response to NOD   | 30 days                      | Completed 3/09                                   |
| Preparing preliminary decision (i.e. draft permit approval or denial) | 30 days<br>(3/09)            | Rough Draft 3/19/09                              |
| Public Meeting  | Late April-Early May         | Not determined                                   |
| Public comment period   | 30 days<br>(6/09) originally | Apr-May/09 planned                               |
| Addressing comments from public meeting                               | 30 days<br>(8/09) Originally | May-June/09 planned                              |
| Final decision<br>(i.e. final approval or denial of permit)           | 30 days<br>(9/09) originally | June-July planned                                |

Presented April 7, 2009 @ 7:00, DeWitt Co.  
Land Use Committee, Clinton, IL

4/7/09

# U.S. EPA Region 5-Draft

## ■ Factual Information:

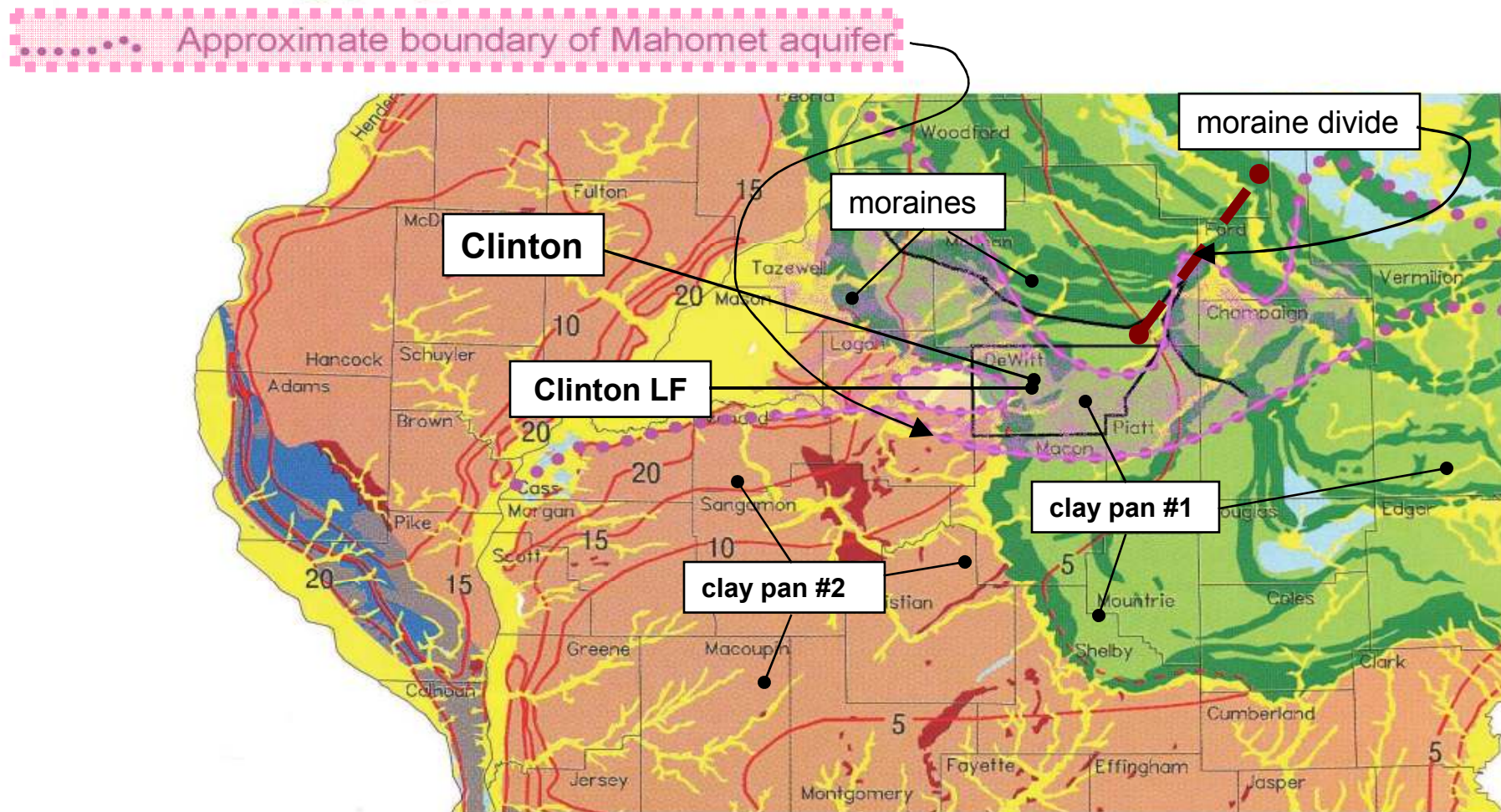
- ❑ Proposed PCB Cell
- ❑ Mahomet Aquifer Regional Flow Direction





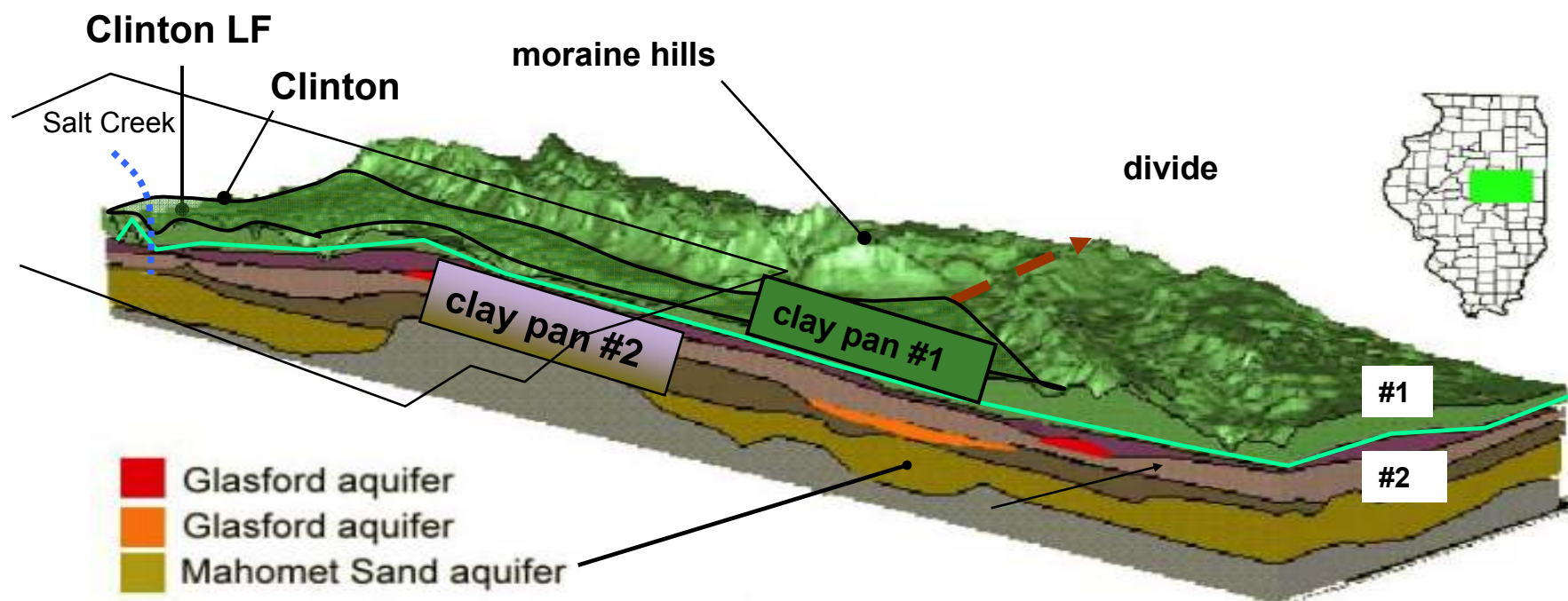
# U.S. EPA Region 5-Draft

## IL Geology—glacial materials



# U.S. EPA Region 5-Draft

## Geology of the Mahomet Aquifer

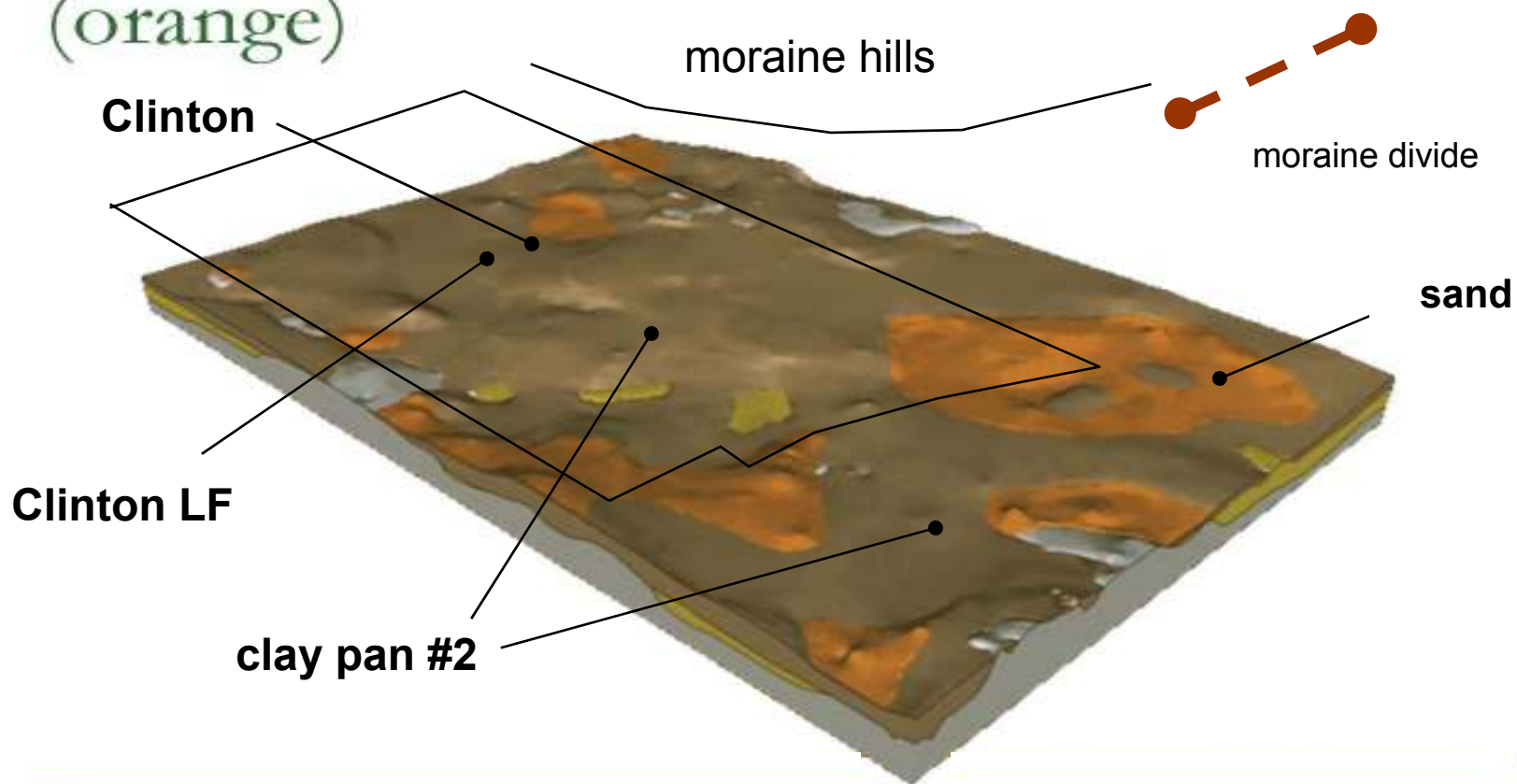


After Mahomet Aquifer Consortium



# U.S. EPA Region 5-Draft

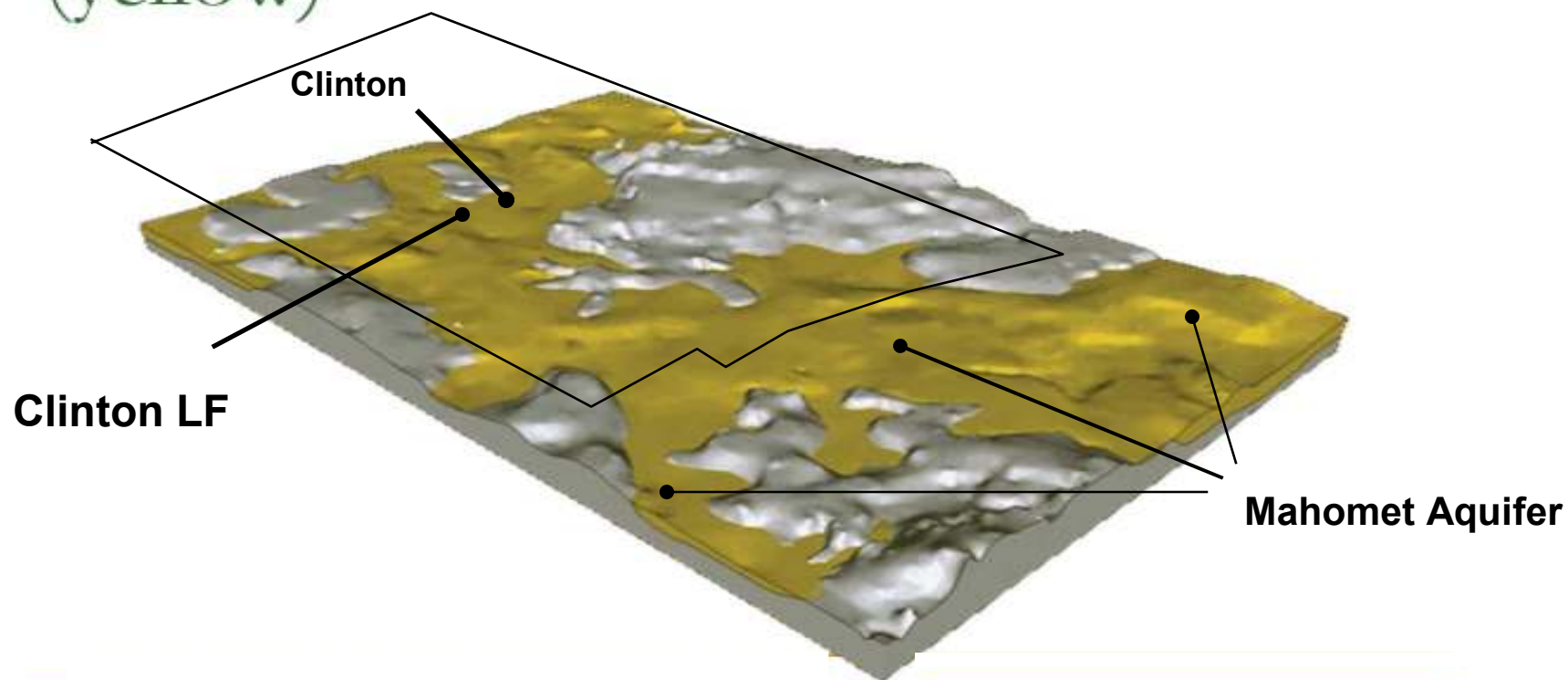
Early Illinois Episode basal sand  
(orange)



After Mahomet Aquifer Consortium

# U.S. EPA Region 5-Draft

Pre-Illinois Episode Mahomet Sand  
(yellow)



After Mahomet Aquifer Consortium

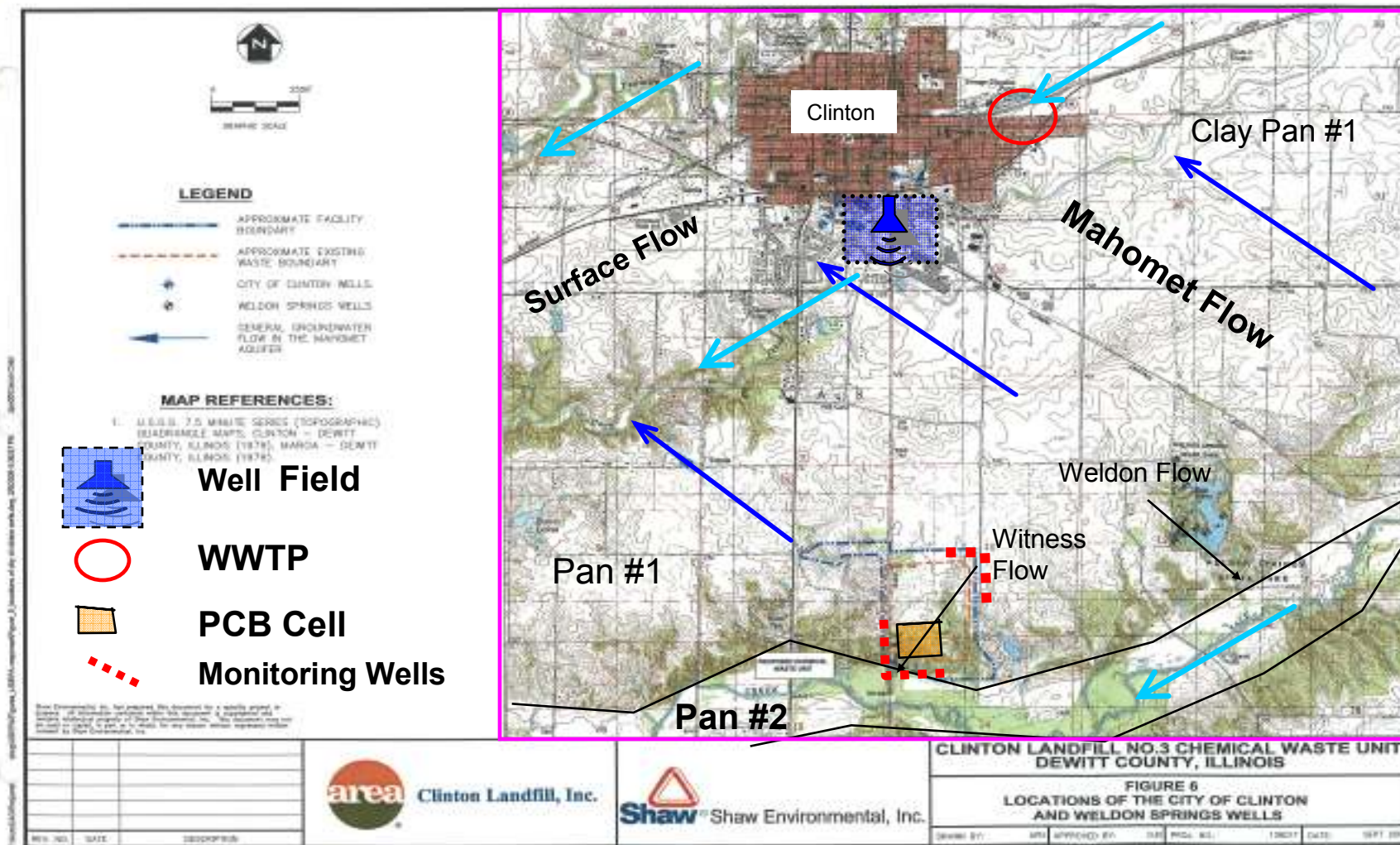
## Topography of the Bedrock Surface





# U.S. EPA Region 5- Draft

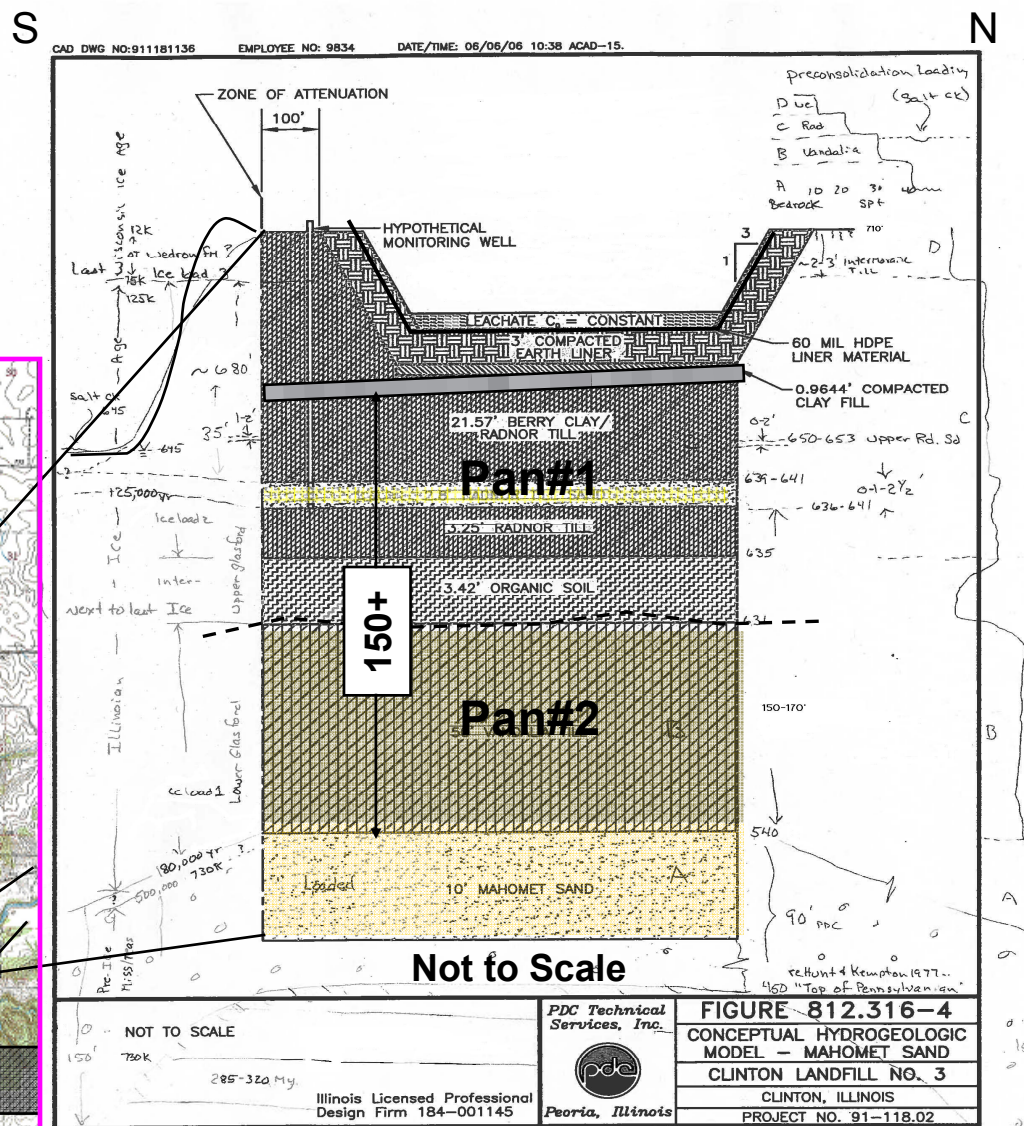
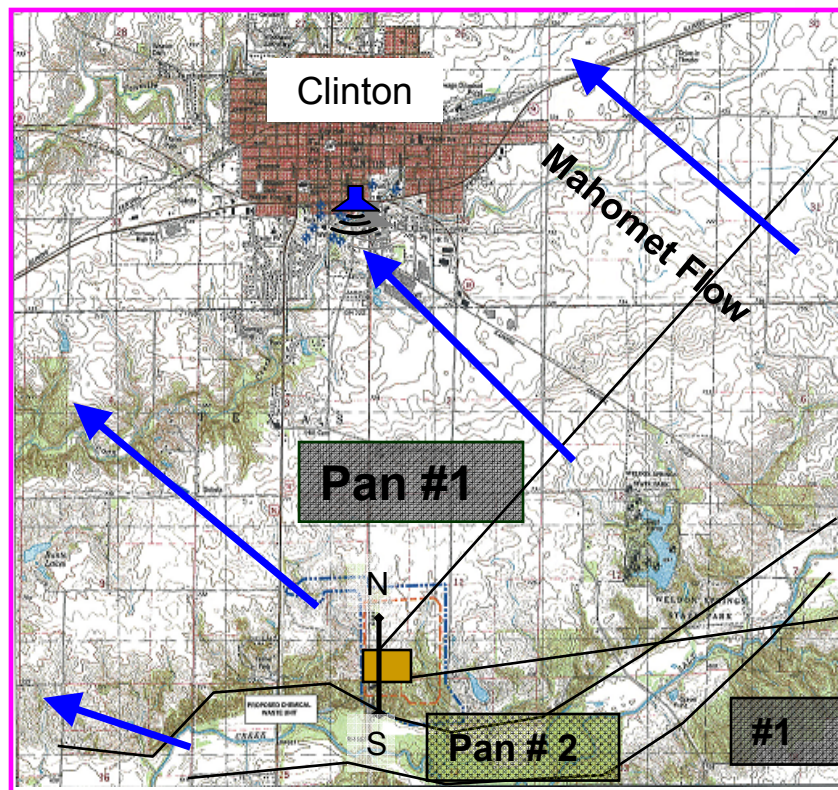
## ■ Factual Information: Topography & Water





# U.S. EPA Region 5- Draft

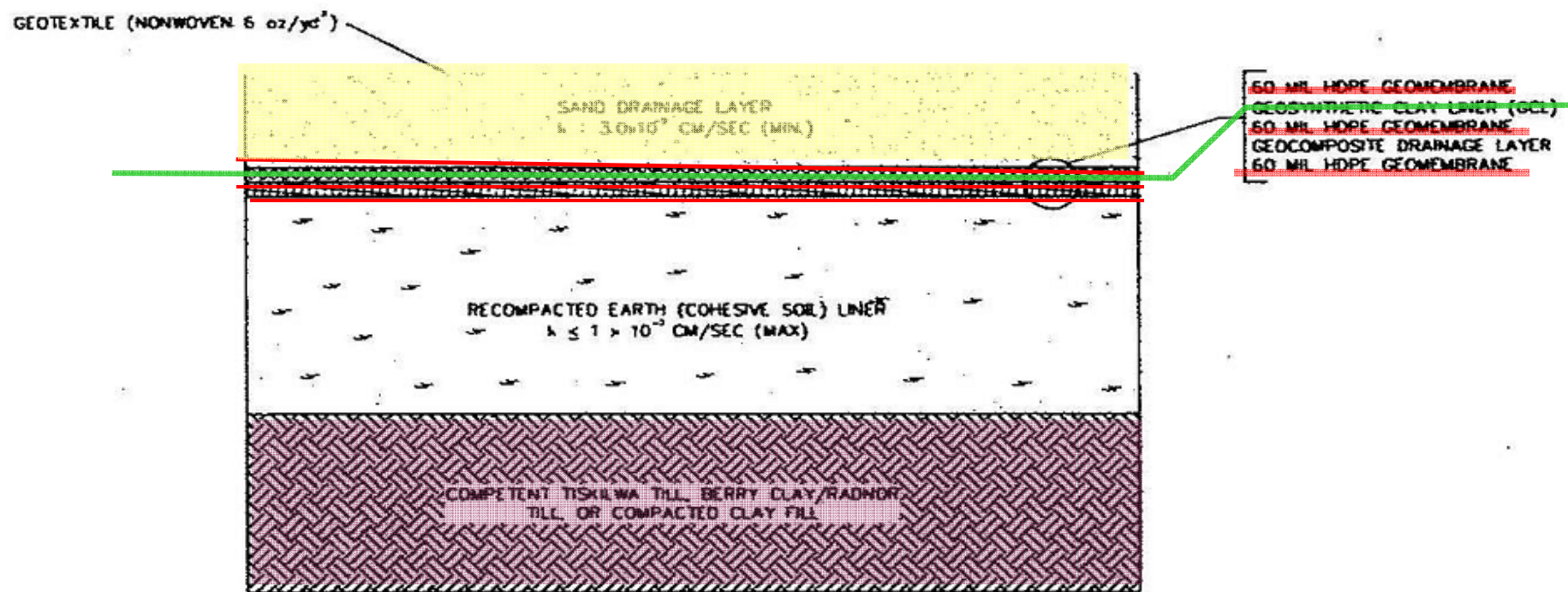
## ■ Map, Cross-Section





# U.S. EPA Region 5-Draft

## ■ Factual Information: Landfill Engineering X-Section



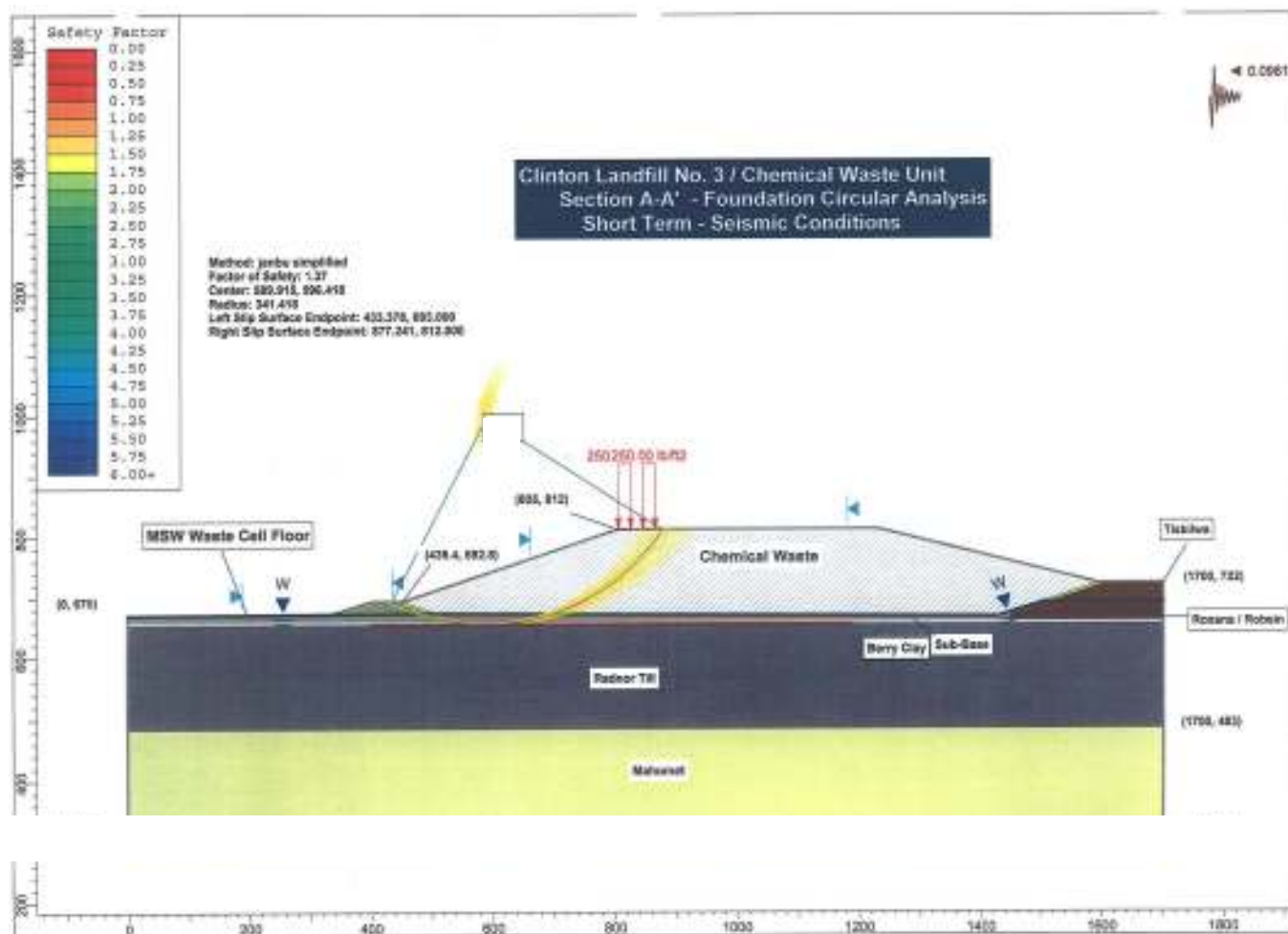
**TYPICAL FLOOR LINER SECTION (CHEMICAL WASTE UNIT)**  
NOT TO SCALE

**NOTES:**

1. ALL GEOMEMBRANES SHALL BE DOUBLE-SIDED TEXTURED

# U.S. EPA Region 5-Draft

- **Factual Information:** Landslides
  - Seismic and non-seismic case studies



# U.S. EPA Region 5-Draft

## Factual Information:

### Search for Earthquake Evidence



*Quaternary geologist, David Grimley, examining exposures along a streambed during Grant Fork Quadrangle mapping east of St. Louis.*

# U.S. EPA Region 5-Draft

- **Relevant Regulations, in part**
  - Toxic Substances Control Act-PCB
    - Resource Conservation and Recovery Act-IL
    - Department of Transportation-Roads, Trains
    - Clean Water Act-Salt Creek
    - Endangered Species Act-Mussels
    - Data Quality Act-engineering

# U.S. EPA Region 5-Draft

## ■ **Application**

- ❑ Initial Application-4 volumes
- ❑ Groundwater Impact Assessment 1 volume
- ❑ Response to Notice of Deficiency 1 volume
- ❑ Coordinate with IEPA RCRA Subtitle D modification Review



# U.S. EPA Region 5-Draft

## ■ **Sources of Information**

- ❑ Mahomet Aquifer Consortium: Aquifer Character
- ❑ Illinois Water Survey Publications: Water supply
- ❑ Illinois Geological Survey Publications: Coal evaluation
- ❑ Illinois Department of Agriculture: Leaching vulnerability
- ❑ U.S. Army/EPA: Landfill Performance
- ❑ U.S. EPA Research and Development, Cincinnati Office: Containment and degradation of PCBs
- ❑ Professional Publication: Groundwater modeling
- ❑ U.S. Geological Survey: Topography, seismic maps
- ❑ Federal Emergency Management Agency: Fire safety

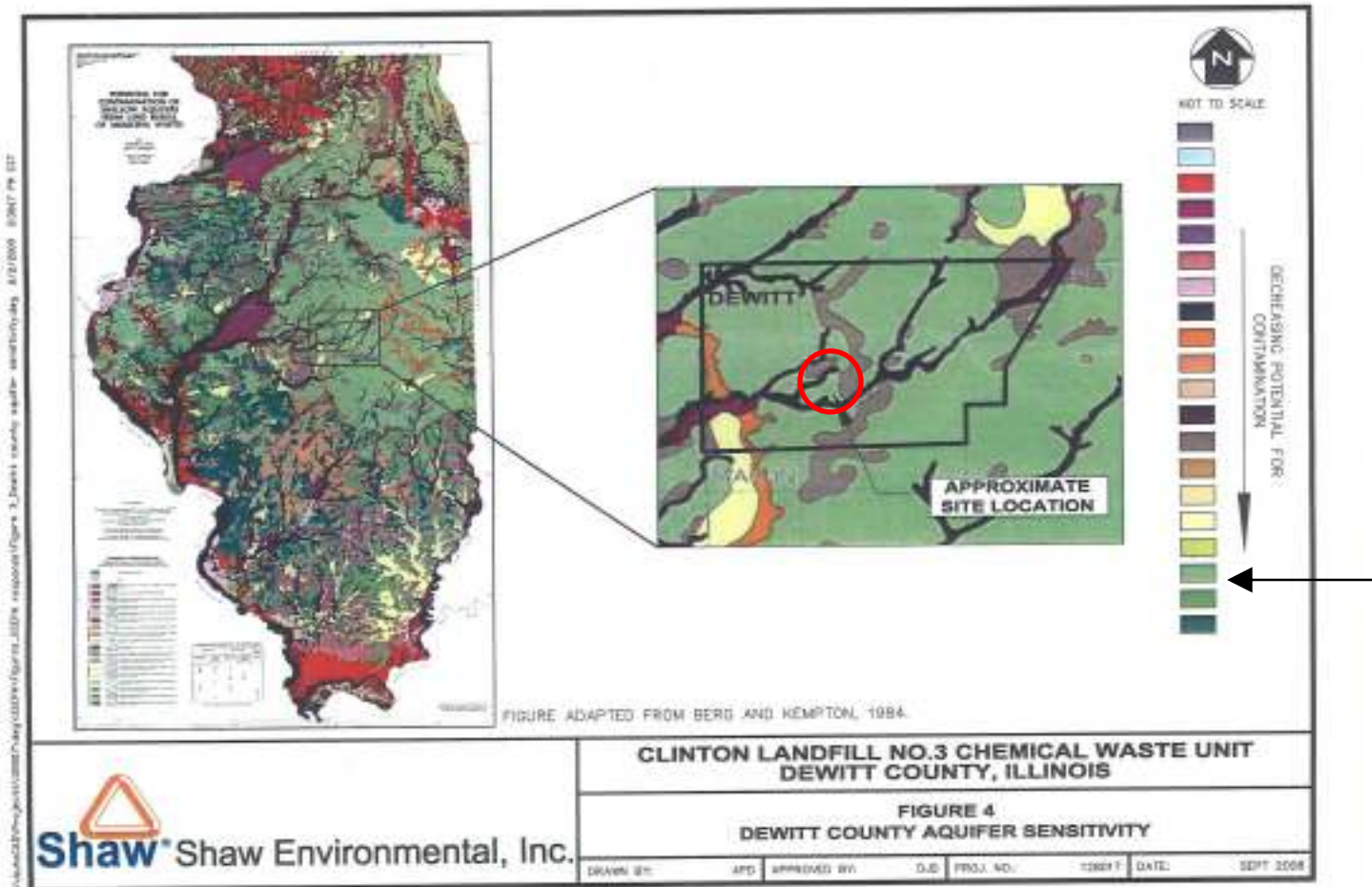
# U.S. EPA Region 5-Draft

## ■ **Summary**

- ❑ Application Review is complete
- ❑ Evaluation of technical merits of application is complete
- ❑ TSCA Notice of Deficiencies Issued
- ❑ Applicant's Response to Notice reviewed
- ❑ Findings support going public

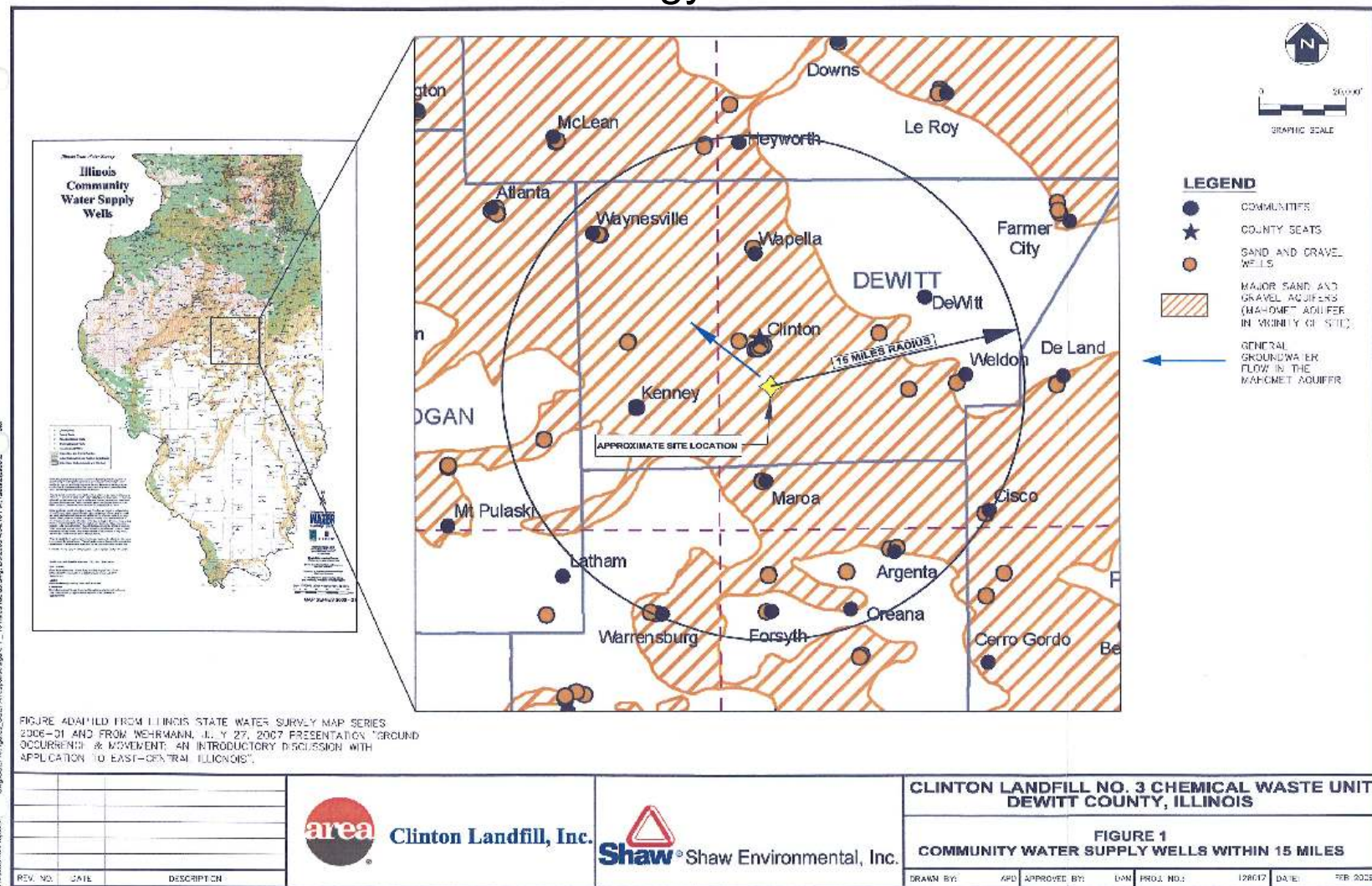
# U.S. EPA Region 5-Draft

## Geological Suitability



# U.S. EPA Region 5-Draft

## Factual Information: Geology



4/7/09

Land Use Committee, Clinton, IL

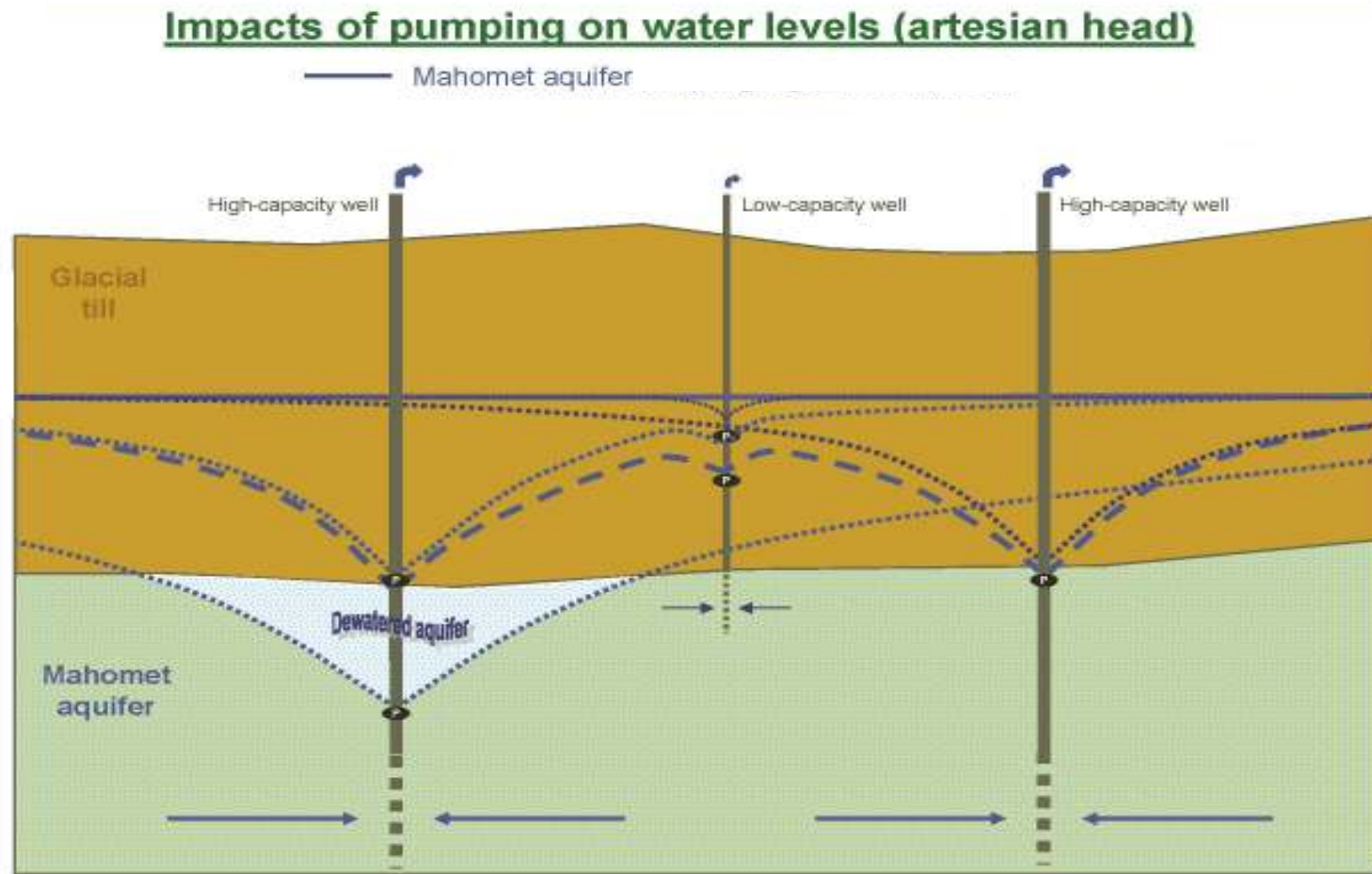
21



[illegible]



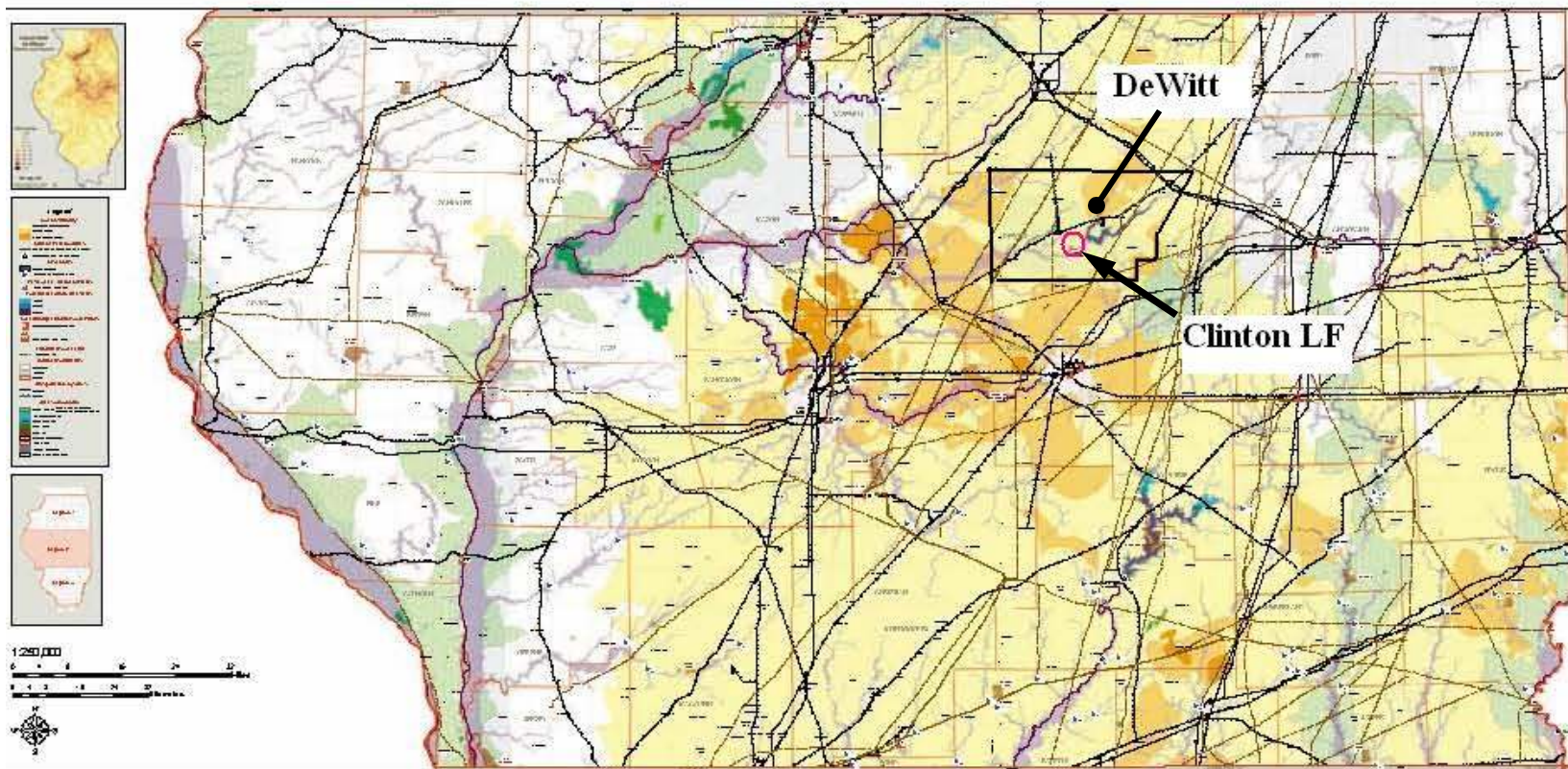
# U.S. EPA Region 5- Draft



# U.S. EPA Region 5-Draft

## A Guide to Coal Availability and Resource Development in Illinois Springfield (No. 5) Coal

Steven R. Gustison, Philip M. Johaneck, Robert J. Finley, Illinois State Geological Survey



Presented April 7, 2009 @ 7:00, DeWitt Co.  
Land Use Committee, Clinton, IL

4/7/09

24