

# SEQUOYAH FUELS CORPORATION

December 6, 2005  
NRC Site Visit  
Ground Water RAls

# Agenda

- Welcome & Introductory Remarks
- Introductions
- Brief Site History
- Review Ground Water Models
- Site Tour
- Discussion of Ground Water Issues
- Summary of Action Items

# SFC HISTORY

- Constructed By Kerr-McGee In 1969
- Provided Purification And Conversion Of Yellowcake To  $\text{UF}_6$  For Private Nuclear Utilities 1970 To 1992
- Conversion Of  $\text{DUF}_6$  To  $\text{DUF}_4$  Added In 1986
- Sold To GA In 1988
- Ceased Operations In 1993

# SFC HISTORY

- Conducted Site Characterization and Attempted to Gain Approval of DP under LTR (part 20) from 1993 to 2002
- NRC Approved Re-classification of Front-end Process As A Milling Operation and Modified License To Possess 11.e(2) Material in 2002
- Submitted Reclamation Plan, GWMP, and CAP in 2003
- GWMP Approved Aug, 2005





MWRW4

MWRW5

005 Coll. Trench

MWRW3

FD-B

Ditch West Pond 2

MW095A Coll. Trench

MW095A Coll. Pit

Catchment Trench 3

MW010 Coll. Trench

MWRW2  
MWRW6  
MWRW7  
MWRW8

**Groundwater Modeling at  
Sequoyah Fuels  
Gore, Oklahoma**

# Why Groundwater Modeling

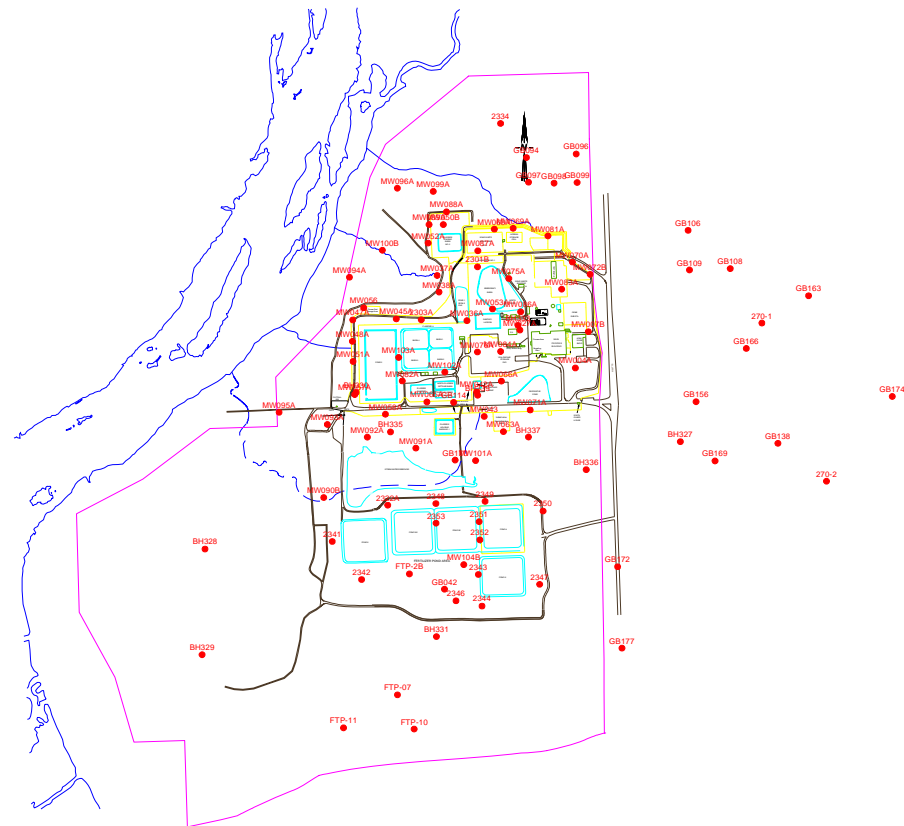
- Multi-Layer Model
- Probability of an environmental problem developing
- Location of possible problem
- Transport characteristics
- How to remediate the problem

# Conceptual Model

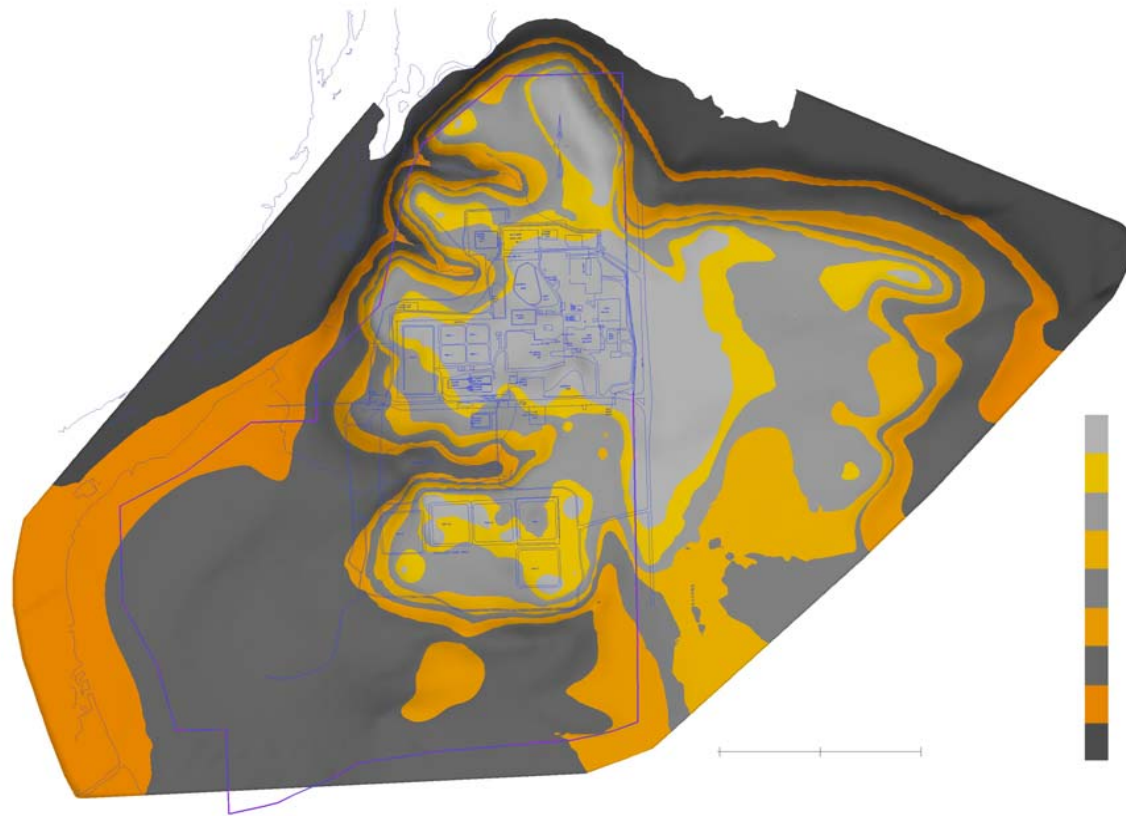
- Geologic model
- Hydrogeologic model
- Geochemical model



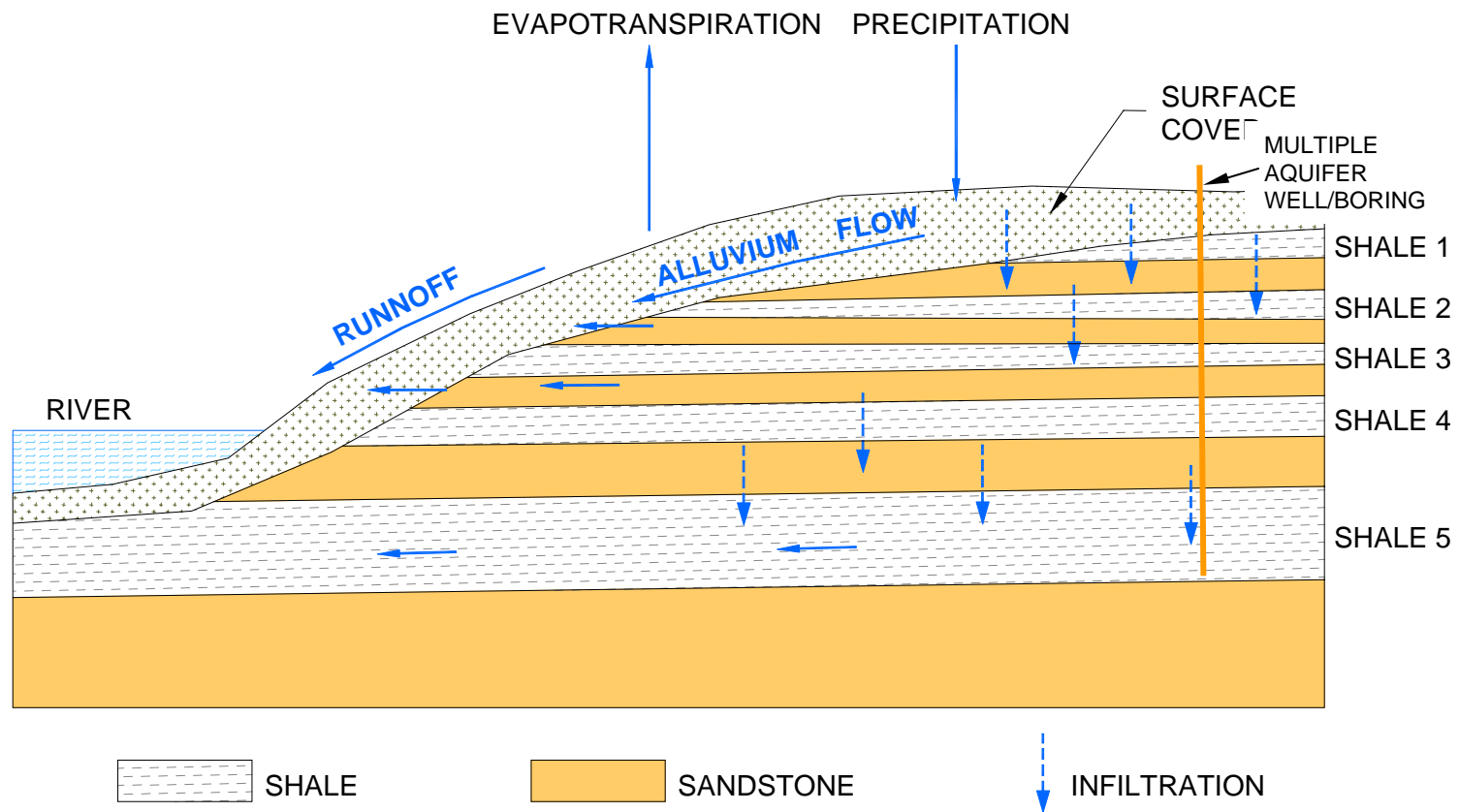
# Wells Used For Geologic Model



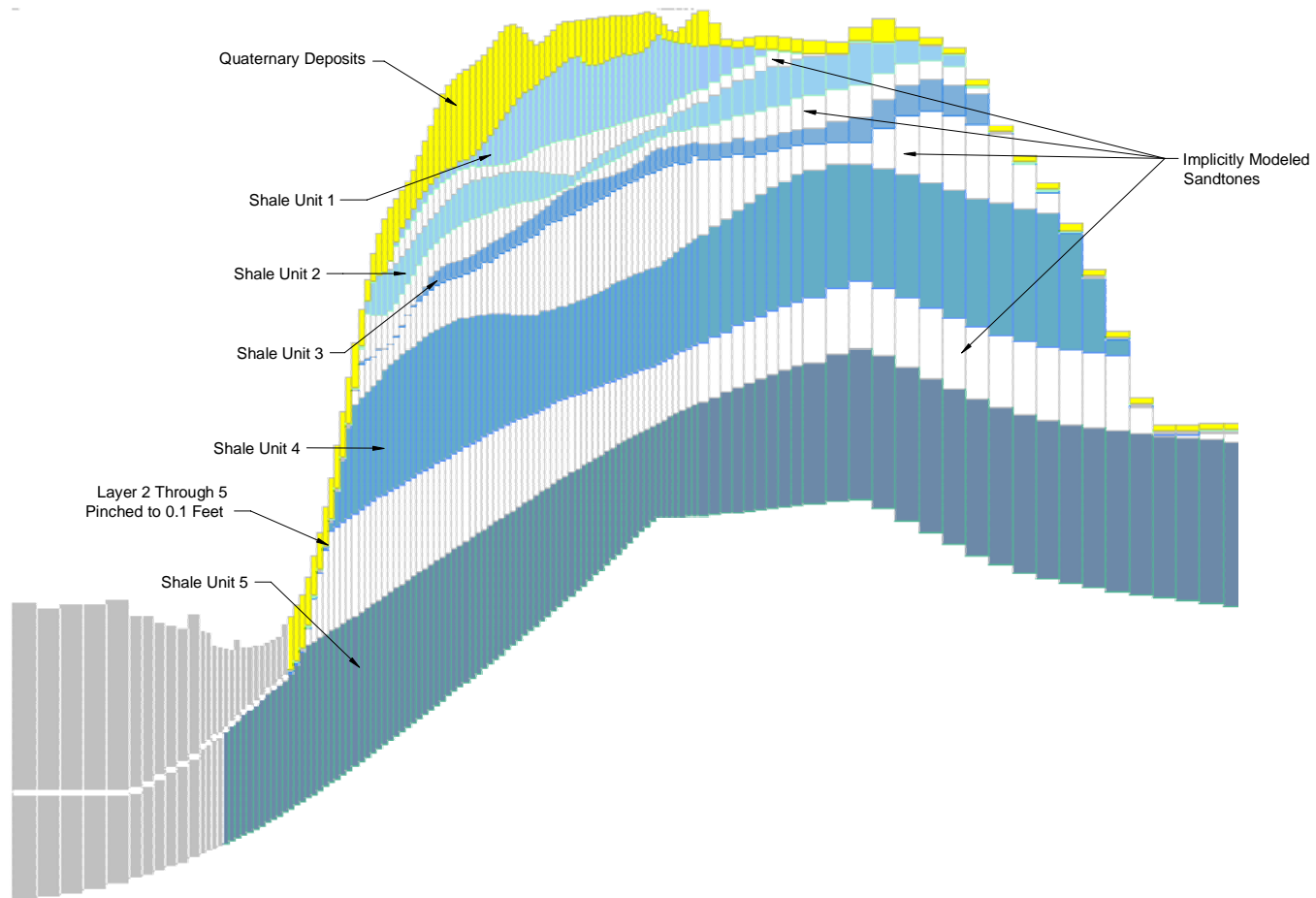
# EVS Bedrock Outcrop Map



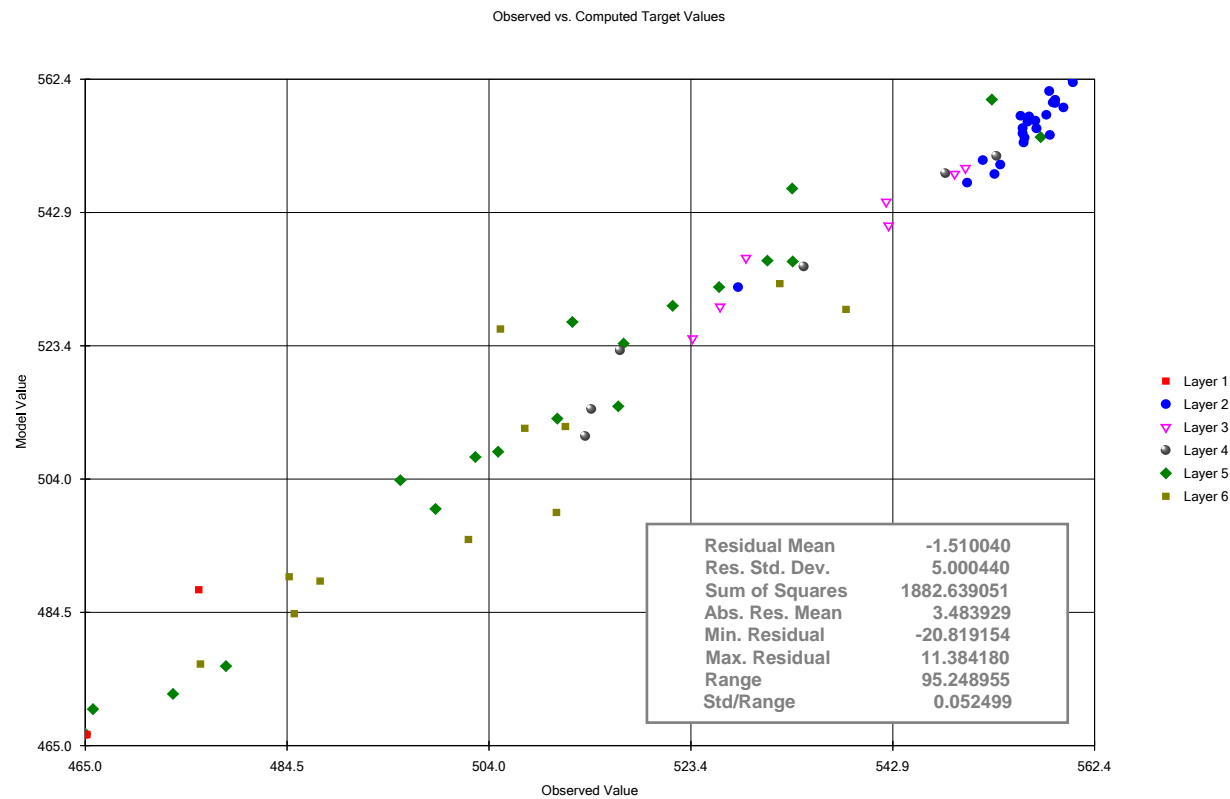
# Conceptual Hydrogeologic Model



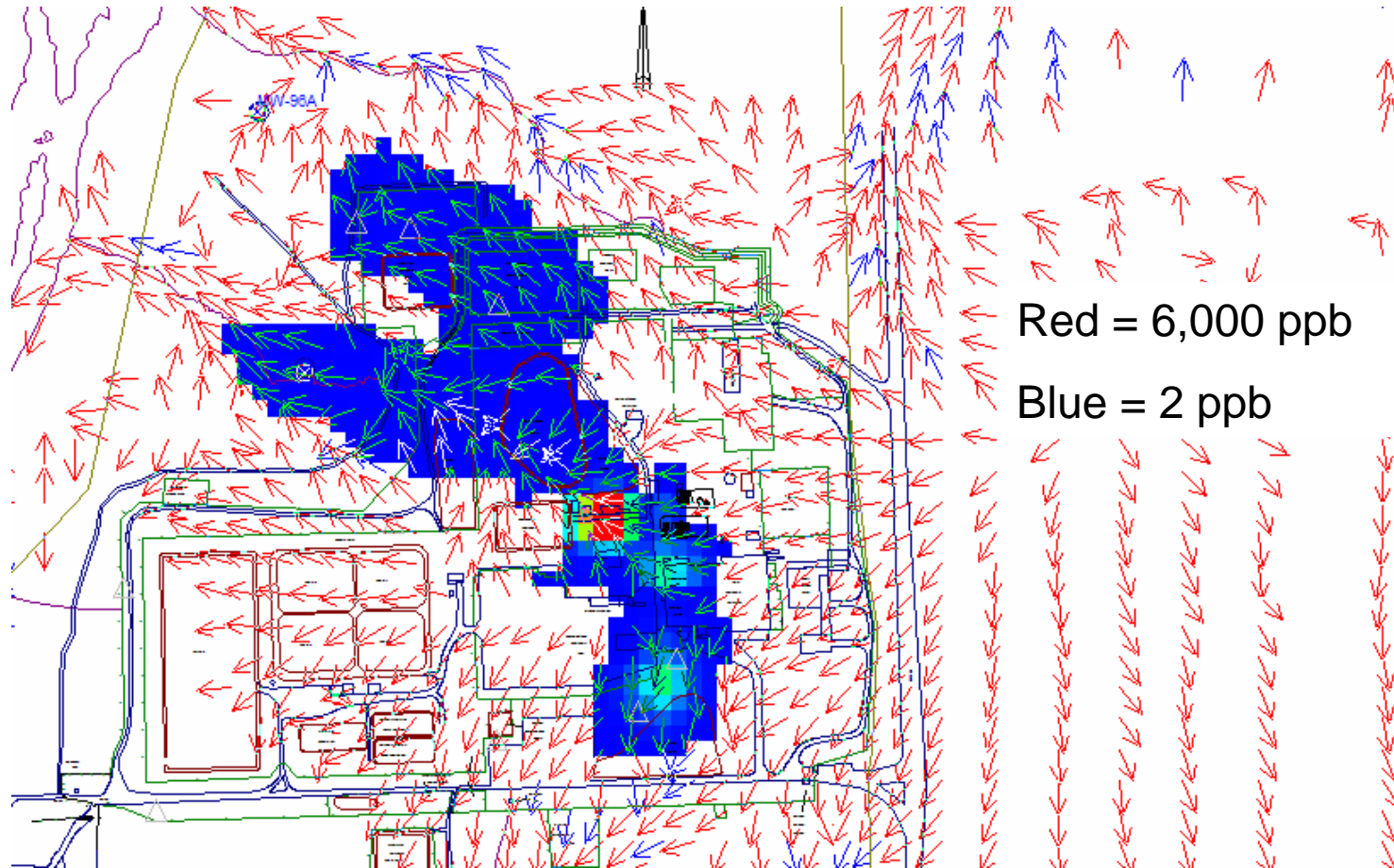
# Hydrogeologic Model



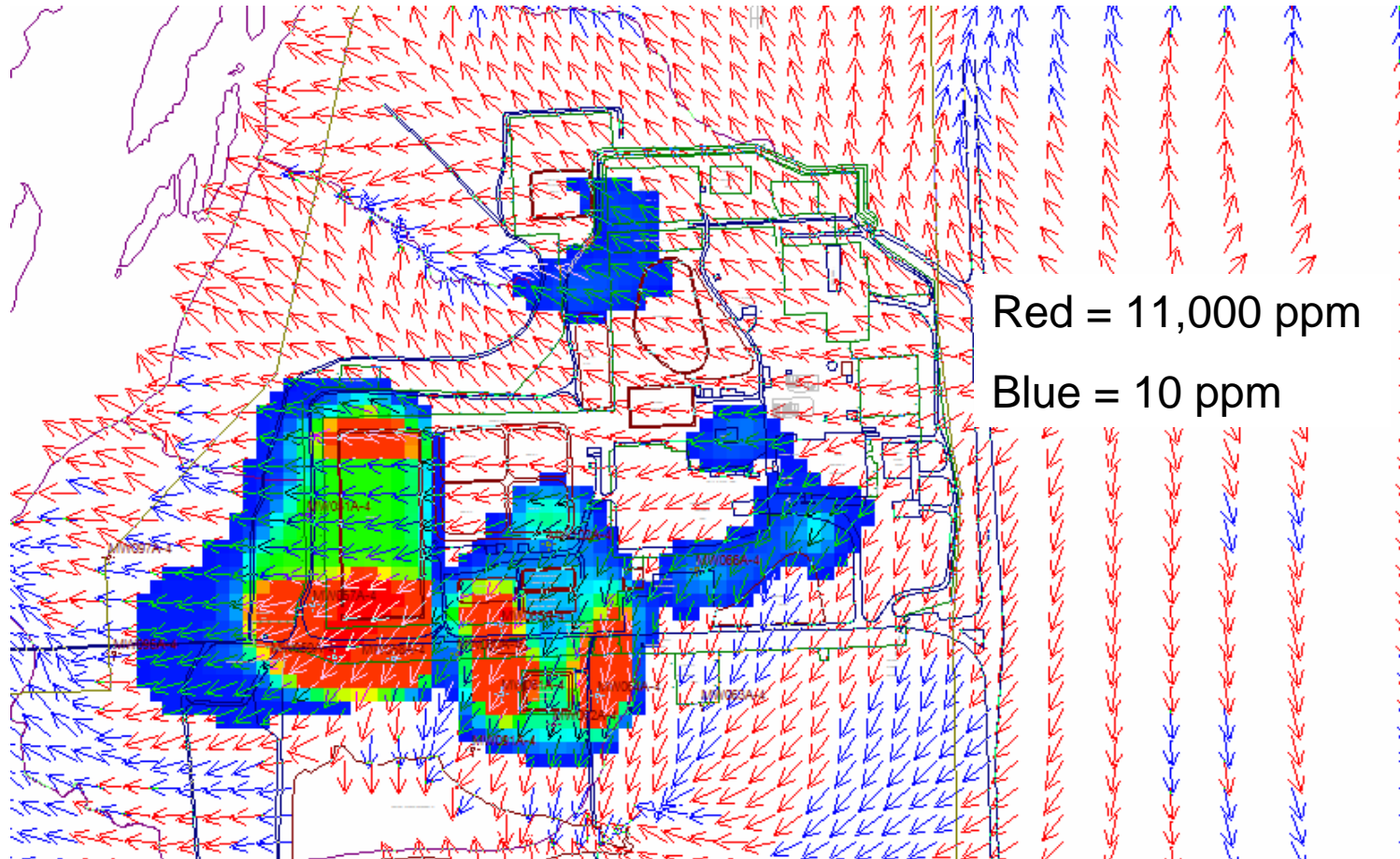
# Goodness of Fit



# Initial Uranium Concentrations



# Initial Arsenic Concentrations





# Initial Nitrate Concentration

