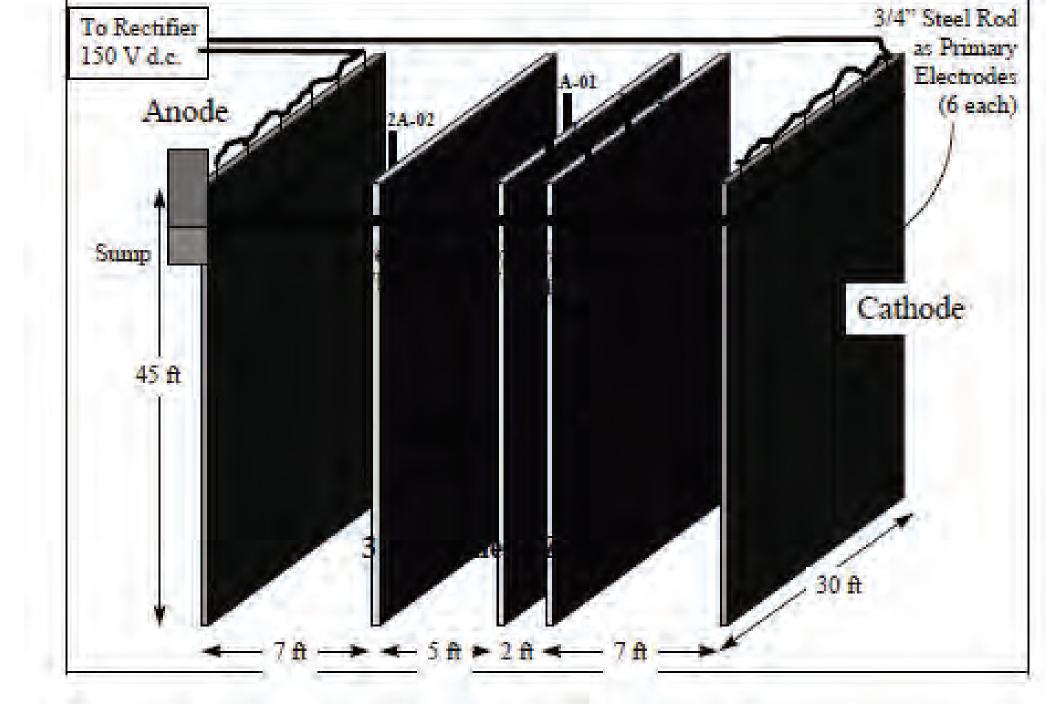
PGDP GROUNDWATER HISTORY & ACCOMPLISHMENTS

REMEDIATION

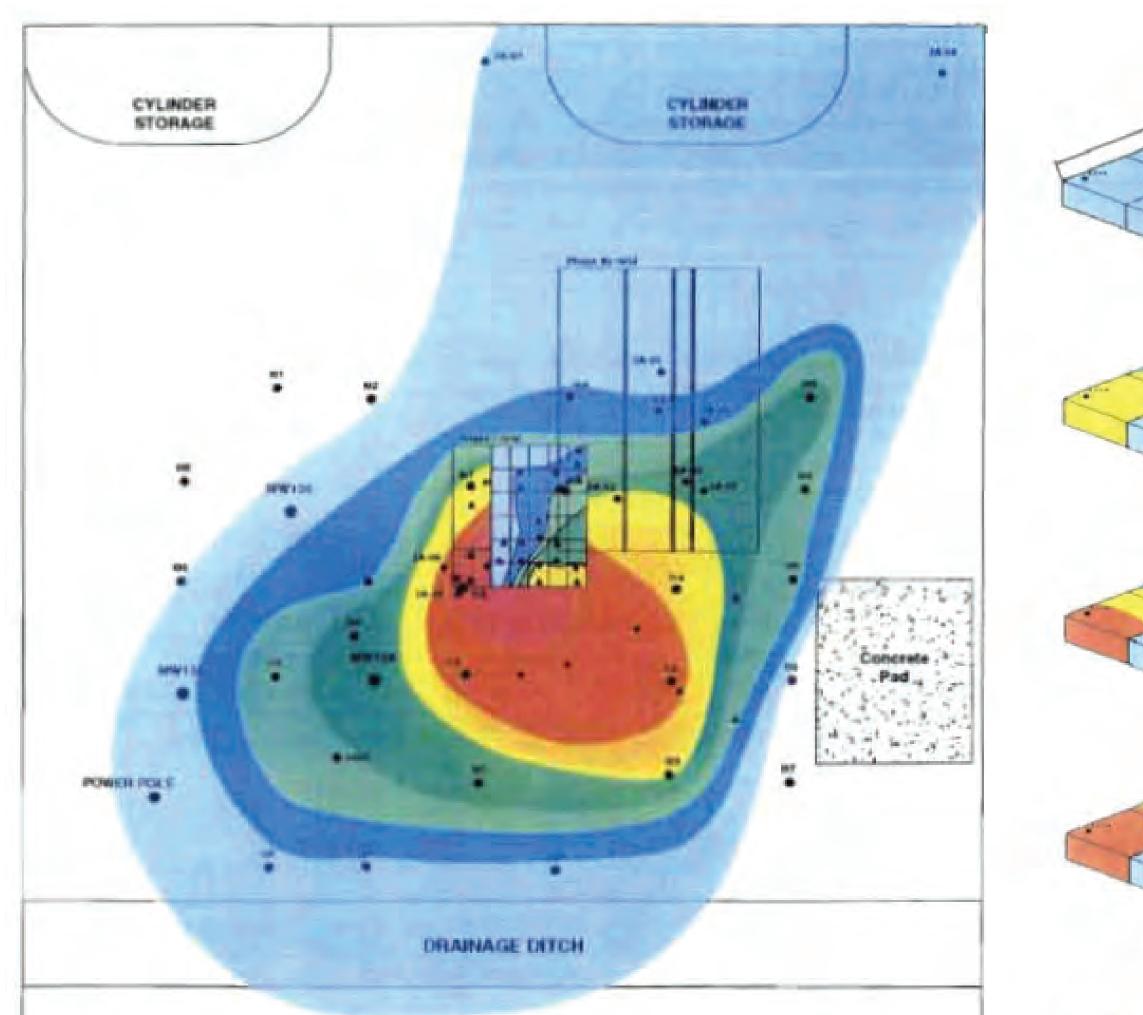
1998 In-situ treatment of soils at SWMU 91 Cylinder drop test area 13

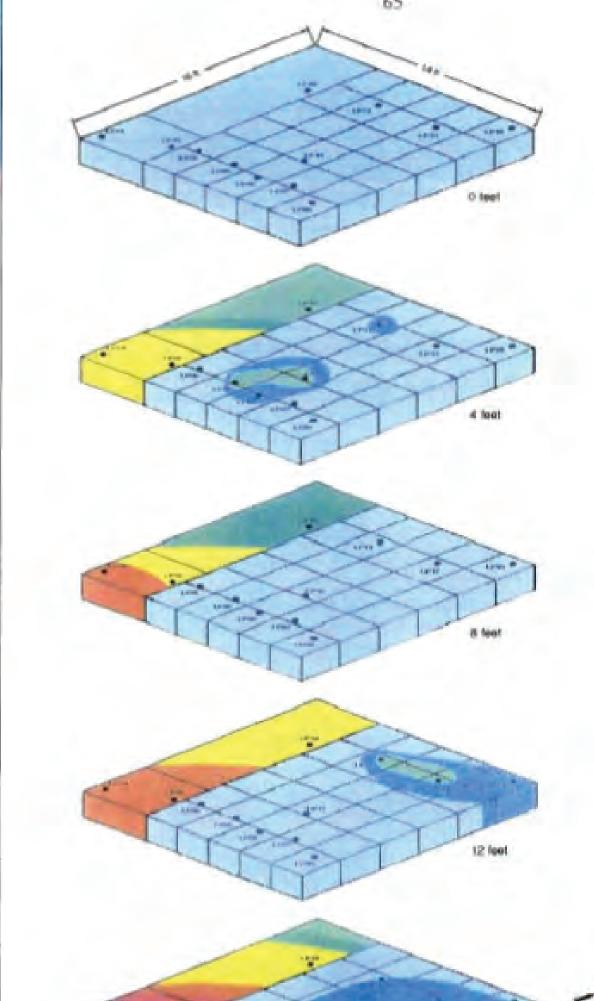
(Lasagna,™) (DOE, GE, Monsanto)





ANODES & CATHODE ARRAYS USED TO CAUSE GW FLOW THROUGH CONTAMINANT TREATMENT CELLS







Approximate Scale (Mile)

Remedial Support Activities

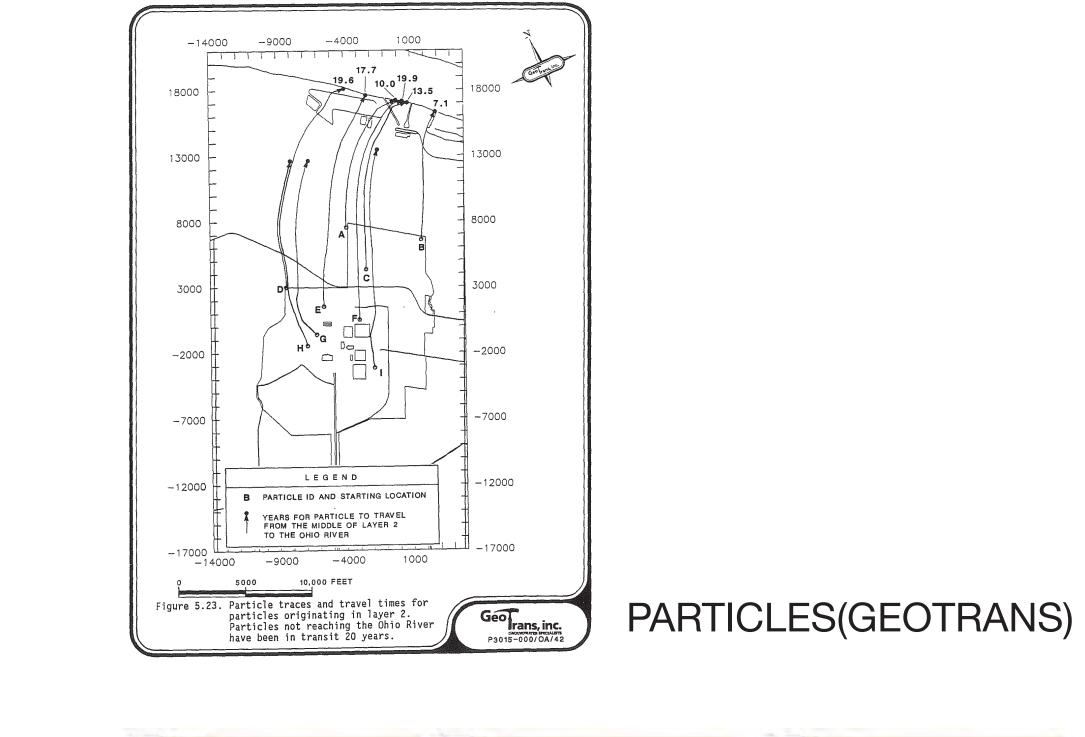
1990 DOE completes first groundwater numerical simulation model (GEOTRANS, 1990)

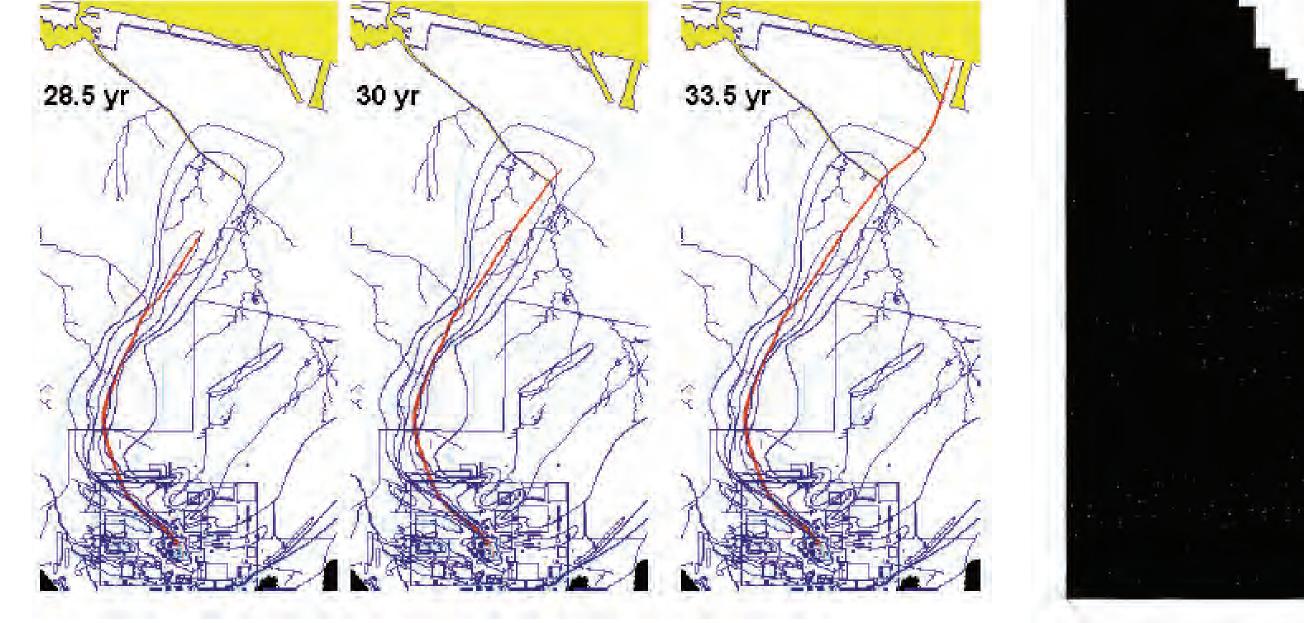
1996-Present

Groundwater model updates continue as computing capabilities are improved and new data is acquired on site

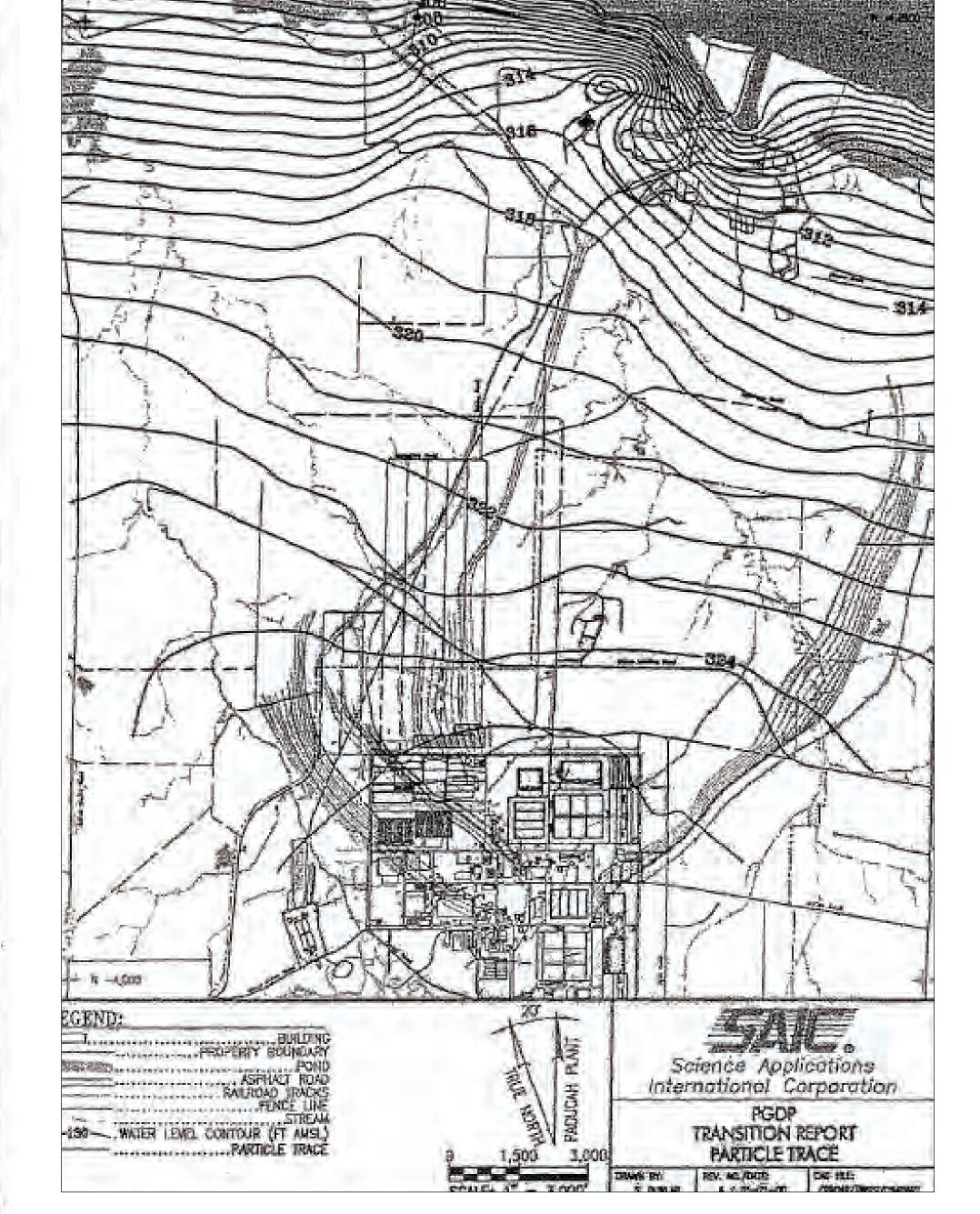
2008

DOE completes groundwater flow model update (PRS, 2008)









Modeled Plume Particle Traces from C-400 (SAIC, 1997)

Modelled Plume Particle Traces (Jacobs EM, 1996)

Groundwater particle traces from C-400 over time (PRS, 2008)

METERS.

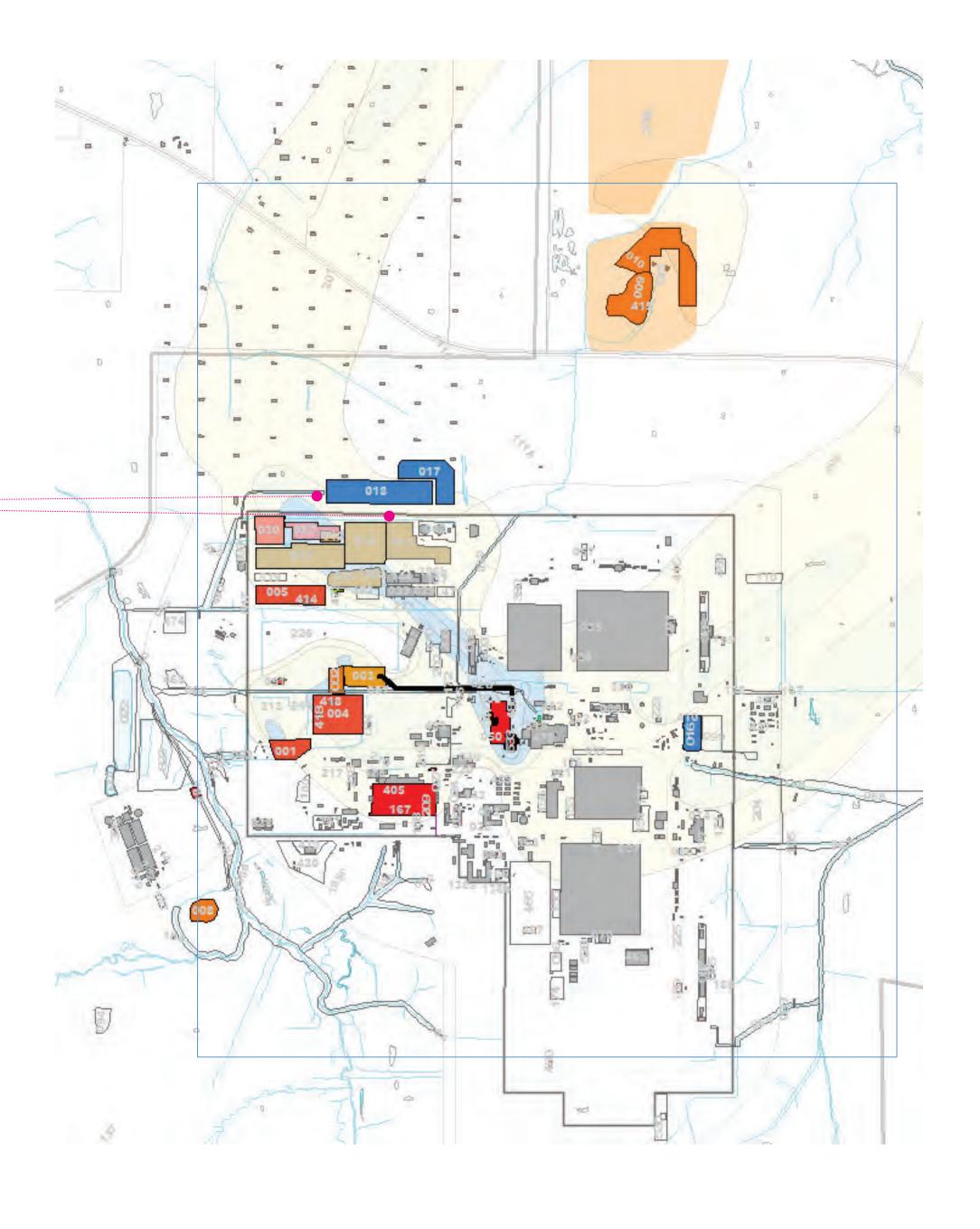
2010Northwest Plume GW Model Update and Groundwater System optimaization complete (LATA, 2010)

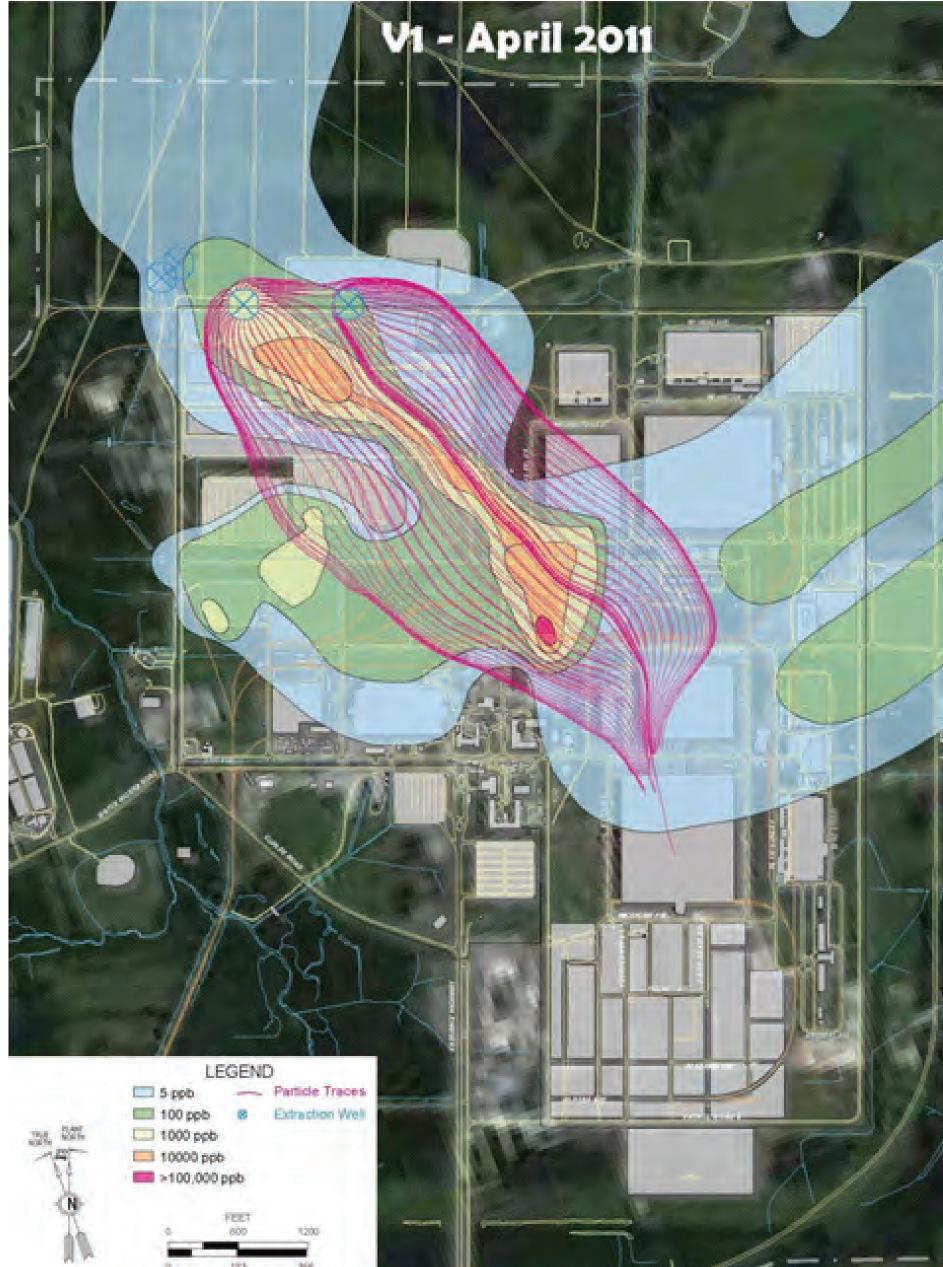
NW Plume Extraction wells moved to new locations to capture groundwater contamination from PGDP industrial area (LATA, 2010). New locations based on evaluation with updated groundwater flow model. 14

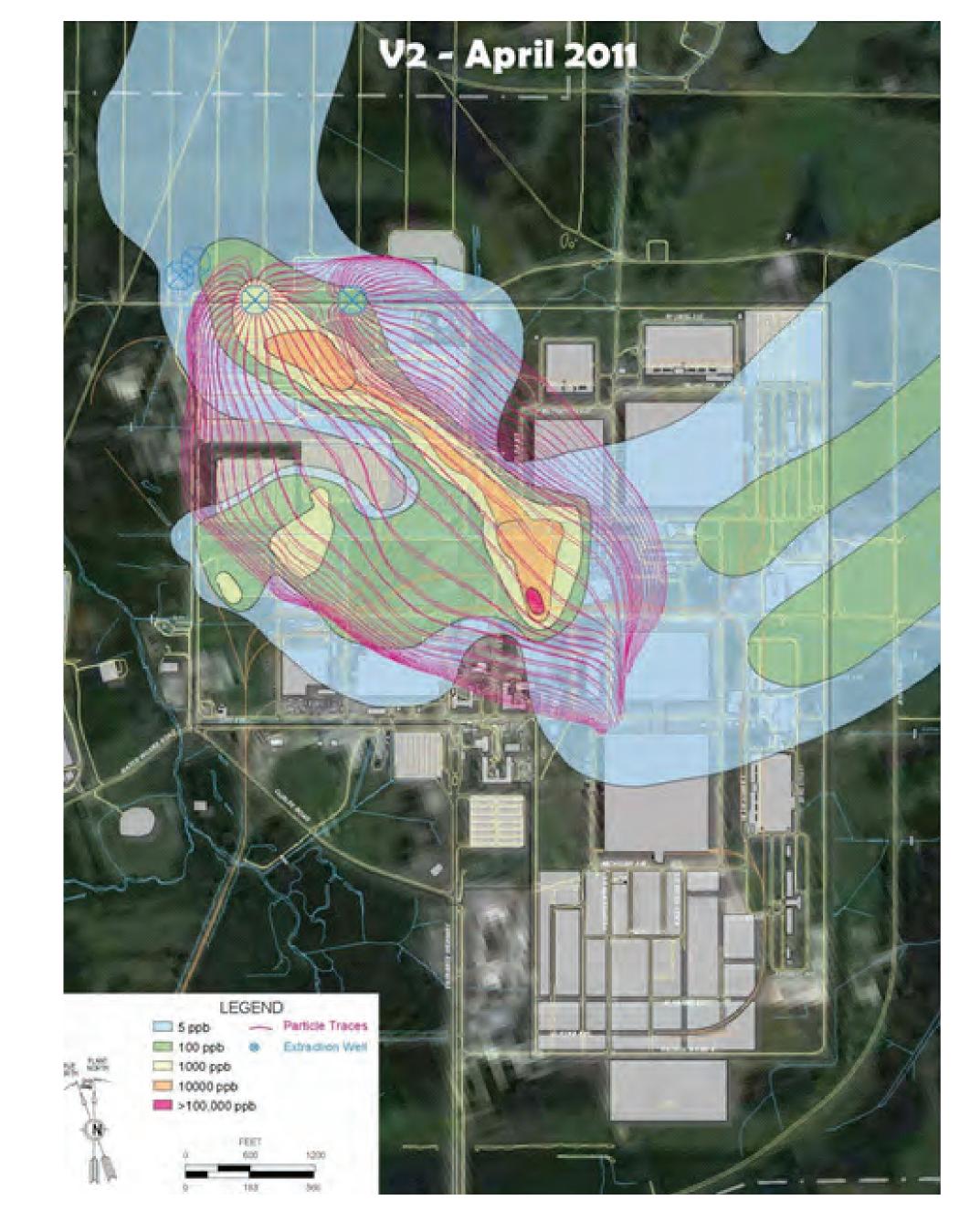
NEW EXTRACTION WELLS

2011 - 12

DOE evaluates optimization of pump and treat systems to capture site contamination related to the Northeast Plume







CAPTURE ZONES FOR RELOCATED NW PLUME EXTRACTION WELLS (LATA, 2010 - PRESENT)

Preferred Configuration - July 2012

Iteration 2 3

Iteration

Total 80 300 450

Total 53.58% 97.08% 97.73% 98.44%

Ambient condition: October 2011 Maximum Anthropogenic Recharge

220 | 220 | 220

 53.58%
 51.90%
 53.23%
 55.32%

 45.17%
 44.19%
 42.48%
 % Mass Capture

0.33%

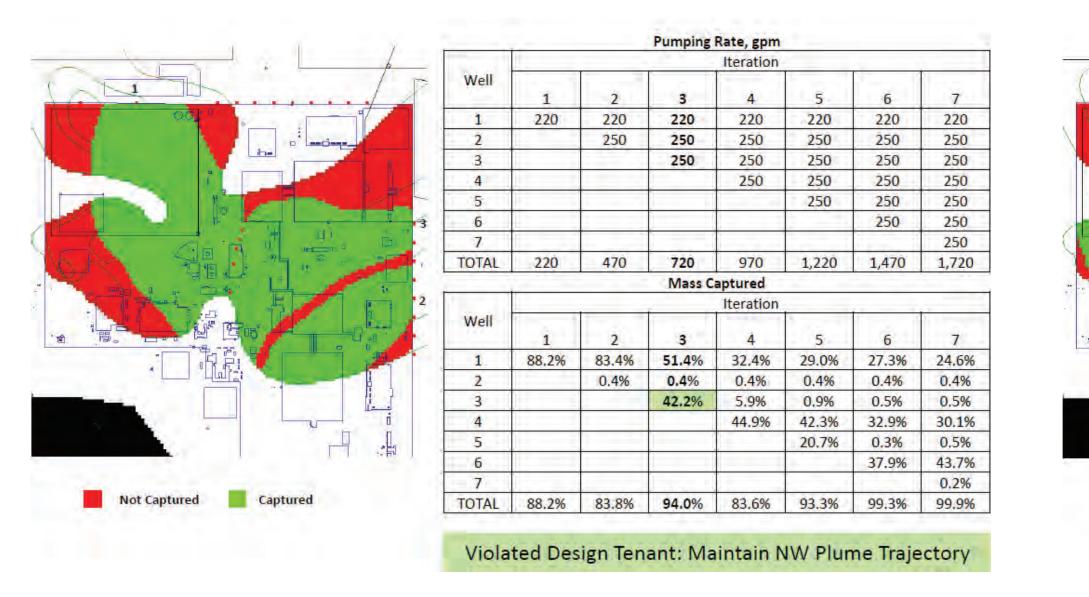
NORTHWEST PLUME PUMP & TREAT EXTRACTION WELLS RELOCATED (LATA, 2010 - PRESENT)

2012

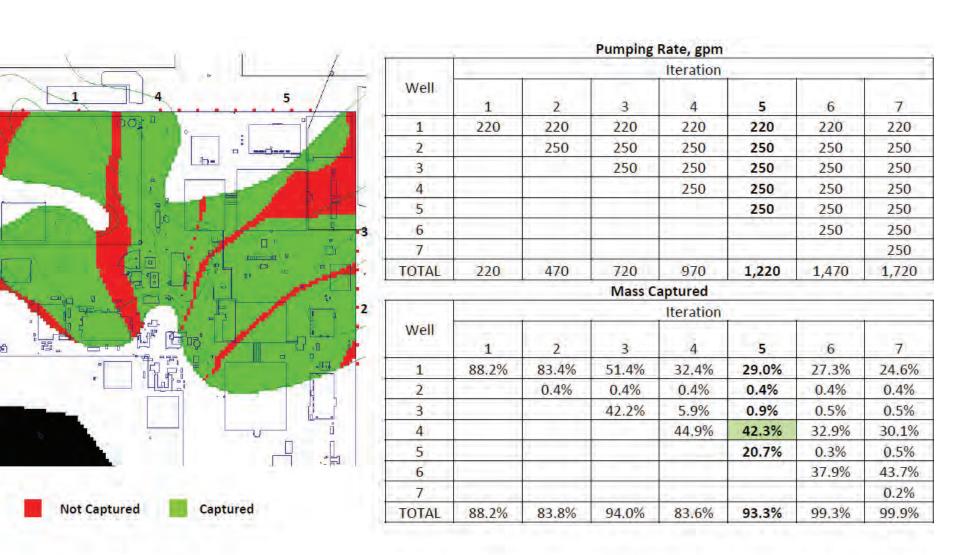
U.K.

DOE conducts evaluation to optimize NE Plume extraction well locations.

NE Plume and C-400 Extraction Well Evaluation (LATA, 2012)



EXTRACTION WELL OPTIMIZATION FOR NE PLUME - 3 EXTRACTION WELLS (PERCENTAGE OF CAPTURED PLUME AT BOTTOM OF TABLE)



EXTRACTION WELL OPTIMIZATION FOR NE PLUME - 5 EXTRACTION WELLS (PERCENTAGE OF CAPTURED PLUME AT BOTTOM OF TABLE)

EXTRACTION WELL OPTIMIZATION FOR NE PLUME - PREFERRED CONFIGURATION (PERCENTAGE OF CAPTURED PLUME AT BOTTOM OF TABLE)





LATA Environmental Services of Kentucky, LLC













