



# Fort Detrick Remedial Investigation/Feasibility Study

## Status Update

Fort Detrick Restoration Advisory Board Meeting  
12 January 2006  
Fort Detrick, Maryland



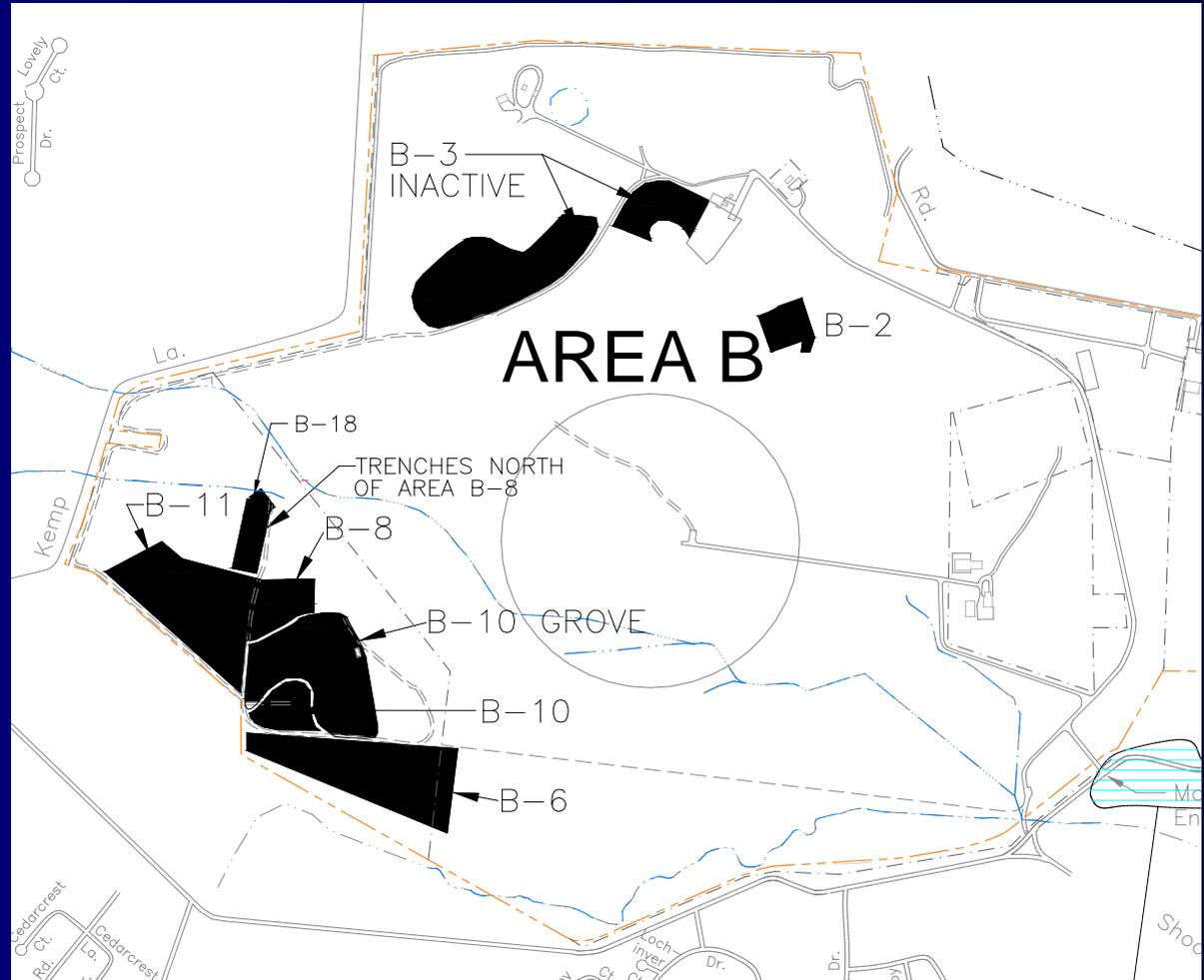
# Status Update Discussion

- Performance-Based Contract (PBC) Remediation Areas
- Long-Term Monitoring (Area A & Area B)
- Close-Out Documents



# Major Remediation (PBC) Areas – Area B

The major remediation Areas in Area B include Areas B-2, B-3, B-6, B-8 and Trenches North of B-8, B-10/Grove, B-11, B-18, and site-wide groundwater.





- Disposal Sites – Scheduled partnering team meeting was held on November 9, 2005 to discuss the Area B-6 Draft RI Report
- A follow-up meeting was held at MDE on December 20, 2005
- Report requirements and schedule are being reevaluated based on meeting discussions



# Long-Term Monitoring

- Background – Area A and B groundwater was sampled in September 2005 as part of long-term and periodic sampling programs
- Both areas are now being conducted under the PBC contract

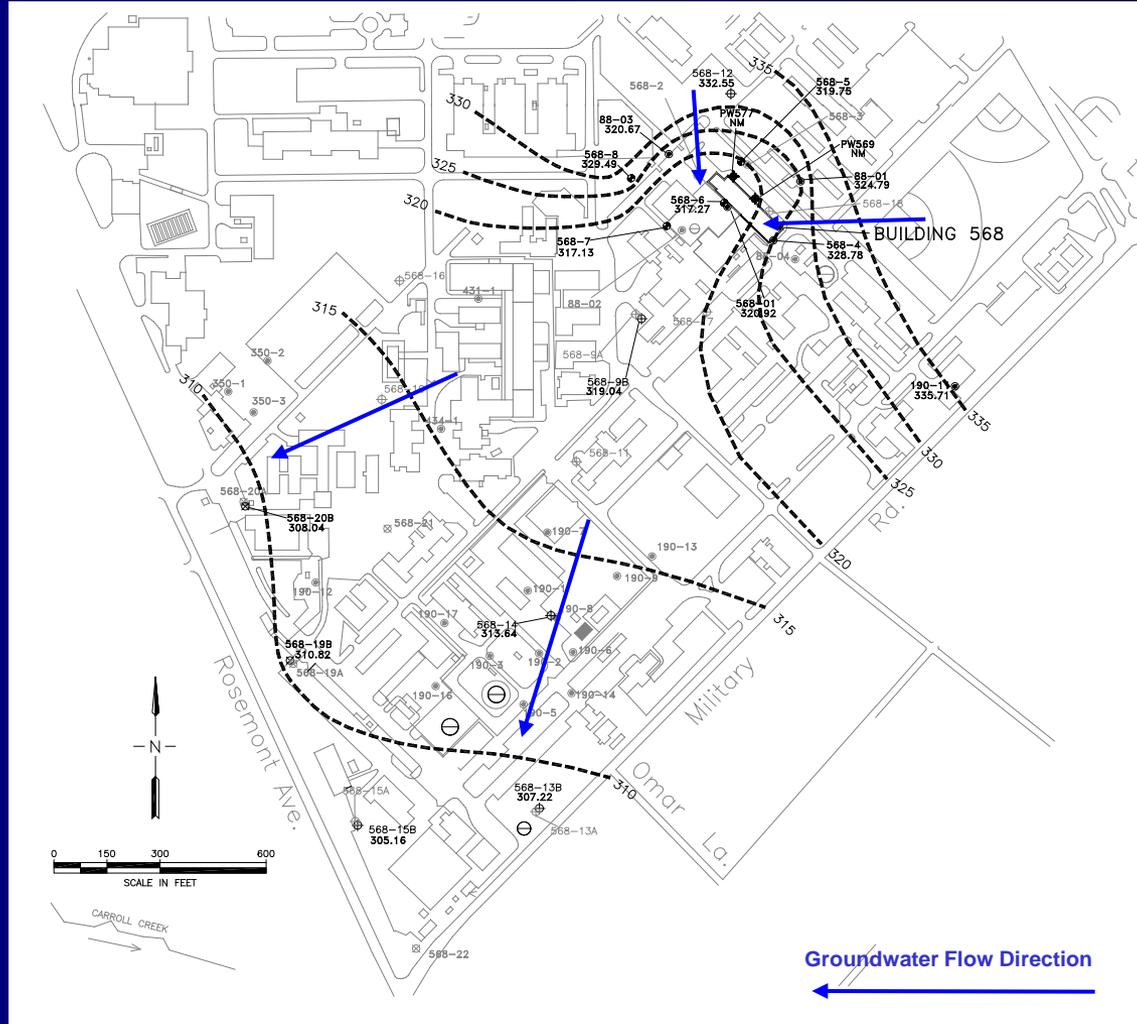


# Area A Long-Term Groundwater Monitoring

September 2005

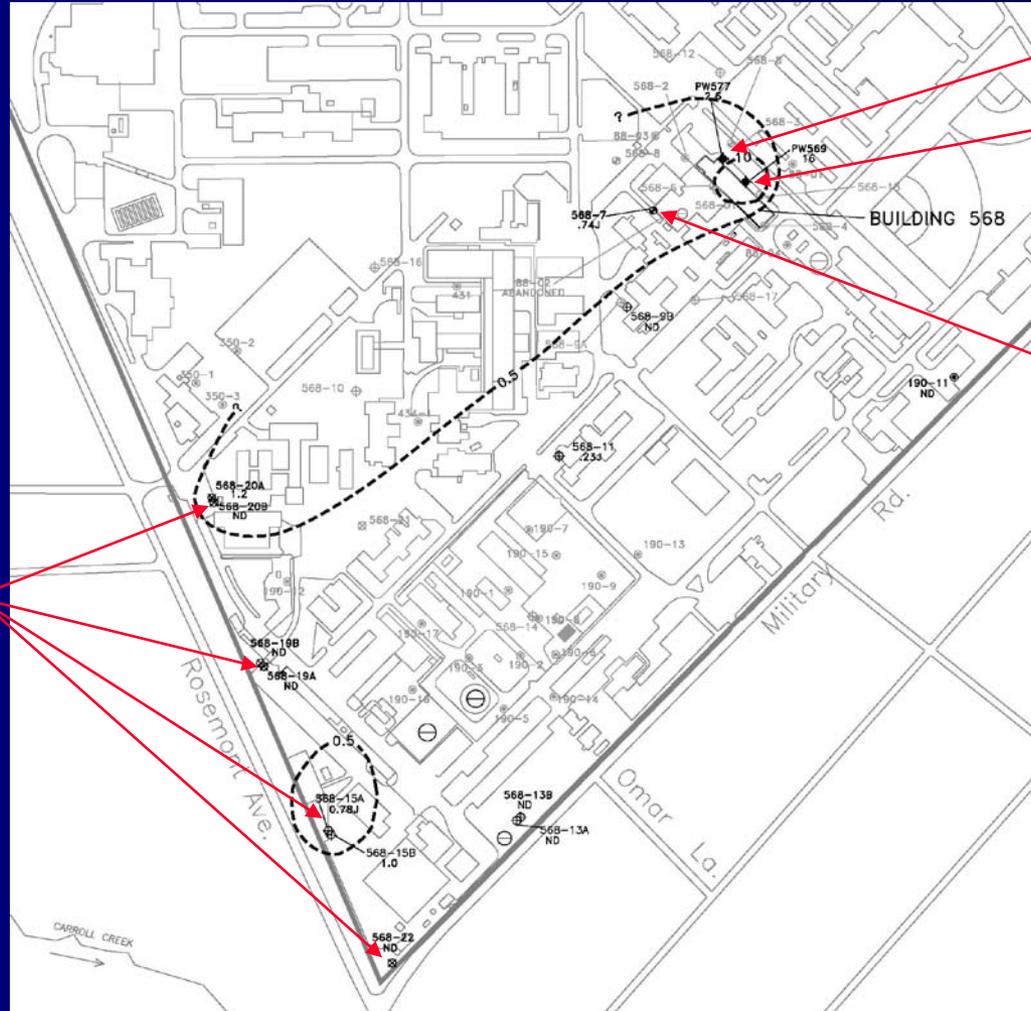


# Area A Deep Groundwater Contours





# Area A TCE Concentrations



PW577 - new low (2.6 ug/l)

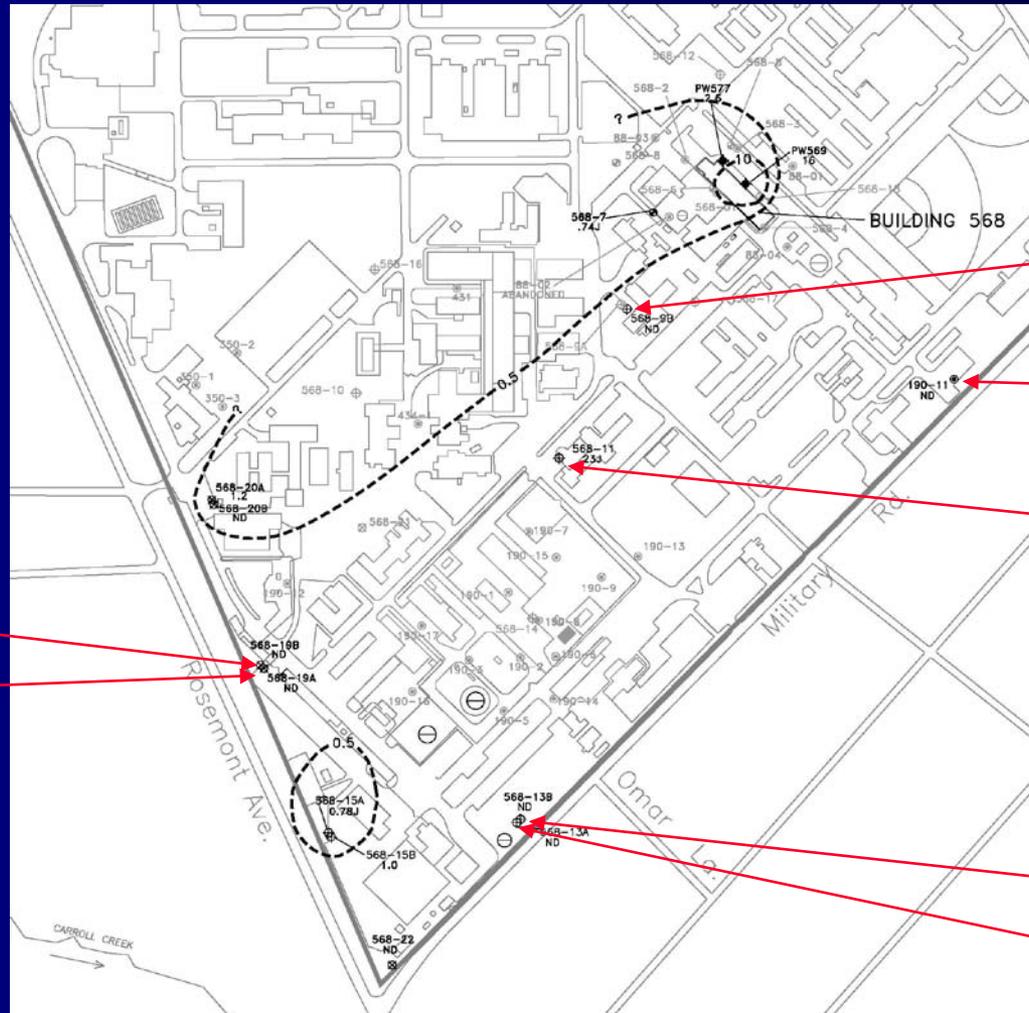
PW569 - new low (16 ug/l)

568-7 - new low (0.7J ug/l)

Below MCL at Boundary



# Area A Wells for Potential Deletion from LTM



568-19A\*  
ND 8 out of 8 times  
568-19B\*  
ND 8 out of 8 times

568-9B\*  
ND 7 out of 7 times

190-11\*  
ND 5 out of 5 times

568-11\*  
Max 22 ug/l  
ND or <1 last 7 events  
Not a boundary well

568-13A\*  
ND 8 out of 8 times  
568-13B\*  
ND 8 out of 8 times

\*Consensus was reached at the partnering meeting to remove these wells from further sampling.



# Historical Area A TCE Data

Well ID	May 1995	Mar 1997	Jul 1998	Oct 2000	May 2002	Jun 2003	Oct 2003	Sep 2004	Mar 2005	Sep 2005
190-11						ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
568-7	5.0JP	2.2			1.5	2.5	2.1	1.0J	2.4	0.7J
568-9B		ND(1)			ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
568-11		12		2.0	0.16JP	0.28J	0.4J	ND(1)	ND(1)	0.2J
568-13A		ND(1)	ND(1)		ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
568-13B		ND(1)	ND(1)		ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
568-15A		11	7.7	ND(1)	0.24JP	ND(1)	0.22J	1.9	3.6	0.8J
568-15B		1.5	0.8JP	ND(1)	0.14JP	ND(1)	ND(1)	ND(1)	2.8	1.0
568-19A			ND(1)							
568-19B			ND(1)							
568-20A			2.3	2.0	1.7	2.2	2.6	1.5	ND(1)	1.2
568-20B			3.0	ND(1)						
568-22			2.9	1.0	1.7	ND(1)	ND(1)	ND(1)	1.8	ND(1)
PW-569	800	346**	330**	183**	130	62	80	71	ND (25)	16
PW-577	27	19**	18**	11**	6.8	5.5	5.3	6	26.6	2.6

All results in micrograms/liter (µg/l)

ND - not detected (value in parentheses is the reporting limit)

J - Value is estimated

\* Based on USACHPPM testing \*\* Based on USABRDL testing

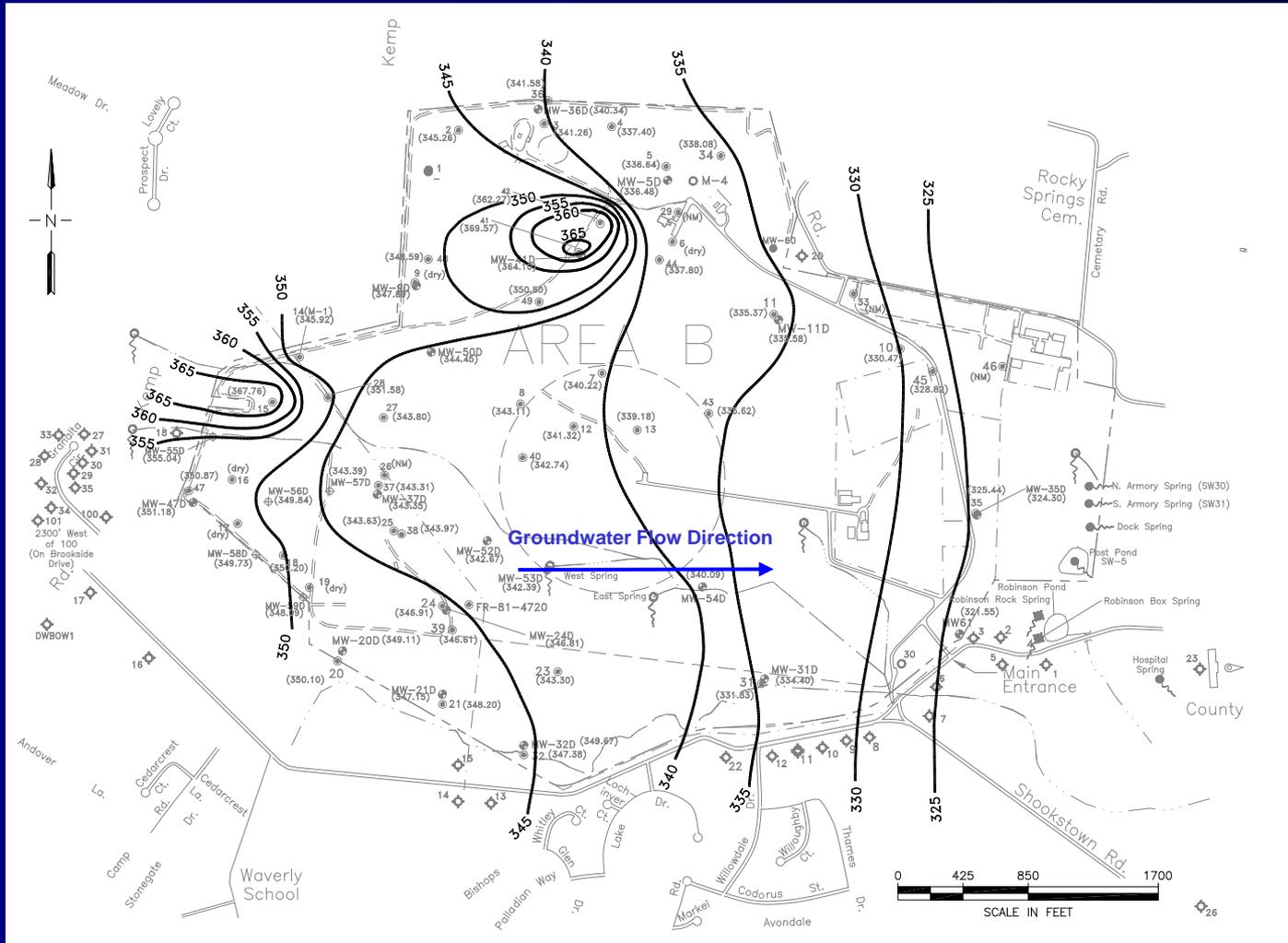


# Area B Periodic Monitoring

September 2005

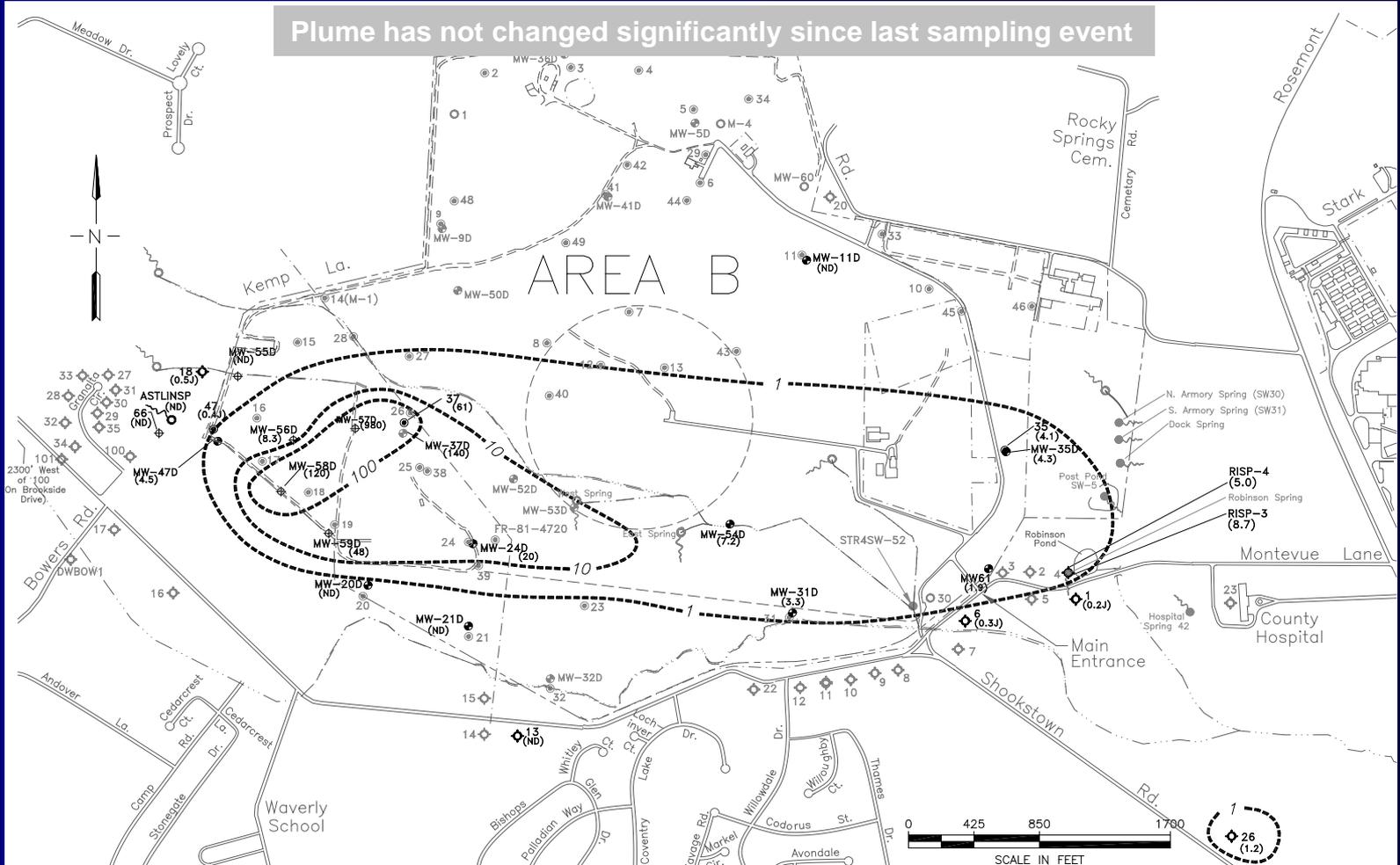


# Area B Groundwater Contours September 2005





# Area B TCE Concentrations September 2005







# Area B Discussion

- **The TCE plume remains relatively unchanged:**
  - Maximum concentration was 980  $\mu\text{g/L}$  (BMW57D), within the historical range of 430-999  $\mu\text{g/L}$ .
  - No known change in the extent of the plume.
  - The boundary wells remain at similar concentrations, although a detection of 0.5  $\mu\text{g/l}$  (estimated concentration) was observed in offsite well DWGRAN18.
- **The PCE plume remains relatively unchanged:**
  - Maximum concentration was 2100  $\mu\text{g/L}$  (BMW24D), within the historical range of 490-16000  $\mu\text{g/L}$ .
  - No known change in the extent of the plume.
  - The boundary wells remain at similar concentrations, although a detection of 1.6  $\mu\text{g/l}$  was observed in offsite well DWGRAN18.



# Area B Close-Out Sites

Areas B-Ammo, B-20 North, B-20 South,  
B-Grid, B-Skeet



# Locations of Area B Close-Out Sites

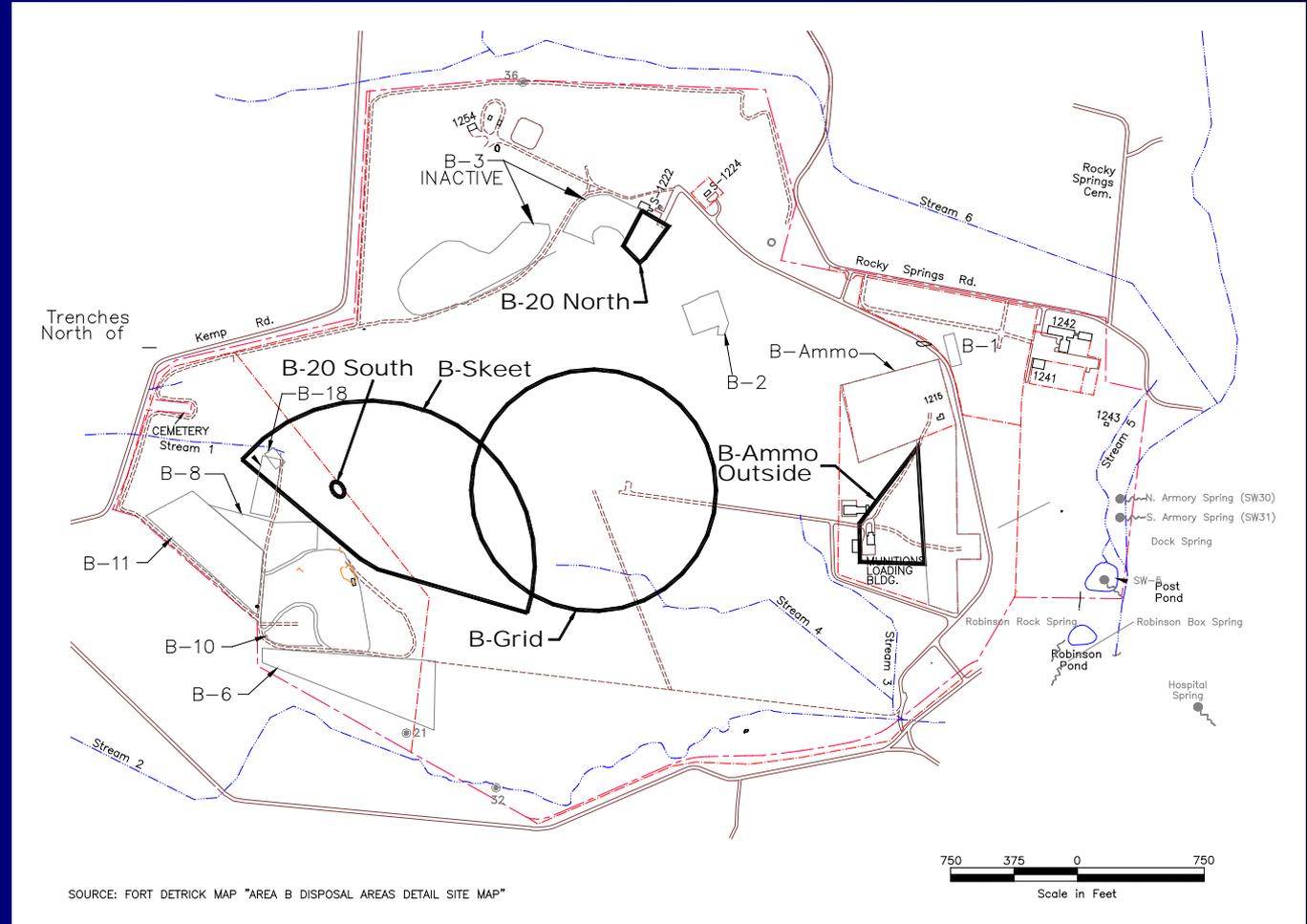
Area B-Ammo

Area B-20 North

Area B-20 South

Area B-Grid

Area B-Skeet



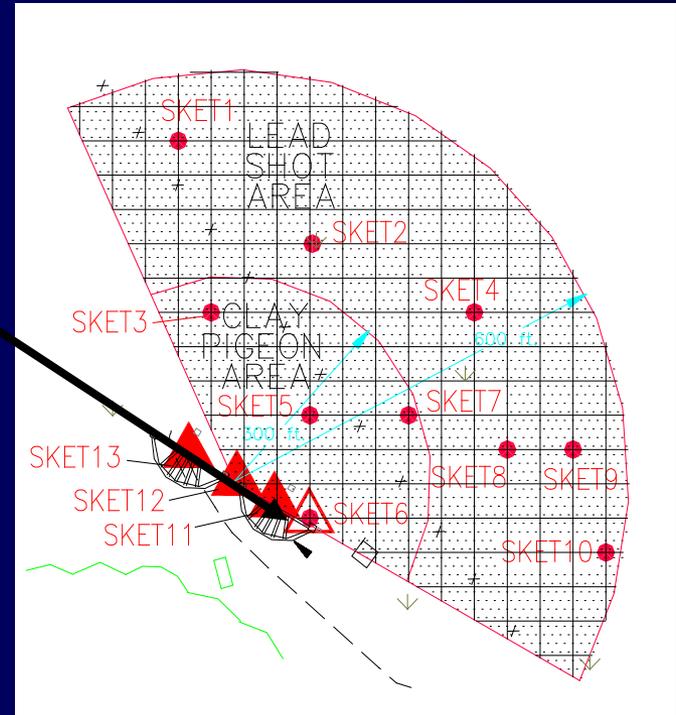


# Area B-Skeet Close-Out Status

Elevated levels of semivolatile organic compounds were observed at one location where clay-pigeon debris was also noted. Fort Detrick removed additional soil with clay-pigeon debris and performed confirmation sampling.

Area is within residential standards for lead and PAH contaminants.

Screening Level Ecological Risk assessment was performed and concluded that there is no risk.



Approximate Area of debris removal July 2005.



# Close-Out Document Status

- Area B-Ammo, Area B-20 North, Area B-20 South, and Area B-Grid were submitted as a single document to MDE on September 30, 2005 and is currently under review
- The Area B-Skeet Draft Final Close-Out Document was submitted to MDE on December 6, 2005 and is currently under review



# Area C Update

- Final Decision Document was signed on December 16, 2005 and placed in the administrative record.

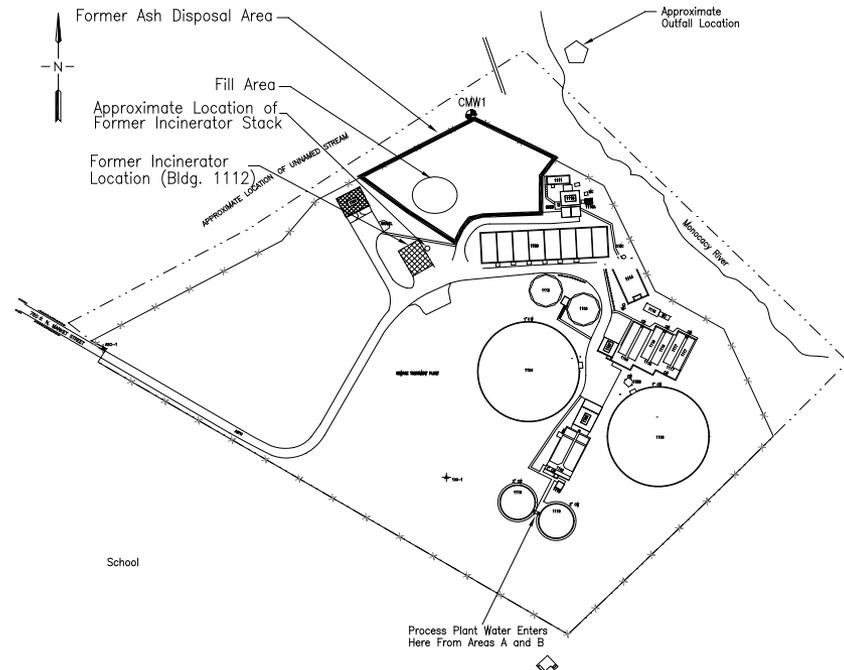
- Decision Includes:**

- Former Ash Disposal Area;

- Land use restrictions including administrative access restrictions, physical barriers and/or signs,
    - Maintenance of a database of information about the site, and
    - Evaluation of changes in site conditions over time during five-year reviews.

- No Further Action for

- Fill Area and Area Surrounding and Downwind of the Former Incinerator Stack,
        - Treatment Plant process Water (Covered by current NPDES Permit),
        - Monocacy River and Unnamed Stream Sediment and Surface water, and
        - Area C Groundwater.





# Planned Schedule Work Completed

- Periodic Monitoring was conducted for Area B groundwater week of September 12, 2005
- Semi-annual LTM was conducted for Area A week of September 19, 2005
- Area B–Ammo, Area B-20 N/S, and Area B-Grid Draft Final Close-Out document submitted to MDE September 30, 2005
- Periodic Monitoring was conducted for Area B groundwater from December 5-12, 2005 (Data not yet available)
- Area B-Skeet Draft Final Close-Out document was submitted to MDE December 6, 2005
- Final Decision Document for Area A sites was signed and placed in the administrative record on December 16, 2005



# Planned Schedule Work in Progress

- Periodic Monitoring for Area B groundwater and LTM for Area A (Building 568) and the Water Towers will be conducted in March 2006
- Upcoming Installation Action Plan (IAP) workshop in April 2006
- Begin planning documents for Area B-18 debris removal/sampling and close-out for late Spring/Summer 2006
- Area B-6 and other disposal sites will be reorganized into separate RI/FS reports