Fort Detrick Installation Restoration Program

Restoration Advisory Board Meeting
13 August 2003 7:30 PM
Fort Detrick, Frederick, Maryland

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Area B-11 Removal Project Status

- No lost time accidents (903 days)
- Removed 2005 tons of waste and contaminated soil from Pit 1. 52 cylinders recovered from Pit 1.
- Overburden removed from Pits 2, 3, an 4 from 8 May through 30 May 2003
- Excavation of waste materials from Pit 2 commenced 5 June 2003 and ended 11 June 2003. Pits 3 excavation commenced 16 June 2003 and ended 1 August 2003 (completed within surveyed limits based on trench delineation).
- Pit 4 excavation commenced 7 August 2003 and is on-going.

Pit 1 Completed Grade

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Area B-11 Pits 2, 3, 4 Removal Project Status

Wastes recovered during Phase II excavation (Pits 2, 3 and 4) include:

- **Small glass containers**
- **Glass/plastic**
- **Medical waste**
- **Metal fragments**
- **Six containers**
- **Small laboratory chemical bottles**
- **Two vials containing white-yellowish powder**
- **Approximately twenty (20) intact cylinders ranging in size from 2-8" diameter by 5.5-25" long have been recovered to date. Some intact or partial valve assembly. All have been cataloged and secured.**

Scalpels and Cylinders Recovered from Pit 2

Approximately 650 tons of soil (9 non-hazardous roll-offs (162 tons) for Detrick landfill) have been loaded from Pits 2, 3, and 4 into roll-off boxes as of 12 August 2003

Heat stress is a MAJOR issue. Personnel utilizing cooling suits and 5 am starts

Cylinder disposition options are being investigated

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Area B-11 Pits 2, 3, 4 Removal Project Status (Continued)

- **Pits 2, 3, and 4 Schedule**
  - **Startup activities: 21 March 2003 – 02 May 2003**
  - **Excavation: 08 May 2003 – 21 Nov 2003**
  - **Demob/Decon: 01 Dec 2003 – 23 Jan 2004**
  - **Site Restoration: 26 Jan 2004 – 05 Feb 2004**
- **Funding**
  - **Project was fully funded in June 2003**

Smoke Event During Pit 3 Excavation

17 June 2003

Pit 2

Pit 3

Pit 4 (overburden removed)

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Fort Detrick Area A LTM Update

Pending Schedule:	**Estimated Completion Date**
LTM (Five Year Review)	July 06
Semi-Annual Sampling Report (June 03 Sampling)	November 03

Items Completed:	**Completed Date**
Area A Long-Term Monitoring (LTM) Plan	April 02
Area A LTM Sampling (1st round)	May 02
Area A LTM Sampling (2nd round)	June 03
Semi-Annual Sampling Report (May 02 Sampling)	November 02

Fort Detrick RI/FS Area A Sampling Results

TCE Plume (June 2003)

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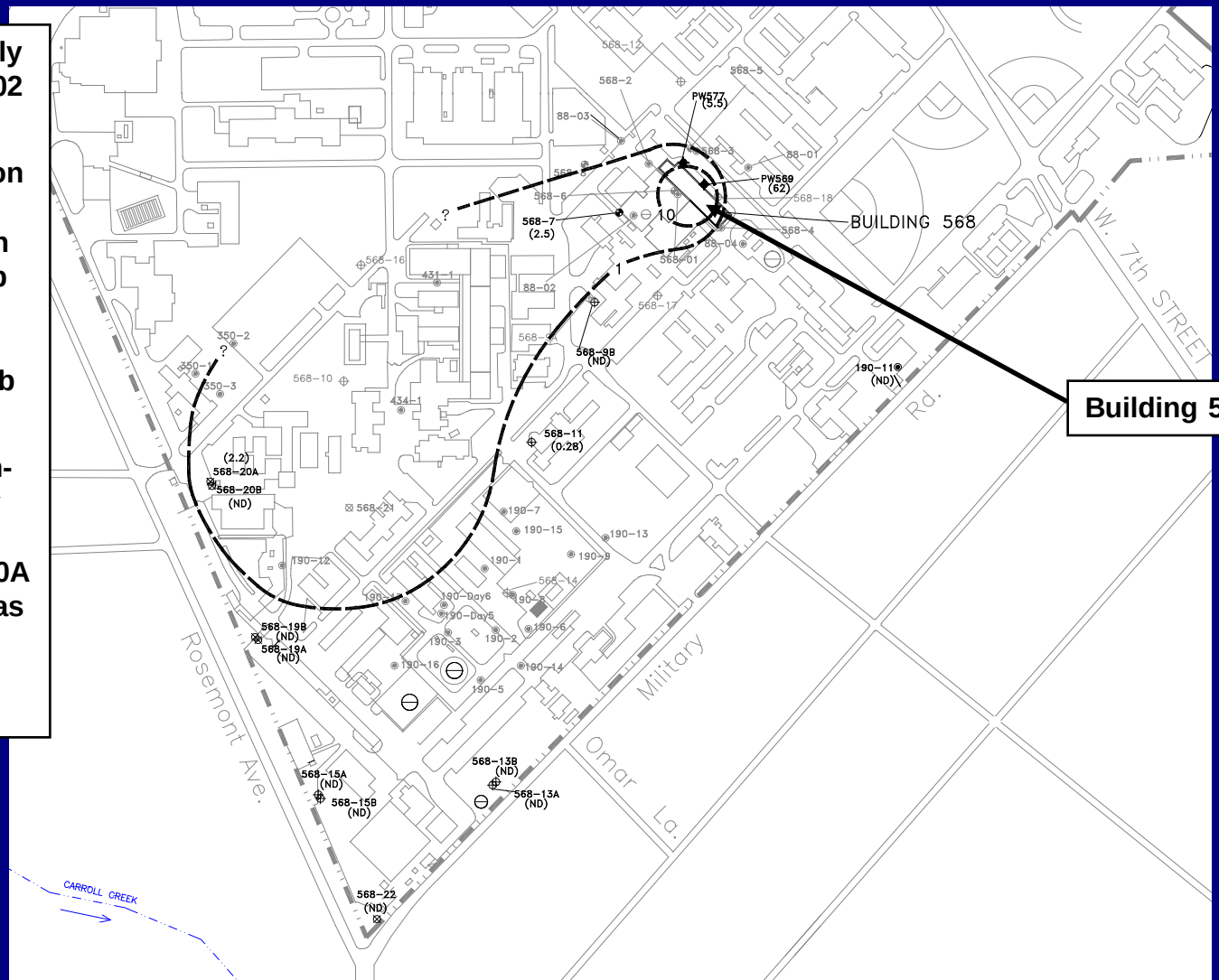
TCE levels generally lower than May 2002 results.

Levels in production wells decreased (PW569 from 130 in May 2002 to 62 ppb in June 2003 and PW577 from 6.8 in May 2002 to 5.5 ppb June 2003).

All levels were non-detect in boundary wells with the exception of 568-20A (2.2 ppb), which was below the action level of 5 ppb.



Area A Shallow Water Levels

3 June 2003

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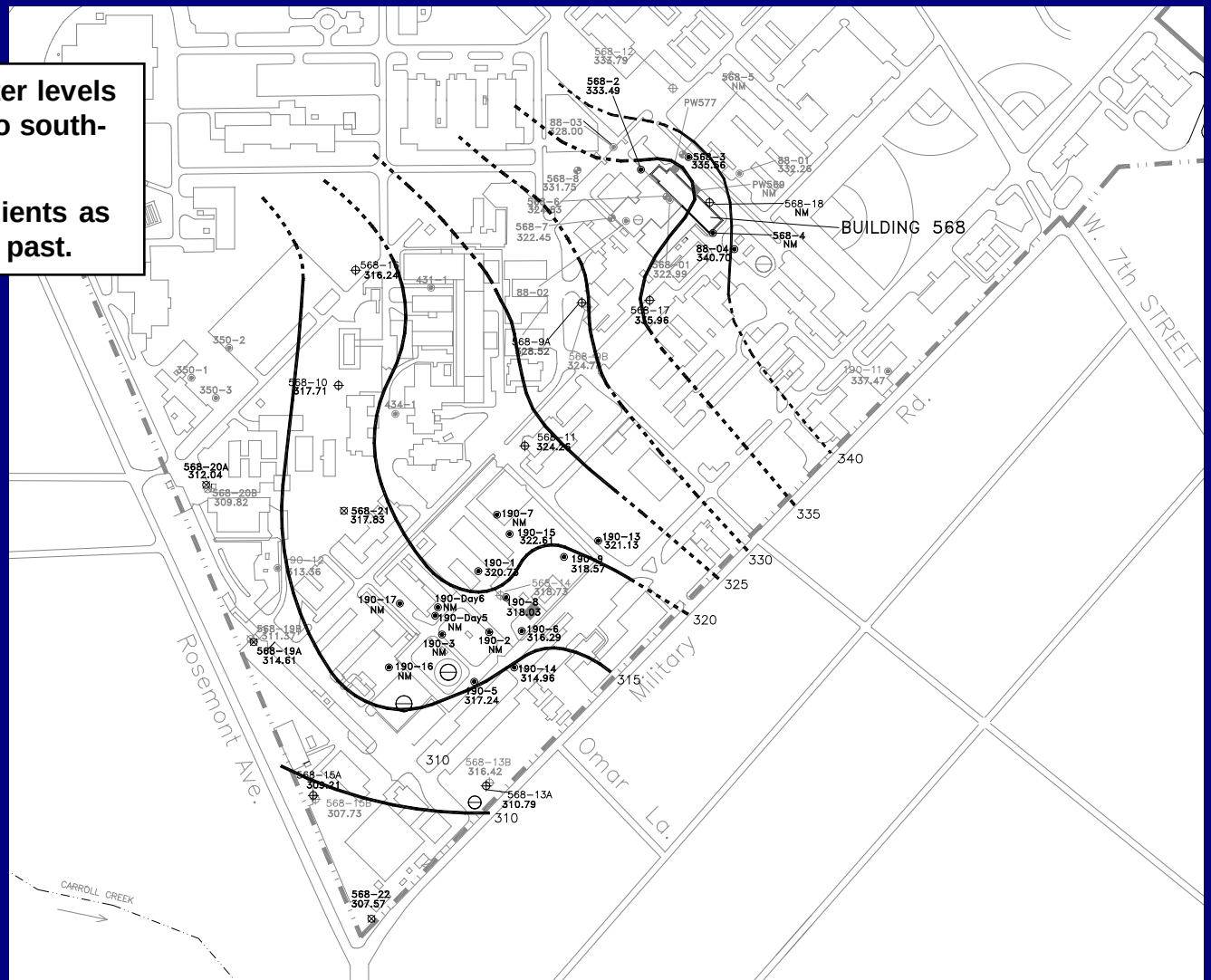
Shallow water levels show flow to south-southwest.

Similar gradients as observed in past.



Area A Deep Water Levels

3 June 2003

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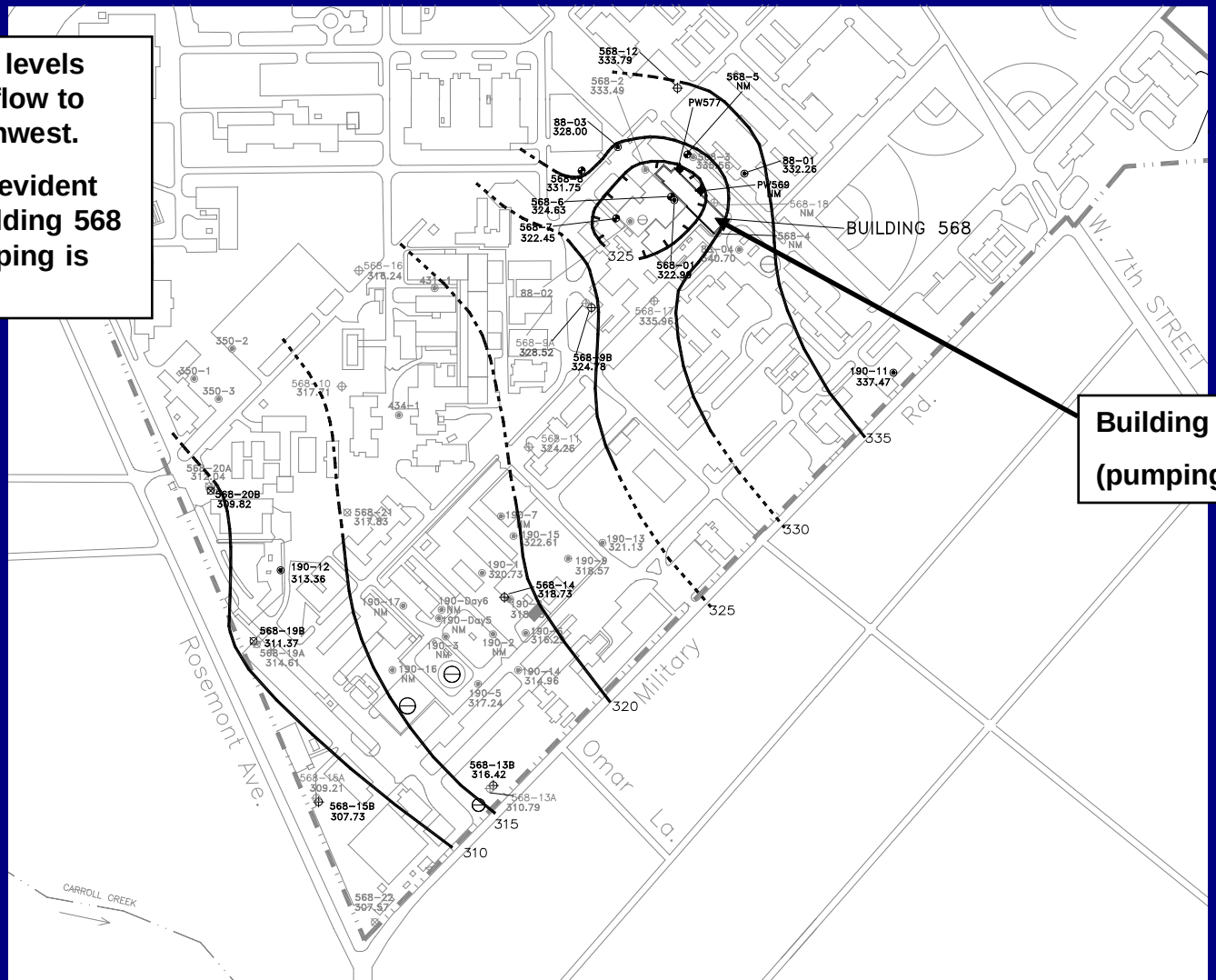
Deep water levels also show flow to south-southwest.

Drawdown evident around Building 568 where pumping is occurring.



Building 568

(pumping in this area)

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Area B Update

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COMPLETED (none new)

Engineering Evaluation/Cost Analysis (EECA) Area B-11 Chemical Waste Disposal Pits	(Feb 00)
EECA (Proposed Plan)	(May 00)
EECA (Decision Document)	(July 00)
Public Involvement and Response Plan	(July 00)
Chemical Oxidation Bench-Scale Test Work Plan	(Oct 00)
Photographic Analysis (USEPA EPIC Study)	(Mar 01)
Chemical Oxidation Bench-Scale Test Report (Final)	(July 01)
Area B Background and B-20 North Follow-On Work Plan	(Nov 02)

PENDING	Completion Date
Area B Background Study	August 03
Groundwater Pilot Test Field Technology Assessment Work Plan	Pending Funding
Area B Additional Investigation Work Plan	Pending completion of Background Study
Dye Trace Study Work Plan (Final)	Pending Funding
RI	Schedule being developed
FS	Schedule being developed
PP	Schedule being developed
DD	Schedule being developed
RD	Schedule being developed
RA	Schedule being developed
Area B-1 Site Close-Out Document	Pending Completion of Background Study
Area B-18 Site Close-Out Document	Pending Completion of Background Study
Explanation of Significant Differences – B-11 Pit 1 Removal Action	Awaiting Army Signature
Explanation of Significant Differences – B-11 Pits 2,3,4 Removal Action	Awaiting Army Signature

* Additional sites are being evaluated for Close-Out Documents.

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Area B Update

Completed and Planned Field Activities

COMPLETED TASKS SINCE LAST MEETING

- No new field activities.

PLANNED

- Additional periodic residential and on-post well and surface water sampling - Every 6 months.
- Dye Trace Study - Schedule being developed (funding dependent).
- Water Treatment System (Krantz) - On-hold pending funding.
- Additional residential well research downgradient of Area B to aid in monitoring groundwater contamination.

Fort Detrick RI/FS Quarterly Area B Sampling Results

PCE Plume (June 2003)

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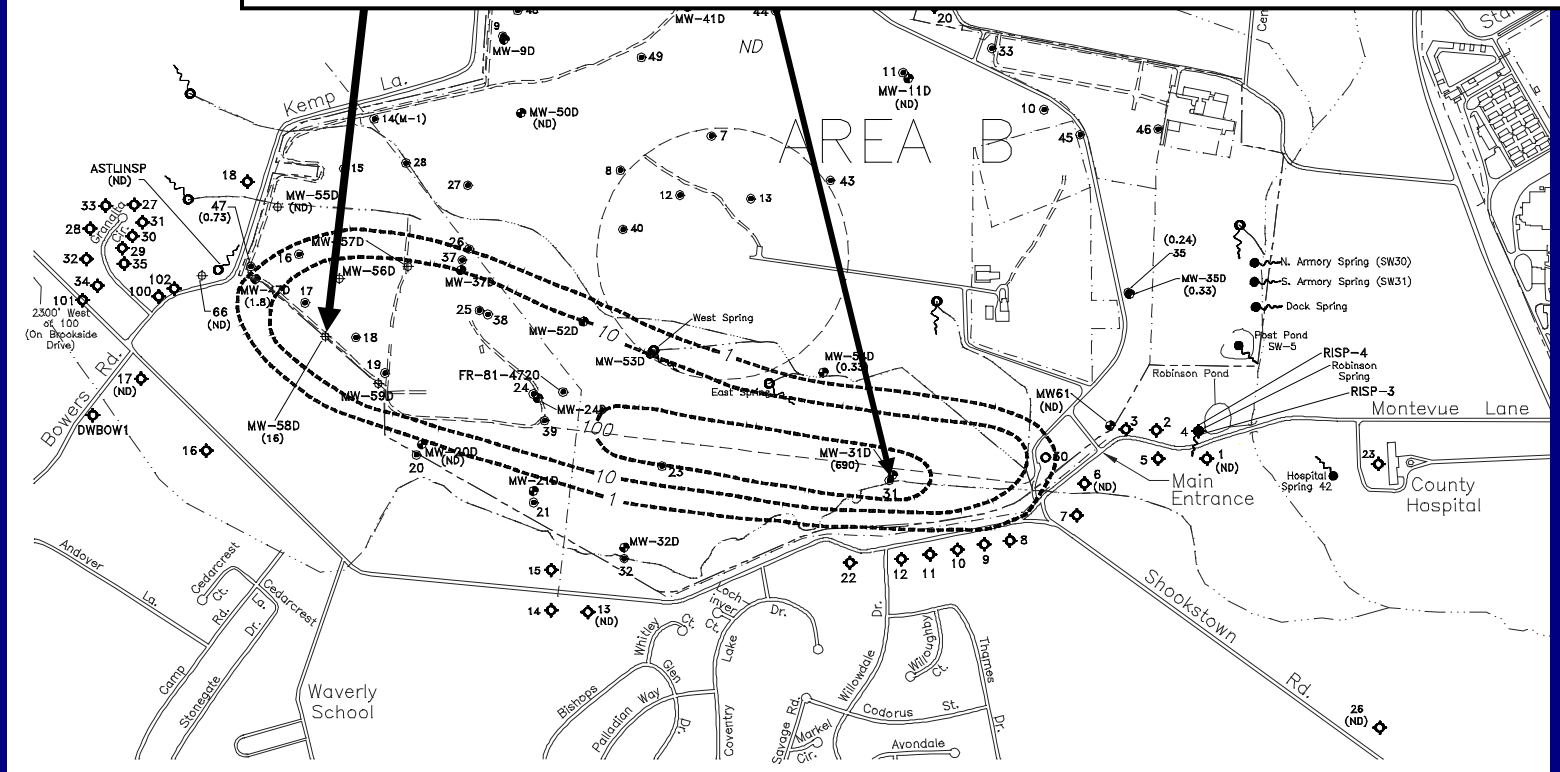
Concentrations of PCE at very perimeter of plume generally equivalent to November 2002

Concentrations in deep, historically contaminated wells, showed large decrease back to concentrations similar to August 2002 (58D from 89 in August 2002 to 1,300 in November 2002 to 16 ppb in June 2003, 31D from 360 in August 2002 to 910 in November 2002 to 690 ppb in June 2003). This may be due to water table fluctuation (water levels were higher in November 2002)



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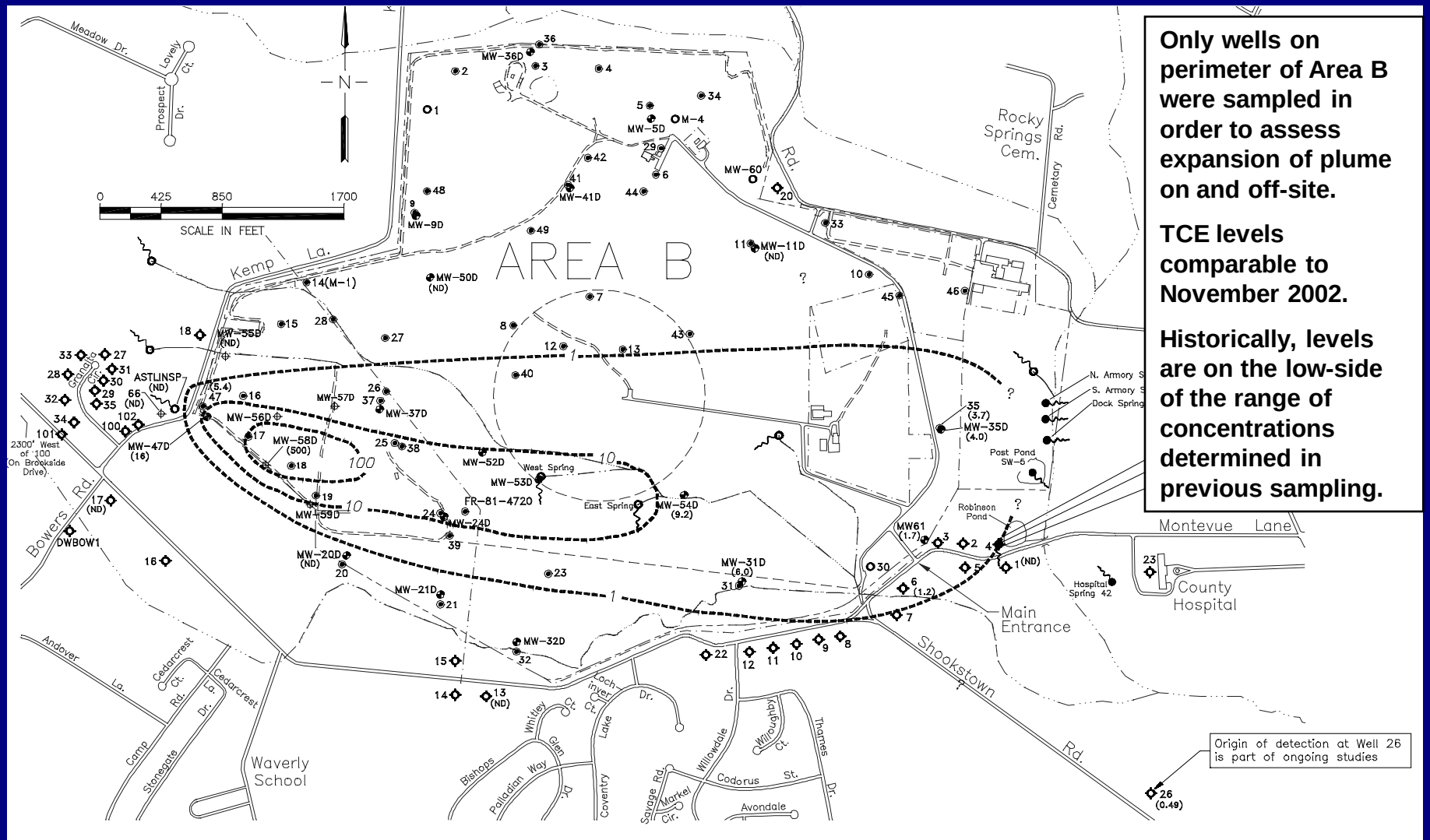
Fort Detrick RI/FS Quarterly Area B Sampling Results

TCE Plume (June 2003)



Only wells on perimeter of Area B were sampled in order to assess expansion of plume on and off-site.

TCE levels comparable to November 2002.

Historically, levels are on the low-side of the range of concentrations determined in previous sampling.

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RESIDENTIAL BOUNDARY WELLS AND SURFACE WATER

Sampling Locations Data June 2003

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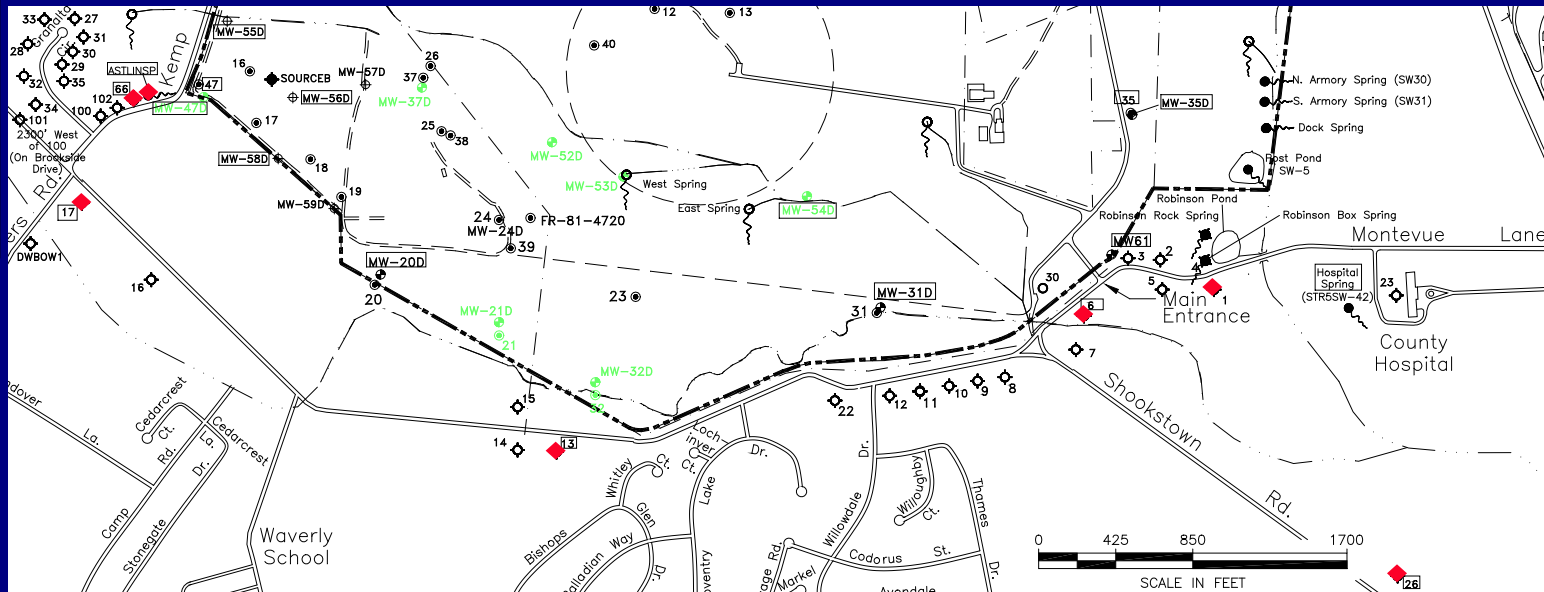
Low-levels of volatile compounds were found at locations ASTLINSP, DWGRAN-17, DWSRD-6, and DWSRD-26. These contaminants have generally been found in Area B as well; however, there may be more than one source for some of the contaminants besides Area B.

All concentrations are well below USEPA drinking water standards (MCLs).

Wells 13, 17, 66 and "BOND" are the only wells sampled that are used for residential purposes. Well 13 is supplied with bottled water for consumption.

Site ID	Sample ID	Sample Date	Analyte Description	Concentration	Unit of Measure	Lab Qualifier	Validation Qualifier	MCL µg/L
DWSRD-6	DWSRD-6	6/2/2003	Toluene	0.34	UG/L	J		1000
DWSRD-6	DWSRD-6	6/2/2003	Trichloroethene	1.2	UG/L			5
DWSRD-6	DWSRD-6	6/2/2003	cis-1,2-Dichloroethene	0.48	UG/L	J		70
ASTLINSP	ASTLINSP	6/2/2003	Decanal	1.8	UG/L	J		No MCL
ASTLINSP	ASTLINSP	6/2/2003	Nonanal	2.5	UG/L	J		No MCL
DWGRAN-17	DWGRAN-17	6/2/2003	Carbon Disulfide	0.32	UG/L	J		No MCL
DWSRD-26	DWSRD-26	6/2/2003	Chloroform	0.2	UG/L	J		80
DWSRD-26	DWSRD-26	6/2/2003	Trichloroethene	0.46	UG/L	J		5
DWSRD-26	DWSRD-26	6/2/2003	Trichlorofluoromethane	0.21	UG/L	J		No MCL
DWSRD-26	DWSRD-26	6/2/2003	cis-1,2-Dichloroethene	0.57	UG/L	J		70
DWSRD-26-D	DWSRD-26-D	6/2/2003	Chloroform	0.19	UG/L	J		80
DWSRD-26-D	DWSRD-26-D	6/2/2003	Trichloroethene	0.49	UG/L	J		5
DWSRD-26-D	DWSRD-26-D	6/2/2003	Trichlorofluoromethane	0.21	UG/L	J		No MCL

◆ **Location DWSRD-BOND was added to sampling program at owner's request. Located approximately one mile upgradient of Area B.**



Area B Water Levels

May 27, 2003

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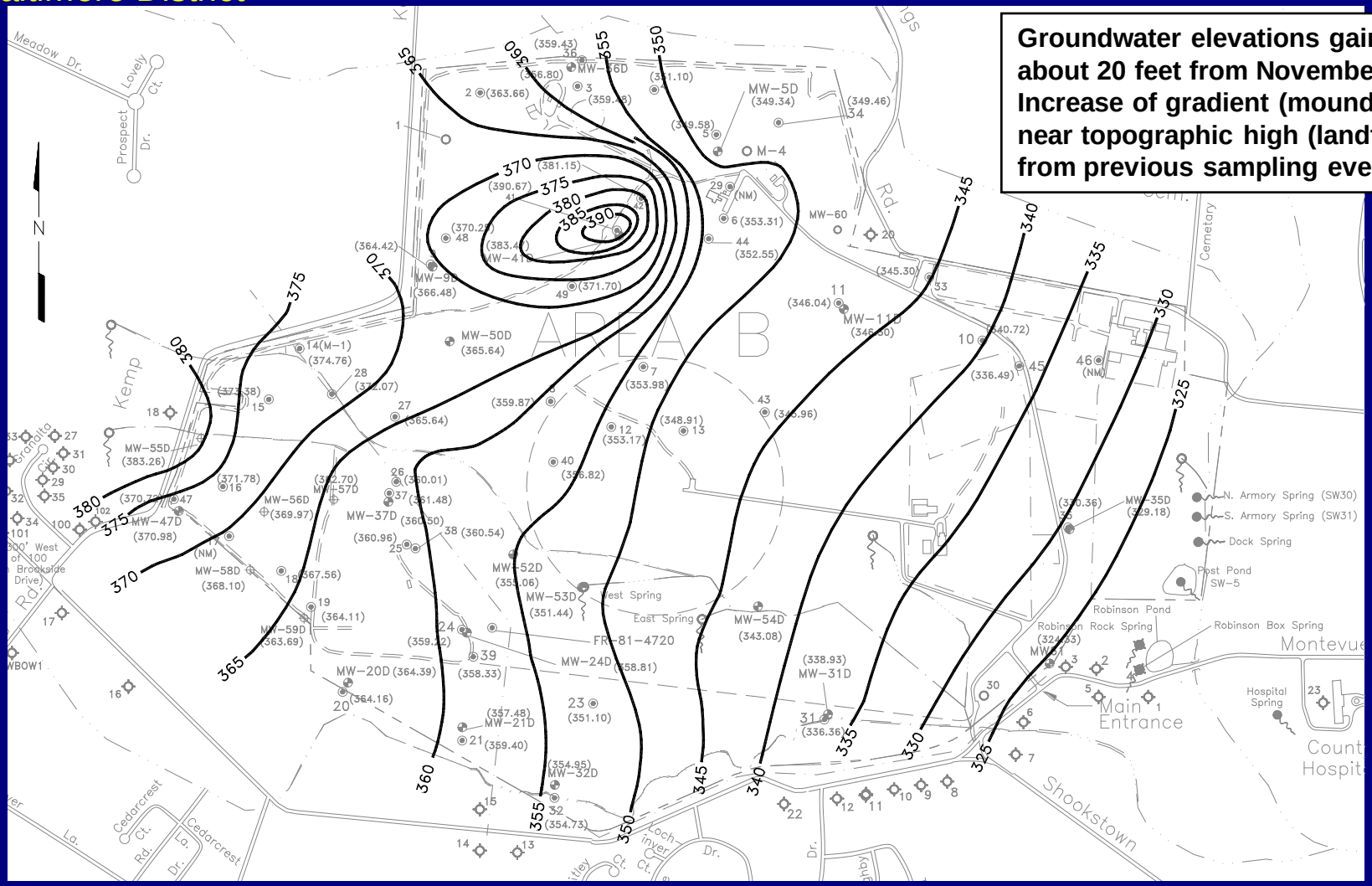

Groundwater elevations gained about 20 feet from November 2002. Increase of gradient (mounding) near topographic high (landfill area) from previous sampling event.

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Area C Update

- Internal Draft RI has been reviewed.
- Final RI Report has been funded.
- The Draft Final RI Report is being completed
- Draft Final RI Scheduled to be completed September 2003.
- Final scheduled for end of October 2003