

**US Army Corps
of Engineers
Baltimore District**

Fort Detrick Remedial Investigation/Feasibility Study

**Restoration Advisory Board Meeting
9 May 2001 7:30 PM
Fort Detrick, Frederick, Maryland**



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Fort Detrick RI/FS Area A Update

Completed

Revised RI (Final)

FS (Final)

PP (PROPOSED PLAN)

PP COMMENT PERIOD

Date

Jun 00

Feb 01

Mar 01

Mar 22, 01 - Apr 21, 01

Pending Schedule:

DD (DECISION DOCUMENT)

RD (REMEDIAL DESIGN)

RA (REMEDIAL ACTION)

CC (CONSTRUCTION COMPLETE)

LTM (LONG TERM MONITORING)

Completion Date

Jun 01

Dec 01

Jan. 02

Jan. 02

Jan. 22



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Area C Update

- **Ecological Risk Assessor Meeting (3/22/01) with Fort Detrick, USEPA, USACE, MDE, IT**
- **Based on current data there are no significant ecological populations at risk due to contamination in the area.**



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Fort Detrick RI/FS

Area B Update

Completed and Planned Field Activities

COMPLETED TASKS SINCE LAST MEETING

- Area B Perimeter Sampling completed March 01.
- Quarterly Sampling completed May 00 - results pending
- Four wells sampled at specific request of landowners.
- Sampling of 13 wells and one spring located west of Area B.
- In-situ Chemical Oxidation Pilot (Bench-Scale) lab work completed, draft reports in progress.
- Lead and clay pigeon removal at Skeet Range complete.
- USGS Spring Stream Gauging complete.

PLANNED

- Additional periodic residential and on-post well and surface water sampling - Every 1.5 months.
- Dye trace study - Schedule being developed (funding dependent).
- Water Treatment System (Krantz) - On-hold pending installation of City water in less than one year.
- Interviews with former employees to enhance RI information.



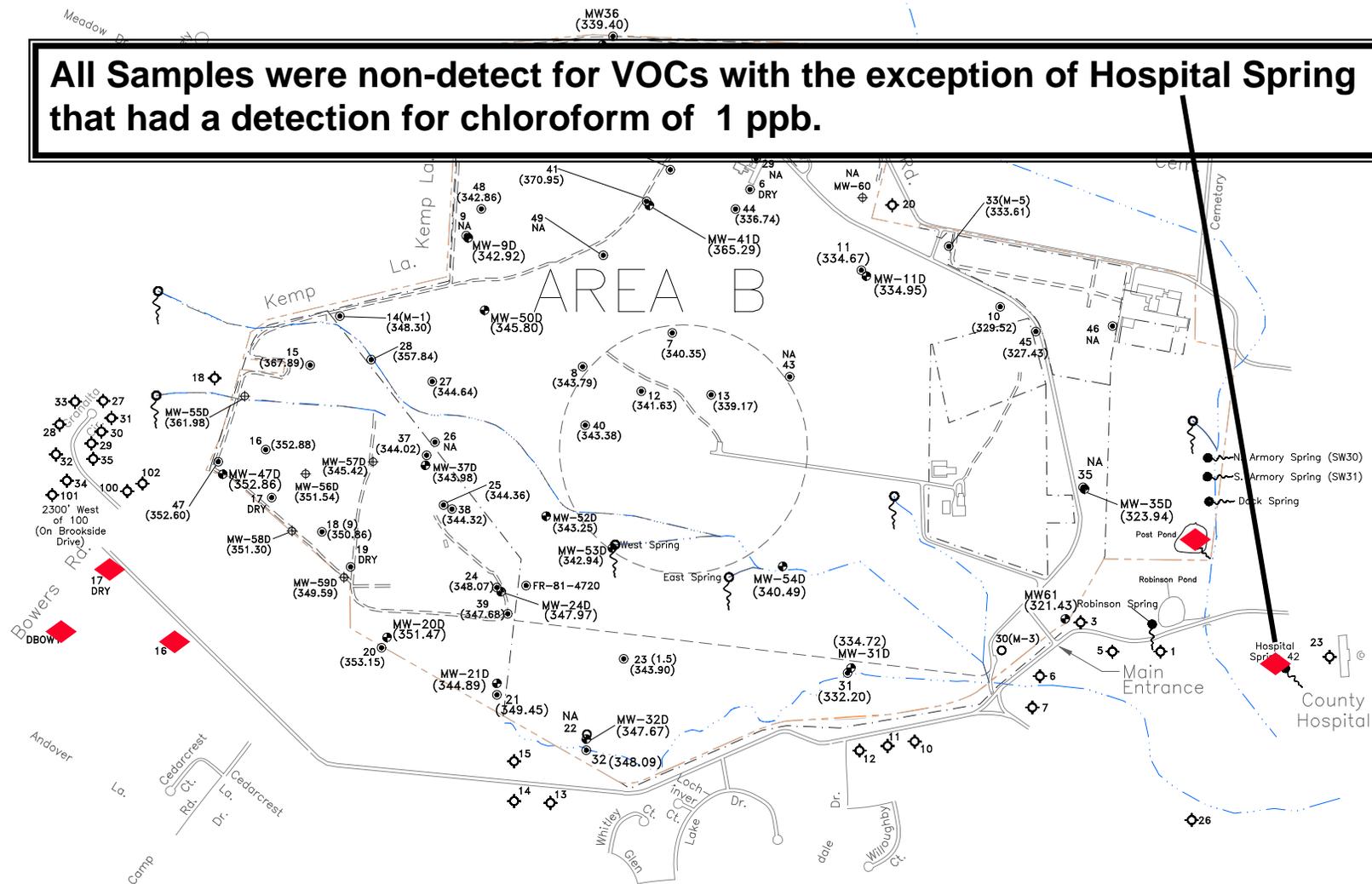
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Fort Detrick RI/FS

PERIMETER BOUNDARY SAMPLING

March 2001

All Samples were non-detect for VOCs with the exception of Hospital Spring that had a detection for chloroform of 1 ppb.



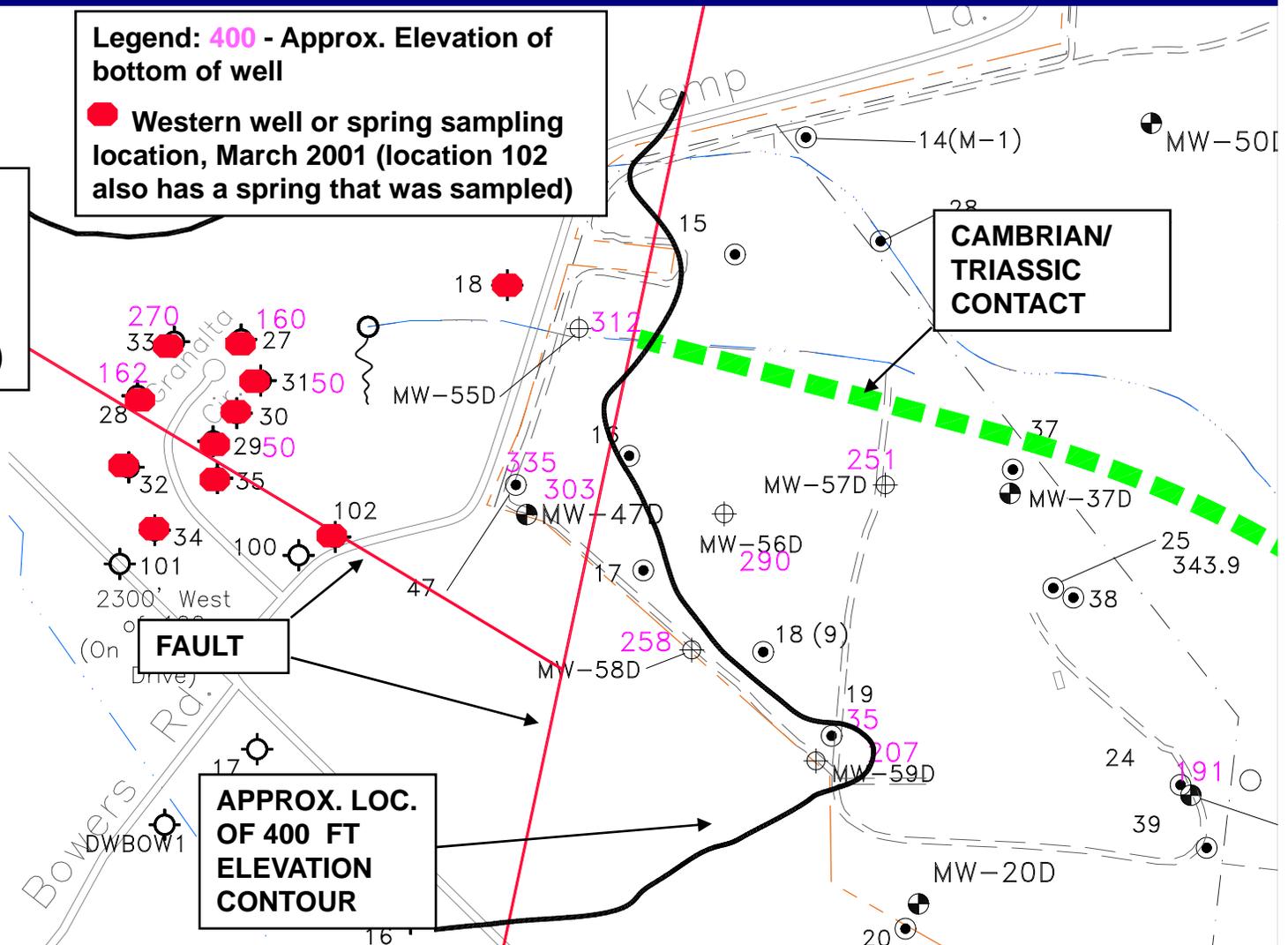


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Well Data - Residents West of Area B

All results were non-detect for volatile organic compounds (VOCs)

Legend: 400 - Approx. Elevation of bottom of well
● Western well or spring sampling location, March 2001 (location 102 also has a spring that was sampled)

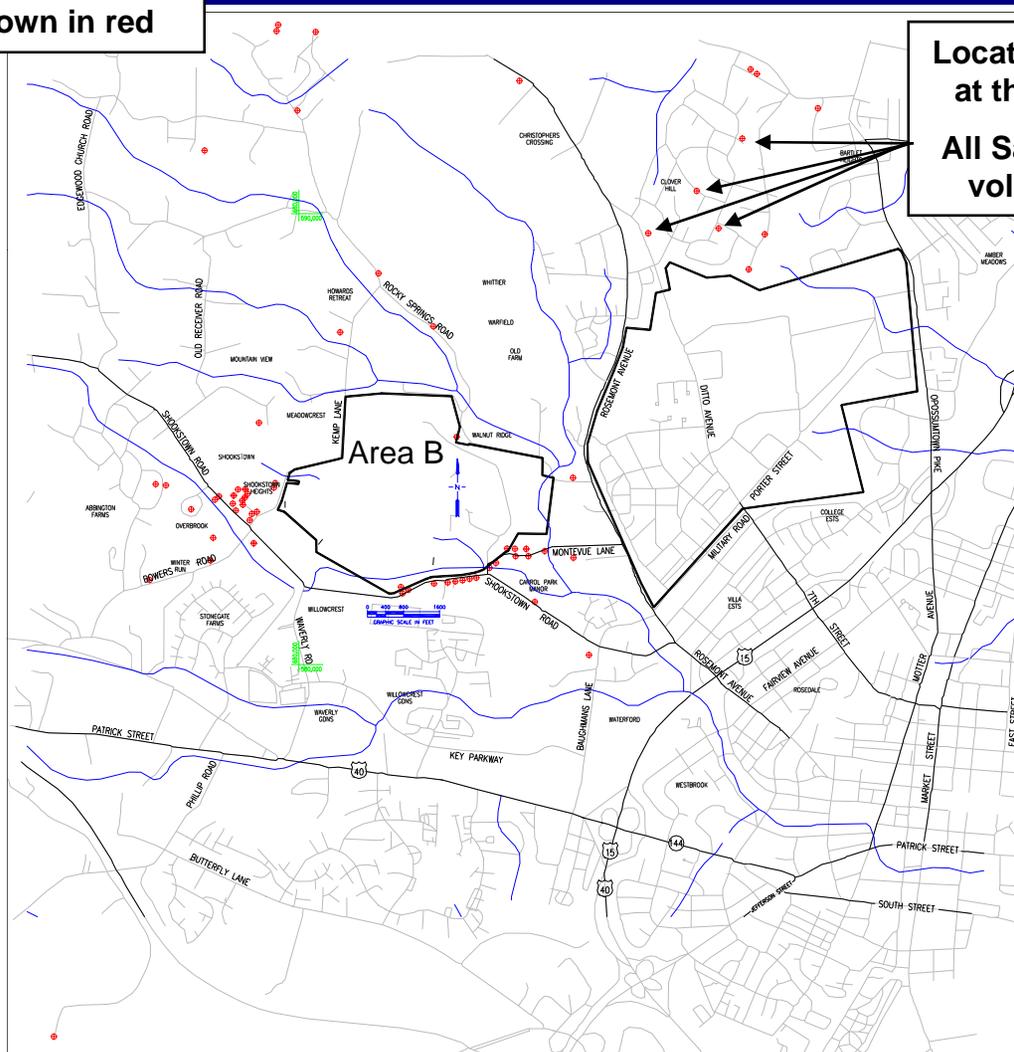




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Location of all Residences Sampled at Owner's Request

Approximate locations shown in red



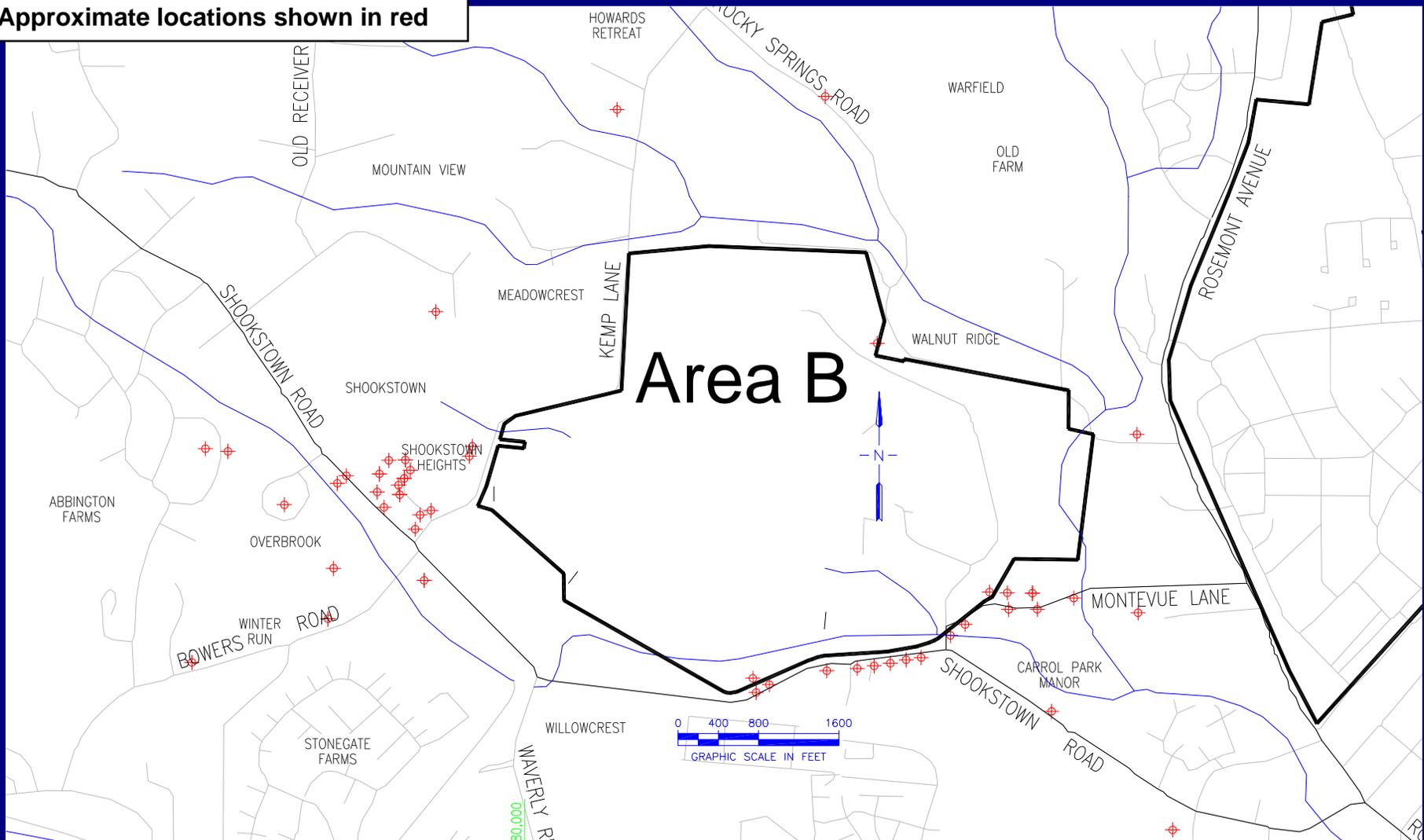
Locations of residences sampled
at their request in March 2001.
All Samples were non-detect for
volatile organic compounds.



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Location of all Residences Sampled (Close to Area B)

Approximate locations shown in red





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Area B Removal Action Update

PIT DELINEATION

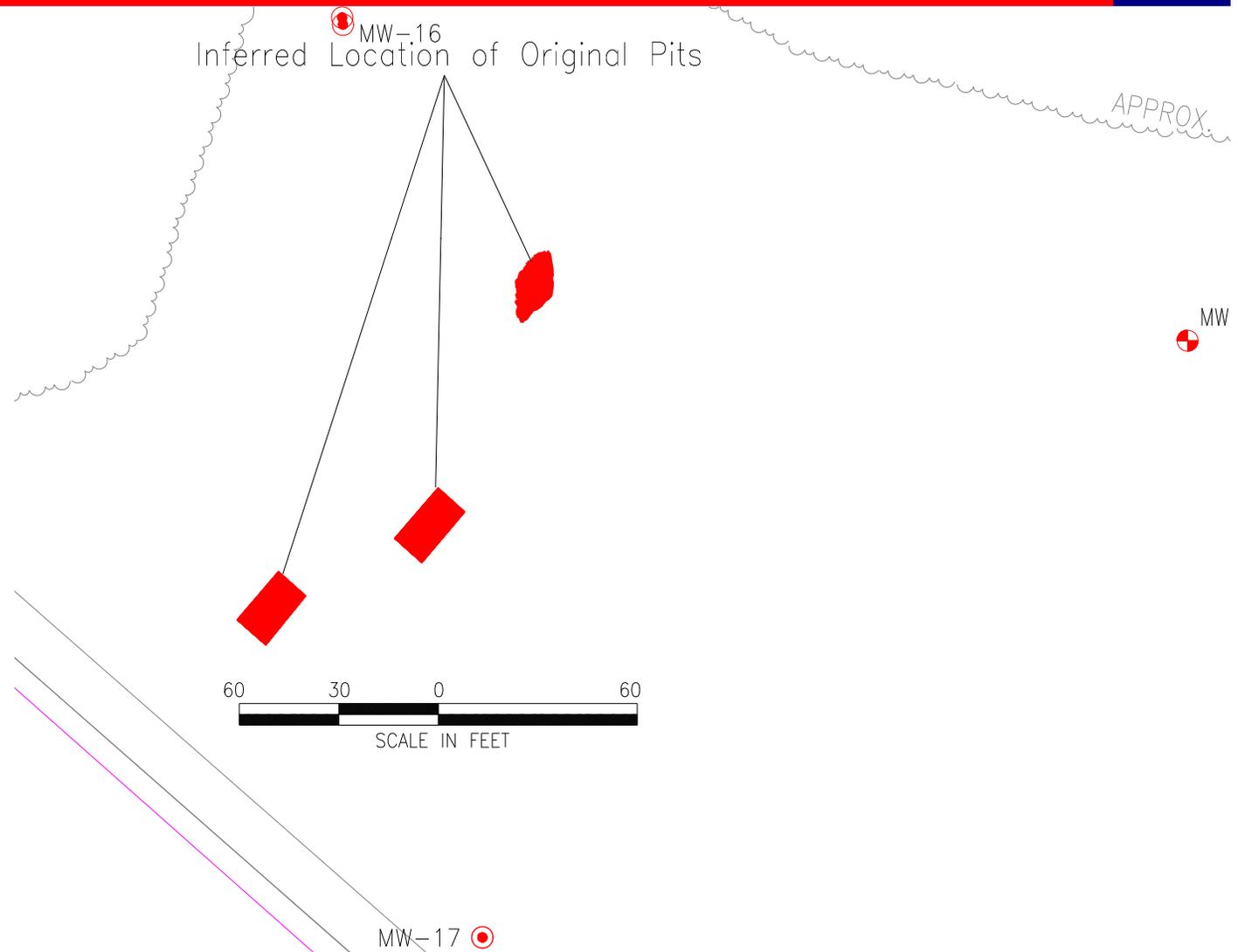
- **Pit delineation began on April 2, 2001**
- **Approx. 40 exploratory trenches have been completed to date**
- **Some material characterization activity has been conducted (discussed later in this presentation)**
- **Video/photos of pit delineation operation**



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Original Pit (Core Areas)

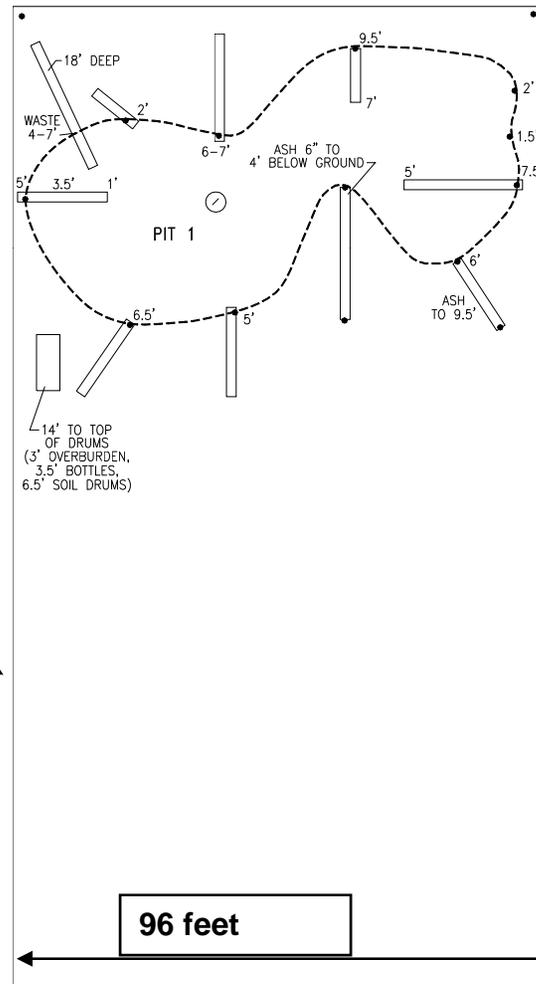
Original Pits were estimated to be approximately 20 feet long, 12 feet wide and 15 feet deep.





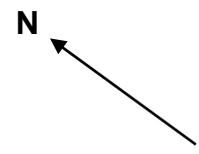
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PIT 1 New Area



Location of the pit to the west of the containment structure unknown. This area much wider and longer than expected

Perimeter of Tent



LEGEND



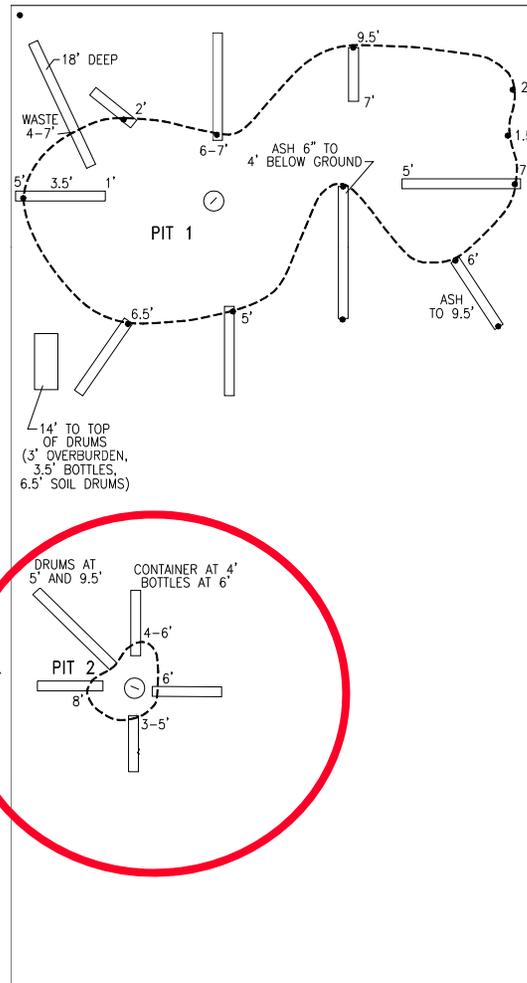
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PIT 2 New Area

Pit 2 location was investigated based upon a small metallic anomaly (was not part of the original decision document).

Pit 2 appears to be a small waste disposal area.

Perimeter of Tent



LEGEND

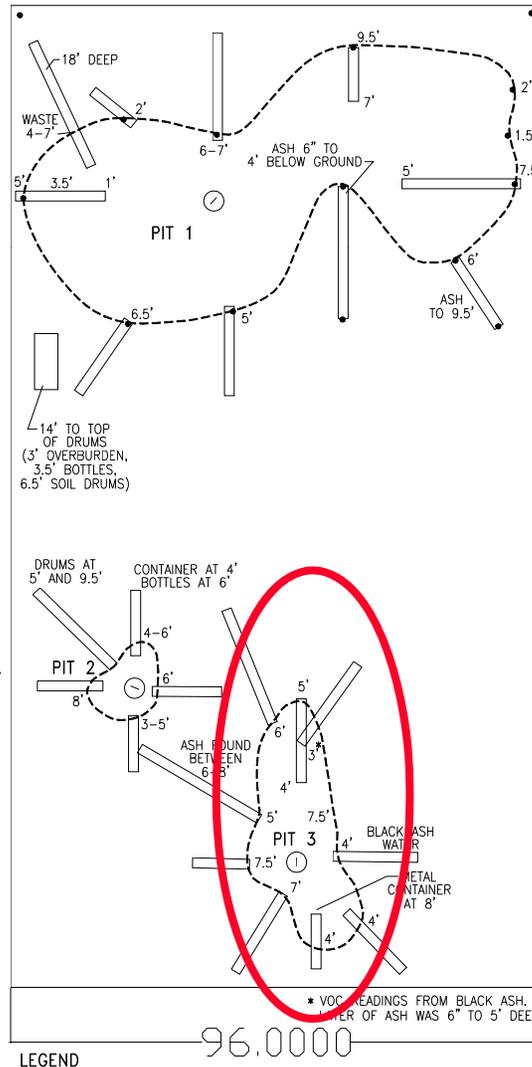


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PIT 3 New Area

Pit 3 Located in an area with
metallic and soil gas anomalies.
Pit is about twice as long as
originally thought.

Perimeter of Tent



PH1

N



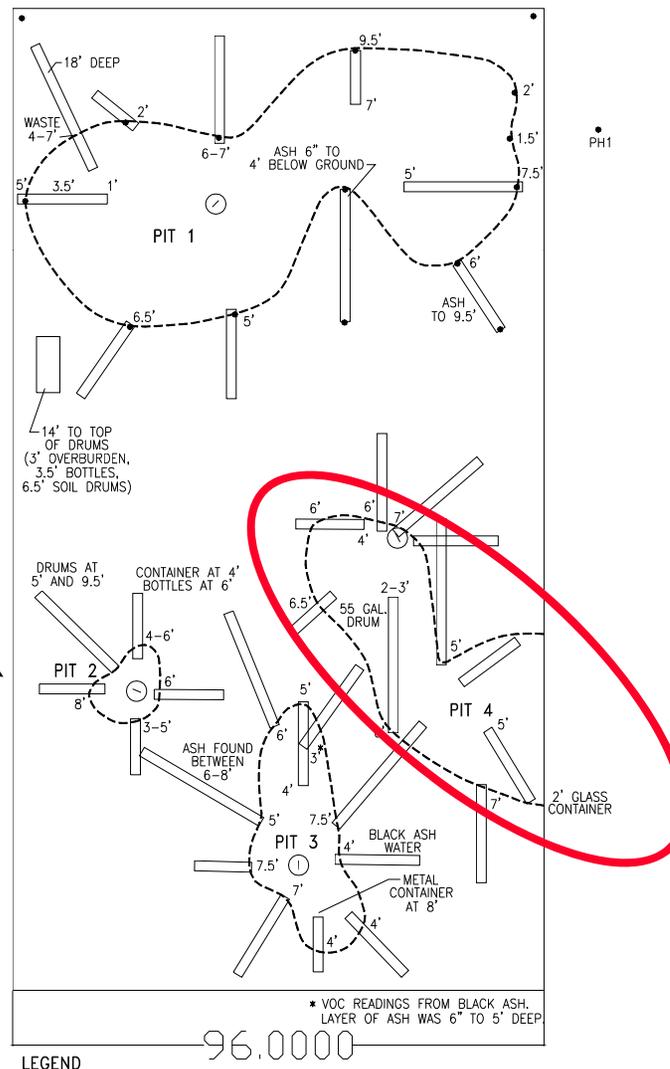
PIT 4 New Area

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Pit 4 is located in an area of soil gas and metallic anomalies and extends beyond the location of the current tent.

This location and anomaly will be investigated when the tent is split and repositioned

Perimeter of Tent





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Pit Delineation (Continued) and Schedule

MAJOR POINTS

- Waste materials in area may be dispersed in an area over seven times larger than originally planned.
- More pit delineation will be required to:
 - a) Find all waste that requires removal;
 - b) Finalize freeze wall design;
- Next phase of trenching consists of splitting the containment structure and moving the halves over Pit 1 and Pit 4 to continue delineation of the extent of wastes.

SCHEDULE

- Now to May 31 - Continue test trenching
- Beginning of June - Split containment structure, add new walls, delineate Pits 1 and 4
- Beginning of July - Begin freeze barrier installation
- Start waste removal operation - September 2001

BUDGET

- Army is evaluating cost due to increased waste. Funding requirements will not be finalized until engineering analysis has been completed.



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Materials Characterization/Site Monitoring

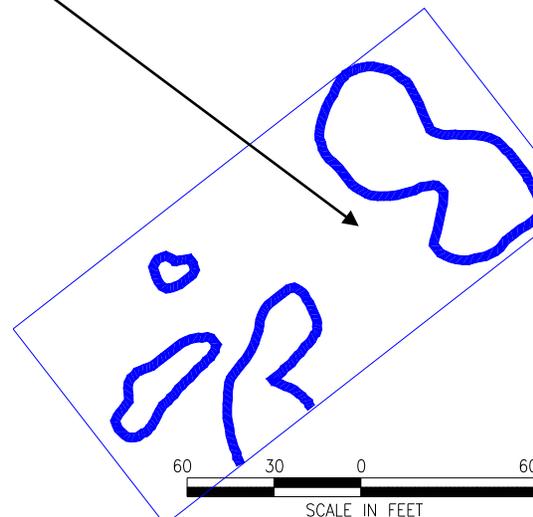
- Materials encountered during trenching generally consist of laboratory chemical bottles and drums , as expected.
 - Vapors have not been detected outside the containment structure and have been well controlled within the structure.
 - A chemical reaction occurred on April 24 that displaced about 18 inches of soil and was audible. This caused a stand-down in the operation of about one week. The chemical responsible was not identified ; however, a blast shield was added to the excavator for increased safety. No risk to the public was found.
- Large area of ash where red colored bags were observed in a portion of the area.

Approx. location of reaction

MW-16

Tent and Pit Location

Approx. Location of red bags. These were found at a depth of a couple of feet and were determined to be unassociated with the chemical waste disposal area.



60 30 0 60
SCALE IN FEET



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Materials Characterization/Site Monitoring

- Originally no biological sampling was to be performed.
- However, based on historical concerns that have been brought up for Area B, Fort Detrick decided to use this opportunity to sample and prove that biologicals from historical disposal activities are not a concern.
- The screening is being performed by an Army lab at Aberdeen Proving Ground that is independent of Fort Detrick as well as an additional private lab.
- The screening consists of testing for anthrax.
- To date 14 samples have been analyzed inside the excavation area and 16 throughout Area B.
- All samples have tested negative.