HSWA LANL G/M/N/97
TA-16

V-SITE/BUILDING 27
VCA

LANL/DOE Presentation to NMED
LANL Field Unit 3

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6033

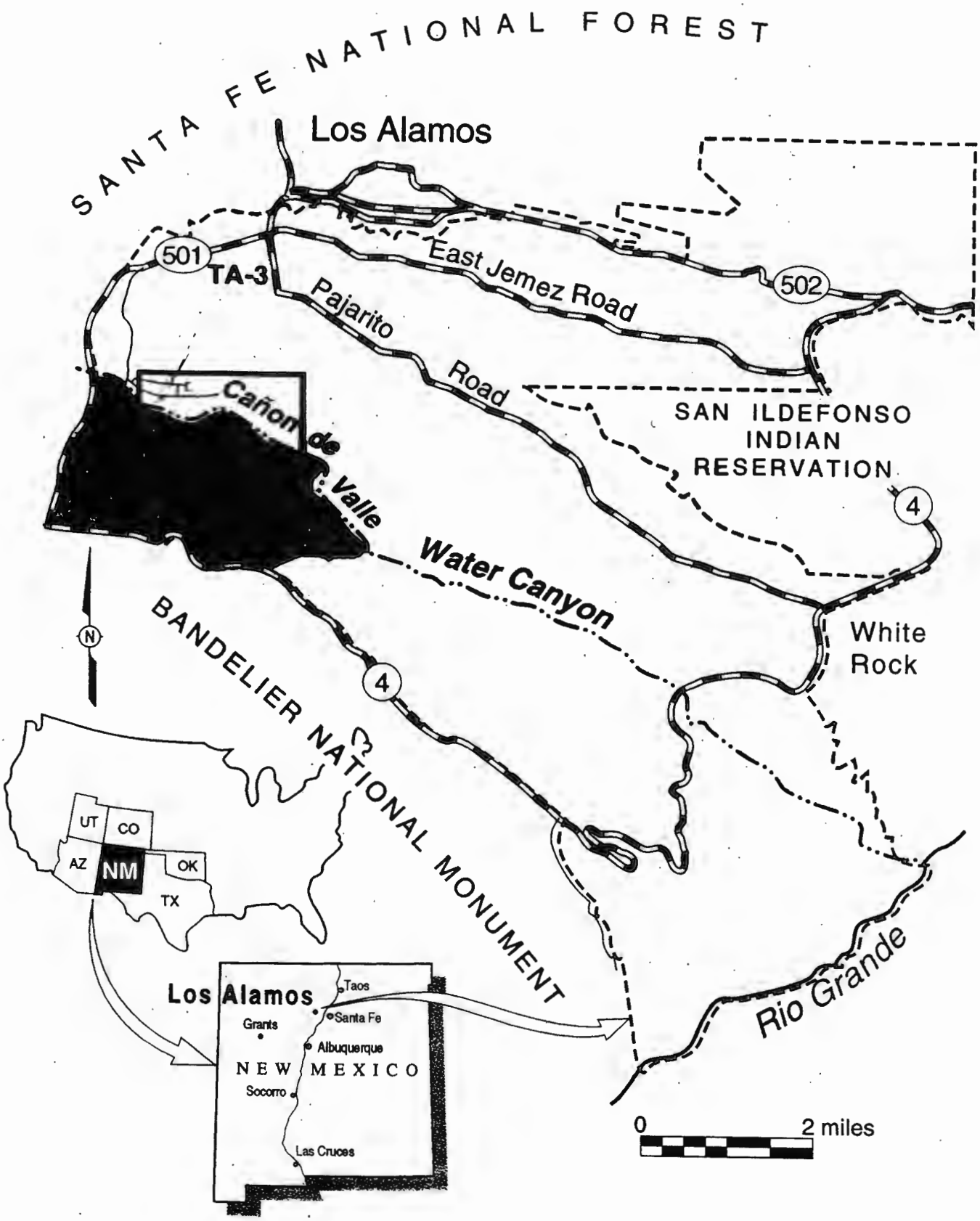
1/29/97
ER MTG

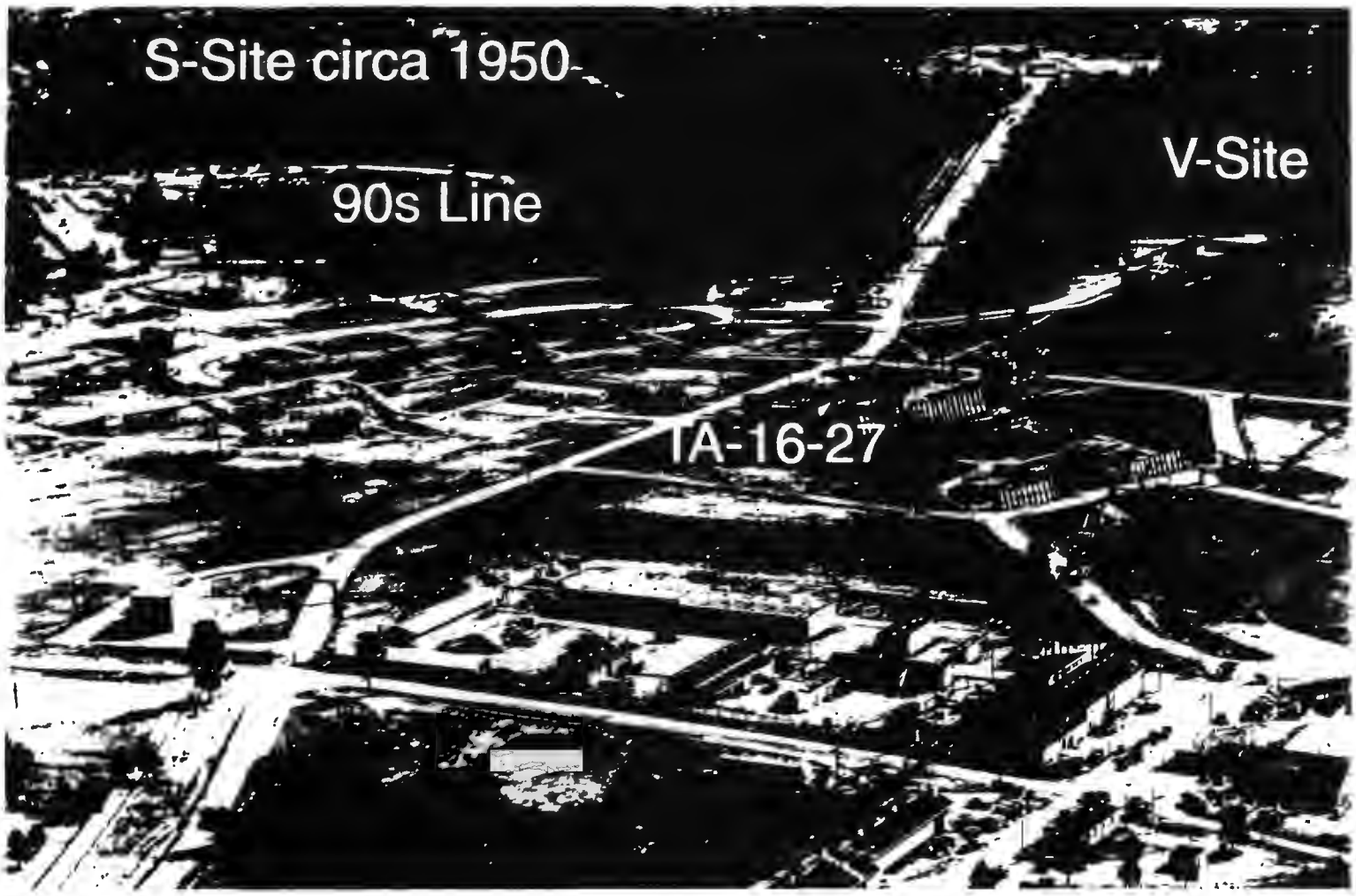
OVERVIEW

- Site Descriptions and History
- VCA Strategy and Schedule
- Field Screening and Sampling Strategy
- Building 27 SAP Prior to D&D Activity
- Rationale for Cleanup Levels
- Coordination with NMED

KEY AREAS OF FOCUS AND REGULATOR INPUT

- Cleanup Levels
- Bounding Strategy


SANTA FE NATIONAL FOREST
Los Alamos
501
TA-3
East Jemez Road
502
Pajarito
Road
Cañon de Valle
SAN ILDEFONSO
INDIAN
RESERVATION
4
Water Canyon
White
Rock
N
BANDELIER NATIONAL MONUMENT
4
UT
CO
AZ
NM
OK
TX
Los Alamos
Taos
Santa Fe
Grants
Albuquerque
NEW MEXICO
Socorro
Las Cruces
Rio Grande
0
2 miles


S-Site circa 1950
V-Site
90s Line
TA-16-27

SITE HISTORIES

- V-SITE
  - Primary operations were HE casting and assembly.
  - Operated from roughly 1944 to 1960.

- Building 27
  - Primary operation was HE casting.
  - Operated from 1945 to 1954.

V-Site sump drainage ~ 1968

VCA STRATEGY AND SCHEDULE

- Coordination with, and benefit from, D&D activities at these PRSs. Apply an accelerated approach to cleanup with stopping rules.

- D&D Specifications are complete. D&D contractor selection expected within the February/March 97 timeframe.

- VCA Plan complete by end of February 97.

- Field work complete by end of July 97. VCA Report scheduled for completion by end of September 97. Current Baseline costs are projected at $954K.

FIELD SCREENING AND SAMPLING STRATEGY

- 16 PRSs at these Sites Including:

  - septic systems
  - sumps
  - drainlines
  - storage areas
  - pond
  - cooling towers
  - building footprints

- SRS scores ranged from 28 - 47.

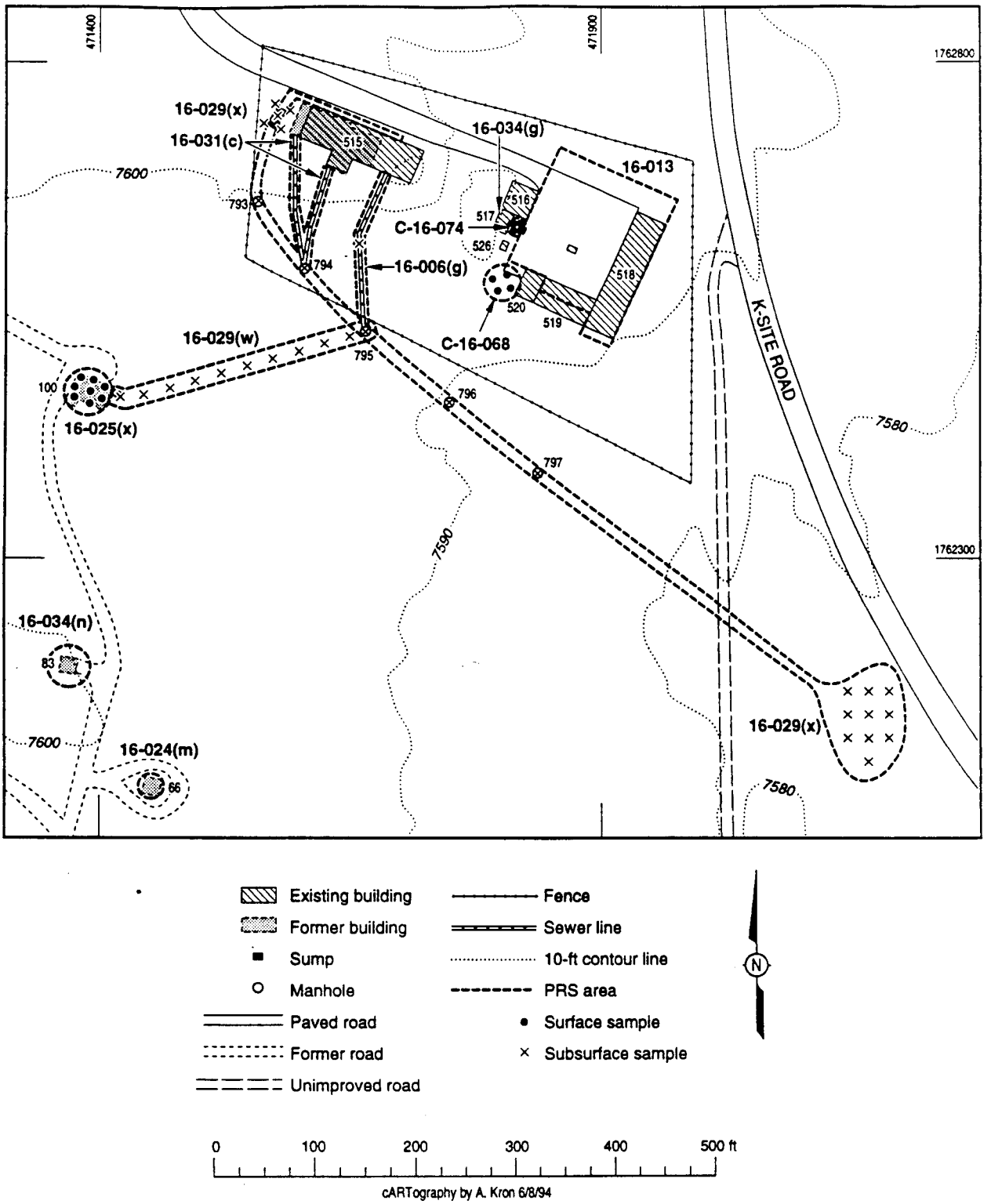


Fig. 5-95. Sampling locations at V-Site.

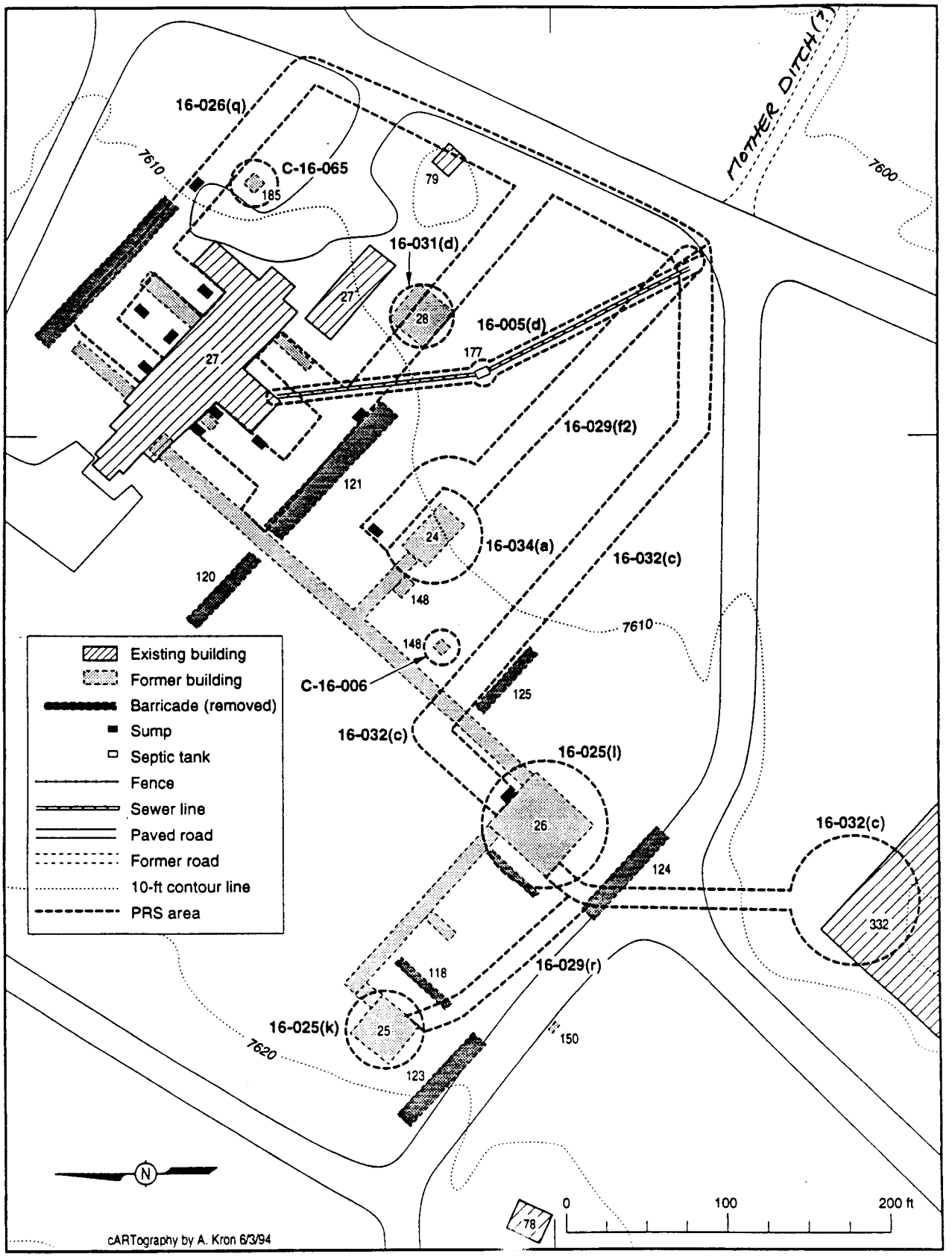


Fig. 5-59. Locations of PRSs at GMX-3 central.

FIELD SCREENING AND SAMPLING STRATEGY (Continued)

- No sampling has been performed at these PRSs.

- In general, characterization will be performed in 2 stages:

<u>Stage 1</u>:

1. Field screening immediately following removal of structures by D&D. Field screening methods are available for COPCs: Spot Test and DETECH for HE; and LIBS or XRF for metals.

2. Removal of contaminated soil as necessary by ER Contractor.

FIELD SCREENING AND SAMPLING STRATEGY (Continued)

Stage 1 (continued):

3. Contaminated soil is removed to a level of 50% of the cleanup level based on field screening results.

4. Contaminated soil segregated by waste types.

5. Approved Work Plan sampling for those PRSs not disturbed by D&D activity (includes bounding sampling).

- Note: strong stopping rules are in place to account for 'unexpected' results throughout Stage 1 and Stage 2 sampling.

FIELD SCREENING AND SAMPLING STRATEGY (Continued)

Stage 2:

1. Verification sampling for off-site laboratory analysis to confirm that cleanup levels were achieved (includes bounding sampling.

2. Waste characterization sampling.

- Exception is sampling and analysis plan for Building 27.

BUILDING 27 SAP PRIOR TO D&D ACTIVITY

- Basement foundations need to be removed at this Building.

- This dictates that investigations of sumps and drainlines associated with the building be complete prior to removal of structures.

- This investigation is the first activity scheduled by the FU-3 Field Team. Investigation includes:
  - Trenching with a backhoe for the collection of samples.

- Coordination with D&D and ER Contractors required.

RATIONALE FOR CLEANUP LEVELS

- Conceptual model for site considered:
  - Industrial land use.
  - Shallow contamination with no contact with groundwater.
  - No hydrologic head at most sites.
  - No surface water/drainage concerns.

- Cleanup levels derived from USEPA Region 9 PRGs for Industrial Soil.

  - These PRGs are based on a target cancer risk of 1×10^{-6} for carcinogens, and a hazard quotient 1 for non-carcinogens.

RATIONALE FOR CLEANUP LEVELS (Continued)

- Important Considerations:
  - Cleanup levels for carcinogens are equal to the Region 9 PRG for industrial soil.
  - Cleanup levels for non-carcinogens are equal to <u>one-tenth</u> the Region 9 PRG for industrial soil to account for multiple constituents.
  - Following Risk Assessment Guidance for Superfund (RAGS), the 95% UCL of the mean for verification samples within an exposure unit will be used to compare to cleanup levels.

RATIONALE FOR CLEANUP LEVELS (Continued)

- Eco-risk and surface water runoff concerns are accounted for because:

  - Effective cleanup is approaching one-half the cleanup level.
  - Site will be backfilled and restored, therefore any residual contamination will be at depth.
  - No impacts to water systems with subsequent biomagnification and accumulation potential.

- This conservative approach has been applied to avoid protracted negotiations on cleanup levels in order to take advantage of the D&D schedule.

COORDINATION WITH NMED

- VCA Plan Review (AIP, HRMB?)
- Participation in Field Work Activity (AIP)
- Participation in Team Meetings (AIP)
- NFA Report Review (AIP, HRMB?)