



32212-000

23.11.00.0020

8587-0037

April 14, 1994

Mr. Joel Murphy  
Code 1853  
SOUTHNAVFACENGCOM  
2155 Eagle Drive  
P.O. Box 190010  
North Charleston, South Carolina 29419-9010

**Subject: Volumetric Soil Estimate  
Building 101 - Plating Shop  
NAS, Jacksonville**

RECEIVED  
AUG 4 1994  
C. PERRY

Dear Joel:

It is ABB-ES's position that it is not practical at this time to directly correlate the analytical results to State and Federal regulatory clean-up levels. Accordingly, the following volumetric calculations were made based upon a generalized release scenario. Following this scenario, it is conjectured that contaminants once released from the tanks and into the surrounding trenches, leached to the underlying soil through the concrete at the bottom of the trenches. We should point out that the calculated volume of the soil, which could be considered contaminated, is not intended to be a guideline for site remediation, but rather should be viewed as an estimating tool for SOUTHNAVFACENGCOM to establish a relative volumetric value for the site. Until such time as a supplementary investigation can be conducted of the piping associated with the Northeast Chrome Room, followed by a full site specific risk assessment, ABB-ES will be unable to develop a more accurate volumetric measurement for contaminated soil removal.

The surface area used to calculate the volume is shown on Attachment A. This area incorporated all sampling locations, as well as all piping known to exist at this time. The depth of the excavation would be limited to the vadose zone, and for the purpose of this calculation, the average depth of excavation is estimated to be approximately 3 feet below land surface.

All calculations have been rounded to the nearest 10th, although the final result could be one order of magnitude above or below the actual volume found subsequent to the supplementary investigation and site specific risk assessment.

The total estimated volume of contaminated soil, based upon the above described scenario (see attachments) is 2,000 yd<sup>3</sup>.

Should you have any questions pertaining to the above, please call.

Sincerely,  
ABB ENVIRONMENTAL SERVICES, INC.

Peter Redern  
Sr. Project Manager

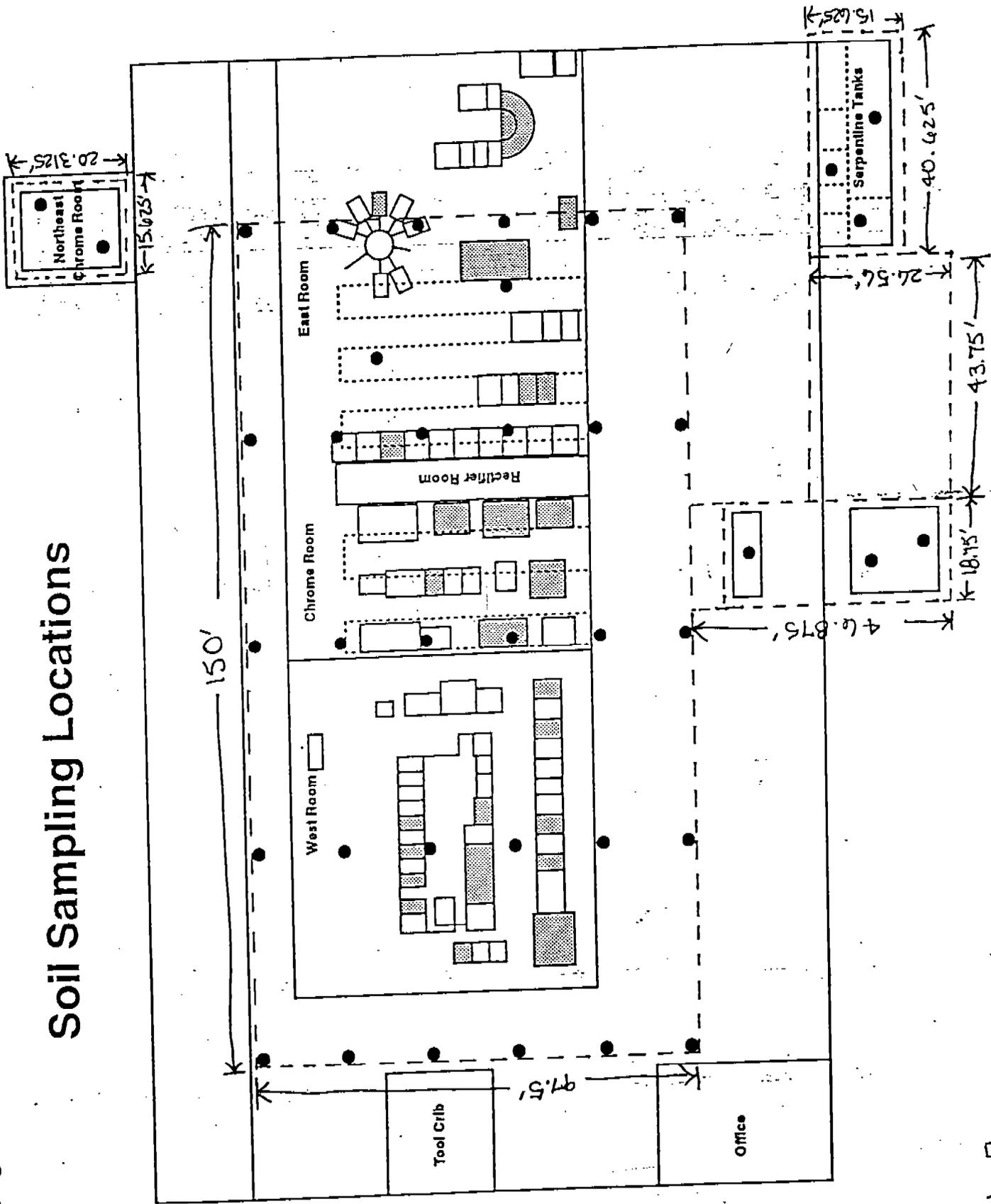
attachments

cc. B. Raspet  
D. Lancaster

ABB Environmental Services, Inc.

Approximate area of contamination  
based on information to date

# Soil Sampling Locations



## Attachment B

PROJECT Building 101  Estimated Volume for Removal of Soil	COMP. BY MCL	JOB NO. 07577-01
	CHK. BY JMB	DATE 4/11/94

Volume under plating shop:

$$97.5' \times 150' \times 3' = 43,875 \text{ ft}^3$$

$$\approx 1,630 \text{ yd}^3$$

Volume from staging area sump to valve assembly:

$$46.875' \times 18.75' \times 3' = 2,636.72 \text{ ft}^3$$

$$\approx 100 \text{ yd}^3$$

Volume from valve assembly to serpentine tanks:

$$43.75' \times 24.56' \times 3' = 3,486 \text{ ft}^3$$

$$\approx 130 \text{ yd}^3$$

Volume from serpentine tanks:

$$40.625' \times 15.625' \times 3' = 1,904 \text{ ft}^3$$

$$\approx 70 \text{ yd}^3$$

Volume from Northeast Chrome Room:

$$20.3125' \times 15.625' \times 3' = 952.15 \text{ ft}^3$$

$$\approx 40 \text{ yd}^3$$

Total volume estimated using a  
release scenario:

$$\approx 2000 \text{ yd}^3$$