



# THE MEMPHIS DEPOT TENNESSEE

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## ADMINISTRATIVE RECORD COVER SHEET

AR File Number 683

# Memphis Depot



## Dunn Field Remedial Investigation Overview

Presented to  
**Memphis Depot Restoration Advisory Board**

Steve Offner, PG, Project Manager, CH2M HILL

November 15, 2001



## Presentation Overview



- The Remedial Investigation (RI) Process
- Environmental History of Dunn Field
- Dunn Field RI Sampling
- Sampling Locations
- Dunn Field Risk Assessment
- Next Steps on Dunn Field

## The Remedial Investigation (RI)

- A regulatory process required by law
  - *Comprehensive Emergency and Response Compensation and Liability Act (CERCLA)*
- Determines the nature and extent of environmental impact caused by past operations
- Identifies potential risk to human health and the environment
- A scientific basis for future cleanup decisions
- Reviewed by State and Federal regulators
  - U.S. Environmental Protection Agency (EPA)
  - TN Department of Environment & Conservation (TDEC)

## DUNN FIELD Environmental History

**1980s** – Preliminary assessments of environmental conditions at Dunn Field  
 – installed groundwater monitoring wells

**1992** – Completed an initial RI Report & installed additional wells

**1996** – Interim Record of Decision (ROD) for groundwater extraction system

## **DUNN FIELD Environmental History**



**1995 to 2000 - Collected and analyzed soil, sediment and groundwater samples**

**1998 – Groundwater extraction system**

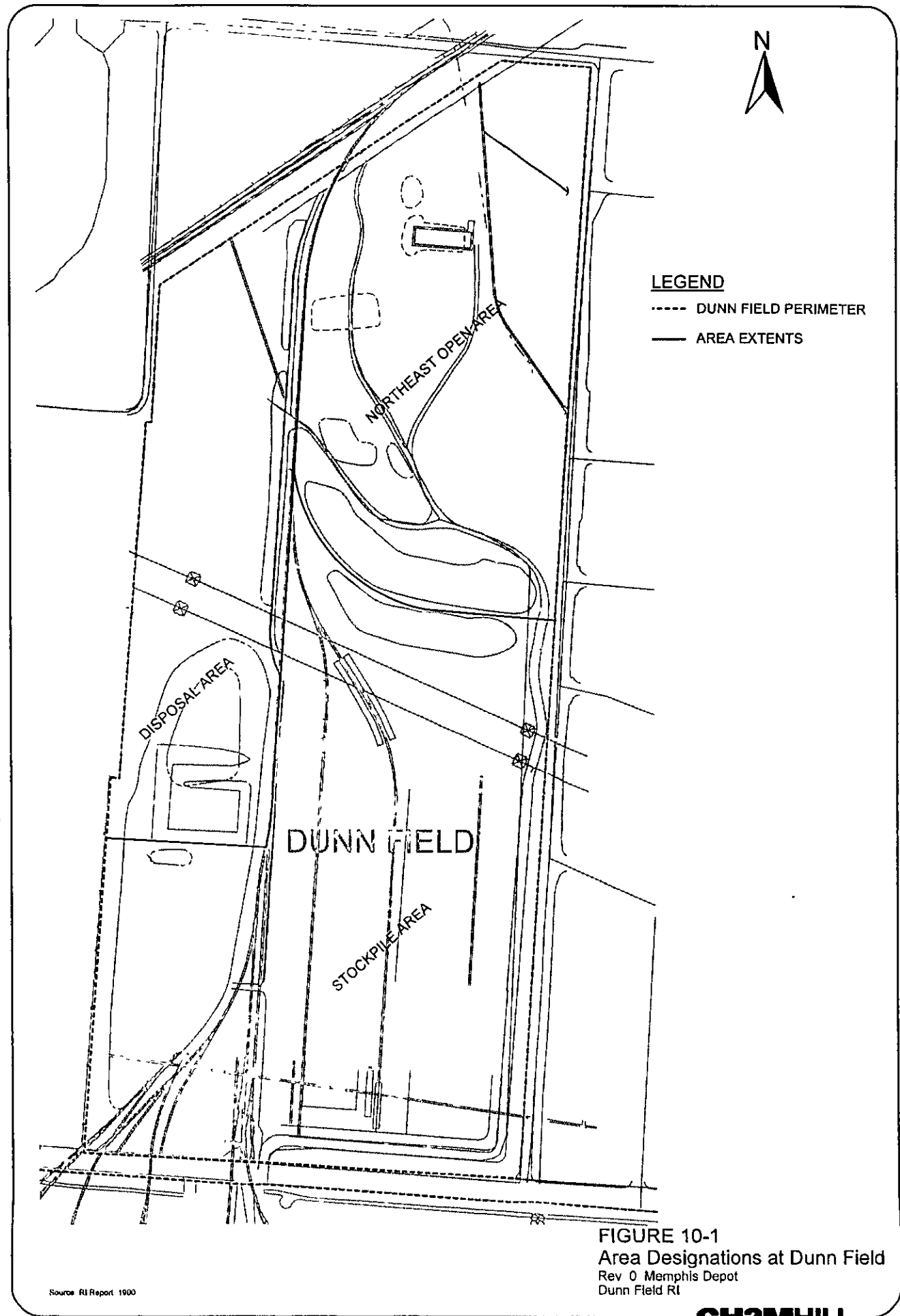
*- To date, approx. 101 million gallons of groundwater diverted from shallow aquifer to municipal sewer system for treatment*

**2000 to 2001 – Completed Chemical Warfare Materiel (CWM) removal action**

## **Dunn Field RI Sampling**

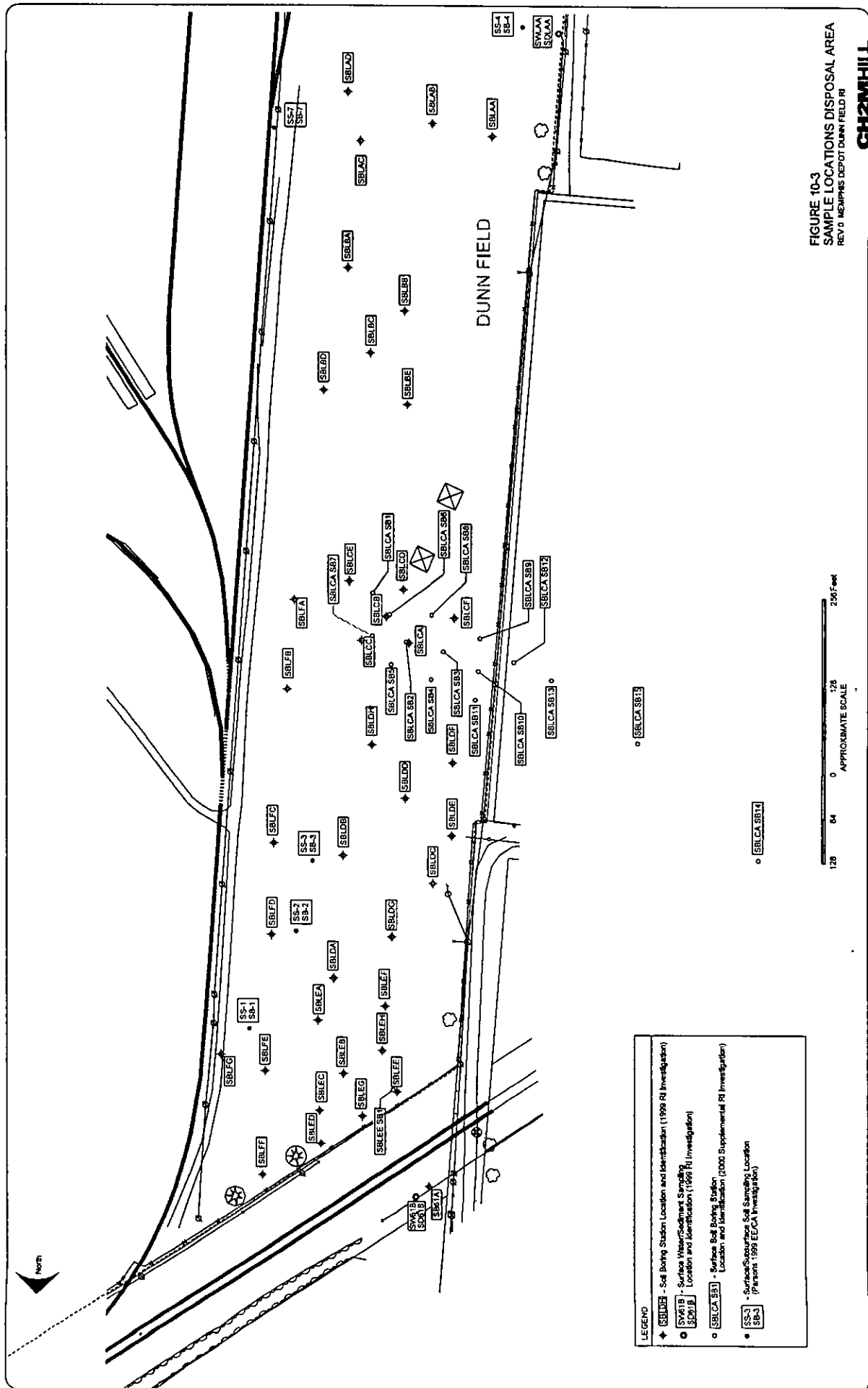


- **Soil gas, surface soil, sub-surface soil, sediment and groundwater samples**
- **More than 2,000 samples tested for over 300 compounds, including:**
  - Volatile Organic Compounds (VOCs), Semi-volatile Organic Compounds (SVOCs), pesticides, herbicides, PCBs and metals
  - More than 520 locations tested for presence of soil gas (to identify disposal locations)
  - Analyses performed by EPA-approved laboratory



ATL/CAD1/PROJECTS/148071 DDMT/DunnField RI 2001/8071DFR01-1-3.dgn

Source: RI Report 1990



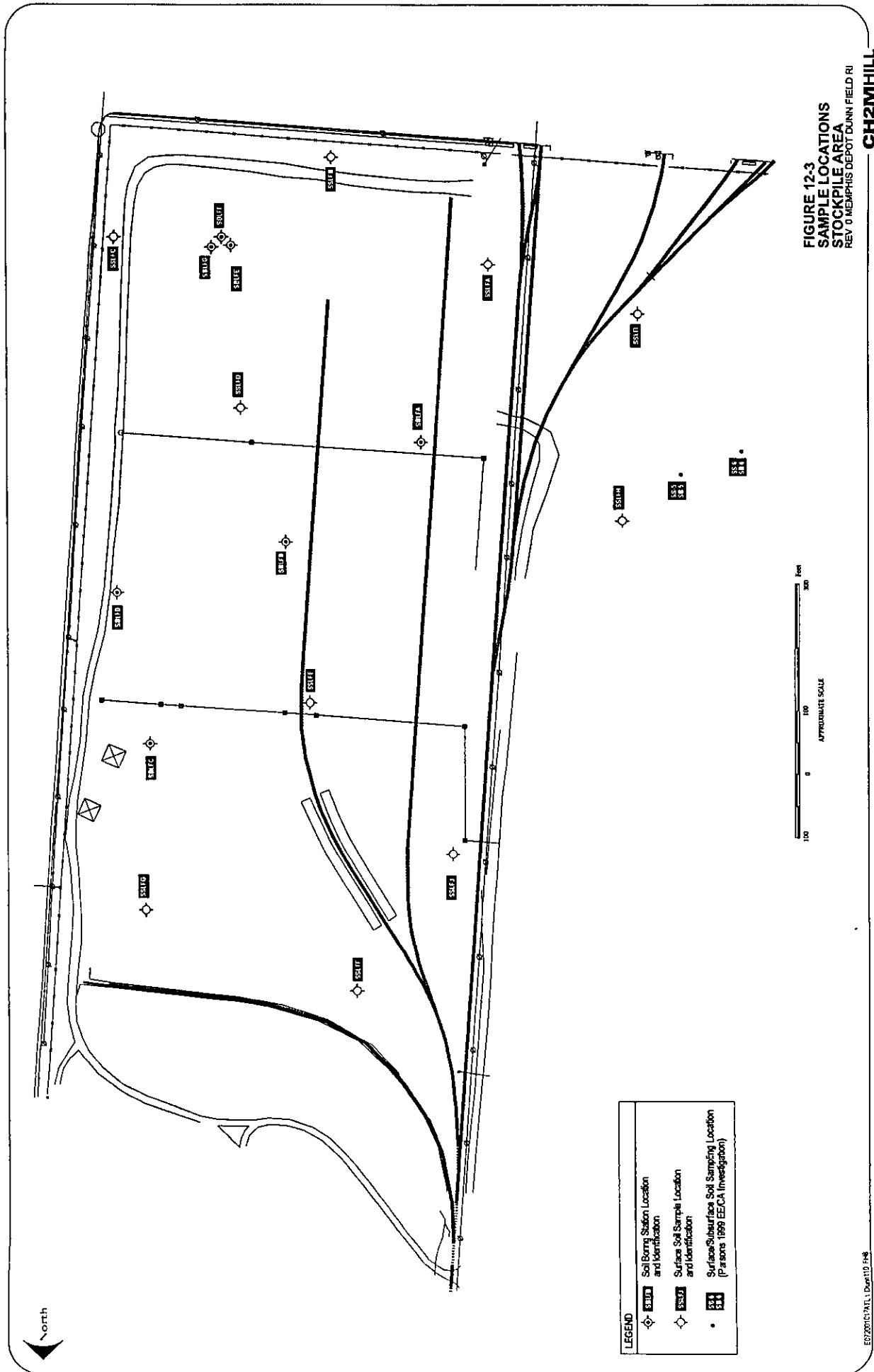
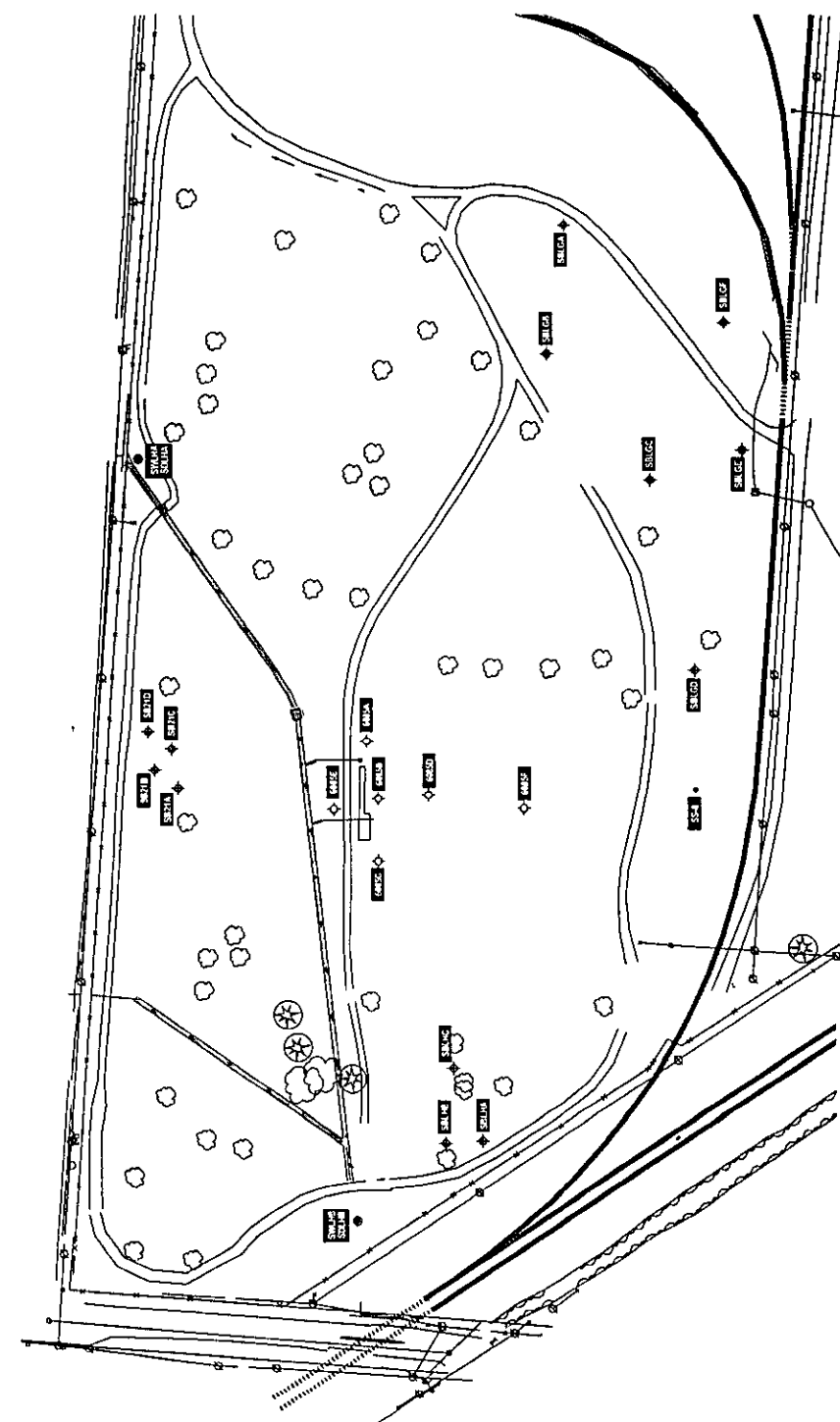


FIGURE 12-3  
SAMPLE LOCATIONS  
STOCKPILE AREA  
REV 0 MEMPHIS DEPOT DOWN FIELD RU

CH2MHILL



LEGEND	
◆ SN100	Soil Boring Station Location and Identification
◇ SN101	Surface Soil Sample Location and Identification
⊙ SN102	Surface Water/Sediment Sampling Location and Identification
• SN103	Surface/Subsurface Soil Sampling Location Parsons 1998 EPCIA Investigation

**FIGURE 8-3**  
**SAMPLE LOCATIONS**  
**NORTHEAST OPEN AREA**  
 REV 0 MEMPHIS DEPOT DUNN FIELD RI  
**CH2MHILL**

175 0 125 250 Feet  
 APPROXIMATE SCALE



## Risk Assessment



- **Dunn Field divided into 4 study areas based on past land-uses:**
  - Northeast Open Area (20 Acres)
  - Disposal Area (14 Acres)
  - Stockpile Area (30 Acres)
  - Groundwater (on and off Dunn Field)
    - *Not used for drinking water*
- **Determines potential health risk associated with future land-use options:**
  - Assessed industrial, recreational and residential scenarios
- **Evaluates potential risk associated with solvent vapors**
  - What is the relative risk of vapors moving through soil into air and residential property?

## Next Steps on Dunn Field



### Nov. 2001 to Jan. 2002

- **Complete DRAFT Dunn Field RI Report**
  - start 60-day review by EPA & TDEC (Rev. 0)
- **Complete Soil Vapor Extraction (SVE) pilot test**
  - part of the Dunn Field Feasibility Study

## **Next Steps at Dunn Field**



### **Feb. 2002**

- Complete DRAFT Dunn Field RI Report (Rev. 1)
- Present findings of the RI data collection at the Feb. 2002 RAB Meeting

### **March 2002**

- Present findings of the RI Risk Assessment at the March 2002 RAB Meeting

## **Next Steps at Dunn Field**



### **Spring 2002**

- Complete Dunn Field Feasibility Study (FS)
  - Rev. 1 for review by EPA, TDEC and RAB
- Copies of Dunn Field RI Report and FS placed in Depot's Information Repositories

### **Summer 2002**

- Final Proposed Plan for Dunn Field
  - Public Comment Period

## **Next Steps at Dunn Field**



### **Fall 2002**

- **Final Dunn Field Record of Decision expected to be signed by TDEC & EPA**
- **Remedial Design phase begins**

**Projected dates in this presentation are based on current information available and may be subject to change.**

## **Memphis Depot**



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**ADMINISTRATIVE RECORD**

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