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SiteStats/GridStats
TRAINING WORKBOOK
(Session 2)

For U.S. Army Engineer Division
Huntsville, Alabama

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*Risk
Analysis*

•
*Systems
Science*

•
*Decision
Theory*

•
*Economic
Modeling*

HOW TO USE THIS MANUAL

This workbook incorporates the following notations and conventions:

This style or symbol:	Refers to this:
INPUT	Anything you type, exactly as it appears.
<i>bold italics</i>	Names of menus, menu commands, dialog boxes, and windows that appear on the screen
[Tab]	Keys you depress or buttons that you select
	A step in a procedure
Procedure	Step-by-step directions for carrying out a particular task. Use the Procedure for later reference
Exercise	Examples of how a procedure works. This is your guide during hands-on exercises.
	Indicates optional information and provides more complete understanding of a particular, procedure, command, or feature.
	Give you a tip or hint that can be used to make a command or procedure more efficient (i.e., shortcuts).

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1.0 Getting Started

- Installing GridStats (Stand-Alone)**
- Installing SiteStats**
- Starting GridStats (Stand-Alone) or SiteStats**
- The Display Screens**
- Using Menus**
- Using Dialog Boxes**
- Exiting**

1.0 GETTING STARTED

The information provided in this training manual relates to SiteStats and GridStats (Stand-Alone). The SiteStats code provides two major functions: (1) sector characterization and (2) remediation planning. The SiteStats sector characterization module provides the capability to determine homogeneous areas of UXO contamination (so that remediation efforts may be more directed). Included in this capability is also the method to determine the number of contacts within a grid that must be investigated to estimate the number of UXO items within a grid with a given level of confidence. This grid-level tool, referred to as GridStats, exists as a stand-alone tool in addition to the capability embedded within SiteStats sector characterization. The SiteStats Remediation Planning Tool module provides the capability for site PMs to trade-off various approaches to a site's remediation based on clearance depth, probability of exposure to UXO, or remediation costs.

The user training will be presented in separate modules:

- stand-alone GridStats,
- SiteStats sector characterization, and
- SiteStats remediation planning.

1.1 Installing GridStats (Stand-Alone)

GridStats (Stand-Alone) is provided on a single 3.5" floppy disk and should be installed on your hard drive.

Procedure **Installing GridStats** **(Stand-Alone)**

- ☛ Change to the directory that contains the *Windows* program.
- ☛ Type **WIN**.
- ☛ Insert GridStats floppy disk into appropriate drive.

-  From the *Program Manager*, choose *Run* from the *File* menu.
-  Type **b:\SETUP**.
-  Follow instructions on the screen.

 Substitute the appropriate drive designator for your computer in Step 5 of the Procedure.

1.2 Installing SiteStats

SiteStats is provided on two 3.5" or two 5.25" floppy disks and should be installed on your hard drive.

Procedure **Installing SiteStats**

-  Change to the directory that contains the *Windows* program.
-  Type **WIN**.
-  Insert SiteStats floppy disk into appropriate drive.
-  From the *Program Manager*, choose *Run* from the *File* menu.
-  Type **b:\SETUP**.
-  Follow instructions on the screen.

 Substitute the appropriate drive designator for your computer in Step 5 of the Procedure.

1.3 Starting GridStats (Stand-Alone) or SiteStats

You can only run GridStats (Stand-Alone) or SiteStats within the Windows working environment. When you start GridStats (Stand-Alone) or SiteStats, the main menu screen will be displayed.

Procedure **Starting GridStats** **(Stand-Alone)**

- Change to the directory that contains the *Windows* program.
- Type **WIN**.
- To open the SiteStats folder:
 - Move the mouse so that the pointer rests on the SiteStats folder icon.
 - Double-click the mouse.
- To start SiteStats:
 - Move the mouse so that the pointer rests on the SiteStats icon.
 - Double-click the mouse.

Procedure **Starting SiteStats**

- Change to the directory that contains the *Windows* program.
- Type **WIN**.
- To open the SiteStats folder:
 - Move the mouse so that the pointer rests on the SiteStats folder icon.
 - Double-click the mouse.

- ☛ To start SiteStats:
- Move the mouse so that the pointer rests on the SiteStats icon.
 - Double-click the mouse.

Exercise 1-1: Starting GridStats

1. Change to the directory that contains *Windows*.
2. Type **WIN**.
3. Open the GridStats folder by double-clicking the mouse on the GridStats folder icon.
4. Move the mouse so that the pointer rests on the GridStats program icon.
5. Double-click the mouse.
6. Open the *File* menu.
7. Select *Exit*.
8. Click [OK].

1.4 The Display Screens

When you start GridStats (Stand-Alone) or SiteStats you are automatically in the main menu screen. The graphic in Figure 1.4-1 illustrates the GridStats (Stand-Alone) display screen while the graphic in Figure 1.4-2 illustrates the SiteStats display screen.

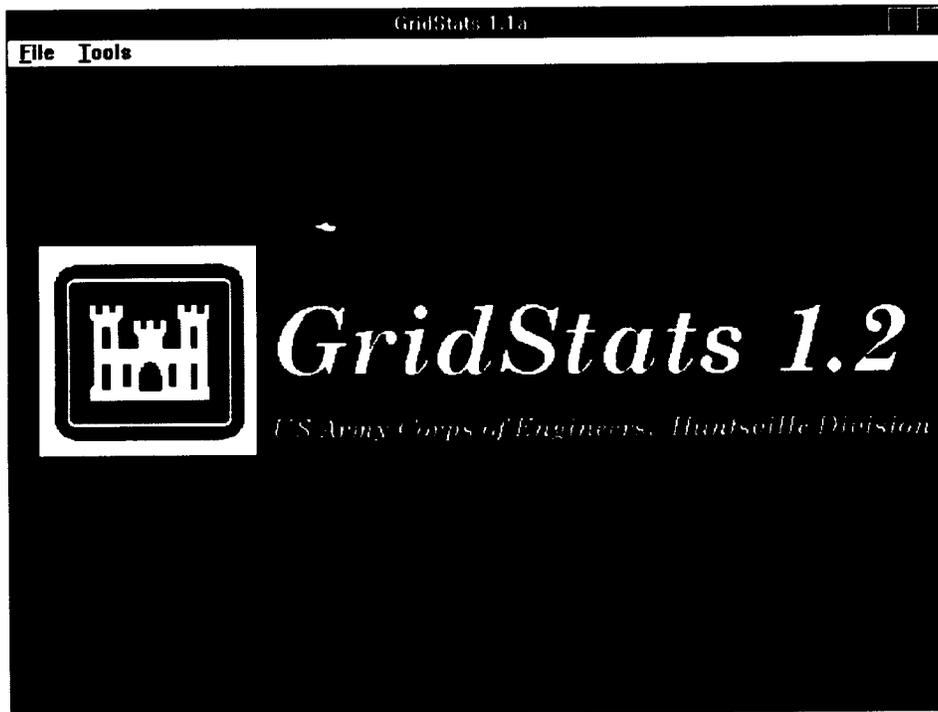


Figure 1.4-1. GridStats (Stand-Alone) Display Screen



Figure 1.4-2. SiteStats Display Screen

1.5 Using Menus

The menu bar is displayed across the top of the screen. The menus contain the commands necessary for using many features. The graphic in Figure 1.5-1 describes the GridStats (Stand-Alone) menu choices. The graphic in Figure 1.5-2 describes the SiteStats menu choices.

<i>File</i>	contains choices that are used to affect an entire sector such as <i>New Grid Evaluation, Open, Save, Print.</i>
<i>Tools</i>	contains choices for manipulating the grid sampling. Options include <i>Edit Sample, Continue Sampling, View Results.</i>

Figure 1.5-1. GridStats (Stand-Alone) Menu Choices

<i>File</i>	contains choices that are used to affect an entire sector such as <i>New Evaluation, Open, Save.</i>
<i>Window</i>	contains choices for manipulating the active window(s). Options include <i>Display Sector, Results.</i>
<i>Help</i>	provides information about SiteStats.

Figure 1.5-2. SiteStats Menu Choices

Procedure **Using Menus**

	Using the mouse: <ul style="list-style-type: none"> • Point to a specific menu and click to open it. • Click the desired selection in the open pull-down menu.
	Using the keyboard:

- Press the [Alt] key to select the menu bar.
- Press the character key underlined in the menu bar to open that menu.
- Press the character key underlined in the pull-down menu of the desired menu option.

 You can bypass the menu in many instances by using a combination of key strokes noted next to many menu commands.

If a command is not available at a given time, the menu selection will be gray.

 You can use the   arrow keys followed by [Enter] to select a command from a pull-down menu.

Exercise 1-2: Using Menus

1. Open the SiteStats folder by double-clicking the mouse on the SiteStats folder icon.
2. Move the mouse so that the pointer rests on the SiteStats program icon.
3. Double-click the mouse.
4. Open the *File* menu.
5. Select *Open*.
6. Click [Cancel].
7. Press [Alt] - [F] to open the *File* menu.
8. Press [O] to select the *Open* command.
9. Press [Esc] to exit.

1.6 Using Dialog Boxes

When GridStats (Stand-Alone) or SiteStats require information to be provided by users, a dialog box is displayed. Dialog boxes may contain areas in which you enter text or change settings. A dialog box may also display information or request confirmation. The components of a dialog box are defined in Table 1.6-1. An example dialog box is provided in the graphic in Figure 1.6-1.

Table 1.6-1. Dialog Box Components

List box	Area that contains a list of choices, i.e., files, fonts.
Pull-down list box	Box with an arrow that can be clicked to display additional selections.
Text box	Box in which you can type information.
Option button	Round button used to select an option.
Check box	Square box used to turn on and off options.
Command button	Large rectangular button with rounded corners. Performs the specified action.

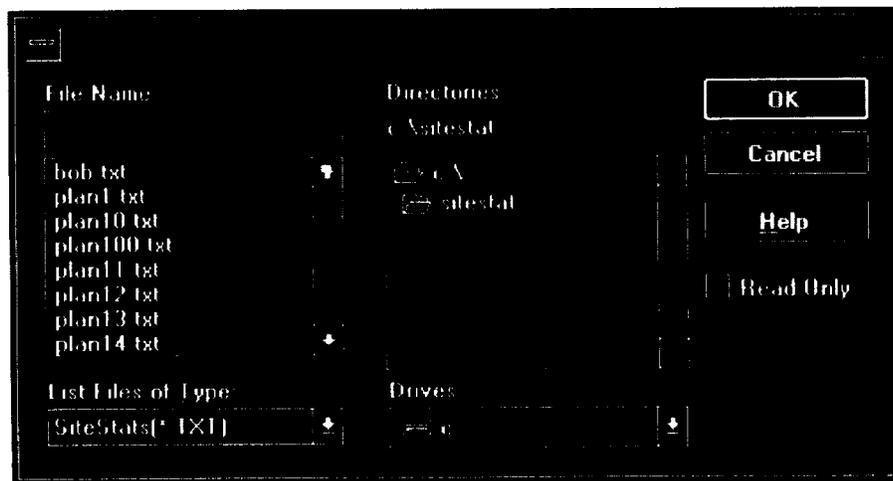


Figure 1.6-1. Example SiteStats Dialog Box

Procedure

Using Dialog Boxes

 To use a list box:

- Use the scroll bar to reveal additional selections, if necessary;
- Click the desired selection.

 To use a text box:

- Double-click to highlight text;
- Type to replace the highlighted text.

 To selection an option:

- Click the option button.

 To turn on or off a check box:

- Click the box.

 To use a command button:

- Click the button.

 One of the command buttons may be bolded. Pressing [Enter] performs the bolded command.

 You can use [Tab] to move from box to box in a dialog box. The cursor control keys can be used to move up and down inside a list box.

Exercise 1-3: Using Dialog Boxes

1. Open the *File* menu.
2. Select *Open*.
3. Press [Tab] twice to move to the **Directories** list box.
4. Click and hold mouse over down arrow in **Directories** list box to view the list of folders on the indicated drive.
5. Click [Cancel].

1.7 Exiting

When you exit from GridStats (Stand-Alone) or SiteStats, you will return to the Windows environment. Upon choosing to exit either tool, you will have the following choices: (1) Exit, exits to Windows and (2) Cancel, cancels the Exit.

Procedure Exiting

-  Open the *File* menu.
-  Select *Exit*.
-  Respond to the "Are you sure you want to exit the program?" prompt as desired.

 The shortcut key for *File, Exit* is [Alt] - [F] - [X].

2.0 GridStats (Stand-Alone) Evaluations

- Grid Size Definition**
- Grid Information**
- Sampling Sequence Within a Grid**
- Anomaly Sampling**
- Grid Results**
- Saving Grid Data**
- Sampling in a Previously-Designated Grid**

2.0 Grid/Stats (STAND-ALONE) EVALUATIONS

2.1 Grid Size Definition

The dimensions of the grids to be used in sampling must be entered in the *Grid Dimensions* dialog box. Length and width dimensions of the grid may be entered in feet, yards, miles, or meters.

Grid Dimensions

Enter the Horizontal Length of the Grid: 100

Enter the Vertical Width of the Grid: 100

Units of Measure

- Feet
- Yards
- Miles
- Meters

[Blacked out button] [Blacked out button]

Figure 2.1-1. Grid Dimensions Dialog Box

Procedure
Grid Size Definition

In GridStats (Stand-Alone),

- ☛ Open the *File* menu.
- ☛ Select *New Grid Evaluation*.
- ☛ Choose *Easy Step Method*.
- ☛ Enter the length and width of the grid.
- ☛ Choose unit of measure.
- ☛ Click [OK].

2.2 Grid Information

Information concerning the grid undergoing evaluation may be input in the *GridStats Inputs* dialog box as shown in Figure 2.2-1. The data items are: site where work is occurring, sector in which the grid is contained, date the sampling is performed, the clearance depth for the grids sampling, an identifier for the grid, and the total anomalies identified.

GridStats Inputs

Site Location:

Sector ID:

Date:

Clearance Depth (ft)

Grid Number:

Anomalies in Grid:

Figure 2.2-1. Grid Information Dialog Box

Procedure **Defining Cost Parameters**

In GridStats (Stand-Alone), after clicking [OK] on the Grid Dimensions dialog box:

-  Enter the site name and sector ID (optional).
-  Enter the grid's clearance depth (optional).
-  Input a unique grid identifier (optional).
-  Input the number of anomalies identified (required).
-  Click [OK].

Exercise 2-1: Beginning a New Grid Evaluation

1. Start GridStat.
2. Open a *File* menu.
3. Select *New Grid Evaluation*.
4. Select *Easy Step Method*.
5. Type **100** in the Grid Length text box.
6. Press [Tab].
7. Type **200** in the Grid Width text box.
8. Click [OK].
9. Type **CAMP ANYWHERE** in the Site Location text box.
10. Press [Tab].
11. Type **RANGE 14** in the Sector ID text box.
12. Press [Tab].
13. Type **2** in the Clearance Depth text box.
14. Press [Tab].
15. Type **A-15** in the Grid Number text box.
16. Press [Tab].
17. Type **52** in the Anomalies in Grid text box.
18. Click [Cancel].

2.3 Sampling Sequence Within a Grid

GridStats (stand-alone) will specify which sampling sequence list is to be used for the grid investigation. The sampling sequence lists (100 are available—each with 1,500 locations within the grid) are provided to ensure anomalies within a grid are investigated in a random process.

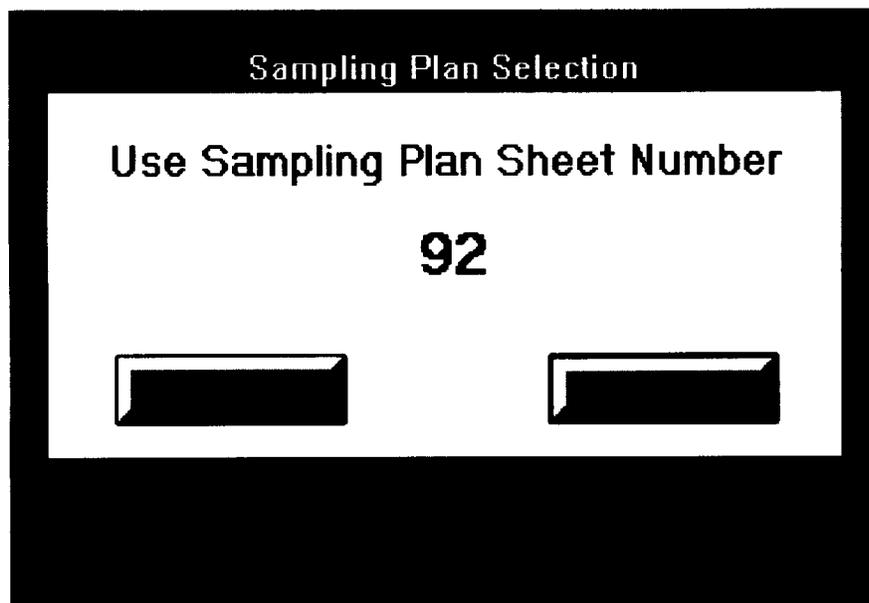


Figure 2.3-1. Sampling Plan Number

Procedure Sampling Sequence

In GridStats, after clicking [OK] on the GridStats Inputs dialog box:

- ☛ Click [Print] to generate a printed copy of the sampling plan (recommended for field use).
- ☛ Follow the print commands.
- ☛ Click [OK].

2.4 Anomaly Sampling

Within a grid, anomalies to be sampled are identified in accordance with the referenced sampling sequence list. Results of each sampling are recorded until the

software indicates that sampling may be halted. See the graphic illustration of the grid sampling method in Figure 2.4-1.

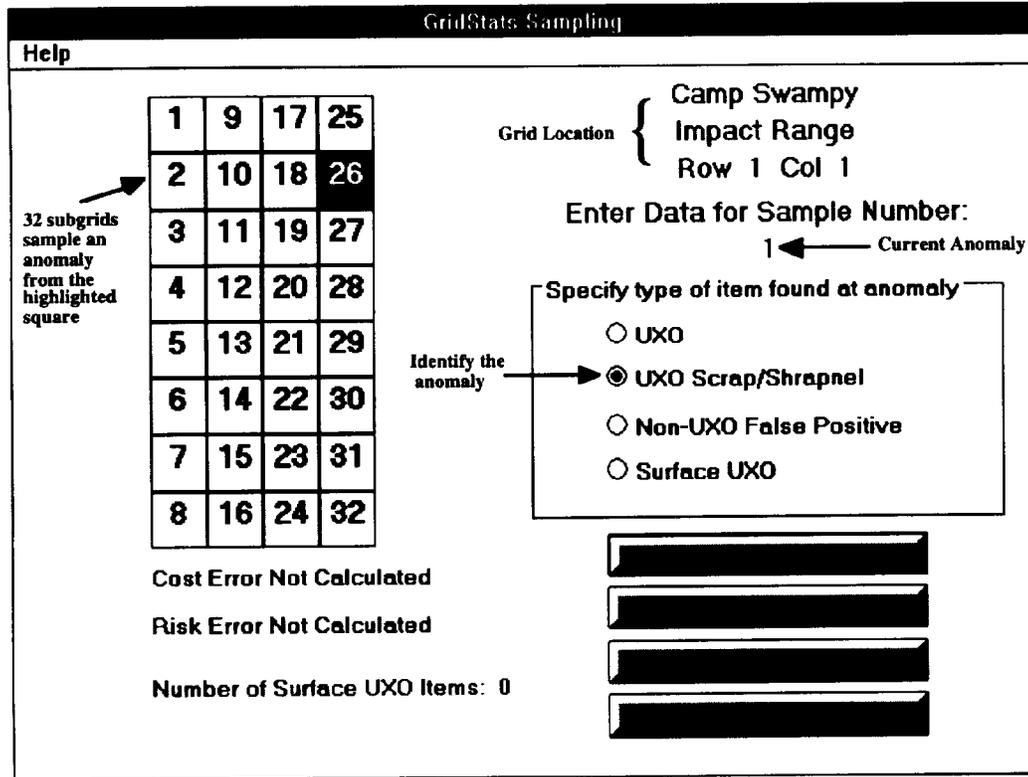


Figure 2.4-1. GridStats Sampling Display

Procedure Anomaly Sampling

- As the identified "square" is investigated, record the result of the investigation. If the anomaly is:
 - UXO - Click on [UXO] option button;
 - Frag/scrap - Click on [UXO Scrap/Shrapnel] option button;
 - Other metal or rock - Click on [Non-UXO False Positive] option button;
 - Click on [Surface UXO] for all found within the grid.
- If there is no anomaly in the identified "square," click on [No Anomaly - New Location].

2.5 Grid Results

When SiteStats indicates that grid sampling can be halted, a message box will be displayed. Click on [Display Results] to see the grid results. The graphic illustration in Figure 2.5-1 shows an example grid output screen. Click [Done] to return to the sector for further grid sampling.

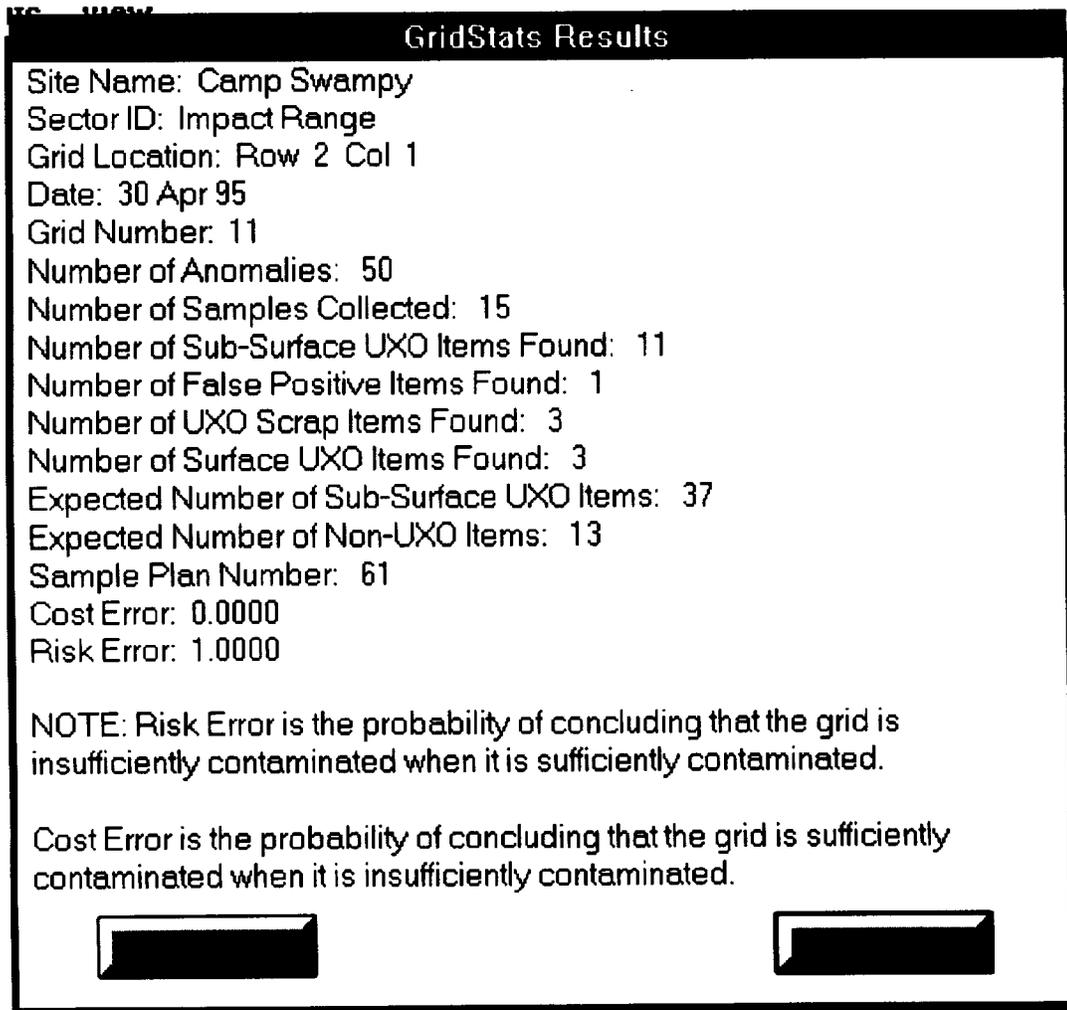


Figure 2.5-1. GridStats Results

Procedure Displaying Grid Results

- ☛ Choose [Display Results] from *GridStats Results* message box.
- ☛ Click [Done] on the results screen to return to the *GridStats Results* message box.

2.6 Saving Grid Data

When you have begun sampling a grid, you can save the grid data. When you save a grid, the original file is overwritten with the new one.

Procedure Saving a Grid Data

From the GridStats Sampling Screen,

- ☛ Click [Delay Sampling].
- ☛ Open *File Menu*.
- ☛ Select *Save*.
- ☛ If you are saving a sector for the first time:
 - Type a name for the file;
 - Click [OK].

☛ To save the grid with a different name, select *File, Save As*, type the new filename and Click [OK].

The default file extension for grid data is .TXT.

2.7 Sampling in a Saved Grid

To work with existing grid data, you need to copy it from a floppy or hard disk into memory, known as opening a file. When you open a file it is copied into memory, but the original remains on the disk unchanged until you save the file again.

Procedure Sampling in a Saved Grid

-  Open the *File* menu.
-  Select *Open*.
-  On the *Open* dialog box, change to the correct drive and/or directory, if necessary.
-  Click the name of the file to be opened.
-  Click [OK] or press [Enter].
-  Open the *Tools* menu.
-  Select *Continue Sampling*.

 Double-click the filename in the files list box to open the file without clicking [OK] or pressing [Enter].

Exercise 2-2: Continuation/Halting of Sampling

1. Start GridStats (Stand-Alone).
2. Open the File menu.
3. Select *Open*.
4. Highlight *grid34.txt*.
5. Click [OK].
6. Open the Tools menu.

7. Select *Continue Sampling*.
8. Click [UXO].
9. Click [Record This Sample].
10. Click [Surface UXO].
11. Click [Record This Sample].
12. Click [Delay Sampling].

3.0 SiteStats Sector Characterization

- Selecting the Sector Characterization Process**
- Site/Sector Designation**
- Sector Size Definition**
- Grid Size Definition**
- Defining Cost Parameters**
- Saving a Sector Representation**
- Opening a Previously-Designated Sector**
- Viewing a Sector**
- Refining a Sector**
- Identifying Grids for Sampling**
- Anomaly Sampling**
- Grid Results**
- Sector Results**
- Returning to Main Menu**

3.0 SiteStats SECTOR CHARACTERIZATION

3.1 Selecting the Sector Characterization Process

To begin a new sector characterization, you must choose the process and then enter all of your process information.

Procedure **Selecting Sector** **Characterization**

In SiteStats,

- ☛ Open the *File* menu.
- ☛ Select *New Evaluation*.
- ☛ Choose *Sector Characterization*.

Exercise 3-1: Selecting a Process

1. Start SiteStats.
2. Open the *File* menu.
3. Select *New Evaluation*.
4. Select *Sector Characterization*.
5. Click [Cancel].

3.2 Site/Sector Designation

You can enter designation information for each site/sector in the *Site/Sector Designation* dialog box. Information such as descriptive site name and sector identifier can then be incorporated into later windows and reports. You can also specify the sector type to determine how grids are selected for investigation.

Site/Sector Designation

Site Location:

Sector ID:

Date:

Sector Type

Dispersed Localized

Figure 3.2-1. Site/Sector Designation

Procedure
Site/Sector Designation

In SiteStats,

-  Open the *File* menu.
-  Select *New Evaluation*.
-  Choose *Sector Characterization*.

- ☛ Enter the desired information.
- ☛ Click on sector type.
- ☛ Click [OK].

3.3 Sector Size Definition

After entering the Site/Sector Designation information, the dimensions of a rectangle that will completely encompass the sector being evaluated must be entered in the *Sector Dimensions* dialog box. Length and width dimensions of the rectangle may be entered in feet, yards, miles, or meters.

Sector Dimensions

Help

Enter the Horizontal Length of the Sector:

Enter the Vertical Width of the Sector:

Units of Measure

Feet

Yards

Miles

Meters

Figure 3.3-1. Sector Dimensions

Procedure

Sector Size Definition

In SiteStats, after clicking [OK] on the Site/Sector Designation dialog box:

-  Enter the length and width of the rectangle to encompass the sector.
-  Choose unit of measure.
-  Click [OK].

3.4 Grid Size Definition

After entering the Sector Size Definition information, the dimensions of the grids to be used in sampling must be entered in the *Grid Dimensions* dialog box. Length and width dimensions of the grid may be entered in feet, yards, miles, or meters.

Grid Dimensions

Enter the Horizontal Length of the Grid: 100

Enter the Vertical Width of the Grid: 100

Units of Measure

- Feet
- Yards
- Miles
- Meters

[OK] [Cancel]

Figure 3.4-1. Grid Dimensions Dialog Box

Procedure
Grid Size Definition

In SiteStats, after clicking [OK] on the Sector Dimensions dialog box:

- ☛ Enter the length and width of the grid.
- ☛ Choose unit of measure.
- ☛ Click [OK].

3.5 Defining Cost Parameters

You can enter sector parameters for use in estimating the cost to sample within a grid in the *Field Cost Model Inputs* dialog box. Information such as the slope of the terrain, the vegetation density, and soil density can then be incorporated into the cost estimation routines. You can also specify a level of funds available for sampling the sector. SiteStats will keep a cumulative cost projection and indicate when this budgeted value may be exceeded.

Field Cost Model - Inputs

<p>Slope of Terrain</p> <p><input checked="" type="radio"/> Level (0 - 10)</p> <p><input type="radio"/> Moderate (10 - 30)</p> <p><input type="radio"/> Steep (>30)</p>	<p>Vegetation</p> <p><input checked="" type="radio"/> Clear</p> <p><input type="radio"/> Brush</p> <p><input type="radio"/> Trees</p> <p><input type="radio"/> Marsh</p>
<p>Soil Density</p> <p><input checked="" type="radio"/> Light - Sand or Loam</p> <p><input type="radio"/> Heavy - Clay or Rock</p>	<p>Other Properties</p> <p><input type="radio"/> Slippery</p> <p><input checked="" type="radio"/> Not Slippery</p>

Available Funds for Characterization (ex. 10000):

Figure 3.5-1. Field Cost Model Inputs Dialog Box

Procedure Defining Cost Parameters

In SiteStats, after clicking [OK] on the Grid Dimensions dialog box:

- ☛ Click on the appropriate sector slope range.
- ☛ Click on the appropriate sector vegetation type.
- ☛ Click on the appropriate sector soil density.
- ☛ Click on the appropriate sector "footing" condition.
- ☛ Enter the sector sampling budget in the Characterization Funds text box.
- ☛ Click [OK].

Exercise 3-2: Beginning a New Evaluation (Sector Characterization)

1. Start SiteStats.
2. Open the *File* menu.
3. Select *New Evaluation*.
4. Select *Sector Characterization*.
5. Type **CAMP ANYWHERE** in the Site Location text box.
6. Press [Tab].
7. Type **RANGE 14** in the Sector ID text box.
8. Click [OK].
9. Type **500** in the Sector Length text box.
10. Press [Tab].
11. Type **1000** in the Sector Width text box.
12. Click [Yards].
13. Click [OK].

14. Type **100** in the Grid Length text box.
15. Press [Tab].
16. Type **200** in the Grid Width text box.
17. Click [OK].
18. Click [Dimensions Correct].
19. Click [Moderate].
20. Click [Brush].
21. Type **25000** in the Characterization Funds text box.
22. Click [Cancel].

3.6 Saving a Sector Representation

When you have finished defining a sector, you can save the sector representation. When you save a sector, the original file is overwritten with the new one.

Procedure **Saving a Sector** **Representation**

In SiteStats,

-  Open the *File* menu.
-  Select *Save*.
-  If you are saving a sector for the first time:
 - Type a name for the file;
 - Click [OK].

 To save the current sector with a different name, select *File, Save As*, type the new filename and Click [OK].

The default file extension for sector representations is .TXT.

If you are sampling within a sector and wish to save, choose *Return to Main Menu* from the *Tools* menu, then choose *Save* from the *File* menu.

Exercise 3-3: Saving

1. Open the *File* menu.
2. Select *Save*.
3. Click [Cancel].

3.7 Opening a Previously-Designated Sector

To work with an existing sector representation, you need to copy it from a floppy or hard disk into memory, known as opening a file. When you open a file it is copied into memory, but the original remains on the disk unchanged until you save the file again.

Procedure **Opening a Previously-Designated Sector**

In SiteStats,

- Open the *File* menu.
- Select *Open*.
- On the *Open* dialog box, change to the correct drive and/or directory, if necessary.
- Click the name of the file to be opened.
- Click [OK] or press [Enter].

✂ Double-click the filename in the files list box to open the file without clicking [OK] or pressing [Enter].

Exercise 3-4: Opening

1. Open the *File* menu.
2. Select *Open*.
3. Select *TEST.TXT* in the files list box.
4. Click [OK].

3.8 Viewing a Sector

After establishing a sector representation as discussed previously in this section, the sector will be displayed with grids designated as row/column positions. See the graphic illustration in Figure 3.8-1.

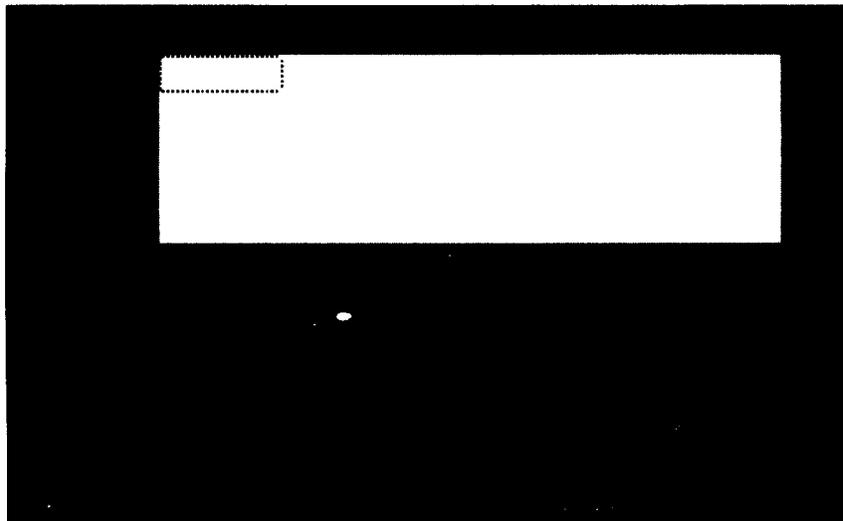


Figure 3.8-1. Sector Representation

The scroll bars can be used to view any portions of the sector not visible in the initial presentation.

Procedure Viewing a Sector

- ☛ To view grid locations with larger column numbers:
 - position the mouse on the right-pointing arrow at the lower right of the sector representation;
 - click down on the mouse to begin scrolling, then release to stop the scrolling.

- ☛ To view grid locations with larger row numbers:
 - position the mouse on the down-pointing arrow at the lower right of the sector representation;
 - click down on the mouse to begin scrolling, then release to stop the scrolling.

☛ The left-pointing arrow at the lower left of the sector representation moves grids with lower column numbers into view.

The up-pointing arrow at the upper right of the sector representation moves grids with lower row numbers into view.

Alternatively, you can “zoom in” to see a greater portion of the sector at once. A zoom in/out command is provided in the *Tools* menu. See the graphic illustration in Figure 3.8-2.

Row	o	o	o	o	o	o	o
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

Figure 3.8-2. Sector Representation - Zoom In

Procedure "Zooming" a Sector

- ☛ To reduce the sector representation size:
- choose *Zoom In/Out* from the *Tools* menu.

☞ Zoom feature "toggles," if the sector is zoomed-in, then choosing Zoom In/Out will expand the sector representation size.

Exercise 3-5: Viewing Sector

1. Start SiteStats.
2. Open the *File* menu.
3. Select *Open*.
4. Select *TEST.TXT* in the files list box.
5. Click [OK].
6. Open *Windows* menu.
7. Select *Display Sector*.

8. Click/hold on the right-pointing arrow to view sector.
9. Open *Tools* menu.
10. Choose *Zoom In/Out*.
11. Open *Tools* menu.
12. Choose *Return to Main Menu*.

3.9 Refining a Sector

The rectangle which encompasses the sector can be refined by deleting grids from the representation. These grids to be deleted represent locations which cannot be available for the selection of sampling grids (i.e., the sector is not truly rectangular; buildings, lakes, etc., are within the bounds of the sector).



Figure 3.9-1. Sector Refinement

Procedure **Refining a Sector**

- Click within the grid to be deleted. (Grid then bounded by “dotted” line.)
- Choose *Remove Grid From Sector* from *Tools* menu.

 Removal feature “toggles,” if the grid has been removed from sector, then choosing ***Remove/Add Grid From Sector*** adds grid back in sector representation.

Grids cannot be removed from or added to sector representation after sampling within the sector has begun.

 The shortcut key for ***Tools, Remove/Add Grid From Sector*** is [Ctrl] - [G].

3.10 Identifying Grids for Sampling

After the sector representation has been refined, grids may be identified for investigation. You may specify these selections or have the software identify grid selections randomly.

Procedure **Identifying a Grid for** **Sampling**

-  To identify a grid for sampling:
- Click within the grid representation nearest the location of the grid within the sector to be investigated.
 - Open the ***Tools*** menu.
 - Choose ***Sample Active Grid***.
-  To have the software randomly select a grid for sampling:
- Open the ***Tools*** menu.
 - Choose ***Sample Random Grid***.

 The shortcut key for ***Tools, Sample Active Grid*** is [Ctrl] - [S].

The shortcut key for ***Tools, Sample Random Grid*** is [Ctrl] - [R].

When a grid has been identified for sampling, you will receive a message from SiteStats that the grid-level evaluation (GridStats) has begun. For this grid-level evaluation,

SiteStats will also identify which sampling sequence list will be used for the grid sampling. The graphics in Figures 3.10-1 and 3.10-2 illustrate the “messages,” respectively. Click on [OK] or press [Enter] to continue through the analysis.



Figure 3.10-1. Grid-Level Evaluation Transition Message

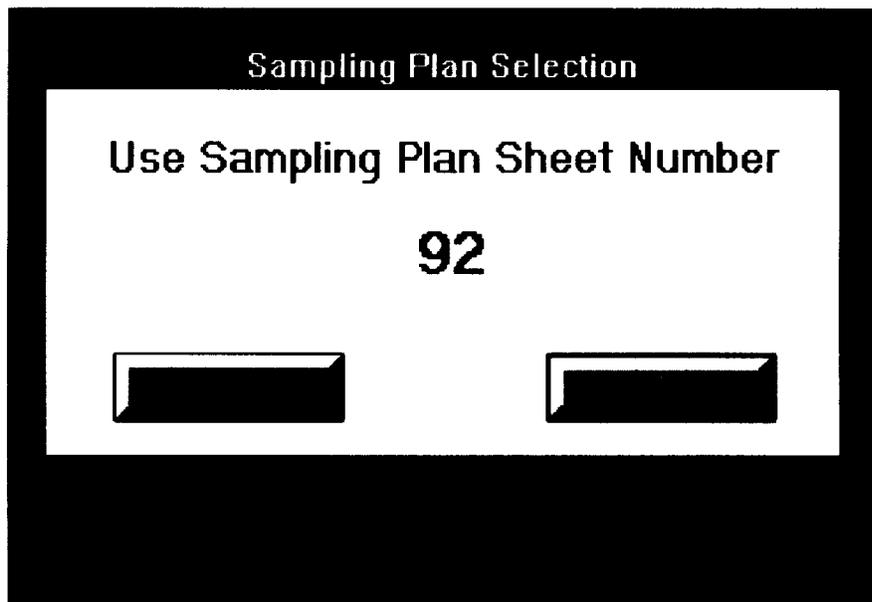


Figure 3.10-2. Sample Sequence Sheet Message

The grid level sampling can now be performed after you’ve specified the number of anomalies within the grid. See the graphic illustration in Figure 3.10-3.

GridStats Evaluation

Site Location: Camp Swampy

Sector ID: Impact Range

Grid Location: Row 1 Col 1

Total Anomalies in Grid:

Date:

Grid Number:

Figure 3.10-3. GridStats Evaluation Dialog Box

**Procedure
Specifying Grid
Anomalies**

- ☛ Input the number of anomalies into the Anomaly text box.
- ☛ Modify the Grid Number as desired.
- ☛ Click [OK].

To estimate the cost of sampling the grid with the specified number of anomalies, you may identify the composition of the team that will be performing the grid sampling. See the graphic illustration in Figure 3.10-4.

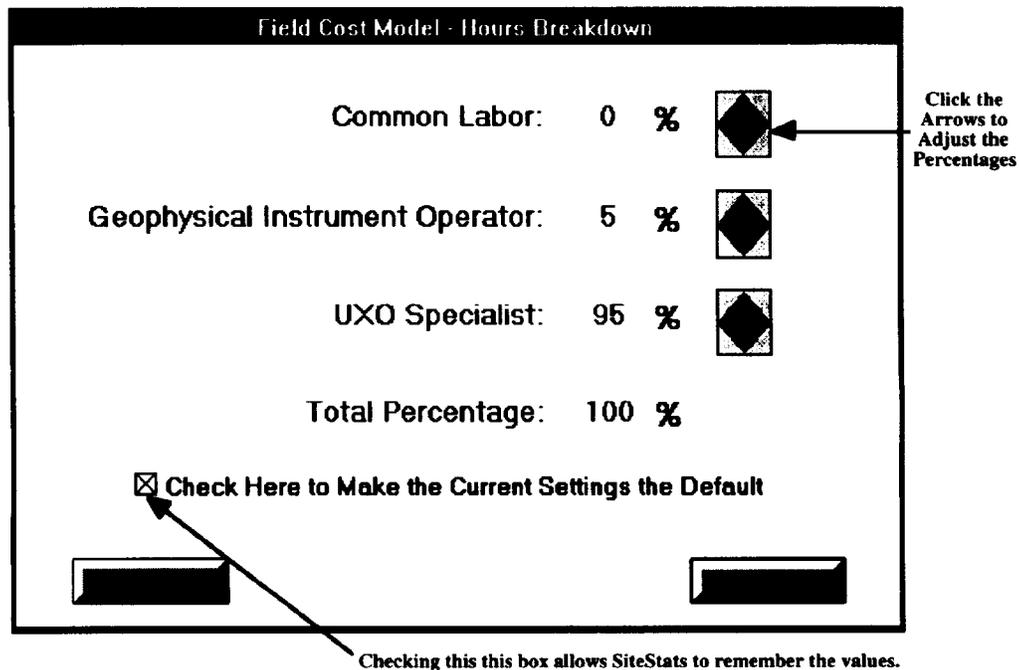


Figure 3.10-4. Hours Breakdown Dialog Box

Procedure Identifying Hours Breakdown

-  Beside each labor category, press the *Up Arrow* to increase percentage of hours assigned to the labor category if more are desired. Press the *Down Arrow* to decrease the percentage of hours assigned to the labor category if less are desired.
-  Click on the Check box, if you want SiteStats to "remember" the current percentages.
-  Click [OK].

 SiteStats will notify you if the sum of the hours breakdown is not 100%.

Exercise 3-6: Preparing for Grid Sampling

1. Open the *File* menu.
2. Select *Open*.
3. Select *TEST2.TXT* in the files list box.
4. Click [OK].
5. Open the *Windows* menu.
6. Choose *Display Sector*.
7. Click within any grid.
8. Press [Ctrl] - [S].
9. Press [Enter].
10. Press [Enter].
11. Type **42** into Anomaly text box.
12. Click [OK].
13. Click on *Up Arrow* beside Geophysical Instrument Operator until percentage is 10%
14. Click on *Down Arrow* beside UXO Specialist until percentage is 90%.
15. Click [Cancel].

3.11 Anomaly Sampling

Within a grid, anomalies to be sampled are identified in accordance with the referenced sampling sequence list. Results of each sampling are recorded, until the software indicates that sampling may be halted. See the graphic illustration of the grid sampling method in Figure 3.11-1.

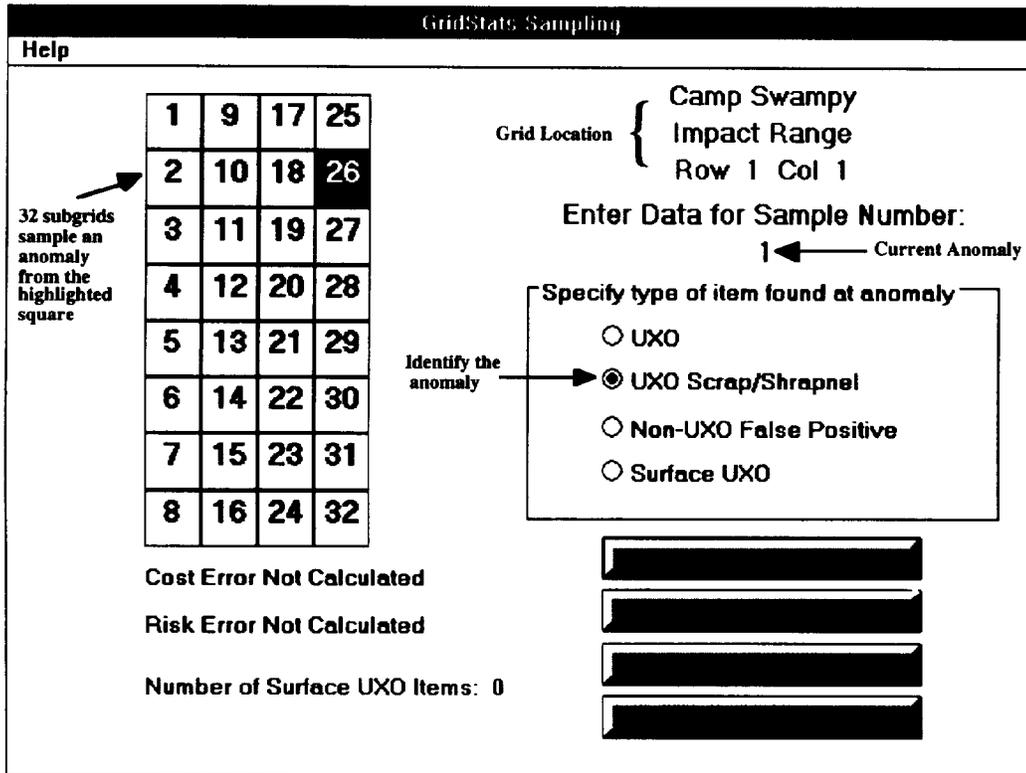


Figure 3.11-1. Grid Sampling Screen

**Procedure
Anomaly Sampling**

- As the identified “square” is investigated, record the result of the investigation. If the anomaly is:
- UXO - Click on [UXO] option button;
 - Frag/scrap - Click on [UXO Scrap/Shrapnel] option button;
 - Other metal or rock - Click on [Non-UXO False Positive] option button.
 - Click on [Surface UXO] for all found within the grid.
- If there is no anomaly in the identified “square,” click on [No Anomaly - New Location].

3.12 Grid Results

When SiteStats indicates that grid sampling can be halted, a message box will be displayed. Click on [Display Results] to see the grid results. The graphic illustration in Figure 3.12-1 shows an example grid output screen. Click [OK] to return to the sector for further grid sampling.

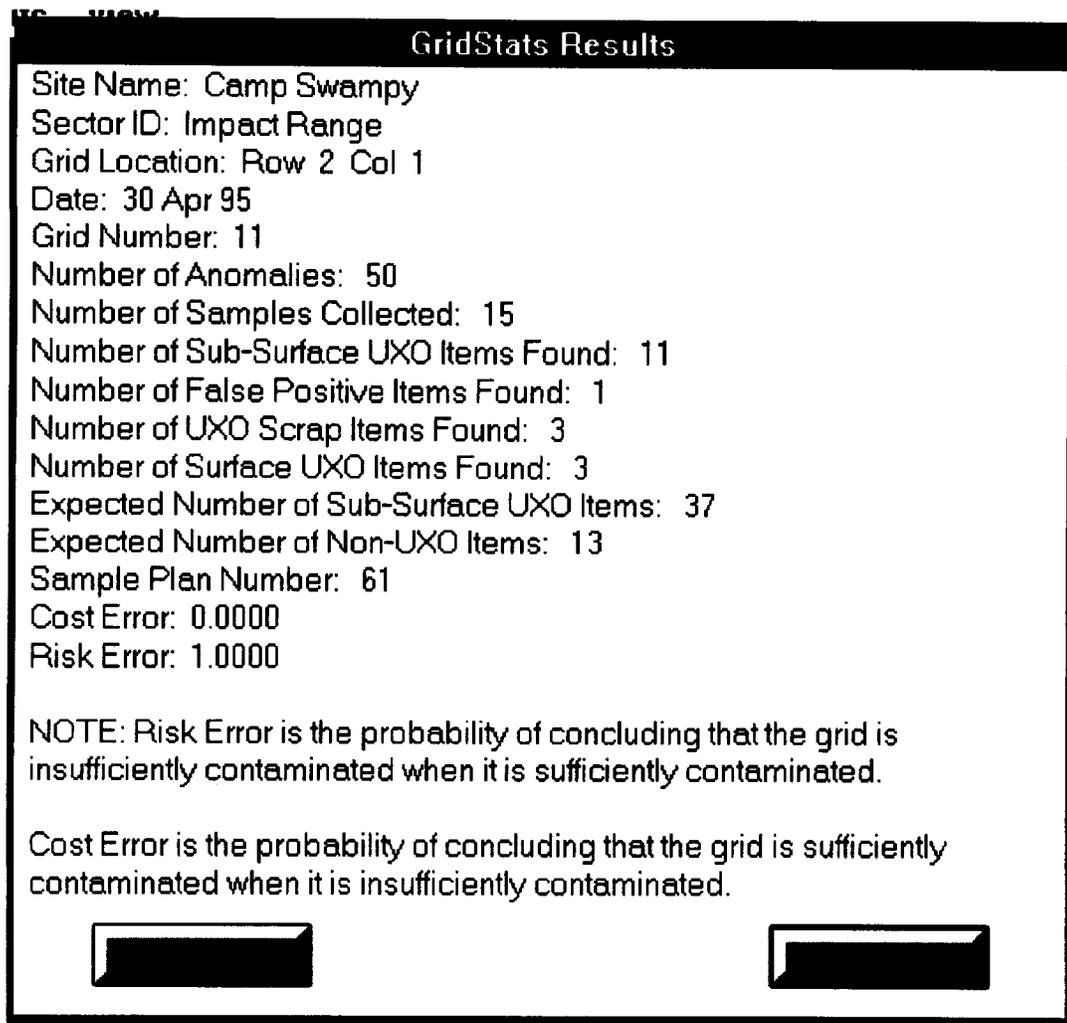


Figure 3.12-1. Grid Result Screen

Procedure Displaying Grid Results

- Choose [Display Results] from *GridStats Results* message box.
- Click [OK] on the results screen to return to the *GridStats Results* message box.

3.13 Sector Results

The results of the grids sampled will be displayed within the grid location within the sector representation. Sampled grids will be shaded red. The number shown within each grid is the predicted number of UXO within the grid. See the graphic illustration in Figure 3.13-1.

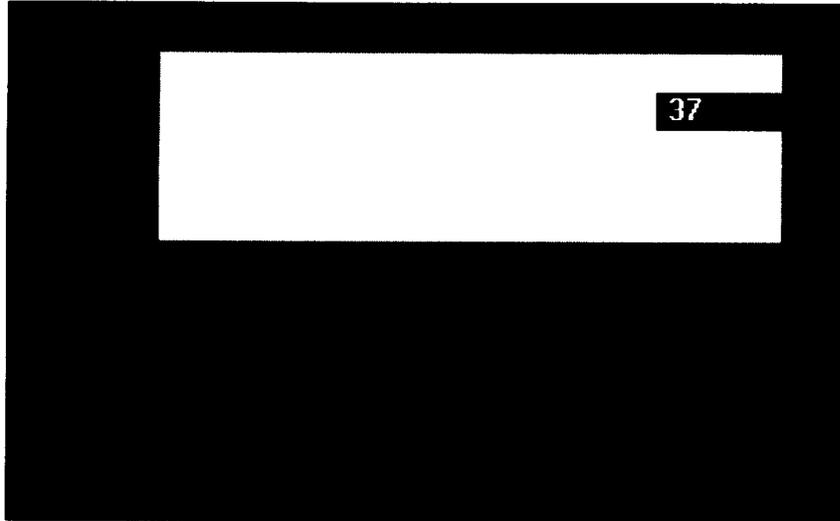


Figure 3.13-1. Grid Result Screen

Additionally, the expected number of false positives within each grid can be viewed by choosing *Map of False Positives* from the *View* menu.

Procedure Displaying False Positives

From the *Sector Representation* screen:

- ☛ Open the *View* menu.
- ☛ Select *Map of False Positives*.

To return to the Sector Representation screen:

- ☛ Open the *Tools* menu.
- ☛ Select *Return to Previous Screen*.

When sufficient grids have been investigated for sector characterization, SiteStats will provide one of two message screens. If the characterization results in the same sector as was initially defined at the beginning of the sampling process, the message box as shown in the graphic illustration provided in Figure 3.13-2 is provided. Click on [Display Results] to see the sector results.

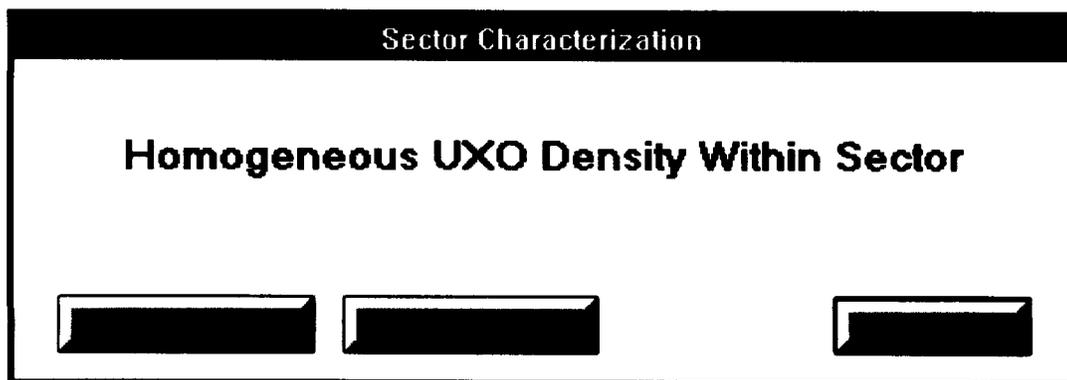


Figure 3.13-2. Sector Characterization Message Screen

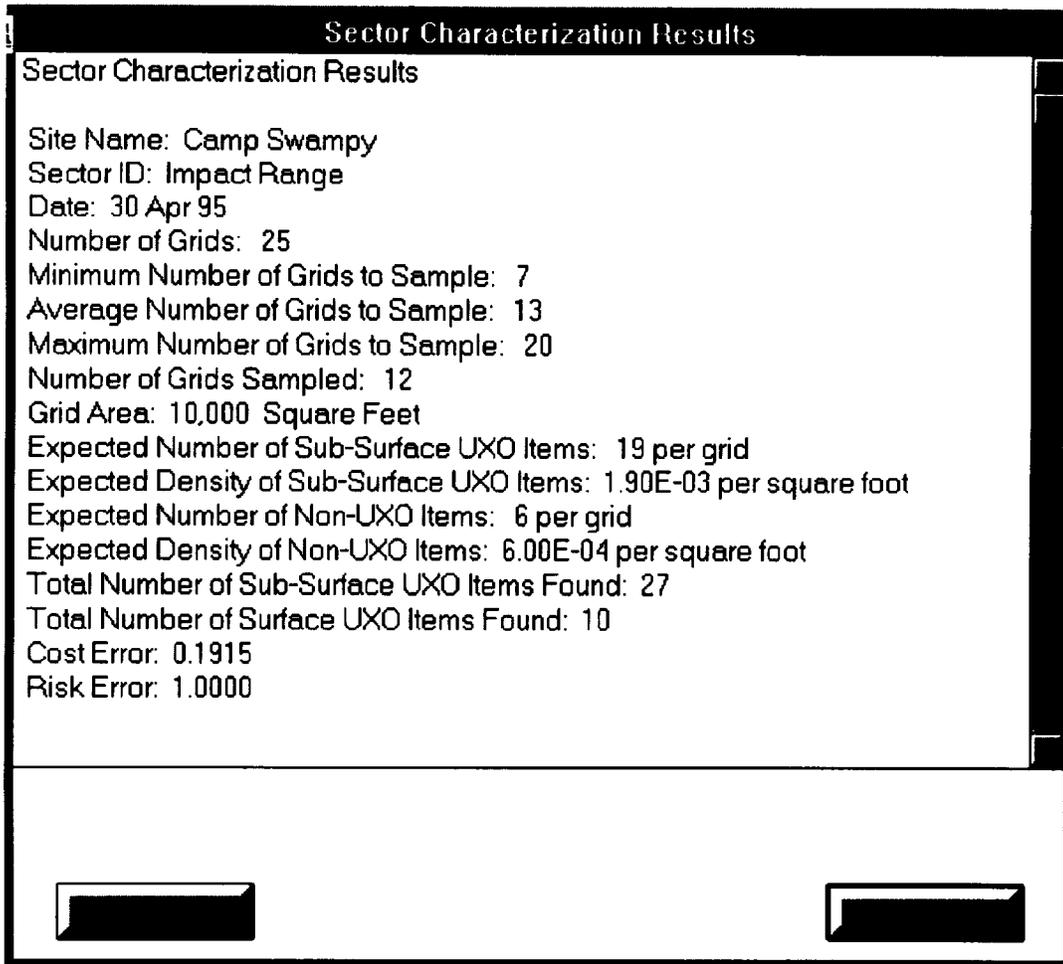


Figure 3.13-3. Sector Characterization Results

Procedure
Displaying Sector Results

- ☛ Choose [Display Results] from *SiteStats Results* message box.
- ☛ Click [OK] on the results screen to return to the *SiteStats Results* message box.

If the characterization results in multiple sectors, as opposed to the one that was initially defined at the beginning of the sampling process, the message box as shown in the graphic illustration provided in Figure 3.13-4 is provided. In this scenario, the sector should be further divided into clusters to be able to have homogeneous UXO density.

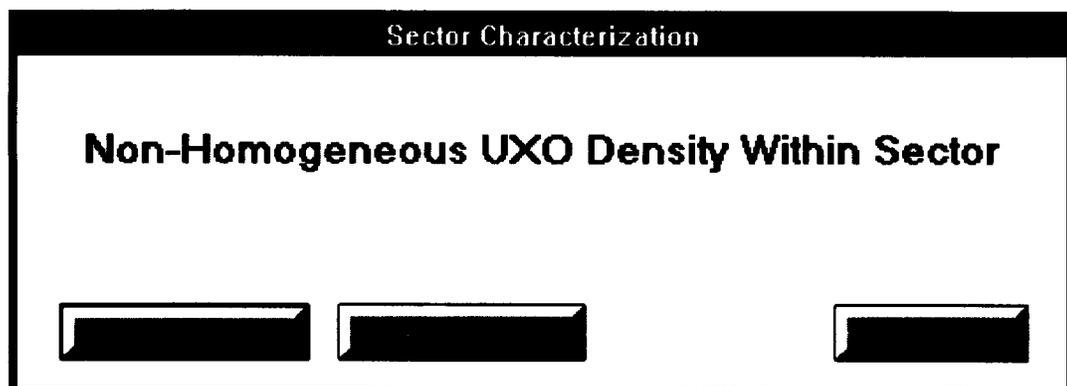


Figure 3.13-4. Sector Characterization Message Screen

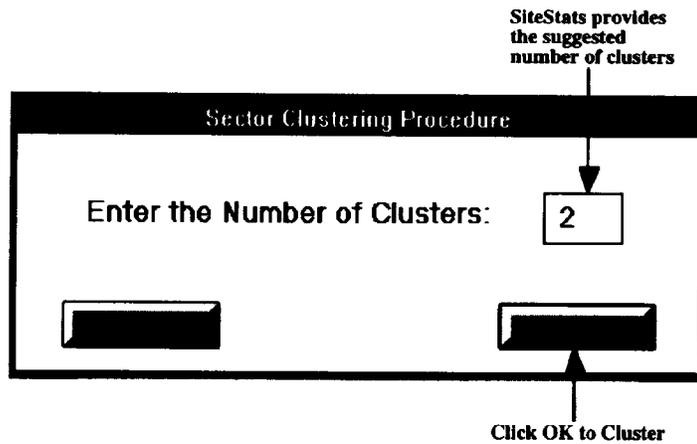


Figure 3.13-5. Sector Clustering

Procedure
Clustering Sector

- ☛ Choose [Cluster] from *SiteStats Results* message box.
- ☛ Click [OK] in the *Number of Clusters* message box.

An identification of the new resulting sectors is provided. The graphic illustration in Figure 3.13-6 provides an example. A new menu choice is now available for viewing the data associated with each cluster.

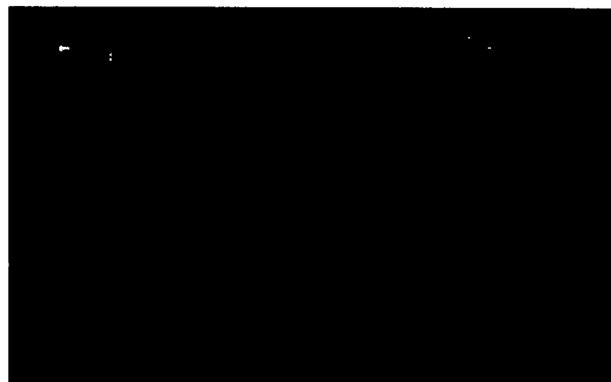


Figure 3.13-6. Resulting Sectors

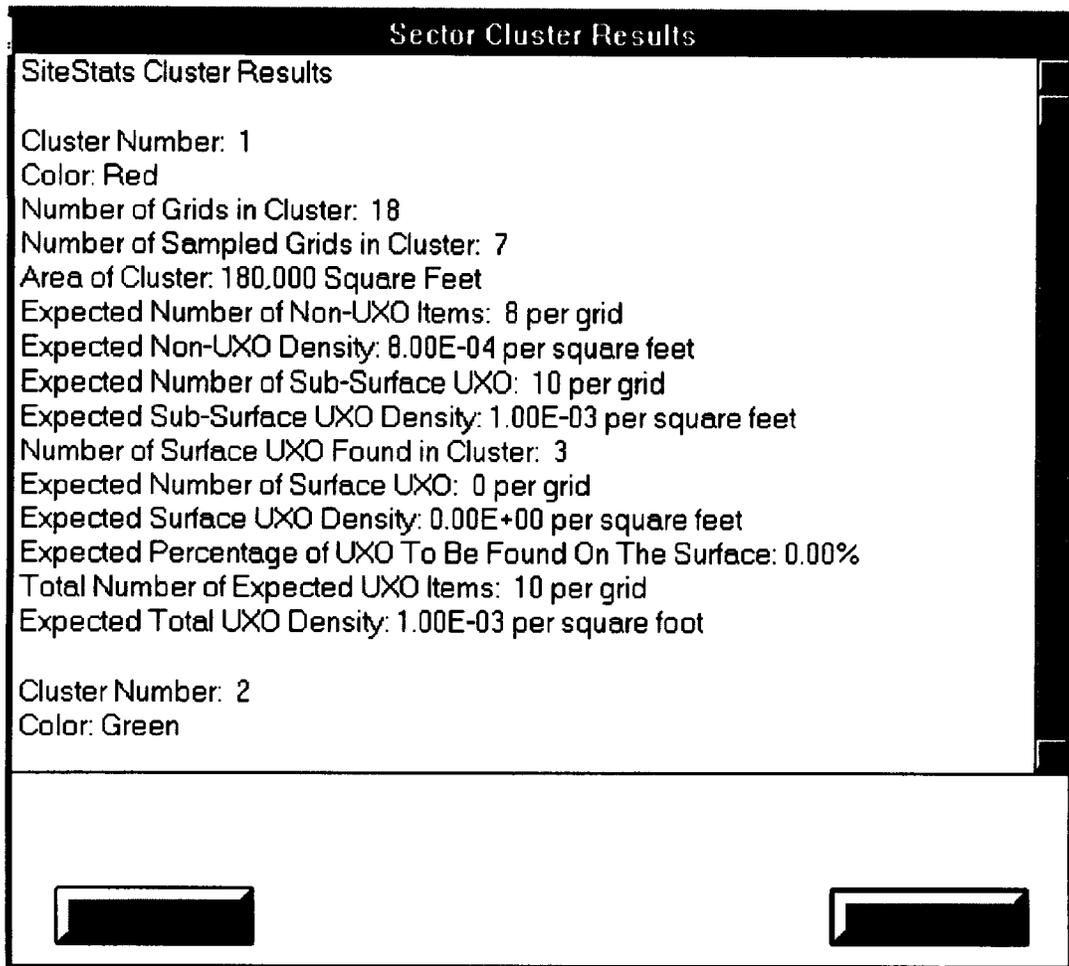


Figure 3.13-7. Sector Cluster Results

Procedure
Viewing Cluster Data

- Open *Cluster Data* menu.
- Select *View Cluster Data*.

3.14 Return to Main Menu

When sector characterization has been completed, return to the main menu to begin another evaluation process or exit from SiteStats.

Procedure
Returning to Main Menu

- Open *Tools* menu.
- Select *Return to Main Menu*.

4.0 SiteStats Remediation Planning

- Analysis Selection**
- Site Information**
- Subset Type Specification**
- Sector Information**
- Activity Specification**
- Direct Cost Inputs**
- Indirect Cost Inputs**
- Viewing RPT Results**
- Returning to SiteStats Main Menu**

4.0 SiteStats REMEDIATION PLANNING

4.1 Selecting the Remediation Planning Process

To begin a new remediation planning session, you must choose the process and enter all of your process information.

Procedure **Selecting Remediation** **Planning**

In SiteStats,

- ☛ Open the *File* menu.
- ☛ Select *New Evaluation*.
- ☛ Choose *Remediation Planning Tool*.

4.2 Starting Remediation Planning

When you start the Remediation Planning Tool (RPT), the launch screen shown in Figure 4.2-1 will be displayed.

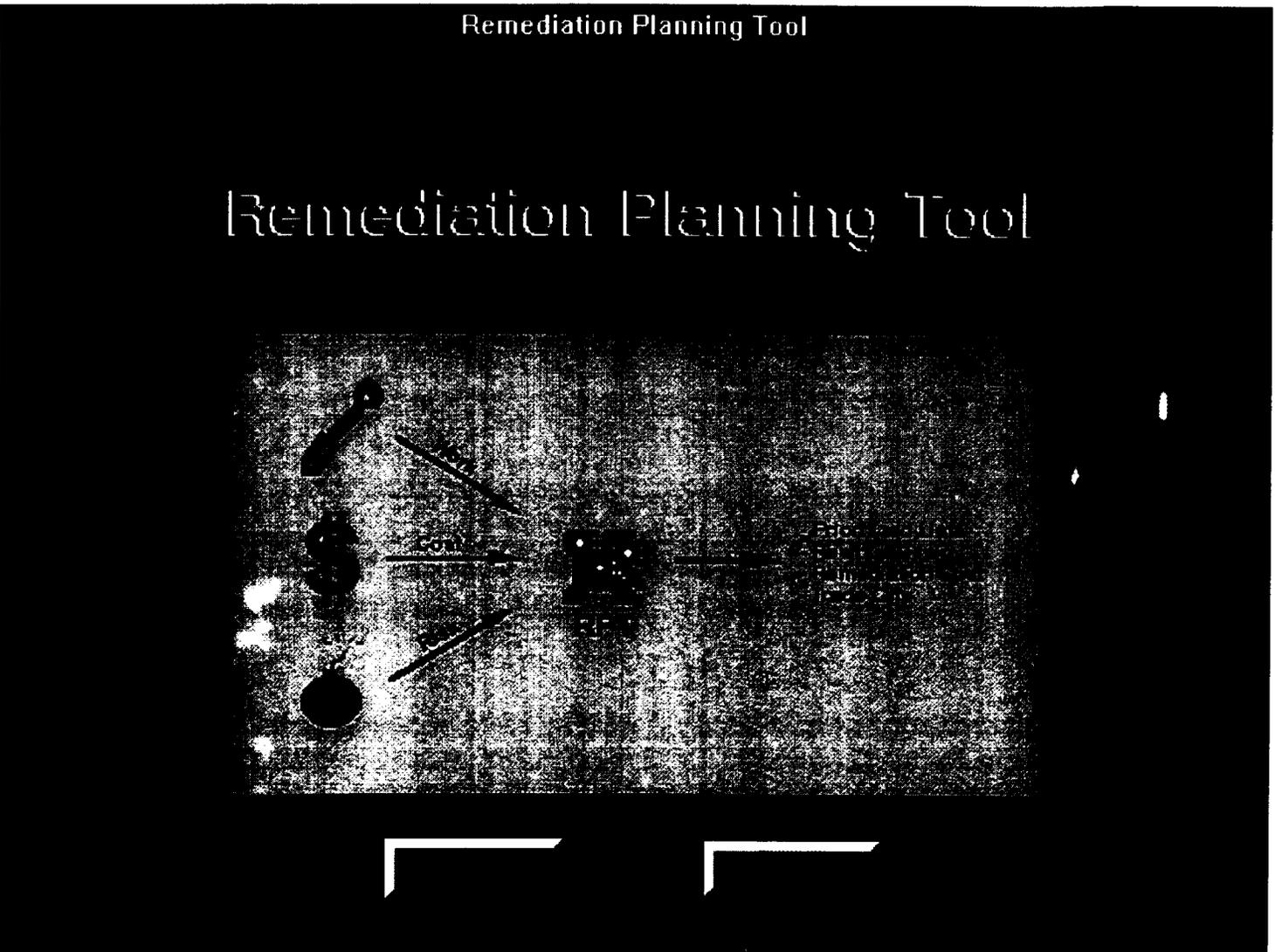
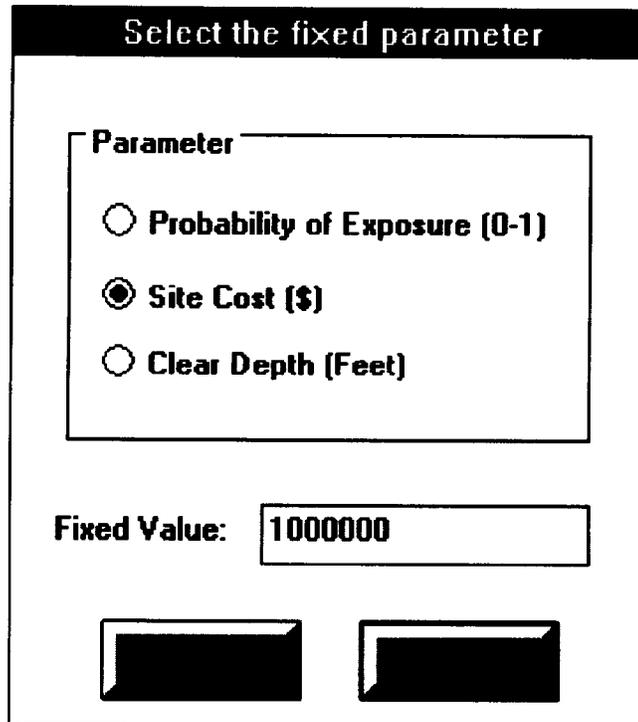


Figure 4.2-1. RPT Launch Screen

4.3 Analysis Selection

After RPT has been started by clicking [Begin] from the RPT launch screen, you can specify the type of analysis to be performed. See the graphic illustration in Figure 4.3-1.



Select the fixed parameter

Parameter

Probability of Exposure (0-1)

Site Cost (\$)

Clear Depth (Feet)

Fixed Value: 1000000

[] []

Figure 4.3-1. Analysis Section Choices

**Procedure
Selecting Analysis
Parameter**

- ☛ To set probability of exposure as the analysis parameter:
 - Click [Probability of Exposure];
 - Enter probability into *Fixed Value* text box.

- ☛ To set site cost as the analysis parameter:
 - Click [Site Cost];
 - Enter cost into *Fixed Value* text box.

- ☛ To set Clearance Depth as the analysis parameter:
 - Click [Clear Depth];
 - Enter depth into *Fixed Value* text box.

- ☛ Click [OK].

4.4 Site Information

After the analysis to be performed has been identified, you must specify certain information about the site. See the graphic illustration in Figure 4.4-1.

Figure 4.4-1. Site Information

Procedure
Providing Site Inputs

-  Enter the requested information into the text boxes.
-  Use pull down menu to specify site's state location.
-  Click [OK].

 A planned SiteStats feature provides an interface to extract available data from OEW Cert.

4.5 Sector Type Specification

After the site information has been provided, you must identify the sector type according to the ordnance dispersion within the sector. See the graphic illustration in Figure 4.5-1.

Sector Type

Sector Types

- Dispersed Sector**
- Localized Excavation**
- Localized Surface**
- Localized Building**
- Dispersed Water**
- Localized Water**

OK

Figure 4.5-1. Sector Types

Procedure Specifying Subset Type

- Click on the appropriate subset/sector type.
- Click [OK].

4.6 Dispersed Sector Information

After the type of subset has been identified as dispersed, you must specify certain information about the sector. See the graphic illustration in Figure 4.6-1.

Sector Number 1

(10°-30°)

Loam 0

High 12

Clear 100

.5

0

0

0

0

0

1000

0

.00008

0

Figure 4.6-1. Subset (Sector) Information

Procedure Providing Dispersed Sector Inputs

- Enter the requested information into the text boxes.
- Choose applicable terrain slope.
- Choose applicable soil type.
- Choose applicable terrain vegetation density.

- ☛ Click the check boxes for "vegetation burning allowable" and "slippery footing present" as applicable.
- ☛ Click all present environmental conditions.
- ☛ Click [OK].

☛ A planned SiteStats feature provides an interface to extract available data from *OEW Cert.*

The input screens will vary based on the type of subset.

4.7 Activity Specification

In addition to the sector information discussed in section 4.6, you must also identify the activities occurring within the sector. See the graphic illustration in Figure 4.7-1.

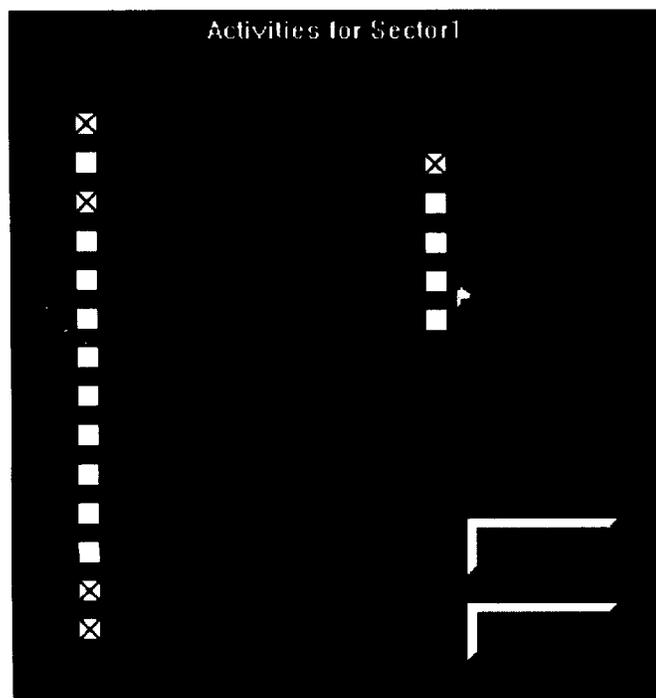


Figure 4.7-1. Activity Specification

Procedure
Specifying Activities

-  Click on all applicable recreational activities.
-  Click on all applicable occupational activities.
-  Click [OK].

 A planned SiteStats feature provides an interface to extract available data from *OEWCert*.

4.8 Cost Inputs

In addition to the sector information discussed in sections 4.6 and 4.7, you must also provide data needed for estimation of remediation direct cost. See the graphic illustration in Figure 4.8-1.

Sector Cost Data

<input checked="" type="checkbox"/>	2700	15
<input checked="" type="checkbox"/>	600	13.23
<input checked="" type="checkbox"/>	250	77.43
<input checked="" type="checkbox"/>	100	54.35
<input type="checkbox"/>		24.20
<input type="checkbox"/>		50.72
<input type="checkbox"/>		10
<input checked="" type="checkbox"/>	72.79	50
<input checked="" type="checkbox"/>	77.06	.87
<input checked="" type="checkbox"/>	96.27	
<input checked="" type="checkbox"/>	23.21	
<input checked="" type="checkbox"/>	50.00	
<input checked="" type="checkbox"/>	96.27	25
<input checked="" type="checkbox"/>	29.79	25
<input checked="" type="checkbox"/>	17.76	50
<input type="checkbox"/>		

Hand Dig

Figure 4.8-1. Cost Inputs

**Procedure
Providing Direct Cost
Inputs**

-  Check all desired options and enter requested information into the check boxes.
-  Enter the requested information into the text boxes.
-  Choose applicable form of excavation.
-  Identify desired labor mix.
-  Click [OK].

 A planned SiteStats feature provides an interface to extract available data from *OEWCert*.

4.9 Viewing RPT Results

Results of RPT will be displayed in table form and plots may be viewed. See the graphic illustration in Figure 4.9-1.

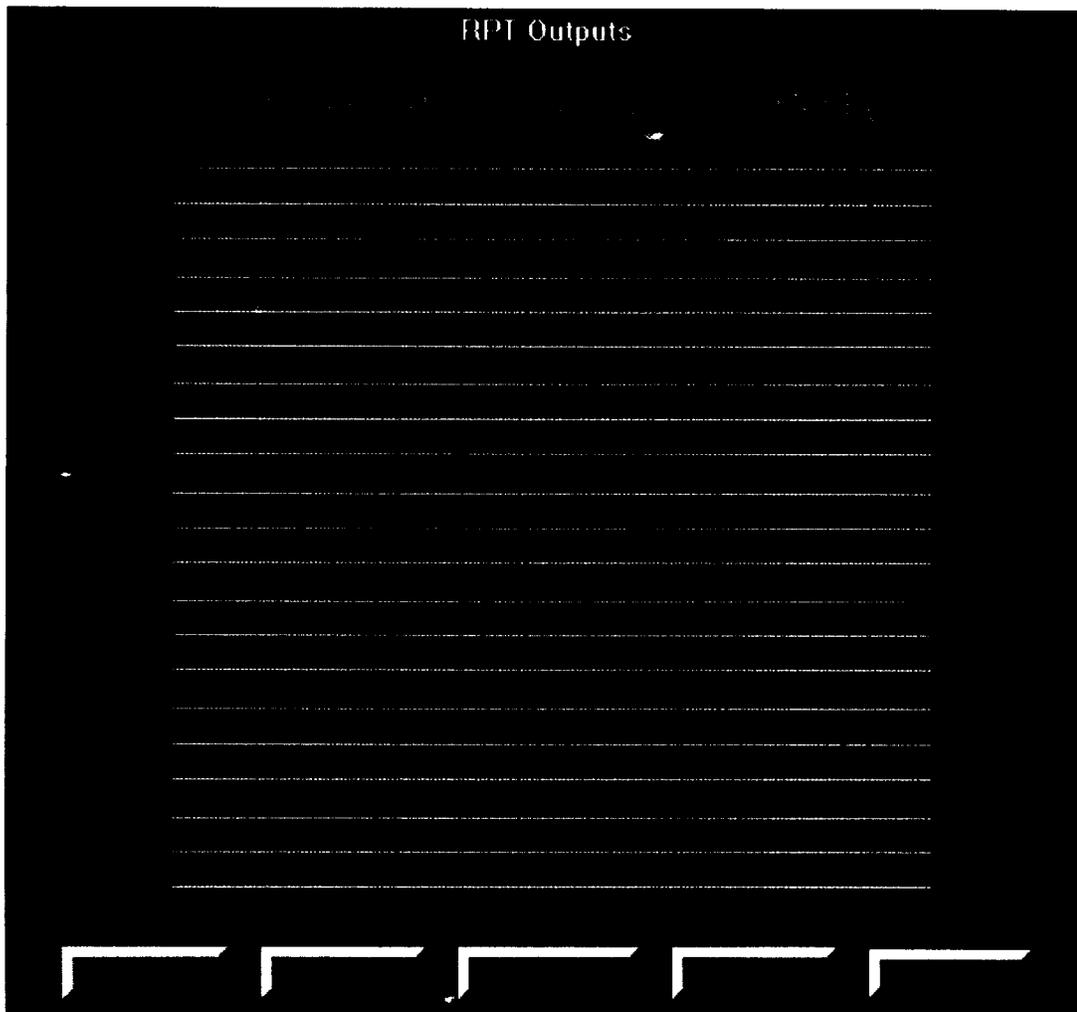


Figure 4.9-1. View Choices

Procedure Viewing RPT Results

- ☛ To view plot of residual risk:
 - Click [Plot Risk].
- ☛ To view plot of remediation cost:
 - Click [Plot Cost].

4.10 Saving RPT Data

When RPT execution has ended, you can save the results.

Procedure Saving RPT Data

From the RPT Outputs window,

-  Click [Save Data].
-  Type a name for the file.
-  Click [OK].

 The default file extension for RPT data is .TXT.

Exercise 4-1: Using RPT

1. Start SiteStats
2. Open *File* menu.
3. Choose *Remediation Planning Tool*
4. Click [OK].
5. Click [BEGIN].
6. Click [Probability of Exposure].
7. Type **.001** in the *Fixed Value* text box.
8. Click [OK].
9. Type **your camp** in the *Site Name* text box.
10. Type **2500** in the *Site Area* text box.
11. Choose **FL** from the *State* pull down list.
12. Type **1** in the *Guards Required* text box.
13. Type **1** in the *Number of Sectors* text box.
14. Click [OK].
15. Click [OK] or press [Enter].

16. Choose [0-10] from *Slope* pull down menu.
17. Choose [Brush] from vegetation density pull down menu.
18. Type **0** in the *Extraordinary Environmental Cost Considerations* text box.
19. Type **1** in the *Portion of UXO on Surface* text box.
20. Type **0.00001** in the *OEW Density* text box.
21. Type **16** in the *UXO Weight* text box.
22. Type **0.00005** in the *Total Density* text box.
23. Click [Snakes].
24. Click [OK].
25. Ensure these activities are specified (have "x" in the check box): Children Playing, Camping, Picnicking, Biking, and Swimming.
26. Click [OK] or press [Enter].
27. Click [Industrial Hygienist], [Archaeologist], and [CWM Specialist] to remove from the support personnel list.
28. Type **40** in the *Remediation Personnel* text box.
29. Type **10** in the *Labor Mix - Common Labor* text box.
30. Type **15** in the *Labor Mix - GIO* text box.
31. Type **75** in the *Labor Mix - UXO* text box.
32. Click [OK].
33. At the completion of processing, click [Plot Risk].
34. Click [OK].
35. Click [Plot Cost].
36. Click [OK].
37. Click [Done].
38. Click [EXIT].