60001749

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Mine Geology Database Handbook: June 1998
AUTHOR	
DATE OF DOC(S)	1998
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5
P_M_C_NAME (mine, claim & company names)	Rosebud Mine
COMMODITY If not obvious	[redacted]
NOTES	Database operation handbook; 2 copies Note: scan dividers 38p.

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

SS: DD 7/28/08
Initials Date

DB: _____
Initials Date

SCANNED: _____
Initials Date

Revised: 1/22/08

ROSEBUD MINE GEOLOGY DATABASE HANDBOOK

JUNE, 1998

CONTENTS

Table of Contents

AUTHOR'S NOTE

Author's Note

SOFTWARE: This database was created in Microsoft Access 97, which came packaged with MS Office 97 on CD.

CREATOR: Tami A. Rudnick

DATE: This database was built in August, 1997.

OWNERSHIP INFORMATION: Any information within this database, including the structure of forms and reports, is proprietary to Rosebud Mining Co., LLC. This database may not be reproduced or copied for use outside the Rosebud property without the permission of the Geology department.

VERSION: There is one version of this database, and a backup copy on Zip-disk. This database should be backed up EVERY time that additions are made to data. In addition, if changes to monthly data are anticipated AFTER the numbers are reported to Accounting, a copy of the database should be saved under a new name on D:/Rosebud 1998/1998 Stockpile Accounting/MonthlyCopies.

LOCATION OF DATABASE FILES: The main database is stored at the following location:

D:/Rosebud 1998/1998 Stockpile Accounting/StockpileAccounting97-98.mdb

The workgroup file which contains information on passwords and database security is located at:

C:/Windows/System/System.mdw

SECTION I

Section I – Accessing the Database

Finding the Correct Icon

There are two ways to access the database:

1. Double-click on the "key" icon, located on the Office Toolbar at the top of the main Windows 95 screen.

2. Double-click on the Microsoft Access icon, listed with the other icons on the left side of the Windows 95 screen.

Entering Your Name and Password

After you have started Access, a small dialog box will appear and prompt you for your name and password.

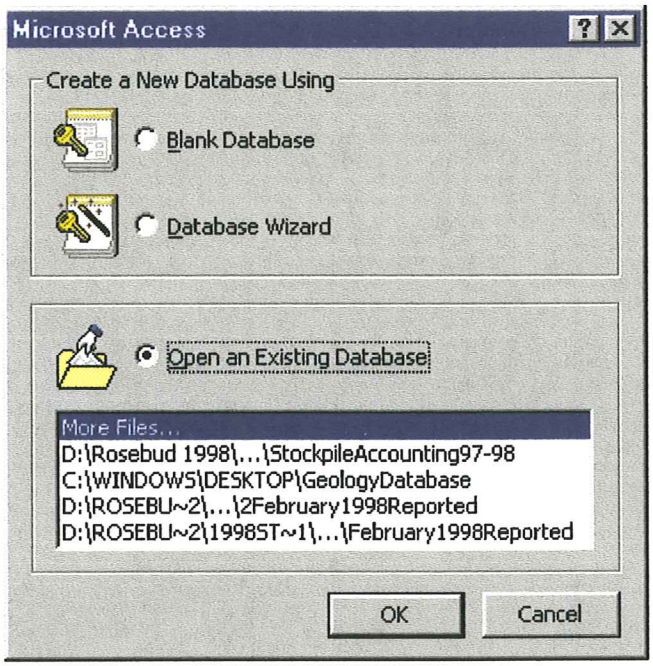
For ease of access to the database, I have supplied you with the administrator name and password. This will allow you access to all parts of the database, without restrictions.

Type in your name and password, and click OK.

Choosing the Correct Database

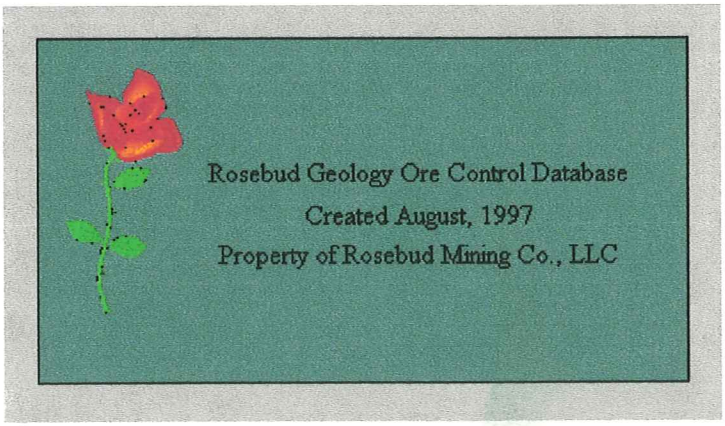
After you have entered your name and password, another small box will appear with a list of database names. Make sure that the check box "Open an Existing Database" is checked. To access the Rosebud Geology Database, double-click on the file name:

D:/Rosebud1998/1998StockpileAccounting/StockpileAccounting97-98.mdb



The Introductory Screen

The database is now open. The first screen you will see is the Introductory/Welcome screen. This screen contains the database title, creation date, and proprietary ownership information. This screen will stay up for about 7 seconds. The user does not have to do anything at this point. The Introductory screen will disappear automatically, and the Main Menu will appear.

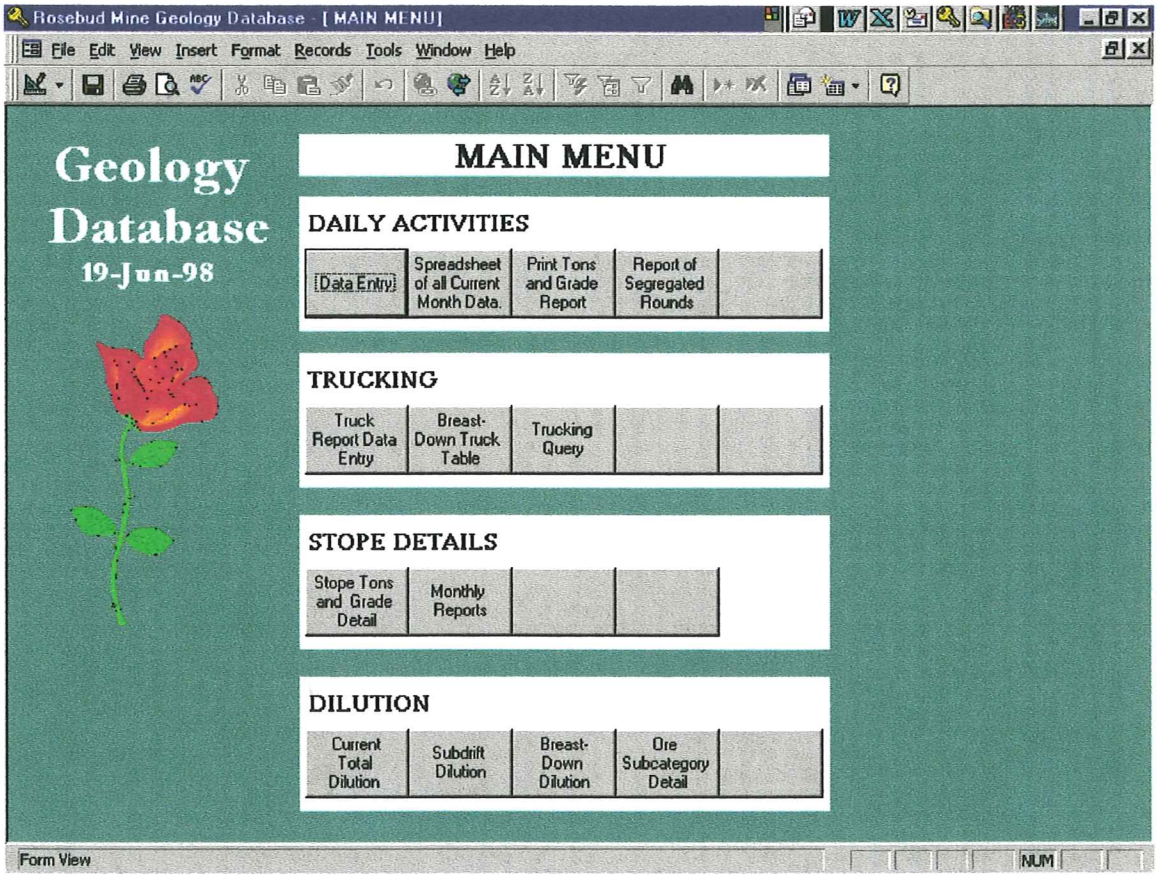


SECTION II

Section II - Navigation Within the Rosebud Database

The Main Menu

The key to moving around the database and viewing data is the Main Menu. This menu will appear automatically about 7 seconds after the Introduction screen. Clicking the gray buttons on this menu will provide a large variety of data through the forms and reports in the database. To get a short explanation of what each button on this menu does, hold the cursor over the button and a yellow tag with a brief description will appear. The pages to follow will list each button, and describe in detail what each button does when you click on it.



PLEASE TURN TO THE NEXT PAGE!

Descriptions of Each Button on the Main Menu

Daily Activities

Data Entry

This button opens the SpreadsheetQuery, which displays all the rounds for the current month in a datasheet (spreadsheet) form. This query is used for daily data entry and editing of existing data. To get back to the main menu when you are in this query, go to FILE, then CLOSE. If the query asks if you want to save designs, say OK. It is asking about saving any data parameters set in design view, and about keeping any sorting parameters you have set.

Spreadsheet of Current Month Data

This button will send a copy of the SpreadsheetReport to the D-Sized plotter. The SpreadsheetReport is a large spreadsheet of all the current month data. Currently this plotter is on the network, and is accessed through Matt Blattman's computer. If, for some reason, this report will not print, check to make sure his computer is turned on.

Print Tons and Grade Report

This button will open a dialog box with a choice of reports to print. These reports are daily tons/grade/ounces reports which are distributed several times per week. After you choose your report, you will be prompted by another dialog box to choose month and year parameters for the report you are printing. To close the dialox box, click on the X in the top right corner of the box.

Report of Segregated Rounds

This button will show the rounds which are currently segregated by the geologists. If there is no segregated material, a message will appear to let you know that there are no segregated rounds.

Trucking

Breast Down Truck Table

This button will open the table which stores information on trucked tons for breast-down rounds. This table stores date, location, tonnage, and ore/waste designation for each breast-down area that is mucked out. To get back to the Main Menu from this table, go FILE, then CLOSE.

Trucking Query

This button will open the TruckingQuery, which is a join query between the TruckingTable and the BreastDownQuery. Each of the two has location information that is identical between them (each has stope, level, panel, round#). This allows the identical rounds to be joined together, and unique information from each will be combined to form new records in the TruckingQuery.

(EX: TruckingTable 23 P-3 Round 1 has 400 truck tons, BDQuery 23 P-3 Round 1 has 600 measured tons, 207 ounces, and a grade of 0.345. Combining these rounds, because the location information matches exactly, makes a new record: 23 P-3 Round 1 600 measured tons, 400 trucked tons, a grade of 0.345, and a new ounces field with ounces based on the truck tons *breast-down measured grade. New ounces would be 138.)

Stope Details

Stope Tons and Grade Detail

This button opens a form which allows you to choose year, month, stope and level parameters to view data within the database. After you have set your parameters, and clicked on VIEW DATA, the data will appear in datasheet view in a subform at the bottom of the screen. The total tons and grade for the displayed data will be shown in a smaller subform in the upper right corner. You may change data parameters as often as you wish, just remember to hit VIEW DATA each time you change something. IN ADDITION, you can make changes/edits to the data in the large subform, so be careful when you are moving around in this portion of the form.

Monthly Reports

This button opens a small dialog box which prompts you for a year and month. When you click OK, the selected monthly report will open. You will see a blue background and an OPEN and CLOSE button. Click OPEN to view the monthly report in Excel. This is a Pivot Table report, and it draws its data from the SpreadsheetQuery. The data is visible in the upper left of the Excel spreadsheet, and the report form that is distributed to personnel is to the right, below the data. There are blank reports, from July to December 1998, already created and ready for data. After December 1998, new reports will have to be created for each production month.

PLEASE NOTE: The form with the blue background and the OPEN and CLOSE buttons was created for ease of transition in navigating the database over the next few months. It was created by hand for each separate monthly report through December 1998. After December 1998, you will need to begin creating a new pivot table report each month to report stockpile numbers. For new pivot table reports, the only navigation button that will appear is a small gray one that says "Edit Pivot Table". The process of creating a new pivot table is detailed in another section of this booklet.

Dilution

Current Total Dilution

This button will open the DilutionRepTotal report, which shows the total tons and percent dilution for the month that you specify.

Subdrift Dilution

This button will open the DilutionRebSub/BU report, which shows the total tons and percent dilution for the subdrift rounds in the month and year that you specify. This report will also show the specific rounds in a subreport.

Breast Down Dilution

This button will open the DilutionRepBD report, which shows the total tons and percent dilution for the breast-down rounds in the month and year that you specify. This report will show the dilution rounds and their truck tons, and will show the breast-down dilution rounds and the original measured tons.

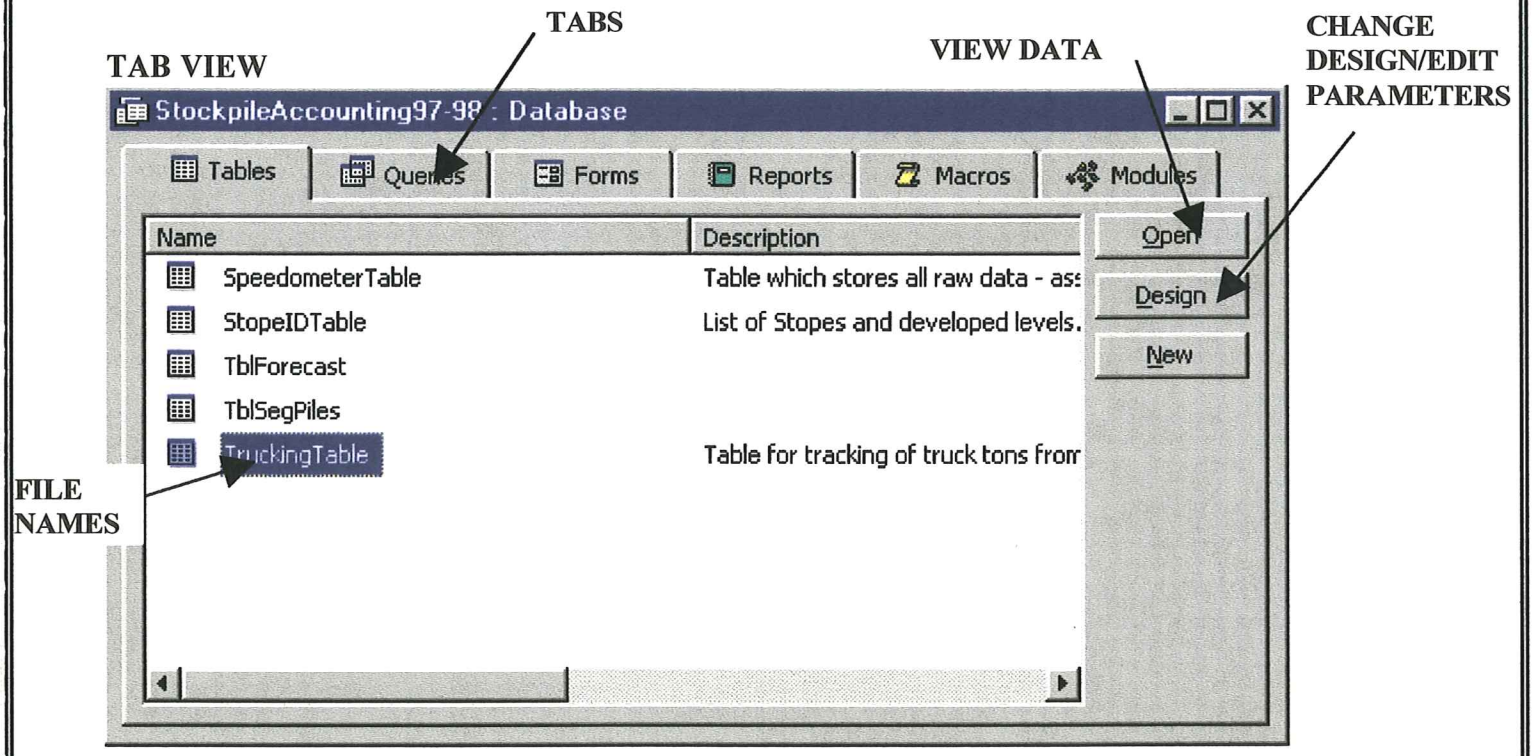
Ore Subcategory Detail

This button will open a report which shows tons, grade, ounces, and percentage of total tons for each grade category within the ore pile (ore, subgrade, and waste) for the month and year that you specify.

Navigating Behind the Scenes

At some point, someone will need to go beyond the Main Menu, to add or change reports, to alter choices so that the years 1999 and 2000 are available for reports and forms, to make new forms, to fix glitches in reports, to add to the Tblforecast and StopeIDTable, and to create new monthly reports with the data. This next section goes over the basics of getting around behind the scenes in Access, how to get into and out of things, etc.

TO GET BEHIND THE MAIN MENU AND VIEW THE SKELETON, HIT F11. AFTER YOU HAVE DONE THIS, YOU SHOULD SEE SOMETHING THAT LOOKS LIKE THIS:



TABS: As you click on each tab, you will see a list of different files for each category.

FILE NAMES: Each file name represents a different table, query, form, report, macro, or module.

VIEW DATA: Clicking on this button allows you to see whatever data is stored in the table or query, forms for filling in data or extracting data, and static views of reports.

CHANGE DESIGN/EDIT PARAMETERS: Clicking on this button allows you to see the design of a table or the parameters of a query, the details of a form and its objects, and the details of a report and its objects and equations.

The next section will detail how to navigate each separate category.

TURN THE PAGE.....

SECTION III

Section III – Basics of Tables, Queries, Forms, and Reports

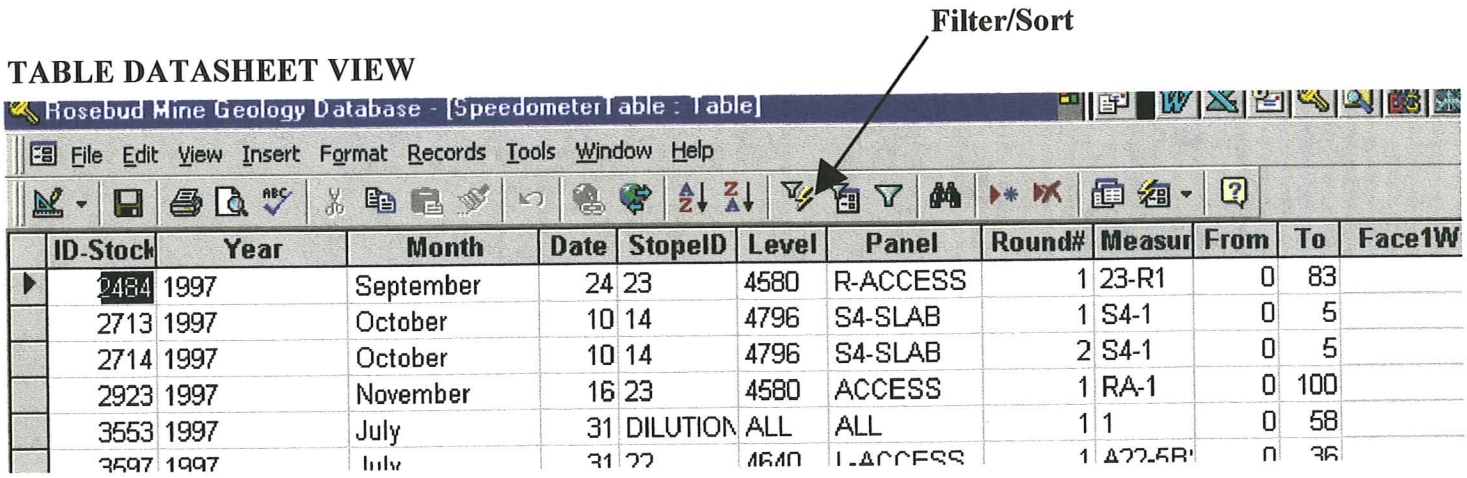
Tables

Tables store all raw data that is input into the database. Each row is a unique record with a unique ID number. Each column is a field, with one piece of information about a record. Each record has many fields/columns.

Datasheet View

Double clicking on the file name, or clicking on the OPEN button to the right in TAB view will open the table and display all the available records in a datasheet/spreadsheet view. This data can be filtered/sorted temporarily by clicking anywhere in the sheet and clicking on the lightning bolt at the top of the screen. When the table is closed, the filter will be removed. The next time the table is opened, all the records will be displayed.

TABLE DATASHEET VIEW

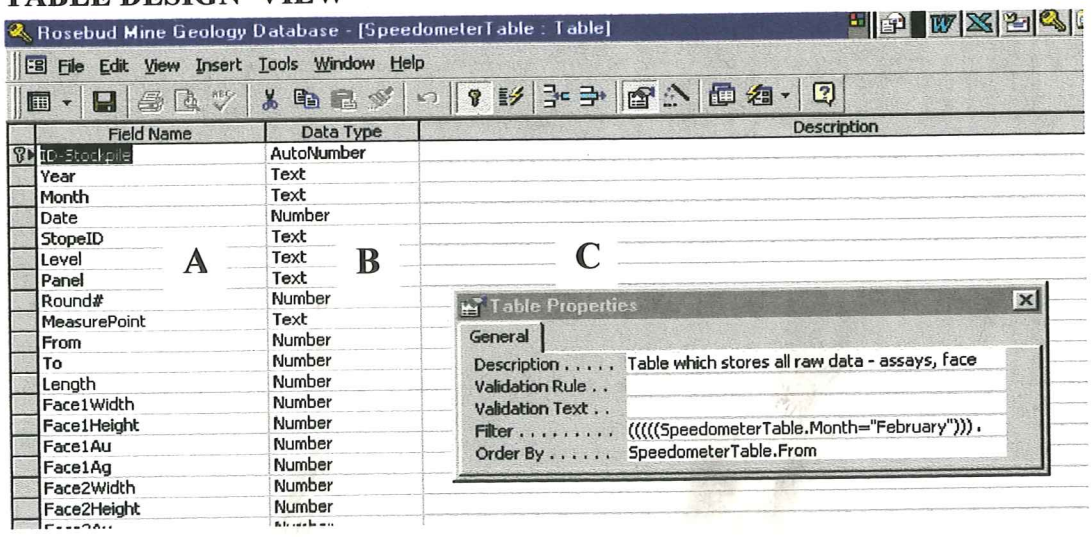


ID-Stock	Year	Month	Date	StopeID	Level	Panel	Round#	Measur	From	To	Face1W
2484	1997	September	24	23	4580	R-ACCESS	1	23-R1	0	83	
2713	1997	October	10	14	4796	S4-SLAB	1	S4-1	0	5	
2714	1997	October	10	14	4796	S4-SLAB	2	S4-1	0	5	
2923	1997	November	16	23	4580	ACCESS	1	RA-1	0	100	
3553	1997	July	31	DILUTION	ALL	ALL	1	1	0	58	
3597	1997	July	31	22	4640	L-ACCESS	1	A22-5R'	0	36	

Design View

By clicking on the green triangle in the upper left, you will enter design view of the table. Column A is where field names are entered. Column B is where the field data type is entered (text, number, etc). Column C is for comments and notations about the field.

TABLE DESIGN VIEW



Query Design View

By clicking on the green triangle in the upper left on the menu bar, you will enter the design view of the query.

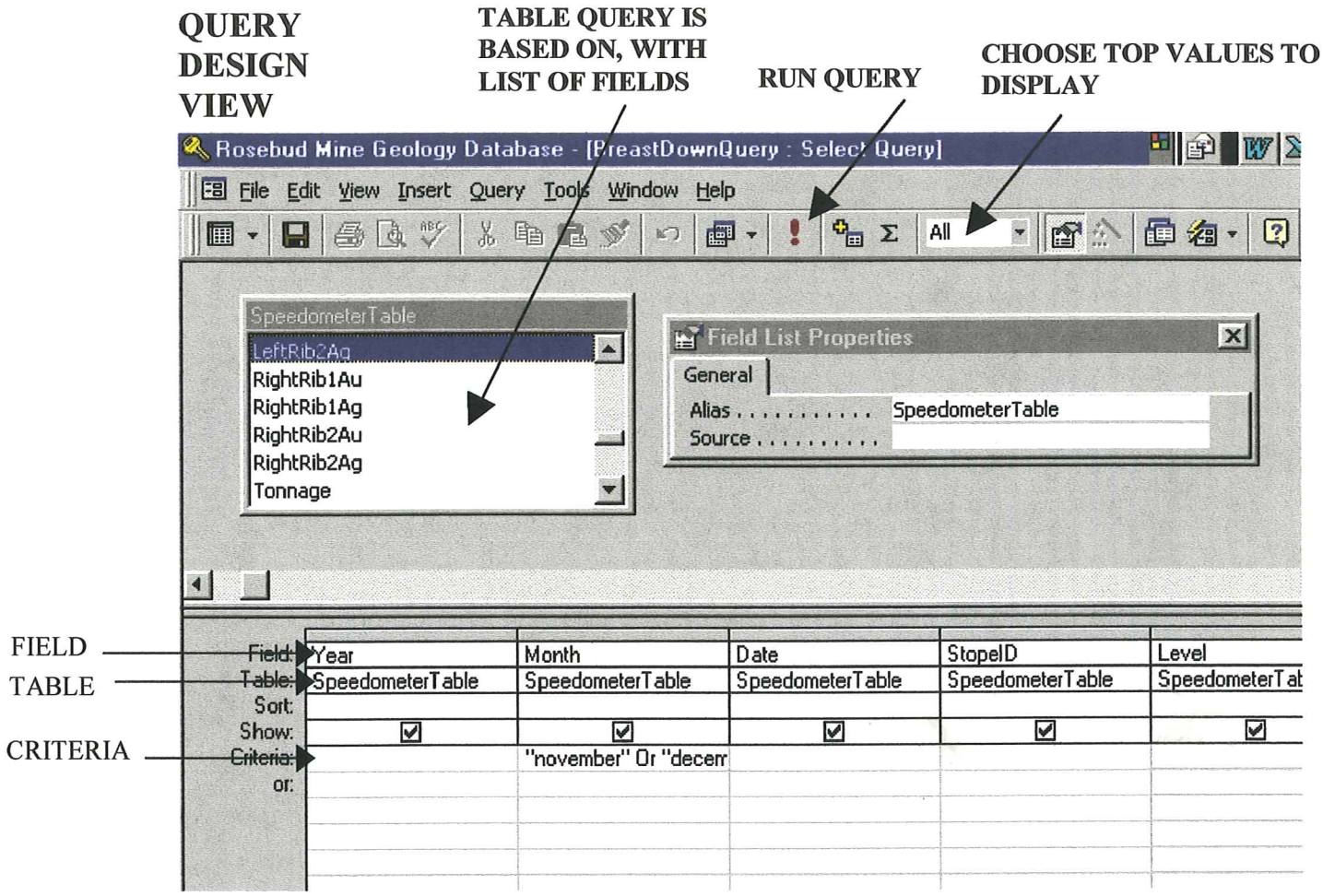


TABLE QUERY IS BASED ON: In a new query, you are prompted to choose a table to base the query on. (The raw data has to be stored somewhere before you make a query) After you choose your table, a box will appear in the top of the design view. This box contains a list of all the fields in the table. You can choose any of these fields, and drag them to a "field" box at the top of one of the columns. Once the field name appears in one of these column headings, it is part of the query. When you run the query, information from that field in the table will appear in your query datasheet view.

RUN QUERY: When this button is clicked, the query will process with the information that is specified in the field row, and any with any restrictions/criteria specified in the criteria row. The datasheet view will appear after this button is clicked.

TOP VALUES: Before you run the query, you may choose to see the top 5 values, or a certain percentage of the values (top 25%). There are several choices for viewing the "top" values"

CRITERIA: Setting parameters in the criteria row allows you to filter/sort your data before you run the query. If the parameters are set and not changed, the query will retain this filter even after exiting and re-opening it. In the example on the previous page from the SpreadsheetQuery the month criteria has been set for records falling in the month of November or December. You may set parameters for as many fields as you like. Remember that each parameter set will narrow your data down, and limit what is displayed when you run the query.

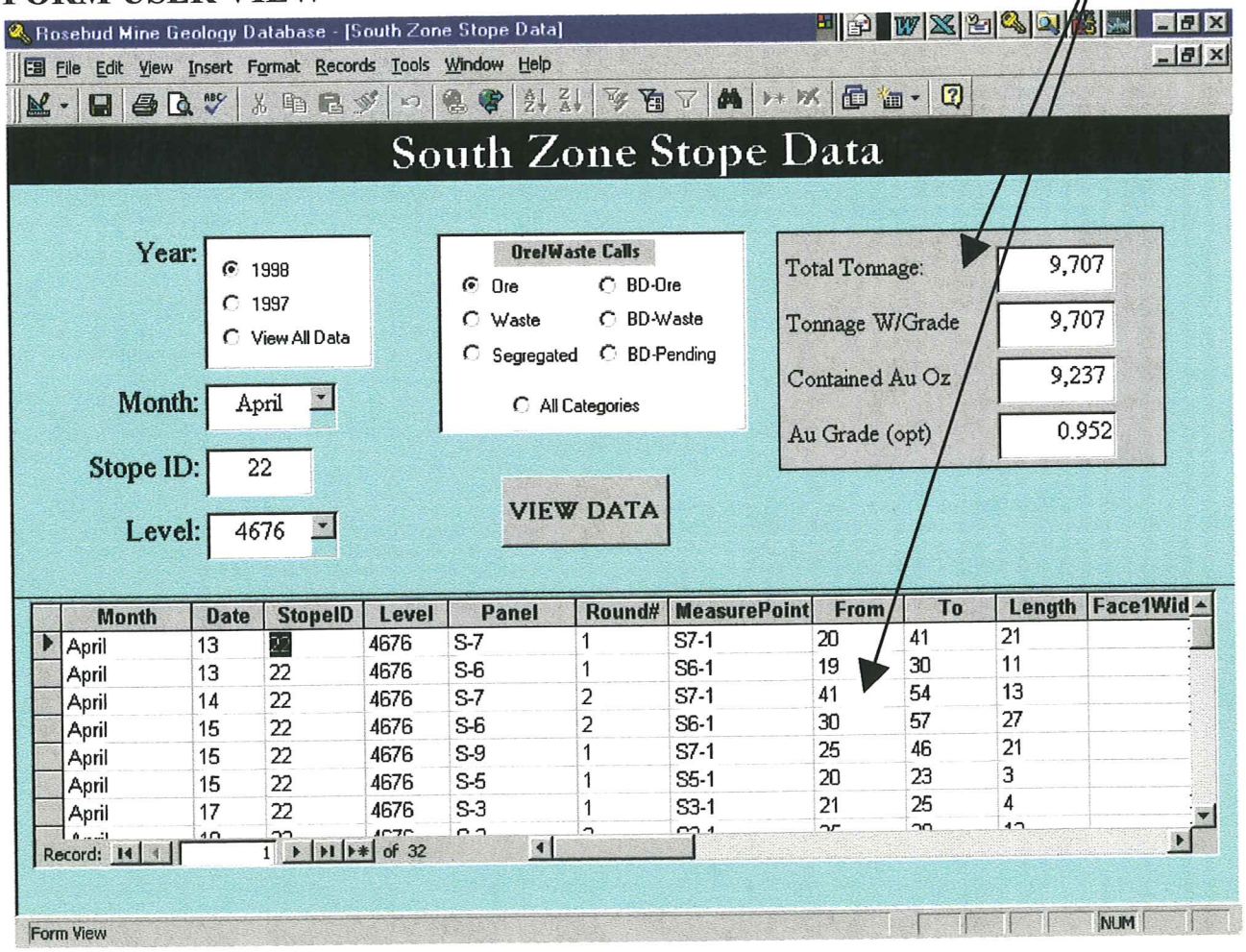
NOTE: Some queries in the database are linked to forms and reports. When these queries are opened, the criteria row will show a reference to a text box in another form or report (Forms!DataEntryForm!Month). This reference specifies either form or report, then the file name, and then the name of the text box in the form or report. When you fill out this text box in a form, the data you type will be transmitted to the criteria row of the query, and the qurey will run with that parameter/filter. When you run across a situation like this, BE VERY CAREFUL ABOUT CHANGING OR EDITING THE REFERENCE. Without that reference, certain forms and reports will not work.

Forms

Forms provide a way to display data in a customized format, or enter data in a logical format. There are two basic types of forms. A bound form is bound to a table or to a query, and additions or deletions of data will actually change the data in the underlying table. An unbound form is not connected to a table or query. It can be used to provide a "search" format, when users need to look for specific data without actually making changes to it. One examples of this type of form is the type used in library card catalogue databases. You enter data into a form to search for books, but the information you type never changes the data stored in the database. A bound form, like a data entry form, will allow users to enter information and have that data stored as part of the database. Shown below is one example of a form created within the geology database.

SUBFORMS

FORM USER VIEW



TYPES OF FORMS:

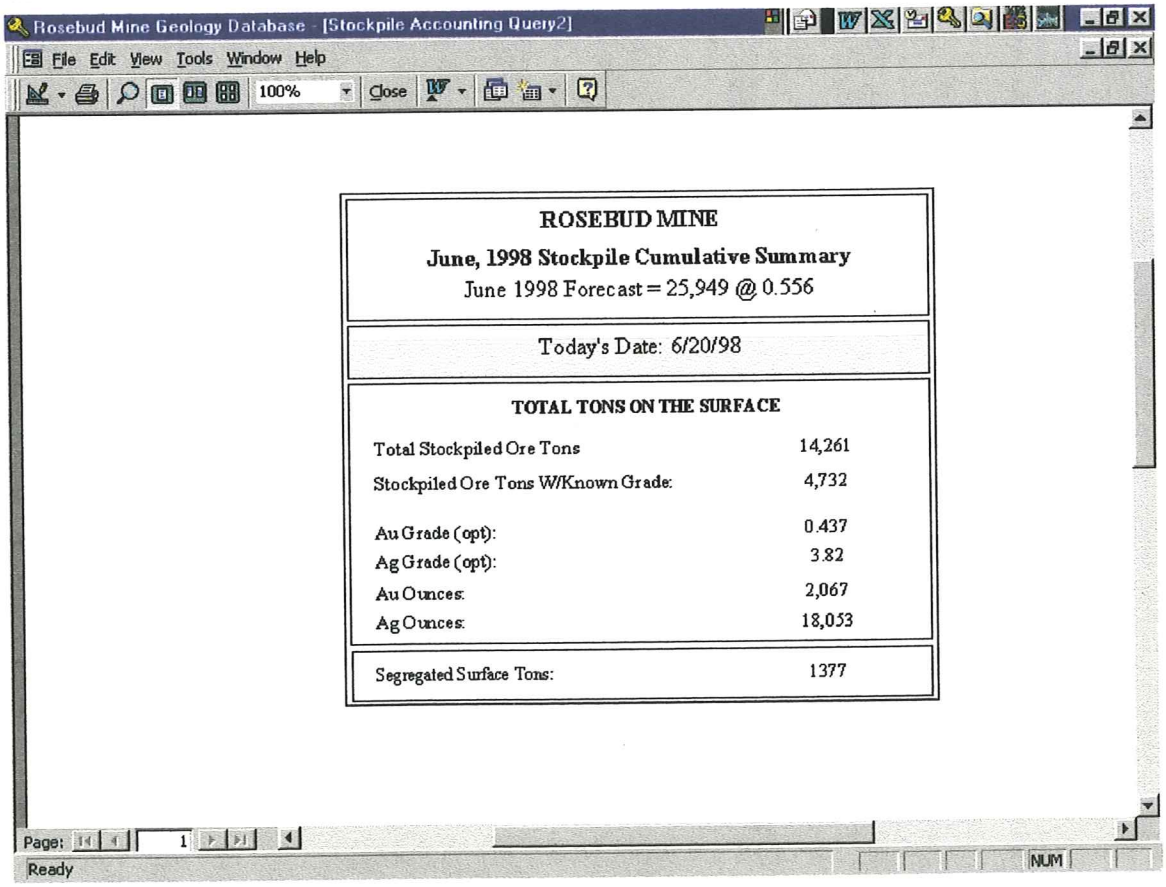
Unbound – not bound to a table or query, typically used as a "search" form.
Bound – bound to a table or query, entering data in text boxes adds and/or changes data in the table.
Subform – bound form embedded within another form.
Dialog Box – small unbound form, often used to set criteria for reports.
Data Entry – bound form, used to enter data into a table or query.

Reports

Reports are similar to forms, but they require no user interaction. A report is a static view of data stored in tables and queries. A report is formatted in design view with the necessary fields, and additional fields are created to perform any calculations desired for the report. Because a report is based on information from tables and queries, it will change each time data in your tables and queries changes. For this reason, reports are excellent for displaying data that changes daily. **You can only look at the data in a report, you cannot change it unless you go back to the table or query where the data is stored.**

Below is an example of a report used frequently at Rosebud. The formatting and calculations are set up in design view, and the parameters (month and year of the report) are set with a dialog box that appears when you open the report. In addition, this report and many other in the database have a banner for the forecast across the top. This banner pulls information from the TblForecast. It is important to keep that table updated each month. Without that information, the banner will be blank.

REPORT VIEW



SECTION IV

Section IV - Rosebud Database Definitions

Tables

SpeedometerTable

This table stores all measured information for the stopes. It contains information on Stope ID, date, location, width and height measurements, and assays for faces and ribs. This is a TABLE, so no calculated information (tonnage, grade, ounces) is stored here. This table contains all the raw information for the mined stopes since June 1997.

I do not use this table for data entry because it is not possible to see the calculated tons and grade while entering data. Data entry is done in a query.

StopeIDTable

This table contains a list of each stope and it's different levels. Each time a new level is started, the new information must be added to this table. There are some forms which depend on this table to provide choices when searching for data.

TblForecast

This table stores a list of the forecasted tons and grade for each month. Each month when the forecast is distributed, this table must be updated. This table is used for many of the tons & grade reports. When you choose your month and year for display of data, this table will produce the correct month forecast and place it in the banner of the report. Please note that the ForecastAuGrade field is not set as a number field. It is a TEXT field, and therefore the numbers must be entered exactly as you wish to see them printed.

TblSegPiles

This table stores information about rounds which are originally segregated by geologists, before the decision is made to send them to ore or waste. This table tracks the number of tons originally separated from the main ore pile. This tracking was requested by the Engineering department.

TruckingTable

This table stores information calculated from truck reports. It contains date and location information, number of trucked tons, and an ore or waste designation. This information is used to calculate the tonnage and grade obtained from breast-down mining. The information from this table is attached to a query with all measured data. Because the query and the trucking table have the same location information, the query with the measured grade and the table with the tonnage are matched round for round, and grade x tonnage = ounces. These calculated ounces are used in a breast-down report, and used to report total tons and grade for each month.

Queries

AllYearQuery

This query has parameters set completely open. All records in the SpeedometerTable are available in datasheet view, and tonnage, grade, and ounces have been calculated for all rounds. All information is calculated at 13.8 cu. Ft/ton bulk density.

BreastDownQuery

This query shows all breast-down rounds. It is not attached to any forms or reports, so the datasheet parameters (set in design view) can be changed to view any particular month and year that you wish.

BreastDownQuery2

This query is a copy of the one above, but the parameters are designed to be set through a remote form which is activated by various reports. It is important to remember that the parameters in design view should NOT be changed, or the forms that this query is designed for will not work!

DilutionQuery

This query provides data from the SpeedometerTable to the main part of the DilutionReport form. The DilutionReport allows you to choose month, year, and the Au grade range. The parameters you input on this form are transmitted to the query, and the query then supplies the information that is asked for. It is important to remember that the parameters in design view should NOT be changed, or the form that this query is designed for will not work.

DilutionQuery2

This query is the base query for the DilutionQuerySubreport. The DilutionQuerySubreport is the portion of the DilutionSubdrift/BU report which displays any ore rounds with dilution grade. It is important to remember that the parameters set in design view for this query should NOT be changed, or the form that this query is designed for will not work.

FaceDataQuery

This query is the base query for the FaceDataSubform in the SzoneStopeData form. The FaceDataSubform provides detailed round-by-round information based on information input by the user at the top of the main form

QryForecast

This query pulls information from the TblForecast. It takes the tonnage number and separates it into a hundreds column and a thousands column. (Ex: 25465 is split into 25 and 465) This is done in order to place a comma separator between the numbers in the reports that use the forecast number in the banner.

QryOreSub

This query is used to gather data for the OreWasteSubgrade report, which reports the tons, grade, and ounces of the three grade categories within the ore pile. It is important to remember that the parameters set in design view should NOT be changed, or the report that uses this query will not work correctly.

SegregatedPilesFeb98

The parameters of this query are set very specifically to show the rounds which were set aside in a special segregated pile for the mill in February 1998. The query will show the rounds calculated with gravimetric assays (marked with "Grav" in the SpecialMillPile field) and rounds calculated with metallic screen assays (marked as "ore" in the OreWastePending field). TO SEE FEBRUARY TOTAL TONS AND GRADE CALCULATED WITH ORIGINAL GRAV ASSAYS, SEE THE COPY OF THE DATABASE WITH ORIGINAL FEBRUARY NUMBERS!

SpreadsheetQuery

The parameters of this query are open to be changed at any time, but are usually set to display the current month's data. This query is used for daily data entry and edits of current month data.

StockpileAccountingQuery2

This query is set to display rounds which are segregated by the geologists. It is not set to a particular month, because it is assumed that the only segregated rounds will be in the current month.

StockpileAccountingQuery3

This query will display segregated rounds for various reports within the database. The parameters are set with a remote dialog box. It is important to remember that the parameters set in design view should NOT be changed, or the reports that use this query will not work correctly.

StopeIDQuery

This query shows each level of a selected stope. This query is used in the SzoneStopeData form: when a stope is selected for viewing, the combo box for choosing a level is restricted to a list of the levels in the chosen stope.

TruckingQuery

This query is a join: it joins the BreastDownQuery with the TruckingTable. The Stope, Panel, Level, and Round # for the query and the table are matching fields (the fields are exactly the same in the table and in the query). Therefore, the query and the table will connect for every round in which the data is the same for Stope, Level, Panel, and Round#. Each displayed round will show the data which is the same to both the query and table, and the data which is unique (BreastDownQuery has original measured tons and grade; TruckingTable has truck tons). There is a new field created with the join, where the BreastDownQuery Au grade is multiplied by the TruckingTable truck tons. This new field calculates Au ounces, based on truck tons and geology sampled grade.

The parameters on this query are open and this is useful for a quick look at a specific month or a specific stope. PLEASE be aware that in design view there are several lines drawn between the box with the TruckingTable fields and the box with the BreastDownQuery fields. These lines represent the connections between the table and the query on specific fields (lines connect fields which are identical between the table and the query). Changing or deleting these lines will result in the wrong data being displayed. NOTE: In order to display a round, the join information must exist in both the BreastDownQuery and in the TruckingTable. For example, if you have a 23 P-3 Round 2 in the TruckingTable, and you have not set the parameters so that this round is ALSO displayed in the BreastDownQuery, it won't show up in the join query. This becomes important when you are trying to get information when you measure tons in one month, but truck the next. The best method if using this join query is to leave the BreastDownQuery parameters open (not set to a particular month or year) and restrict the TruckingQuery parameters.

TruckingQuery2

This is the same query as above, but the parameters are set with a remote dialog box. This is used for generating reports. It is important to remember that the parameters set in design view should NOT be changed, or the reports that use this query will not work correctly.

Forms

Forms provide a way to view the data that is stored in tables and calculated by queries. In general, a form is designed to provide a logical, structured view of a dataset, or to allow data entry through a simple user interface. I have not set up any forms for data entry, because I feel that it is easier to view and enter data in the "spreadsheet" view provided by a query.

There are several types of forms. Dialog boxes are forms which pop open and allow you to choose data parameters for viewing other forms or reports. Forms with "Monthly" on the end of the name are Pivot Table forms. These forms use query data in an Excel spreadsheet, and are where all the monthly reports are stored.
Some forms are set as view-only, with no user interaction (the Intro screen is one of these) There are also several forms which will allow you to set parameters within the form, and will then provide the information you request on a Subform.

I would not recommend going into design view to change the look or function of any forms until you are more familiar with Access. Consider experimenting with creating some simple forms of your own, just to become familiar with the process.

October97Monthly-June98Monthly

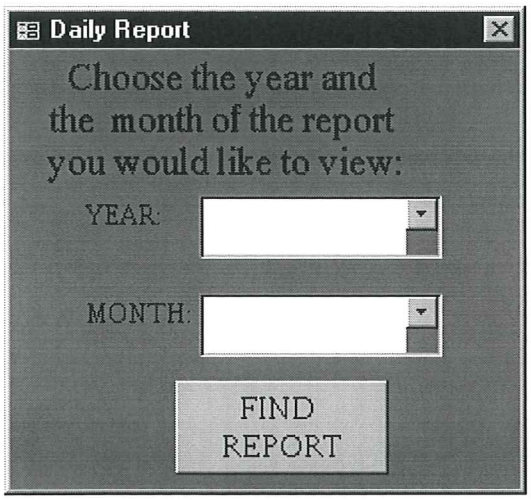
These are pivot table forms, one for each month of production. When this form is opened, you have the choice of opening the report or closing it. To view the Excel spreadsheet, choose Open Report. You will see a typical Excel worksheet, with the data in the upper left corner. The original report is based upon the SpreadsheetQuery, which had parameters set to the month you are viewing. (Note: If you want to recalculate the data for a particular month, make SURE that the SpreadsheetQuery is set to the same month as the monthly report you are viewing.) In the corner below the data is the form that we distribute to the mine personnel.

I have set up the blank report forms for the rest of the year, through December 1998. After this, you will need to begin creating new pivot tables for each new month of production. In addition, the interface with the blue background and Open and Close buttons are modifications done by hand. New pivot tables will have only one button that says 'Edit Pivot Table".

BE AWARE: When using the pivot table data for summing grade and ounces, remember that the breast-down tonnage in these reports is MEASURED, not trucked. To get the correct TRUCK numbers for breast-down ore, you must create another pivot table from the TruckingQuery.

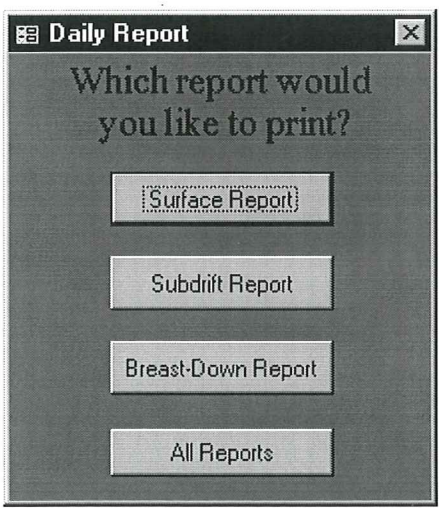
ChooseMonthlyReportDialogBox

This is a dialog box which allows you to choose a monthly report to view.



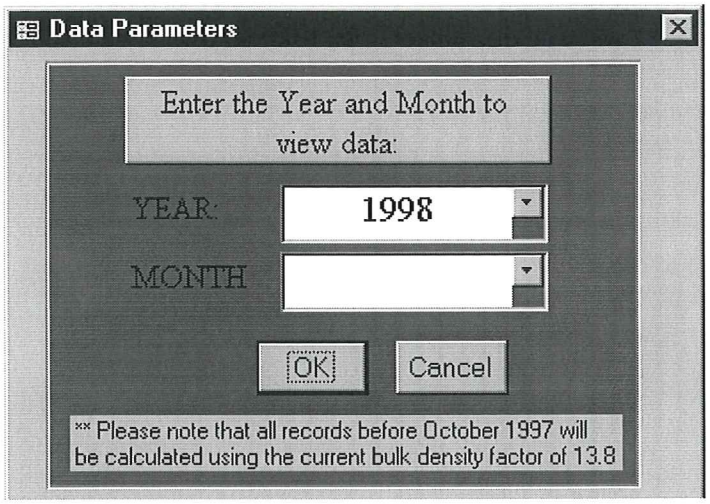
ChooseReportDialog

This is a dialog box which provides choices of three reports to print (Surface Tons/Grade, Subdrift Tons/Grade, BD Tons/Grade). To close this, click on the X in the upper right corner.



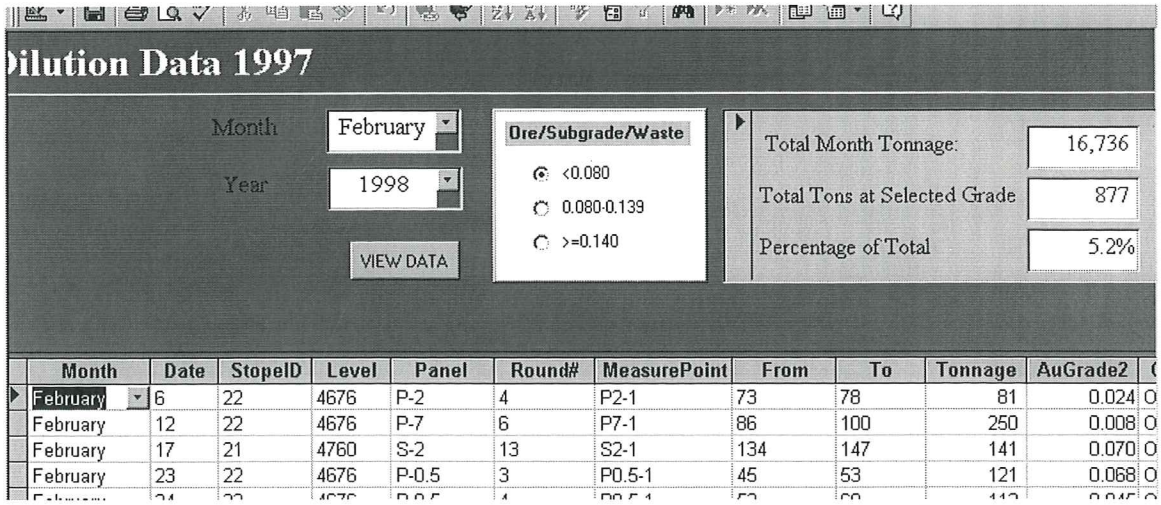
DilutionParametersForm

This is the parameters dialog box which is used for 90% of the reports which are available in the database. This form is a pop-up form, and it allows you to choose the month and year of the data that you want to view. This form is linked to many of the queries in the database. The choices you type into the blanks are transmitted into the design view of the queries, and are used as parameters for gathering data. After you choose your parameters, the report you wanted to see will open, and the data you see will be restricted to the year and month you selected. The dialog box will close automatically after you click OK.



DilutionReport

This is a multi-part form for displaying data on the tons and grade of material that fall within three ore subcategories. The main part of the form allows you to choose the month and year you wish to view, and there is a set of check buttons which allow you to choose a subcategory. When you hit the View Data button, the parameters you set are transmitted to the query behind the form, and the data will be displayed in the subform on the bottom of the screen. The data will appear in datasheet view, and you may need to scroll sideways/up and down to view all the information. In the top right corner, the total tons and grade of the displayed data are shown in another subform. You may change parameters as often as you like, just remember to hit the View Data button to change the view and the calculations.



Month	Date	StopeID	Level	Panel	Round#	MeasurePoint	From	To	Tonnage	AuGrade2
February	6	22	4676	P-2	4	P2-1	73	78	81	0.024
February	12	22	4676	P-7	6	P7-1	86	100	250	0.008
February	17	21	4760	S-2	13	S2-1	134	147	141	0.070
February	23	22	4676	P-0.5	3	P0.5-1	45	53	121	0.068

DilutionSubform

This is the large subform on the bottom of the DilutionReport form which displays all the rounds within parameters set on the main form.

DilutionTonsSubform

This is the small subform in the upper right corner of the DilutionReport which displays the total tons and grade of the data displayed in the DilutionSubform.

FaceDataSubform

This is the large subform on the bottom of the SZoneStopeData form which displays all the rounds within parameters set on the main form.

MainSwitchboardCopy

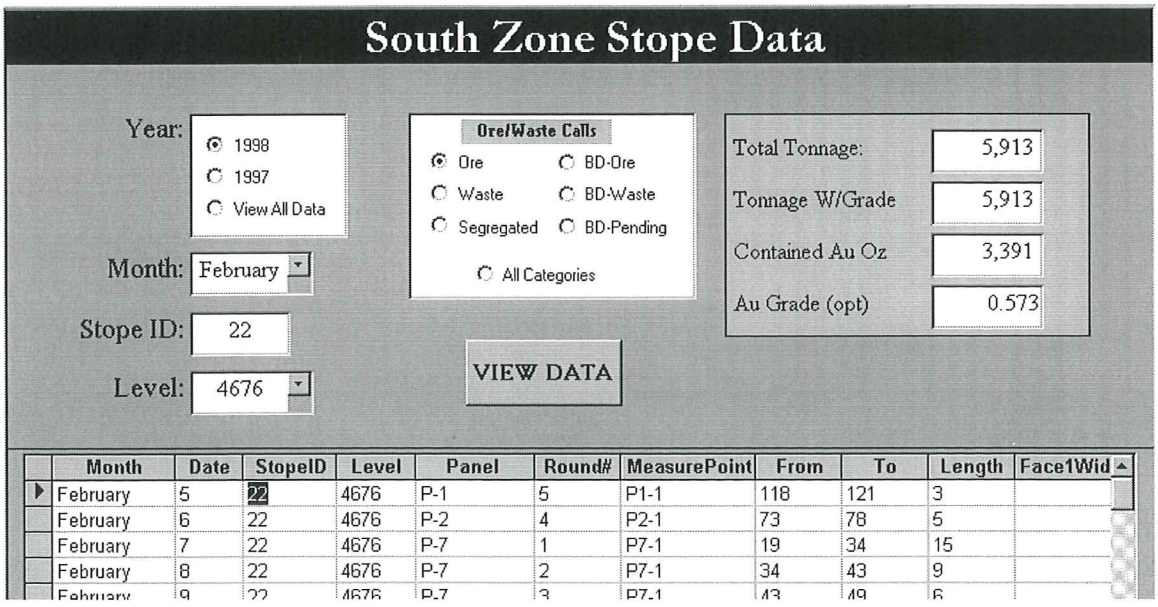
This is the Main Menu form which has all the buttons that control user access to the database. There are several blank buttons for future forms and reports that will be created.

Start-UpForm

This is the title screen for the database. It contains information on the proprietary nature of the database, date of creation, etc. When this form appears, it will stay visible for about 7 seconds, after which the Main Menu will appear.

SzoneStopeData

This is a multi-part form which allows the user to choose data parameters, and display information about stopes in the South Zone. The main form lets the user set parameters for year, month, stope, level, and the stockpile designation (ore, waste, bd-ore, etc.) The data is displayed in a subform on the bottom of the screen, and the tons/grade are calculated in a small subform in the upper right corner.



TonnageForm

This is the small subform for the SZoneStopeData form which calculates tons/grade of data displayed in the FaceDataSubform.

Reports

Reports are a way to view and print data from tables, queries, and forms. A form is set up with a specific format, title blocks, banners, etc. and. The difference between a form and a report is that the data displayed in a report cannot be accessed by the user, and cannot be edited. The data is displayed in a static format. In a form, users can enter data to produce results, or enter data which will be transferred and stored in a table. The results of a report are **not** stored anywhere permanently. The view will change each time your tables and queries change. This makes a report useful for daily monitoring of data. Reports can be printed out exactly as they are displayed on the screen.

Reports are complicated, because of the equations set up in design view. Each piece of data that you see has been pulled out of a table or query and used in equations with a reference system. This referencing system requires each data item to be identified with the table or query name and other additional information about its location. I recommend practicing creating simple reports before attempting to get into the design view of any established reports and making changes.

NOTE: All reports in the database, except the SpreadsheetDaily, will pop up a parameter dialog box when the report is opened. This box will prompt you for month and year, to ensure that you are looking only at data you are interested in. When you hit OK, the parameter dialog box will close automatically.

BreastDownReport

This is a report of all mined breast-down material for the month selected. Tonnage and grade are based on trucked tons, not measured tons.

ROSEBUD MINE

May, 1998 Stockpile Cumulative Summary

May 1998 Forecast = 21,938 @ 0.423

Today's Date: 6/22/98

BREAST DOWN SURFACED

Total Breast Down Tons Surfaced:	4,615
Total Stockpiled Ore Tons:	4,293
Stockpiled Ore Tons W/Known Grade:	4,293
Au Grade (opt):	0.256
Ag Grade (opt):	0.58
Au Ounces:	1,099
Ag Ounces:	2,479
Total Stockpiled Waste Tons:	322
Stockpiled Waste Tons W/Known Grade:	322
Au Grade (opt):	0.163
Ag Grade (opt):	0.23
Au Ounces:	52
Ag Ounces:	75
Segregated Surface Tons :	0

DilutionQuerySubBD

This is a subreport which displays the breast-down dilution rounds for the selected month within the Breast-Down Dilution report.

DilutionQuerySubreport

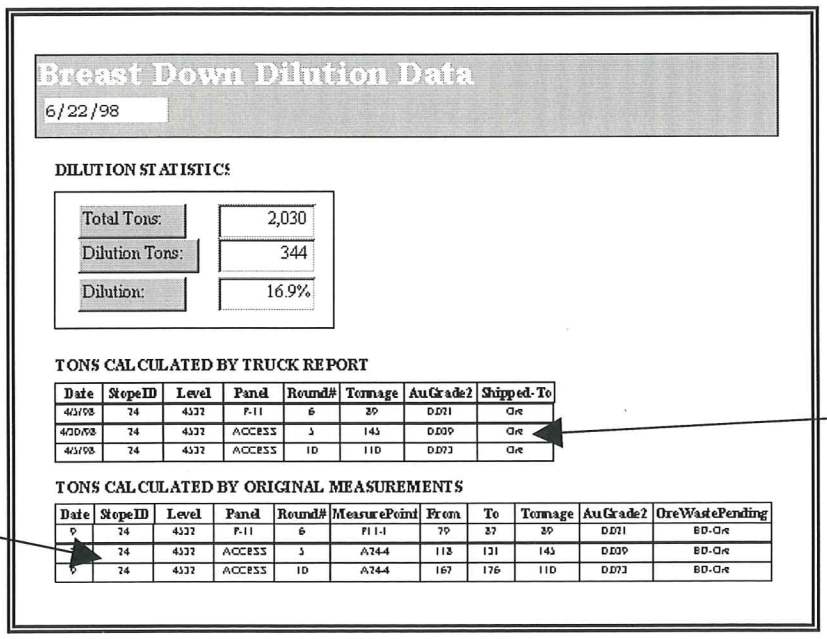
This is a subreport which displays all the subdrift/bottom-up rounds for the selected month within the Subdrift/Bottom-up Dilution report.

DilutionQuerySubTrucks

This is a subreport which displays the TruckingTable rounds which match the BreastDownQuery dilution rounds for the selected month.

DilutionRepBreastDown

This is the main dilution report for breast-down rounds. It calculates breast-down dilution percentage for the selected month.



Breast Down Dilution Data

6/22/98

DILUTION STATISTICS

Total Tons:	2,030
Dilution Tons:	344
Dilution:	16.9%

TONS CALCULATED BY TRUCK REPORT

Date	StopeID	Level	Panel	Round#	Tonnage	AuGrade2	Shipped-To
4/5/98	74	4532	F-11	6	39	D.021	Ore
4/20/98	74	4532	ACCESS	5	145	D.039	Ore
4/5/98	74	4532	ACCESS	10	110	D.093	Ore

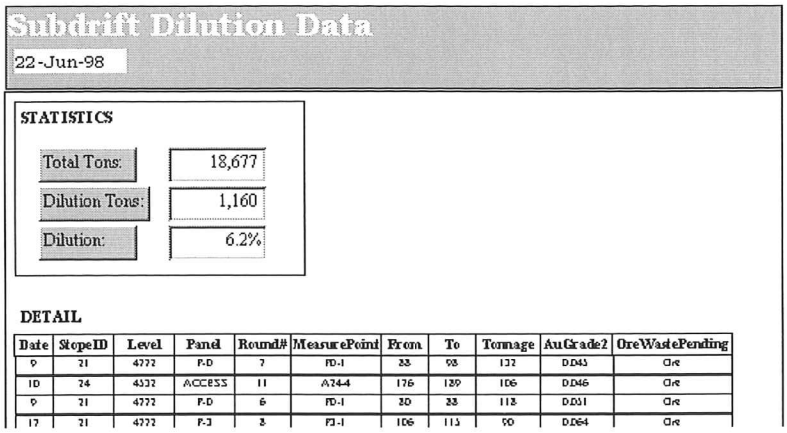
TONS CALCULATED BY ORIGINAL MEASUREMENTS

Date	StopeID	Level	Panel	Round#	MeasurePoint	From	To	Tonnage	AuGrade2	OreWastePending
0	74	4532	F-11	6	F11-1	79	87	39	D.021	BD-Ore
0	74	4532	ACCESS	5	A744	118	131	145	D.039	BD-Ore
0	74	4532	ACCESS	10	A744	167	176	110	D.093	BD-Ore

DilutionQuerySubBD

DilutionRepSubdrift/BU

This is the main dilution report for subdrift/bu rounds. It calculates subdrift/bu dilution percentage for the selected month.



Subdrift Dilution Data

22-Jun-98

STATISTICS

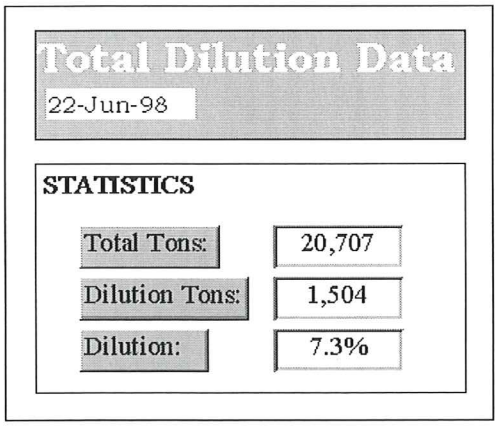
Total Tons:	18,677
Dilution Tons:	1,160
Dilution:	6.2%

DETAIL

Date	StopeID	Level	Panel	Round#	MeasurePoint	From	To	Tonnage	AuGrade2	OreWastePending
9	21	4772	F-D	7	FD-1	33	93	132	DD45	Ore
10	24	4532	ACCESS	11	A24-4	176	189	106	DD46	Ore
9	21	4772	F-D	6	FD-1	30	33	113	DD51	Ore
17	21	4772	F-3	3	F3-1	106	115	90	DD64	Ore

DilutionRepTotal

This adds the breast-down dilution tons and subdrift dilution tons and produces a total dilution percentage for the selected month.



Total Dilution Data

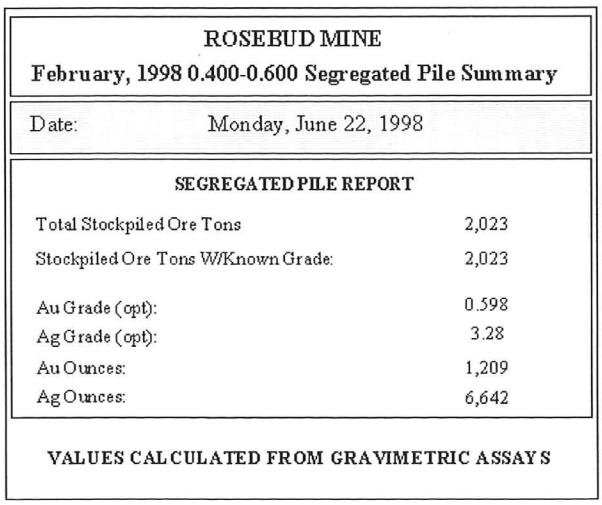
22-Jun-98

STATISTICS

Total Tons:	20,707
Dilution Tons:	1,504
Dilution:	7.3%

FEB98SegregatedPileGRAV

This is a special report which calculates the tons and grade of the special mill pile for February 1998, calculations based upon gravimetric assays.



ROSEBUD MINE

February, 1998 0.400-0.600 Segregated Pile Summary

Date: Monday, June 22, 1998

SEGREGATED PILE REPORT

Total Stockpiled Ore Tons	2,023
Stockpiled Ore Tons W/Known Grade:	2,023
Au Grade (opt):	0.598
Ag Grade (opt):	3.28
Au Ounces:	1,209
Ag Ounces:	6,642

VALUES CALCULATED FROM GRAVIMETRIC ASSAYS

FEB98SegregatedPileMETSCREEN

This is a special report which calculates the tons and grade of the special mill pile for February 1998, calculations based upon metallic screen assays. The report looks the same as the one above (gravimetric assay calculations)

Feb98Total-MillPile

This is a special report which calculates the tons and grade of the ore pile, including tons set aside for the mill. Grade is calculated with metallic screen assays for the tons on the special mill pile.

NOTE: to see the calculations with gravimetric assays, you must exit this database and open the Feb98 copy of the database. That copy is stored with the gravimetric assays used for calculations.

OreWasteSubgrade

This is a report of tons, grade, and ounces in each ore subcategory (ore, subgrade, waste). Data displayed is based upon parameters selected by the user.

Ore, Subgrade, and Waste Percentages Report

March, 1998 Statistics | Today's Date: 6/22/98

Total Tons Ore: 27,176

ORE					
Tons >=0.140:	23,500	Au Grade (opt):	0.611	Au Ounces:	14,361
Percentage of Total:	86.5%	Ag Grade (opt):	3.53	Ag Ounces:	83,008
SUBGRADE					
Tons 0.080-0.139:	2,418	Au Grade (opt):	0.120	Au Ounces:	289
Percentage of Total:	8.9%	Ag Grade (opt):	1.34	Ag Ounces:	3252
WASTE					
Tons <0.080:	1,258	Au Grade (opt):	0.037	Au Ounces:	47
Percentage of Total:	4.6%	Ag Grade (opt):	0.35	Ag Ounces:	437

SpreadsheetDaily

This is a copy of all the current month data, in spreadsheet form. It is formatted for printing, and divided by stope, level, and panel.

SubdriftReport

This is a report of ore tonnage, grade, and ounces for subdrift and bottom-up rounds for the selected month. It also reports any segregated rounds.

ROSEBUD MINE

April, 1998 Stockpile Cumulative Summary

April 1998 Forecast = 23,015 @ 0.584

Today's Date: 6/22/98

SUBDRIFT/BOTTOM UP TONS ON THE SURFACE

Total Stockpiled Ore Tons	18,677
Stockpiled Ore Tons W/Known Grade:	18,677
Au Grade (opt):	0.622
Ag Grade (opt):	4.24
Au Ounces:	11,610
Ag Ounces:	79,248

Segregated Tons Waiting on Assay:

Surface Report

This is a report of ore tonnage, grade, and ounces for all the rounds in the selected month. It looks the same as the one above (SubdriftReport).

SPECIAL NOTES

Special Notes

Security, Passwords, Etc.

Security is set on this database, with a User level and an Administrator level. Users (Kurt, Alex, Chris, and Brian) can use all the forms and reports, and do data entry. They do NOT have permissions set to change the design of tables, forms, or reports. I will leave this security set, but I will leave my administrator password for anyone who needs to get into the database "behind the scenes" to make changes.

User Name: your first and last name, in small letters.
User Password: marcasite

Administrator Name: Tami Rudnick
Administrator Password: 507920195

Password information can ONLY be changed if you are logged on with the Administrator name and password. This information is accessed through the Tools menu on the toolbar, on the Security submenu.

There is a great deal of information stored in this database. If someone enters the database with NO knowledge of what it is used for, and no concept of how to use Access, a lot of data could be lost. This is the reason I set the security. I want to be sure that no one comes in on a weekend or at night, gets on the computer, and inadvertently destroys a years worth of work, and a years worth of Rosebud data.

Things to be done each month

Forecast: Enter the forecasted tons and grade into the TblForecast. This is necessary to ensure that the banner on the weekly reports that are printed is correct.

New Stopes/New Levels: When a new stope is started, or a new level in a stope is started, the information needs to be entered in the StopeIDTable.

Data Entry: The SpreadsheetQuery needs to be set for the current month, in order to be able to do data entry for stockpile accounting and to be able to print out a big spreadsheet report with all the information. Set the correct month and year in the design view of the query.

Monthly Report: To create the monthly report, you must create a new pivot table in FORM view. This form will be based upon the SpreadsheetQuery, so make sure the query is set to the month you are creating the report for. DETAILS:

1. Create a new form, using the PivotTable Wizard.

2. Choose the fields you want to see: Month, StopeID, Level, Tonnage, Tonnage W/Grade, Au Ounces, Ag Ounces, and OreWastePending.

3. On the empty form that appears, click and drag the fields to where you want them. "Month" goes into the PAGE part of the form. StopeID and Level both go into the column at the left side of the form. Tonnage, Tonnage W/Grade, Au Ounces, and Ag Ounces get dragged into the center of the form. OreWastePending goes into the space across the top of the form.

4. Check the tags in the middle of the form. They should all say SUM. If they don't, double-click on them and change AVERAGE to SUM.

5. Finish the form.

When you are finished, you will have an Excel spreadsheet with all the month data divided by stope and level, with tons and ounces calculated. This information will need to be transferred to the monthly report form. I have been copying the form from other reports and pasting it into each new monthly report. You can do this as well.

Name this form "December98Monthly" (Using the correct name for whatever month you are in!)

Things to be done in the future

Preparation for the coming years

At some point you need to think about preparing for the coming years. Things to consider:

- Archiving data from previous years that is no longer needed in the main database.
- Creating a yearly report for tons and grade, creating a total report for production to date.
- How to use your data if the bulk density factor changes from 13.8. There is one query in the database which calculates at 14.4 cu. Ft/ton. All the other queries, and all calculations are done at 13.8. IF you change this factor again, you will need to save one query with calculations at 13.8, and change the calculations in the rest of the queries. This will create a couple of problems:

    1. Any reports you produce will calculate at the NEW bulk density factor. This is occurring now (When you want to look at data from September 1997 and before, the data will be calculated at 13.8, when it was originally calculated at 14.4). A solution may be to create another database with information calculated at the new bulk density. That way you can access your old data, and the new, each calculated with the correct factor.

- Think about creating another database for the East Zone Data and the North Zone Data. It would be best to keep this data separate from the South Zone information. It would also keep the size and efficiency of each database more manageable. This might be accomplished by making a copy of the main database, and adjusting any calculations, etc.

INDEX A

Index A – List of Files in the Rosebud Database

TABLES

SpeedometerTable
StopeIDTable
TblForecast
TbSegPiles
TruckingTable

QUERIES

AllYearQuery
AllYearQuery2
BreastDownQuery
BreastDownQuery2
DilutionQuery
DilutionQuery2
FaceDataQuery
QryForecast
QryOreSub
SegregatedPilesFeb98
SpreadsheetQuery
StockpileAccounting Query2
StockpileAccounting Query3
StopeIDQuery
TruckingQuery
TruckingQuery2
Year-to-Date-Query

FORMS

January98Monthly
February98Monthly
March98Monthly
April98Monthly
May98Monthly
June98Monthly
July98Monthly
August98Monthly
September98Monthly
October98Monthly
November98Monthly
December98Monthly
ChooseMonthlyReportDialog
ChooseReportDialog
DilutionParametersForm
DilutionReport
DilutionSubform
DilutionTonsSubform
FaceDataSubform
MainSwitchboardCopy
Start-UpForm
SZoneStopeData
TonnageForm

REPORTS

BreastDownReport
DilutionQuerySubBD
DilutionQuerySubreport
DilutionQuerySubTruck
DilutionRepBreastDown
DilutionRepSubdrift/BU
DilutionRepTotal
FEB98SegregatedPilesGrav
FEB98SegregatedPilesMETSCREEN
Feb98Total-MillPile
OreWasteSubgrade
SpreadsheetDaily
SubdriftReport
SurfaceReport

ROSEBUD MINE GEOLOGY DATABASE HANDBOOK

JUNE, 1998

CONTEXTS

Table of Contents

AUTHOR S NOTES

Author's Note

SOFTWARE: This database was created in Microsoft Access 97, which came packaged with MS Office 97 on CD.

CREATOR: Tami A. Rudnick

DATE: This database was built in August, 1997.

OWNERSHIP INFORMATION: Any information within this database, including the structure of forms and reports, is proprietary to Rosebud Mining Co., LLC. This database may not be reproduced or copied for use outside the Rosebud property without the permission of the Geology department.

VERSION: There is one version of this database, and a backup copy on Zip-disk. This database should be backed up EVERY time that additions are made to data. In addition, if changes to monthly data are anticipated AFTER the numbers are reported to Accounting, a copy of the database should be saved under a new name on D:/Rosebud 1998/1998 Stockpile Accounting/MonthlyCopies.

LOCATION OF DATABASE FILES: The main database is stored at the following location:

D:/Rosebud 1998/1998 Stockpile Accounting/StockpileAccounting97-98.mdb

The workgroup file which contains information on passwords and database security is located at:

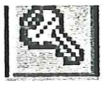
C:/Windows/System/System.mdw

Section I – Accessing the Database

Finding the Correct Icon

There are two ways to access the database:

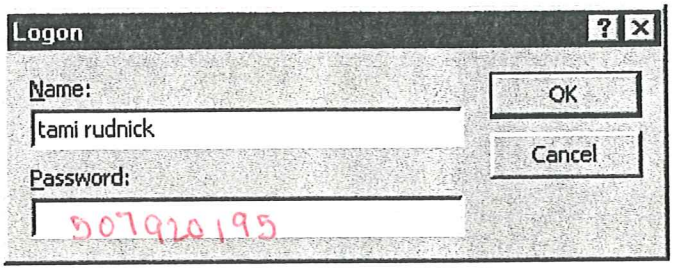
1. Double-click on the "key" icon, located on the Office Toolbar at the top of the main Windows 95 screen.



2. Double-click on the Microsoft Access icon, listed with the other icons on the left side of the Windows 95 screen.

Entering Your Name and Password

After you have started Access, a small dialog box will appear and prompt you for your name and password.



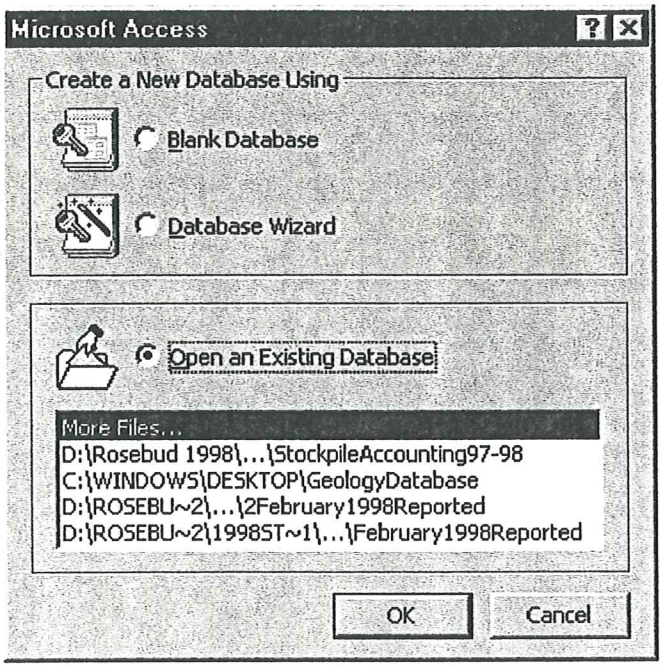
For ease of access to the database, I have supplied you with the administrator name and password. This will allow you access to all parts of the database, without restrictions.

Type in your name and password, and click OK.

Choosing the Correct Database

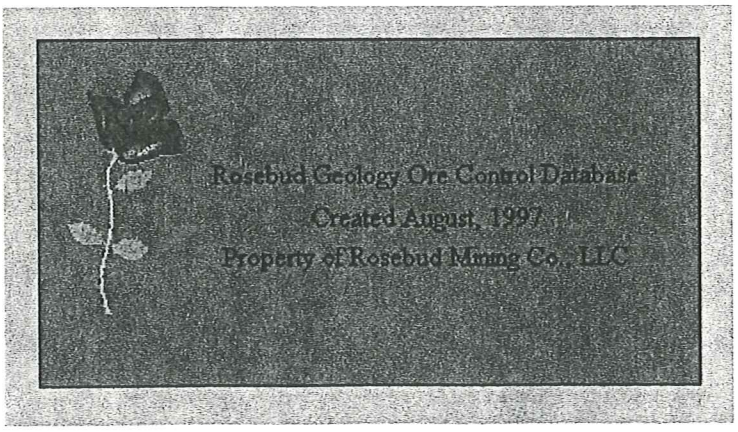
After you have entered your name and password, another small box will appear with a list of database names. Make sure that the check box "Open an Existing Database" is checked. To access the Rosebud Geology Database, double-click on the file name:

D:/Rosebud1998/1998StockpileAccounting/StockpileAccounting97-98.mdb



The Introductory Screen

The database is now open. The first screen you will see is the Introductory/Welcome screen. This screen contains the database title, creation date, and proprietary ownership information. This screen will stay up for about 7 seconds. The user does not have to do anything at this point. The Introductory screen will disappear automatically, and the Main Menu will appear.

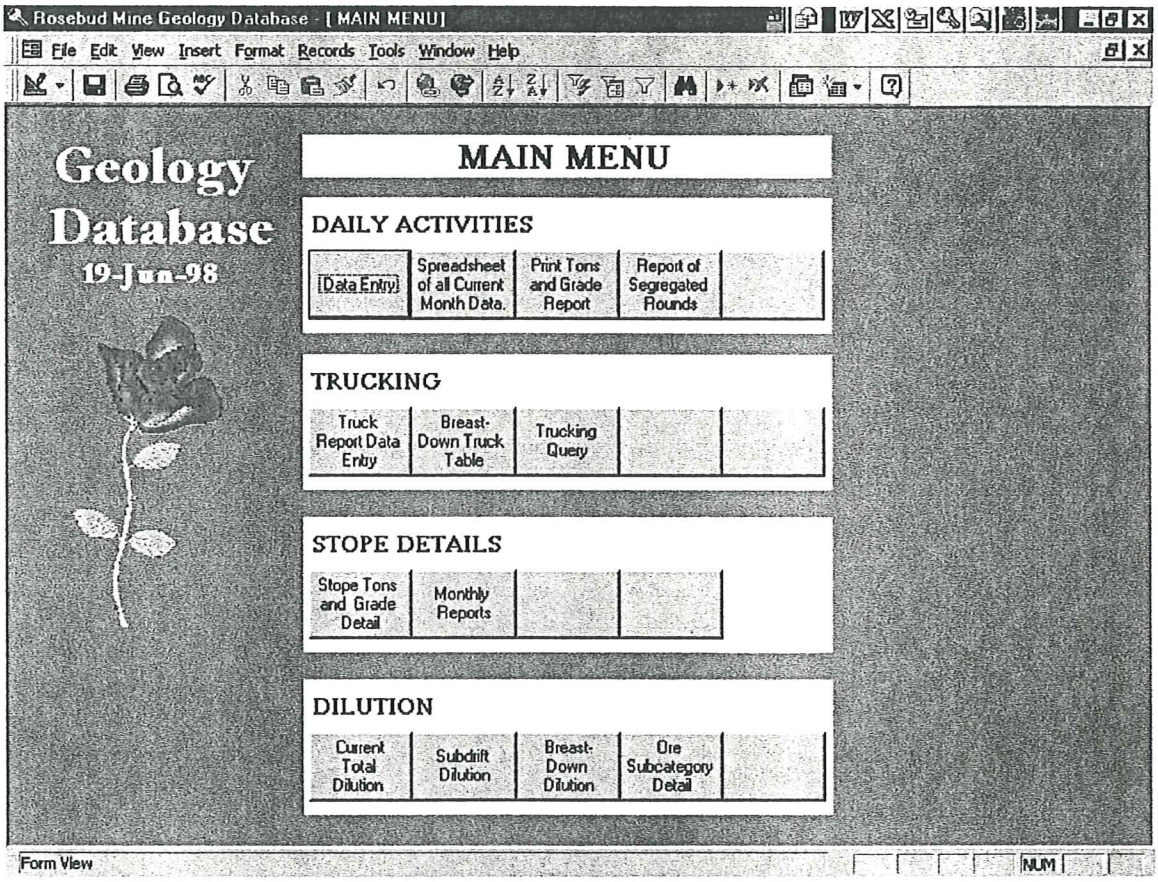


SECTION 11

Section II - Navigation Within the Rosebud Database

The Main Menu

The key to moving around the database and viewing data is the Main Menu. This menu will appear automatically about 7 seconds after the Introduction screen. Clicking the gray buttons on this menu will provide a large variety of data through the forms and reports in the database. To get a short explanation of what each button on this menu does, hold the cursor over the button and a yellow tag with a brief description will appear. The pages to follow will list each button, and describe in detail what each button does when you click on it.



PLEASE TURN TO THE NEXT PAGE!

Descriptions of Each Button on the Main Menu

Daily Activities

Data Entry

This button opens the SpreadsheetQuery, which displays all the rounds for the current month in a datasheet (spreadsheet) form. This query is used for daily data entry and editing of existing data. To get back to the main menu when you are in this query, go to FILE, then CLOSE. If the query asks if you want to save designs, say OK. It is asking about saving any data parameters set in design view, and about keeping any sorting parameters you have set.

Spreadsheet of Current Month Data

This button will send a copy of the SpreadsheetReport to the D-Sized plotter. The SpreadsheetReport is a large spreadsheet of all the current month data. Currently this plotter is on the network, and is accessed through Matt Blattman's computer. If, for some reason, this report will not print, check to make sure his computer is turned on.

Print Tons and Grade Report

This button will open a dialog box with a choice of reports to print. These reports are daily tons/grade/ounces reports which are distributed several times per week. After you choose your report, you will be prompted by another dialog box to choose month and year parameters for the report you are printing. To close the dialox box, click on the X in the top right corner of the box.

Report of Segregated Rounds

This button will show the rounds which are currently segregated by the geologists. If there is no segregated material, a message will appear to let you know that there are no segregated rounds.

Trucking

Breast Down Truck Table

This button will open the table which stores information on trucked tons for breast-down rounds. This table stores date, location, tonnage, and ore/waste designation for each breast-down area that is mucked out. To get back to the Main Menu from this table, go FILE, then CLOSE.

Trucking Query

This button will open the TruckingQuery, which is a join query between the TruckingTable and the BreastDownQuery. Each of the two has location information that is identical between them (each has stope, level, panel, round#). This allows the identical rounds to be joined together, and unique information from each will be combined to form new records in the TruckingQuery.

(EX: TruckingTable 23 P-3 Round 1 has 400 truck tons, BDQuery 23 P-3 Round 1 has 600 measured tons, 207 ounces, and a grade of 0.345. Combining these rounds, because the location information matches exactly, makes a new record: 23 P-3 Round 1 600 measured tons, 400 trucked tons, a grade of 0.345, and a new ounces field with ounces based on the truck tons *breast-down measured grade. New ounces would be 138.)

Stope Details

Stope Tons and Grade Detail

This button opens a form which allows you to choose year, month, stope and level parameters to view data within the database. After you have set your parameters, and clicked on VIEW DATA, the data will appear in datasheet view in a subform at the bottom of the screen. The total tons and grade for the displayed data will be shown in a smaller subform in the upper right corner. You may change data parameters as often as you wish, just remember to hit VIEW DATA each time you change something. IN ADDITION, you can make changes/edits to the data in the large subform, so be careful when you are moving around in this portion of the form.

Monthly Reports

This button opens a small dialog box which prompts you for a year and month. When you click OK, the selected monthly report will open. You will see a blue background and an OPEN and CLOSE button. Click OPEN to view the monthly report in Excel. This is a Pivot Table report, and it draws its data from the SpreadsheetQuery. The data is visible in the upper left of the Excel spreadsheet, and the report form that is distributed to personnel is to the right, below the data. There are blank reports, from July to December 1998, already created and ready for data. After December 1998, new reports will have to be created for each production month.

PLEASE NOTE: The form with the blue background and the OPEN and CLOSE buttons was created for ease of transition in navigating the database over the next few months. It was created by hand for each separate monthly report through December 1998. After December 1998, you will need to begin creating a new pivot table report each month to report stockpile numbers. For new pivot table reports, the only navigation button that will appear is a small gray one that says "Edit Pivot Table". The process of creating a new pivot table is detailed in another section of this booklet.

Dilution

Current Total Dilution

This button will open the DilutionRepTotal report, which shows the total tons and percent dilution for the month that you specify.

Subdrift Dilution

This button will open the DilutionRebSub/BU report, which shows the total tons and percent dilution for the subdrift rounds in the month and year that you specify. This report will also show the specific rounds in a subreport.

Breast Down Dilution

This button will open the DilutionRepBD report, which shows the total tons and percent dilution for the breast-down rounds in the month and year that you specify. This report will show the dilution rounds and their truck tons, and will show the breast-down dilution rounds and the original measured tons.

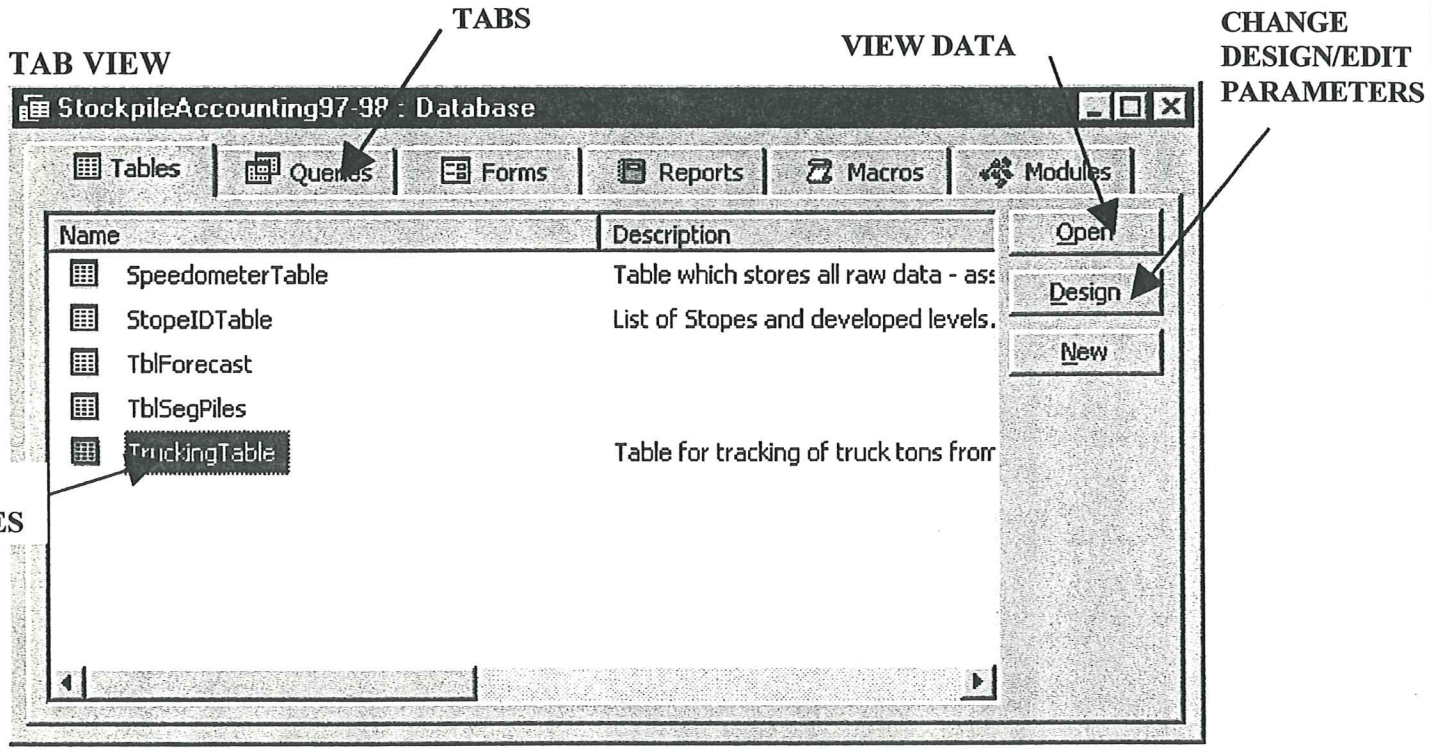
Ore Subcategory Detail

This button will open a report which shows tons, grade, ounces, and percentage of total tons for each grade category within the ore pile (ore, subgrade, and waste) for the month and year that you specify.

Navigating Behind the Scenes

At some point, someone will need to go beyond the Main Menu, to add or change reports, to alter choices so that the years 1999 and 2000 are available for reports and forms, to make new forms, to fix glitches in reports, to add to the Tblforecast and StopeIDTable, and to create new monthly reports with the data. This next section goes over the basics of getting around behind the scenes in Access, how to get into and out of things, etc.

TO GET BEHIND THE MAIN MENU AND VIEW THE SKELETON, HIT F11. AFTER YOU HAVE DONE THIS, YOU SHOULD SEE SOMETHING THAT LOOKS LIKE THIS:



TABS: As you click on each tab, you will see a list of different files for each category.

FILE NAMES: Each file name represents a different table, query, form, report, macro, or module.

VIEW DATA: Clicking on this button allows you to see whatever data is stored in the table or query, forms for filling in data or extracting data, and static views of reports.

CHANGE DESIGN/EDIT PARAMETERS: Clicking on this button allows you to see the design of a table or the parameters of a query, the details of a form and its objects, and the details of a report and its objects and equations.

The next section will detail how to navigate each separate category.

TURN THE PAGE.....

SECTION 111

Section III – Basics of Tables, Queries, Forms, and Reports

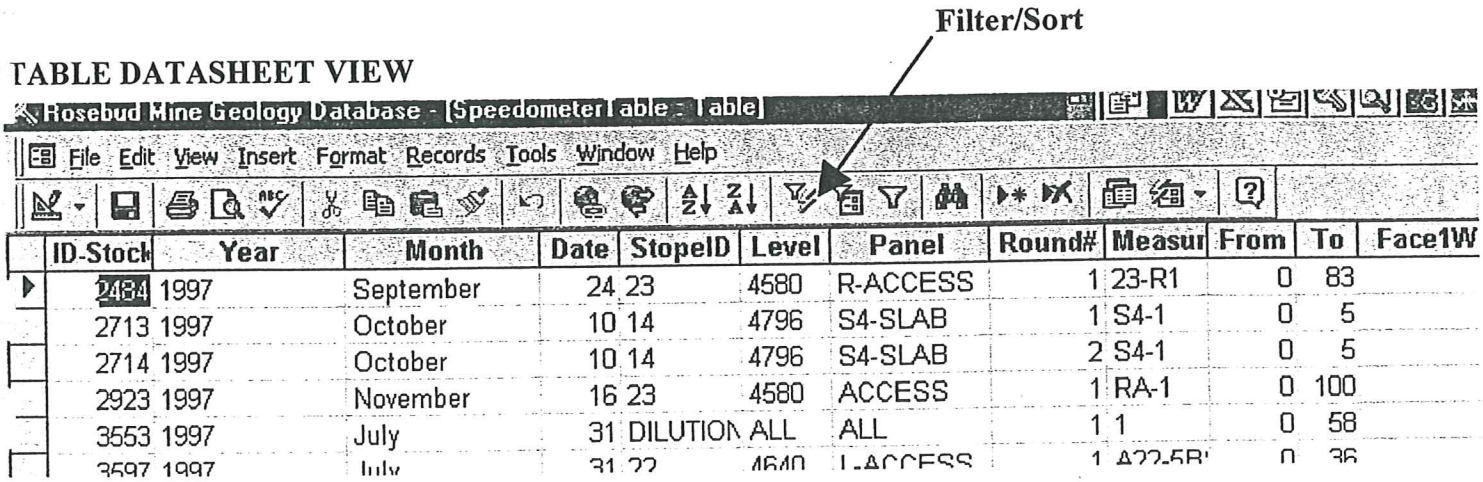
Tables

Tables store all raw data that is input into the database. Each row is a unique record with a unique ID number. Each column is a field, with one piece of information about a record. Each record has many fields/columns.

Datasheet View

Double clicking on the file name, or clicking on the OPEN button to the right in TAB view will open the table and display all the available records in a datasheet/spreadsheet view. This data can be filtered/sorted temporarily by clicking anywhere in the sheet and clicking on the lightning bolt at the top of the screen. When the table is closed, the filter will be removed. The next time the table is opened, all the records will be displayed.

TABLE DATASHEET VIEW

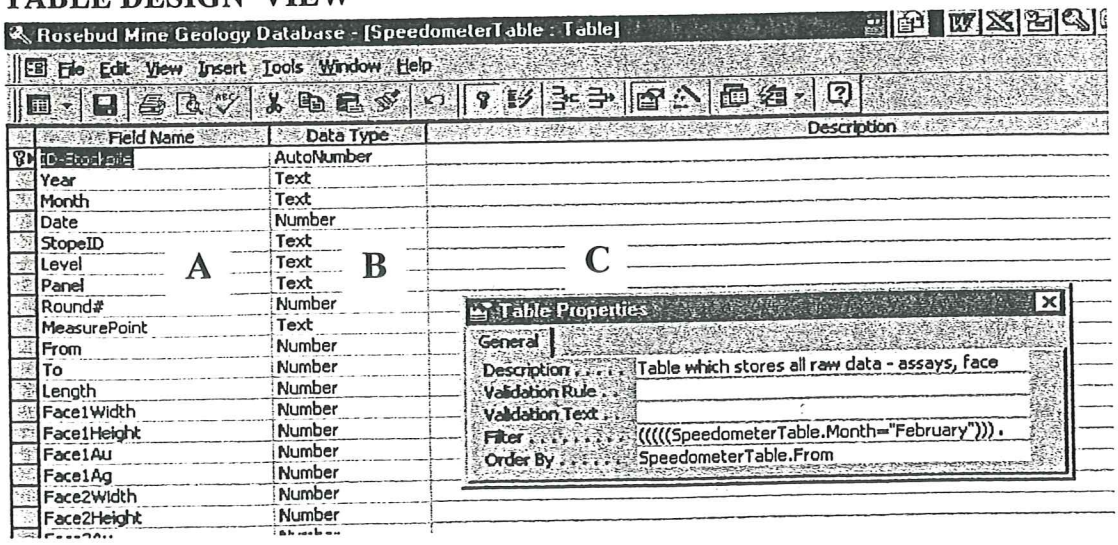


ID-Stock	Year	Month	Date	StopeID	Level	Panel	Round#	Measur	From	To	Face1W
2484	1997	September	24	23	4580	R-ACCESS	1	23-R1	0	83	
2713	1997	October	10	14	4796	S4-SLAB	1	S4-1	0	5	
2714	1997	October	10	14	4796	S4-SLAB	2	S4-1	0	5	
2923	1997	November	16	23	4580	ACCESS	1	RA-1	0	100	
3553	1997	July	31	DILUTION	ALL	ALL	1	1	0	58	
3597	1997	July	31	22	4640	L-ACCESS	1	A22-5R'	0	36	

Design View

By clicking on the green triangle in the upper left, you will enter design view of the table. Column A is where field names are entered. Column B is where the field data type is entered (text, number, etc). Column C is for comments and notations about the field.

TABLE DESIGN VIEW



Query Design View

By clicking on the green triangle in the upper left on the menu bar, you will enter the design view of the query.

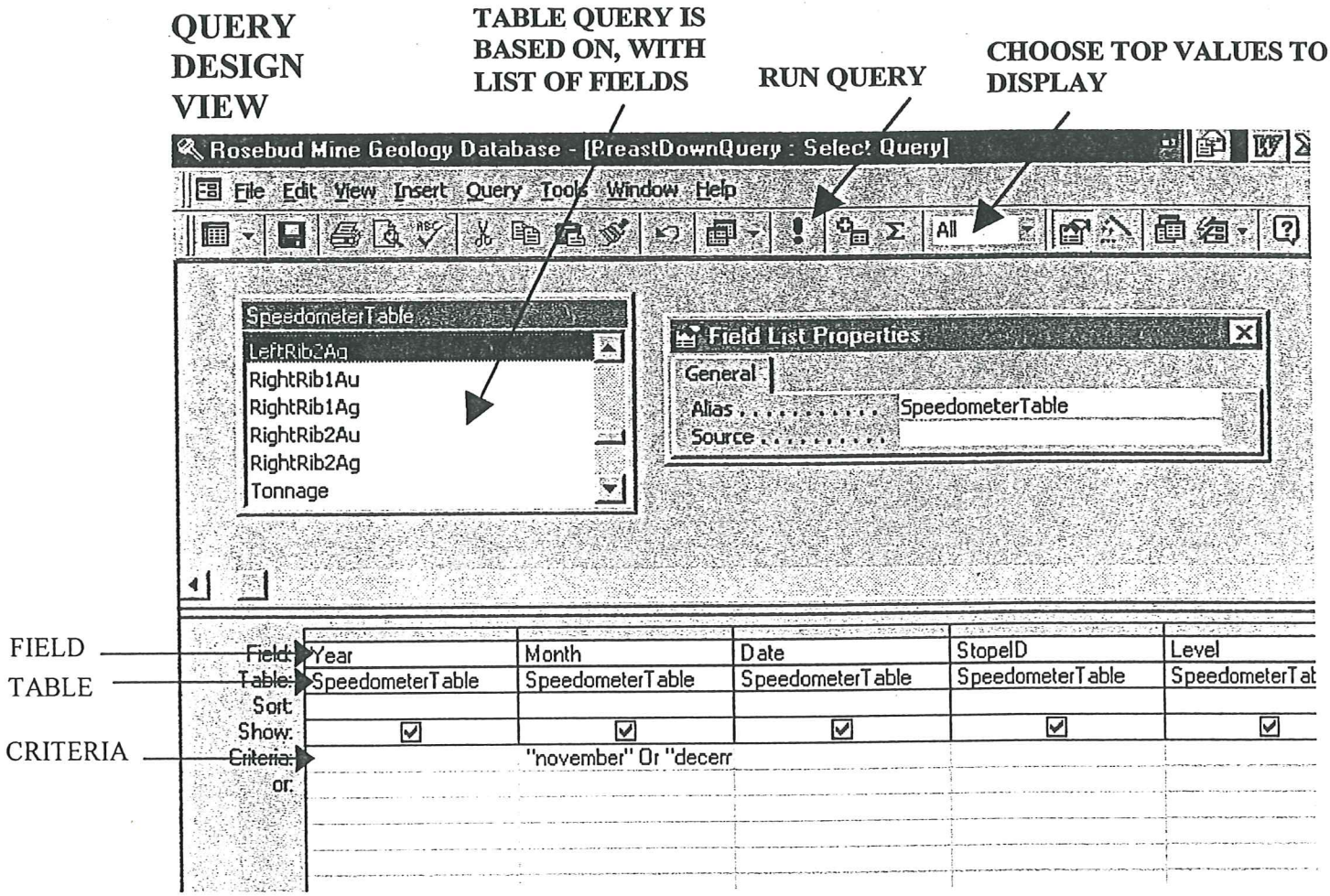


TABLE QUERY IS BASED ON: In a new query, you are prompted to choose a table to base the query on. (The raw data has to be stored somewhere before you make a query) After you choose your table, a box will appear in the top of the design view. This box contains a list of all the fields in the table. You can choose any of these fields, and drag them to a "field" box at the top of one of the columns. Once the field name appears in one of these column headings, it is part of the query. When you run the query, information from that field in the table will appear in your query datasheet view.

RUN QUERY: When this button is clicked, the query will process with the information that is specified in the field row, and any with any restrictions/criteria specified in the criteria row. The datasheet view will appear after this button is clicked.

TOP VALUES: Before you run the query, you may choose to see the top 5 values, or a certain percentage of the values (top 25%). There are several choices for viewing the "top" values"

CRITERIA: Setting parameters in the criteria row allows you to filter/sort your data before you run the query. If the parameters are set and not changed, the query will retain this filter even after exiting and re-opening it. In the example on the previous page from the SpreadsheetQuery the month criteria has been set for records falling in the month of November or December. You may set parameters for as many fields as you like. Remember that each parameter set will narrow your data down, and limit what is displayed when you run the query.

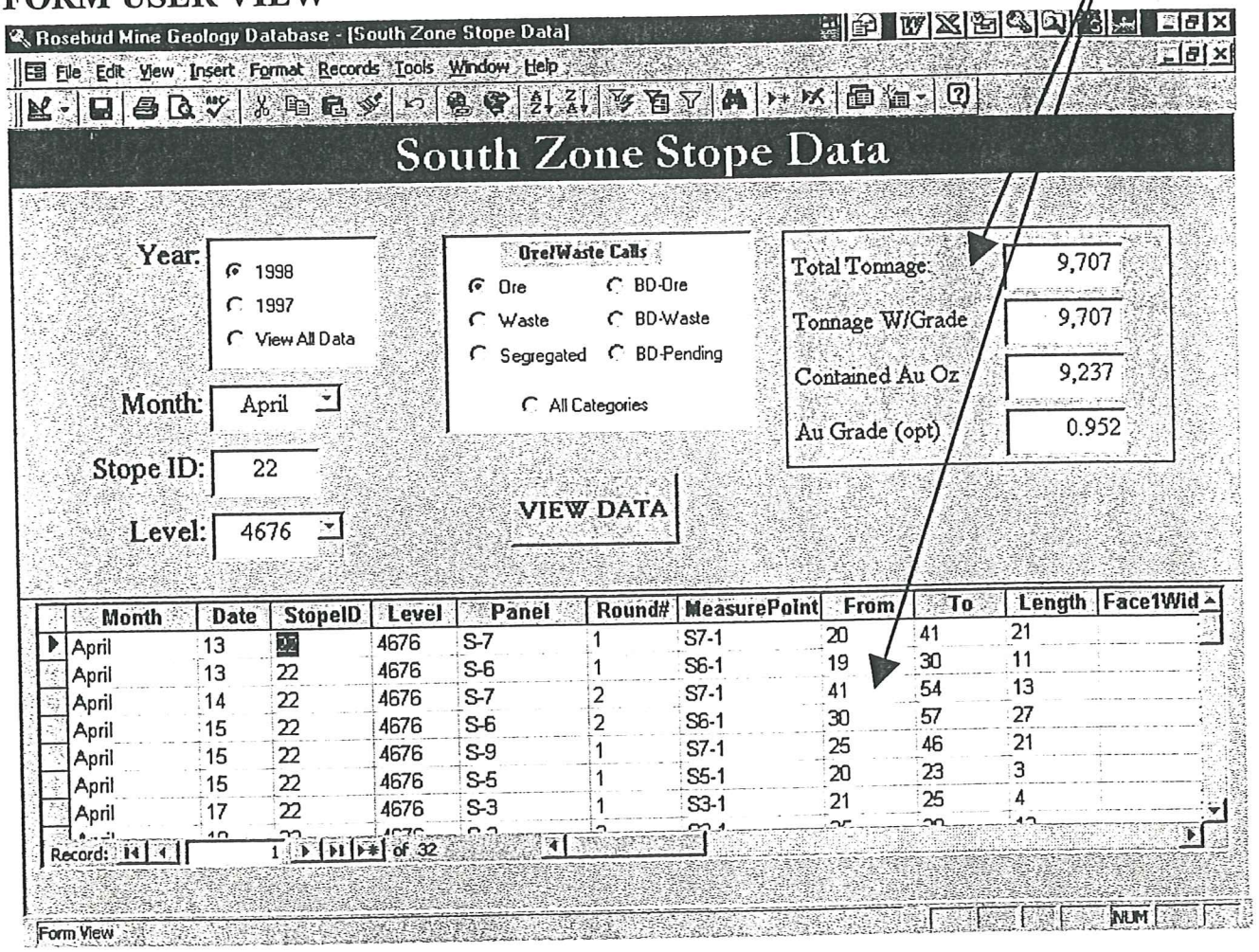
NOTE: Some queries in the database are linked to forms and reports. When these queries are opened, the criteria row will show a reference to a text box in another form or report (Forms!DataEntryForm!Month). This reference specifies either form or report, then the file name, and then the name of the text box in the form or report. When you fill out this text box in a form, the data you type will be transmitted to the criteria row of the query, and the qurey will run with that parameter/filter. When you run across a situation like this, BE VERY CAREFUL ABOUT CHANGING OR EDITING THE REFERENCE. Without that reference, certain forms and reports will not work.

Forms

Forms provide a way to display data in a customized format, or enter data in a logical format. There are two basic types of forms. A bound form is bound to a table or to a query, and additions or deletions of data will actually change the data in the underlying table. An unbound form is not connected to a table or query. It can be used to provide a "search" format, when users need to look for specific data without actually making changes to it. One examples of this type of form is the type used in library card catalogue databases. You enter data into a form to search for books, but the information you type never changes the data stored in the database. A bound form, like a data entry form, will allow users to enter information and have that data stored as part of the database. Shown below is one example of a form created within the geology database.

SUBFORMS

FORM USER VIEW



TYPES OF FORMS:

Unbound – not bound to a table or query, typically used as a "search" form.

Bound – bound to a table or query, entering data in text boxes adds and/or changes data in the table.

Subform – bound form embedded within another form.

Dialog Box – small unbound form, often used to set criteria for reports.

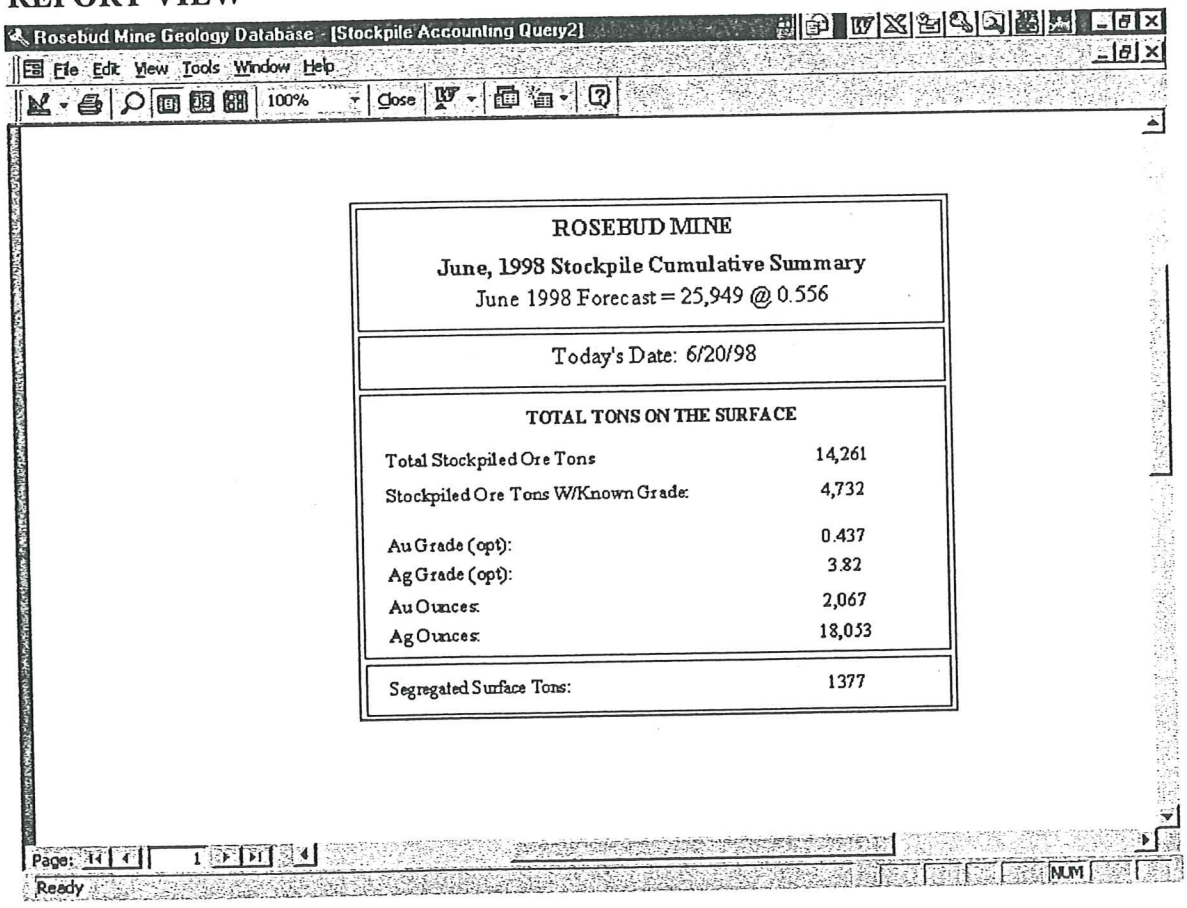
Data Entry – bound form, used to enter data into a table or query.

Reports

Reports are similar to forms, but they require no user interaction. A report is a static view of data stored in tables and queries. A report is formatted in design view with the necessary fields, and additional fields are created to perform any calculations desired for the report. Because a report is based on information from tables and queries, it will change each time data in your tables and queries changes. For this reason, reports are excellent for displaying data that changes daily. **You can only look at the data in a report, you cannot change it unless you go back to the table or query where the data is stored.**

Below is an example of a report used frequently at Rosebud. The formatting and calculations are set up in design view, and the parameters (month and year of the report) are set with a dialog box that appears when you open the report. In addition, this report and many other in the database have a banner for the forecast across the top. This banner pulls information from the TblForecast. It is important to keep that table updated each month. Without that information, the banner will be blank.

REPORT VIEW



Section IV - Rosebud Database Definitions

Tables

SpeedometerTable

This table stores all measured information for the stopes. It contains information on Stope ID, date, location, width and height measurements, and assays for faces and ribs. This is a TABLE, so no calculated information (tonnage, grade, ounces) is stored here. This table contains all the raw information for the mined stopes since June 1997.

I do not use this table for data entry because it is not possible to see the calculated tons and grade while entering data. Data entry is done in a query.

StopeIDTable

This table contains a list of each stope and it's different levels. Each time a new level is started, the new information must be added to this table. There are some forms which depend on this table to provide choices when searching for data.

TblForecast

This table stores a list of the forecasted tons and grade for each month. Each month when the forecast is distributed, this table must be updated. This table is used for many of the tons & grade reports. When you choose your month and year for display of data, this table will produce the correct month forecast and place it in the banner of the report. Please note that the ForecastAuGrade field is not set as a number field. It is a TEXT field, and therefore the numbers must be entered exactly as you wish to see them printed.

TblSegPiles

This table stores information about rounds which are originally segregated by geologists, before the decision is made to send them to ore or waste. This table tracks the number of tons originally separated from the main ore pile. This tracking was requested by the Engineering department.

TruckingTable

This table stores information calculated from truck reports. It contains date and location information, number of trucked tons, and an ore or waste designation. This information is used to calculate the tonnage and grade obtained from breast-down mining. The information from this table is attached to a query with all measured data. Because the query and the trucking table have the same location information, the query with the measured grade and the table with the tonnage are matched round for round, and grade x tonnage = ounces. These calculated ounces are used in a breast-down report, and used to report total tons and grade for each month.

Queries

AllYearQuery

This query has parameters set completely open. All records in the SpeedometerTable are available in datasheet view, and tonnage, grade, and ounces have been calculated for all rounds. All information is calculated at 13.8 cu. Ft/ton bulk density.

BreastDownQuery

This query shows all breast-down rounds. It is not attached to any forms or reports, so the datasheet parameters (set in design view) can be changed to view any particular month and year that you wish.

BreastDownQuery2

This query is a copy of the one above, but the parameters are designed to be set through a remote form which is activated by various reports. It is important to remember that the parameters in design view should NOT be changed, or the forms that this query is designed for will not work!

DilutionQuery

This query provides data from the SpeedometerTable to the main part of the DilutionReport form. The DilutionReport allows you to choose month, year, and the Au grade range. The parameters you input on this form are transmitted to the query, and the query then supplies the information that is asked for. It is important to remember that the parameters in design view should NOT be changed, or the form that this query is designed for will not work.

DilutionQuery2

This query is the base query for the DilutionQuerySubreport. The DilutionQuerySubreport is the portion of the DilutionSubdrift/BU report which displays any ore rounds with dilution grade. It is important to remember that the parameters set in design view for this query should NOT be changed, or the form that this query is designed for will not work.

FaceDataQuery

This query is the base query for the FaceDataSubform in the SzoneStopeData form. The FaceDataSubform provides detailed round-by-round information based on information input by the user at the top of the main form

QryForecast

This query pulls information from the TblForecast. It takes the tonnage number and separates it into a hundreds column and a thousands column. (Ex: 25465 is split into 25 and 465) This is done in order to place a comma separator between the numbers in the reports that use the forecast number in the banner.

QryOreSub

This query is used to gather data for the OreWasteSubgrade report, which reports the tons, grade, and ounces of the three grade categories within the ore pile. It is important to remember that the parameters set in design view should NOT be changed, or the report that uses this query will not work correctly.

SegregatedPilesFeb98

The parameters of this query are set very specifically to show the rounds which were set aside in a special segregated pile for the mill in February 1998. The query will show the rounds calculated with gravimetric assays (marked with "Grav" in the SpecialMillPile field) and rounds calculated with metallic screen assays (marked as "ore" in the OreWastePending field). TO SEE FEBRUARY TOTAL TONS AND GRADE CALCULATED WITH ORIGINAL GRAV ASSAYS, SEE THE COPY OF THE DATABASE WITH ORIGINAL FEBRUARY NUMBERS!

SpreadsheetQuery

The parameters of this query are open to be changed at any time, but are usually set to display the current month's data. This query is used for daily data entry and edits of current month data.

StockpileAccountingQuery2

This query is set to display rounds which are segregated by the geologists. It is not set to a particular month, because it is assumed that the only segregated rounds will be in the current month.

StockpileAccountingQuery3

This query will display segregated rounds for various reports within the database. The parameters are set with a remote dialog box. It is important to remember that the parameters set in design view should NOT be changed, or the reports that use this query will not work correctly.

StopeIDQuery

This query shows each level of a selected stope. This query is used in the SzoneStopeData form: when a stope is selected for viewing, the combo box for choosing a level is restricted to a list of the levels in the chosen stope.

TruckingQuery

This query is a join: it joins the BreastDownQuery with the TruckingTable. The Stope, Panel, Level, and Round # for the query and the table are matching fields (the fields are exactly the same in the table and in the query). Therefore, the query and the table will connect for every round in which the data is the same for Stope, Level, Panel, and Round#. Each displayed round will show the data which is the same to both the query and table, and the data which is unique (BreastDownQuery has original measured tons and grade; TruckingTable has truck tons). There is a new field created with the join, where the BreastDownQuery Au grade is multiplied by the TruckingTable truck tons. This new field calculates Au ounces, based on truck tons and geology sampled grade.

The parameters on this query are open and this is useful for a quick look at a specific month or a specific stope. PLEASE be aware that in design view there are several lines drawn between the box with the TruckingTable fields and the box with the BreastDownQuery fields. These lines represent the connections between the table and the query on specific fields (lines connect fields which are identical between the table and the query). Changing or deleting these lines will result in the wrong data being displayed. NOTE: In order to display a round, the join information must exist in both the BreastDownQuery and in the TruckingTable. For example, if you have a 23 P-3 Round 2 in the TruckingTable, and you have not set the parameters so that this round is ALSO displayed in the BreastDownQuery, it won't show up in the join query. This becomes important when you are trying to get information when you measure tons in one month, but truck the next. The best method if using this join query is to leave the BreastDownQuery parameters open (not set to a particular month or year) and restrict the TruckingQuery parameters.

TruckingQuery2

This is the same query as above, but the parameters are set with a remote dialog box. This is used for generating reports. It is important to remember that the parameters set in design view should NOT be changed, or the reports that use this query will not work correctly.

Forms

Forms provide a way to view the data that is stored in tables and calculated by queries. In general, a form is designed to provide a logical, structured view of a dataset, or to allow data entry through a simple user interface. I have not set up any forms for data entry, because I feel that it is easier to view and enter data in the "spreadsheet" view provided by a query.

There are several types of forms. Dialog boxes are forms which pop open and allow you to choose data parameters for viewing other forms or reports. Forms with "Monthly" on the end of the name are Pivot Table forms. These forms use query data in an Excel spreadsheet, and are where all the monthly reports are stored.
Some forms are set as view-only, with no user interaction (the Intro screen is one of these) There are also several forms which will allow you to set parameters within the form, and will then provide the information you request on a Subform.

I would not recommend going into design view to change the look or function of any forms until you are more familiar with Access. Consider experimenting with creating some simple forms of your own, just to become familiar with the process.

October97Monthly-June98Monthly

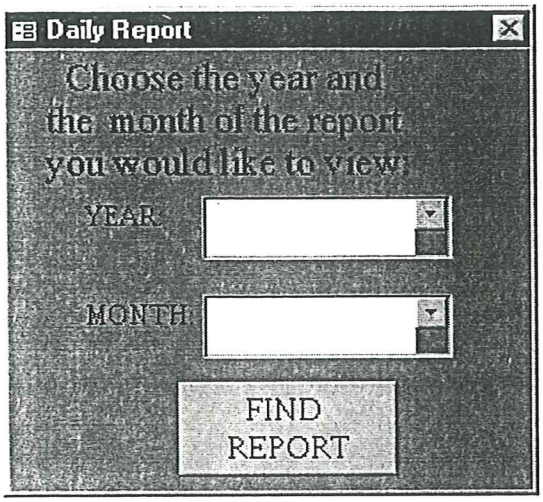
These are pivot table forms, one for each month of production. When this form is opened, you have the choice of opening the report or closing it. To view the Excel spreadsheet, choose Open Report. You will see a typical Excel worksheet, with the data in the upper left corner. The original report is based upon the SpreadsheetQuery, which had parameters set to the month you are viewing. (Note: If you want to recalculate the data for a particular month, make SURE that the SpreadsheetQuery is set to the same month as the monthly report you are viewing.) In the corner below the data is the form that we distribute to the mine personnel.

I have set up the blank report forms for the rest of the year, through December 1998. After this, you will need to begin creating new pivot tables for each new month of production. In addition, the interface with the blue background and Open and Close buttons are modifications done by hand. New pivot tables will have only one button that says 'Edit Pivot Table".

BE AWARE: When using the pivot table data for summing grade and ounces, remember that the breast-down tonnage in these reports is MEASURED, not trucked. To get the correct TRUCK numbers for breast-down ore, you must create another pivot table from the TruckingQuery.

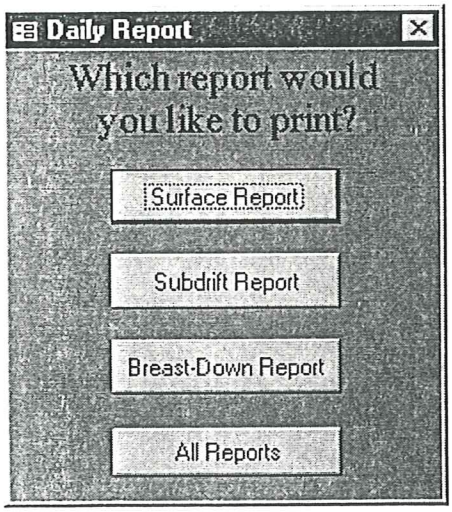
ChooseMonthlyReportDialogBox

This is a dialog box which allows you to choose a monthly report to view.



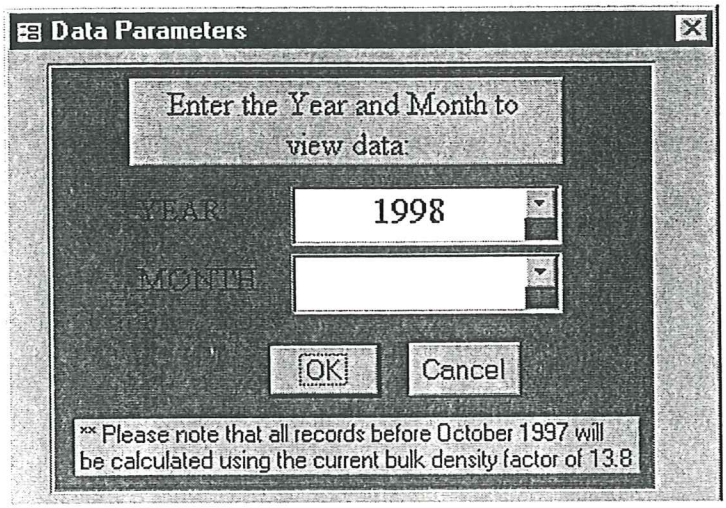
ChooseReportDialog

This is a dialog box which provides choices of three reports to print (Surface Tons/Grade, Subdrift Tons/Grade, BD Tons/Grade). To close this, click on the X in the upper right corner.



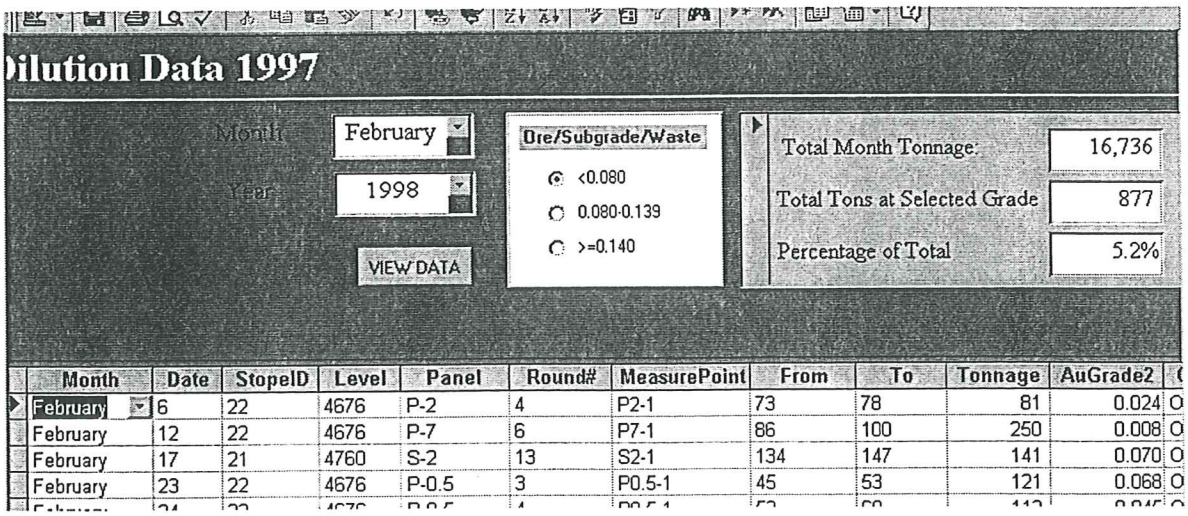
DilutionParametersForm

This is the parameters dialog box which is used for 90% of the reports which are available in the database. This form is a pop-up form, and it allows you to choose the month and year of the data that you want to view. This form is linked to many of the queries in the database. The choices you type into the blanks are transmitted into the design view of the queries, and are used as parameters for gathering data. After you choose your parameters, the report you wanted to see will open, and the data you see will be restricted to the year and month you selected. The dialog box will close automatically after you click OK.



DilutionReport

This is a multi-part form for displaying data on the tons and grade of material that fall within three ore subcategories. The main part of the form allows you to choose the month and year you wish to view, and there is a set of check buttons which allow you to choose a subcategory. When you hit the View Data button, the parameters you set are transmitted to the query behind the form, and the data will be displayed in the subform on the bottom of the screen. The data will appear in datasheet view, and you may need to scroll sideways/up and down to view all the information. In the top right corner, the total tons and grade of the displayed data are shown in another subform. You may change parameters as often as you like, just remember to hit the View Data button to change the view and the calculations.



Month	Date	StopeID	Level	Panel	Round#	MeasurePoint	From	To	Tonnage	AuGrade2
February	6	22	4676	P-2	4	P2-1	73	78	81	0.024
February	12	22	4676	P-7	6	P7-1	86	100	250	0.008
February	17	21	4760	S-2	13	S2-1	134	147	141	0.070
February	23	22	4676	P-0.5	3	P0.5-1	45	53	121	0.068

DilutionSubform

This is the large subform on the bottom of the DilutionReport form which displays all the rounds within parameters set on the main form.

DilutionTonsSubform

This is the small subform in the upper right corner of the DilutionReport which displays the total tons and grade of the data displayed in the DilutionSubform.

FaceDataSubform

This is the large subform on the bottom of the SZoneStopeData form which displays all the rounds within parameters set on the main form.

MainSwitchboardCopy

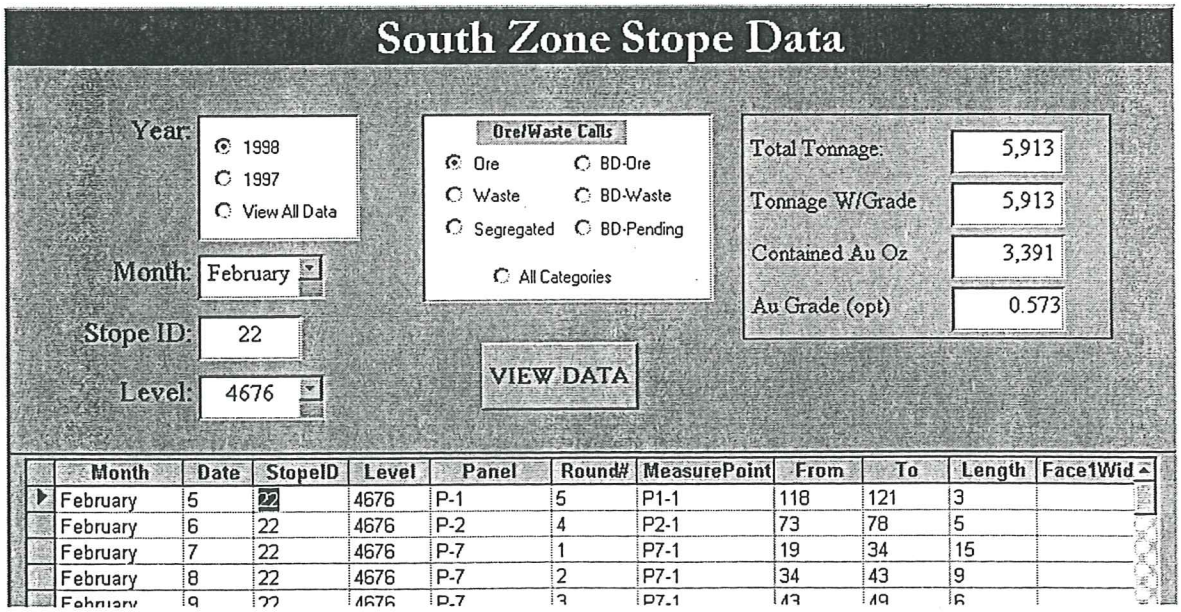
This is the Main Menu form which has all the buttons that control user access to the database. There are several blank buttons for future forms and reports that will be created.

Start-UpForm

This is the title screen for the database. It contains information on the proprietary nature of the database, date of creation, etc. When this form appears, it will stay visible for about 7 seconds, after which the Main Menu will appear.

SzoneStopeData

This is a multi-part form which allows the user to choose data parameters, and display information about stopes in the South Zone. The main form lets the user set parameters for year, month, stope, level, and the stockpile designation (ore, waste, bd-ore, etc.) The data is displayed in a subform on the bottom of the screen, and the tons/grade are calculated in a small subform in the upper right corner.



Month	Date	StopeID	Level	Panel	Round#	MeasurePoint	From	To	Length	Face1Wid
February	5	22	4676	P-1	5	P1-1	118	121	3	
February	6	22	4676	P-2	4	P2-1	73	78	5	
February	7	22	4676	P-7	1	P7-1	19	34	15	
February	8	22	4676	P-7	2	P7-1	34	43	9	
February	9	22	4676	P-7	3	P7-1	43	49	6	

TonnageForm

This is the small subform for the SZoneStopeData form which calculates tons/grade of data displayed in the FaceDataSubform.

Reports

Reports are a way to view and print data from tables, queries, and forms. A form is set up with a specific format, title blocks, banners, etc. and. The difference between a form and a report is that the data displayed in a report cannot be accessed by the user, and cannot be edited. The data is displayed in a static format. In a form, users can enter data to produce results, or enter data which will be transferred and stored in a table. The results of a report are **not** stored anywhere permanently. The view will change each time your tables and queries change. This makes a report useful for daily monitoring of data. Reports can be printed out exactly as they are displayed on the screen.

Reports are complicated, because of the equations set up in design view. Each piece of data that you see has been pulled out of a table or query and used in equations with a reference system. This referencing system requires each data item to be identified with the table or query name and other additional information about its location. I recommend practicing creating simple reports before attempting to get into the design view of any established reports and making changes.

NOTE: All reports in the database, except the SpreadsheetDaily, will pop up a parameter dialog box when the report is opened. This box will prompt you for month and year, to ensure that you are looking only at data you are interested in. When you hit OK, the parameter dialog box will close automatically.

BreastDownReport

This is a report of all mined breast-down material for the month selected. Tonnage and grade are based on trucked tons, not measured tons.

ROSEBUD MINE

May, 1998 Stockpile Cumulative Summary

May 1998 Forecast = 21,938 @ 0.423

Today's Date: 6/22/98

BREAST DOWN SURFACED

Total Breast Down Tons Surfaced:	4,615
Total Stockpiled Ore Tons:	4,293
Stockpiled Ore Tons W/Known Grade:	4,293
Au Grade (opt):	0.256
Ag Grade (opt):	0.58
Au Ounces:	1,099
Ag Ounces:	2,479
Total Stockpiled Waste Tons:	322
Stockpiled Waste Tons W/Known Grade:	322
Au Grade (opt):	0.163
Ag Grade (opt):	0.23
Au Ounces:	52
Ag Ounces:	75
Segregated Surface Tons :	0

DilutionQuerySubBD

This is a subreport which displays the breast-down dilution rounds for the selected month within the Breast-Down Dilution report.

DilutionQuerySubreport

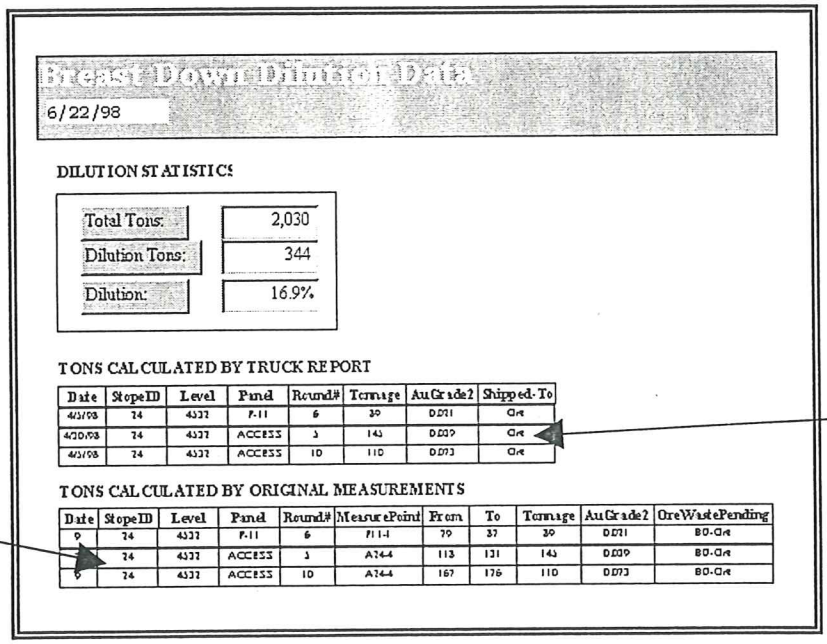
This is a subreport which displays all the subdrift/bottom-up rounds for the selected month within the Subdrift/Bottom-up Dilution report.

DilutionQuerySubTrucks

This is a subreport which displays the TruckingTable rounds which match the BreastDownQuery dilution rounds for the selected month.

DilutionRepBreastDown

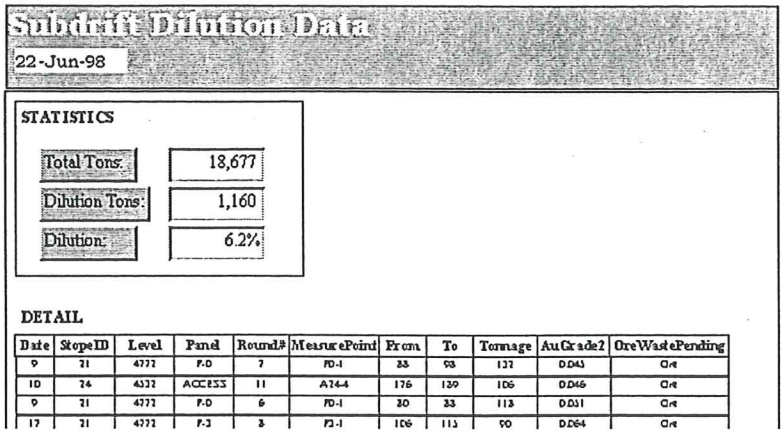
This is the main dilution report for breast-down rounds. It calculates breast-down dilution percentage for the selected month.



DilutionQuerySubBD

DilutionRepSubdrift/BU

This is the main dilution report for subdrift/bu rounds. It calculates subdrift/bu dilution percentage for the selected month.



Subdrift Dilution Data

22-Jun-98

STATISTICS

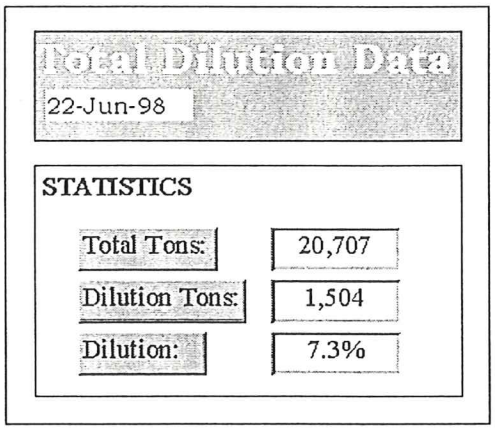
Total Tons:	18,677
Dilution Tons:	1,160
Dilution:	6.2%

DETAIL

Date	StopeID	Level	Panel	Round#	MeasurePoint	From	To	Tonnage	AuGrade2	OreWastePending
9	21	4772	F-D	7	FD-1	83	93	137	0.043	Ore
10	24	4532	ACCESS	11	A24-4	176	139	106	0.046	Ore
9	21	4772	F-D	6	FD-1	80	83	113	0.031	Ore
17	21	4772	F-3	3	F3-1	106	113	90	0.064	Ore

DilutionRepTotal

This adds the breast-down dilution tons and subdrift dilution tons and produces a total dilution percentage for the selected month.



Total Dilution Data

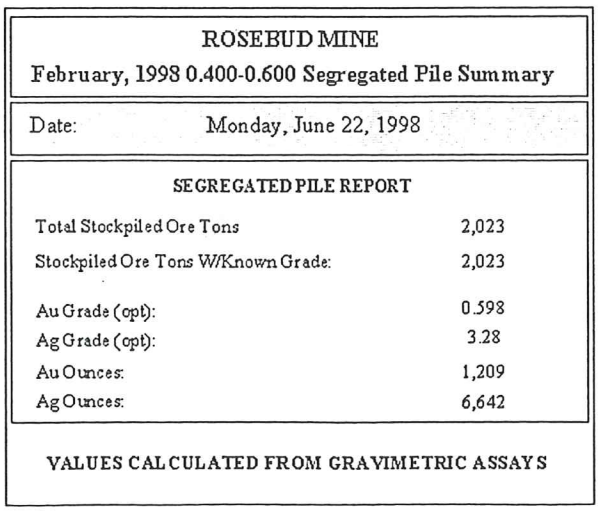
22-Jun-98

STATISTICS

Total Tons:	20,707
Dilution Tons:	1,504
Dilution:	7.3%

FEB98SegregatedPileGRAV

This is a special report which calculates the tons and grade of the special mill pile for February 1998, calculations based upon gravimetric assays.



ROSEBUD MINE

February, 1998 0.400-0.600 Segregated Pile Summary

Date: Monday, June 22, 1998

SEGREGATED PILE REPORT

Total Stockpiled Ore Tons	2,023
Stockpiled Ore Tons W/Known Grade:	2,023
Au Grade (opt):	0.598
Ag Grade (opt):	3.28
Au Ounces:	1,209
Ag Ounces:	6,642

VALUES CALCULATED FROM GRAVIMETRIC ASSAYS

FEB98SegregatedPileMETSCREEN

This is a special report which calculates the tons and grade of the special mill pile for February 1998, calculations based upon metallic screen assays. The report looks the same as the one above (gravimetric assay calculations)

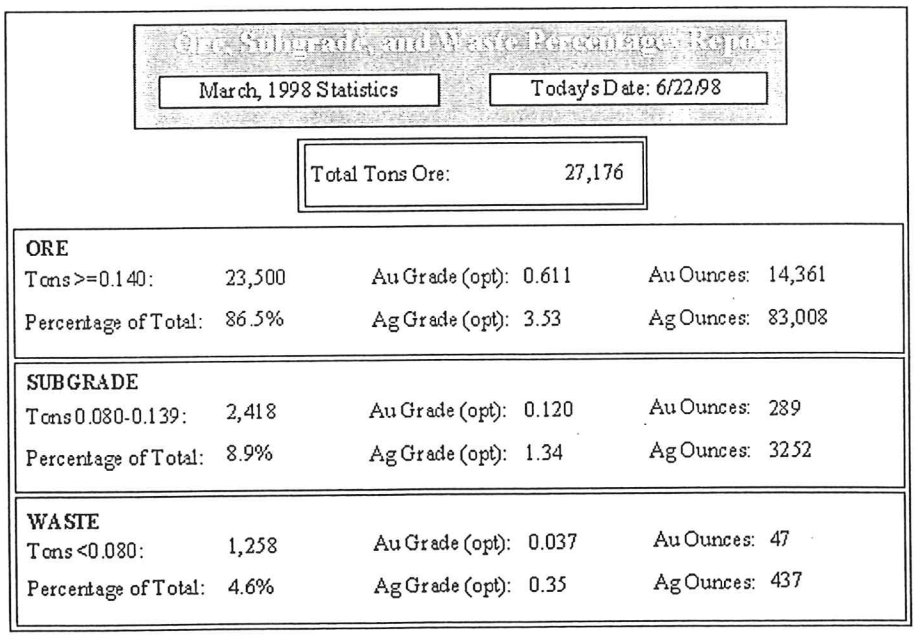
Feb98Total-MillPile

This is a special report which calculates the tons and grade of the ore pile, including tons set aside for the mill. Grade is calculated with metallic screen assays for the tons on the special mill pile.

NOTE: to see the calculations with gravimetric assays, you must exit this database and open the Feb98 copy of the database. That copy is stored with the gravimetric assays used for calculations.

OreWasteSubgrade

This is a report of tons, grade, and ounces in each ore subcategory (ore, subgrade, waste). Data displayed is based upon parameters selected by the user.



Ore, Subgrade, and Waste Percentage Report

March, 1998 Statistics | Today's Date: 6/22/98

Total Tons Ore: 27,176

ORE					
Tons >=0.140:	23,500	Au Grade (opt):	0.611	Au Ounces:	14,361
Percentage of Total:	86.5%	Ag Grade (opt):	3.53	Ag Ounces:	83,008
SUBGRADE					
Tons 0.080-0.139:	2,418	Au Grade (opt):	0.120	Au Ounces:	289
Percentage of Total:	8.9%	Ag Grade (opt):	1.34	Ag Ounces:	3252
WASTE					
Tons <0.080:	1,258	Au Grade (opt):	0.037	Au Ounces:	47
Percentage of Total:	4.6%	Ag Grade (opt):	0.35	Ag Ounces:	437

SpreadsheetDaily

This is a copy of all the current month data, in spreadsheet form. It is formatted for printing, and divided by stope, level, and panel.

SubdriftReport

This is a report of ore tonnage, grade, and ounces for subdrift and bottom-up rounds for the selected month. It also reports any segregated rounds.

ROSEBUD MINE

April, 1998 Stockpile Cumulative Summary

April 1998 Forecast = 23,015 @ 0.584

Today's Date: 6/22/98

SUBDRIFT/BOTTOM UP TONS ON THE SURFACE

Total Stockpiled Ore Tons	18,677
Stockpiled Ore Tons W/Known Grade:	18,677
Au Grade (opt):	0.622
Ag Grade (opt):	4.24
Au Ounces:	11,610
Ag Ounces:	79,248

Segregated Tons Waiting on Assay:

Surface Report

This is a report of ore tonnage, grade, and ounces for all the rounds in the selected month. It looks the same as the one above (SubdriftReport).

Special Notes

Security, Passwords, Etc.

Security is set on this database, with a User level and an Administrator level. Users (Kurt, Alex, Chris, and Brian) can use all the forms and reports, and do data entry. They do NOT have permissions set to change the design of tables, forms, or reports. I will leave this security set, but I will leave my administrator password for anyone who needs to get into the database "behind the scenes" to make changes.

User Name: your first and last name, in small letters.
User Password: marcasite

Administrator Name: Tami Rudnick
Administrator Password: 507920195

Password information can ONLY be changed if you are logged on with the Administrator name and password. This information is accessed through the Tools menu on the toolbar, on the Security submenu.

There is a great deal of information stored in this database. If someone enters the database with NO knowledge of what it is used for, and no concept of how to use Access, a lot of data could be lost. This is the reason I set the security. I want to be sure that no one comes in on a weekend or at night, gets on the computer, and inadvertently destroys a years worth of work, and a years worth of Rosebud data.

Things to be done each month

Forecast: Enter the forecasted tons and grade into the TblForecast. This is necessary to ensure that the banner on the weekly reports that are printed is correct.

New Stopes/New Levels: When a new stope is started, or a new level in a stope is started, the information needs to be entered in the StopeIDTable.

Data Entry: The SpreadsheetQuery needs to be set for the current month, in order to be able to do data entry for stockpile accounting and to be able to print out a big spreadsheet report with all the information. Set the correct month and year in the design view of the query.

Monthly Report: To create the monthly report, you must create a new pivot table in FORM view. This form will be based upon the SpreadsheetQuery, so make sure the query is set to the month you are creating the report for. DETAILS:

1. Create a new form, using the PivotTable Wizard.

2. Choose the fields you want to see: Month, StopeID, Level, Tonnage, Tonnage W/Grade, Au Ounces, Ag Ounces, and OreWastePending.

3. On the empty form that appears, click and drag the fields to where you want them. "Month" goes into the PAGE part of the form. StopeID and Level both go into the column at the left side of the form. Tonnage, Tonnage W/Grade, Au Ounces, and Ag Ounces get dragged into the center of the form. OreWastePending goes into the space across the top of the form.

4. Check the tags in the middle of the form. They should all say SUM. If they don't, double-click on them and change AVERAGE to SUM.

5. Finish the form.

When you are finished, you will have an Excel spreadsheet with all the month data divided by stope and level, with tons and ounces calculated. This information will need to be transferred to the monthly report form. I have been copying the form from other reports and pasting it into each new monthly report. You can do this as well.

Name this form "December98Monthly" (Using the correct name for whatever month you are in!)

Things to be done in the future

Preparation for the coming years

At some point you need to think about preparing for the coming years. Things to consider:

- Archiving data from previous years that is no longer needed in the main database.
- Creating a yearly report for tons and grade, creating a total report for production to date.
- How to use your data if the bulk density factor changes from 13.8. There is one query in the database which calculates at 14.4 cu. Ft/ton. All the other queries, and all calculations are done at 13.8. IF you change this factor again, you will need to save one query with calculations at 13.8, and change the calculations in the rest of the queries. This will create a couple of problems:

    1. Any reports you produce will calculate at the NEW bulk density factor. This is occurring now (When you want to look at data from September 1997 and before, the data will be calculated at 13.8, when it was originally calculated at 14.4). A solution may be to create another database with information calculated at the new bulk density. That way you can access your old data, and the new, each calculated with the correct factor.

- Think about creating another database for the East Zone Data and the North Zone Data. It would be best to keep this data separate from the South Zone information. It would also keep the size and efficiency of each database more manageable. This might be accomplished by making a copy of the main database, and adjusting any calculations, etc.