Tasmania Department Of Resources and Energy

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FORTRAN programs for the implementation of MIRLOCH (Revision 3)

by R. G. Richardson

Abstract

The program suite described is used for maintaining and searching the Mineral Resources Location and Characterisation System (MIRLOCH) of the Economic Geology Branch. This revision adds provision for locating entries duplicated in reference number, mine/deposit name or co-ordinates, and for selectively deleting entries.

SEARCHING THE DATA

The search phase is entered by typing MIRSRCH. An entry will be retrieved only if the specified search options are matched.

The program requests the following data:

(i) Quadrangle number — one or more pairs of digits on a single line, each pair terminated by /. Each pair represents a geological atlas quadrangle number. If a search by quadrangle is not required leave the line blank.
e.g. 02/77/32/. Quadrangle 2, 77 or 32.

(ii) Mine/deposit name — one or more names on a single line, each name terminated by /. If a search is not required leave the line blank.
e.g. Comet/Lyell/Aberfoyle/.

(iii) Major commodity — searches the major commodity field. Details as for mine/deposit name.
e.g. CU/SN/FE/. Copper, tin or iron.

(iv) Minor commodity — searches the minor commodity field. Details as for major commodity.

(v) Commodities as either major or minor.
— searches for the occurrence of the specified commodities in either the major or minor fields. Details as for major commodity.

(vi) Search by area — leave blank for no search by name.
— Y for finding entries inside a specified area. Entries on the boundary of the area will not be found. The program prompts for the number of vertices. If 2 is entered, a simple rectangle parallel to the grid may be entered by specifying the co-ordinates of any two diagonally opposite corners. Otherwise the program prompts for the vertex co-ordinates. Co-ordinates should be in the same form as used on the input sheets.

(vii) Map sheets — a series of sheet numbers on a single line, each terminated by /.
e.g. 83161/82143/

(viii) Status — one or more status numbers on a single line, each terminated by /. If a search by status is not required leave the line blank.
e.g. 0/2/ Operating mine or non-operating mine with unknown reserves.

(ix) Size of deposit — as for status.
e.g. 1/4/ Very small or large.

(x) Host rock — as for Status.
e.g. 0/6/ Precambrian sequences or Mathinna Beds.

(xi) Age of mineralisation — as for Status.
e.g. 0/1/ Not determined or Precambrian.

(xii) Form of deposit — as for Status.
e.g. 0/3/ VMS or stockwork. 23/45/ Vein and stockwork or disseminated and replacement.

(xiii) Starting strike — a strike between 0 and 359 degrees. Leave blank to select all.

(xiv) Finishing strike — a strike in the range 0 to 359 degrees clockwise from the starting strike. This prompt only appears if a starting strike is specified.

e.g.	Start	Finish
	27	52
	306	25

(xv) Exploration of deposit — as for Status.
e.g. 2/3/ Geol. mapping or geochem. surveys.

(xvi) Proceed with this search?
type N if search is not to proceed.

(xvii) Do you want a screen listing?
— type N if not required.

Print more entries on screen?
— N for no more.

(xviii) Search sub-set again? — type Y to search the currently selected sub-set of data again.

(xix) Do you want a printout? — type Y if a printout is required.

(xx) More searches? — type N to stop searching.

DATA BASE MAINTENANCE

Data Coding

Data are coded onto standard sheets (Appendix 1). In most cases leave unknown items blank.

(a) Reference number — a five digit integer. The first two digits represent the quadrangle, and the remaining three the serial number within the quadrangle.
e.g. 02073.

(b) Names — the mine or deposit name (up to 40 chars.).

(c) Major commodities — up to 8 characters of commodities.
e.g. CU,PB,ZN

(d) Minor commodities — up to 11 characters of commodities.

(e) A.M.G. easting — 6 digits giving metres east (compulsory).

(f) A.M.G. northing — 6 digits giving metres north (compulsory).

(g) Co-ordinate error — one character indicating the accuracy of the A.M.G. co-ordinates.

(h) Sheet — the standard 1:50 000 map sheet number.
e.g. 83122

(i) Status — the status of the mine/prospect (one character).

(j) Size — the size of the mine/prospect (one character).

(k) Host — up to two characters defining the host rock.

(l) Mineralisation age — the age of mineralisation (one character).

(m) Form — up to two characters describing the form of the deposit.

(n) Strike — the strike of the deposit in the range 0–359 degrees. If unknown enter -1.

(o) Exploration — up to five characters detailing the exploration of the deposit.

(p) References — up to 38 characters of references.

Data Entry

Data are input by typing MIRADD. Data is requested in accordance with the coding form. To terminate input type END in response to the request for reference number. A proof sheet is output.

Correction of New Data

Data are corrected before merging by typing MIRCORR. All parts of the data sheet may be changed, and once again a proof sheet is output.

Corrections may be made any number of times.

Data Merging

After checking and correction data are merged with the main file by typing MIRMERGE.

Data Sorting

The data may be sorted into ascending reference number order by typing MIRSORT.

Data Correction

Corrections may be made to existing entries in the data base by typing MIRUPD. This program works in the same manner as MIRCORR.

Data Searching

The search phase is entered by typing MIRSRCH.

Duplicate Data

Duplicate entries may be listed on the printer by typing MIRDUPE. A choice is then made between locating duplicated reference numbers, mine/deposit names or co-ordinates (less than 10 m apart).

Deleting Entries

Entries may be deleted by typing MIRDEL. After prompting for the reference number all data relating to the selected entry are displayed. If satisfactory, the entry may be deleted.

[30 July 1991]

APPENDIX 1

MIRLOCH data sheet

MIRLOCH Data Sheet Ref. No. (5) [ ][ ][ ][ ][ ]

Names (40) [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

Major Commodities (8) [ ][ ][ ][ ][ ][ ][ ][ ] (Chemical symbols)
Minor Commodities(11) [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

AMG Coordinates (6,6) [ ][ ][ ][ ][ ][ ][mE]
5 [ ][ ][ ][ ][ ][ ][mN]

Coordinate Error (1) [ ] 1: <50m 2: <100m 3: <500m 4: <1km 5:>1 km

Sheet(5) [ ][ ][ ][ ][ ][ ] (1:50,000 Index Nos.)

Status (1) [ ]
0: Operating mine
1: Non-Operating mine, Reserves known
2: Non-Op. mine, Reserves unknown
3: Abandoned Mine, Reserves known
4: Abandoned Mine, Reserves unknown
5: Abandoned mine, mined out.
6: Prospect - explored
7: Prospect - unexplored
8: Mineralized area
9: Mineral occurrence

Size (1) [ ]
0:Not determined 1:Very small, <100t 2: Small, 100 t-10 Kt
3:Medium, 10 Kt - 1 Mt 4: Large, 1 -10 Mt 5: Very Large, >10 Mt

Host rock (2) [ ][ ]
0: Precambrian sequences
1: Cambrian Sedimentary sequences.
2: Cambrian Igneous sequences
3: Mount Read Volcanics & correlates.
4: Owen Congl., Moina SSt & Corr.
5: Gordon LiSt, Eldon Gp. & Corr.
6: Mathinna Beds
8: Parmeener Supergroup
7: Devonian Granite
9: Jurassic-Cenozoic sequences

Mineralisation age (1) [ ]
0: Not determined
1: Precambrian
2: Eo-Early Cambrian
3: Mid-late Cambrian
4: Ordovician - Early Devonian
5: Late Devonian (granite)
6: Permo-Triassic
7: Jurassic-Cretaceous
8: Tertiary
9: Quaternary

Form (2) [ ][ ]
0: Volcanic Massive Sulphide
1: Stratiform
2: Vein
3: Stockwork
4: Disseminated
5: Replacement
6: Pipe
7: Placer
8: Residual
9: Other (note in Refs)

Strike (3) [ ][ ][ ] (°T)

Exploration (5) [ ][ ][ ][ ][ ]
0: Nil 1: Prospecting 2: Geol. mapping
3: Geochem. surv. 4: Geophys. surv. 5: Drilling

References & Comments (38)
[ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]
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