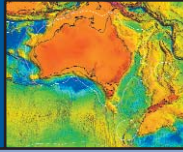


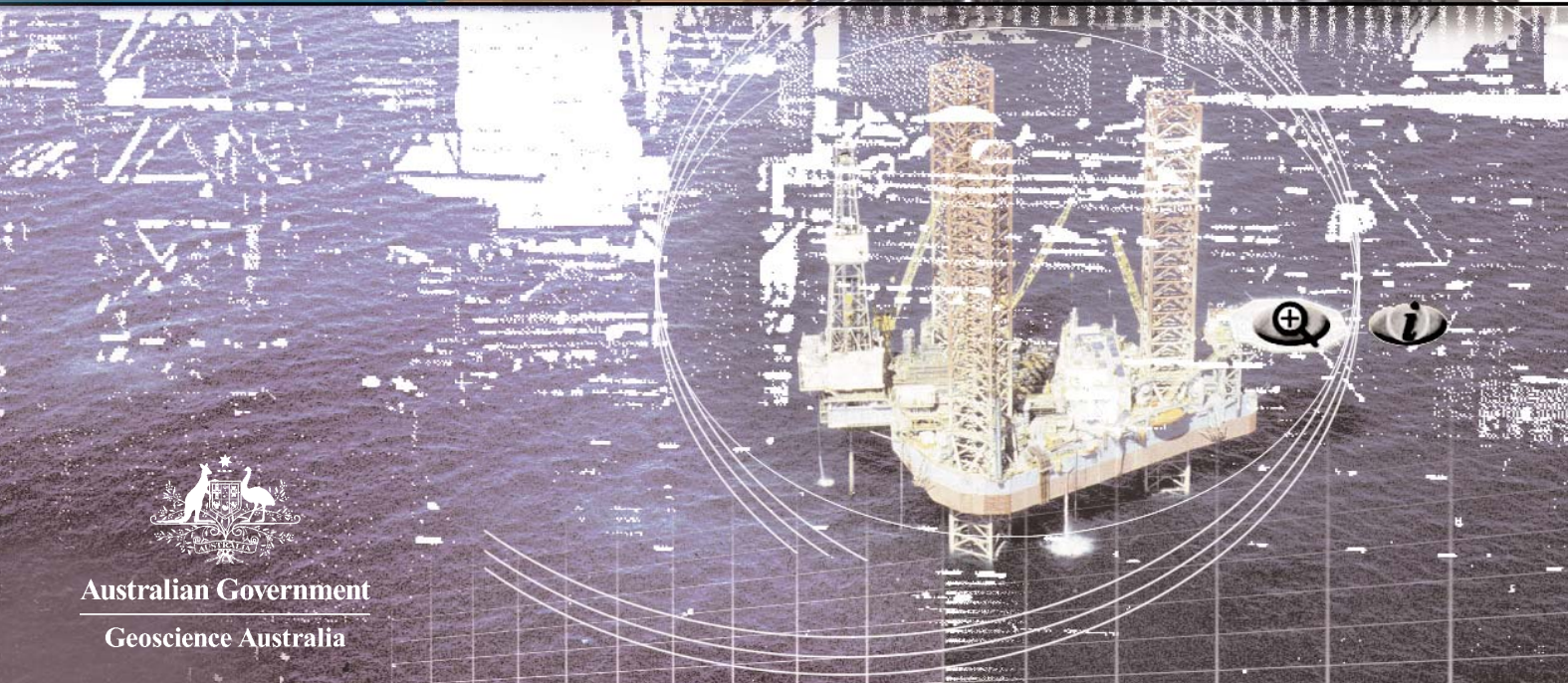
Geoscience Data DICTIONARY

*Data Structure and Definitions
for Spatial Data*



Module 1 of 4

Definitions, Rules and Terminology



Australian Government
Geoscience Australia

Geoscience Australia

Module – 1 of 4
Definitions, Rules & Terminology

Geoscience Australia
Data Dictionary for Spatial Data

Version 2004.02



Australian Government

Geoscience Australia

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Introduction & Document Structure

A data dictionary is a description of fields for each feature type in a database. The Geoscience Australia Data Dictionary for Spatial Data contains a description of all the themes currently created from GA's databases. A theme is a set of spatial objects. Some of the themes in this data dictionary have associated look-up tables. Look-up tables store an additional array of attributes that may be linked to the primary attribute table of a theme. Object type, feature definition, field type, attribute case, compulsion for data entry, a list of valid values and any rules or comments regarding the feature are also given in this data dictionary.

Data Dictionary Modules	
Module 1	Definitions, Rules and Terminology
Module 2	Geology, Geophysical, Geochemistry & Geochronology Themes
Module 3	Mineral Deposits and Mineral Potential Assessment Themes
	Surveys and Field Observations Themes
Module 4	Urban Infrastructure Themes
	Terrain Physiography Themes
	Cartographic Themes

Maintenance

This document is subject to periodic updates. Requests to include new themes and/or attributes into the data dictionary should be submitted to the DMQ Team Leader **by e-mailing to dataqc@ga.gov.au**. Please consult the work instruction below before making requests.

[Click here for "Instructions for updating the Data Dictionary"](#)

Terminology

Coverage is an ArcInfo term for a theme or a layer

PAT file is an ArcInfo term for a Polygon Attribute Table or a Point Attribute Table

AAT file is an ArcInfo term for an Arc Attribute Table

RECNO is an internal record number for an ArcInfo attribute table

Field formats

Field Type	Explanation
20,20,C	character field 20 characters long
8,8,I	integer field 8 digits long i.e. smallest number available is -9999999 and largest number available is 99999999
9,9,N,3	numerical field with 3 decimal places e.g. 12345.789 i.e. smallest number available is -9999.999 and largest number available is 99999.999

General rules

There is a set of spatial objects - a coverage in ArcInfo or ArcView, a shape file in ArcView and a table in MapInfo. Some of the themes may have associated look-up tables.

Where possible, directory structure should be used to denote themes spatial location, scale or other properties.

All fields for each theme defined in this document must be listed in the order and size as specified.

Where valid values are listed, any unlisted values are invalid. Only valid values may be used.

All themes must be in double precision unless there is a very good reason why single precision is the only option. This matter is to be confirmed with the Divisional Data Administrator.

Annotations are not allowed in the GIS and Oracle themes under any circumstances. Cartographic coverages exist for such purpose. They are named by adding the 'MAP' suffix to the theme name. Cartographic themes may contain annotation, lead lines, and other cartographic symbology required for plotting. However, duplication of features between the GIS/Oracle and cartographic 'MAP' coverages should be avoided, if possible.

GIS data sourced from other agencies e.g. mineral deposit data from State Mines Departments, does not need to comply to the AGSO's Geoscience GIS Data Dictionary.

Some of the themes may have an ArcInfo regions topology. Regions should be converted to polygons before attempting to export data into ArcView or MapInfo formats.

All themes must be documented and have accompanied metadata that conforms to current ANZLIC standard for Core Metadata Elements.

Text field rules

Only upper case characters are allowed in the upper case fields.

Mixed case fields may contain both upper and lower case characters. Upper case characters are preferred.

For mixed case fields first letter in a sentence should always start with the upper case.

Only one space is allowed between words.

All sentences should be completed with full stop.

A punctuation mark should always follow the word without any spaces between word and the punctuation mark.

A word immediately after the punctuation mark should be separated from the punctuation mark by a single space.

Field Type	Attribute value example
Mixed case field	Shale, siltstone and sandstone. Minor volcanic conglomerate.
Upper case field	SHALE, SILTSTONE AND SANDSTONE. MINOR VOLCANIC CONGLOMERATE.

Numeric field rules

Where value of a numerical item is not known and should not equal to zero, the value should be set to -9. Examples are points where all structural measurements were not completed.

UFI Field Numbering Rules

Unique Feature Identifier (UFI) field is compulsory for all features in a theme and must be populated. If theme (coverage) is constructed in Arc/INFO GIS, the ufi for a feature other than a polygon (e.g. point or line) is calculated as:

```
calculate ufi = $recno
```

If feature is a polygon, the universal (world) polygon must be accounted for and the ufi is therefore calculated as:

```
reselect $recno ne 1  
calculate ufi = $recno - 1
```

Annotation rules

Annotation subclasses should be named same as the items whose value the annotation represents. For example annotation for geological polygons in GEOLANN coverage would have subclass plot_symb i.e. anno.plot_symb. In all other cases user is allowed to name its own annotation subclasses.

Polygon labelling rules

Meaning	Character	Map Label	Map Symbol
Proterozoic 'P'	-P	Pfb	-Pfb
Cambrian 'C'	-C	COlj	-COlj
pre-Cambrian	p-C	pCg	p-Cg
Triassic 'T'	-R	Rm	-Rm
Subscript	>	Pg _a	-Pg>a
Superscript	^	Cl ^{a1}	-Cl ^{a1}
Combined units	,	Qa, Qs	Qa,Qs
Overlying	/	<u>Qs</u> Pg	Qs/-Pg
Complex relationships	use brackets ()	<u>Qs</u> Pla, Plm Tla, <u>Qr</u> Qc Tla, <u>Qr, Qz</u> Plm	Qs/(-Pla,-Plm) Tla,(Qr/Qc) Tla,((Qr,Qz)/-Plm)

GIS analysis look-up tables

For all themes in the data dictionary a GIS analysis look-up tables are allowed. The tables should have any other items of interest for a GIS analysis. The tables naming convention follows 8.3 format:

<theme>.<GA><S|L|P>

where <theme> is the standard theme name
<GA> stands for GIS Analysis
<S|L|P> one of feature-type identifiers; S for point (spot), L for line (arc) and P for polygon themes

Tables should be defined according to the following rules:

- the item *ufi* is used as a link to respective AAT or PAT file of the theme
- only *ufis* for tagged features should appear in the table
- the item *ufi* should always be the first item in the table
- other user-defined items should not appear in the data dictionary

Example

Geologist may want to tag particular arcs in GEOL theme as major greenstone belt boundaries. In this case, the GEOL.GAL GIS analysis look-up table would have the following structure:

ufi	greenstone	description	other2	etc...
12331	Y	Major greenstone belt boundary		N
12562			High percentage	Y
14522	Y	Major greenstone belt boundary		Y

Analysis items, i.e. *greenstone* in the above example, should be kept in respective feature tables - AATs and/or PATs while data set is in construction stage. Once data set is complete, the analysis attributes should be moved to their respective look-up tables.

Oracle authority tables

Current authority tables are located in <http://www.ga.gov.au/oracle/lookups/lookups.php>

Standard theme naming convention

Theme Domain	ArcInfo coverage name	Associated Look-up Table(s)	Feature Geometry Type(s)	ArcView and MapInfo naming convention in 8.3 file name format
Geology Themes				
Geology	GEOL	GEOL.LUT	Polygon, Line	GEOLP, GEOLL
Geology structural lines	STRLINE		Line	STRLINE
Geology cross-section	XGEO n	GEOL.LUT	Polygon, Line	XGEO n P, XGEO n L
Geology cross-section structural lines	XGEO ln		Line	XGEO ln
Generalised geology	GEOL nnn	GEOL.LUT	Polygon, Line	GEOL nnn P, GEOL nnn L
Solid geology	SOLGEOL	GEOL.LUT	Polygon, Line	SOLGEOLP, SOLGEOLL
Generalised solid geology	SOLG nnn	GEOL.LUT	Polygon, Line	SOLG nnn P, SOLG nnn L
Solid geology structural lines	SOLGSTR		Line	SOLGSTR
Lithology	LITHOLGY		Polygon, Line	LITHOLGYP, LITHOLGYL
Geological regions	GEOREGN		Polygon, Line	GEOREGNP, GEOREGNL
Geological provinces	GEOLPROV		Polygon	GEOLPROVP, GEOLPROVL
Metamorphism	METMRP n		Polygon, Line	METMRP n P, METMRP n L
Alteration zones	ALTZONE		Polygon, Line	ALTZONEP, ALTZONEL
Regolith-landform	REGO	REGO.LUT	Polygon, Line	REGOP, REGOL
Regolith lines	REGOLIN		Line	REGOLIN
Regolith points	REGOPNT		Point	REGOPNT
Earthquake hazard	QUAKEHAZ		Polygon, Line	QUAKHAZP, QUAKHAZL
Geophysics Themes				
Geophysical interpretation	GPHINT n		Polygon, Line	GPHINT n P, GPHINT n L
Geophysical lines	GPHLIN n		Line	GPHLIN n
Geophysical points	GPHPNT n		Point	GPHPNT n
Geophysical cross-section	XGPH nn		Polygon, Line	XGPH nn P, XGPH nn L
Airborne electromagnetic (AEM) interpretation (including adjunct features)	AEMINT n AEMADJ n		Polygon, Line Polygon, Line	AEMINT n P, AEMINT n L AEMADJ n P, AEMADJ n L
Airborne electromagnetic (AEM) lines and points (including adjunct features)	AEMLIN n AEMPTS n AEMADJL n AEMADJP n		Line Point Line Point	AEMLIN n AEMPTS n AEMADJL n AEMADJP n
Remote sensing interpretation	SATINT n		Polygon, Line	SATINT n P, SATINT n L
Remote sensing lines	SATLIN n		Line	SATLIN n
Depth to basement	BASDPT n		Line, Point	BASDPT n L, BASDPT n S
Seismic survey lines	SEISMIC		Line	SEISMIC
Seismic velocities	SEISVEL		Point	SEISVEL
Geochemistry and Geochronology Themes				
Geochemistry	OZCHEM		Point	OZCHEM
SHRIMP dating	SHRIMP	SHRIMP.LUT	Point	SHRIMP
Theme Domain	ArcInfo coverage name	Associated Look-up Table(s)	Feature Geometry Type(s)	ArcView and MapInfo naming convention in 8.3 file name format
Geochemistry and Geochronology Themes (continued)				

Sm-Nd dating	SMND	SMND.LUT	Point	SMND
Rb-Sr dating	RBSR		Point	RBSR
U-Pb dating	UPB		Point	UPB
Mineral Deposits and Mineral Potential Assessment Themes				
OZMIN mineral deposits	OZMIN	OZMIN.COM OZMIN.EXT OZMIN.LTH OZMIN.MIN	Point	OZMIN
Mineral deposits including historical data	DEPOSIT	DEPOSIT.COM	Point	DEPOSIT
Mineral localities	MINLOC		Point	MINLOC
Mineral exploration and mining titles	MINRTLE	MINRTLE.LUT	Region, Line	MINRTLEP, MINRTLEL
Petroleum exploration and development titles	PETRTLE	PETRTLE.LUT	Region, Line	PETRTLEP, PETRTLEL
Petroleum wells	WELLS		Point	WELLS
Open cut mines and quarries	MINES		Polygon, Line	MINESP, MINESS
Mineral deposit tracts	MODnnX		Polygon, Line	MODnnXP, MODnnXL
Mineral potential (combined)	MINPOT		Polygon, Line	MINPOTP, MINPOTL
Weighted mineral potential (combined)	WMINPOT		Polygon, Line	WMINPOTP, WMINPOTL
Mineral potential	COMP WCOMP CUMU WCUMU		Polygon, Line Polygon, Line Polygon, Line Polygon, Line	COMPP, COMPL WCOMPP, WCOMPL CUMUP, CUMUL WCUMUP, WCUMUL
Certainty of the mineral potential assessment	COMPCERT CUMUCERT		Polygon, Line Polygon, Line	COMPCRTP, COMPCRTP CUMUCRTP, CUMUCRTL
Certainty (combined) of the mineral potential assessment	CERT		Polygon, Line	CERTP, CERTL
Surveys and Field Observation Themes				
Field sites	SITES		Point	SITES
Regolith-landform site descriptions	RTSITES	RTZONES.LUT RTSITES.LUT	Point	RTSITES
Outcrops	OUTCROP		Point	OUTCROP
Rocks	ROCKS	ROCKS.LUT	Point	ROCKS
Structural measurements	STRUC		Point	STRUC
Drill holes and measured sections	SECHOLE	SECHOLE.LTH SECHOLE.STR SECHOLE.SVY	Point	SECHOLE
Linear geology from drill holes (DEVIANT)	DHGEOL	DHGEOL.LUT	Point	DHGEOL
Measured sections (DEVIANT database)	MSRSECT	MSRSECT.LUT	Point	MSRSECT
Petrographic descriptions	PETROG	PETROG.DAT PETROG.MIN	Point	PETROG
Field photos	PHOTO		Point	PHOTO
Theme Domain	ArcInfo coverage name	Associated Look-up Table(s)	Feature Geometry Type(s)	ArcView and MapInfo naming convention in 8.3 file name format
Surveys and Field Observation Themes (continued)				
Fossils	FOSSIL		Point	FOSSIL
Ship surveys	SHIPSURV		Line	SHIPSURV
Marine survey point	MARINEPT		Point	MARINEPT
Swath boundaries	SWATHBDY		Polygon, Line	SWTHBDYP, SWTHBDYL

Offshore boundaries	OFFSHBDY		Line	OFFSHBDY
Earthquakes	EQUAKES		Point	EQUAKES
Landslides	LANDSLID		Point	LANDSLID
Australian Fundamental Gravity Network stations	AFGNSTN		Point	AFGNSTN
Index of gravity geophysical surveys	GRAVSRV		Point	GRAVSRV
Index of airborne geophysical surveys	AIRBSRV		Region, Line	AIRBSRVP, AIRBSRVL
Urban Infrastructure Themes				
Buildings	BUILDNG		Point	BUILDNG
Urban areas	URBAN		Polygon, Line	URBANP, URBANL
Roads	ROAD		Line	ROAD
Railways	RAILWAY		Line	RAILWAY
Assessment of the exposure to flood at a spot height	SPOTFLD		Point	SPOTFLD
Electrical power grid	POWER		Line, Point	POWERL, POWERS
Water network	WATER		Line, Point	WATERL, WATERS
Sewerage network	SEWER		Line, Point	SEWERL, SEWERS
Natural gas distribution network	GAS		Line, Point	GASL, GASS
Pipelines	PIPELINE		Line	PIPELINE
Oil and gas fields	OILFLDS		Polygon, Line	OILFLDSP, OILFLDSL
Telecommunications infrastructure	TELECOM		Line, Point	TELECOML, TELECOMS
Culture	CULT		Line, Point	CULTL, CULTS
Land use (ANZLUC)	LANDUSE		Polygon, Line	LANDUSEP, LANDUSES
Terrain Physiography Themes				
Drainage	DRAIN		Line, Point	DRAINL, DRAINS
Water bodies	WTRBDY		Polygon, Line	WTRBDYP, WTRBDYL
Relief	RELIEF		Line, Point	RELIEFL, RELIEFS
	HYPSO		Polygon, Line	HYPSOP, HYSOL
Bathymetry	BATHY		Line	BATHY
Cartographic Themes				
Frame	FRAME		Polygon, Line	FRAMEP, FRAMEL
Map grid, graticule and border	MAPGRID		Line	MAPGRID
Cross-section line(s)	XLINE		Line	XLINE

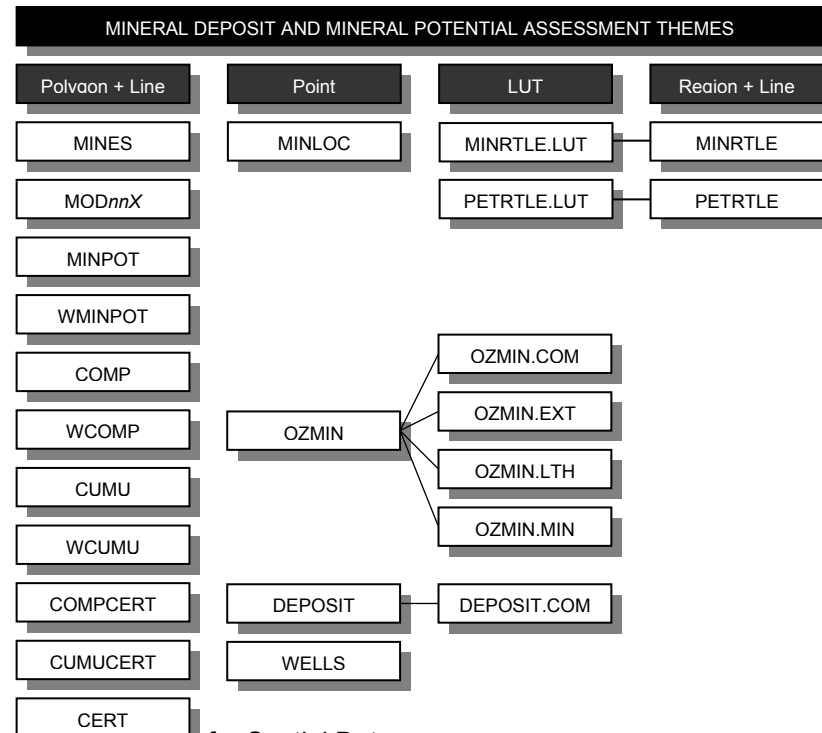
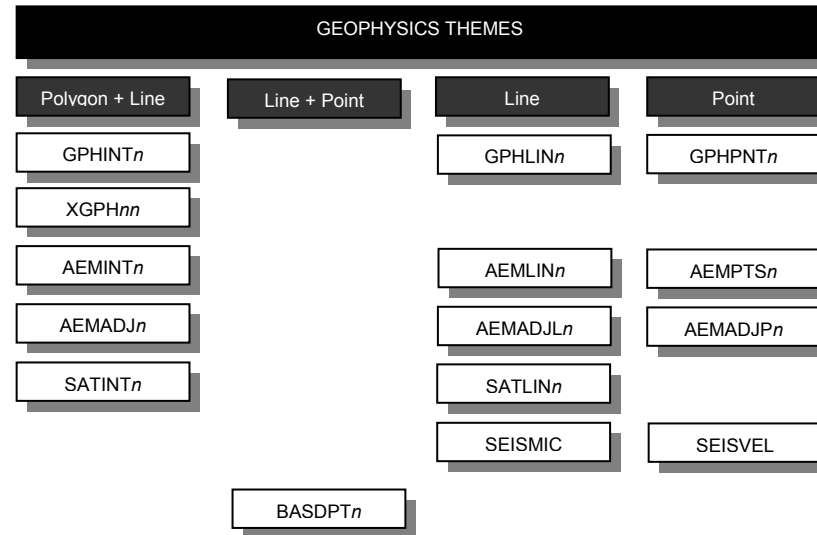
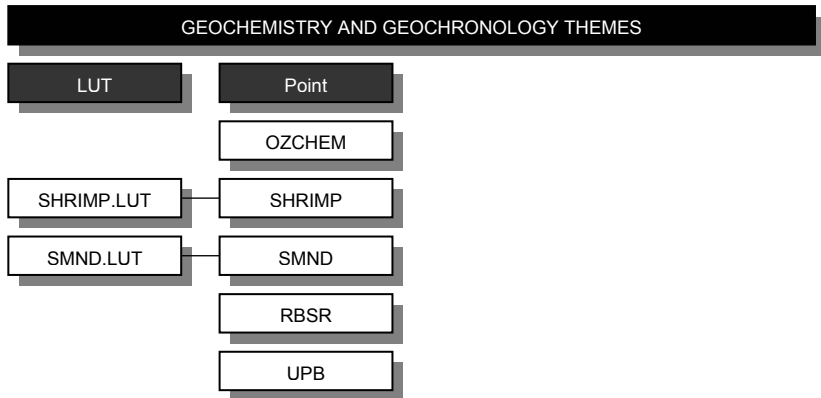
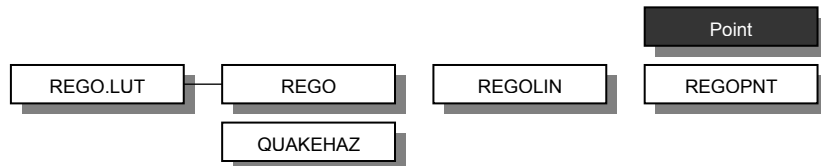
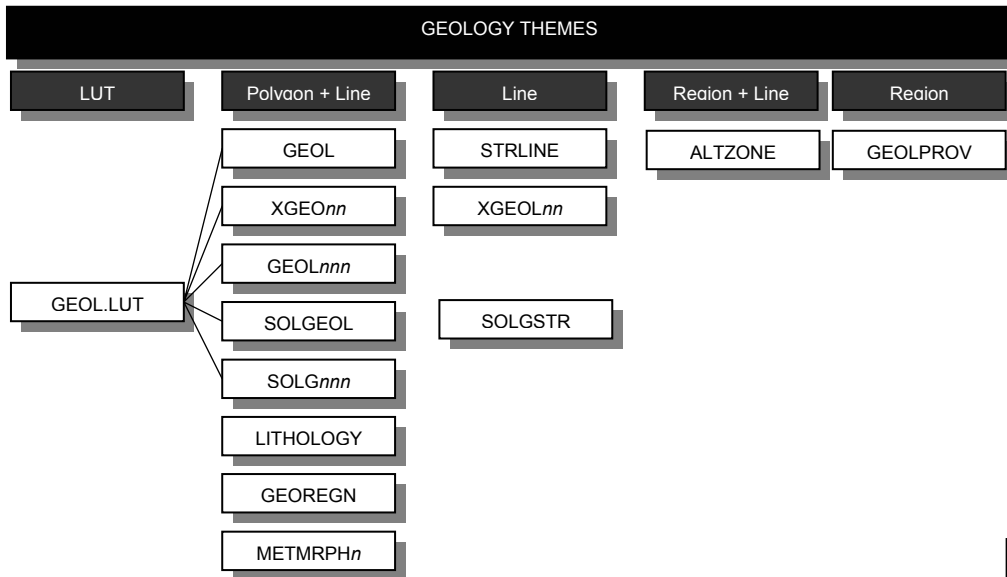
Generalised themes

Generalised geology *GEOLnnn* and generalised solid geology *SOLGnnn* are themes derived from *GEOL* or *SOLGEOL* themes respectively and where *nnn* represent intended scale of generalisation, for example:

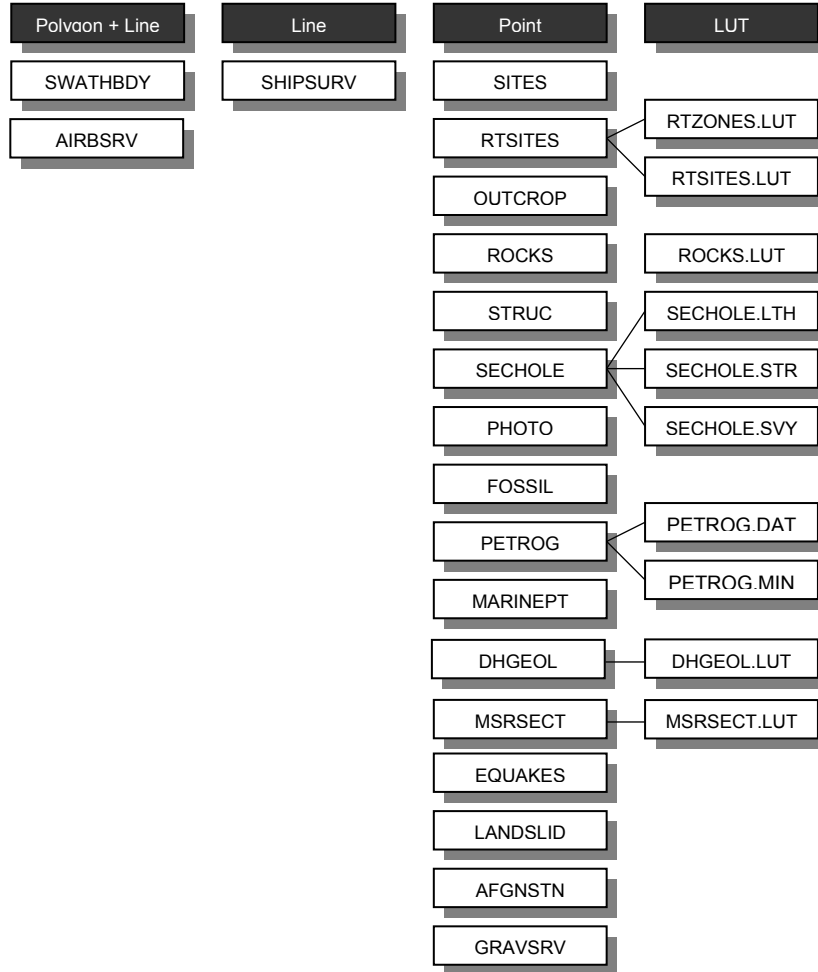
<i>nnn</i> suffix	Intended map scale
100	1:100,000
250	1:250,000
500	1:500,000
10m	1:1,000,000
25m	1:2,500,000
5m	1:5,000,000

Coverages with the same name must be kept in different workspaces and are for INTERNAL USE only.

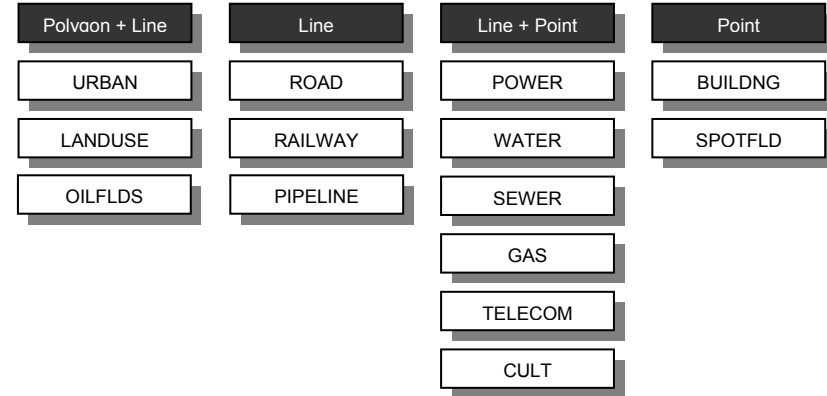
Spatial themes relational diagrams



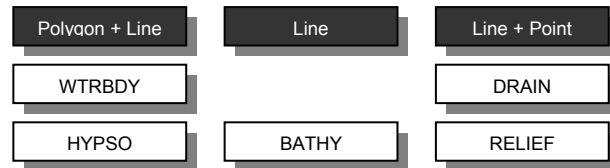
SURVEYS AND FIELD OBSERVATIONS THEMES



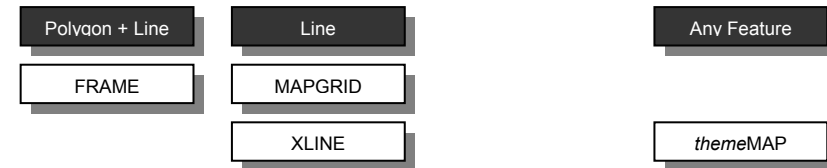
URBAN INFRASTRUCTURE THEMES



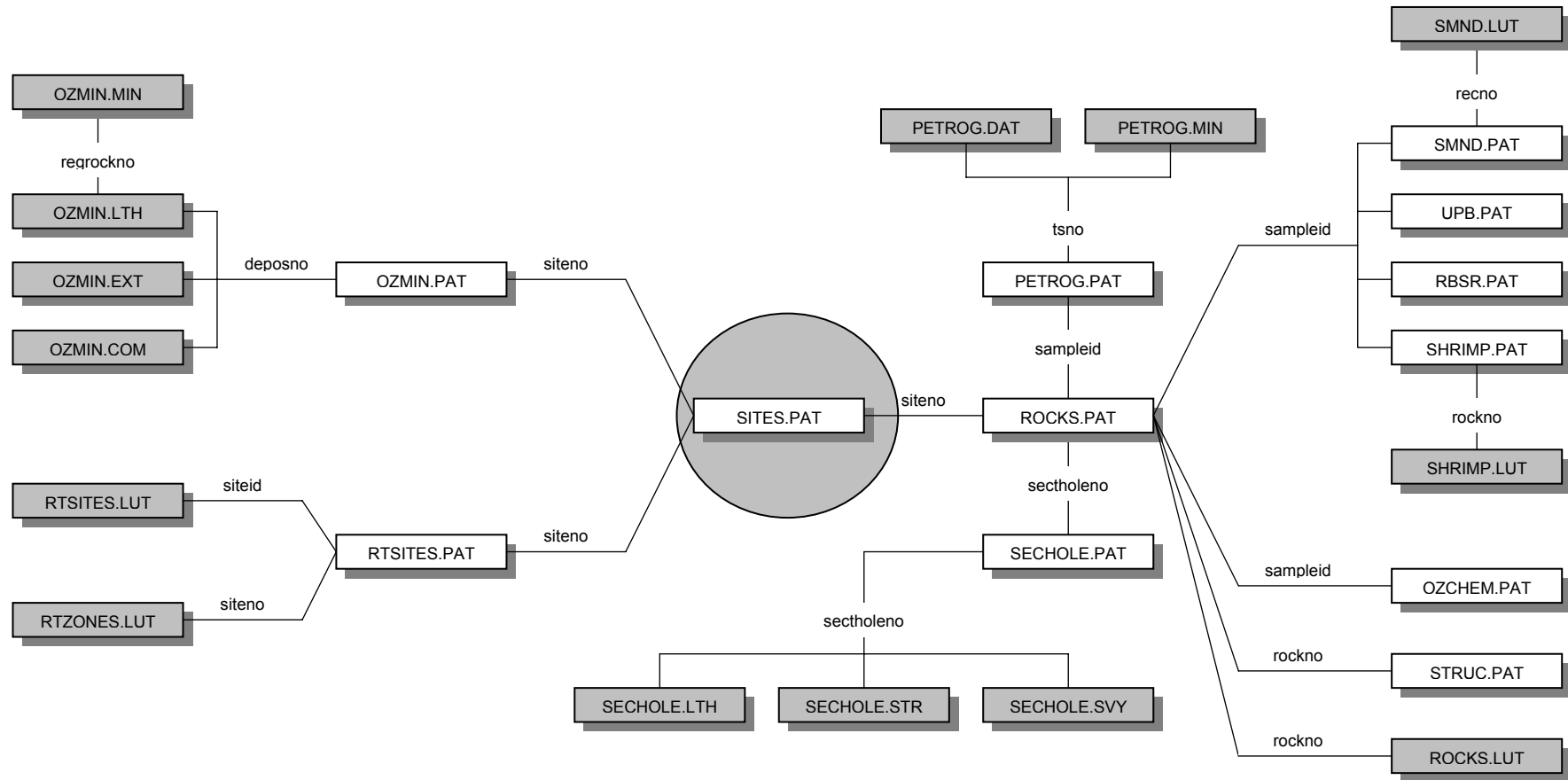
TERRAIN PHYSIOGRAPHY THEMES




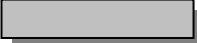
CARTOGRAPHIC THEMES



RELATIONAL DIAGRAM FOR GEOLOGY-RELATED POINT THEMES DERIVED FROM ORACLE DATABASES



LEGEND

-  Spatial feature attribute table e.g. Point Attribute Table (PAT) from an ArcInfo point coverage
-  Non-spatial attribute look-up table e.g. an ArcInfo INFO table or other database-format table

How to read this Data Dictionary

Name *The verbal name of the theme*

Name *The name of the digital theme*

Description *A short description of the type of data in this theme*

Type *Whether the theme is a point, line, polygon, region, point/line or polygon/line theme*

Linked table *Any linked look-up tables for this theme are listed here*

Linked table *The name of any linked theme*

Note *Any special notes relating to the theme*

Object	Feature Class	Feature	Feature Definition	Attributes
<i>Whether the feature class is polygon, arc (line), or point</i>	<i>The name of the feature class</i>	<i>The attribute value for the feature field</i>	<i>The definition of the feature</i>	<i>The list of fields applying to the feature</i>

Object	Field Name	Field Type	Case	Compulsory	Valid Values	Description of Field	Rules
<i>Whether the field is applying to a polygon, arc (line) or point</i>	<i>The name of the field</i>	<i>The type of field and its width</i>	<i>The case for char fields - upper, lower or mixed</i>	<i>Whether it is compulsory to have entries in this field</i>	<i>The list of valid attribute values</i>	<i>A description of the meaning of the field</i>	<i>Any rules applying to the use of this field, or any comments about the field</i>

Selected Authority Tables

Feature codes

RULES

1. Classification of linear features is governed by geological certainty and positional accuracy. For example, boundaries are established or inferred. Established boundaries may be accurate, approximate or concealed. Inferred boundaries are approximate and may be concealed (deduced, not observed). A concealed but not inferred boundary is one established by sub-surface exploration or is an established boundary beneath cover.
2. Feature code is an integer number comprised of: the 'section' to which the feature belongs (first 2 digits), the number of the feature (next 3 digits), and the classification (positional accuracy/geological certainty) of the feature (last 2 digits).
3. Some features only have the 'undefined', or '00', accuracy/certainty codes listed. However, new codes can be created by using the CLASS tables to alter the last two digits of the feature code.
4. The coding system has been designed for use in both digital (GIS) data and to facilitate cartographic symbolisation on maps. For this reason a single feature type e.g. marker bed, may have multiple feature codes because it has multiple symbols. This is not ideal.
5. In digital data, descriptions such as 'tick on younger rocks' (faults) and 'double arrow indicates steeper limb' (folds) are meaningless because the cartographic symbolisation is not present. Therefore, as a general rule, the line must be orientated such that particular characteristic described is dextral ie when viewed from the start point to the end point ('FROM' node to the 'TO' node) the characteristic described (the younger rocks, or the steeper limb) is on the right. This orientation of the line is often required for cartographic line symbolisation in any case.
6. Dextral is to the right of a line when viewing from the start node. Sinistral is to the left.

LINE CLASSIFICATIONS

Geological classes

- 00 UNDEFINED
- 01 ACCURATE
- 02 APPROXIMATE
- 03 INFERRED
- 04 CONCEALED
- 05 INFERRED-CONCEALED

Geophysical classes

- 06 PROBABLE
- 07 SPECULATIVE

Regolith classes

- 11 BURIED
- 12 INVERTED
- 13 EXTRUDED

POINT CLASSIFICATIONS

Use of coding for 'point' accuracy:

- 00 UNDEFINED – e.g. map data (could also be 02)
- 01 ACCURATE – e.g. DGPS, field measurement
- 02 APPROXIMATE – e.g. GPS, interpreted data, map data

TYPE	FEAT_CODE	DESCRIPT	CLASS	DEFNO
00.000 MISCELLANEOUS				
Line	00 001 00	Tile frame - plotted	0	0
Line	00 002 00	Tile frame - not plotted	0	0
Line	00 003 00	Polygon splitting line - not plotted	0	0
Line	00 004 00	Graphics linework - not plotted	0	0
Line	00 005 00	Closing line	0	0
Line	00 006 00	Water feature boundary – rivers, coastlines or lakes	0	0
Line	00 007 00	Cultural boundary – roads, tracks etc	0	0
Line	00 008 00	Administrative boundary – state borders, political or other admin boundaries	0	0
Line	00 009 00	Geological boundary – province boundaries, faults and other geological boundaries	0	0
10.000 GEOLOGICAL BOUNDARIES				
Line	10 001 00	Geological boundary	0	0
Line	10 001 01	Geological boundary, accurate	1	0
Line	10 001 02	Geological boundary, approximate	2	0
Line	10 001 03	Geological boundary, inferred	3	0
Line	10 001 04	Geological boundary, concealed	4	0
Line	10 001 05	Geological boundary, inferred, concealed	5	0
Line	10 002 00	Sedimentary facies boundary	0	0
Line	10 002 01	Sedimentary facies boundary, accurate	1	0
Line	10 002 02	Sedimentary facies boundary, approximate	2	0
Line	10 002 03	Sedimentary facies boundary, inferred	3	0
Line	10 002 04	Sedimentary facies boundary, concealed	4	0
Line	10 002 05	Sedimentary facies boundary, inferred, concealed	5	0
Line	10 003 00	Transitional geological boundary	0	0
Line	10 004 00	Alluvial boundary	0	0
Line	10 005 00	Bedrock boundary	0	0
Line	10 006 00	Geological boundary between intrusive rocks, younger rocks on right	0	0
Line	10 007 00	Geological region boundary	0	0
Line	10 008 00	Miscellaneous boundary	0	0
Line	10 009 00	Metamorphic facies boundary	0	0
Line	10 010 00	Alteration zone boundary	0	0
Line	10 011 00	Metamorphic isograd showing index minerals	0	0
Line	10 012 00	Metamorphic isograd showing index minerals	0	0
Line	10 013 00	Palaeogeographic lithology boundary	0	0
Line	10 014 00	Palaeogeographic environment boundary	0	0
Line	10 015 00	Geological province boundary	0	0
10.030 UNCONFORMITIES				
Line	10 030 00	Unconformity. Younger rocks to right	0	0
Line	10 031 00	Angular unconformity. Younger rocks to right	0	0

Line	10 032 00	Disconformity. Younger rocks to right	0	0
Line	10 033 00	Nonconformity. Younger rocks to right	0	0
Line	10 034 00	Paraconformity. Younger rocks to right	0	0
Line	10 035 00	Unconformity	0	0
Line	10 036 00	Angular unconformity	0	0
Line	10 037 00	Disconformity	0	0
Line	10 038 00	Nonconformity	0	0
Line	10 039 00	Paraconformity	0	0
10.050 GEOLOGICAL MARKERS				
Line	10 050 00	Marker bed/band	0	0
Line	10 051 00	Marker bed/band	0	0
Line	10 052 00	Marker bed/band	0	0
Line	10 053 00	Marker bed/band	0	0
Line	10 054 00	Thin bed or layer	0	0
Line	10 055 00	Thin bed or layer	0	0
Line	10 056 00	Thin bed or layer	0	0
Point	10 057 00	Small outcrop	0	0
11.000 FAULTS				
Line	11 001 00	Fault	0	0
Line	11 001 01	Fault, accurate	1	0
Line	11 001 02	Fault, approximate	2	0
Line	11 001 03	Fault, inferred	3	0
Line	11 001 04	Fault, concealed	4	0
Line	11 001 05	Fault, inferred, concealed	5	0
Line	11 002 00	Fracture or minor fault	0	0
Line	11 002 01	Fracture or minor fault, accurate	1	0
Line	11 002 02	Fracture or minor fault, approximate	2	0
Line	11 002 03	Fracture or minor fault, inferred	3	0
Line	11 002 04	Fracture or minor fault, concealed	4	0
Line	11 002 05	Fracture or minor fault, inferred, concealed	5	0
Line	11 003 00	Vertical fault	0	0
Line	11 003 01	Vertical fault, accurate	1	0
Line	11 003 02	Vertical fault, approximate	2	0
Line	11 003 03	Vertical fault, inferred	3	0
Line	11 003 04	Vertical fault, concealed	4	0
Line	11 003 05	Vertical fault, inferred, concealed	5	0
Line/Pattern	11 004 00	Normal fault. Younger rocks on right	0	0
Line/Pattern	11 004 01	Normal fault, accurate. Younger rocks on right	1	0
Line/Pattern	11 004 02	Normal fault, approximate. Younger rocks on right	2	0
Line/Pattern	11 004 03	Normal fault, inferred. Younger rocks on right	3	0
Line/Pattern	11 004 04	Normal fault, concealed. Younger rocks on right	4	0
Line/Pattern	11 004 05	Normal fault, inferred, concealed. Younger rocks on right	5	0
Line/Pattern	11 005 00	Low-angle normal fault. Younger rocks on right	0	0
Line/Pattern	11 005 01	Low-angle normal fault, accurate. Younger rocks on right	1	0
Line/Pattern	11 005 02	Low-angle normal fault, approximate. Younger rocks on right	2	0

Line/Pattern	11 005 03	Low-angle normal fault, inferred. Younger rocks on right	3	0
Line/Pattern	11 005 04	Low-angle normal fault, concealed. Younger rocks on right	4	0
Line/Pattern	11 005 05	Low-angle normal fault, inferred, concealed. Younger rocks on right	5	0
Line/Pattern	11 006 00	High-angle normal fault. Younger rocks on right	0	0
Line/Pattern	11 006 01	High-angle normal fault, accurate. Younger rocks on right	1	0
Line/Pattern	11 006 02	High-angle normal fault, approximate. Younger rocks on right	2	0
Line/Pattern	11 006 03	High-angle normal fault, inferred. Younger rocks on right	3	0
Line/Pattern	11 006 04	High-angle normal fault, concealed. Younger rocks on right	4	0
Line/Pattern	11 006 05	High-angle normal fault, inferred, concealed. Younger rocks on right	5	0
Line/Pattern	11 007 00	Thrust-fault. Younger rocks on right	0	0
Line/Pattern	11 007 01	Thrust-fault, accurate. Younger rocks on right	1	0
Line/Pattern	11 007 02	Thrust-fault, approximate. Younger rocks on right	2	0
Line/Pattern	11 007 03	Thrust-fault, inferred. Younger rocks on right	3	0
Line/Pattern	11 007 04	Thrust-fault, concealed. Younger rocks on right	4	0
Line/Pattern	11 007 05	Thrust-fault, inferred, concealed. Younger rocks on right	5	0
Line/Pattern	11 008 00	High-angle thrust-fault. Younger rocks on right	0	0
Line/Pattern	11 008 01	High-angle thrust-fault, accurate. Younger rocks on right	1	0
Line/Pattern	11 008 02	High-angle thrust-fault, approximate. Younger rocks on right	2	0
Line/Pattern	11 008 03	High-angle thrust-fault, inferred. Younger rocks on right	3	0
Line/Pattern	11 008 04	High-angle thrust-fault, concealed. Younger rocks on right	4	0
Line/Pattern	11 008 05	High-angle thrust-fault, inferred, concealed. Younger rocks on right	5	0
Point	11 009 00	Relative vertical displacement of fault, 'up' side is on right	0	0
Point	11 010 00	Relative displacement of fault	0	0
Point	11 011 00	Sense of relative displacement of upper plate of fault	0	0
Point	11 012 00	Striated slickensides of fault	0	0
Line	11 013 00	Line of faulted outcrop	0	0
Line	11 014 00	Post-intrusive fault along intrusive boundary	0	0
Line	11 015 00	Intrusive boundary along pre-existing fault	0	0
Line/Pattern	11 016 00	Klippe. Younger rocks on right	0	0
Point	11 017 00	Dip of fault plane	0	0
Point	11 018 00	Inclined fault, sense of displacement not known	0	0

11.020 FAULTS - CRUSHING, SHEARING, SCHISTOSITY

Line	11 020 00	Fault with crushing	0	0
Line	11 021 00	Fault with breccia	0	0
Line	11 022 00	Fault with filling	0	0
Line	11 023 00	Shear zone	0	0
Line	11 023 04	Shear zone, concealed		
Line	11 024 00	Wide shear zone	0	0
Line	11 025 00	Mylonite zone	0	0
Line	11 026 00	Breccia zone (pseudoconglomerate or tectonic melange)	0	0
Point	11 027 00	Shearing or schistosity	0	0
Point	11 028 00	Dip of shear zone	0	0

12.000 DYKES

Line	12 001 00	Dyke or vein	0	0
Line	12 002 00	Dyke or vein	0	0

Line	12 003 00	Sill	0	0
Line	12 003 01	Sill, accurate	1	0
Line	12 003 02	Sill, approximate	2	0
Line	12 301 01	Dyke, accurate	1	0
Line	12 301 02	Dyke, approximate	2	0
Line	12 302 01	Vein, accurate	1	0
Line	12 302 02	Vein, approximate	2	0

13.000 FOLDS - MISCELLANEOUS

Line	13 001 00	Fold axial surface trace	0	0
Line	13 001 01	Fold axial surface trace, accurate	1	0
Line	13 001 02	Fold axial surface trace, approximate	2	0
Line	13 001 03	Fold axial surface trace, inferred	3	0
Line	13 001 04	Fold axial surface trace, concealed	4	0
Line	13 001 05	Fold axial surface trace, inferred, concealed	5	0
Point	13 002 00	First folding episode (F1)	0	1
Point	13 003 00	Second folding episode (F2)	0	2
Point	13 004 00	Third folding episode (F3)	0	3
Point	13 005 00	Horizontal fold axis	0	0
Point	13 006 00	Dip of fold axial surface	0	0
Point	13 007 00	Plunge of fold axis	0	0
Point	13 008 00	Direction of facing of fold	0	0
Line	13 009 00	Trend of closely-spaced folds	0	0

13.020 FOLDS - ANTICLINES, SYNCLINES

Line/Point	13 020 00	Anticline	0	0
Line/Point	13 020 01	Anticline, accurate	1	0
Line/Point	13 020 02	Anticline, approximate	2	0
Line/Point	13 020 03	Anticline, inferred	3	0
Line/Point	13 020 04	Anticline, concealed	4	0
Line/Point	13 020 05	Anticline, inferred, concealed	5	0
Line/Point	13 021 00	Syncline	0	
Line/Point	13 021 01	Syncline, accurate	1	0
Line/Point	13 021 02	Syncline, approximate	2	0
Line/Point	13 021 03	Syncline, inferred	3	0
Line/Point	13 021 04	Syncline, concealed	4	0
Line/Point	13 021 05	Syncline, inferred, concealed	5	0
Line/Point	13 022 00	Anticline; steeper, thinned limb on right	0	0
Line/Point	13 022 01	Anticline, accurate; steeper, thinned limb on right	1	0
Line/Point	13 022 02	Anticline, approximate; steeper, thinned limb on right	2	0
Line/Point	13 022 03	Anticline, inferred; steeper, thinned limb on right	3	0
Line/Point	13 022 04	Anticline, concealed; steeper, thinned limb on right	4	0
Line/Point	13 022 05	Anticline, inferred, concealed; steeper, thinned limb on right	5	0
Line/Point	13 023 00	Syncline; steeper, thinned limb on right	0	0
Line/Point	13 023 01	Syncline, accurate; steeper, thinned limb on right	1	0
Line/Point	13 023 02	Syncline, approximate; steeper, thinned limb on right	2	0
Line/Point	13 023 03	Syncline, inferred; steeper, thinned limb on right	3	0

Line/Point	13 023 04	Syncline, concealed; steeper, thinned limb on right	4	0
Line/Point	13 023 05	Syncline, inferred, concealed; steeper, thinned limb on right	5	0
13.024 FOLDS - OVERTURNED FOLDS				
Line/Point	13 024 00	Overtured anticline	0	0
Line/Point	13 024 01	Overtured anticline, accurate	1	0
Line/Point	13 024 02	Overtured anticline, approximate	2	0
Line/Point	13 024 03	Overtured anticline, inferred	3	0
Line/Point	13 024 04	Overtured anticline, concealed	4	0
Line/Point	13 024 05	Overtured anticline, inferred, concealed	5	0
Line/Point	13 025 00	Overtured anticline showing dips of limbs	0	0
Line/Point	13 025 01	Overtured anticline, accurate, showing dips of limbs	1	0
Line/Point	13 025 02	Overtured anticline, approximate, showing dips of limbs	2	0
Line/Point	13 025 03	Overtured anticline, inferred, showing dips of limbs	3	0
Line/Point	13 025 04	Overtured anticline, concealed, showing dips of limbs	4	0
Line/Point	13 025 05	Overtured anticline, inferred, concealed, showing dips of limbs	5	0
Line/Point	13 026 00	Overtured syncline	0	0
Line/Point	13 026 01	Overtured syncline, accurate	1	0
Line/Point	13 026 02	Overtured syncline, approximate	2	0
Line/Point	13 026 03	Overtured syncline, inferred	3	0
Line/Point	13 026 04	Overtured syncline, concealed	4	0
Line/Point	13 026 04	Overtured syncline, inferred, concealed	5	0
Line/Point	13 027 00	Overtured syncline showing dips of limbs	0	0
Line/Point	13 027 01	Overtured syncline, accurate, showing dips of limbs	1	0
Line/Point	13 027 02	Overtured syncline, approximate, showing dips of limbs	2	0
Line/Point	13 027 03	Overtured syncline, inferred, showing dips of limbs	3	0
Line/Point	13 027 04	Overtured syncline, concealed, showing dips of limbs	4	0
Line/Point	13 027 05	Overtured syncline, inferred, concealed, showing dips of limbs	5	0
13.028 FOLDS - RECLINED FOLDS				
Line/Point	13 028 00	Reclined anticline	0	0
Line/Point	13 028 01	Reclined anticline, accurate	1	0
Line/Point	13 028 02	Reclined anticline, approximate	2	0
Line/Point	13 028 03	Reclined anticline, inferred	3	0
Line/Point	13 028 04	Reclined anticline, concealed	4	0
Line/Point	13 028 05	Reclined anticline, inferred, concealed	5	0
Line/Point	13 029 00	Reclined syncline	0	0
Line/Point	13 029 01	Reclined syncline, accurate	1	0
Line/Point	13 029 02	Reclined syncline, approximate	2	0
Line/Point	13 029 03	Reclined syncline, inferred	3	0
Line/Point	13 029 04	Reclined syncline, concealed	4	0
Line/Point	13 029 05	Reclined syncline, inferred, concealed	5	0
13.030 FOLDS - RECUMBENT FOLDS				
Line/Point	13 030 00	Recumbent anticline	0	0
Line/Point	13 030 01	Recumbent anticline, accurate	1	0
Line/Point	13 030 02	Recumbent anticline, approximate	2	0
Line/Point	13 030 03	Recumbent anticline, inferred	3	0

Line/Point	13 030 04	Recumbent anticline, concealed	4	0
Line/Point	13 030 05	Recumbent anticline, inferred, concealed	5	0
Line/Point	13 031 00	Recumbent syncline	0	0
Line/Point	13 031 01	Recumbent syncline, accurate	1	0
Line/Point	13 031 02	Recumbent syncline, approximate	2	0
Line/Point	13 031 03	Recumbent syncline, inferred	3	0
Line/Point	13 031 04	Recumbent syncline, concealed	4	0
Line/Point	13 031 05	Recumbent syncline, inferred, concealed	5	0

13.032 FOLDS - VERTICAL FOLDS

Line/Point	13 032 00	Vertical anticline	0	0
Line/Point	13 032 01	Vertical anticline, accurate	1	0
Line/Point	13 032 02	Vertical anticline, approximate	2	0
Line/Point	13 032 03	Vertical anticline, inferred	3	0
Line/Point	13 032 04	Vertical anticline, concealed	4	0
Line/Point	13 032 05	Vertical anticline, inferred, concealed	5	0
Line/Point	13 033 00	Vertical syncline	0	0
Line/Point	13 033 01	Vertical syncline, accurate	1	0
Line/Point	13 033 02	Vertical syncline, approximate	2	0
Line/Point	13 033 03	Vertical syncline, inferred	3	0
Line/Point	13 033 04	Vertical syncline, concealed	4	0
Line/Point	13 033 05	Vertical syncline, inferred, concealed	5	0

13.034 FOLDS - ASYMMETRICAL FOLDS

Line/Point	13 034 00	Asymmetrical anticline; steeper limb on right	0	0
Line/Point	13 034 01	Asymmetrical anticline, accurate; steeper limb on right	1	0
Line/Point	13 034 02	Asymmetrical anticline, approximate; steeper limb on right	2	0
Line/Point	13 034 03	Asymmetrical anticline, inferred; steeper limb on right	3	0
Line/Point	13 034 04	Asymmetrical anticline, concealed; steeper limb on right	4	0
Line/Point	13 034 05	Asymmetrical anticline, inferred, concealed; steeper limb on right	5	0
Line/Point	13 035 00	Asymmetrical syncline; steeper limb on right	0	0
Line/Point	13 035 01	Asymmetrical syncline, accurate; steeper limb on right	1	0
Line/Point	13 035 02	Asymmetrical syncline, approximate; steeper limb on right	2	0
Line/Point	13 035 03	Asymmetrical syncline, inferred; steeper limb on right	3	0
Line/Point	13 035 04	Asymmetrical syncline, concealed; steeper limb on right	4	0
Line/Point	13 035 05	Asymmetrical syncline, inferred, concealed; steeper limb on right	5	0
Line/Point	13 036 00	Asymmetrical anticline with same dip on both limbs; thinned limb on right	0	0
Line/Point	13 036 01	Asymmetrical anticline, accurate, with same dip on both limbs; thinned limb on right	1	0
Line/Point	13 036 02	Asymmetrical anticline, approximate, with same dip on both limbs; thinned limb on right	2	0
Line/Point	13 036 03	Asymmetrical anticline, inferred, with same dip on both limbs; thinned limb on right	3	0
Line/Point	13 036 04	Asymmetrical anticline, concealed, with same dip on both limbs; thinned limb on right	4	0
Line/Point	13 036 05	Asymmetrical anticline, inferred, concealed, with same dip on both limbs; thinned limb on right	5	0
Line/Point	13 037 00	Asymmetrical syncline with same dip on both limbs; thinned limb on right	0	0
Line/Point	13 037 01	Asymmetrical syncline, accurate, with same dip on both limbs; thinned limb on right	1	0
Line/Point	13 037 02	Asymmetrical syncline, approximate, with same dip on both limbs; thinned limb on right	2	0
Line/Point	13 037 03	Asymmetrical syncline, inferred, with same dip on both limbs; thinned limb on right	3	0
Line/Point	13 037 04	Asymmetrical syncline, concealed, with same dip on both limbs; thinned limb on right	4	0

Line/Point	13 037 05	Asymmetrical syncline, inferred, concealed, with same dip on both limbs; thinned limb on right	5	0
13.038 FOLDS - INVERTED FOLDS				
Line/Point	13 038 00	Inverted anticline	0	0
Line/Point	13 038 01	Inverted anticline, accurate	1	0
Line/Point	13 038 02	Inverted anticline, approximate	2	0
Line/Point	13 038 03	Inverted anticline, inferred	3	0
Line/Point	13 038 04	Inverted anticline, concealed	4	0
Line/Point	13 038 05	Inverted anticline, inferred, concealed	5	0
Line/Point	13 039 00	Inverted syncline	0	0
Line/Point	13 039 01	Inverted syncline, accurate	1	0
Line/Point	13 039 02	Inverted syncline, approximate	2	0
Line/Point	13 039 03	Inverted syncline, inferred	3	0
Line/Point	13 039 04	Inverted syncline, concealed	4	0
Line/Point	13 039 05	Inverted syncline, inferred, concealed	5	0
Line/Point	13 040 00	Inverted anticline; steeper, thinned limb on right	0	0
Line/Point	13 040 01	Inverted anticline, accurate; steeper, thinned limb on right	1	0
Line/Point	13 040 02	Inverted anticline, approximate; steeper, thinned limb on right	2	0
Line/Point	13 040 03	Inverted anticline, inferred; steeper, thinned limb on right	3	0
Line/Point	13 040 04	Inverted anticline, concealed; steeper, thinned limb on right	4	0
Line/Point	13 040 05	Inverted anticline, inferred, concealed; steeper, thinned limb on right	5	0
Line/Point	13 041 00	Inverted syncline; steeper, thinned limb on right	0	0
Line/Point	13 041 01	Inverted syncline, accurate; steeper, thinned limb on right	1	0
Line/Point	13 041 02	Inverted syncline, approximate; steeper, thinned limb on right	2	0
Line/Point	13 041 03	Inverted syncline, inferred; steeper, thinned limb on right	3	0
Line/Point	13 041 04	Inverted syncline, concealed; steeper, thinned limb on right	4	0
Line/Point	13 041 05	Inverted syncline, inferred, concealed; steeper, thinned limb on right	5	0
Line/Point	13 042 00	Inverted overturned anticline	0	0
Line/Point	13 042 01	Inverted overturned anticline, accurate	1	0
Line/Point	13 042 02	Inverted overturned anticline, approximate	2	0
Line/Point	13 042 03	Inverted overturned anticline, inferred	3	0
Line/Point	13 042 04	Inverted overturned anticline, concealed	4	0
Line/Point	13 042 05	Inverted overturned anticline, inferred, concealed	5	0
Line/Point	13 043 00	Inverted overturned syncline	0	0
Line/Point	13 043 01	Inverted overturned syncline, accurate	1	0
Line/Point	13 043 02	Inverted overturned syncline, approximate	2	0
Line/Point	13 043 03	Inverted overturned syncline, inferred	3	0
Line/Point	13 043 04	Inverted overturned syncline, concealed	4	0
Line/Point	13 043 05	Inverted overturned syncline, inferred, concealed	5	0
Line/Point	13 044 00	Inverted vertical anticline	0	0
Line/Point	13 044 01	Inverted vertical anticline, accurate	1	0
Line/Point	13 044 02	Inverted vertical anticline, approximate	2	0
Line/Point	13 044 03	Inverted vertical anticline, inferred	3	0
Line/Point	13 044 04	Inverted vertical anticline, concealed	4	0
Line/Point	13 044 05	Inverted vertical anticline, inferred, concealed	5	0
Line/Point	13 045 00	Inverted vertical syncline	0	0

Line/Point	13 045 01	Inverted vertical syncline, accurate	1	0
Line/Point	13 045 02	Inverted vertical syncline, approximate	2	0
Line/Point	13 045 03	Inverted vertical syncline, inferred	3	0
Line/Point	13 045 04	Inverted vertical syncline, concealed	4	0
Line/Point	13 045 05	Inverted vertical syncline, inferred, concealed	5	0
Line/Point	13 046 00	Inverted asymmetrical anticline; steeper limb on right	0	0
Line/Point	13 046 01	Inverted asymmetrical anticline, accurate; steeper limb on right	1	0
Line/Point	13 046 02	Inverted asymmetrical anticline, approximate; steeper limb on right	2	0
Line/Point	13 046 03	Inverted asymmetrical anticline, inferred; steeper limb on right	3	0
Line/Point	13 046 04	Inverted asymmetrical anticline, concealed; steeper limb on right	4	0
Line/Point	13 046 05	Inverted asymmetrical anticline, inferred, concealed; steeper limb on right	5	0
Line/Point	13 047 00	Inverted asymmetrical syncline; steeper limb on right	0	0
Line/Point	13 047 01	Inverted asymmetrical syncline, accurate; steeper limb on right	1	0
Line/Point	13 047 02	Inverted asymmetrical syncline, approximate; steeper limb on right	2	0
Line/Point	13 047 03	Inverted asymmetrical syncline, inferred; steeper limb on right	3	0
Line/Point	13 047 04	Inverted asymmetrical syncline, concealed; steeper limb on right	4	0
Line/Point	13 047 05	Inverted asymmetrical syncline, inferred, concealed; steeper limb on right	5	0
Line/Point	13 048 00	Inverted asymmetrical anticline with same dip on both limbs; thinned limb on right	0	0
Line/Point	13 048 01	Inverted asymmetrical anticline, accurate, with same dip on both limbs; thinned limb on right	1	0
Line/Point	13 048 02	Inverted asymmetrical anticline, approximate, with same dip on both limbs; thinned limb on right	2	0
Line/Point	13 048 03	Inverted asymmetrical anticline, inferred, with same dip on both limbs; thinned limb on right	3	0
Line/Point	13 048 04	Inverted asymmetrical anticline, concealed, with same dip on both limbs; thinned limb on right	4	0
Line/Point	13 048 05	Inverted asymmetrical anticline, inferred, concealed, with same dip on both limbs; thinned limb on right	5	0
Line/Point	13 049 00	Inverted asymmetrical syncline with same dip on both limbs; thinned limb on right	0	0
Line/Point	13 049 01	Inverted asymmetrical syncline, accurate, with same dip on both limbs; thinned limb on right	1	0
Line/Point	13 049 02	Inverted asymmetrical syncline, approximate, with same dip on both limbs; thinned limb on right	2	0
Line/Point	13 049 03	Inverted asymmetrical syncline, inferred, with same dip on both limbs; thinned limb on right	3	0
Line/Point	13 049 04	Inverted asymmetrical syncline, concealed, with same dip on both limbs; thinned limb on right	4	0
Line/Point	13 049 05	Inverted asymmetrical syncline, inferred, concealed, with same dip on both limbs; thinned limb on right	5	0

13.050 FOLDS - MONOCLINES

Line/point	13 050 00	Monocline	0	0
Line/point	13 050 01	Monocline, accurate	1	0
Line/point	13 050 02	Monocline, approximate	2	0
Line/point	13 050 03	Monocline, inferred	3	0
Line/point	13 050 04	Monocline, concealed	4	0
Line/point	13 050 05	Monocline, inferred, concealed	5	0
Line/point	13 051 00	Fault-induced monocline	0	0
Line/point	13 051 01	Fault-induced monocline, accurate	1	0
Line/point	13 051 02	Fault-induced monocline, approximate	2	0
Line/point	13 051 03	Fault-induced monocline, inferred	3	0
Line/point	13 051 04	Fault-induced monocline, concealed	4	0
Line/point	13 051 05	Fault-induced monocline, inferred, concealed	5	0

13.060 FOLDS, FACING NOT KNOWN

Line/Point	13 060 00	Antiform	0	0
Line/Point	13 060 01	Antiform, accurate	1	0

Line/Point	13 060 02	Antiform, approximate	2	0
Line/Point	13 060 03	Antiform, inferred	3	0
Line/Point	13 060 04	Antiform, concealed	4	0
Line/Point	13 060 05	Antiform, inferred, concealed	5	0
Line/Point	13 061 00	Synform	0	0
Line/Point	13 061 01	Synform, accurate	1	0
Line/Point	13 061 02	Synform, approximate	2	0
Line/Point	13 061 03	Synform, inferred	3	0
Line/Point	13 061 04	Synform, concealed	4	0
Line/Point	13 061 05	Synform, inferred, concealed	5	0
Line/Point	13 062 00	Antiform; steeper, thinned limb on right	0	0
Line/Point	13 062 01	Antiform, accurate; steeper, thinned limb on right	1	0
Line/Point	13 062 02	Antiform, approximate; steeper, thinned limb on right	2	0
Line/Point	13 062 03	Antiform, inferred; steeper, thinned limb on right	3	0
Line/Point	13 062 04	Antiform, concealed; steeper, thinned limb on right	4	0
Line/Point	13 062 05	Antiform, inferred, concealed; steeper, thinned limb on right	5	0
Line/Point	13 063 00	Synform, steeper, thinned limb on right	0	0
Line/Point	13 063 01	Synform, accurate; steeper, thinned limb on right	1	0
Line/Point	13 063 02	Synform, approximate; steeper, thinned limb on right	2	0
Line/Point	13 063 03	Synform, inferred; steeper, thinned limb on right	3	0
Line/Point	13 063 04	Synform, concealed; steeper, thinned limb on right	4	0
Line/Point	13 063 05	Synform, inferred, concealed; steeper, thinned limb on right	5	0
Line/Point	13 064 00	Overtuned antiform	0	0
Line/Point	13 064 01	Overtuned antiform, accurate	1	0
Line/Point	13 064 02	Overtuned antiform, approximate	2	0
Line/Point	13 064 03	Overtuned antiform, inferred	3	0
Line/Point	13 064 04	Overtuned antiform, concealed	4	0
Line/Point	13 064 05	Overtuned antiform, inferred, concealed	5	0
Line/Point	13 065 00	Overtuned synform	0	0
Line/Point	13 065 01	Overtuned synform, accurate	1	0
Line/Point	13 065 02	Overtuned synform, approximate	2	0
Line/Point	13 065 03	Overtuned synform, inferred	3	0
Line/Point	13 065 04	Overtuned synform, concealed	4	0
Line/Point	13 065 05	Overtuned synform, inferred, concealed	5	0
Line/Point	13 066 00	Recumbent fold, facing not known	0	0
Line/Point	13 066 01	Recumbent fold, accurate, facing not known	1	0
Line/Point	13 066 02	Recumbent fold, approximate, facing not known	2	0
Line/Point	13 066 03	Recumbent fold, inferred, facing not known	3	0
Line/Point	13 066 04	Recumbent fold, concealed, facing not known	4	0
Line/Point	13 066 05	Recumbent fold, inferred, concealed, facing not known	5	0
Line/Point	13 067 00	Vertical fold, facing not known	0	0
Line/Point	13 067 01	Vertical fold, accurate, facing not known	1	0
Line/Point	13 067 02	Vertical fold, approximate, facing not known	2	0
Line/Point	13 067 03	Vertical fold, inferred, facing not known	3	0
Line/Point	13 067 04	Vertical fold, concealed, facing not known	4	0

Line/Point	13 067 05	Vertical fold, inferred, concealed, facing not known	5	0
Line/Point	13 068 00	Asymmetrical antiform, steeper limb on right	0	0
Line/Point	13 068 01	Asymmetrical antiform, accurate; steeper limb on right	1	0
Line/Point	13 068 02	Asymmetrical antiform, approximate; steeper limb on right	2	0
Line/Point	13 068 03	Asymmetrical antiform, inferred; steeper limb on right	3	0
Line/Point	13 068 04	Asymmetrical antiform, concealed; steeper limb on right	4	0
Line/Point	13 068 05	Asymmetrical antiform, inferred, concealed; steeper limb on right	5	0
Line/Point	13 069 00	Asymmetrical synform, steeper limb on right	0	0
Line/Point	13 069 01	Asymmetrical synform, accurate; steeper limb on right	1	0
Line/Point	13 069 02	Asymmetrical synform, approximate; steeper limb on right	2	0
Line/Point	13 069 03	Asymmetrical synform, inferred; steeper limb on right	3	0
Line/Point	13 069 04	Asymmetrical synform, concealed; steeper limb on right	4	0
Line/Point	13 069 05	Asymmetrical synform, inferred, concealed; steeper limb on right	5	0
Line/Point	13 070 00	Asymmetrical antiform with same dip on both limbs; thinned limb on right	0	0
Line/Point	13 070 01	Asymmetrical antiform, accurate, with same dip on both limbs; thinned limb on right	1	0
Line/Point	13 070 02	Asymmetrical antiform, approximate, with same dip on both limbs; thinned limb on right	2	0
Line/Point	13 070 03	Asymmetrical antiform, inferred, with same dip on both limbs; thinned limb on right	3	0
Line/Point	13 070 04	Asymmetrical antiform, concealed, with same dip on both limbs; thinned limb on right	4	0
Line/Point	13 070 05	Asymmetrical antiform, inferred, concealed, with same dip on both limbs; thinned limb on right	5	0
Line/Point	13 071 00	Asymmetrical synform with same dip on both limbs; thinned limb on right	0	0
Line/Point	13 071 01	Asymmetrical synform, accurate, with same dip on both limbs; thinned limb on right	1	0
Line/Point	13 071 02	Asymmetrical synform, approximate, with same dip on both limbs; thinned limb on right	2	0
Line/Point	13 071 03	Asymmetrical synform, inferred, with same dip on both limbs; thinned limb on right	3	0
Line/Point	13 071 04	Asymmetrical synform, concealed, with same dip on both limbs; thinned limb on right	4	0
Line/Point	13 071 05	Asymmetrical synform, inferred, concealed, with same dip on both limbs; thinned limb on right	5	0
Line/point	13 072 00	Monoform	0	0
Line/Point	13 072 01	Monoform, accurate	1	0
Line/Point	13 072 02	Monoform, approximate	2	0
Line/Point	13 072 03	Monoform, inferred	3	0
Line/Point	13 072 04	Monoform, concealed	4	0
Line/Point	13 072 05	Monoform, inferred, concealed	5	0

13.100 FOLDS - MINOR FOLDS

Point	13 100 00	Minor anticline	0	0
Point	13 101 00	Minor syncline	0	0
Point	13 102 00	Minor anticline showing plunge	0	0
Point	13 103 00	Minor anticline showing plunge	0	0
Point	13 104 00	Minor syncline showing plunge	0	0
Point	13 105 00	Minor syncline showing plunge	0	0
Point	13 106 00	Reclined minor anticline showing plunge and dip of axial surface. Dot indicates proved direction of facing	0	0
Point	13 107 00	Reclined minor syncline showing plunge and dip of axial surface. Dot indicates proved direction of facing	0	0
Point	13 108 00	Minor antiform showing plunge	0	0
Point	13 109 00	Minor antiform showing plunge	0	0
Point	13 110 00	Minor synform showing plunge	0	0
Point	13 111 00	Minor synform showing plunge	0	0
Point	13 112 00	Minor fold showing plunge	0	0

Point	13 113 00	Minor fold showing plunge	0	0
Point	13 114 00	Overtured minor fold showing plunge	0	0
Point	13 115 00	Reclined minor fold, facing of strata not known	0	0
Point	13 116 00	Asymmetrical minor fold showing plunge	0	0
Point	13 117 00	Folded bedding showing plunge	0	0
Point	13 118 00	Kink fold showing plunge	0	0
Point	13 119 00	Locality of superposed folds	0	0
Point	13 120 00	Direction of facing of minor fold	0	0

13.130 FOLDS - VERGENCE

Point	13 130 00	Vergence to right in upright horizontal/overtured fold	0	0
Point	13 131 00	Vergence to left in upright horizontal/overtured fold	0	0
Point	13 132 00	Vergence to right in recumbent fold. Arrow shows direction to next (structurally lower) fold hinge	0	0
Point	13 133 00	Vergence to left in recumbent fold. Arrow shows direction to next (structurally lower) fold hinge	0	0
Point	13 134 00	Vergence to right in upright/overtured/vertical/reclined plunging fold	0	0
Point	13 135 00	Vergence to left in upright/overtured/vertical/reclined plunging fold	0	0
Point	13 136 00	Plunge of chert boudins	0	0
Point	13 137 00	Plunge of chert contortions	0	0

14.000 BEDDING

Point	14 001 00	Strike and dip of strata	0	0
Point	14 002 00	Strike and dip of strata, proved direction of facing/younging	0	0
Point	14 003 00	Strike and dip of strata, facing/younging not known	0	0
Point	14 004 00	Strike and dip of strata at geological boundary	0	0
Point	14 005 00	Prevailing strike and dip of strata	0	0
Point	14 006 00	Strike of strata, dip indeterminate	0	0
Point	14 007 00	Vertical strata	0	0
Point	14 008 00	Vertical strata, proved direction of facing/younging	0	0
Point	14 009 00	Vertical strata, facing/younging not known	0	0
Point	14 010 00	Horizontal strata	0	0
Point	14 011 00	Strike and dip of inverted strata	0	0
Point	14 012 00	Strike and dip of inverted strata, proved direction of facing/younging	0	0
Point	14 013 00	Horizontal inverted strata	0	0

14.300 PHOTO-INTERPRETED BEDDING

Point	14 030 00	Strike and dip of strata, dip less than 5 degrees	0	0
Point	14 031 00	Strike and dip of strata, dip 5 to 15 degrees	0	0
Point	14 032 00	Strike and dip of strata, dip 15 to 45 degrees	0	0
Point	14 033 00	Strike and dip of strata, dip greater than 45 degrees	0	0
Point	14 034 00	Strike and dip of strata, dip not estimated	0	0
Point	14 035 00	Vertical strata	0	0
Point	14 036 00	Horizontal strata	0	0

14.050 MISCELLANEOUS BEDDING

Point	14 050 00	Curving dip	0	0
Point	14 051 00	Dip slope	0	0
Point	14 052 00	Strike and dip of foresets	0	0
Point	14 053 00	Range of strike and dip of irregular foresets	0	0
Point	14 054 00	Dip on exhumed erosion surface	0	0

Point	14 055 00	Generalised strike and overall dip of crumpled/undulating strata	0	0
Point	14 056 00	Overall dip of gently folded strata	0	0
Point	14 057 00	Overall dip of strongly deformed strata	0	0
Point	14 058 00	Facing of beds/top of bed	0	0
Point	14 059 00	Facing of lava flows/facing of pillow lavas	0	0
Point	14 060 00	Direction and sense of movement of sediment-bearing currents	0	0
Point	14 061 00	Direction of movement of sediment-bearing currents, sense not known	0	0
Point	14 062 00	Glacial striae showing sense of movement	0	0
Point	14 063 00	Glacial striae, sense of movement not known	0	0

15.000 JOINTS

Point	15 001 00	Strike and dip of joint	0	0
Point	15 001 01	Strike and dip of joint, accurate	1	0
Point	15 002 00	Prevailing strike and dip of joint	0	0
Point	15 003 00	Vertical joint	0	0
Point	15 004 00	Horizontal joint	0	0
Line	15 005 00	Joint, interpreted from airphotos	0	0
Line	15 006 00	Joint	0	0
Point	15 007 00	Columnar joints showing plunge	0	0
Line	15 009 01	Joint, accurate		

16.000 METAMORPHIC FOLIATION

Point	16 001 00	Strike and dip of foliation	0	0
Point	16 002 00	Prevailing strike and dip of foliation	0	0
Point	16 003 00	Strike and dip of foliation, dip indeterminate	0	0
Point	16 004 00	Vertical foliation	0	0
Point	16 005 00	Horizontal foliation	0	0
Point	16 006 00	Strike and dip of late stage schistosity associated with retrograde metamorphism	0	0
Point	16 007 00	Strike and dip of mylonite foliation (c - plane)	0	0
Line	16 008 00	General trend of foliation in metamorphic rocks	0	0
Line	16 009 00	General trend of foliation in medium to high grade metamorphic rocks	0	0
Line	16 010 00	General trend of foliation in migmatite and gneiss	0	0

17.000 CLEAVAGE

Point	17 001 00	Strike and dip of cleavage	0	0
Point	17 002 00	Prevailing strike and dip of cleavage	0	0
Point	17 003 00	Strike and dip of cleavage, indeterminate	0	0
Point	17 004 00	Vertical cleavage	0	0
Point	17 005 00	Horizontal cleavage	0	0
Line	17 310 00	Cleavage		

18.000 LINEATION

Point	18 001 00	Plunge of lineation	0	0
Point	18 002 00	Vertical lineation	0	0
Point	18 003 00	Horizontal lineation	0	0
Point	18 004 00	Plunge of bedding-cleavage intersection	0	0
Point	18 005 00	Horizontal bedding-cleavage intersection	0	0
Point	18 006 00	Plunge of crenulation	0	0
Point	18 007 00	Horizontal crenulation	0	0

Point	18 008 00	Plunge of mineral elongation/alignment	0	0
Point	18 009 00	Horizontal mineral elongation/alignment	0	0
Point	18 010 00	Plunge of igneous lineation	0	0
Point	18 011 00	Vertical igneous lineation	0	0
Point	18 012 00	Horizontal igneous lineation	0	0
19.000 IGNEOUS BANDING				
Point	19 001 00	Strike and dip of platy alignment/igneous banding	0	0
Point	19 002 00	Prevailing strike and dip of platy alignment/igneous banding	0	0
Point	19 003 00	Strike and dip of platy alignment/igneous banding, dip indeterminate	0	0
Point	19 004 00	Vertical platy alignment/igneous banding	0	0
Point	19 005 00	Horizontal platy alignment/igneous banding	0	0
Point	19 006 00	Igneous layering. Arrow indicates proved direction of facing	0	0
Point	19 301 00	Eutaxitic foliation	0	0
Point	19 302 00	Horizontal eutaxitic foliation	0	0
Point	19 303 00	Overtuned eutaxitic foliation	0	0
20.000 STRUCTURAL LINES				
Line	20 001 00	Lineament	0	0
Line	20 002 00	Trend-line	0	0
21.000 FOSSIL LOCALITIES				
Point	21 001 00	Fossil locality	0	0
Point	21 002 00	Macrofossil locality	0	0
Point	21 003 00	Microfossil locality	0	0
Point	21 004 00	Trace fossil locality	0	0
Point	21 005 00	Fossil wood locality	0	0
Point	21 006 00	Oncolite locality	0	0
Point	21 007 00	Palynomorph locality	0	0
Point	21 008 00	Plant fossil locality	0	0
Point	21 009 00	Stromatolite locality	0	0
Point	21 010 00	Vertebrate fossil locality	0	0
Point	21 011 00	Fish fossil locality	0	0
Point	21 012 00	Burrow locality	0	0
Point	21 013 00	Graptolite fossil locality	0	0
21.020 SPECIMEN LOCALITIES				
Point	21 020 00	Specimen locality	0	0
Point	21 021 00	Observation locality	0	0
Point	21 022 00	Excursion locality	0	0
Point	21 023 00	Sample locality for isotopic age determination	0	0
21.040 SECTIONS				
Line	21 040 00	Type section	0	0
Point	21 041 00	Type locality	0	0
Line	21 042 00	Measured section	0	0
Line	21 043 00	Geological section	0	0
22.000 MINING/MINERALISATION				
Point	22 001 00	Mineral locality - mine, alluvial workings, prospect or mineral occurrence	0	0

Point	22 002 00	Minor mineral occurrence	0	0
Point	22 003 00	Unworked deposit	0	0
Point	22 004 00	Mine or prospect; may be abandoned	0	0
Point	22 005 00	Major mine	0	0
Point	22 006 00	Mine/minor mine	0	0
Point	22 007 00	Abandoned mine	0	0
Point	22 008 00	Prospect	0	0
Point	22 009 00	Abandoned prospect	0	0
Line	22 010 00	Open cut or quarry	0	0
Point	22 011 00	Major open cut or quarry	0	0
Point	22 012 00	Minor open cut or quarry	0	0
Point	22 013 00	Open cut or quarry, abandoned/not working	0	0
Point	22 014 00	Major alluvial workings	0	0
Point	22 015 00	Alluvial workings/minor alluvial workings	0	0
Point	22 016 00	Alluvial workings, abandoned/not being worked	0	0
Line	22 017 00	Shallow lead	0	0
Line	22 018 00	Deep lead	0	0
Line/Point	22 019 00	Costean/trench	0	0
Point	22 020 00	Treatment plant	0	0
Point	22 021 00	Treatment plant, not operating/abandoned	0	0
Point	22 022 00	Adit	0	0
Line	22 023 00	Limit of exploration activity/extent of prospected area	0	0
Point	22 024 00	Drill hole	0	0
Point	22 025 00	Vertical drill hole	0	0
Point	22 026 00	Inclined drill hole	0	0
	22 301 01	Shallow workings, accurate	1	0
	22 301 02	Shallow workings, approximate	2	0
	22 302 01	Alluvial gold workings, accurate	1	0
	22 302 02	Alluvial gold workings, approximate	2	0
	22 303 01	Shallow lead, accurate	1	0
	22 303 02	Shallow lead, approximate	2	0
Line	22 304 01	Deep lead, accurate	1	0
Line	22 304 02	Deep lead, approximate	2	0
Line	22 305 01	Goldfield, accurate	1	0
Line	22 305 02	Goldfield, approximate	2	0
Point	22 306 00	Quartz reef	0	0
Point	22 307 00	Quartz reef, worked	0	0
Point	22 308 00	Worked quartz reef, inclined	0	0
Point	22 309 00	Worked quartz reef, vertical	0	0
Point	22 310 00	Battery plant	0	0
Line	22 311 00	Sulphide mineralisation	0	0
	22 312 00	Mullock heap	0	0
	22 313 00	Subsurface working plan	0	0
	22 314 00	Puddling site	0	0

22 100 00	Main shaft	0	0
22 101 00	Main shaft with depth in metres	0	0
22 102 00	Main shaft showing number of compartments	0	0
22 103 00	Main shaft showing number of compartments and depth in metres	0	0
22 104 00	Shaft extending above and below plan level	0	0
22 105 00	Accessible shaft extending below plan level	0	0
22 106 00	Accessible shaft extending above plan level	0	0
22 107 00	Inaccessible shaft	0	0
22 108 00	Head of rise or winze	0	0
22 109 00	Inaccessible head of rise or winze	0	0
22 110 00	Foot of rise or winze	0	0
22 111 00	Inaccessible foot of rise or winze	0	0
22 112 00	Rise or winze extending through level	0	0
22 113 00	Inaccessible rise or winze extending through level	0	0
22 114 00	Inclined accessible shaft extending below plan level	0	0
22 115 00	Inclined accessible shaft extending below plan level with length in metres	0	0
22 116 00	Inclined accessible shaft extending below plan level	0	0
22 117 00	Inclined accessible shaft extending below plan level with length in metres	0	0
22 118 00	Cross-section of cross-cut or drive; same side of plane of section as observer	0	0
22 119 00	Cross-section of cross-cut or drive; opposite side of plane of section to observer	0	0
22 120 00	Cross-section of cross-cut or drive extending across plane of section	0	0
22 121 00	Ore chute	0	0
22 122 00	Plan of stope	0	0
22 123 00	Section of stope	0	0
22 124 00	Lagging or cribbing along drive	0	0
22 125 00	Workings caved or otherwise inaccessible	0	0
22 126 00	Filled workings	0	0
22 127 00	Portal and approach of tunnel or adit	0	0
22 128 00	Portal and approach of tunnel or adit	0	0
22 129 00	Elevation of roof (back) of underground workings	0	0
22 13 000	Elevation of floor of underground workings	0	0
22 131 00	Natural surface	0	0
22 132 00	Information projected onto a section from near side	0	0
22 133 00	Information projected onto a section from far side	0	0
22 134 00	Sample line	0	0
22 135 00	Grab-sample locality	0	0
22 136 00	Drill hole	0	0
22 137 00	Diamond-drill hole showing projection in horizontal plane and inclination	0	0
22 138 00	Vertical diamond-drill hole with depth in metres	0	0
22 139 00	Costean or trench	0	0
22 140 00	Costean or trench	0	0
22 141 00	Prospecting pit	0	0
22 142 00	Open cut or quarry	0	0
22 143 00	Dump/mining dump	0	0

Point	23 001 00	Oil seep	0	0
Point	23 002 00	Gas seep	0	0
Point	23 003 00	Oil and gas seep or show	0	0
Point	23 004 00	Oil seep reported (by geoscientist) but not relocated	0	0
Point	23 005 00	Gas seep reported (by geoscientist) but not relocated	0	0
Point	23 006 00	Oil and gas seep reported (by geoscientist) but not relocated	0	0
Point	23 007 00	Mud volcano	0	0
Point	23 008 00	Mud volcano without hydrocarbons	0	0
Point	23 009 00	Mud volcano with hydrocarbons	0	0

23.020 PETROLEUM - EXPLORATION, DEVELOPMENT

Point	23 020 00	Petroleum exploration well, proposed site	0	0
Point	23 021 00	Petroleum exploration well, drilling	0	0
Point	23 022 00	Petroleum exploration well, dry, abandoned	0	0
Point	23 023 00	Petroleum exploration well with show of oil	0	0
Point	23 024 00	Petroleum exploration well with show of oil, abandoned	0	0
Point	23 025 00	Petroleum exploration well with show of gas	0	0
Point	23 026 00	Petroleum exploration well with show of gas, abandoned	0	0
Point	23 027 00	Petroleum exploration well with show of oil and gas	0	0
Point	23 028 00	Petroleum exploration well with show of oil and gas, abandoned	0	0
Point	23 029 00	Stratigraphic hole for petroleum exploration	0	0
Point	23 030 00	Oil well	0	0
Point	23 031 00	Oil well, shut in/suspended	0	0
Point	23 032 00	Oil well, abandoned	0	0
Point	23 033 00	Gas well	0	0
Point	23 034 00	Gas well, shut in/suspended	0	0
Point	23 035 00	Gas well, abandoned	0	0
Point	23 036 00	Oil and gas well	0	0
Point	23 037 00	Oil and gas well, shut in/suspended	0	0
Point	23 038 00	Oil and gas well, abandoned	0	0
Point	23 039 00	Gas and condensate well	0	0
Point	23 040 00	Gas and condensate well, shut in/suspended	0	0
Point	23 041 00	Gas and condensate well, abandoned	0	0
Point	23 042 00	Service well	0	0
Point	23 043 00	Service well, abandoned	0	0
Point	23 044 00	Oil field	0	0
Point	23 045 00	Gas field	0	0
Line	23 046 00	Oil pipeline	0	0
Line	23 047 00	Gas pipeline	0	0
Line	23 048 00	Petroleum tenement boundary	0	0
Line	23 049 00	Oil and gas field boundary	0	0

24.000 GEOPHYSICS BOUNDARIES

Line	24 001 06	Geological boundary, probable, interpreted from geophysics	6	0
Line	24 001 03	Geological boundary, inferred, interpreted from geophysics	3	0
Line	24 001 07	Geological boundary, speculative, interpreted from geophysics	7	0
Line	24 002 00	Craton boundary	0	0

Line	24 003 00	Province boundary	0	0
Line	24 004 00	Limit of demagnetisation	0	0
Line	24 301 08	Geological boundary, at surface, interpreted from geophysics	8	0
Line	24 301 04	Geological boundary, concealed, interpreted from geophysics	4	0
Line	24 301 09	Geological boundary, mapped	9	0
Line	24 301 10	Geological boundary, interpreted	10	0
Line	24 302 08	Intrusive contact, at surface, interpreted from geophysics	8	0
Line	24 302 04	Intrusive contact, concealed, interpreted from geophysics	4	0
Line	24 303 08	Boundary of intrusive rock, at surface, interpreted from geophysics	8	0
Line	24 303 04	Boundary of intrusive rock, concealed, interpreted from geophysics	4	0
Line	24 305 08	Limit of contact metamorphism, at surface, interpreted from geophysics	8	0
Line	24 305 04	Limit of contact metamorphism, concealed, interpreted from geophysics	4	0
Line	24 306 10	Regional metamorphic isograd, interpreted from geophysics	10	0
Line	24 306 09	Regional metamorphic isograd, mapped	10	0
24.010 GEOPHYSICS - FAULTS, SHEARS				
Line	24 010 06	Major fault, probable, interpreted from geophysics	6	0
Line	24 010 03	Major fault, inferred, interpreted from geophysics	3	0
Line	24 010 07	Major fault, speculative, interpreted from geophysics	7	0
Line	24 011 06	Minor fault, probable, interpreted from geophysics	6	0
Line	24 011 03	Minor fault, inferred, interpreted from geophysics	3	0
Line	24 011 07	Minor fault, speculative, interpreted from geophysics	7	0
Line	24 012 00	Fracture/joint	0	0
Line	24 310 08	Fault, at surface, interpreted from geophysics	8	0
Line	24 310 04	Fault, concealed, interpreted from geophysics	4	0
Line	24 311 08	Shear zone, at surface, interpreted from geophysics	8	0
Line	24 311 04	Shear zone, concealed, interpreted from geophysics	4	0
24.020 GEOPHYSICS - DYKES				
Line	24 020 00	Normally magnetised dyke or vein	0	0
Line	24 021 00	Remnantly magnetised dyke or vein	0	0
Line	24 320 08	Dyke, at surface, normally magnetic, interpreted from geophysics	8	0
Line	24 320 04	Dyke, concealed, normally magnetic, interpreted from geophysics	4	0
Line	24 321 08	Dyke, at surface, reversely magnetic, interpreted from geophysics	8	0
Line	24 321 04	Dyke, concealed, reversely magnetic, interpreted from geophysics	4	0
Line	24 322 08	Sill, at surface, normally magnetic, interpreted from geophysics	8	0
Line	24 322 04	Sill, concealed, normally magnetic, interpreted from geophysics	4	0
Line	24 323 08	Sill, at surface, reversely magnetic, interpreted from geophysics	8	0
Line	24 323 04	Sill, concealed, reversely magnetic, interpreted from geophysics	4	0
Line	24 324 08	Plug, normal reverse magnetic, at surface, interpreted from geophysics	8	0
Line	24 324 04	Plug, normal reverse magnetic, concealed, interpreted from geophysics	4	0
24.030 GEOPHYSICS - FOLDS				
Line	24 030 00	Anticline, interpreted from geophysics	0	0
Line	24 031 00	Syncline, interpreted from geophysics	0	0
Line	24 032 00	Antiform, interpreted from geophysics	0	0
Line	24 033 00	Synform, interpreted from geophysics	0	0
Line	24 330 08	Anticline, at surface, interpreted from geophysics	8	0

Line	24 330 04	Anticline, concealed, interpreted from geophysics	4	0
Line	24 331 08	Syncline, at surface, interpreted from geophysics	8	0
Line	24 331 04	Syncline, concealed, interpreted from geophysics	4	0
Line	24 332 08	Antiform, at surface, interpreted from geophysics	8	0
Line	24 332 04	Antiform, concealed, interpreted from geophysics	4	0
Line	24 333 08	Synform, at surface, interpreted from geophysics	8	0
Line	24 333 04	Synform, concealed, interpreted from geophysics	4	0
Line	24 334 08	Monocline, at surface, interpreted from geophysics	8	0
Line	24 334 04	Monocline, concealed, interpreted from geophysics	4	0

24.040 OTHER GEOPHYSICAL LINES

Line	24 040 00	Lineament: structural feature of unknown origin, interpreted from geophysics	0	0
Line	24 041 06	Compositional layering, probable, interpreted from geophysics	6	0
Line	24 041 03	Compositional layering, inferred, interpreted from geophysics	3	0
Line	24 041 07	Compositional layering, speculative, interpreted from geophysics	7	0
Line	24 042 00	Trend-line, linear feature of unknown origin, interpreted from geophysics	0	0
Line	24 043 00	Deeply buried positive trend, interpreted from geophysics	0	0
Line	24 044 00	Deeply buried negative trend, interpreted from geophysics	0	0
Line	24 045 00	Palaeodrainage, interpreted from geophysics	0	0
Line	24 340 08	Lineament, at surface, interpreted from geophysics	8	0
Line	24 340 04	Lineament, concealed, interpreted from geophysics	4	0
Line	24 341 08	Bedding trend, at surface, interpreted from geophysics	8	0
Line	24 341 04	Bedding trend, concealed, interpreted from geophysics	4	0
Line	24 342 08	Trend line, highly magnetic, at surface, interpreted from geophysics	8	0
Line	24 342 04	Trend line, highly magnetic, concealed, interpreted from geophysics	4	0
Line	24 343 08	Trend line, weakly magnetic, at surface, interpreted from geophysics	8	0
Line	24 343 04	Trend line, weakly magnetic, concealed, interpreted from geophysics	4	0
Line	24 344 08	Trend line, reversely magnetic, at surface, interpreted from geophysics	8	0
Line	24 344 04	Trend line, reversely magnetic, concealed, interpreted from geophysics	4	0
Line	24 345 08	Prior stream, at surface, interpreted from geophysics	8	0
Line	24 345 04	Prior stream, concealed, interpreted from geophysics	4	0
Line	24 346 08	Volcanic crater wall, at surface, interpreted from geophysics	8	0
Line	24 346 04	Volcanic crater wall, concealed, interpreted from geophysics	4	0
Line	24 347 08	Lava flow boundary, at surface, interpreted from geophysics	8	0
Line	24 347 04	Lava flow boundary, concealed, interpreted from geophysics	4	0
Line	24 348 08	Lunette crest, at surface, interpreted from geophysics	8	0
Line	24 348 04	Lunette crest, concealed, interpreted from geophysics	4	0
Line	24 349 08	Strandline crest, at surface, interpreted from geophysics	8	0
Line	24 349 04	Strandline crest, concealed, interpreted from geophysics	4	0

24.060 GEOPHYSICS - GRAVITY

Line	24 060 00	Bouguer anomaly contour	0	0
Point	24 061 00	Relative gravity high	0	0
Point	24 062 00	Relative gravity low	0	0
Point	24 063 00	Bouguer anomaly	0	0
Point	24 064 00	Gravity station	0	0
Line	24 065 00	Gravity basement	0	0

Line	24 360 10	Gravity, bouguer anomaly index contour	10	0
Line	24 361 10	Gravity, bouguer anomaly intermediate contour	10	0
24.070 GEOPHYSICS - MAGNETICS				
Line	24 070 00	Magnetic contour	0	0
Line	24 071 00	Relative magnetic low	0	0
Point	24 072 00	Peak magnetic anomaly	0	0
Point	24 073 00	Positive point magnetic anomaly	0	0
Point	24 074 00	Negative point magnetic anomaly	0	0
Point	24 075 00	Point anomaly	0	0
Line	24 076 00	Magnetic basement	0	0
Line	24 370 10	Magnetics, index contour	10	0
Line	24 371 10	Magnetics, intermediate contour	10	0
Line	24 372 10	Magnetic culture feature	10	0
24.080 GEOPHYSICS - RADIOMETRICS				
Line	24 080 00	Radiometric contour	0	0
Line	24 081 00	Relative radiometric low	0	0
Point	24 082 00	Peak radiometric anomaly	0	0
Line	24 380 10	Radiometrics, index contour	10	0
Line	24 381 10	Radiometrics, intermediate contour	10	0
24.090 GEOPHYSICS - SEISMIC				
Line	24 090 00	Seismic traverse line	0	0
Line	24 091 00	Seismic reflecting horizon	0	0
Line	24 092 00	Seismic refracting horizon	0	0
24.100 AIRBORNE ELECTROMAGNETIC (AEM)				
Line	24 100 00	Conductivity domain boundary	0	0
Line	24 101 00	Boundary of AEM study area	0	0
24.110 AEM - BOUNDARIES				
Line	24 110 00	Conductive horizon	0	0
Line	24 111 00	Thick conductive horizon	0	0
24.110 AEM - HORIZONS				
Line	24 112 00	Moderately thick conductive horizon	0	0
Line	24 113 00	Thin conductive horizon	0	0
Line	24 114 00	Short strike length conductive horizon	0	0
Line	24 115 00	Resistive horizon	0	0
Line	24 116 00	Thick resistive horizon	0	0
Line	24 117 00	Moderately thick resistive horizon	0	0
Line	24 118 00	Thin resistive horizon	0	0
Line	24 119 00	Short strike length resistive horizon	0	0
Line	24 120 00	Conductivity horizon	0	0
Line	24 121 00	Conductive marker bed	0	0
Line	24 122 00	Axes of dendritic palaeodrainage pattern	0	0
Line	24 123 00	Resistive marker bed	0	0
Line	24 124 00	Conductivity marker bed	0	0
24.110 AEM - FAULTS AND SHEARS				
Line	24 130 00	Fault inferred from conductivity pattern	0	0

Line	24 131 00	Major fault inferred from conductivity pattern	0	0
Line	24 132 00	Minor fault inferred from conductivity pattern	0	0
Line	24 133 00	Shear inferred from conductivity pattern	0	0
Line	24 134 00	Major shear inferred from conductivity pattern	0	0
Line	24 135 00	Minor shear inferred from conductivity pattern	0	0
Line	24 136 00	Break in conductivity pattern	0	0
Line	24 137 00	Lineament in conductivity data	0	0
24.110 AEM - DISCRETE CONDUCTIVITY FEATURES				
Point	24 140 00	Priority 1 discrete conductor target	0	0
Point	24 141 00	Priority 2 discrete conductor target	0	0
Point	24 142 00	Priority 3 discrete conductor target	0	0
Point	24 143 00	Discrete conductivity feature	0	0
24.110 AEM - ADJUNCT FEATURES				
Line	24 150 00	Powerline source	0	0
Point	24 150 00	Powerline source	0	0
Line	24 150 00	Electric fence	0	0
Point	24 150 00	Electric fence	0	0
Line	24 150 00	Man-made metallic object	0	0
Point	24 150 00	Man-made metallic object	0	0
Line	24 150 00	Line of spheric artifacts	0	0
Point	24 150 00	Spheric artifact	0	0
Line	24 150 00	Line of system geometry artifacts	0	0
Point	24 150 00	System geometry artifact	0	0
Line	24 150 00	Line of noise artifacts	0	0
Point	24 150 00	Noise artifact	0	0
Line	24 150 00	Levelling artifact	0	0
Line	24 150 00	Boundary of adjunct polygon	0	0
25.000 VOLCANICS				
Point	25 001 00	Volcano	0	0
Point	25 002 00	Major eruptive centre with recorded eruption	0	0
Point	25 003 00	Major eruptive centre, no recorded eruption	0	0
Point	25 004 00	Minor eruptive centre with recorded eruption	0	0
Point	25 005 00	Minor eruptive centre, no recorded eruption	0	0
Point	25 006 00	Volcanic neck/pipe/vent, extinct	0	0
Line	25 007 00	Volcanic crater wall	0	0
Point	25 008 00	Thermal area	0	0
Line	25 009 00	Lava flow boundary	0	0
Line	25 010 11	Lava flow boundary, buried	11	0
Line	25 010 12	Lava flow boundary, inverted	12	0
Line	25 010 13	Lava flow boundary, extruded	13	0
Line	25 012 00	Pyroclastic flow boundary	0	0
Line	25 302 01	Volcanic crater wall, accurate	1	0
Line	25 302 02	Volcanic crater wall, approximate	2	0
Line	25 303 01	Lava flow boundary, accurate	1	0
Line	25 303 02	Lava flow boundary, approximate	2	0

Line	25 303 03	Lava flow boundary, inferred	3	0
Line	25 303 04	Lava flow boundary, concealed	4	0
Line	25 304 00	Pyroclastic flow boundary	0	0
Line	25 304 01	Pyroclastic flow boundary, accurate	1	0
Line	25 304 02	Pyroclastic flow boundary, approximate	2	0
Line	25 304 03	Pyroclastic flow boundary, inferred	3	0
Line	25 304 04	Pyroclastic flow boundary, concealed	4	0

26.000 TECTONICS

Line	26 001 00	Boundary of intrusive rock. Longer barbs indicate invaded rock	0	0
Line	26 002 00	Boundary of intrusive rock. Grade of contact metamorphism decreases away from boundary	0	0
Line	26 003 00	Boundary of major structural units	0	0
Line	26 003 03	Boundary of major structural units, inferred	3	0
Line	26 003 04	Boundary of major structural units, concealed	4	0
Line	26 004 00	Boundary of secondary structural units	0	0
Line	26 005 00	Boundary of depositional basin	0	0
Line	26 006 00	Boundary of depositional dome	0	0
Line	26 007 00	Boundary of tectonic basin/centrocline	0	0
Line	26 008 00	Boundary of tectonic dome/pericline	0	0
Line	26 009 00	Boundary of structural low, facing not known	0	0
Line	26 010 00	Boundary of structural high, facing not known	0	0
Line	26 011 00	Brachyanticline	0	0
Line	26 012 00	Flexure	0	0
Line	26 013 01	Structural contour in metres above sea level, accurate	1	0
Line	26 013 02	Structural contour in metres above sea level, approximate	2	0
Line	26 014 00	Structural form line, from drilling data	0	0
Line	26 014 00	Structural form line	1	0

27.000 REGOLITH

Line	27 001 00	Regolith-landform unit boundary	0	0
Line	27 002 00	Erosional scarp, palaeosurface boundary	0	0
Line	27 003 00	Erosional scarp, unrelated to palaeosurface boundary	0	0
Line	27 004 00	Structural scarp	0	0
Line	27 005 00	Metamorphic aureole scarp	0	0
Line	27 006 00	Fault scarp	0	0
Line	27 007 00	Fault line scarp	0	0
Line	27 008 00	Manmade scarp	0	0
Line	27 009 00	Erosional and structural scarp, palaeosurface boundary	0	0
Line	27 010 00	Erosional and structural scarp, unrelated to palaeosurface boundary	0	0
Line	27 011 00	Erosional and metamorphic aureole scarp, palaeosurface boundary	0	0
Line	27 012 00	Erosional and metamorphic aureole scarp, unrelated to palaeosurface boundary	0	0
Line	27 013 00	Erosional and fault scarp, palaeosurface boundary	0	0
Line	27 014 00	Erosional and fault scarp, unrelated to palaeosurface boundary	0	0
Line	27 015 00	Erosional and fault line scarp, palaeosurface boundary	0	0
Line	27 016 00	Erosional and fault line scarp, unrelated to palaeosurface boundary	0	0
Point	27 017 00	Residual hill	0	0
Point	27 018 00	Basalt capped residual hill	0	0

Point	27 019 00	Sink hole	0	0
Point	27 020 00	Knick point	0	0
Point	27 021 00	Wind gap	0	0

27.040 REGOLITH - REGOLITH DRAINAGE FEATURES

Line	27 040 00	Major drainage divide	0	0
Line	27 041 00	Minor drainage divide	0	0
Line	27 042 00	Major palaeodrainage divide	0	0
Line	27 043 00	Minor palaeodrainage divide	0	0
Point	27 044 00	Drainage overflow	0	0
Line	27 045 00	Superimposed drainage	0	0
Point	27 046 00	Superimposed drainage	0	0
Line	27 047 00	Entrenched superimposed drainage	0	0
Point	27 048 00	Entrenched superimposed drainage direction	0	0
Point	27 049 00	Site of river	0	0
Line	27 050 00	Internal drainage depression	0	0
Line	27 051 00	Palaeodrainage	0	0
Line	27 051 12	Palaeodrainage, inverted	12	0
Point	27 052 00	Palaeodrainage direction	0	0
Line	27 053 01	Prior stream, accurate, airphoto interpreted	0	0
Point	27 054 00	Drainage with tail	0	0
Point	27 055 00	Drainage tail	0	0
Point	27 070 00	Major volcanic centre	0	0
Point	27 071 00	Volcanic plug residual	0	0
Point	27 072 00	Eroded volcanic plug	0	0
Point	27 073 00	Major lava flow direction	0	0

90.000 HYDROLOGY

Line	90 001 00	Coastline	0	0
Line	90 002 00	Lake, perennial	0	0
Line	90 003 00	Lake, non-perennial	0	0
Line	90 004 00	Watercourse, perennial	0	0
Line	90 005 00	Watercourse, non-perennial	0	0
Point	90 006 00	Direction of flow of watercourse	0	0
Point	90 007 00	Waterhole/soak	0	0
Point	90 008 00	Waterhole/soak, persistent	0	0
Line	90 009 00	Waterhole	0	0
Point	90 010 00	Rockhole	0	0
Point	90 011 00	Gnamma hole	0	0
Point	90 012 00	Spring	0	0
Line	90 013 00	Ephemeral water-table pool	0	0
Point	90 014 00	Swamp/marsh	0	0
Line/Point	90 015 00	Swamp/marsh	0	0
Line	90 016 00	Mangroves	0	0
Point	90 017 00	Waterfall	0	0
Point	90 301 00	Swamp	1	0
Line	90 302 00	Water feature		

90.030 HYDROLOGY - BORES

Point	90 030 00	Windpump	0	0
Point	90 031 00	Bore	0	0
Point	90 032 00	Bore, abandoned	0	0
Point	90 037 00	Bore, with windpump	0	0
Point	90 038 00	Bore, with pump engine	0	0
Point	90 033 00	Well	0	0
Point	90 034 00	Well, abandoned	0	0
Point	90 037 00	Well, with windpump	0	0
Point	90 035 00	Water tank	0	0
Point	90 036 00	Earth tank or dam	0	0
Point	90 037 00	Water storage	0	0
Point	90 038 00	Dam on stream	0	0
Line	90 039 00	Water pipeline	0	0
Line	90 040 00	Underground water pipeline	0	0
Line	90 041 00	Canal/aqueduct	0	0

90.050 HYDROLOGY - ARTESIAN

Point	90 050 00	Artesian bore, flowing	0	0
Point	90 051 00	Artesian bore, abandoned	0	0
Point	90 052 00	Artesian bore, ceased to flow	0	0
Point	90 053 00	Artesian bore, ceased to flow; abandoned	0	0
Point	90 053 00	Artesian bore, capped	0	0
Point	90 054 00	Sub-artesian bore	0	0
Point	90 055 00	Sub-artesian bore, abandoned	0	0

90.060 HYDROLOGY - SALINITY

Point	90 060 00	Salty bore, salinity not measured	0	0
Point	90 061 00	Bore, salinity less than 1500 ppm	0	0
Point	90 062 00	Bore, salinity 1500 to 10 000 ppm	0	0
Point	90 063 00	Bore, salinity greater than 10 000 ppm	0	0

91.000 TOPOGRAPHY/GEOMORPHOLOGY

Line	91 001 00	Rock ledge/coral reef	0	0
Line	91 002 00	Edge of raised reef terrace	0	0
Point	91 003 00	Rocks awash	0	0
Point	91 004 00	Submerged rock	0	0
Point	91 005 00	Sinkhole	0	0
Line	91 006 00	Sinkhole	0	0
Point	91 007 00	Astrobleme/impact structure/cryptoexplosive structure	0	0
Line	91 008 00	Astrobleme/impact structure/cryptoexplosive structure	0	0
Line	91 009 00	Strandline	0	0
Line	91 010 00	Sand ridge/dune	0	0
Line	91 011 00	Claypan	0	0
Line	91 012 00	Saltpan	0	0
Line	91 013 00	Escarpment	0	0
Line	91 014 00	Cliff	0	0
Line	91 015 00	Cirque	0	0

Line	91 016 00	Alluvial terrace	0	0
Line	91 017 00	Alluvial fan	0	0
Line	91 018 00	Alluvial fan	0	0
Line	91 019 00	Moraine	0	0
Point	91 020 00	Landslips showing heel of slip and direction of movement	0	0
Point	91 021 00	Landslip	0	0
Line	91 022 00	Landslip	0	0
Line	91 023 00	Landslip	0	0
Line	91 024 00	Miscellaneous boundary	0	0
Point	91 027 01	Elevation in metres, accurate	1	0
Point	91 027 02	Elevation in metres, approximate	2	0
Line	91 028 00	Topographic contour	1	0
Line	91 029 00	Form line	0	0
Line	91 030 00	Bathymetric contour	0	0
Line	91 031 00	Coral reef	0	0
Line	91 301 01	Lunette crest, accurate	1	0
Line	91 301 02	Lunette crest, approximate	2	0
Line	91 301 03	Lunette crest, inferred	3	0
Line	91 302 01	Strandline crest, accurate	1	0
Line	91 302 02	Strandline crest, approximate	2	0
Line	91 303 01	Alluvial terrace, accurate	1	0
Line	91 303 02	Alluvial terrace, approximate	2	0
Line	91 304 00	Miocene shoreline	0	0

91.050 TOPOGRAPHY/GEOMORPHOLOGY

Line	91 050 00	Polar ice	0	0
Line	91 051 00	Pack ice	0	0
Line	91 052 00	Shelf ice	0	0
Line	91 053 00	Ice field	0	0
Line	91 054 00	Snow field	0	0
Line	91 055 00	Glacier	0	0

92.000 CULTURAL FEATURES

Line	92 001 00	Highway/principal road	0	0
Line	92 002 00	Secondary road	0	0
Line	92 003 00	Minor road	0	0
Line	92 004 00	Vehicle track	0	0
Line	92 005 00	Traverse line	0	0
Line	92 006 00	Railway	0	0
Line	92 007 00	Abandoned railway	0	0
Line	92 008 00	Tunnel	0	0
Point	92 009 00	Bridge	0	0
Line	92 010 00	Fence	0	0
Line	92 011 00	Transmission line	0	0
Point	92 012 00	Aerodrome	0	0
Point	92 013 00	Landing ground	0	0
Line	92 014 00	Landing ground	0	0

Line	92 015 00	Built-up area	0	0
Point	92 016 00	City	0	0
Point	92 017 00	Town/village/settlement	0	0
Point	92 018 00	Homestead/outstation	0	0
Point	92 019 00	Building	0	0
Point	92 020 00	Yard	0	0
Point	92 021 00	Ruin	0	0
Point	92 022 00	Tower	0	0
Point	92 023 00	Trigonometrical station	0	0
Point	92 024 00	Astronomical station	0	0
Line	92 025 00	State/Territory border	0	0
Line	92 026 00	Minor administrative boundary	0	0



Australian Government
Geoscience Australia

Module 1

Definitions, Rules and Terminology

Geoscience Australia
Cnr Jerrabomberra Avenue & Hindmarsh Drive
SYMONSTON ACT 2609
GPO Box 378
CANBERRA ACT 2601 Australia

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