

Module – 2 of 4

Version 2007.01

Geology, Geophysical, Geochemistry & Geochronology Themes

Geoscience Australia Data Dictionary for Spatial Data



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, Attribute 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.

Work Instruction 4040A – Updating the Corporate Data Dictionary: **TRIM Document D2005-84232**

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	Attribute 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>

Name GEOL.LUT
Description Extended attribute table for GEOL, SOLGEOL, BASGEOL and SECTION themes. The structure of this lookup table could vary according to the requirements of specific projects. However, field names, if possible, should be chosen from the list presented below.
Type Look-up table
Linked theme GEOL

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Table	stratno	7,7,I	n/a	Yes		Link to geology coverage PAT files	
	map_symb	20,20,C	mixed	Yes		Link to geology coverage PAT files	
	qualifier	60,60,C	upper	No		A qualifier or refinement of the LITHOLOGY field	
	lithology	20,20,C	upper	No		Name of lithology	
	status	1,1,I	n/a	No	1, 2, 3, 4	Number denoting whether the lithology is the dominant (1) or a subsidiary (2,3,4) lithology in the unit	
	act	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of actinolite in the rock	0 (absent), 1 (trace), 2 (minor), 3 (major)
	ab	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of albite in the rock	
	aln	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of allanite in the rock	
	alm	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of almandine in the rock	
	anl	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of analcime in the rock	
	ads	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of andesine in the rock	
	an	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of anorthite in the rock	
	anr	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of anorthoclase in the rock	
	ath	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of anthophyllite	
	ap	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of apatite in the rock	
	apy	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of arsenopyrite in the rock	
	aug	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of augite in the rock	
	az	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of azurite in the rock	
	brt	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of barite in the rock	
	brl	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of beryl in the rock	
	bt	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of biotite in the rock	
	bn	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of bornite in the rock	
	btw	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of bytownite in the rock	
	cal	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of calcite in the rock	
	carb	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of carbonate in the rock	
	cst	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of cassiterite in the rock	
	cc	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of chalcocite in the rock	
	ccp	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of chalcopyrite in the rock	
	cl	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of chlorite in the rock	
	cld	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of chloritoid in the rock	
	chr	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of chromite in the rock	
	cin	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of cinnabar in the rock	
	clay	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of clay mineral in the rock	
	camp	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of clino-amphibolite in the rock	
	cpx	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of clinopyroxene in the rock	
	czo	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of clinozoisite in the rock	
	crd	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of cordierite in the rock	
	cor	1,1,I	n/a	No	0, 1, 2, 3	Qualitative estimate of corundum in the rock	

cv	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of covellite in the rock
crs	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of cristobalite
cum	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of cummingtonite in the rock
cup	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of cuprite in the rock
dmd	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of diamond in the rock
di	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of diopside in the rock
dol	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of dolomite in the rock
en	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of enstatite in the rock
ep	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of epidote in the rock
fy	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of fayalite in the rock
feld	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of feldspar in the rock
fspd	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of feldspathoid in the rock
fl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of flourite in the rock
gn	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of galena in the rock
gnt	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of garnet in the rock
glt	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of glauconite in the rock
gln	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of glaucophane in the rock
gt	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of goethite in the rock
gr	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of graphite in the rock
grs	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of grossular in the rock
gp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of gypsum in the rock
hl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of halite in the rock
hem	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of hematite in the rock
hbl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of hornblende in the rock
ill	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of illite in the rock
ilm	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of ilmenite in the rock
jd	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of jadeite in the rock
kfs	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of potassium-feldspar in the rock
klm	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of kaolinite in the rock
ky	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of kyanite in the rock
lab	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of labradorite in the rock
lmt	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of laumontite in the rock
lws	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of lawsonite in the rock
lct	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of leucite in the rock
mgs	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of magnesite in the rock
mgt	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of magnetite in the rock
mal	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of malachite in the rock
mcs	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of marcasite in the rock
mica	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of mica in the rock
mc	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of microcline in the rock
mol	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of molybdenite in the rock
mnz	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of monazite in the rock
mnt	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of montmorillonite in the rock
ms	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of muscovite in the rock
ne	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of nepheline in the rock
ogc	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of oligoclase in the rock
ol	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of olivine in the rock
opl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of opal in the rock
opq	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of opaque mineral in the

						rock	
	oamp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of orthoamphibolite in the rock	
	or	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of orthoclase in the rock	
	opx	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of orthopyroxene in the rock	
	phl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of phlogopite in the rock	
	phos	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of phosphate in the rock	
	pgt	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of pigeonite in the rock	
	pl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of plagioclase in the rock	
	prh	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of prehnite in the rock	
	pmp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of pumpellyite in the rock	
	py	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of pyrite in the rock	
	prp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of pyrope in the rock	
	prl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of pyrophyllite in the rock	
	pyrx	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of pyroxene in the rock	
	po	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of pyrrhotite in the rock	
	qz	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of quartz in the rock	
	rdn	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of rhodonite in the rock	
	rt	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of rutile in the rock	
	sa	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of sanidine in the rock	
	scp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of scapolite in the rock	
	sch	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of scheelite in the rock	
	srl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of schorl in the rock	
	serc	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of sericite	
	serp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of serpentine in the rock	
	sd	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of siderite in the rock	
	sil	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of sillimanite in the rock	
	sps	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of spessartine in the rock	
	sp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of sphalerite in the rock	
	spl	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of spinel in the rock	
	st	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of staurolite in the rock	
	stb	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of stibnite in the rock	
	stp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of stilpnomelane in the rock	
	tlc	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of talc in the rock	
	ttn	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of titanite in the rock	
	toz	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of topaz in the rock	
	tour	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of tourmaline in the rock	
	tr	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of tremolite in the rock	
	trd	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of tridymite in the rock	
	usp	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of ulvospinel in the rock	
	u	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of uranium in the rock	
	vrn	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of vermiculite in the rock	
	ves	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of vesuvianite in the rock	
	zeol	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of zeolite in the rock	
	zrn	1,1,l	n/a	No	0, 1, 2, 3	Qualitative estimate of zircon in the rock	
	map100k	24,24,C	upper	No		List of 100k sheets on which the unit occurs	
	med_age	4,4,l	n/a	No		Median absolute age for the unit in Ma	
	min_age	4,4,l	n/a	No		Maximum absolute age for the unit in Ma	
	max_age	4,4,l	n/a	No		Minimum absolute age for the unit in Ma	
	age_method	24,24,C	upper	No		Description of the geochronological method used (if any) to determine age of the unit	

env_of_dep	64,64,C	upper	No		Environment of deposition
ig_type	1,1,C	upper	No	I, S, A, M	Igneous geochemical type
ig_subtype	1,1,C	upper	No	T, G	Igneous (granite) subtype: I-tonalite (T), I-granodiorite (G)
pegmatite	1,1,C	upper	No	H, M, L, N	Abundance of pegmatites in the unit: high (H), medium (M), low (L), none (N)
aplite	1,1,C	upper	No	H, M, L, N	Abundance of aplites in the unit: high (H), medium (M), low (L), none (N)
greisen	1,1,C	upper	No	H, M, L, N	Abundance of greisens in the unit: high (H), medium (M), low (L), none (N)
vein	1,1,C	upper	No	H, M, L, N	Abundance of veins in the unit: high (H), medium (M), low (L), none (N)
miarolite	1,1,C	upper	No	H, M, L, N	Abundance of miarolites in the unit: high (H), medium (M), low (L), none (N)
restite	1,1,C	upper	No	D, N	Describes whether or not the igneous rock unit displays restite characteristics: dominated (D), not dominated (N)
fr_suite	1,1,C	upper	No	S, M, W, U	Fractionation state of an igneous suite to which the rock unit belongs: strongly (S), moderately (M), weakly (W), unfractionated (U)
fr_unit	1,1,C	upper	No	S, M, W, U	Fractionation state of an igneous unit: strongly (S), moderately (M), weakly (W), unfractionated (U)
comagmatic	1,1,C	upper	No	Y, N	Indicates presence of comagmatic volcanics
aureole	1,1,C	upper	No	H, M, L, N	Extent of aureole created by intrusion of an igneous rock unit: high (H), medium (M), low (L), none (N)
grn_alt	1,1,C	upper	No	H, M, L, N	Extent of alteration in the granitic rock unit: high (H), medium (M), low (L), none (N)
grn_brecc	1,1,C	upper	No	H, M, L, N	Extent of brecciation within the granitic rock unit: high (H), medium (M), low (L), none (N)
grn_def	1,1,C	upper	No	H, M, L, N	Extent of deformation of the granitic rock unit: high (H), medium (M), low (L), none (N)
sed_alt	1,1,C	upper	No	H, M, L, N	Extent of alteration in the host sediments caused by an igneous intrusion: high (H), medium (M), low (L), none (N)
sed_brecc	1,1,C	upper	No	H, M, L, N	Extent of brecciation within the host sediments: high (H), medium (M), low (L), none (N)
redox	2,2,C	upper	No	HO, O, R, HR	Reduction/oxidation potential of the unit: highly oxidised (HO), oxidised (O), reduced (R), highly reduced (HR)
highrb	1,1,C	upper	No	Y, N	Indicates whether igneous rocks have high Rb contents at high SiO ₂ contents
info_from	64,64,C	upper	No		Reference (if any) from which the data was compiled

Geology Themes

Geology – GEOL Last_updated: 7/11/2006

Name GEOL
Description Geology
Type Polygon coverage
Linked table GEOL.LUT

Note There is a provision to create artificial polygons by buffering point data from Oracle tables. This provision is to be used only when point data falls into geological polygons of unmappable size. All of these artificial polygons must have a plotrank of 3 to distinguish them from mappable polygons. Younger rock units should always be on right-hand-side of the fault line. If not, a fault line vector should be flipped to enable correct symbolisation.

Theme updated to conform to the National Geological Data Model (NGDM).

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Rock unit	ROCK_UNIT	An area where the rock unit is defined	feature, ufi, map_symb, plot_symb, stratno, unitname, supergroup, group, subgroup, formation, member, name_stat, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_method, age_ref, lith_group, lith_type, form_type, lith_desc, metadat_id, src_data, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, plotrank
	Rock void	ROCK_VOID	An area where the rock unit is undefined	feature, ufi, map_symb
Arc	Rock unit boundary	LITH_BDY	The boundary line of a lithological unit, where not defined by a fault, dyke, vein or marker bed	feature, ufi, feat_code, descript, name, fault_sys, dip_dirctn, dip, fault_mvt, mvt_sense, deform, width, map_symb, stratno, unitname, supergroup, group, subgroup, formation, member, name_stat, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_method, age_ref, lith_group, lith_type, form_type, lith_desc, metadat_id, src_data, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, polybdy, unitbdy, plotrank
	Water unit boundary	WATER_BDY	The boundary line of a lithological unit, where not defined by a fault, dyke, vein, Lith_bdy or marker bed	feature, ufi, descript, feat_code, plotrank
	Fault	FAULT	A fracture or a zone of fractures along which there has been displacement of the sides relative to one another parallel to the fracture	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, fault_sys, dip_dirctn, dip, fault_mov, mvt_sense, deform, width, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_method, age_ref, metadat_id, src_data, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, polybdy, unitbdy, plotrank
	Dyke	DYKE	A tabular igneous intrusion that cuts across the bedding or foliation of the country rock	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, dip_dirctn, dip, deform, width, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_method, age_ref, metadat_id, src_data, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, polybdy, unitbdy, plotrank
	Vein	VEIN	A thin, sheetlike body	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, dip_dirctn, dip, deform, width, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_method, age_ref, metadat_id, src_data, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, polybdy, unitbdy, plotrank
	Marker bed	MKRBED	A geological unit serving as a marker - an easily recognised stratigraphic feature with distinctive characteristics traceable over long distances	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, deform, width, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_method, age_ref, metadat_id, src_data, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, polybdy, unitbdy, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi, feat_code, descript

Object	GA Field Name	NGDM Field Name	Attribute Type	Case	Format	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	Feature	12,12,C	upper	String	Yes	ROCK_UNIT,ROCK_VOID	Feature type	Rock void is used where the rock unit is undefined e.g. for a lake
	ufi	ObjectID	6,6,I	n/a	Integer	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	map_symb	GeologyUnitCode	20,20,C	mixed	String	yes, except for some ROCK_VOID features. ROCK_VOIDs like water, ice and snow must have map_symb.		Map text identifying the lithology of the solid geology unit usually based on age, rock type and unit name, identifying the rock unit or water, ice or snow.	For multiple rock units, the map_symb shall be slash and comma delimited, with no spaces, e.g. <i>Kr/Dgm</i>
	plot_symb		8,8,C	mixed	String	No		Abbreviated form of map_symb	
	stratno	Stratno	7,7,I	n/a	Integer	Yes, except for rock void	GEODX.STRATNAMES authority table	Stratigraphic index number linking to the GA Stratigraphic Units database. (For both named and unnamed units).	Must be a unique number from the GA Stratigraphic Units Database for all named and unnamed rock units across Australia
	unitname	GeologicalUnitName	254, 254,C	mixed	String	Yes, except for rock void	GEODX. STRATNAMES authority table	The name of a stratigraphic unit including rank terms that are part of a name	GA Stratigraphic Units Database
	supergroup	Supergroup	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	An assemblage of related groups, or of formations and groups, having significant lithological features in common	For granite bodies a supersuite is on the same hierarchy level as a supergroup GA Stratigraphic Units Database
	group	Group	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	The formal lithostratigraphic unit which includes two or more contiguous or associated formations with significant lithological features in common	For granite bodies a suite or complex is on the same hierarchy level as a group GA Stratigraphic Units Database
	subgroup	Subgroup	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	A formally differentiated assemblage of formations within a group	GA Stratigraphic Units Database
	formation	Formation	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	A body of rock strata which is unified with respect to adjacent	For granite bodies a pluton is on the same hierarchy level as a formation

								strata by consisting dominantly of a certain lithological type or combination of types or by possessing other unifying lithological features	GA Stratigraphic Units Database
	member	Member	254,254,C	mixed	String	No	GEODX.STRATNAMES authority table	A lithostratigraphic unit of subordinate rank comprising some specially developed part of a formation	GA Stratigraphic Units Database
	name_stat	NameStatus	20,20,C	mixed	String	Yes, except for rock void	GEODX.STRATSTATUS authority table	Status of a stratigraphic unit from GA Stratigraphic Units database. (eg: Defined, Informal, Reserved, Superseded)	GA Stratigraphic Units Database
	min_geoage	MinGeologicalAge	80,80,C	mixed	String	yes, except for rock void	NPM.ZONES authority table	The most precise known geological time period corresponding to the minimum age of the geological feature	
	max_geoage	MaxGeologicalAge	80,80,C	mixed	String	yes, except for rock void	NPM.ZONES authority table	The most precise known geological time period corresponding to the maximum age of the geological feature	
	time_scale	GeologicalTimeScale	30,30,C	mixed	String	yes, if MinNumericAge or MaxNumericAge are populated	NPM.TIMESCALES authority table	Value from a table of geological time scales (eg: AGSO 1996, Tucker et al 1998, Harland 1990). Provides a link between the relative and numeric geological age	
	min_numage	MinNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical minimum age of the geological feature in millions of years	
	max_numage	MaxNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical maximum age of the geological feature in millions of years	
	age_method	NumericAgeMethod	80,80,C	lower	String	no	Geol_Lookups.xls	Method(s) used to determine the numeric age interval (eg: isotopic, biostratigraphic, inferred)	Up to 2 values may be concatenated, separated by comma
	age_ref	NumericAgeReference	254,254,C	mixed	String	no		Reference to the source of the numeric age (eg: Ozchron sample number, bibliographic reference)	
	lith_group	DominantLithGroup	150,150,C	lower	String	yes, except for	Geol_Lookups.xls	The dominant	Up to 3 values may be

						rock void		lithological grouping or groupings which comprise the rock unit	concatenated, separated by comma;
	lith_type	DominantLithType	150,150,C	lower	String	no	Geol_Lookups.xls	The dominant lithologies which comprise the rock unit. Provides more detailed characterisation of the dominant rock type than DominantLithGroup	Up to 3 values may be concatenated, separated by comma;
	form_type	FormType	20,20,C	lower	String	no	Geol_Lookups.xls	Morphological form of the geological unit (eg: bed, dyke, sill).	
	lith_desc	Description	254,254,C	mixed	String	yes		Description of the geological unit similar to that in a map legend	
	metadat_id	MetaDataID	254,254,C	mixed	String	no		Linking to a metadata source pertaining to the geology feature. (eg: a metadata file name, product catalog number or similar, bibliographic reference)	
	src_data	SourceData	254,254,C	mixed	String	yes		Reference to the source of the map feature (eg: project name, bibliographic reference, compiler's name, external agency name)	
	capt_scale	CaptureScale	8,8,I	n/a	Integer	yes	A positive number	Number representing the map scale at which the data was captured (eg: 100000 or 250000)	
	capt_date	CaptureDate	YYYYMMDD	n/a	yes	no		Date the feature was captured. If only year is known, use 31 December for day and month.	
	mod_date	ModifiedDate	YYYYMMDD	n/a	Date	no		Date the feature was modified. If only year is known, use 31 December for day and month.	
	int_method	InterpMethod	100,100,C	lower	String	no	Geol_Lookups.xls	Method(s) used to interpret the geological feature (eg: field observation, satellite imagery, airborne magnetics)	Up to 3 values may be concatenated, separated by comma
	confidence	Confidence	20,20,C	lower	String	no	A.LOOKUPS Confidence authority table	Value indicating the confidence in the identification of the feature (eg: high,	

								medium, low)	
	loc_qual	LocationalQuality	12,12,C	lower	String	no	Geol_Lookups.xls	Value indicating the quality of the data (eg: accurate, approximate, diagrammatic)	
	loc_acc	LocationalAccuracy	4,4,I	n/a	Integer	no	A positive number	Positional error estimate in metres	
	scale_flag	ScaleFlag	8,8,I	n/a	Integer	yes	A positive number	Value indicating the most detailed scale at which the feature should be viewed (eg: 100000, 250000)	
	plotrank		1,1,I	n/a	Integer	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	
Arc	feature	Feature	12,12,C	upper	String	Yes	LITH_BDY, FAULT, DYKE, VEIN, MKRBED, FRAME	Feature type	
	ufi	ObjectID	6,6,I	n/a	Integer	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	FeatureCode	8,8,I	n/a	Integer	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	BoundaryType	100,100,C	mixed	String	Yes	FEATCODE authority table	A description of the feature	
	name	StructureElementName	64,64,C	mixed	String	No		The name of the feature e.g. <i>Wiagdon Thrust</i>	
	fault_sys	FaultSystem	64,64,C	mixed	String	No		A group of faults that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>Mount Isa Fault System</i>	
	dip_dirctn	DipDirection	3,3,I	n/a	Integer	no		The dip direction of a feature	
	dip	Dip	2,2,I	n/a	Integer	no		The dip of a feature	
	fault_mvt	FaultMovementType	20,20,C	lower	String	no	Geol_Lookups.xls	Type of fault movement. (eg: dip-slip, oblique-slip, strike-slip)	
	mvt_sense	MovementSense	30,30,C	lower	String	no	Geol_Lookups.xls	Sense of fault movement (eg: sinistral, dextral).	
	deform	Deformation	12,12,C	mixed	String	No		Sequence number of deformation(s) to which structure is related e.g. D2, D3	Up to 3 multiple values may be separated by commas
	width	Width	6,6,I	n/a		No	A positive number	The width of a fault, dyke, vein or marker bed in metres	Units in metres
	map_symb	GeologyUnitCode	20,20,C	mixed	String	yes, except for some		Map text identifying the lithology of the solid	For multiple rock units, the map_symb shall be slash and

						ROCK_VOID features. ROCK_VOIDs like water, ice and snow must have map_symb.		geology unit usually based on age, rock type and unit name, identifying the rock unit or water, ice or snow.	comma delimited, with no spaces, e.g. Kr/Dgm
	plot_symb		8,8,C	mixed	String	No		Abbreviated form of map_symb	
	stratno	Stratno	7,7,I	n/a	Integer	Yes, except for rock void	GEODX.STRATNAMES authority table	Stratigraphic index number linking to the GA Stratigraphic Units database. (For both named and unnamed units).	Must be a unique number from the GA Stratigraphic Units Database for all named and unnamed rock units across Australia
	unitname	GeologicalUnitName	254, 254,C	mixed	String	Yes, except for rock void	GEODX. STRATNAMES authority table	The name of a stratigraphic unit including rank terms that are part of a name	GA Stratigraphic Units Database
	supergroup	Supergroup	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	An assemblage of related groups, or of formations and groups, having significant lithological features in common	For granite bodies a supersuite is on the same hierarchy level as a supergroup GA Stratigraphic Units Database
	group	Group	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	The formal lithostratigraphic unit which includes two or more contiguous or associated formations with significant lithological features in common	For granite bodies a suite or complex is on the same hierarchy level as a group GA Stratigraphic Units Database
	subgroup	Subgroup	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	A formally differentiated assemblage of formations within a group	GA Stratigraphic Units Database
	formation	Formation	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	A body of rock strata which is unified with respect to adjacent strata by consisting dominantly of a certain lithological type or combination of types or by possessing other unifying lithological features	For granite bodies a pluton is on the same hierarchy level as a formation GA Stratigraphic Units Database
	member	Member	254, 254,C	mixed	String	No	GEODX. STRATNAMES authority table	A lithostratigraphic unit of subordinate rank comprising some specially developed part of a formation	GA Stratigraphic Units Database
	name_stat	NameStatus	20,20,C	mixed	String	Yes, except for rock void	GEODX.STRATSTATUS authority table	Status of a stratigraphic unit from GA Stratigraphic Units	GA Stratigraphic Units Database

								database. (eg: Defined, Informal, Reserved, Superseded)	
	min_geoage	MinGeologicalAge	80,80,C	mixed	String	no	NPM.ZONES authority table	The most precise known geological time period corresponding to the minimum age of the geological feature (eg: Silurian)	
	max_geoage	MaxGeologicalAge	80,80,C	mixed	String	no	NPM.ZONES authority table	The most precise known geological time period corresponding to the maximum age of the geological feature (eg: Silurian)	
	time_scale	GeologicalTimeScale	30,30,C	mixed	String	yes, if MinNumericAge or MaxNumericAge are populated	NPM.TIMESCALES authority table	Value from a table of geological time scales (eg: AGSO 1996, Tucker et al 1998, Harland 1990). Provides a link between the relative and numeric geological age	
	min_numage	MinNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical minimum age of the geological feature in millions of years	
	max_numage	MaxNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical maximum age of the geological feature in millions of years	
	age_method	NumericAgeMethod	80,80,C	lower	String	no		Method(s) used to determine the numeric age interval (eg: isotopic, biostratigraphic, inferred)	Up to 2 values may be concatenated, separated by comma; DatingMethod Oracle table
	age_ref	NumericAgeReference	254,254,C	mixed	String	no		Reference to the source of the numeric age (eg: Ozchron sample number, bibliographic reference)	
	lith_group	DominantLithGroup	150,150,C	lower	String	yes, except for rock void	Geol_Lookups.xls	The dominant lithological grouping or groupings which comprise the rock unit	Up to 3 values may be concatenated, separated by comma;
	lith_type	DominantLithType	150,150,C	lower	String	no	Geol_Lookups.xls	The dominant lithologies which comprise the rock unit. Provides more detailed characterisation of the dominant rock type than DominantLithGroup	Up to 3 values may be concatenated, separated by comma;
	form_type	FormType	20,20,C	lower	String	no	Geol_Lookups.xls	Morphological form of the geological unit (eg: bed, dyke, sill).	

	lith_desc	Description	254,254,C	mixed	String	No		Description of the geological unit similar to that in a map legend	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	metadat_id	MetaDataID	254,254,C	mixed	String	no		Linking to a metadata source pertaining to the geology feature. (eg: a metadata file name, product catalog number or similar, author's name, bibliographic reference)	
	src_data	SourceData	254,254,C	mixed	String	yes		Reference to the source of the map feature (eg: project name, bibliographic reference, compiler's name, external agency name)	
	capt_scale	CaptureScale	8,8,I	n/a	Integer	yes	A positive number	Number representing the map scale at which the data was captured (eg: 100000, 250000)	
	capt_date	CaptureDate	YYYYMMDD	n/a	Date	yes		Date the feature was captured. If only year is known, use 31 December for day and month.	
	mod_date	ModifiedDate	YYYYMMDD	n/a	Date	no		Date the feature was modified. If only year is known, use 31 December for day and month.	
	int_method	InterpMethod	100,100,C	lower	String	no	Geol_Lookups.xls	Method(s) used to interpret the geological feature (eg: field observation, satellite imagery, airborne magnetics)	Up to 3 values may be concatenated, separated by comma
	confidence	Confidence	20,20,C	lower	String	no	A.LOOKUPS Confidence authority table	Value indicating the confidence in the identification of the feature (eg: high, medium, low)	
	loc_qual	LocationalQuality	12,12,C	lower	String	no	Geol_Lookups.xls	Value indicating the quality of the data (eg: accurate, approximate, diagrammatic)	
	loc_acc	LocationalAccuracy	4,4,I	n/a	Integer	no	A positive number	Positional error estimate in metres	
	scale_flag	ScaleFlag	8,8,I	n/a	Integer	yes	A positive number	Value indicating the most detailed scale at which the feature should	

								be viewed (eg: 100000, 250000)	
	polybdy		1,1,C	upper	String	Yes, except for frame	Y, N	A field used to discriminate polygon boundaries (Y) from non polygon boundaries (N)	For all dangling arcs polybdy is always 'N'. Use an AML to set the values
	unitbdy		1,1,C	upper	String	Yes, except for frame	Y, N	A field used to discriminate solid geology boundaries (Y) from non solid geology boundaries (N)	
	plotrank		1,1,I	n/a	Integer	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	

Structural lines – STRLINE Last_updated: xx/xx/xxxx

Name STRLINE
Description Structural lines for geology
Type Line coverage

Note Folds-related structural points should be entered into the Oracle table and extracted in STRUC theme.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Fold axis	FOLD	The linear trace of a fold hinge	feature, ufi, feat_code, descript, name, fold_sys, azimuth, deform, plotrank
	Fracture-joint	FRACJOIN	Dislocation with no or little demonstrable movement	feature, ufi, feat_code, descript, plotrank
	Trend	TREND	A trace of bedding, foliation or igneous trend	Feature, ufi, feat_code, descript, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	FOLD, FRACJOIN, TREND	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of a fold e.g. <i>CONIMBLA SYNCLINE</i>	
	fold_sys	64,64,C	upper	No		A group of folds that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>MOUNT ISA FOLD SYSTEM</i>	
	azimuth	3,3,I	n/a	No	Between 0 and 360 inclusive	Orientation determined between the end points (nodes) of the line	Units in degrees. Use an AML to set the values
	deform	64,64,C	mixed	No	GEODX.GEOTIME authority table for the geological ages. A positive number greater than zero for the number of deformations	Geological age(s) e.g. <i>ORDOVICIAN, SILURIAN, DEVONIAN</i> or number of deformation(s) to which structure is related e.g. 2	Geological ages must be listed from oldest to youngest and separated by a comma
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Geology cross-section – XGEO nn Last_updated: 18/08/2004

Name XGEO nn
Description Geology cross-section
Type Polygon coverage

Note Suffix nn is used to denote the cross-section location on the map e.g. AB or CD

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Rock unit	ROCK_UNIT	An area where the rock unit is defined	feature, ufi, map_symb, plot_symb, stratno, unitname, supergroup, group, subgroup, formation, member, unitage, agerank, rocktype, lith_desc, plotrank
	Rock void	ROCK_VOID	An area where the rock unit is undefined	feature, ufi
Arc	Rock unit boundary	LITH_BDY	The boundary line of a lithological unit, where not defined by a fault, dyke, vein or marker bed	feature, ufi, feat_code, descript, name, plotrank
	Fault	FAULT	A fracture or a zone of fractures along which there has been displacement of the sides relative to one another parallel to the fracture	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, fault_sys, azimuth, deform, polybdy, unitbdy, width, plotrank
	Dyke	DYKE	A tabular igneous intrusion that cuts across the bedding or foliation of the country rock	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, azimuth, polybdy, unitbdy, width, plotrank
	Vein	VEIN	A thin, sheetlike body	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, azimuth, polybdy, unitbdy, width, plotrank
	Marker bed	MKRBED	A geological unit serving as a marker - an easily recognised stratigraphic feature with distinctive characteristics traceable over long distances	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, polybdy, unitbdy, width, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	ROCK_UNIT,ROCK_VOID	Feature type	Rock void is used where the rock unit is undefined e.g. for a lake
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	map_symb	20,20,C	mixed	Yes, except for rock void		Map text identifying the lithology of the rock unit	For multiple rock units, the map_symb shall be slash and comma delimited, with no spaces e.g. (Qa/Cgar),Pz
	plot_symb	8,8,C	mixed	No		Abbreviated form of map_symb	
	stratno	7,7,I	n/a	Yes, except for rock void	GEODX.FLATSTRAT authority table	Stratigraphic index number	Must be unique for all rock units across Australia. Non-compulsory for Cainozoic units
	unitname	64,64,C	mixed	Yes, except for rock void	GEODX.FLATSTRAT authority table	The name of a stratigraphic unit including rank terms that are part of a name	Non-compulsory for Cainozoic units
	supergroup	64,64,C	mixed	No	GEODX.FLATSTRAT authority table	An assemblage of related groups, or of formations and groups, having significant lithological features in common	For granite bodies a supersuite is on the same hierarchy level as a supergroup
	group	64,64,C	mixed	No	GEODX.FLATSTRAT authority table	The formal lithostratigraphic unit which includes two or more contiguous or associated formations with significant lithological features in common	For granite bodies a suite or complex is on the same hierarchy level as a group
	subgroup	64,64,C	mixed	No	GEODX.FLATSTRAT authority table	A formally differentiated assemblage of formations within a group	
	formation	64,64,C	mixed	No	GEODX.FLATSTRAT authority table	A body of rock strata which is unified with respect to adjacent strata by consisting dominantly of a certain lithological type or combination of types or by possessing other unifying lithological features	For granite bodies a pluton is on the same hierarchy level as a formation
	member	64,64,C	mixed	No	GEODX.FLATSTRAT authority table	A lithostratigraphic unit of subordinate rank comprising some specially developed part of a formation	
	unitage	100,100,C	mixed	Yes, except for rock void	GEODX.GEOTIME authority table	A most precise and known geological time period during which the unit is formed e.g. <i>Palaeozoic</i>	Composite geological ages must be listed from oldest to youngest and separated by a '-' without spaces e.g. <i>PERMIAN-TRIASSIC</i>
	agerank	10,10,C	mixed	Yes, except for rock void	GEODX.GEOTIME authority table	A geological age rank e.g. <i>Period</i>	If a composite unitage consists of different ranks, use only the common rank
	rocktype	80,80,C	lower	Yes, except for rock void	A.LOOKUPS authority table	Dominant lithological grouping	Values describing the dominant rock types of the unit must be separated by a comma
	lith_desc	254,254,C	mixed	Yes, except for rock void		A description of the lithology of the rock unit	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features e.g. polygons created by buffering points or lines	
Arc	feature	12,12,C	upper	Yes	LITH_BDY, FAULT, DYKE, VEIN, MKRBED, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for that feature type in that coverage
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	

	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plot_symb	8,8,C	mixed	No		Abbreviated form of map_symb	
	lith_desc	254,254,C	mixed	No		A description of the lithology of the rock unit	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	name	64,64,C	upper	No		The name of the feature e.g. <i>WIAGDON THRUST</i>	
	fault_sys	64,64,C	upper	No		A group of faults that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>MOUNT ISA FAULT SYSTEM</i>	
	azimuth	3,3,I	n/a	No	Between 0 and 360 inclusive	Orientation determined between the end points (nodes) of the line	Units in degrees. Use an AML to set the values
	deform	64,64,C	mixed	No	GEODX.GEOTIME authority table for the geological ages. A positive number greater than zero for the number of deformations	Geological age(s) e.g. <i>ORDOVICIAN, SILURIAN, DEVONIAN</i> or number of deformation(s) to which structure is related e.g. 2	Geological ages must be listed from oldest to youngest and separated by a comma
	polybdy	1,1,C	upper	Yes, except for frame	Y, N	A field used to discriminate polygon boundaries (Y) from non polygon boundaries (N)	For all dangling arcs polybdy is always 'N'. Use an AML to set the values
	unitbdy	1,1,C	upper	Yes, except for frame	Y, N	Used to tell if the arc forms a boundary between different rock units	Use an AML to set the values
	width	6,6,I	n/a	No	A positive integer less than 1 million	The width of a fault, dyke, vein or marker bed	Units in metres
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	

Geology cross-section structural lines – XGEOL nn Last_updated: xx/xx/xxxx

Name XGEOL nn
Description Structural lines for geological cross-section
Type Line coverage

Note Suffix nn is used to denote the cross-section location on the map e.g. *AB* or *CD*
 Folds-related structural points should be entered into the Oracle table and extracted in STRUC theme.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Fold axis	FOLD	The linear trace of a fold hinge	feature, ufi, feat_code, descript, name, fold_sys, azimuth, deform, plotrank
	Fracture-joint	FRACJOIN	Dislocation with no or little demonstrable movement	feature, ufi, feat_code, descript, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	FOLD, FRACJOIN	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of a fold e.g. <i>CONIMBLA SYNCLINE</i>	
	fold_sys	64,64,C	upper	No		A group of folds that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>MOUNT ISA FOLD SYSTEM</i>	
	azimuth	3,3,I	n/a	No	Between 0 and 360 inclusive	Orientation determined between the end points (nodes) of the line	Units in degrees. Use an AML to set the values
	deform	64,64,C	mixed	No	GEODX.GEOTIME authority table for the geological ages. A positive number greater than zero for the number of deformations	Geological age(s) e.g. <i>ORDOVICIAN, SILURIAN, DEVONIAN</i> or number of deformation(s) to which structure is related e.g. 2	Geological ages must be listed from oldest to youngest and separated by a comma
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Solid geology – SOLGEOL Last_updated: 20/08/2005

SOLGEOL - A theme depicting geology which may be concealed by regolith or younger cover rocks. Interpretation methods may include field mapping, drill logging, geophysical interpretation and others. Geological polygons are coded with stratigraphic names and descriptions. Geophysical characteristics may also be included in feature descriptions.

Name SOLGEOL
Description Solid geology
Type Polygon coverage

Theme updated to conform to the National Geological Data Model (NGDM).

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Solid rock unit	ROCK_UNIT	An area where a rock unit is defined	feature, ufi, map_symb, plot_symb, stratno, unitname, supergroup, group, subgroup, formation, member, name_stat, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, lith_group, lith_type, form_type, lith_desc, gph_char, domain, dom_desc, dom_symb, domain2, dom2_desc, dom2_symb, metadat_id, capt_scale, capt_date, mod_scale, int_method, src_data, confidence, loc_qual, loc_acc, scale_flag, plotrank
	Solid rock void	ROCK_VOID	An area where a rock unit is undefined	feature, ufi, map_symb
Arc	Solid rock unit boundary	LITH_BDY	The boundary line of a solid geology unit, where not defined by a fault, dyke, vein or marker bed	feature, ufi, feat_code, descript, lith_desc, dip_dirctn, dip, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, gph_char, metadat_id, src_date, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, plotrank
	Fault	FAULT	A fracture or a zone of fractures along which there has been displacement of the sides relative to one another parallel to the fracture	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, fault_sys, dip_dirctn, dip, fault_mvt, mvt_sense, deform, width, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, gph_char, metadat_id, src_date, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, plotrank
	Dyke	DYKE	A tabular igneous intrusion that cuts across the bedding or foliation of the country rock	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, dip_dirctn, dip, deform, width, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, gph_char, metadat_id, src_date, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, plotrank
	Vein	VEIN	A thin, sheetlike body	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, dip_dirctn, dip, deform, width, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, gph_char, metadat_id, src_date, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, plotrank
	Marker bed	MKRBED	A geological formation serving as a marker - an easily recognised stratigraphic feature with distinctive characteristics traceable over long distances	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, deform, width, age_seqnce, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_method, age_ref, gph_char, metadat_id, src_data, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi, feat_code, descript

Object	GA Field Name	NGDM Field Name	Attribute Type	Case	Format	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	Feature	12,12,C	upper	String	Yes	ROCK_UNIT, ROCK_VOID	Feature type	Solid geology void is used where the solid geology unit is undefined
	ufi	ObjectID	6,6,I	n/a	Integer	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	map_symb	GeologyUnitCode	20,20,C	mixed	String	yes, except for some ROCK_VOID features. ROCK_VOIDs like water, ice and snow must have map_symb.		Map text identifying the lithology of the solid geology unit usually based on age, rock type and unit name, identifying the rock unit or water, ice or snow.	For multiple rock units, the map_symb shall be slash and comma delimited, with no spaces, e.g. <i>Kr/Dgm</i>
	plot_symb		8,8,C	mixed	String	No		Abbreviated form of map_symb	
	stratno	Stratno	7,7,I	n/a	Integer	Yes, except for rock void	GEODX.STRATNA MES authority table	Stratigraphic index number	Must be a unique number from the GA Stratigraphic Units Database for all named and unnamed rock units across Australia
	unitname	GeologicalUnitName	254, 254,C	mixed	String	Yes, except for rock void	GEODX.STRATNA MES authority table	The name of a stratigraphic unit including rank terms that are part of a name	GA Stratigraphic Units Database
	supergroup	Supergroup	254, 254,C	mixed	String	No	GEODX.STRATNA MES authority table	An assemblage of related groups, or of formations and groups, having significant lithological features in common	For granite bodies a supersuite is on the same hierarchy level as a supergroup GA Stratigraphic Units Database
	group	Group	254, 254,C	mixed	String	No	GEODX.STRATNA MES authority table	The formal lithostratigraphic unit which includes two or more contiguous or associated formations with significant lithological features in common	For granite bodies a suite or complex is on the same hierarchy level as a group GA Stratigraphic Units Database
	subgroup	Subgroup	254, 254,C	mixed	String	No	GEODX.STRATNA MES authority table	A formally differentiated assemblage of formations within a group	GA Stratigraphic Units Database
	formation	Formation	254, 254,C	mixed	String	No	GEODX.STRATNA MES authority table	A body of rock strata which is unified with respect to adjacent strata by consisting	For granite bodies a pluton is on the same hierarchy level as a formation GA Stratigraphic Units

								dominantly of a certain lithological type or combination of types or by possessing other unifying lithological features	Database
	member	Member	254, 254,C	mixed	String	No	GEODX.STRATNA MES authority table	A lithostratigraphic unit of subordinate rank comprising some specially developed part of a formation	GA Stratigraphic Units Database
	name_stat	NameStatus	20,20,C	mixed	String	Yes, except for rock void	GEODX.STRATSTA TUS authority table	Status of a stratigraphic unit from GA Stratigraphic Units database. (eg: Defined, Informal, Reserved, Superseded)	GA Stratigraphic Units Database
	min_geoage	MinGeologicalAge	80,80,C	mixed	String	yes, except for rock void	NPM.ZONES authority table	The most precise known geological time period corresponding to the minimum age of the geological feature	
	max_geoage	MaxGeologicalAge	80,80,C	mixed	String	yes, except for rock void	NPM.ZONES authority table	The most precise known geological time period corresponding to the maximum age of the geological feature	
	time_scale	GeologicalTimeScale	30,30,C	mixed	String	yes, if MinNumericAge or MaxNumericAge are populated	NPM.TIMESCALES authority table	Value from a table of geological time scales (eg: AGSO 1996, Tucker et al 1998, Harland 1990). Provides a link between the relative and numeric geological age	
	min_numage	MinNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical minimum age of the geological feature in millions of years	
	max_numage	MaxNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical maximum age of the geological feature in millions of years	
	age_seqnce		2,2,1	n/a	Integer	No	A positive number	Relative age order of the features, within the study area	The oldest relative age begins at 1
	age_method	NumericAgeMethod	80,80,C	lower	String	no	DatingMethod authority table	Method(s) used to determine the numeric age interval (eg: isotopic,	Up to 2 values may be concatenated, separated by comma

								biostratigraphic, inferred)	
	age_ref	NumericAgeReference	254,254,C	mixed	String	no		Reference to the source of the numeric age (eg: Ozchron sample number, bibliographic reference)	
	lith_group	DominantLithGroup	150,150,C	lower	String	yes, except for rock void	Geol_Lookups.xls	The dominant lithological grouping or groupings which comprise the rock unit	Up to 3 values may be concatenated, separated by comma;
	lith_type	DominantLithType	150,150,C	lower	String	no	Geol_Lookups.xls	The dominant lithologies which comprise the rock unit. Provides more detailed characterisation of the dominant rock type than DominantLithGroup	Up to 3 values may be concatenated, separated by comma;
	form_type	FormType	20,20,C	lower	String	no	Geol_Lookups.xls	Morphological form of the geological unit (eg: bed, dyke, sill).	
	lith_desc	Description	254,254,C	mixed	String	yes		Description of the geological unit similar to that in a map legend	
	gph_char		64,64,C	mixed	String	No		Description of the geophysical character e.g. " <i>low amplitude</i> " (magnetics) or " <i>high potassium, low thorium</i> " (radiometrics) or " <i>moderate amplitude, positive anomaly</i> " (gravity) or other signature	
	domain		64,64,C	mixed	String	No		A short description of the unifying characteristic of the rock unit	Domains describe areas where you have one unit overlying or overprinting another unit. For example: Permian sediments (Ps) deposited over Archaean granite (Ag) → Ps = dom_symb #1, and Ag = dom_symb #2. The map_symb would be Ps/Ag.
	dom_desc		254,254,C	mixed	String	No		An expanded description of the unifying characteristic of the rock unit	
	dom_symb		20,20,C	mixed	String	No		Map text identifying the type of the domain	
	domain2		64,64,C	mixed	String	No		A short description of the unifying characteristic of the rock unit	
	dom2_desc		254,254,C	mixed	String	No		An expanded description of the unifying characteristic	

								of the rock unit	
	dom2_symb		20,20,C	mixed	String	No		Map text identifying the type of the domain	
	metadat_id	MetaDataID	254,254,C	mixed	String	no		Linking to a metadata source pertaining to the geology feature. (eg: a metadata file name, product catalog number or similar, bibliographic reference)	
	src_data	SourceData	254,254,C	mixed	String	yes		Reference to the source of the map feature (eg: project name, bibliographic reference, compiler's name, external agency name)	
	capt_scale	CaptureScale	8,8,I	n/a	Integer	yes	A positive number	Number representing the map scale at which the data was captured (eg: 100000 or 250000)	
	capt_date	CaptureDate	YYYYMMDD	n/a	Date	yes		Date the feature was captured. If only year is known, use 31 December for day and month.	
	mod_date	ModifiedDate	YYYYMMDD	n/a	Date	no		Date the feature was modified. If only year is known, use 31 December for day and month.	
	int_method	InterpMethod	100,100,C	lower	String	no	Geol_Lookups.xls	Method(s) used to interpret the geological feature (eg: field observation, satellite imagery, airborne magnetics)	Up to 3 values may be concatenated, separated by comma
	confidence	Confidence	20,20,C	lower	String	no	A.LOOKUPS Confidence authority table	Value indicating the confidence in the identification of the feature (eg: high, medium, low)	
	loc_qual	LocationalQuality	12,12,C	lower	String	no	Geol_Lookups.xls	Value indicating the quality of the data (eg: accurate, approximate, diagrammatic)	
	loc_acc	LocationalAccuracy	4,4,I	n/a	Integer	no	A positive number	Positional error estimate in metres	
	scale_flag	ScaleFlag	8,8,I	n/a	Integer	yes	A positive number	Value indicating the most detailed scale at which the feature	

								should be viewed (eg: 100000, 250000)	
	plotrank		1,1,I	n/a	Integer	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	
Arc	feature	Feature	12,12,C	upper	String	Yes	LITH_BDY, FAULT, DYKE, VEIN, MKRBED, FRAME	Feature type	
	ufi	ObjectID	6,6,I	n/a	Integer	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	FeatureCode	8,8,I	n/a	Integer	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	BoundaryType	100,100,C	mixed	String	Yes	FEATCODE authority table	A description of the feature	
	plot_symb		8,8,C	mixed	String	No		Abbreviated form of map_symb	
	lith_desc	LithDescription	254,254,C	mixed	String	No		Description of the geological unit similar to that in a map legend	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	name	StructureElementName	64,64,C	mixed	String	No		The name of the feature e.g. <i>Wiagdon Thrust</i>	
	fault_sys	FaultSystem	64,64,C	mixed	String	No		A group of faults that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>Mount Isa Fault System</i>	
	dip_dirctn	DipDirection	3,3,I	n/a	Integer	no		The dip direction of a feature	
	dip	Dip	2,2,I	n/a	Integer	no		The dip of a feature	
	fault_mvt	FaultMovementType	20,20,C	lower	String	no	Geol_Lookups.xls	Type of fault movement. (eg: dip-slip, oblique-slip, strike-slip)	
	mvt_sense	MovementSense	30,30,C	lower	String	no	Geol_Lookups.xls	Sense of fault movement (eg: sinistral, dextral).	
	deform	Deformation	12,12,C	mixed	String	No		Sequence number of deformation(s) to which structure is	Up to 3 multiple values may be separated by commas

								related e.g. D2, D3	
	width	Width	6,6,I	n/a		No	A positive number	The width of a fault, dyke, vein or marker bed in metres	Units in metres
	min_geoage	MinGeologicalAge	80,80,C	mixed	String	no	NPM.ZONES authority table	The most precise known geological time period corresponding to the minimum age of the geological feature (eg: Silurian)	
	max_geoage	MaxGeologicalAge	80,80,C	mixed	String	no	NPM.ZONES authority table	The most precise known geological time period corresponding to the maximum age of the geological feature (eg: Silurian)	
	time_scale	GeologicalTimeScale	30,30,C	mixed	String	yes, if MinNumericAge or MaxNumericAge are populated	NPM.TIMESCALES authority table	Value from a table of geological time scales (eg: AGSO 1996, Tucker et al 1998, Harland 1990). Provides a link between the relative and numeric geological age	
	min_numage	MinNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical minimum age of the geological feature in millions of years	
	max_numage	MaxNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical maximum age of the geological feature in millions of years	
	age_seqnce		2,2,I	n/a	Integer	No	A positive number	Relative age order of the features, within the study area	The oldest relative age begins at 1
	age_method	NumericAgeMethod	80,80,C	lower	String	no	Geol_Lookups.xls	Method(s) used to determine the numeric age interval (eg: isotopic, biostratigraphic, inferred)	Up to 2 values may be concatenated, separated by comma; DatingMethod Oracle table
	age_ref	NumericAgeReference	254,254,C	mixed	String	no		Reference to the source of the numeric age (eg: Ozchron sample number, bibliographic reference)	
	gph_char		64,64,C	mixed		No		Description of the geophysical character e.g. "low amplitude" (magnetics) or "high	

								<i>potassium, low thorium"</i> (radiometrics) or " <i>moderate amplitude, positive anomaly</i> " (gravity) or other signature	
	metadat_id	MetaDataID	254,254,C	mixed	String	no		Linking to a metadata source pertaining to the geology feature. (eg: a metadata file name, product catalog number or similar, author's name, bibliographic reference)	
	src_data	SourceData	254,254,C	mixed	String	yes		Reference to the source of the map feature (eg: project name, bibliographic reference, compiler's name, external agency name)	
	capt_scale	CaptureScale	8,8,I	n/a	Integer	yes	A positive number	Number representing the map scale at which the data was captured (eg: 100000, 250000)	
	capt_date	CaptureDate	YYYYMMDD	n/a	Date	yes		Date the feature was captured. If only year is known, use 31 December for day and month.	
	mod_date	ModifiedDate	YYYYMMDD	n/a	Date	no		Date the feature was modified. If only year is known, use 31 December for day and month.	
	int_method	InterpMethod	100,100,C	lower	String	no	Geol_Lookups.xls	Method(s) used to interpret the geological feature (eg: field observation, satellite imagery, airborne magnetics)	Up to 3 values may be concatenated, separated by comma
	confidence	Confidence	20,20,C	lower	String	no	A.LOOKUPS Confidence authority table	Value indicating the confidence in the identification of the feature (eg: high, medium, low)	
	loc_qual	LocationalQuality	12,12,C	lower	String	no	Geol_Lookups.xls	Value indicating the quality of the data (eg: accurate, approximate, diagrammatic)	
	loc_acc	LocationalAccuracy	4,4,I	n/a	Integer	no	A positive number	Positional error estimate in metres	
	scale_flag	ScaleFlag	8,8,I	n/a	Integer	yes	A positive number	Value indicating the	

								most detailed scale at which the feature should be viewed (eg: 100000, 250000)	
	provbdy		1,1,C	upper		no	Y, N	A field used to discriminate province boundaries (Y) from non province boundaries (N)	
	polybdy		1,1,C	upper	String	Yes, except for frame	Y, N	A field used to discriminate polygon boundaries (Y) from non polygon boundaries (N)	For all dangling arcs polybdy is always 'N'. Use an AML to set the values
	unitbdy		1,1,C	upper	String	Yes, except for frame	Y, N	A field used to discriminate solid geology boundaries (Y) from non solid geology boundaries (N)	
	plotrank		1,1,I	n/a	Integer	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	

Solid geology structural lines – SOLGSTR Last_updated: xx/xx/xxxx

Name SOLGSTR
Description Structural lines for solid geology
Type Line coverage

Note Folds-related structural points should be entered into the Oracle table and extracted in STRUC theme.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Paleodrainage	PALDRAIN	A drainage pattern that existed in the past	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Fracture-joint	FRACJOIN	Dislocation with no or little demonstrable movement	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Trend-formline	TREND	Trend-formline line	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Layer	LAYER	Compositional layering or bedding trend	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Fold axis	FOLD	The linear trace of a fold hinge	feature, ufi, feat_code, descript, name, fold_sys, azimuth, deform, age_seqnce, source, loc_conf, gph_char, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	PALDRAIN, FRACJOIN, TREND, LAYER, FOLD	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of a fold e.g. <i>CONIMBLA SYNCLINE</i>	
	fold_sys	64,64,C	upper	No		A group of folds that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>MOUNT ISA FOLD SYSTEM</i>	
	azimuth	3,3,I	n/a	No	Between 0 and 360 inclusive	Orientation determined between the end points (nodes) of the line	Units in degrees. Use an AML to set the values
	deform	64,64,C	mixed	No	GEODX.GEOTIME authority table for the geological ages. A positive number greater than zero for the number of deformations	Geological age(s) e.g. <i>ORDOVICIAN, SILURIAN, DEVONIAN</i> or number of deformation(s) to which structure is related e.g. 2	Geological ages must be listed from oldest to youngest and separated by a comma
	age_seqnce	2,2,I	n/a	No	A positive number	Relative age order of the features, within the study area	The oldest relative age begins at 1
	source	64,64,C	upper	Yes	AEROMAG, SHIPMAG, GROUND MAG, RADIOMETRIC, LANDGRAVITY, REMOTE SENSING, ELEVATION, GEOLOGY, SHIPGRAVITY, SATGRAVITY, SWATH, OTHER	Description of source data for interpreted feature: airborne magnetics (AEROMAG), shipborne magnetics (SHIPMAG), ground magnetics (GROUND MAG), gamma-ray spectrometry K ± Th ± U (RADIOMETRIC), Bouguer or free air gravity acquired on land (LANDGRAVITY), satellite imagery (REMOTE SENSING), digital elevation model / bathymetry (ELEVATION), outcrop geological mapping	

						(GEOLOGY), Bouguer or free air gravity acquired by ship (SHIPGRAVITY), Bouguer or free air gravity acquired by satellite (SATGRAVITY), shipborne swath mapping (SWATH), other dataset described in other_char field (OTHER)	
	loc_conf	12,12,C	upper	No	ACCURATE, APPROXIMATE, INFERRED	Location confidence	
	gph_char	64,64,C	mixed	No		Description of the geophysical character e.g. " <i>low amplitude</i> " (magnetics) or " <i>high potassium, low thorium</i> " (radiometrics) or " <i>moderate amplitude, positive anomaly</i> " (gravity) or other signature	
	plotrank	1,1,l	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Lithology – LITHOLOGY Last_updated: 18/08/2004

Name LITHOLGY
Description Lithological units
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Lithological unit	LITH_UNIT	An area where the lithological unit is defined	feature, ufi, map_symb, plot_symb, rocktype, lith_desc, unitage, agerank, plotrank
	Lithological void	LITH_VOID	An area where the lithological unit is undefined	feature, ufi
Arc	Lithological unit boundary	LITH_BDY	The boundary line of a lithological unit, where not defined by a fault, dyke or vein	feature, ufi, feat_code, descript, name, plotrank
	Fault	FAULT	A fracture or a zone of fractures along which there has been displacement of the sides relative to one another parallel to the fracture	feature, ufi, feat_code, type, descript, name, fault_sys, azimuth, deform, polybdy, unitbdy, width, plotrank
	Dyke	DYKE	A tabular igneous intrusion that cuts across the bedding or foliation of the country rock	feature, ufi, feat_code, type, descript, name, azimuth, polybdy, unitbdy, width, plotrank
	Vein	VEIN	A thin, sheetlike body	feature, ufi, feat_code, type, descript, name, azimuth, polybdy, unitbdy, width, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	LITH_UNIT, LITH_VOID	Feature type	Rock void is used where the lithology unit is undefined e.g. for a lake
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	map_symb	20,20,C	mixed	Yes, except for lithology void		Map text identifying the lithology of the rock unit	For multiple lithology units, the map_symb shall be slash and comma delimited, with no spaces e.g. (Qa/Cgar),Pz
	plot_symb	8,8,C	mixed	No		Abbreviated form of the map_symb	
	rocktype	80,80,C	lower	Yes, except for lithology void	A.LOOKUPS authority table	Dominant lithological grouping	Values describing the dominant rock types of the unit must be separated by a comma
	lith_desc	254,254,C	mixed	Yes, except for lithology void		A description of the lithology of the lithological unit	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	unitage	100,100,C	mixed	Yes, except for rock void	GEODX.GEOTIME authority table	A most precise and known geological time period during which the unit is formed e.g. <i>Palaeozoic</i>	Composite geological ages must be listed from oldest to youngest and separated by a '-' without spaces e.g. <i>PERMIAN-TRIASSIC</i>
	agerank	10,10,C	mixed	Yes, except for rock void	GEODX.GEOTIME authority table	A geological age rank e.g. <i>Period</i>	If a composite unitage consists of different ranks, use only the common rank
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Arc	feature	12,12,C	upper	Yes	LITH_BDY, FAULT, DYKE, VEIN, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for that feature type in that coverage
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	type	64,64,C	upper	No		A fill of any fault e.g. <i>QUARTZ</i> , a type of dyke or vein e.g. <i>DOLERITE</i> or a rock type of marker bed e.g. <i>SANDSTONE</i>	
	descript name	100,100,C 64,64,C	mixed upper	Yes No	FEATCODE authority table	A description of the feature The name of the feature e.g. <i>WIAGDON THRUST</i>	
	fault_sys	64,64,C	upper	No		A group of faults that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>MOUNT ISA FAULT SYSTEM</i>	
	azimuth	3,3,I	n/a	No	Between 0 and 360 inclusive	Orientation determined between the end points (nodes) of the line	Units in degrees. Use an AML to set the values
	deform	64,64,C	mixed	No	GEODX.GEOTIME authority table for the geological ages. A positive number greater than zero for the number of deformations	Geological age(s) e.g. <i>ORDOVICIAN, SILURIAN, DEVONIAN</i> or number of deformation(s) to which structure is related e.g. 2	Geological ages must be listed from oldest to youngest and separated by a comma
	polybdy	1,1,C	upper	Yes, except for frame	Y, N	A field used to discriminate polygon boundaries (Y) from non polygon boundaries (N)	For all dangling arcs polybdy is always 'N'. Use an AML to set the values
	unitbdy	1,1,C	upper	Yes, except for frame	Y, N	Used to tell if the arc forms a boundary between different lithological units	Use an AML to set the values
	width	6,6,I	n/a	No	A positive integer less than 1	The width of a fault, dyke or vein	Units in metres

					million		
	plotrank	1,1,l	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Geological regions – GEOREGN Last_updated: xx/xx/xxxx

Name GEOREGN

Description Geological regions - a two-dimensional representation of geology of an area (vs province which is a three-dimensional representation).

Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Region unit	GR_UNIT	An area where the geological region is defined	feature, ufi, geo_symb, plot_symb, region, descript, plotrank
	Region void	GR_VOID	An area where the geological region is undefined	feature, ufi
Arc	Region boundary	GR_BDY	The boundary line of a geological region	feature, ufi, feat_code, descript, name, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	GR_UNIT, GR_VOID	Feature type	Region void is used where the geological region is undefined
	ufi	6,6,l	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	geo_symb	20,20,C	mixed	Yes, except for geological region void		Map text identifying the geological region	
	plot_symb	8,8,C	mixed	No		Abbreviated form of geo_symb	
	region	64,64,C	upper	Yes, except for geological region void		Geological region name	
	descript	254,254,C	mixed	Yes, except for geological region void		A description of the geological region	
	plotrank	1,1,l	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Arc	feature	12,12,C	upper	Yes	GR_BDY, FRAME	Feature type	
	ufi	6,6,l	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,l	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of the feature	
	plotrank	1,1,l	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Geological provinces (province maximum extents) – GEOLPROV Last_updated: xx/xx/xxxx

Name GEOLPROV
 Description Geological provinces – Three dimensional and represent a definable period of time; are useful groupings of mappable rock units and geological events and their
 Type Polygon
 Linked table GPROVRELS

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Geological province unit (maximum extent)	GEOLPROV	An area where the geological province is defined	Feature, ufi, provname, compiledby, provrank, provtype, provsubtyp, min_era, max_era, min_period, max_period, min_stage, max_stage, minage, maxage, superprov, province, subprov, area, main_res, min_deps, main_depenv, maxsed_thk, maxwat_dep, summary1, summary2, comments, keyref

Object	Field name	Attribute Type	Case	Compulsory	Valid values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	GEOLPROV	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique Feature Identifier	Must be unique for that feature type in that dataset
	provname	64,64,C	mixed	Yes		Province name	
	compiledby	60,60,C	mixed	Yes		Province compiler(s) names	
	provrank	24,24,C	mixed	Yes	PROVRANKS	Province rank	
	provtype	24,24,C	lower	Yes	PROVTYPES authority table	Type of province ie igneous, sedimentary etc	Must be a valid entry in the province types authority table
	provsubtyp	60,60,C	lower	No	PROVSUBTYPES authority table	Sub-type of province ie extrusive, intrusive etc	Must be a valid entry in the province subtypes authority table and values are dependant on the PROVTYPE, ie if igneous type, only those values associated with this type are allowed
	min_era	80,80,C	mixed	No	GEOTIME authority table	min Era age of the province	Must be a valid entry in the authority table. Mandatory if Period is populated.
	Max_era	80,80,C	mixed	No	GEOTIME authority table	max Era age of the province	Must be a valid entry in the authority table. Mandatory if Period is populated.
	Min_period	80,80,C	mixed	No	GEOTIME authority table	min period age of the province	Must be a valid entry in the authority table. Mandatory if Stage is populated.
	Max_period	80,80,C	mixed	No	GEOTIME authority table	max period age of the province	Must be a valid entry in the authority table. Mandatory if Stage is populated.
	Min_series	80,80,C	mixed	No	GEOTIME authority table	min series age of the province	Must be a valid entry in the authority table

					table		Mandatory if Stage is populated.
max_series	80,80,C	mixed	No		GEOTIME authority table	max series age of the province	Must be a valid entry in the authority table Mandatory if Stage is populated.
Min_stage	80,80,C	mixed	No		GEOTIME authority table	min stage age of the province	Must be a valid entry in the authority table
max_stage	80,80,C	mixed	No		GEOTIME authority table	max stage age of the province	Must be a valid entry in the authority table
minage	8,8,N,3	n/a	No			geochronological age in Ma	
maxage	8,8,N,3	n/a	No			geochronological age in Ma	
superprov	64,64,C	mixed	No			The related superprovince	Name of parent superprovince if appropriate
province	64,64,C	mixed	No			The related province	Name of parent province if appropriate
subprov	64,64,C	mixed	No			The related subprovince	
area	40,40,C	n/a			PROVS.PROVATTRIBUTES	Area of province in square kilometres	
Main_res	254,254,C	mixed	No		PROVS.PROVATTRIBUTES	Semi colon delimited list of the provinces main resources	Must be a valid entry in PROVS.PROVATTRIBUTES where ATTRIBUTE = "main resources".
Min_deps	254,254,C	mixed	No			Semi colon delimited list of mineral deposit names that occur within the province	Must be valid deposit names stored in the OZMIN database
main_depen	30,30,C	mixed	No		PROVS.PROVATTRIBUTES	Province main depositional environment	Must be a valid entry in PROVS.PROVATTRIBUTES where ATTRIBUTE = "main depositional environment".
Maxsed_thk	40,40,I	n/a	No		PROVS.PROVATTRIBUTES	Province maximum sediment thickness in metres	
maxwat_dep	40,40,I	n/a	No		PROVS.PROVATTRIBUTES	Maximum present water depth in metres	
summary1	250,250,C	mixed	No			Summary text description of the province (first 250 chars)	
summary2	250,250,C	mixed	No			Summary text description of the province (last 250 chars)	
comments	254,254,C	mixed	No			Comments	
ref_author	254,254,C	mixed	No		GEOREF.AGSOREFS authority table	Author(s) of key reference for province	although this field is not compulsory every endeavour should be made to fill it
ref_year	40,40,C	mixed	No		GEOREF.AGSOREFS authority table	Key reference year for province	although this field is not compulsory every endeavour should be made to fill it
ref_title1	254,254,C	mixed	No		GEOREF.AGSOREFS authority table	Title of key reference for province	although this field is not compulsory every endeavour should be made to fill it
ref_title2	254,254,C	mixed	No		GEOREF.AGSOREFS authority table	Extended space for title of key reference for province	although this field is not compulsory every endeavour should be made to fill it

	ref_sourc1	254,254,C	mixed	No	GEOREF.AGSOREFS authority table	Source of key reference for province	although this field is not compulsory every endeavour should be made to fill it
	ref_sourc2	254,254,C	mixed	No	GEOREF.AGSOREFS authority table	Extended space for source of key reference for province	although this field is not compulsory every endeavour should be made to fill it
	ref_pages	36,36,C	mixed	No	GEOREF.AGSOREFS authority table	Pages of key reference for province	although this field is not compulsory every endeavour should be made to fill it

Name GPROVRELS

Description Additional table listing geological provinces and their relationships with each other.

Type Link Table

Linked Theme GEOLPROV dataset

Object	Field name	Attribute Type	Case	Compulsory	Valid values	Description of Field	Rules
Table	provname	64,64,C	mixed	Yes		Province name	
	relationship	100,100,C	mixed	No	PROVS.PROVRELS	Province relationship type	Must be a valid entry in PROVS.PROVRELS.PROVRELTYPE
	rel_prov	64,64,C	mixed	No		Related province name	
	comments	100,100,C	mixed	No		Comments on province relationship	

Metamorphism – METMRPH n Last_updated: xx/xx/xxxx

Name METMRPH n
Description Regional and contact grade metamorphism
Type Polygon coverage

Note Integer n is used to denote regional metamorphic episode.

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Regional grade metamorphic rock unit	REGION_MET A	An area where the regional grade metamorphic rock unit is defined	feature, ufi, meta_symb, plot_symb, metagrade, meta_age, lith_desc, plotrank
	Contact grade metamorphic rock unit	CONTACT_M ETA	An area where the contact metamorphic rock unit is defined	feature, ufi, meta_symb, plot_symb, metagrade, meta_age, lith_desc, plotrank
	Un-metamorphosed rock unit	UNMET_UNIT	An un-metamorphosed rock unit	feature, ufi, meta_symb, plot_symb, lith_desc, plotrank
	Metamorphic rock unit void	META_VOID	An area where the metamorphic or un-metamorphosed rock unit is undefined	feature, ufi
Arc	Metamorphic unit boundary	META_BDY	The boundary line of a metamorphic or an un-metamorphosed rock unit	feature, ufi, feat_code, descript, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	REGION_META, CONTACT_META, UNMET_UNIT, META_VOID	Feature type	Metamorphic rock unit void is used where the metamorphic rock unit is undefined
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO – 1 when the coverage is complete
	meta_symb	20,20,C	mixed	Yes, except void		Map text identifying the metamorphic grade	
	plot_symb	8,8,C	mixed	No		Abbreviated form of meta_symb	
	metagrade	64,64,C	lower	Yes, except void	NGMA.LITHDATATYPES authority table	Metamorphic grade	
	lith_desc	254,254,C	mixed	No		A description of the metamorphic or un-metamorphosed rock unit	
	meta_age	100,100,C	mixed	No	GEODX.GEOTIME authority table	A most precise and known geological age of the metamorphic event e.g. <i>Devonian</i>	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Arc	feature	12,12,C	upper	Yes	META_BDY, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	A identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Alteration zones – ALTZONE Last_updated: xx/xx/xxxx

Name ALTZONE
Description Zones of alteration
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Alteration unit	AZ_UNIT	An area where the alteration zone is defined	feature, ufi, alt_symb, plot_symb, domain, dom_desc, dom_symb, domain2, dom2_desc, dom2_symb, plotrank
	Alteration void	AZ_VOID	An area where the alteration zone is undefined	feature, ufi
Arc	Alteration boundary	AZ_BDY	The boundary line of an alteration zone	feature, ufi, feat_code, descript, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	AZ_UNIT, AZ_VOID	Feature type	Region void is used where the alteration zone is undefined
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	alt_symb	20,20,C	mixed	Yes, except for alteration void		Map text identifying the alteration zone	
	plot_symb	8,8,C	mixed	No		Abbreviated form of alt_symb	
	domain	64,64,C	mixed	Yes, except for alteration void		A short description of the unifying characteristic of the alteration unit	
	dom_desc	254,254,C	mixed	No		An expanded description of the unifying characteristic of the alteration unit	
	dom_symb	20,20,C	mixed	Yes, except for alteration void		Map text identifying the type of the domain	
	domain2	64,64,C	mixed	No		A short description of the unifying characteristic of the alteration unit	
	dom2_desc	254,254,C	mixed	No		An expanded description of the unifying characteristic of the alteration unit	
	dom2_symb	20,20,C	mixed	No		Map text identifying the type of the domain	
	plotrank	1,1,I	n/a	Yes	3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	
Arc	feature	12,12,C	upper	Yes	AZ_BDY, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,I	n/a	Yes	3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	

Regolith-landform – REGO Last_updated: 18/08/2004

Name REGO

Description Principal regolith and landform attributes (these include only landform types, regolith types and induration modifiers ranked 1 in the RTMAP database)

Type Polygon coverage

Linked table REGO.LUT

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Regolith-landform unit	REGO_UNIT	An area where the regolith-landform unit is defined	feature, ufi, u_id, map_symb, domain, dom_desc, dom_symb, domain2, dom2_desc, dom2_symb, lf_summry, reg_summry, vegetation, min_elev, max_elev, landform, landf_desc, soil, relief, lf_regtkns, struc_cnt, regolith, reg_weath, reg_tkns, reg_distn, induration
	Regolith-landform void	REGO_VOID	An area where the regolith-landform unit is undefined	feature, ufi
Arc	Regolith-landform unit boundary	REGO_BDY	The boundary line of a regolith-landform unit, where not defined by an escarpment	feature, ufi, feat_code, descript, name, plotrank
	Escarpment	SCARP	A long continuous cliff or steep slope breaking the continuity of the land by separating two level or gently sloping surfaces; produced by erosion or by faulting	feature, ufi, feat_code, descript, name, polybdy, unitbdy, width, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	REGO_UNIT, REGO_VOID	Feature type	Regolith-landform void is used where the regolith-landform unit is undefined
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	u_id	4,4,I	n/a	Yes, except for regolith-landform void		Oracle generated unique regolith-landform mapping unit number	Must be unique for all regolith-landform units in Australia
	map_symb	6,6,C	mixed	Yes, except for regolith-landform void		Map text identifying the regolith-landform type of the regolith-landform unit	
	domain	64,64,C	mixed	No		A short description of the unifying characteristic of the regolith-landform unit	
	dom_desc	254,254,C	mixed	No		An expanded description of the unifying characteristic of the regolith-landform unit	
	dom_symb	20,20,C	mixed	No		Map text identifying the type of the domain	
	domain2	64,64,C	mixed	No		A short description of the unifying characteristic of the regolith-landform unit	
	dom2_desc	254,254,C	mixed	No		An expanded description of the unifying characteristic of the regolith-landform unit	
	dom2_symb	20,20,C	mixed	No		Map text identifying the type of the domain	
	lf_summry	254,254,C	mixed	Yes, except for regolith-landform void		Summary description of landforms that occur within the regolith-landform unit	
	reg_summry	254,254,C	mixed	Yes, except for regolith-landform void		Summary description of regolith types that occur in the regolith-landform unit	
	vegetation	254,254,C	mixed	No		Summary description of vegetation within regolith-landform unit	
	min_elev	4,4,I	n/a	No		Minimum elevation of the regolith-landform in metres (above sea level)	Units in metres
	max_elev	4,4,I	n/a	No		Maximum elevation of the regolith-landform in metres (above sea level)	Units in metres
	landform	30,30,C	lower	Yes, except for regolith-landform void	RTMAP.LANDF authority table	Name of landform associated with code e.g. <i>depositional plain</i>	
	landf_desc	254,254,C	mixed	No		Additional information about landform	
	soil	254,254,C	mixed	No		Description of soils within landform	
	relief	30,30,C	mixed	No		Description of average relief of the landform, i.e. the difference in elevation between the lowest and the highest parts of the landform.	
	lf_regtkns	32,32,C	lower	No	RTMAP.ZONEDATATYPES authority table	Indication of probable maximum thickness of regolith in the landform	
	struc_cnt	22,22,C	mixed	No		Description of structural control influence on the landform	
	regolith	40,40,C	lower	Yes, except for regolith-landform void	RTMAP.REGTYPE authority table	Name of regolith type associated with code e.g. <i>soil on bedrock</i>	
	reg_weath	32,32,C	lower	No	RTMAP.ZONEDATATYPES authority table	Degree of weathering of regolith type	
	reg_tkns	32,32,C	lower	No	RTMAP.ZONEDATATYPES authority table	Approximate thickness of the regolith type in metres	
	reg_distn	240,240,C	lower	No		Comments on the 3-dimensional landscape position of the regolith type and its relationship to other regolith types in toposequences or	

						otherwise	
	induration	32,32,C	lower	No	RTMAP.ZONEDATATYPES authority table	Induration modifier of the regolith type	
Arc	feature	12,12,C	upper	Yes	REGO_BDY, SCARP, FRAME	Feature type	
	ufi	6,6,l	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,l	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the book "Symbols Used on Geological Maps"	
	descript name	100,100,C 64,64,C	mixed upper	Yes No	FEATCODE authority table	A description of the feature The name of the feature e.g. <i>GREAT SCARP</i>	
	polybdy	1,1,C	upper	Yes, except for frame	Y, N	A field used to discriminate polygon boundaries (Y) from non polygon boundaries (N)	For all dangling arcs polybdy is always 'N'
	unitbdy	1,1,C	upper	Yes, except for frame	Y, N	Used to indicate if the arc forms a boundary between different regolith-landform mapping units	
	width	6,6,l	n/a	No	A positive number	The width of a scarp	
	plotrank	1,1,l	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Name REGO.LUT

Description Detailed regolith and landform attributes. This table contains all regolith-landform unit information, not just principal but secondary attributes pertinent to regolith i.e. a regolith-landform unit can contain landforms ranked 1 to 9 and each landform can contain regolith types ranked from 1 to 9. This detailed attributes table can be linked to the theme in GIS packages enabling the use of the 1 to many relationship the RTMAP.UNITS database contains.

Type Additional landform-regolith attributes table

Linked theme REGO

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Table	u_id	4,4,I	n/a	Yes		Link to regolith-landform coverage PAT files	
	map_symb	6,6,C	mixed	Yes		Link to regolith-landform coverage PAT files	
	landf_rank	1,1,C	n/a	Yes, except for regolith-landform void		Numeric ranking of landforms within the unit (the dominant landform of the unit has a ranking of 1)	
	landform	30,30,C	lower	Yes, except for regolith-landform void	RTMAP.LANDF authority table	Name of landform associated with code e.g. <i>depositional plain</i>	
	landf_desc	254,254,C	mixed	No		Additional information about landform	
	soil	254,254,C	mixed	No		Description of soils within landform	
	relief	30,30,C	mixed	No		Description of average relief of landform, i.e. the difference in elevation between the lowest and the highest parts of the landform.	
	lf_regtkns	32,32,C	lower	Yes, except for regolith-landform void	RTMAP.ZONEDATATYPES authority table	Indication of probable maximum thickness of regolith in the landform	
	struc_cnt	22,22,C	mixed	No		Description of structural control influence on the landform	
	lfreg_rank	1,1,C	n/a	Yes, except for regolith-landform void		Ranking of a regolith type within the landform (the dominant regolith type in the landform has a ranking of 1)	
	regolith	40,40,C	lower	Yes, except for regolith-landform void	RTMAP.REGTYPE authority table	Name of regolith type associated with code e.g. <i>soil on bedrock</i>	
	reg_weath	32,32,C	lower	Yes, except for regolith-landform void	RTMAP.ZONEDATATYPES authority table	Degree of weathering of regolith type	
	reg_tkns	32,32,C	lower	Yes, except for regolith-landform void	RTMAP.ZONEDATATYPES authority table	Approximate thickness of the regolith type in metres	
	reg_distn	240,240,C	lower	No		Comments on the 3-dimensional landscape position of the regolith type and its relationship to other regolith types in toposequences or otherwise	
	ind_rank	1,1,C	n/a	Yes, except for regolith-landform void		Ranking of the induration modifier for the regolith type	
	induration	32,32,C	lower	Yes, except for regolith-landform void	RTMAP.ZONEDATATYPES authority table	Induration modifier of the regolith type	

Regolith lines – REGOLIN Last_updated: xx/xx/xxxx

Name REGOLIN
Description Regolith lines
Type Line coverage

Note If known, the direction of vectors for the features PALDRAIN, LEAD, DRAIN and IGNEOUS_FLOW should be maintained. Nodes should be on all vector intersections of the same feature class.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Palaeodrainage	PALDRAIN	A drainage pattern that existed in the past	feature, ufi, feat_code, descript, plotrank
	Deep lead	LEAD	A buried watercourse	feature, ufi, feat_code, descript, plotrank
	Drainage	DRAIN	A drainage stream; the feature can be antecedent, captured, diverted, inverted, reversed or superimposed (use appropriate feat_code)	feature, ufi, feat_code, descript, plotrank
	Palaeodrainage divide	PALDRAIN_DIV	Major or minor palaeodrainage divide	feature, ufi, feat_code, descript, name, plotrank
	Drainage divide	DRAIN_DIV	Major or minor drainage divide	feature, ufi, feat_code, descript, name, plotrank
	Lava or basalt flow	IGNEOUS_FLOW	The narrow solidified body of rock that is formed by a lateral, surficial outpouring of molten lava from a vent or a fissure e.g. a lava flow or a basalt flow; the feature can be buried, inverted or extruded (use appropriate feat_code)	feature, ufi, feat_code, descript, plotrank
	Dune	DUNE	Crest of an accumulation of loose sand heaped up by the wind	feature, ufi, feat_code, descript, plotrank
	Strandline	STRANDLINE	A former shoreline now elevated above the present water level	feature, ufi, feat_code, descript, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	PALDRAIN, LEAD, DRAIN, PALDRAIN_DIV, DRAIN_DIV, IGNEOUS_FLOW, DUNE, STRANDLINE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of the feature	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Regolith points – REGOPNT Last_updated: xx/xx/xxxx

Name REGOPNT
Description Regolith points
Type Point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Sink hole	SINK	A depression in the surface where drainage becomes subterranean	feature, ufi, feat_code, descript, plotrank
	Palaeodrainage direction	PALDRAIN_DIR	A point at which palaeodrainage direction is known	feature, ufi, feat_code, descript, azimuth, plotrank
	Wind gap	WIND_GAP	A sharp break or opening in a ridge, or a short pass through a range, that is not occupied by a stream	feature, ufi, feat_code, descript, azimuth, plotrank
	Water gap	WATER_GAP	A ravine or gorge cut through a ridge, or between ridges	feature, ufi, feat_code, descript, azimuth, plotrank
	Knick point	KNICK	Any interruption or break of slope in the longitudinal profile of a stream or of its valley, especially a point of abrupt change or inflection, resulting from rejuvenation, glacial erosion, or the outcropping of a resistant bed	feature, ufi, feat_code, descript, plotrank
	River diversion	RIVER_DIV	A site and direction of beheaded stream, river capture, or river reversal	feature, ufi, feat_code, descript, azimuth, plotrank
	Volcano	VOLCANO	An eruptive centre in the surface through which magma, gases or ash may erupt or erupted in the past	feature, ufi, feat_code, descript, name, plotrank
	Impact structure	IMPACT	Any depression in the surface due to projectile impact e.g. meteorite or result of an explosion not associated with volcanism	feature, ufi, feat_code, descript, name, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	SINK, PALDRAIN_DIR, WIND_GAP, WATER_GAP, KNICK, RIVER_DIV, VOLCANO, IMPACT	Feature type	
	ufi	6,6,l	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,l	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	name	64,64,C	upper	No		The name of the feature	
	azimuth	3,3,l	n/a	Yes	Between 0 and 360 inclusive	Direction of the observed phenomena associated with point features in degrees between 0 and 360	
	plotrank	1,1,l	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Earthquake hazard – QUAKEHAZ Last_updated: 18/08/2004

Name QUAKEHAZ
Description Assessment of the earthquake hazard based on geology
Type Polygon coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Lithological unit	LITH_UNIT	An area where the lithological unit is defined	feature, ufi, map_symb, plot_symb, rocktype, lith_desc, factor, fact_desc, period, plotrank
	Lithological void	LITH_VOID	An area where the lithological unit is undefined	feature, ufi
Arc	Lithological unit boundary	LITH_BDY	The boundary line of a lithological unit, where not defined by a fault	feature, ufi, feat_code, descript, name, plotrank
	Fault	FAULT	A fracture or a zone of fractures along which there has been displacement of the sides relative to one another parallel to the fracture	feature, ufi, feat_code, descript, name, polybdy, unitbdy, width, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	LITH_UNIT, LITH_VOID	Feature type	Rock void is used where the lithology unit is undefined e.g. for a lake
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	map_symb	20,20,C	mixed	Yes, except for lithology void		Map text identifying the lithology of the rock unit	For multiple lithology units, the map_symb shall be slash and comma delimited, with no spaces e.g. (Qa/Cgar),Pz
	plot_symb	8,8,C	mixed	No		Abbreviated form of the map_symb	
	rocktype	80,80,C	lower	Yes, except for lithology void	A.LOOKUPS authority table	Dominant lithological grouping	
	lith_desc	254,254,C	mixed	Yes, except for lithology void		A description of the lithology of the lithological unit	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	sfactor	3,3,N,1	n/a	Yes, except for lithology void	Between 0 and 5 inclusive	An assessment of the earthquake hazard associated with the lithological unit	
	fact_desc	254,254,C	mixed	Yes, except for lithology void		Description of the earthquake hazard	
	period	100,100,C	mixed	Yes, except for lithology void	GEODX.GEOTIME authority table	A geological-time unit during which the rocks of the corresponding system were formed e.g. <i>Quaternary</i>	Geological ages must be listed from oldest to youngest
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Arc	feature	12,12,C	upper	Yes	LITH_BDY, FAULT, DYKE, VEIN, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for that feature type in that coverage
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript name	100,100,C 64,64,C	mixed upper	Yes No	FEATCODE authority table	A description of the feature The name of the feature e.g. <i>WIAGDON THRUST</i>	
	polybdy	1,1,C	upper	Yes, except for frame	Y, N	A field used to discriminate polygon boundaries (Y) from non polygon boundaries (N)	For all dangling arcs polybdy is always 'N'. Use an AML to set the values
	unitbdy	1,1,C	upper	Yes, except for frame	Y, N	Used to tell if the arc forms a boundary between different lithological units	Use an AML to set the values
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Geophysical Themes

Geophysical rock properties – ROCKPROP New_entry: 26/09/2005

Name ROCKPROP
Description Rock property measurements (magnetic susceptibilities, densities and porosities) from hand samples, drill cores and rock outcrops.
Type Point
Linked table GEODX.FLATSTRAT, LITHGROUP
Linked theme

Note The attributes latitude and longitude should only be included when distributing the theme in a non-spatial format such as a spreadsheet or data table. In such cases, a datum should also be specified.

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Rock	RPROP	Rock property data – magnetic susceptibility, density and porosity.	feature, ufi, siteid, sampleid, well_name, latitude, longitude, descript, lith_group, unitname, supergroup, group, formation, member, samp_type, samp_depth, samp_mass, magsus_ind, magsus_med, magsus_ave, magsus_max, magsus_min, magsus_std, surf_type, magsus_cor, magsus_mul, density_db, density_wb, density_g, porosity_a, porosity_t

Object	GA Field Name	NGDM	Attribute Type	Case	Format	Compulsory	Valid Values	Description of Field	Rules
Point	feature	Feature	12,12,C	upper	String	Yes	RPROP	Feature type	
	ufi	ObjectID	6,6,I	n/a	Integer	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a dataset. Populated by calculating it equal to RECNO when the dataset is complete
	siteid		16,16,C	mixed	String	No		Site id	
	sampleid		16,16,C	mixed	String	No		Sample id	
	well_name		254,254,C	mixed	String	No		Well name	
	latitude		11,11,N,7	n/a	Float	No	Decimal degrees		
	longitude		11,11,N,7	n/a	Float	No	Decimal degrees		
	descript		254,254,C	mixed	String	No		Sample and/or site description	
	lith_group	DominantLithGroup	50,50,C	lower	String	Yes	LITHGROUP authority table	Dominant lithological grouping	
	unitname	GeologicalUnitName	254,254,C	mixed	String	Yes	GEODX.FLATSTRAT authority table	The name of the stratigraphic unit	
	supergroup	Supergroup	254,254,C	mixed	String	No	GEODX.FLATSTRAT authority table	An assemblage of related groups, or of formations and groups, having significant lithological features in common	For granite bodies a supersuite is on the same hierarchy level as a supergroup
	group	Group	254,254,C	mixed	String	No	GEODX.FLATSTRAT authority table	The formal lithostratigraphic unit which includes two or more contiguous or associated formations with significant lithological features in common	For granite bodies a suite or complex is on the same hierarchy level as a group
	formation	Formation	254,254,C	mixed	String	No	GEODX.FLATSTRAT	A formally differentiated assemblage of	

							authority table	formations within a group	
	member	Member	254,254,C	mixed	String	No	GEODX.FLATSTRAT authority table	A body of rock strata which is unified with respect to adjacent strata by consisting dominantly of a certain lithological type or combination of types or by possessing other unifying lithological features	For granite bodies a pluton is on the same hierarchy level as a formation
	samp_type		20,20,C	upper	String	Yes	outcrop, hand_sample, drill_core	Sample type	
	samp_depth		8,8,N,2	n/a	Float	No	meters	Distance down drill hole	
	samp_mass		9,9,N,2	n/a	Float	No	grams	Mass of sample, an estimated value is OK	Use 999999.99 for in situ measurement
	magsus_ind		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)	Individual magnetic susceptibility measurement	
	magsus_med		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)	Median value of the magnetic susceptibility	
	magsus_ave		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)	Average value of the magnetic susceptibility	
	magsus_max		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)	Maximum value of magnetic susceptibility	
	magsus_min		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)	Minimum value of magnetic susceptibility	
	magsus_std		8,8,I	n/a	Integer	No	SI units (x10 ⁻⁵)	First standard deviation of magnetic susceptibility	
	surf_type		2,2,C	upper	String	No	flat_surface, irregular_surface, cut_surface, round_drill_core	Type of rock surface from which the magnetic susceptibility measurement was taken.	
	magsus_cor		4,4,C	upper	String	No	yes, no	Has the magnetic susceptibility measurement been corrected for the type of rock surface?	
	magsus_mul		8,8,N,2	n/a	Float	No		Correction multiplier used if the magnetic susceptibility measurement has been corrected for the type of rock surface.	Compulsory if yes for magsus_cor field
	density_db		5,5,N,2	n/a	Float	No	gcm ⁻³	Dry bulk density. Dry rock mass divided by the bulk volume (includes rock material and pores).	
	density_wb		5,5,N,2	n/a	Float	No	gcm ⁻³	Wet bulk density. Wet (saturated) rock mass divided by the bulk volume.	
	density_g		5,5,N,2	n/a	Float	No	gcm ⁻³	Grain density. Density of rock material only.	
	porosity_a		5,5,N,2	n/a	Float	No	%	Apparent porosity. Comprises all pore space interconnected to the surface of the sample. Occluded pores not taken into account.	
	porosity_t		5,5,N,2	n/a	Float	No	%	Total porosity. Includes total void volume comprising interconnected and occluded pores.	

Geophysical interpretation – GPHINT n Last_updated: 20/08/2005

GPHINT - A theme depicting features interpreted from geophysical data.

Features are described in terms of their geophysical characteristics, but may also be coded with stratigraphic name information if data permits.

Name GPHINT n
Description Geophysical interpretation
Type Polygon coverage

Theme updated to conform to the National Geological Data Model (NGDM).

Note Integer n is used if there are more than one geophysical interpretation coverage. These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Geophysical unit	GPH_UNIT	An area of land with uniform geophysical interpretation	feature, ufi, gph_symb, plot_symb, stratno, unitname, supergroup, group, subgroup, formation, member, name_stat, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, lith_group, lith_type, form_type, lith_desc, gph_char, metadat_id, domain, dom_desc, dom_symb, domain2, dom2_desc, dom2_symb, capt_scale, capt_date, mod_scale, int_method, src_data, confidence, loc_qual, loc_acc, scale_flag, plotrank
	Geophysical void	GPH_VOID	An area of land where geophysical interpretation is not defined	feature, ufi, gph_symb
Arc	Geophysical unit boundary	GPH_BDY	The geophysical boundary, of an interpreted unit, where not defined by any other feature type	feature, ufi, feat_code, descript, plot_symb, dip_dirctn, dip, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_method, age_ref, gph_char, metadat_id, age_seqnce, src_date, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, plotrank
	Geophysical fault	GPH_FAULT	A fault	feature, ufi, feat_code, descript, plot_symb, lith_desc, gph_char, name, fault_sys, dip_dirctn, dip, fault_mvt, mvt_sense, deform, width, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, metadat_id, src_date, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, plotrank
	Geophysical dyke	GPH_DYKE	A dyke	feature, ufi, feat_code, descript, plot_symb, lith_desc, gph_char, name, dip_dirctn, dip, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, metadat_id, src_date, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, width, plotrank
	Geophysical markerbed	GPH_MKRBD	A markerbed	feature, ufi, feat_code, descript, plot_symb, lith_desc, gph_char, name, age_seqnce, min_geoage, max_geoage, time_scale, min_numage, max_numage, age_seqnce, age_method, age_ref, metadat_id, src_date, capt_scale, capt_date, mod_date, int_method, confidence, loc_qual, loc_acc, scale_flag, provbdy, polybdy, unitbdy, width, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi, feat_code, descript

Object	GA Field Name	NGDM Field Name	Attribute Type	Case	Format	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	Feature	12,12,C	upper	String	Yes	GPH_UNIT, GPH_VOID	Feature type	Interpretation void is used where the geophysical interpretation is not defined.
	ufi	ObjectID	6,6,I	n/a	Integer	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	gph_symb		20,20,C	mixed		Yes, except for interpretation void		Map text identifying the type of the geophysical unit	gph_symb
	plot_symb	PlotSymbol	8,8,C	mixed	String	No		Abbreviated form of map_symb	
	stratno	Stratno	7,7,I	n/a	Integer	No	GEODX.STRATNAMES authority table	Stratigraphic index number	Must be a unique number from the GA Stratigraphic Units Database for all named and unnamed rock units across Australia
	unitname	GeologicalUnitName	254, 254,C	mixed	String	No	GEODX.STRATNAMES authority table	The name of a stratigraphic unit including rank terms that are part of a name	GA Stratigraphic Units Database
	supergroup	Supergroup	254, 254,C	mixed	String	No	GEODX.STRATNAMES authority table	An assemblage of related groups, or of formations and groups, having significant lithological features in common	For granite bodies a supersuite is on the same hierarchy level as a supergroup GA Stratigraphic Units Database
	group	Group	254, 254,C	mixed	String	No	GEODX.STRATNAMES authority table	The formal lithostratigraphic unit which includes two or more contiguous or associated formations with significant lithological features in common	For granite bodies a suite or complex is on the same hierarchy level as a group GA Stratigraphic Units Database
	subgroup	Subgroup	254, 254,C	mixed	String	No	GEODX.STRATNAMES authority table	A formally differentiated assemblage of formations within	GA Stratigraphic Units Database

								a group	
	formation	Formation	254, 254,C	mixed	String	No	GEODX.STRATNAMES authority table	A body of rock strata which is unified with respect to adjacent strata by consisting dominantly of a certain lithological type or combination of types or by possessing other unifying lithological features	For granite bodies a pluton is on the same hierarchy level as a formation GA Stratigraphic Units Database
	member	Member	254, 254,C	mixed	String	No	GEODX.STRATNAMES authority table	A lithostratigraphic unit of subordinate rank comprising some specially developed part of a formation	GA Stratigraphic Units Database
	name_stat	NameStatus	20,20,C	mixed	String	Yes, except for rock void	GEODX.STRATSTATUS authority table	Status of a stratigraphic unit from GA Stratigraphic Units database. (eg: Defined, Informal, Reserved, Superseded)	GA Stratigraphic Units Database
	min_geoage	MinGeologicalAge	80,80,C	mixed	String	yes, except for rock void	NPM.ZONES Authority table	The most precise known geological time period corresponding to the minimum age of the geological feature	
	max_geoage	MaxGeologicalAge	80,80,C	mixed	String	yes, except for rock void	NPM.ZONES Authority table	The most precise known geological time period corresponding to the maximum age of the geological feature	
	time_scale	GeologicalTimeScale	30,30,C	mixed	String	yes, if MinNumericAge or	NPM.TIMESCALES Authority table	Value from a table of geological time	

						MaxNumericAge are populated		scales (eg: AGSO 1996, Tucker et al 1998, Harland 1990). Provides a link between the relative and numeric geological age	
	min_numage	MinNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical minimum age of the geological feature in millions of years	
	max_numage	MaxNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical maximum age of the geological feature in millions of years	
	age_seqnce		2,2,1	n/a	Integer	No	A positive number	Relative age order of the features, within the study area	The oldest relative age begins at 1
	age_method	NumericAgeMethod	80,80,C	lower	String	no	Geol_Lookups.xls	Method(s) used to determine the numeric age interval (eg: isotopic, biostratigraphic, inferred)	Up to 2 values may be concatenated, separated by comma
	age_ref	NumericAgeReference	254,254,C	mixed	String	no		Reference to the source of the numeric age (eg: Ozchron sample number, bibliographic reference)	
	lith_group	DominantLithGroup	150,150,C	lower	String	yes, except for rock void	Geol_Lookups.xls	The dominant lithological grouping or groupings which comprise the rock unit	Up to 3 values may be concatenated, separated by comma;
	lith_type	DominantLithType	150,150,C	lower	String	no	Geol_Lookups.xls	The dominant lithologies which comprise the rock unit. Provides more detailed characterisation	Up to 3 values may be concatenated, separated by comma;

								of the dominant rock type than DominantLithGroup	
	form_type	FormType	20,20,C	lower	String	no	Geol_Lookups.xls	Morphological form of the geological unit (eg: bed, dyke, sill).	
	lith_desc	Description	254,254,C	mixed	String	yes		Description of the geological unit similar to that in a map legend	
	gph_char		64,64,C	mixed	String	No		Description of the geophysical character e.g. "low amplitude" (magnetics) or "high potassium, low thorium" (radiometrics) or "moderate amplitude, positive anomaly" (gravity) or other signature	
	domain		64,64,C	mixed	String	No		A short description of the unifying characteristic of the rock unit	Domains describe areas where you have one unit overlying or overprinting another unit. For example: Permian sediments (Ps) deposited over Archaean granite (Ag) → Ps = dom_symb #1, and Ag = dom_symb #2. The map_symb would be Ps/Ag.
	dom_desc		254,254,C	mixed	String	no		An expanded description of the unifying characteristic of the rock unit	
	dom_symb		20,20,C	mixed	String	no		Map text identifying the type of the domain	
	domain2		64,64,C	mixed	String	no		A short description of the unifying characteristic of the rock unit	
	dom2_desc		254,254,C	mixed	String	no		An expanded description of the unifying characteristic of the rock unit	
	dom2_symb		20,20,C	mixed	String	no		Map text identifying the	

								type of the domain	
	metadat_id	MetaDataID	254,254,C	mixed	String	no		Linking to a metadata source pertaining to the geology feature. (eg: a metadata file name, product catalog number or similar, bibliographic reference)	
	src_data	SourceData	254,254,C	mixed	String	yes		Reference to the source of the map feature (eg: project name, bibliographic reference, compiler's name, external agency name)	
	capt_scale	CaptureScale	8,8,I	n/a	Integer	yes	A positive number	Number representing the map scale at which the data was captured (eg: 100000 or 250000)	
	capt_date	CaptureDate	YYYYMMDD	n/a	Date	no		Date the feature was captured. If only year is known, use 31 December for day and month.	
	mod_date	ModifiedDate	YYYYMMDD	n/a	Date	no		Date the feature was modified. If only year is known, use 31 December for day and month.	
	int_method	InterpMethod	100,100,C	lower	String	no	Geol_Lookups.xls	Method(s) used to interpret the geological feature (eg: field observation, satellite imagery, airborne magnetics)	Up to 3 values may be concatenated, separated by comma
	confidence	Confidence	20,20,C	lower	String	no	A.LOOKUPS Confidence authority table	Value indicating the confidence in the identification of	

								the feature (eg: high, medium, low)	
	loc_qual	LocationalQuality	12,12,C	lower	String	no	Geol_Lookups.xls	Value indicating the quality of the data (eg: accurate, approximate, diagrammatic)	
	loc_acc	LocationalAccuracy	4,4,I	n/a	Integer	no	A positive number	Positional error estimate in metres	
	scale_flag	ScaleFlag	8,8,I	n/a	Integer	yes	A positive number	Value indicating the most detailed scale at which the feature should be viewed (eg: 100000, 250000)	
	plotrank		1,1,I	n/a	Integer	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	
Arc	feature	Feature	12,12,C	upper	String	Yes	LITH_BDY, FAULT, DYKE, VEIN, MKRBED, FRAME	Feature type	
	ufi	ObjectID	6,6,I	n/a	Integer	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	FeatureCode	8,8,I	n/a	Integer	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	BoundaryType	100,100,C	mixed	String	Yes	FEATCODE authority table	A description of the feature	
	plot_symb		8,8,C	mixed	String	no		Abbreviated form of map_symb	
	lith_desc	LithDescription	254,254,C	mixed	String	no		Description of the geological unit similar to that in a map legend	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	gph_char		64,64,C	mixed		no		Description of the geophysical	

								character e.g. "low amplitude" (magnetics) or "high potassium, low thorium" (radiometrics) or "moderate amplitude, positive anomaly" (gravity) or other signature	
	name	StructureElementName	64,64,C	mixed	String	no		The name of the feature e.g. <i>Wiagdon Thrust</i>	
	fault_sys	FaultSystem	64,64,C	mixed	String	no		A group of faults that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>Mount Isa Fault System</i>	
	dip_dirctn	DipDirection	3,3,I	n/a	Integer	no		The dip direction of a feature	
	dip	Dip	2,2,I	n/a	Integer	no		The dip of a feature	
	fault_mvt	FaultMovementType	20,20,C	lower	String	no	Geol_Lookups.xls	Type of fault movement. (eg: dip-slip, oblique-slip, strike-slip)	
	mvt_sense	MovementSense	30,30,C	lower	String	no	Geol_Lookups.xls	Sense of fault movement (eg: sinistral, dextral).	
	deform	Deformation	12,12,C	mixed	String	no		Sequence number of deformation(s) to which structure is related e.g. D2, D3	Up to 3 multiple values may be separated by commas
	width	Width	6,6,I	n/a		no	A positive number	The width of a fault, dyke, vein or marker bed in metres	Units in metres
	min_geoage	MinGeologicalAge	80,80,C	mixed	String	no	NPM.ZONES Authority table	The most precise known geological time period corresponding to the minimum	

								age of the geological feature (eg: Silurian)	
	max_geoage	MaxGeologicalAge	80,80,C	mixed	String	no	NPM.ZONES Authority table	The most precise known geological time period corresponding to the maximum age of the geological feature (eg: Silurian)	
	time_scale	GeologicalTimeScale	30,30,C	mixed	String	yes, if MinNumericAge or MaxNumericAge are populated	NPM.TIMESCALES Authority table	Value from a table of geological time scales (eg: AGSO 1996, Tucker et al 1998, Harland 1990). Provides a link between the relative and numeric geological age	
	min_numage	MinNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical minimum age of the geological feature in millions of years	
	max_numage	MaxNumericAge	7,7,N,2	n/a	Float	no	A positive number less than 4600	The most precise known numerical maximum age of the geological feature in millions of years	
	age_seqnce		2,2,1	n/a	Integer	No	A positive number	Relative age order of the features, within the study area	The oldest relative age begins at 1
	age_method	NumericAgeMethod	80,80,C	lower	String	no	Geol_Lookups.xls	Method(s) used to determine the numeric age interval (eg: isotopic, biostratigraphic, inferred)	Up to 2 values may be concatenated, separated by comma; DatingMethod Oracle table
	age_ref	NumericAgeReference	254,254,C	mixed	String	no		Reference to the source of the numeric age (eg:	

								Ozchron sample number, bibliographic reference)	
	metadat_id	MetaDataID	254,254,C	mixed	String	no		Linking to a metadata source pertaining to the geology feature. (eg: a metadata file name, product catalog number or similar, author's name, bibliographic reference)	
	src_data	SourceData	254,254,C	mixed	String	yes		Reference to the source of the map feature (eg: project name, bibliographic reference, compiler's name, external agency name)	
	capt_scale	CaptureScale	8,8,I	n/a	Integer	yes	A positive number	Number representing the map scale at which the data was captured (eg: 100000, 250000)	
	capt_date	CaptureDate	YYYYMMDD	n/a	Date	yes		Date the feature was captured. If only year is known, use 31 December for day and month.	
	mod_date	ModifiedDate	YYYYMMDD	n/a	Date	no		Date the feature was modified. If only year is known, use 31 December for day and month.	
	int_method	InterpMethod	100,100,C	lower	String	no	Geol_Lookups.xls	Method(s) used to interpret the geological feature (eg: field observation, satellite imagery, airborne magnetics)	Up to 3 values may be concatenated, separated by comma
	confidence	Confidence	20,20,C	lower	String	no	A.LOOKUPS Confidence authority table	Value indicating the confidence	

								in the identification of the feature (eg: high, medium, low)	
	loc_qual	LocationalQuality	12,12,C	lower	String	no	Geol_Lookups.xls	Value indicating the quality of the data (eg: accurate, approximate, diagrammatic)	
	loc_acc	LocationalAccuracy	4,4,I	n/a	Integer	no	A positive number	Positional error estimate in metres	
	scale_flag	ScaleFlag	8,8,I	n/a	Integer	yes	A positive number	Value indicating the most detailed scale at which the feature should be viewed (eg: 100000, 250000)	
	provbdy		1,1,C	upper		no	Y, N	A field used to discriminate province boundaries (Y) from non province boundaries (N)	
	polybdy		1,1,C	upper	String	Yes, except for frame	Y, N	A field used to discriminate polygon boundaries (Y) from non polygon boundaries (N)	For all dangling arcs polybdy is always 'N'. Use an AML to set the values
	unitbdy		1,1,C	upper	String	Yes, except for frame	Y, N	A field used to discriminate solid geology boundaries (Y) from non solid geology boundaries (N)	
	plotrank		1,1,I	n/a	Integer	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	

Geophysical interpretation lines – GPHLIN n Last_updated: xx/xx/xxxx

Name GPHLIN n
Description Geophysical interpretation lines
Type Line coverage

Note Integer n is used if there are more than one geophysical interpretation coverage. These different coverages must be described by metadata. The feature classes in the shaded end of the table are allowed only if there is no geophysical polygons i.e. if GPHINT n theme does not exist.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Geophysical paleodrainage	GPH_PALDR AIN	Paleodrainage interpreted from all geophysical data	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Geophysical fracture-joint	GPH_FRACJ OIN	Dislocation with no or little demonstrable movement interpreted from all geophysical data	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Geophysical trend-formline	GPH_TREND	Trend-formline line interpreted from all geophysical data	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Geophysical layer	GPH_LAYER	Compositional layering or bedding trend interpreted from all geophysical data	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Geophysical fold	GPH_FOLD	Fold axis interpreted from all geophysical data	feature, ufi, feat_code, descript, name, fold_sys, azimuth, deform, age, agerank, age_seqnce, source, loc_conf, gph_char, plotrank
	Geophysical dyke	GPH_DYKE	Dyke interpreted from all geophysical data	feature, ufi, feat_code, descript, source, loc_conf, gph_char, plotrank
	Geophysical fault	GPH_FAULT	Fault interpreted from all geophysical data	feature, ufi, feat_code, descript, name, fault_sys, azimuth, deform, age, agerank, age_seqnce, source, loc_conf, gph_char, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	GPH_PALDRAIN, GPH_FRACJOIN, GPH_TREND, GPH_LAYER, GPH_FOLD, GPH_DYKE, GPH_FAULT	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript name	100,100,C 64,64,C	mixed upper	Yes No	FEATCODE authority table	A description of the feature The name of the feature e.g. <i>WIAGDON THRUST</i>	
	fault_sys	64,64,C	upper	No		A group of faults that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>MOUNT ISA FAULT SYSTEM</i>	
	fold_sys	64,64,C	upper	No		A group of folds that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>MOUNT ISA FOLD SYSTEM</i>	
	azimuth	3,3,I	n/a	No	Between 0 and 360 inclusive	Orientation determined between the end points (nodes) of the line	Units in degrees. Use an AML to set the values
	deform	64,64,C	mixed	No	GEODX.GEOTIME authority table for the geological ages. A positive number greater than zero for the number of deformations	Geological age(s) e.g. <i>ORDOVICIAN, SILURIAN, DEVONIAN</i> or number of deformation(s) to which structure is related e.g. 2	Geological ages must be listed from oldest to youngest and separated by a comma
	age	100,100,C	mixed	No	GEODX.GEOTIME authority table	A most precise and known geological time period during which the feature is formed e.g. <i>Palaeozoic</i>	Composite geological ages must be listed from oldest to youngest and separated by a '-' without spaces e.g. <i>PERMIAN-TRIASSIC</i>
	agerank	10,10,C	mixed	No	GEODX.GEOTIME authority table	A geological age rank e.g. <i>Period</i>	If a composite unitage consists of different ranks, use only the common rank
	age_seqnce	2,2,I	n/a	No	A positive number	Relative age order of the features, within the study area	The oldest relative age begins at 1
	source	64,64,C	upper	Yes	AEROMAG, SHIPMAG, GROUND MAG, RADIOMETRIC, LANDGRAVITY, REMOTE SENSING, ELEVATION, GEOLOGY, SHIPGRAVITY, SATGRAVITY, SWATH, OTHER	Description of source data for interpreted feature: airborne magnetics (AEROMAG), shipborne magnetics (SHIPMAG), ground magnetics (GROUND MAG), gamma-ray spectrometry K ± Th ± U (RADIOMETRIC), Bouguer or free air gravity acquired on land (LANDGRAVITY), satellite imagery (REMOTE SENSING), digital elevation model / bathymetry (ELEVATION), outcrop geological mapping (GEOLOGY), Bouguer or free air gravity acquired by ship (SHIPGRAVITY), Bouguer or free air gravity acquired by satellite (SATGRAVITY), shipborne swath mapping (SWATH), other dataset described in other_char field (OTHER)	
	loc_conf	12,12,C	upper	No	ACCURATE,	Location confidence	

					APPROXIMATE, INFERRED		
	gph_char	64,64,C	mixed	No		Description of the geophysical character e.g. " <i>low amplitude</i> " (magnetics) or " <i>high potassium, low thorium</i> " (radiometrics) or " <i>moderate amplitude, positive anomaly</i> " (gravity) or other signature	
	plotrank	1,1,l	n/a	No	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Geophysical interpretation points – GPHPNT n Last_updated: xx/xx/xxxx

Name GPHPNT n
Description Geophysical point anomaly
Type Point coverage

Note Integer n is used if there are more than one geophysical interpretation coverage. These different coverages must be described by metadata.
 The feature classes in the shaded end of the table are allowed only if there is no geophysical polygons i.e. if GPHPNT n theme does not exist.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Geophysical anomaly	GPH_ANOMALY	A source of the geophysical anomaly	feature, ufi, feat_code, descript, plot_symb, lith_desc, age, agerank, age_sequence, source, loc_conf, gph_char, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	GPH_ANOMALY	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plot_symb	8,8,C	mixed	No		Symbol used for plotting	
	lith_desc	254,254,C	mixed	No		A description of the lithology at the geophysical point feature	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	age	100,100,C	mixed	No	GEODX.GEOTIME authority table	A most precise and known geological time period during which the feature is formed e.g. <i>Palaeozoic</i>	Composite geological ages must be listed from oldest to youngest and separated by a '-' without spaces e.g. <i>PERMIAN-TRIASSIC</i>
	agerank	10,10,C	mixed	No	GEODX.GEOTIME authority table	A geological age rank e.g. <i>Period</i>	If a composite unitage consists of different ranks, use only the common rank
	age_seqnce	2,2,I	n/a	No	A positive number	Relative age order of the features, within the study area	The oldest relative age begins at 1
	source	64,64,C	upper	Yes	AEROMAG, SHIPMAG, GROUND MAG, RADIOMETRIC, LANDGRAVITY, REMOTE SENSING, ELEVATION, GEOLOGY, SHIPGRAVITY, SATGRAVITY, SWATH, OTHER	Description of source data for interpreted feature: airborne magnetics (AEROMAG), shipborne magnetics (SHIPMAG), ground magnetics (GROUND MAG), gamma-ray spectrometry K ± Th ± U (RADIOMETRIC), Bouguer or free air gravity acquired on land (LANDGRAVITY), satellite imagery (REMOTE SENSING), digital elevation model / bathymetry (ELEVATION), outcrop geological mapping (GEOLOGY), Bouguer or free air gravity acquired by ship (SHIPGRAVITY), Bouguer or free air gravity acquired by satellite (SATGRAVITY), shipborne swath mapping (SWATH), other dataset described in other_char field (OTHER)	

	loc_conf	12,12,C	upper	No	ACCURATE, APPROXIMATE, INFERRED	Location confidence	
	gph_char	64,64,C	mixed	No		Description of the geophysical character e.g. " <i>low amplitude</i> " (magnetics) or " <i>high potassium, low thorium</i> " (radiometrics) or " <i>moderate amplitude, positive anomaly</i> " (gravity) or other signature	
	plotrank	1,1,I	n/a	No	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Geophysical cross-section – XGPH nn Last_updated: 18/08/2004

Name XGPH nn
Description Geophysical interpretation cross-section
Type Polygon coverage

Note Suffix nn is used to denote the cross-section location on the map e.g. AB or CD

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Geophysical unit	GPH_UNIT	An area of land with uniform geophysical interpretation	feature, ufi, gph_symb, plot_symb, stratno, unitname, domain, dom_desc, dom_symb, domain2, dom2_desc, dom2_symb, unitage, agerank, age_seqnce, rocktype, lith_desc, source, class_conf, gph_char, plotrank
	Geophysical void	GPH_VOID	An area of land where geophysical interpretation is not defined	feature, ufi
Arc	Geophysical unit boundary	GPH_BDY	The geophysical boundary, of a interpreted unit, where not defined by any other feature type	feature, ufi, feat_code, descript, source, loc_conf, gph_char, provdby, unitbdy, polybdy, plotrank
	Geophysical fault	GPH_FAULT	A fault	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, fault_sys, azimuth, deform, age, agerank, age_seqnce, source, loc_conf, gph_char, provdby, unitbdy, polybdy, width, plotrank
	Geophysical dyke	GPH_DYKE	A dyke	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, fault_sys, azimuth, deform, age, agerank, age_seqnce, source, loc_conf, gph_char, provdby, unitbdy, polybdy, width, plotrank
	Geophysical markerbed	GPH_MKRBD	A markerbed	feature, ufi, feat_code, descript, plot_symb, lith_desc, name, fault_sys, azimuth, deform, age, agerank, age_seqnce, source, loc_conf, gph_char, provdby, unitbdy, polybdy, width, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	GPH_UNIT, GPH_VOID	Feature type	Interpretation void is used where the geophysical interpretation is not defined
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	gph_symb	20,20,C	mixed	Yes, except for interpretation void		Map text identifying the type of the geophysical unit	
	plot_symb	8,8,C	mixed	No		Abbreviated form of gph_symb	
	stratno	7,7,I	n/a	No	GEODX.FLATSTRAT authority table	Stratigraphic index number	Must be unique for all rock units across Australia
	unitname	64,64,C	mixed	No	GEODX.FLATSTRAT authority table	The name of a stratigraphic unit including rank terms that are part of a name	
	domain	64,64,C	mixed	Yes, except for interpretation void		A short description of the unifying characteristic of the geophysical unit	
	dom_desc	254,254,C	mixed	No		An expanded description of the unifying characteristic of the geophysical unit	
	dom_symb	20,20,C	mixed	Yes, except for interpretation void		Map text identifying the type of the domain	
	domain2	64,64,C	mixed	No		A short description of the unifying characteristic of the geophysical unit	
	dom2_desc	254,254,C	mixed	No		An expanded description of the unifying characteristic of the geophysical unit	
	dom2_symb	20,20,C	mixed	No		Map text identifying the type of the domain	
	unitage	100,100,C	mixed	No	GEODX.GEOTIME authority table	A most precise and known geological time period during which the unit is formed e.g. <i>Palaeozoic</i>	Composite geological ages must be listed from oldest to youngest and separated by a '-' without spaces e.g. <i>PERMIAN-TRIASSIC</i>
	agerank	10,10,C	mixed	No	GEODX.GEOTIME authority table	A geological age rank e.g. <i>Period</i>	If a composite unitage consists of different ranks, use only the common rank
	age_seqnce	2,2,I	n/a	No	A positive number	Relative age order of the features, within the study area	The oldest relative age begins at 1
	rocktype	80,80,C	lower	Yes, except for interpretation void	A.LOOKUPS authority table	Dominant lithological grouping	Values describing the dominant rock types of the unit must be separated by a comma
	lith_desc	254,254,C	mixed	Yes, except for interpretation void		A description of the lithology of the interpreted unit	Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	source	64,64,C	upper	Yes	AEROMAG, SHIPMAG, GROUND MAG, RADIOMETRIC, LANDGRAVITY, REMOTE SENSING, ELEVATION, GEOLOGY, SHIPGRAVITY, SATGRAVITY, SWATH, OTHER	Description of source data for interpreted feature: airborne magnetics (AEROMAG), shipborne magnetics (SHIPMAG), ground magnetics (GROUND MAG), gamma-ray spectrometry K ± Th ± U (RADIOMETRIC), Bouguer or free air gravity acquired on land (LANDGRAVITY), satellite imagery (REMOTE SENSING), digital elevation model / bathymetry (ELEVATION), outcrop geological mapping (GEOLOGY), Bouguer or free air gravity acquired by ship (SHIPGRAVITY), Bouguer or free air gravity acquired by satellite (SATGRAVITY), shipborne swath mapping	

						(SWATH), other dataset described in other_char field (OTHER)	
	class_conf	12,12,C	upper	No		PROBABLE, INFERRED, SPECULATIVE	Classification confidence
	gph_char	64,64,C	mixed	No			Description of the geophysical character e.g. "low amplitude" (magnetics) or "high potassium, low thorium" (radiometrics) or "moderate amplitude, positive anomaly" (gravity) or other signature
	plotrank	1,1,I	n/a	No		1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features
Arc	feature	12,12,C	upper	Yes		GPH_BDY, GPH_FAULT, GPH_DYKE, GPH_MKRBD, FRAME	Feature type
	ufi	6,6,I	n/a	Yes		A positive integer less than 1 million	Unique feature identifier (ufi) Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	feat_code	8,8,I	n/a	Yes		FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table
	descript	100,100,C	mixed	Yes		FEATCODE authority table	A description of the feature
	plot_symb	8,8,C	mixed	No			Abbreviated form of gph_symb
	lith_desc	254,254,C	mixed	Yes, except for interpretation void			A description of the lithology of the interpreted unit Description may be abbreviated if captured from old data e.g. published maps. For more detailed lithological description refer to the source material via metadata
	name	64,64,C	upper	No			The name of the feature e.g. <i>WIAGDON THRUST</i>
	fault_sys	64,64,C	upper	No			A group of faults that are parallel or nearly so, and that are related to a particular deformation episode e.g. <i>MOUNT ISA FAULT SYSTEM</i>
	azimuth	3,3,I	n/a	No		Between 0 and 360 inclusive	Orientation determined between the end points (nodes) of the line Units in degrees. Use an AML to set the values
	deform	64,64,C	mixed	No		GEODX.GEOTIME authority table for the geological ages. A positive number greater than zero for the number of deformations	Geological age(s) e.g. <i>ORDOVICIAN, SILURIAN, DEVONIAN</i> or number of deformation(s) to which structure is related e.g. 2 Geological ages must be listed from oldest to youngest and separated by a comma
	age	100,100,C	mixed	No		GEODX.GEOTIME authority table	A most precise and known geological time period during which the feature is formed e.g. <i>Palaeozoic</i> Composite geological ages must be listed from oldest to youngest and separated by a '-' without spaces e.g. <i>PERMIAN-TRIASSIC</i>
	agerank	10,10,C	mixed	No		GEODX.GEOTIME authority table	A geological age rank e.g. <i>Period</i> If a composite unitage consists of different ranks, use only the common rank
	age_seqnce	2,2,I	n/a	No		A positive number	Relative age order of the features, within the study area The oldest relative age begins at 1
	source	64,64,C	upper	Yes		AEROMAG, SHIPMAG, GROUND MAG, RADIOMETRIC, LANDGRAVITY, REMOTE SENSING, ELEVATION, GEOLOGY, SHIPGRAVITY, SATGRAVITY, SWATH, OTHER	Description of source data for interpreted feature: airborne magnetics (AEROMAG), shipborne magnetics (SHIPMAG), ground magnetics (GROUND MAG), gamma-ray spectrometry K ± Th ± U (RADIOMETRIC), Bouguer or free air gravity acquired on land (LANDGRAVITY), satellite imagery (REMOTE SENSING), digital elevation model / bathymetry (ELEVATION), outcrop geological mapping

						(GEOLOGY), Bouguer or free air gravity acquired by ship (SHIPGRAVITY), Bouguer or free air gravity acquired by satellite (SATGRAVITY), shipborne swath mapping (SWATH), other dataset described in other_char field (OTHER)	
	loc_conf	12,12,C	upper	No	ACCURATE, APPROXIMATE, INFERRED	Location confidence	
	gph_char	64,64,C	mixed	No		Description of the geophysical character e.g. " <i>low amplitude</i> " (magnetics) or " <i>high potassium, low thorium</i> " (radiometrics) or " <i>moderate amplitude, positive anomaly</i> " (gravity) or other signature	
	provbdy	1,1,C	upper	Yes, except for frame	Y, N	A field used to discriminate province boundaries (Y) from non province boundaries (N)	
	polybdy	1,1,C	upper	Yes, except for frame	Y, N	A field used to discriminate polygon boundaries (Y) from non polygon boundaries (N)	For all dangling arcs polybdy is always 'N'. Use an AML to set the values
	unitbdy	1,1,C	upper	Yes, except for frame	Y, N	Used to tell if the arc forms a boundary between different rock units	Use an AML to set the values
	width	6,6,I	n/a	No	A positive integer less than 1 million	The width of a fault, dyke or marker bed	Units in metres
	plotrank	1,1,I	n/a	No	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Airborne electromagnetic (AEM) interpretation – AEMINT_n, AEMADJ_n Last_updated: xx/xx/xxxx

This data dictionary applies to AEM interpretation done in relative isolation from other observations, where the relatively conservative inferences are made concerning the conductivity distribution. If a more integrated and speculative interpretation were carried out to relate conductivity to geological and/or hydrological units, a different data dictionary would be required.

The main body of the interpretation resides in one or more polygon, line or point coverages (AEMINT_n, AEMLIN_n and AEMPTS_n respectively, where n is an integer). Examples of the contents of the polygon, line and point coverages are domains³ defined by conductivity characteristics, horizons⁴ defined by conductivity characteristics and discrete conductivity features, respectively. Multiple main coverages may be required to convey aspects of the interpretation related to different depths, different source classification (e.g. regolith versus basement), different processing products or different applications.

Associated secondary or “adjunct” information resides in one or more polygon, line or point coverages (AEMADJ_n, AEMADJL_n and AEMADJP_n respectively, where n is an integer). Most of the secondary information relates to noise (i.e. unwanted signal) identified in the data. This information is important for a proper understanding of the interpretation. Examples of the contents of the adjunct polygon, line and point coverages are areas influenced by powerline signals, the powerline location and a point source of powerline signal (e.g. house), respectively. Many of the distinctions (i.e. polygon, line or point) are a question of scale. Multiple secondary coverages may be required to simplify the relationships to the main coverages and/or to simplify overlapping relationships.

No distinction of “probable”, “inferred” or “speculative” has been added to the definitions because this is generally not incorporated in AEM interpretation. Discrete conductivity features are an exception to this, and the distinction is bound up in the “prioritisation” classification. There is no reason why these qualifiers could not be added as an additional attribute of the relevant features. Similarly, boundary qualifiers of “sharp” or “gradational” could be added as attributes. In this latter case, it would be useful to also include a “scale” attribute that indicates the distance scale applicable to these distinctions (i.e. whether the boundaries are sharp or gradational at the mm, m or km scale).

The word “conductivity” in the data dictionary does not restrict the mapping of features to those with a positive conductivity contrast to their surroundings, and hence to those features that might be described as “conductors”. Mapping of conductors and resistors is equally acceptable.

The word “conductivity” in the data dictionary implies that features interpreted from products other than those involving conductivity (e.g. time constant images, principal component images) should be related where possible to the fundamental conductivity distribution from which the feature in the alternate product arises. This is the same implicit assumption that exists when using products based on quantities other than magnetic susceptibility or density for magnetic or gravity interpretation, respectively.

³ Domain polygons are the intersection of a 3D solid object (i.e. an object with finite width) with the 2D mapping plane.

⁴ Horizon lines are the intersection of a 3D surface (i.e. an object with zero thickness) with the 2D mapping plane.

Name AEMINT n Last_updated: xx/xx/xxxx
Description Polygons derived from airborne electromagnetic interpretation
Type Polygon coverage

Note The AEMINT coverage is designed for maps of purely airborne electromagnetic (AEM) interpretation. Integer n is used if the interpretation is broken up into more than one coverage (e.g. based on different depth ranges). These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Conductivity domain	AEM_DOMAIN	An area of the mapping surface with consistent conductivity characteristics	feature, ufi, aem_symb, plot_symb, domain, dom_desc, plotrank
	Conductivity void	AEM_VOID	An area of the mapping surface where the conductivity characteristics are undefined	feature, ufi
Arc	Conductivity domain boundary	AEM_BDY	The boundary line of a conductivity domain, where not defined by a conductivity break, a conductivity horizon or a conductivity marker bed.	feature, ufi, feat_code, descript, plotrank
	Conductivity break	AEM_BREAK	A well-defined edge or discontinuity in pattern that forms part of a boundary between conductivity domains. Likely to be a fault or shear, but one that does not have a conductivity signature (in which case it would be a conductivity horizon).	feature, ufi, feat_code, descript, plotrank
	Conductivity horizon	AEM_HORIZON	An horizon of distinctive conductivity character that forms part of a boundary between conductivity domains. More restricted extent than a marker bed.	feature, ufi, feat_code, descript, plotrank
	Conductivity marker bed	AEM_MKRBD	An horizon of distinctive conductivity character that is traceable over considerable distance and forms part of a boundary between conductivity domains.	feature, ufi, feat_code, descript, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	AEM_DOMAIN, AEM_VOID	Feature type	Conductivity void is used where the conductivity characteristics are undefined (e.g. where the depth of detection / investigation has been exceeded)
	ufi	6,6,l	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	aem_symb	20,20,C	mixed	Yes, except for conductivity void		Map text identifying the type of the conductivity domain	
	plot_symb	8,8,C	mixed	No		Abbreviated form of aem_symb	
	domain	64,64,C	upper	Yes, except for conductivity void		A short description of the defining characteristic(s) of the conductivity domain	
	dom_desc	254,254,C	mixed	No		An expanded description of the defining characteristic(s) of the conductivity domain	
	plotrank	1,1,l	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2).	
Arc	feature	12,12,C	upper	Yes	AEM_BDY, AEM_BREAK, AEM_HORIZON, AEM_MKRBD, FRAME	Feature type	
	ufi	6,6,l	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,l	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,l	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2).	

Name AEMADJ n Last_updated: xx/xx/xxxx
Description Adjunct polygons associated with airborne electromagnetic interpretation
Type Polygon coverage

Note The AEMADJ coverage is designed for maps of purely airborne electromagnetic (AEM) interpretation. Integer n is used if the interpretation is broken up into more than one coverage (e.g. based on different depth ranges or to avoid overlapping polygons). These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Powerline	AEM_ADJ_PL	An area of the mapping surface affected by powerline signals.	feature, ufi, aem_symb, plot_symb, domain, dom_desc, plotrank
	Electric Fence	AEM_ADJ_EF	An area of the mapping surface affected by signals associated with an electric fence.	feature, ufi, aem_symb, plot_symb, domain, dom_desc, plotrank
	Sferics	AEM_ADJ_SF	An area of the mapping surface affected by sferic signals.	feature, ufi, aem_symb, plot_symb, domain, dom_desc, plotrank
	Metal object	AEM_ADJ_MO	An area of the mapping surface affected by signals associated with a man-made metallic object.	feature, ufi, aem_symb, plot_symb, domain, dom_desc, plotrank
	Geometry	AEM_ADJ_GEOM	An area of the mapping surface affected by signal distortion associated with system geometry including coil motion / Earth magnetic field effects, rapid changes in altitude or rapid changes in transmitter loop to receiver coil coupling.	feature, ufi, aem_symb, plot_symb, domain, dom_desc, plotrank
	Levelling	AEM_ADJ_LV	An area of the mapping surface affected by residual levelling artifacts.	feature, ufi, aem_symb, plot_symb, domain, dom_desc, plotrank
	Other	AEM_ADJ_OTH	An area of the mapping surface affected by noise where the cause is not specified.	feature, ufi, aem_symb, plot_symb, domain, dom_desc, plotrank
	Adjunct polygon void	AEM_ADJ_VOID	An area of the mapping surface where the adjunct characteristics are undefined	feature, ufi
Arc	AEM adjunct polygon boundary	AEM_ADJ_BDY	The boundary line of an adjunct polygon.	feature, ufi, feat_code, descript, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	AEM_ADJ_PL, AEM_ADJ_EF, AEM_ADJ_SF, AEM_ADJ_MO, AEM_ADJ_GEOM, AEM_ADJ_LV, AEM_ADJ_OTH, AEM_ADJ_VOID	Feature type	Adjunct polygon void is used where the adjunct polygon characteristics are undefined
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	aem_symb	20,20,C	mixed	Yes, except for adjunct polygon void		Map text identifying the type of adjunct polygon.	
	plot_symb	8,8,C	mixed	No		Abbreviated form of aem_symb	
	domain	64,64,C	upper	Yes, except for adjunct polygon void		A short description of the defining characteristic(s) of the adjunct polygon.	
	dom_desc	254,254,C	mixed	No		An expanded description of the defining characteristic(s) of the adjunct polygon.	
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2).	
Arc	feature	12,12,C	upper	Yes	AEM_ADJ_BDY, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2).	

Airborne electromagnetic (AEM) lines and points – AEMLINn, AEMADJn, AEMPTSn, AEMADJPn Last_updated: xx/xx/xxxx

Name AEMLINn Last_updated: xx/xx/xxxx
Description Lines derived from airborne electromagnetic interpretation
Type Line coverage

Note The AEMLIN coverage is designed for maps of purely airborne electromagnetic (AEM) interpretation. The lines in this coverage do not form part of the boundaries of interpreted conductivity domain polygons. Integer *n* is used if the interpretation is broken up into more than one coverage (e.g. based on different depth ranges). These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Conductivity lineament	AEM_LINEAR	Lineament interpreted from AEM data. More diffuse than AEM_BREAK in AEMPOL and not forming part of a boundary between conductivity domains.	feature, ufi, feat_code, descript, plotrank
	Conductivity horizon	AEM_HORIZON	An horizon of distinctive conductivity character that does not form part of a boundary between conductivity domains. More restricted extent than a marker bed.	feature, ufi, feat_code, descript, plotrank
	Conductivity marker bed	AEM_MKRBD	An horizon of distinctive conductivity character that is traceable over considerable distance and does not forms part of a boundary between conductivity domains.	feature, ufi, feat_code, descript, plotrank
	Axis of dendritic pattern in conductivity data	AEM_DEND	The axis of a dendritic palaeodrainage pattern observed in conductivity data.	feature, ufi, feat_code, descript, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	AEM_LINEAR, AEM_HORIZON, AEM_MKRBD, AEM_DEND	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2).	

Name AEMADJL n Last_updated: xx/xx/xxxx
Description Adjunct lines associated with airborne electromagnetic interpretation
Type Line coverage

Note The AEMADJL coverage is designed for maps of purely airborne electromagnetic (AEM) interpretation. The lines in this coverage do not form part of the boundaries of interpreted polygons. Integer n is used if the interpretation is broken up into more than one coverage (e.g. based on different depth ranges). These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Powerline	AEM_ADJ_PL	A narrow area of the mapping surface affected by powerline signals.	feature, ufi, feat_code, descript, plotrank
	Electric Fence	AEM_ADJ_EF	A narrow area of the mapping surface affected by signals associated with an electric fence.	feature, ufi, feat_code, descript, plotrank
	Sferics	AEM_ADJ_SF	A narrow area of the mapping surface affected by sferic signals.	feature, ufi, feat_code, descript, plotrank
	Metal object	AEM_ADJ_MO	A narrow area of the mapping surface affected by signals associated with a man-made metallic object (e.g. pipeline, conveyor belt structure, powerline structure).	feature, ufi, feat_code, descript, plotrank
	Geometry	AEM_ADJ_GEOM	A narrow area of the mapping surface affected by signal distortion associated with system geometry including coil motion / Earth magnetic field effects, rapid changes in altitude or rapid changes in transmitter loop to receiver coil coupling.	feature, ufi, feat_code, descript, plotrank
	Levelling	AEM_ADJ_LV	A narrow area of the mapping surface affected by residual levelling artifacts.	feature, ufi, feat_code, descript, plotrank
	Other	AEM_ADJ_OTH	A narrow area of the mapping surface affected by noise where the cause is not specified.	feature, ufi, feat_code, descript, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	AEM_ADJ_PL, AEM_ADJ_EF, AEM_ADJ_SF, AEM_ADJ_MO, AEM_ADJ_GEOM, AEM_ADJ_LV, AEM_ADJ_OTH	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2).	

Name AEMPTS n Last_updated: xx/xx/xxxx
Description Points derived from airborne electromagnetic (AEM) interpretation
Type Point coverage

Note The AEMPTS coverage is designed for maps of purely airborne electromagnetic (AEM) interpretation. Integer n is used if the interpretation is broken up into more than one coverage (e.g. based on different depth ranges). These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Discrete conductivity feature	AEM_POINT	A discrete conductivity feature. A point feature at the scale of the interpretation.	feature, ufi, feat_code, descript, priority, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	AEM_POINT	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	priority	1,1,I	n/a	No	1, 2, 3	A classification (prioritisation) of the feature. Generally applied to discrete conductor targets in a base metal application	The highest priority is 1. The classification scheme must be described by metadata.
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2).	

Name AEMADJP n Last_updated: xx/xx/xxxx
Description Adjunct points associated with airborne electromagnetic interpretation
Type Point coverage

Note The AEMADJP coverage is designed for maps of purely airborne electromagnetic (AEM) interpretation. Integer n is used if the interpretation is broken up into more than one coverage (e.g. based on different depth ranges). These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Powerline	AEM_ADJ_PL	A point affected by powerline signals.	feature, ufi, feat_code, plotrank
	Electric Fence	AEM_ADJ_EF	A point affected by signals associated with an electric fence.	feature, ufi, feat_code, plotrank
	Sferics	AEM_ADJ_SF	A point affected by sferic signals.	feature, ufi, feat_code, plotrank
	Metal object	AEM_ADJ_MO	A point affected by signals associated with a man-made metallic object (e.g. shed)	feature, ufi, feat_code, plotrank
	Geometry	AEM_ADJ_GEOM	A point affected by signal distortion associated with system geometry including coil motion / Earth magnetic field effects, rapid changes in altitude or rapid changes in transmitter loop to receiver coil coupling.	feature, ufi, feat_code, plotrank
	Other	AEM_ADJ_OTH	A point affected by noise where the cause is not specified.	feature, ufi, feat_code, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	AEM_ADJ_PL, AEM_ADJ_EF, AEM_ADJ_SF, AEM_ADJ_MO, AEM_ADJ_GEOM, AEM_ADJ_OTH	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2).	

Remote sensing interpretation - SATINT n Last_updated: xx/xx/xxxx

Name SATINT n
Description Remote sensing interpretation
Type Polygon coverage

Note Integer n is used if there are interpretation coverages of more than one satellite image. These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Polygon	Remote sensing unit	SAT_UNIT	An area of land with uniform remote sensing characteristics	feature, ufi, sat_symb, plot_symb, domain, dom_desc, plotrank
	Remote sensing void	SAT_VOID	An area of land where the remote sensing characteristics are undefined	feature, ufi
Arc	Remote sensing unit boundary	SAT_BDY	The boundary line of a interpreted unit, where not defined by a interpreted linear feature	feature, ufi, feat_code, descript, plotrank
	Remote sensing linear	SAT_LINEAR	A linear geological feature apparent from the remote sensing survey	feature, ufi, feat_code, descript, plotrank
	Frame	FRAME	The edge of the tile or study area	feature, ufi

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Polygon	feature	12,12,C	upper	Yes	SAT_UNIT, SAT_VOID	Feature type	Remote sensing void is used where remote sensing characteristics are undefined
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO - 1 when the coverage is complete
	sat_symb	20,20,C	mixed	Yes, except for remote sensing void		Map text identifying the type of the rock unit	
	plot_symb	8,8,C	mixed	No		Abbreviated form of sat_symb	
	domain	64,64,C	upper	Yes, except for remote sensing void		A short description of the unifying characteristic of the interpreted unit	
	dom_desc	254,254,C	mixed	No		An expanded description of the unifying characteristic of the interpreted unit	
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	
Arc	feature	12,12,C	upper	Yes	SAT_BDY, SAT_LINEAR, FRAME	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,I	n/a	Yes	1, 2, 3	A field used to discriminate plotting (1) from non-plotting (2) and artificial (3) features	

Remote sensing lines – SATLIN n Last_updated: xx/xx/xxxx

Name SATLIN n
Description Remote sensing interpretation lines
Type Line coverage

Note Integer n is used if there are interpretation coverages of more than one satellite image. These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Remote sensing boundary	SAT_BDY	Boundary of a geological body interpreted from remote sensed imagery	feature, ufi, feat_code, descript, plotrank
	Remote sensing lineament	SAT_LINEAR	Lineament interpreted from remote sensed imagery	feature, ufi, feat_code, descript, plotrank
	Remote sensing trend	SAT_TREND	Trend line interpreted from remote sensed imagery	feature, ufi, feat_code, descript, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	SAT_BDY, SAT_LINEAR, SAT_TREND	Feature type	
	ufi	6,6,l	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,l	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	plotrank	1,1,l	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Depth to basement - BASDPT n Last_updated: xx/xx/xxxx

Name BASDPT n
Description Depth to basement represented as contours and/or points
Type Line and point coverage

Note Integer n is used if there are more than one depth to basement coverages. These different coverages must be described by metadata.

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Basement depth contour	BAS_CONTOUR	Isobar where depth to basement is defined	feature, ufi, basdepth, method, plotrank
Point	Basement depth point	BAS_POINT	Depth to basement	feature, ufi, basdepth, method

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	BAS_CONTOUR	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	basdepth	6,6,I	n/a	Yes		Depth to basement in metres	
	method	64,64,C	upper	No	MAGNETIC, GRAVITY, SEISMIC, DRILLHOLE	Method used to determine depth to the basement	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	
Point	feature	12,12,C	upper	Yes	BAS_POINT	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	basdepth	6,6,I	n/a	Yes		Depth to basement in metres	
	method	64,64,C	upper	No	MAGNETIC, GRAVITY, SEISMIC, DRILLHOLE	Method used to determine depth to the basement	

Seismic survey lines - SEISMIC Last_updated: xx/xx/xxxx

Name SEISMIC
Description Seismic lines, both on-shore and off-shore
Type Line coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Arc	Seismic line	SEIS_LINE	A seismic line	feature, ufi, feat_code, descript, survey_no, seislin_id, shot_int

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Arc	feature	12,12,C	upper	Yes	SEIS_LINE	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	survey_no	10,10,C	upper	Yes		Survey number	
	seislin_id	20,20,C	upper	Yes		Seismic line identifier	
	shot_int	8,8,N,2	n/a	No		The shot interval in metres and decimals of a metre	

Seismic velocities - SEISVEL Last_updated: xx/xx/xxxx

Name SEISVEL
Description Seismic velocities
Type Point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Seismic velocity reading	SEIS_VEL	A point where the seismic velocity has been recorded at a particular depth	feature, ufi, feat_code, model_id, model_name, velocity, depth

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	SEIS_VEL	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	feat_code	8,8,I	n/a	Yes	FEATCODE authority table	An identification code assigned to the feature as specified in the FEATCODE table	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	model_id	8,8,C	upper	Yes		The ID number of the seismic model	
	model_name	64,64,C	upper	Yes		The name of the seismic model location	
	velocity	6,6,N,3	n/a	Yes		Seismic velocity reading	Units in kilometers per second (km/s)
	depth	3,3,I	n/a	Yes		Depth of seismic velocity reading	Units in kilometers (km)

Geochemistry and Geochronology Themes

Geochemical analyses – OZCHEM Last_updated: 07/06/2007

Name OZCHEM
Description Whole Rock Geochemistry analytical results with locational and lithological information.
Type Comma separated values (csv)

Note A number of analyte fields has units in ppb (parts per billion) rather than ppm (parts per million).

Object	Field Name	Case	Compulsory	Valid Values	Description of Field	Rules
Point	ufi	n/a	Yes		Unique feature identifier	This number may not refer to the same feature the next time the data are extracted.
	eno	n/a	Yes		Unique Geoscience Australia entity (location) identifier	Must be unique for a feature held in Geoscience Australia databases.
	siteid	mixed	Yes		A user-supplied number or ID for the site	Must be unique to the originator. There may be more than one sample collected from each site
	state	mixed	Yes	A.STATES authority table	State or Territory in which the site is located	
	geogarea	mixed	No		Name of the geographic area (valley, plain, mountain range) where the site is	
	locdesc	mixed	No		Additional information relating to the site's location	
	hmapno	n/a	Yes		An identifier for the 1:100,000 map sheet-area on which the site falls	
	qmapid	upper	Yes		An identifier for the 1:250,000 map sheet-area on which the site falls	
	easting	n/a	Yes		Map grid easting	
	northing	n/a	Yes		Map grid northing	
	utm_zone	n/a	Yes		UTM zone	
	latitude	n/a	Yes	Decimal degrees	Latitude value	
	longitude	n/a	Yes	Decimal degrees	Longitude value	
	datum	upper	Yes		Geographic datum of location values	
	accuracy	n/a	Yes		Estimate of absolute accuracy of the given coordinates in metres on the ground	
	originator	mixed	Yes	A.V_ORIGINATORS authority table	Collector of sample, or organisation the collector is part of	
	sampleno	upper	Yes		Unique sample identifier from Geoscience Australia database	
	sampleid	upper	Yes		Sample ID label (Geoscience Australian number) defined by originator	The number must be unique to the originator
	fieldid	mixed	No		Alternative sample label defined by originator	
	region	mixed	No	PROVS.PROVINCES authority table	Geological region name – Region refers to the two-dimensional representation of geology of an area (vs province which is a three-dimensional representation)	
	province	mixed	No	PROVS.PROVINCES authority table	An extensive region characterized throughout by similar geological history or by similar structural, petrographic, or physiographic features.	
	stratno	n/a	Yes	GEODX.FLATSTRAT authority table	Stratigraphic index number	Must be unique for all rock units across Australia. Non-compulsory for Cainozoic units

	unitname	mixed	No	GEODX.FLATSTRAT authority table	The name of the stratigraphic unit	
	informal	mixed	No		Informal stratigraphic name	
	lith_group	lower	Yes	A.LITHOLOGY_GROUPS authority table	Dominant lithological grouping	
	qualifier	mixed	No	A.LITHOLOGY_TYPES authority table	A qualifying term, if any, before the lithology name field that follows	It is a concatenation of qualifier, qualifier2 and qualifier3 fields in the Geoscience Australia Field Geology database.
	lithname	lower	No	A.LITHOLOGY_TYPES authority table	Lithology name	
	grouping	mixed	No		User-defined classification used to classify suites of rocks from particular regions into classes other than those suggested by other attributes listed	The values entered here are chosen by the originator and have no global significance
	description	mixed	No		Description of the sample's lithology	used for additional descriptive information relating to the lithology beyond other attributes listed
	otherinfo	mixed	No		Any other information that the originator may feel is relevant	
	modeocc	lower	No	OEMD "occurrence mode" authority table	Mode of occurrence of the sample (xenolith, dyke, sill, pipe)	
	analytype	mixed	Yes		Analysis type	
	com_stat	upper	Yes	C, A, O	Commercial status of the analyses: Confidential (C), GA only (A); open file (O)	All instances of records where the value is not <i>M</i> must be deleted before the public release
	SiO2	n/a	No		Silica expressed as oxide (wt %)	
	TiO2	n/a	No		Titanium expressed as oxide (wt %)	
	Al2O3	n/a	No		Aluminium expressed as oxide (wt %)	
	Fe2O3tot	n/a	No		Total iron converted to tri-valent ion and expressed as oxide (wt %)	
	Fe2O3	n/a	No		Iron 3+ expressed as oxide (wt %)	
	FeO	n/a	No		Iron 2+ expressed as oxide (wt %)	
	MnO	n/a	No		Manganese expressed as oxide (wt %)	
	MgO	n/a	No		Magnesium expressed as oxide (wt %)	
	CaO	n/a	No		Calcium expressed as oxide (wt %)	
	Na2O	n/a	No		Sodium expressed as oxide (wt %)	
	K2O	n/a	No		Potassium expressed as oxide (wt %)	
	P2O5	n/a	No		Phosphorus expressed as oxide (wt %)	
	H2Oplus	n/a	No		Water plus (wt %)	
	H2Omin	n/a	No		Water minus (wt %)	
	CO2	n/a	No		Carbon dioxide (wt %)	
	loi	n/a	No		Loss on ignition - total volatiles in the rock (wt %)	
	rest	n/a	No		Total value of all trace elements converted to oxides (wt %)	Value is calculated by ROCKCHEM database
	total	n/a			Total sum of all oxides including rest (wt %)	
	Ag	n/a	No		Silver (ppm)	Negative values indicate levels below detection limits e.g. -1 for below 1 ppm
	As	n/a	No		Arsenic (ppm)	
	Au	n/a	No		Gold (ppb)	
	B	n/a	No		Boron (ppm)	
	Ba	n/a	No		Barium (ppm)	
	Be	n/a	No		Beryllium (ppm)	
	Bi	n/a	No		Bismuth (ppm)	
	Cd	n/a	No		Cadmium (ppm)	
	Ce	n/a	No		Cerium (ppm)	

Cl	n/a	No		Chlorine (ppm)	
Co	n/a	No		Cobalt (ppm)	
Cr	n/a	No		Chromium (ppm)	
Cs	n/a	No		Caesium (ppm)	
Cu	n/a	No		Copper (ppm)	
Dy	n/a	No		Dysprosium (ppm)	
Er	n/a	No		Erbium (ppm)	
Eu	n/a	No		Europium (ppm)	
F	n/a	No		Fluorine (ppm)	
Ga	n/a	No		Gallium (ppm)	
Gd	n/a	No		Germanium (ppm)	
Ge	n/a	No		Gadolinium (ppm)	
Hf	n/a	No		Hafnium (ppm)	
Hg	n/a	No		Mercury (ppm)	
Ho	n/a	No		Holmium (ppm)	
In	n/a	No		Indium (ppm)	
Ir	n/a	No		Iridium (ppb)	
La	n/a	No		Lanthanum (ppm)	
Li	n/a	No		Lithium (ppm)	
Lu	n/a	No		Lutetium (ppm)	
Mo	n/a	No		Molybdenum (ppm)	
Nb	n/a	No		Niobium (ppm)	
Nd	n/a	No		Neodymium (ppm)	
Ni	n/a	No		Nickel (ppm)	
Os	n/a	No		Osmium (ppb)	
P	n/a	No		Phosphorus (ppm)	
Pb	n/a	No		Lead (ppm)	
Pd	n/a	No		Palladium (ppb)	
Pr	n/a	No		Praseodymium (ppm)	
Pt	n/a	No		Platinum (ppb)	
Rh	n/a	No		Rhenium (ppb)	
Ru	n/a	No		Ruthenium (ppb)	
Rb	n/a	No		Rubidium (ppm)	
S	n/a	No		Sulphur (ppm)	
Sb	n/a	No		Antimony (ppm)	
Sc	n/a	No		Scandium (ppm)	
Se	n/a	No		Selenium (ppm)	
Sm	n/a	No		Samarium (ppm)	
Sn	n/a	No		Tin (ppm)	
Sr	n/a	No		Strontium (ppm)	
Ta	n/a	No		Tantalum (ppm)	
Tb	n/a	No		Terbium (ppm)	
Te	n/a	No		Tellurium (ppm)	
Th	n/a	No		Thorium (ppm)	
Tl	n/a	No		Thallium (ppm)	
Tm	n/a	No		Thulium (ppm)	
U	n/a	No		Uranium (ppm)	
V	n/a	No		Vanadium (ppm)	
W	n/a	No		Tungsten (ppm)	
Y	n/a	No		Yttrium (ppm)	

	Yb	n/a	No		Ytterbium (ppm)	
	Zn	n/a	No		Zinc (ppm)	
	Zr	n/a	No		Zirconium (ppm)	

SHRIMP dating – SHRIMP Last_updated: 15/06/2007

Name SHRIMP
Description Locations of samples with lithological information and SHRIMP analysis results.
Type Comma separated values (csv)

Object	Field Name	Case	Compulsory	Valid Values	Description of Field	Rules
Point	eno	n/a	Yes		Unique Geoscience Australia entity (location) identifier	Must be unique for a feature held in Geoscience Australia databases.
	siteid	mixed	Yes		A user-supplied number or ID for the site	Must be unique to the originator. There may be more than one sample collected from each site
	state	mixed	Yes	A.STATES authority table	State or Territory in which the site is located	
	geogarea	mixed	No		Name of the geographic area (valley, plain, mountain range) where the site is	
	locdesc	mixed	No		Additional information relating to the site's location	
	hmapno	n/a	Yes		An identifier for the 1:100,000 map sheet-area on which the site falls	
	qmapid	upper	Yes		An identifier for the 1:250,000 map sheet-area on which the site falls	
	easting	n/a	Yes		Map grid easting	
	northing	n/a	Yes		Map grid northing	
	latitude	n/a	Yes	Decimal degrees	Latitude value	
	longitude	n/a	Yes	Decimal degrees	Longitude value	
	datum	upper	Yes		Geographic datum of location values	
	accuracy	n/a	Yes		Estimate of absolute accuracy of the given coordinates in metres on the ground	
	originator	mixed	Yes	A.V_ORIGINATORS authority table	Collector of sample, or organisation the collector is part of	
	sampleno	upper	Yes		Unique sample identifier from Geoscience Australia database	
	sampleid	upper	Yes		Sample ID label (Geoscience Australian number) defined by originator	The number must be unique to the originator
	fieldid	mixed	No		Alternative sample label defined by originator	
	region	mixed	No	PROVS.PROVINCES authority table	Geological region name – Region refers to the two-dimensional representation of geology of an area (vs province which is a three-dimensional representation)	
	province	mixed	No	PROVS.PROVINCES authority table	An extensive region characterized throughout by similar geological history or by similar structural, petrographic, or physiographic features.	
	stratno	n/a	Yes	GEODX.FLATSTRAT authority table	Stratigraphic index number	Must be unique for all rock units across Australia. Non-compulsory for Cainozoic units
	unitname	mixed	No	GEODX.FLATSTRAT authority table	The name of the stratigraphic unit	
	informal	mixed	No		Informal stratigraphic name	
	lith_group	lower	Yes	A.LITHOLOGY_GROUPS authority table	Dominant lithological grouping	
	qualifier	mixed	No	A.LITHOLOGY_TYPES authority table	A qualifying term, if any, before the lithology name field that follows	It is a concatenation of qualifier, qualifier2 and qualifier3 fields in the Geoscience Australia Field Geology database.
	lithname	lower	No	A.LITHOLOGY_TYPES	Lithology name	

				authority table		
	grouping	mixed	No		User-defined classification used to classify suites of rocks from particular regions into classes other than those suggested by other attributes listed	The values entered here are chosen by the originator and have no global significance
	description	mixed	No		Description of the sample's lithology	used for additional descriptive information relating to the lithology beyond other attributes listed
	otherinfo	mixed	No		Any other information that the originator may feel is relevant	
	modeocc	lower	No	OEMD "occurrence mode" authority table	Mode of occurrence of the sample (xenolith, dyke, sill, pipe)	
	geochronologist	mixed	No		The party responsible for analysing the specimens and deriving the age.	
	mineral	lower	No		The mineral in the sample analysed to obtain an age of a geological event, e.g. 'zircon', 'monazite'.	
	comments	mixed	No		Free-text optional comment about the age, typically included by the responsible geochronologist.	
	no_of_analyses	n/a	No		Number of individual analyses that have been grouped to derive the age.	
	agetype	mixed	No		Isotopic method used for calculating age	
	mean_type	n/a	No		The statistical method used for calculating the age, e.g. 'average', 'weighted mean', 'concordia age'	
	isotopic_event	n/a	No		The interpretation of the isotopic event represented by the age, e.g. "crystallisation", "Pb-loss"	
	geologic_event	n/a	No		The interpretation of the geological event represented by the age, e.g. "magmatic intrusion", "metamorphism"	
	age	n/a	No		The derived absolute age in Ma of the analysed specimen.	
	error	n/a	No		The statistical uncertainty associated with the derived absolute age.	

Sm-Nd dating - SMND Last_updated: xx/xx/xxxx

Name SMND
Description Pooled age information derived from the combined results of multiple analyses at a site. Data from the SMND_AGES table.
Type Point coverage
Linked table SMND.LUT

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Sm-Nd analysis	SMND	Results of Sm-Nd dating analysis	feature, ufi, siteno, sampleid, recno, feat_code, descript, age, std_deva, init_ratio, std_devi, epsilon, std_dev2, mswd, comments, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	SMND	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	siteno	7,7,I	upper	Yes		Unique site identifier from the OZROX database. Link to SITES coverage	
	sampleid	16,16,C	upper	Yes		The ID of the rock sample. Link to ROCKS coverage	Must be unique to the originator
	recno	6,6,I	n/a	Yes		Unique number from SMND database. Link to SMND.LUT	
	feat_code	8,8,I	n/a	Yes		An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	age	7,7,N,2	n/a	No		The pooled isochron age (if applicable) expressed in Ma	
	std_deva	7,7,N,2	n/a	No		Age error envelope at the 95% confidence level	
	init_ratio	8,8,N,6	n/a	No		Extrapolated intercept of the isochron on the ¹⁴³ Nd/ ¹⁴⁴ Nd axis, or a calculated value based on the measured or estimated geological age	
	std_devi	8,8,N,6	n/a	No		The initial ratio error envelope at the 95% confidence level	
	epsilon	5,5,N,1	n/a	No		Initial εNd value at the assigned geological age	
	std_dev2	4,4,N,1	n/a	No		The epsilon error envelope at the 95% confidence level	
	mswd	7,7,N,2	n/a	No		Mean square of weighted deviates	
	comments	240,240,C	mixed	No		Any additional information	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

Name SMND.LUT

Description Individual Sm-Nd isotope analyses. Note: Samples analysed only for ϵ Nd do not have pooled age data, but are still linked to the SMND coverage through the RECNO field. Data from the SM_ND table

Type Lookup table

Linked theme SMND coverage

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Table	recno	6,6,I	n/a	Yes		Unique number from the SMND database. Link to SMND.PAT	
	geol_age	7,7,N,2	n/a	Yes		Estimated age in Ma of sample used for ϵ Nd calculation. Determined from other dating methods or inferred from geological information	
	epsn_nd	9,9,N,3	n/a	Yes		Initial ϵ Nd value at the assigned geological age	
	mineral	16,16,C	mixed	No		Name of the mineral separated and analysed or "whole rock"	
	sm147nd144	9,9,N,5	n/a	No		Isotope ratio $^{147}\text{Sm}/^{144}\text{Nd}$	
	nd143nd144	10,10,N,6	n/a	No		Isotope ratio $^{143}\text{Nd}/^{144}\text{Nd}$	
	tdm	4,4,I	n/a	No		The depleted mantle (DM) model age	
	comments	240,240,C	mixed	No		Any additional information	

Rb-Sr dating - RBSR Last_updated: xx/xx/xxxx

Name RBSR

Description Pooled age information derived from the combined results of multiple analyses at a site. Data from the RBSR_AGES and RB_SR tables.

Type Point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Point	Rb-Sr analysis	RBSR	Results of Rb-Sr dating analysis	feature, ufi, siteno, sampleid, recno, feat_code, descript, age, std_deva, init_ratio, std_devi, mswd, comments, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	RBSR	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	siteno	7,7,I	n/a	Yes		Unique site identifier from the OZROX database. Link to SITES coverage	
	sampleid	16,16,C	mixed	Yes		The ID of the rock sample. Link to ROCKS coverage	Must be unique to the originator
	recno	6,6,I	n/a	Yes		Unique number from RBSR database	
	feat_code	8,8,I	n/a	Yes		An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	age	7,7,N,2	n/a	Yes		The Rb-Sr isochron or model age expressed in Ma	
	std_deva	7,7,N,2	n/a	Yes		Error in age at the 95% confidence level in Ma	
	init_ratio	8,8,N,6	n/a	Yes		The isochron's intercept on the $^{87}\text{Sr}/^{86}\text{Sr}$ axis	
	std_devi	7,7,N,2	n/a	Yes		Error in initial $^{87}\text{Sr}/^{86}\text{Sr}$ at the 95% confidence level	
	mswd	7,7,N,2	n/a	No		Mean square of weighted deviates	
	comments	240,240,C	mixed	No		Additional information or a commentary on the geological significance of the age result	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	

U-Pb dating – UPB Last_updated: xx/xx/xxxx

Name UPB

Description Pooled age information derived from the combined results of multiple analyses at a site. Data from the UPB_AGES and U_PB tables.

Type Point coverage

Object	Feature Class	Feature	Feature Definition	Attributes
Point	U-Pb analysis	UPB	Results of the U-Pb dating analysis	feature, ufi, siteno, sampleid, recno, feat_code, descript, age, std_deva, li_age, std_devi, mswd, comments, plotrank

Object	Field Name	Attribute Type	Case	Compulsory	Valid Values	Description of Field	Rules
Point	feature	12,12,C	upper	Yes	UPB	Feature type	
	ufi	6,6,I	n/a	Yes	A positive integer less than 1 million	Unique feature identifier (ufi)	Must be unique for a feature type in a coverage. Populated by calculating it equal to RECNO when the coverage is complete
	siteno	7,7,I	n/a	Yes		Unique site identifier from the OZROX database. Link to SITES coverage	
	sampleid	16,16,C	mixed	Yes		The ID of the rock sample. Link to ROCKS coverage	Must be unique to the originator
	recno	6,6,I	n/a	Yes		Unique number from UPB database	
	feat_code	8,8,I	n/a	Yes		An identification code assigned to the feature	
	descript	100,100,C	mixed	Yes	FEATCODE authority table	A description of the feature	
	age	7,7,N,2	n/a	Yes		Pooled age expressed in Ma	
	std_deva	7,7,N,2	n/a	Yes		Error in age at the 95% confidence level in Ma	
	li_age	7,7,N,2	n/a	Yes		Age in Ma indicating the time of Pb-loss allowed for in the simplest model	
	std_devi	7,7,N,2	n/a	Yes		Error at the 95% confidence level in Ma	
	mswd	7,7,N,2	n/a	No		Mean square of weighted deviates	
	comments	240,240,C	mixed	No		Additional information or a commentary on the geological significance of the age result	
	plotrank	1,1,I	n/a	Yes	1, 2	A field used to discriminate plotting (1) from non-plotting (2) features	