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GEOLOGIC MAP AND DIGITAL DATABASE OF THE REDLANDS 7.5'
QUADRANGLE, SAN BERNARDINO AND RIVERSIDE COUNTIES,
CALIFORNIA, v. 1.0

Codes for geologic attributes in database

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This database, identified as "Geologic map and digital database of the Redlands 7.5' quadrangle, San Bernardino and Riverside Counties, California, version 1.0" has been approved for release and publication by the Director of the USGS. Although this database has been reviewed and is substantially complete, the USGS reserves the right to revise the data pursuant to further analysis and review. This database is released on condition that neither the USGS nor the U.S. Government may be held liable for any damages resulting from its use.

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[This listing of database codes for geologic attributes accompanies the geologic map and digital database of the Redlands 7.5' quadrangle, San Bernardino and Riverside Counties, California, version 1.0]

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1 CODES FOR GEOLOGIC ATTRIBUTES

By applying the various query strategies available in the GIS environment along with the judicious use of additional INFO tables provided, the user should be able to search the Redlands database for information like the following:

- Select all surficial deposits (as distinct from bedrock deposits);
- Find all geologic contacts that are located well enough to meet the map-accuracy standard (as distinct from those that may not meet the standard);
- Select the San Jacinto Fault;
- Find all late Holocene faults in the Redlands quadrangle (as distinct from older faults);
- Select all landslide deposits, then re-select for very young deposits (as distinct from older deposits);
- Show all polygons of San Timoteo beds where bedding dips to the northwest and northeast;
- Select all alluvial deposits that are dominated by sand and silt (as distinct from those dominated by cobbles and boulders);
- Find all faults that are located well enough to meet the map-accuracy standard (as distinct from those that may not meet the standard);
- Find all sedimentary-bedding orientations that were compiled from sources other than the authors of the Redlands database;
- Find all sedimentary bedding and foliation orientations that dip greater than 45° in a northwest direction.

At first glance, geologic information stored in the Redlands database may appear difficult to access because:

- some information is stored in the .pat and .aat files
- other information is stored in various INFO tables
- the data are stored as parsed code rather than as whole words

The following dictionary provides plain-word definitions for coded abbreviations in the Redlands geologic-map database. The definitions are presented in two ways:

- As [alphabetized geologic attributes](#) grouped according to where they are stored in the database (lines, points, and polygons)
- As [alphabetized code lists](#) of geologic attributes

For a complete discussion of how the geologic attributes are stored in the database and how their codes can be translated for use in geologic analysis, see Matti and others (1997a, b, c).

1.1 Alphabetized by Geologic Attribute

1.1.1 Geologic Features Represented by Lines

1.1.1.1 Line attributes stored in **red_geo.aat**

1.1.1.1.1 Line attributes in Items **L-AGEMIN** and **L-AGEMAX**

geologic age, Cenozoic = .CZO
geologic age, Cenozoic, Quaternary = .CZOQ
geologic age, Cenozoic, Quaternary, Holocene = .CZOQH
geologic age, Cenozoic, Quaternary, Modern = .CZOQHD
geologic age, Cenozoic, Quaternary, Holocene, late = .CZOQHL
geologic age, Cenozoic, Quaternary, Pleistocene = .CZOQP
geologic age, Cenozoic, Quaternary, Pleistocene, late = .CZOQPL
geologic age, Cenozoic, Quaternary, Pleistocene, middle = .CZOQPM

geologic age, Cenozoic, Tertiary = .CZOT
geologic age, Cenozoic, Tertiary, Miocene = .CZOTM
geologic age, Cenozoic, Tertiary, Miocene, late = .CZOTML
geologic age, Cenozoic, Tertiary, Neogene = -NGN-

1.1.1.1.2 Line attributes in Item **L-AGECON**

geologic age assignment based on geomorphic development = .GMD
geologic age assignment based on geomorphic development, age is certain = .GMDC
geologic age assignment based on pedogenic-soil development = .SOD
geologic age assignment based on pedogenic-soil development, age is certain = .SODC
geologic age assignment based on regional correlation = .RCO
geologic age assignment based on regional correlation, age is certain = .RCOC
geologic age assignment based on stratigraphic relations = .SRL
geologic age assignment based on stratigraphic relations, age is certain = .SRLC

1.1.1.1.3 Line attributes in Item **L-NAME** (named faults as whole words)

Banning Fault
Crafton Hills Fault Zone
Loma Linda Fault
Redlands Fault
Reservoir Canyon Fault
San Andreas Fault, San Bernardino Strand
San Andreas Fault, Mission Creek Strand
Live Oak Canyon Fault Zone

1.1.1.2 Line attributes stored in **L-DEF** of data table **lines.rel**

cartographic line, map boundary = .CLNB

fault = .FLT
fault geometry, high angle = .FLTH
fault geometry, low angle = .FLTL
fault scarp = .FSC
fault scarp, identity questionable, probable = .PRO
fault, existence certain = .EXC
fault, existence questionable = .EXQ

fault-slip style, line has information about = .SLP
fault-slip style normal slip = .SLPN
fault-slip style normal slip, normal fault = .SLPNN
fault-slip style, reverse slip = .SLPR
fault-slip style, reverse slip, reverse fault = .SLPRR
fault-slip style, strike slip = .SLPS
fault-slip style, strike slip, right lateral strike slip fault = .SLPSR
fault-slip style unspecified = .SLPU
fault-slip style unspecified, generic fault = .SLPUG
fault-slip style unspecified, low-angle fault = SLPUL

fault-wall relations, line has information about = .WRL
fault-wall relations, unspecified = .WRLU

geologic contact = .CON
geologic contact, igneous = .CONI
geologic contact, landslide = .CONL
geologic contact, landslide crown scarp = .CRW
geologic contact, scratch = .CONK

geologic contact, scratch, sedimentary = .CONK
geologic contact, sedimentary = .CONS
geologic contact, sedimentary, separating terraced alluvial units = .CONST
geologic contact, boundary is discrete = .DIS

line identity certain = .IDC
line identity questionable = .IDQ

line position inferred = .INF
line position inferred beneath mapped covering unit = .INFM
line position may not meet map accuracy standard = .MNM
line position meets map accuracy standard = .MEE
line position observable = .OBS

line position located well but rarely meets map accuracy standard = .LOW

miscellaneous line = .MSC
miscellaneous line, line of transect = .TRN
miscellaneous line, line of transect, seismic transect = .TRNS
miscellaneous line, line of transect, magnetic transect = .TRNM

1.1.2 Geologic Features Represented by Points

1.1.2.1 Quantitative-point attributes stored in of data table “**points.rel**”

bedding orientation = .BED

bedding orientation, sedimentary = .BEDS

fault attribute = .PAF

fault attribute, fault-dip direction = .PAFD

foliation orientation = .FOL

foliation orientation, igneous = .FOLI

foliation orientation, igneous, igneous-flow origin = .FLW

foliation orientation, origin not determined = .FOLN

foliation orientation, strain-dominated origin = .FOLS

geologic information generated by database authors = .ORG

orientation of planar or linear element, inclined = .INC

orientation of planar or linear element, inclined, bedding = .INCB

orientation of planar or linear element, inclined, foliation = .INCF

orientation of planar or linear element, vertical = .VER

orientation of planar or linear element, vertical, bedding = .VERB

orientation of planar or linear element, vertical, foliation = .VERF

strike-and-dip direction, information about how determined = .SDP

strike-and-dip direction, approximated = .SDPA

strike-and-dip direction, approximated, indicated but not measured = .SDPAI

strike-and-dip direction, measured at site = .SDPM

1.1.2.2 Non-quantitative point attributes stored in data table “**points.rel**”

fault attribute, bar and ball on down-dropped fault block = .PAFB

fault attribute, strike-slip arrows, right-lateral = .PAFSR.

observation station = .OST

observation station, lithologic description = .OSTL

observation station, subsurface boring site = .OSTB

observation station, soil-profile information = .OSTS

observation station, soil-profile information, profile described = .OSTSD

1.1.3 Attributes for Geologic-Map Units (Polygons)

Geologic attributes for polygons (map units) are stored in the following data fields of the INFO data table **red_summ.rel**:

AGEMIN

AGEMAX

AGECON

TYPE

CLASS

SURFACE

ORIGIN

1.1.3.1 Polygon attributes in **red_summ.rel** fields “**AGEMIN**” and “**AGEMAX**”

age of metamorphism, polygon contains information about = .AMM

age of metamorphism known = .AMMK

age of metamorphism known, likely but not certain = .AMMKL

age of metamorphism Mesozoic = .MMZO

age of metamorphism Mesozoic, Cretaceous = .MMZOK

age of metamorphism Mesozoic, Cretaceous, late = .MMZOKL

deformation age, polygon contains information about = .ADF

deformation age known = .ADFK

deformation age known, penetrative deformation = .ADFKP

deformation age known, penetrative deformation, age likely but not certain = .ADFKPL

deformation age, Mesozoic = .DMZO

deformation age, Mesozoic, Cretaceous = .DMZOK

deformation age, Mesozoic, Cretaceous, late = .DMZOKL

geologic age, Cenozoic = .CZO

geologic age, Cenozoic, Quaternary = .CZOQ

geologic age, Cenozoic, Quaternary, Holocene = .CZOQH

geologic age, Cenozoic, Quaternary, Holocene, early = .CZOQHE

geologic age, Cenozoic, Quaternary, Holocene, late = .CZOQHL

geologic age, Cenozoic, Quaternary, Holocene, middle = .CZOQHM

geologic age, Cenozoic, Quaternary, Holocene, Modern = .CZOQHD

geologic age, Cenozoic, Quaternary, Pleistocene = .CZOQP

geologic age, Cenozoic, Quaternary, Pleistocene, early = .CZOQPE

geologic age, Cenozoic, Quaternary, Pleistocene, late = .CZOQPL

geologic age, Cenozoic, Quaternary, Pleistocene, middle = .CZOQPM

geologic age, Cenozoic, Tertiary = .CZOT

geologic age, Cenozoic, Tertiary, Neogene = -NGN-

geologic age, Cenozoic, Tertiary, Pliocene, early = .CZOTPE

geologic age, Cenozoic, Tertiary, Pliocene, late = .CZOTPL

geologic age, Mesozoic = .MZO

geologic age, Mesozoic, Cretaceous = .MZOK

geologic age, Mesozoic, Cretaceous, late = .MZOKL

geologic age, Mesozoic, Triassic = .MZOT

geologic age, Paleozoic = .PZO

geologic age, Precambrian = .PRC

geologic age, Precambrian, Proterozoic = .PRCP

geologic-age subdivision, land-mammal age, polygon contains information about = .LMA

geologic-age subdivision, land-mammal age, Blancan = .LMAB

geologic-age subdivision, land-mammal age, Irvingtonian = .LMAI

1.1.3.2 Polygon attributes in **red_summ.rel** field “**AGECON**”

age based on fossils, age certain = .FSLC

age based on geomorphic development = .GMD

age based on geomorphic development, age certain = .GMDC

age based on geomorphic development, age uncertain = .GMDU

age based on intrusive relations = .INR

age based on intrusive relations, age certain = .INRC

age based on intrusive relations, age uncertain = .INRU

age based on paleomagnetism = .PMG

age based on paleomagnetism, age certain = .PMGC

age based on pedogenic-soil development = .SOD

age based on pedogenic-soil development, age certain = .SODC

age based on pedogenic-soil development, age uncertain = .SODU

age based on regional correlation = .RCO

age based on regional correlation, age certain = .RCOC

age based on regional correlation, age uncertain = .RCOU

1.1.3.3 Polygon attributes in **red_summ.rel** field “**TYPE**”

bedrock = .BRK

clast composition in sedimentary unit, polygon contains information about = .CCO

clast composition in sedimentary unit, clast provenance, polygon contains information about = .CCOA

clast composition in sedimentary unit, clast provenance, Transverse Ranges = .CCOAT

clast composition in sedimentary unit, clast provenance, Transverse Ranges, San Bernardino Mts
type = .CCOATB

clast composition in sedimentary unit, clast provenance, Transverse Ranges, San Gabriel Mts type =
.CCOATG

clast composition in sedimentary unit, clast provenance, Transverse Ranges, San Gabriel Mts type,
Pelona-type schist = .CCOATGP

clast composition in sedimentary unit, clasts of recognizable map unit = .CCOU

clast composition in sedimentary unit, clasts of recognizable map unit, Keller Peak granodiorite =
.CCOUK

clast composition in sedimentary unit, clasts of recognizable map unit, Pelona-type schist = .CCOUP

clast composition in sedimentary unit, clasts of recognizable map unit, Pelona-type schist, greenstone
= .CCOUP E

clast composition in sedimentary unit, clasts of recognizable map unit, Pelona-type schist, grayschist
= .CCOUPS

clast composition in sedimentary unit, clasts of recognizable map unit, Triassic megaporphyry =
.CCOUT

clast composition in sedimentary unit, clasts of recognizable map unit, Wildhorse quartzite =
.CCOUW

clast composition in sedimentary unit, igneous = .CCOI

clast composition in sedimentary unit, igneous, plutonic = .CCOIP

clast composition in sedimentary unit, igneous, plutonic, granitic = .CCOIPG

clast composition in sedimentary unit, igneous, plutonic, granitic, granodioritic = .CCOIPGG

clast composition in sedimentary unit, igneous, plutonic, granitic, monzogranitic = .CCOIPGM

clast composition in sedimentary unit, metamorphic = .CCOM

clast composition in sedimentary unit, metamorphic, gneiss = .CCOMG

clast composition in sedimentary unit, metamorphic, metaquartzite = .CCOMSQ

igneous rock, granitic composition = .GRN
igneous rock, granitic composition, heterogeneous = .GRNH
igneous rock (deformed) = .IGND
igneous rock, granitic composition, (deformed) = .GRND
igneous rock, granitic composition, quartz-deficient = .GRNQD
igneous rock, granitic composition, quartz-rich (deformed) = .GRNQRD
igneous rock, granitic composition, quartz-rich = .GRNQD
igneous rock, granodiorite (deformed) = .GDRD
igneous rock, granodiorite = .GDR
igneous rock, intrusive (deformed) = .IGNID
igneous rock, intrusive, plutonic body (deformed) = .IGNIPD
igneous rock, intrusive, plutonic body, pluton (deformed) = .IGNIPPD
igneous rock, intrusive, plutonic body, pluton = .IGNIPP
igneous rock, intrusive, plutonic body = .IGNIP
igneous rock, monzogranite (deformed) = .MGRD
igneous rock, monzogranite = .MGR
igneous rock, tonalite = .TON

metamorphic rock = .MET
metamorphic rock, generic, gneiss = .MMGG
metamorphic rock, origin, regional dynamothermal = .METR
metamorphic rock, origin, strain dominant = .METS

provincial affinity, polygon contains information about = .PAF
provincial affinity, rock has affinities with Mojave Desert = .PAFM
provincial affinity, rock has affinities with Mojave Desert, Little San Bernardino Mts = .PAFML
provincial affinity, rock has affinities with Peninsular Ranges = .PAFP
provincial affinity, rock has affinities with San Gabriel Mountains = .PAFG

sedimentary rock = .SED
sedimentary rock, siliciclastic = .SEDS
sedimentary rock, grainrock = .GRK
sedimentary rock, grainrock, conglomerate = .GRKC
sedimentary rock, grainrock, sandstone = .GRKSS
sedimentary rock, grainrock, sandstone, conglomeratic = .GRKSSC
sedimentary rock, grainrock, various types occur in map unit = .GRKV
sedimentary rock, grainrock, siltstone = .GRKML
sedimentary rock, mudrock, claystone = .MRKCL

strain-dominated rock = .SDR
strain-dominated rock, high-strain = .SDRH
strain-dominated rock, high-strain, foliated = .SDRHF
strain-dominated rock, high-strain, gneissose = .SDRHG

surficial deposit = .SUR
surficial deposit, alluvial = .SURA
surficial deposit, alluvial, alluvial-valley = .SURAA
surficial deposit, alluvial, alluvial-fan = .SURAF
surficial deposit, alluvial, very young wash = .SURAW
surficial deposit, alluvial, very young wash, active = .SURAWA
surficial deposit, slope-failure, landslide = .SURSL
surficial deposit, slope-failure = .SURS
surficial deposit, unspecified = .SURU
surficial deposit, weathered or modified parent material = .SURW
surficial deposit, weathered or modified parent material, pedogenic soil = .SURWP

surficial deposit, gravel = .GVL

surficial deposit, gravel, boulder gravel = .GVLB
surficial deposit, sand & gravel, gravel dominant over sand = .SGDGD
surficial deposit, sand & gravel, gravel = .SGDG
surficial deposit, sand & gravel, sand and gravel subequal = .SGDQ
surficial deposit, sand & gravel, sand dominant over gravel = .SGDSD
surficial deposit, sand & gravel, sand = .SGDS
surficial deposit, sand & gravel = .SGD
surficial deposit, silty = .SLT

1.1.3.4 Polygon attributes in **red_summ.rel** field “**CLASS**”

classification of map unit, polygon contains information about = .RSC

classification of map unit, bedrock = .RSCB
classification of map unit, bedrock, informal = .RSCBI
classification of map unit, bedrock, informal, formation rank = .RSCBIF
classification of map unit, bedrock, informal, formation rank, metamorphic = .RSCBIFM
classification of map unit, bedrock, informal, formation rank, plutonic = .RSCBIFP
classification of map unit, bedrock, informal, formation rank, sedimentary = .RSCBIFS
classification of map unit, bedrock, informal, formation rank, sedimentary, member of = .RSCBIFSM

classification of map unit, surficial = .RSCS
classification of map unit, surficial, informal = .RSCSI
classification of map unit, surficial, informal, alluvial unit = .RSCSIA
classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit = .RSCSIAF
classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit, very young =
.RSCSIAFM
classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit, old = .RSCSIAFO
classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit, very old = .RSCSIAFV
classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit, young = .RSCSIAFY
classification of map unit, surficial, informal, alluvial unit, alluvial-valley deposit = .RSCSIAV
classification of map unit, surficial, informal, alluvial unit, alluvial-valley deposit, very young =
.RSCSIAVM
classification of map unit, surficial, informal, alluvial unit, alluvial-valley deposit, very old = .RSCSIAVV
classification of map unit, surficial, informal, alluvial unit, alluvial-valley deposit, young = .RSCSIAVY

classification of map unit, surficial, informal, alluvial unit, wash deposit = .RSCSIAW
classification of map unit, surficial, informal, alluvial unit, wash deposit, very young = .RSCSIAWM
classification of map unit, surficial, informal, alluvial unit, wash deposit, very young, active
intermittently = .RSCSIAWMI
classification of map unit, surficial, informal, alluvial unit, wash deposit, very young, older =
.RSCSIAWMO

classification of map unit, surficial, informal, slope-failure unit = .RSCSIS
classification of map unit, surficial, informal, slope-failure unit, very young = .RSCSISM
classification of map unit, surficial, informal, slope-failure deposit, old = .RSCSISO
classification of map unit, surficial, informal, slope-failure deposit, young = .RSCSISY

classification of map unit, surficial, informal, undifferentiated deposit = .RSCSIU
classification of map unit, surficial, informal, undifferentiated deposit, very old = .RSCSIUV
classification of map unit, surficial, regolith or pedogenic-soil deposit = .RSCSIR
classification of map unit, surficial, regolith or pedogenic-soil deposit, very old = .RSCSIRV

1.1.3.5 Polygon attributes in **red_summ.rel** field “**SURFACE**”

soil, surface, polygon contains information about = .SSO
soil, surface, with A horizon (surficial unit capped by) = .SSOAW
soil, surface, with A/C horizon (surficial unit capped by) = .SSOAC

soil, surface, with B horizon, cambic and (or) argillic (surficial unit capped by) = .SSOB
soil, surface, with A/C/Bcambic horizon (surficial unit capped by) = .SSOBC
soil, surface, with Bt horizon (surficial unit capped by) = .SSOBT
soil, surface, with moderate Bt horizon (surficial unit capped by) = .SSOBTM
soil, surface, with strong Bt horizon (surficial unit capped by) = .SSOBTs
soil, surface, degraded (surficial unit capped by) = .SSOD
soil, surface, moderate (surficial unit capped by) = .SSOM
soil, surface, no development (surficial unit capped by) = .SSOX
soil, surface, non-calcic (surficial unit capped by) = .SSONC
soil, surface, strong (surficial unit capped by) = .SSOS
soil, surface, weak (surficial unit capped by) = .SSOW

surficial deposit, surface armor, polygon contains information about = .SAR
surficial deposit, surface armor, no pavement = .SARN

surficial deposit, surface dissection, polygon contains information about = .SDI
surficial deposit, surface dissection, moderate = .SDIM
surficial deposit, surface dissection, moderate to well = .SDIMW
surficial deposit, surface dissection, none to slightly dissected = .SDINS
surficial deposit, surface dissection, none = .SDIN
surficial deposit, surface dissection, slight = .SDIS
surficial deposit, surface dissection, strong = .SDIW

surficial deposit, surface morphology, polygon contains information about = .SMO
surficial deposit, surface morphology largely degraded = .SMOD
surficial deposit, surface morphology largely preserved = .SMOP
surficial deposit, surface morphology largely preserved, anastomosing channels = .SMOPC
surficial deposit, surface morphology largely preserved, bar and swale = .SMOPB
surficial deposit, surface morphology largely preserved, hummocky ground = .SMOPH

surficial deposit, surface varnish, polygon contains information about = .SVR
surficial deposit, surface varnish, none = .SVRN

1.1.3.6 Polygon attributes in **red_summ.rel** field "ORIGIN"

igneous rock = .IGN
igneous rock, intrusive = .IGNI
igneous rock, intrusive, plutonic body = .IGNIP
igneous rock, intrusive, plutonic body, pluton = .IGNIPP
igneous rock, intrusive, plutonic body, pluton (deformed) = .IGNIPPD

metamorphic rock, origin, regional dynamothermal = .METR
metamorphic rock, origin, strain dominant = .METS

rock deformation, polygon contains information about = .DEF
rock deformation, rock deformed during pluton emplacement = .DEFP
rock deformation, rock deformed under high-strain conditions = .DEFH

sedimentary rock, origin, alluvial-plain geographic setting = .ALP
sedimentary rock, origin, basin deposit, transform-type, pull-apart = .BASTP
sedimentary rock, origin, fluvial deposit = .FLU
sedimentary rock, origin, fluvial deposit, alluvial-valley setting = .FLUV
sedimentary rock, origin, fluvial deposit, alluvial-valley setting, low-sinuosity channel = .FLUVL
sedimentary rock, origin, nonmarine = .NMA

strain-dominated rock = .SDR
strain-dominated rock, high-strain = .SDRH

strain-dominated rock, high-strain, foliated = .SDRHF
strain-dominated rock, high-strain, gneissose = .SDRHG

1.2 Alphabetized by Database Code

1.2.1 Alphabetic List of Geologic-Line Codes

-NGN- = geologic age, Cenozoic, Tertiary, Neogene

.CLN = cartographic line
.CLNB = cartographic line, map boundary
.CON = geologic contact
.CONI = geologic contact, igneous
.CONK = geologic contact, scratch
.CONKS = geologic contact, scratch, sedimentary
.CONL = geologic contact, landslide
.CONS = geologic contact, sedimentary
.CONST = geologic contact, sedimentary, separating terraced alluvial units
.CRW = geologic contact, landslide crown scarp
.CZO = geologic age, Cenozoic
.CZOQ = geologic age, Cenozoic, Quaternary
.CZOQH = geologic age, Cenozoic, Quaternary, Holocene
.CZOQHD = geologic age, Cenozoic, Quaternary, Modern
.CZOQHL = geologic age, Cenozoic, Quaternary, Holocene, late
.CZOQPL = geologic age, Cenozoic, Quaternary, Pleistocene, late
.CZOQPM = geologic age, Cenozoic, Quaternary, Pleistocene, middle
.CZOT = geologic age, Tertiary
.CZOTM = geologic age, Tertiary, Miocene
.CZOTML = geologic age, Tertiary, Miocene, late

.DIS = geologic contact, boundary is discrete

.EXC = fault, existence certain
.EXQ = fault, existence questionable

.FFE = fault feature, line has information about
.FFES = fault feature, fault has associated seismicity
.FLT = fault
.FLTH = fault geometry, high angle
.FLTL = fault geometry, low angle
.FSC = fault scarp

.GMD = geologic age assignment based on geomorphic development
.GMDC = geologic age assignment based on geomorphic development, age is certain

.IDC = line identity certain
.IDQ = line identity questionable
.INF = line position inferred
.INFM = line position inferred beneath mapped covering unit

.LOW = line position located well but rarely meets map accuracy standard

.MEE = line position meets map accuracy standard
.MNM = line position may not meet map accuracy standard
.MSC = miscellaneous line
.MZO = geologic age, Mesozoic
.MZOK = geologic age, Mesozoic, Cretaceous

.MZOKL = geologic age, Mesozoic, Cretaceous, late
.OBS = line position observable
.PRO = fault scarp, identity questionable, probable
.RCO = geologic age assignment based on regional correlation
.RCOC = geologic age assignment based on regional correlation, age is certain
.SLP = fault-slip style, line has information about
.SLPN = fault-slip style, normal slip
.SLPNN = fault-slip style normal slip, normal fault
.SLPR = fault-slip style, reverse slip
.SLPRR = fault-slip style, reverse slip, reverse fault
.SLPS = fault-slip style, strike slip
.SLPSR = fault-slip style, strike slip, right lateral strike slip fault
.SLPU = fault-slip style unspecified
.SLPUG = fault-slip style unspecified, generic fault
.SLPUL = fault-slip style unspecified, low-angle fault
.SOD = geologic age assignment based on pedogenic-soil development
.SODC = geologic age assignment based on pedogenic-soil development, age is certain
.SRL = geologic age assignment based on stratigraphic relations
.SRLC = geologic age assignment based on stratigraphic relations, age is certain
.TRN = miscellaneous line, line of transect
.TRNM = miscellaneous line, line of transect, magnetic transect
.TRNS = miscellaneous line, line of transect, seismic transect
.WRL = fault-wall relations, line has information about
.WRLU = fault-wall relations, unspecified

1.2.2 Alphabetic List of Geologic-Point Codes

.BED = Bedding orientation
.BEDS = Bedding orientation, sedimentary
.FLW = foliation orientation, igneous, igneous-flow origin
.FOL = foliation orientation
.FOLI = foliation orientation, igneous
.FOLN = foliation orientation, origin not determined
.FOLS = foliation orientation, strain-dominated origin
.INC = orientation of planar or linear element, inclined
.INCB = orientation of planar or linear element, inclined, bedding
.INCF = orientation of planar or linear element, inclined, foliation
.ORG = geologic information generated by database authors
.OST = observation station
.OSTB = observation station, subsurface boring site
.OSTL = observation station, lithologic description
.OSTS = observation station, soil-profile information
.OSTSD = observation station, soil-profile information, profile described
.PAF = fault attribute
.PAFB = fault attribute, bar and ball on down-dropped fault block
.PAFD = fault attribute, fault-dip direction
.PAFSR. = fault attribute, strike-slip arrows, right-lateral

- .SDP = strike-and-dip direction, information about how determined
- .SDPA = strike-and-dip direction, approximated
- .SDPAI = strike-and-dip direction, approximated, indicated but not measured
- .SDPM = strike-and-dip direction, measured at site

- .VER = orientation of planar or linear element, vertical
- .VERB = orientation of planar or linear element, vertical, bedding
- .VERF = orientation of planar or linear element, vertical, foliation

1.2.3 Alphabetic List of Geologic-Polygon Codes

- NGN- = geologic age, Cenozoic, Tertiary, Neogene

- .ADFKPL = deformation age known, penetrative deformation, age likely but not certain
- .ALP = sedimentary origin, alluvial-plain geographic setting
- .AMMKL = age of metamorphism known, likely but not certain

- .BASTP = sedimentary rock, origin, basin deposit, transform-type, pull-apart
- .BRK = bedrock

- .CCO = clast composition in sedimentary unit, polygon contains information about
- .CCOA = clast composition in sedimentary unit, clast provenance, polygon contains information about
- .CCOAT = clast composition in sedimentary unit, clast provenance, Transverse Ranges
- .CCOATB = clast composition in sedimentary unit, clast provenance, Transverse Ranges, San Bernardino Mts type
- .CCOATG = clast composition in sedimentary unit, clast provenance, Transverse Ranges, San Gabriel Mts type
- .CCOATGP = clast composition in sedimentary unit, clast provenance, Transverse Ranges, San Gabriel Mts type, Pelona-type schist
- .CCOI = clast composition in sedimentary unit, igneous
- .CCOIP = clast composition in sedimentary unit, igneous, plutonic
- .CCOIPG = clast composition in sedimentary unit, igneous, plutonic, granitic
- .CCOIPGG = clast composition, plutonic rock fragments, granitic, granodioritic
- .CCOIPGM = clast composition, plutonic rock fragments, granitic, monzogranitic
- .CCOM = clast composition in sedimentary unit, metamorphic
- .CCOMG = clast composition in sedimentary unit, metamorphic, gneiss
- .CCOMSQ = clast composition in sedimentary unit, metamorphic, metaquartzite
- .CCOUK = sedimentary unit has clasts of Keller Peak granodiorite
- .CCOUP = clast composition in sedimentary unit, clasts of recognizable map unit, Pelona-type schist, greenstone
- .CCOUPS = clast composition in sedimentary unit, clasts of recognizable map unit, Pelona-type schist, grayschist
- .CCOUT = clast composition in sedimentary unit, clasts of recognizable map unit, Triassic megaporphyry
- .CCOUW = sedimentary unit has clasts of Wildhorse quartzite
- .CZO = geologic age, Cenozoic
- .CZOQ = geologic age, Cenozoic, Quaternary
- .CZOQH = geologic age, Cenozoic, Quaternary, Holocene
- .CZOQHD = geologic age, Cenozoic, Quaternary, Holocene, Modern
- .CZOQHE = geologic age, Cenozoic, Quaternary, Holocene, early
- .CZOQHL = geologic age, Cenozoic, Quaternary, Holocene, late
- .CZOQHM = geologic age, Cenozoic, Quaternary, Holocene, middle
- .CZOQP = geologic age, Cenozoic, Quaternary, Pleistocene
- .CZOQPE = geologic age, Cenozoic, Quaternary, Pleistocene, early
- .CZOQPL = geologic age, Cenozoic, Quaternary, Pleistocene, late
- .CZOQPM = geologic age, Cenozoic, Quaternary, Pleistocene, middle
- .CZOQPM = geologic age, Pleistocene, middle

.CZOT = geologic age, Cenozoic, Tertiary
.CZOTPE = geologic age, Cenozoic, Tertiary, Pliocene, early
.CZOTPL = geologic age, Cenozoic, Tertiary, Pliocene, late

.DEF = rock deformation, polygon contains information about
.DEFH = rock deformed under high-strain conditions
.DEFP = rock deformed during pluton emplacement
.DMZOKL = deformation age, Cretaceous, late

.FLU = sedimentary rock, origin, fluvial deposit
.FLUV = sedimentary rock, origin, fluvial deposit, alluvial-valley setting
.FLUVL = sedimentary rock, origin, fluvial deposit, alluvial-valley setting, low-sinuosity channel
.FSLC = age based on fossils, age certain

.GDR = igneous rock, granodiorite
.GDRD = igneous rock, granodiorite (deformed)
.GMD = age based on geomorphic development
.GMDC = age based on geomorphic development, age certain
.GMDU = age based on geomorphic development, age uncertain
.GRK = sedimentary rock, grainrock
.GRKC = sedimentary rock, grainrock, sedimentary rock, grainrock, conglomerate
.GRKML = siltstone
.GRKSS = sedimentary rock, grainrock, sandstone
.GRKSSC = sedimentary rock, grainrock, sandstone, conglomeratic
.GRKV = sedimentary rock, grainrock, various types occur in map unit
.GRND = igneous rock, granitic composition, (deformed)
.GRNH = granitic rock, composition heterogeneous
.GRNQD = igneous rock, granitic composition, quartz-deficient
.GRNQR = igneous rock, granitic composition, quartz-rich
.GRNQRD = igneous rock, granitic composition, quartz-rich (deformed)
.GVLB = gravel deposit, boulder gravel (surficial deposit)

.IGND = igneous rock (deformed)
.IGNID = igneous rock, intrusive (deformed)
.IGNIP = igneous rock, intrusive, plutonic body
.IGNIPD = igneous rock, intrusive, plutonic body (deformed)
.IGNIPP = igneous rock, intrusive, plutonic body, pluton
.IGNIPPD = igneous rock, intrusive, plutonic body, pluton (deformed)
.INR = age based on intrusive relations
.INRC = age based on intrusive relations, age certain
.INRU = age based on intrusive relations, age uncertain

.LMA = geologic-age subdivision, land-mammal age, polygon contains information about
.LMAB = geologic-age subdivision, land-mammal age, Blancan
.LMAI = geologic-age subdivision, land-mammal age, Irvingtonian

.METR = metamorphic rock, origin, regional dynamothermal
.METS = metamorphic rock, origin, strain dominant
.MGR = igneous rock, monzogranite
.MGRD = igneous rock, monzogranite (deformed)
.MMGG = metamorphic rock, generic, gneiss
.MMZOKL = age of metamorphism Mesozoic, Cretaceous, late
.MRKCL = claystone (sedimentary rock)
.MZO = geologic age, Mesozoic
.MZOK = geologic age, Mesozoic, Cretaceous
.MZOKL = geologic age, Mesozoic, Cretaceous, late
.MZOT = geologic age, Mesozoic, Triassic

.NMA = sedimentary origin, nonmarine

.PAF = provincial affinity, polygon contains information about

.PAFG = provincial affinity, rock has affinities with San Gabriel Mountains

.PAFM = provincial affinity, rock has affinities with Mojave Desert

.PAFML = provincial affinity, rock has affinities with Mojave Desert, Little San Bernardino Mts

.PAFP = provincial affinity, rock has affinities with Peninsular Ranges

.PMGC = age based on paleomagnetism, age certain

.PRC = geologic age, Precambrian

.PRCP = geologic age, Precambrian, Proterozoic

.PZO = geologic age, Paleozoic

.RCO = age based on regional correlation

.RCOC = age based on regional correlation, age certain

.RCOU = age based on regional correlation, age uncertain

.RSC = classification of map unit, polygon contains information about

.RSCB = classification of map unit, bedrock

.RSCBI = classification of map unit, bedrock, informal

.RSCBIF = classification of map unit, bedrock, informal, formation rank

.RSCBIFM = classification of map unit, bedrock, informal, formation rank, metamorphic

.RSCBIFP = classification of map unit, bedrock, informal, formation rank, plutonic

.RSCBIFS = classification of map unit, bedrock, informal, formation rank, sedimentary

.RSCBIFSM = classification of map unit, bedrock, informal, formation rank, sedimentary, member of

.RSCS = classification of map unit, surficial

.RSCSI = classification of map unit, surficial, informal

.RSCSIA = classification of map unit, surficial, informal, alluvial unit

.RSCSIAF = classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit

.RSCSIAFM = classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit, very young

.RSCSIAFO = classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit, old

.RSCSIAFV = classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit, very old

.RSCSIAFY = classification of map unit, surficial, informal, alluvial unit, alluvial-fan deposit, young

.RSCSIAV = classification of map unit, surficial, informal, alluvial unit, alluvial-valley deposit

.RSCSIAVM = classification of map unit, surficial, informal, alluvial unit, alluvial-valley deposit, very young

.RSCSIAVV = classification of map unit, surficial, informal, alluvial unit, alluvial-valley deposit, very old

.RSCSIAVY = classification of map unit, surficial, informal, alluvial unit, alluvial-valley deposit, young

.RSCSIAW = classification of map unit, surficial, informal, alluvial unit, wash deposit

.RSCSIAWM = classification of map unit, surficial, informal, alluvial unit, wash deposit, very young

.RSCSIAWMI = classification of map unit, surficial, informal, alluvial unit, wash deposit, very young, active intermittently

.RSCSIAWMO = classification of map unit, surficial, informal, alluvial unit, wash deposit, very young, older

.RSCSIRV = classification of map unit, surficial, regolith or pedogenic-soil deposit, very old

.RSCSIS = classification of map unit, surficial, informal, slope-failure unit

.RSCSISM = classification of map unit, surficial, informal, slope-failure unit, very young

.RSCSISO = classification of map unit, surficial, informal, slope-failure deposit, old

.RSCSISY = classification of map unit, surficial, informal, slope-failure deposit, young

.RSCSIU = classification of map unit, surficial, informal, undifferentiated deposit

.RSCSIUV = classification of map unit, surficial, informal, undifferentiated deposit, very old

.SAR = surficial deposit, surface armor, polygon contains information about

.SARN = surficial deposit, surface armor, no pavement

.SDI = surficial deposit, surface dissection, polygon contains information about

.SDIM = surficial deposit, surface dissection, moderate

.SDIMW = surficial deposit, surface dissection, moderate to well

.SDIN = surficial deposit, surface dissection, none
.SDINS = surficial deposit, surface dissection, none to slightly dissected
.SDIS = surficial deposit, surface dissection, slight
.SDIW = surficial deposit, surface dissection, strong
.SDR = strain-dominated rock
.SDRH = strain-dominated rock, high-strain
.SDRHF = strain-dominated rock, high-strain, foliated
.SDRHG = strain-dominated rock, high-strain, gneissose
.SED = sedimentary rock
.SEDS = sedimentary rock, siliciclastic
.SGD = surficial deposit, sand & gravel
.SGDG = surficial deposit, sand & gravel, gravel
.SGDGD = surficial deposit, sand & gravel, gravel dominant over sand
.SGDQ = surficial deposit, sand & gravel, sand and gravel subequal
.SGDS = surficial deposit, sand & gravel, sand
.SGDSD = surficial deposit, sand & gravel, sand dominant over gravel
.SLT = silty deposit (surficial deposit)
.SMO = surficial deposit, surface morphology, polygon contains information about
.SMOD = surficial deposit, surface morphology largely degraded (surficial deposit)
.SMOP = surficial deposit, surface morphology largely preserved
.SMOPB = surficial deposit, surface morphology largely preserved, bar and swale
.SMOPC = surficial deposit, surface morphology largely preserved, anastomosing channels
.SMOPH = surficial deposit, surface morphology largely preserved, hummocky ground
.SOD = age based on pedogenic-soil development
.SODC = age based on pedogenic-soil development, age certain
.SODU = age based on pedogenic-soil development, age uncertain
.SSO = soil, surface, polygon contains information about
.SSOAC = soil with A/C horizon (surficial unit capped by)
.SSOAW = soil with A horizon (surficial unit capped by)
.SSOB = soil with B horizon, cambic and (or) argillic (surficial unit capped by)
.SSOBC = soil with A/C/Bcambic horizon (surficial unit capped by)
.SSOBT = soil with Bt horizon (surficial unit capped by)
.SSOBTM = soil with moderate Bt horizon (surficial unit capped by)
.SSOBTs = soil with strong Bt horizon (surficial unit capped by)
.SSOD = soil, degraded (surficial unit capped by)
.SSOM = soil, moderate (surficial unit capped by)
.SSONC = soil, non-calcic (surficial unit capped by)
.SSOS = soil, strong (surficial unit capped by)
.SSOW = soil, weak (surficial unit capped by)
.SSOX = soil, no development (surficial unit capped by)
.SUR = surficial deposit
.SURA = surficial deposit, alluvial
.SURAA = surficial deposit, alluvial, alluvial-valley
.SURAF = surficial deposit, alluvial, alluvial-fan
.SURAW = surficial deposit, alluvial, very young wash
.SURAWA = surficial deposit, alluvial, very young wash, active
.SURS = surficial deposit, slope-failure
.SURSL = surficial deposit, slope-failure, landslide
.SURU = surficial deposit, unspecified
.SURWP = weathered or modified parent material, pedogenic soil
.SVR = surficial deposit, surface varnish, polygon contains information about
.SVRN = surficial deposit, surface varnish, none

.TON = igneous rock, tonalite

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