

## **Alteration libraires**

### **Alteration Code**

<b>Code</b>	<b>Description</b>
AB	Albitic
AMP	Amphibole
BI	Biotitization
CB	Carbonate
CD	Cordieite
CH	Chlorite
CY	Clay alteration
DGN	Diagenetic
EP	Epidote
FD	Feldspar
FE	Ferrigenous
FL	Flourite
GH	Geothitic
GP	Glomeroporphyritic
HE	Hematitic
KA	Kaolinitization
LM	Limonite
LX	Leucoxene
MN	Manganese
MT	Magnetite
NO	Nontronite
SAU	Saussuritization
SE	Sericitization
SI	Silicification
TA	Talc
TM	Tourmaline

## **Alteration Assemblage**

<b>Code</b>	<b>Description</b>
ALB	ALBITIC
DIS	DISTAL
POT	POTASSIC
PRP	PROPYLITIC
PRX	PROXIMAL IOCG
SIL	OPALINE SILICA_SILICIFICATION +/- TEXTURAL DESTRUC

## **Alteration Style**

<b>Code</b>	<b>Description</b>
AGG	Aggregates
BLB	Blebs
BND	Banded
BOX	Boxworked
BX	Brecciated
COA	Coatings
DE	Dendritic
DS	Disseminated
FF	Fracture Filling
FLA	Flakes
IN	Interstitial

LA	Layered
LCH	Leached
MAS	Massive
MF	Matrix Filling
MX	Matrix Sulphides
NE	Needles
PA	Patches
PER	Pervasive
QV	Quartz Vein
RE	Replacement
RM	Remobilised
SEL	Selvages and Envelopes
SK	Stockwork
SM	Semi-Massive
SPK	Specks
SPO	Spotty
SR	Stringers
VN	Veins
Z	Unaltered

## Lithology libraries

### Lithology Code

Code	Description
ANOR	Anorthosite
BXD	Dissolution Breccia
BXU	Undifferentiated breccia
C	Cover
CAVITY	Cavity
CAZ	Chlorite alteration zone
COAL	Coal
CSZ	Chlorite Alteration zone, disseminated sulphide
FAR	Alkali rhyolite
FBT	Carbonatite
FDA	Dacite
FFP	Felsic porphyry
FGD	Granite
FINT	Undifferentiated Felsic intrusive
FQL	Quartz rich felsic lava
FRD	Rhyodacite
FRY	Rhyolite
FRYP	Rhyolite Porphyry
FSU	Undifferentiated Felsic
FTUFF	Felsic tuff
FV	Undifferentiated Felsic volcanic
FVBX	Felsic volcanic breccia
G	Undifferentiated Granite
GA	Alkali granite
GAP	Aplitic
GD	Granodiorite
GMG	Monzogranite
GPEG	Pegmatite
GSD	Syenodiorite

GSG	Syenogranite
GSY	Syenite
GT	Tonalite
GTD	Trondhjemite
IAT	Alkali trachyte
IDB	Diabase
IDR	Diorite
IHP	Hornblende- crystal prophry
IIP	Intermediate prophry
ILA	Andesite
ILT	Latite
IMD	Monzodiorite
IMDP	Monzodiorite Porphyry
IMO	Monzonite
IMOP	Monzonite Porphyry
INO	Norite
IPP	Pyroxene- crystal prophry
IQMO	Quartz Monzonite
ISK	Alkali Syenite
ITA	Trachyandesite
ITF	Intermediate tuff
ITY	Trachyte
IU	Undifferentiated intermediate volcanic
IVB	Intermediate volcanic breccia
KBL	Kimberlite
LC	Lost Core
LCP	Camptonite
LKR	Keranatite
LMN	Monchiquite
LMT	Minette
LPH	Lamprophyre
LSP	Spessartite
LVO	Vogesite
MAMP	Amphibolite
MASC	Massive chalcopyrite ore
MASP	Massive pyrite ore
MASPO	Massive po
MASU	Massive sulphides
MB	Basalt
MBC	Blebby ore – chalcopyrite dominant
MBCPO	Blebby po in cp
MBP	Blebby ore – pyrite dominant
MBX	Mafic breccia
MCAB	Calc Alkaline Basalt
MCHS	Chlorite schist
MCSS	Chlorite quartz schist
MDOL	Dolerite
MFC	Fragmental ore – chalcopyrite dominant
MFP	Fragmental ore – pyrite dominant
MGAQ	Granetiferous quartzite/arkose
MGB	Gabbro
MGL	Leucogabbro

MGN	Gneiss
MGR	Gabbro norite
MGTS	Schist Biotite Sillimanite Garnet
MHF	Hornfels
MHG	Hornblende Gabbro
MHMB	High magnesium basalt
MKB	Komatiitic basalt
MLC	Laminated ore – chalcopyrite dominant
MLCPO	Laminated po in cp
MLP	Laminated ore – pyrite dominant
MMG	Migmatite
MON	Olivine Norite
MS	Mafic Sediment
MSC	Schist
MSCPO	Sheared po in cp
MSKA	Skarn -altered
MSSD	Meta sandstone - psammite
MTB	Theoliitic basalt
MTHO	Tholeite
MTR	Troctolite
MTUFF	Mafic tuff
MV	Undifferentiated mafic volcanic
MVCL	Mafic volcaniclastic
NOLOG	Not logged
QFP	Quartz Feldspar Porphyry
S	Undifferentiated sediments
SAG	Argillite
SARK	Arkose
SAW	Arkosic Wacke
SBS	Black shale
SBX	Sedimentary breccia
SBXD	Dissolution Breccia
SBXI	Intraclast Breccia
SCA	Calcareous Argillite
SCAL	Calcareous sediment
SCB	Carbonate Rock
SCDMD	Carbonaceous Dolomitic Mudstone
SCG	Conglomerate
SCHS	Chloritic Shale
SCL	Claystone
SCO	Conglomerate oligomicritic
SCP	Conglomerate polymictic
SCS	Carbonaceous Shale
SCSD	Calcareous Sandstone
SCSL	Carbonaceous Siltstone
SCT	Chert
SDAR	Dolomitic arenite
SDBX	Sedimentary Debris Breccia
SDCL	Dolomitic Claystone
SDI	Diamictite
SDL	Dolomitic Limestone
SDMD	Dolomitic Mudstone

SDOL	Dolomite
SDSH	Dolomitic shale
SDSL	Dolomitic siltstone
SDSM	Dolomitic stromatolite
SEV	Evaporite
SFS	Feldspathic Sandstone
SFW	Feldspathic Wacke
SGW	Greywacke, wacke
SIF	Undifferentiated banded iron formation
SIFC	Carbonate banded iron
SIFS	Sulphidic banded iron
SJF	Jaspelite
SLIM	Limestone
SLW	Lithic Wacke
SMD	Mudstone
SMS	Magnesite
SNCH	Nodular Chert
SOIF	Oxide Facies BIF
SQW	Quartz Wacke
SQZ	Quartzite
SRU	Rudite
SSD	Sandstone, Arenite
SSDL	Silty dolomite
SSH	Shale
SSIF	Silicate Facies BIF
SSL	Siltstone
SSS	Sulphidic Shale
STCL	Tuffaceous Claystone/Mudstone
STDL	Stromatolithic Dolomite
STF	Stopes Fill
STIL	Tillite
STRA	Travertine
STSH	Tuffaceous shale
STSL	Tuffaceous siltstone
STU	Turbidite
SVAG	Volcaniclastic Argillite
SVS	Volcanogenic Sediment
SVSD	Volcaniclastic Sandstone
SVST	Volcaniclastic Siltstone
SYP	Syenite Porphyry
TAI	Tailings
TCE	Talc carbonate exhalite
TUFF	Undifferentiated Tuff
U	Undifferentiated ultramafic
UAC	Amphibole chlorite
UD	Dunite
UHB	Hornblendite
UKO	Komatiite
UOP	Olivine Peridotite
UOV	Olivinitite(dunite)
UPD	Peridotite
UPX	Pyroxenite

UTAC	Talc amphibole chlorite
UTC	Talc chlorite
UTCB	Talc carbonate
VN	Vein Unidifferentiated
WD	Waste Dump Rock

#### GrainSize

Code	Description
AP	Aphanitic (<<mm - none visible)
CG	Coarse grained (5-30mm)
FG	Fine grained (<mm)
GL	Glassy
MG	Medium grained (-5mm)
PG	Pegmatitic, v-coarse (>30mm)

#### Parent Code

Code	Description
FV	FELSIC VOLCANIC
IV	INTERMEDIATE VOLCANIC
L	LAMPROPHYRE
META	METAMORPHIC
MISC	MISCELLANEOUS
MV	MAFIC VOLCANIC
ORE	Ore zone
SD	SEDIMENT
UV	ULTRAMAFIC VOLCANIC

#### Regolith Overprint

Code	Description
BL	Bleached
CC	Calcreted
CP	Pedogenic carbonate
FC	Ferricreted
GO	Goethitic
GP	Gypsiferous
HE	Haematic
HP	Hardpanised
KA	Kaolinitic
MG	Magnesite rich
MN	Manganiferous
MO	Mottled
NO	Nontronitic
RE	Reduced horizon
SC	Silcreted
SI	Silicified

#### Oxidation

Code	Description
CW	Completely Weathered
EW	Extremely Weathered
FR	Fresh
HW	Highly Weathered

MW	Moderately Weathered
NR	Not Recorded
SW	Slightly Weathered

### Lithology Texture

Code	Description
ACUM	Adcumulate
AGM	Agglomerate
AMG	Amygdaloidal
ANG	Angular
ANH	Anhedral
APC	Aphyric
APH	Aphanitic
BCC	Brecciated
BDD	Bedded
BLD	Bleached
BLM	Blastomylonitic
BND	Banded
BNP	Ball and pillow
BOX	Boxwork
CCA	Cataclastite
CHZ	Chill zone
CNB	Convolute bedding
COL	Colloform
COR	Corona
CRB	Crystalloblastic
CRK	Crackled
CRS	Cross stratification
CRX	Crystalline
CUM	Cumulate
CUT	Cutaneous
DEN	Dendritic
DES	Decussate
EQU	Equigranular
EUH	Euhedral
FBD	Flow banded
FBX	Fault breccia
FCT	Flute casts
FIA	Fiamme
FIB	Fibroblastic
FLB	Flaser bedding
FOL	Foliated
FPY	Felted pyroxene
FRI	Friable
GC	Groove casts
GL	Glassy
GLB	Granuloblastic
GMP	Glomeroporphyritic
GNB	Granoblastic
GNS	Gneissic
GOU	Gouge
GRA	Granular

GRD	Graded
GRP	Granophyric
GRV	Gravelly
HAR	Harrisite
HFL	Hornfelsic
HGB	Herring bone
HYB	Hybridized
HYC	Hyloclastic
IM	Impact marks
INC	Inclusions
IND	Indurated
JAS	Jasperoidal
LAM	Laminated
LAP	Lapilli
LBX	Lapilli breccia
LCH	NT- Leaching
LCT	Load casts
LEN	Lenticular
LIN	Linear fabric
LIT	Lithic
LNT	Lenticular
LPT	Lapilli tuff
MAS	Massive
MCP	Micropoikilitic
MCUM	Mesocumulate
MGA	Megacrystic
MIG	Migmatitic
MOT	NT- Mottled
MRT	Mortar texture
MTX	Matrix
MYL	Mylonitic
MYM	Myrmekitic
NCH	NT- Nodular Chert
NOD	Nodular
NPY	NT- Nodular pyritic
OCL	Ocelli
OCUM	Orthocumulate
OOL	Oolitic
OPH	Ophitic
PCB	Planar cross bedding
PCL	Unclassified pyroclastic
PDT	Psuedotachylite
PEG	Pegmatitic
PEP	Pepperitic
PET	Perlitic
PHE	Phenocrysts
PIL	Pillowed
PIS	Pisolitic
PLB	Parallel bedding
PNR	Planar beds
POC	Polymictic
POI	Poikiloblastic porphyroblasts

POK	Poikilitic
POR	Porphyrytic
PRB	Prophyroblastic
PRC	Porphyroclastic
PRI	Prismatic
PRP	Prophyritic
PSL	Pisolithic
PSP	Pseudoporphyrhetic
PST	Poorly Sorted
PUM	Pummiceous
PYP	Pyroxene phric
QCG	Quasi conglomerate
RCX	Recrystallized
RIB	Ribboned
RND	Rounded
RPB	Rotated porphyroblasts
RPM	Ripple marks
RPY	Rounded phenocrysts
SBO	Subophitic
SCH	Schistose
SFL	Slump folds
SFT	Soft
SHS	Schistosity
SIL	Siliceous
SLT	Slaty
SMK	Scour marks
SPE	Spherulitic
SPT	Spotted
SPX	Spinifex
SRN	Sub rounded
STR	Stromatolitic
SUB	Subhedral
TBX	Tuff breccia
TCB	Trough cross bedding
TPY	Tabular phenocrysts
TRA	Translucent
TUF	Tuffaceous
VAR	Variolitic
VBX	Volcanic breccia
VCL	Volcanoclastic
VES	Vesicular
VIT	Vitric
VOL	Volcanic
VSC	Vesicular
VUG	Vuggy
WB	Wavy bedding
WEB	Web texture
WEL	Welded
ZPY	Zoned phenocrysts

#### Structural Type

**Code**      **Description**

ALL	Structure type not exclusive
BDD	Bedding/bedded
BND	Banding/banded
BOU	Boudinaged
BOZ	Breakout Zone
BRZN	Broken Zone
CBD	Cross bedded
CLV	Cleavage
CON	Contact
CS	Crushed Seam
CZ	Crushed Zone
DEF	Deformed
DS	Decomposed Seam
FAB	Fabric
FLD	Folded
FLT	Fault
FOL	Foliation
FRA	Fractured
FRG	Fragmental
GBD	Graded bedding
GRN	Grading up normal
GRR	Grading down reverse
IBD	Interbedded
IS	Infilled Seam
JON	Jointed
LAM	Laminated
LAY	Layered
LIN	Lineation
MFR	Micro fracture
MYL	Mylonitic
NOSTRUCT	No Structure
RIP	Ripple marks
SHD	Sheared
SLP	Slumped
SS	Sheared Seam
STV	Stockwork veining
SZ	Sheared Zone
UNCL	Unclassified Structure
UNWZ	Unclassified Weak Zone
VA	Alunite vein
VG	Geothite vein
VN	Vein (undifferentiated)
VS	Sulphide vein
WZ	Weak Zone

#### Colour Code

Code	Description
BK	Black
BL	Blue
BR	Brown
CR	Cream
GN	Green

GY	Grey
KH	Khaki
OR	Orange
PK	Pink
PU	Purple
RD	Red
WH	White
YE	Yellow

### Colour Tone

Code	Description
D	Dark
L	Light
M	Medium
MT	Mottled
P	Pale

### Geology Unit

Code	Description	
Bdf	DeGrussa Footwall Formation	SFR-DG
Bdm	DeGrussa Main Formation	SFR-DG
Br	Red Bore Formation	SFR-DG
Bs	Sandfire Formation	SFR-DG
Cp	Cover- Paleo	SFR-DG
Cr	Cover Recent	SFR-DG
Cz	Recent Cover	SFR-NT
Kl	Cretaceous Sediments	SFR-NT
McA	McArthur Group	SFR-NT
Mg	Marymia Granite	SFR-DG
Mr	Marymia Roof Pendant	SFR-DG
Pb	Robertson Range Formation	SFR-DG
Pls	Scrutton Volcanics	SFR-NT
Pma	Amelia Dolomite	SFR-NT
Pmd	Tatoola Sandstone	SFR-NT
Pmea	Emmerugga Dolomite	SFR-NT
Pmf	Myrtle Shale	SFR-NT
Pml	Mullapunyah Formation	SFR-NT
Pmnc	Caranbirini Member	SFR-NT
Pmnd	Donnegan Member	SFR-NT
Pmnh	Hot Spring Member	SFR-NT
Pmp	Teena Dolomite	SFR-NT
Pmpc	Coxco Dolomite Member	SFR-NT
Pmq	Barney Creek Formation	SFR-NT
Pms	Masterton Sandstone	SFR-NT
Pmt	Toogarinie Formation	SFR-NT
Pmx	Reward Dolomite	SFR-NT
Pn	Nathan Group	SFR-NT
Pnz	Balbrini Dolomite	SFR-NT
Pr	Roper Group	SFR-NT
Pte	Settlement Creek Volcanics	SFR-NT
Ptl	Sly Creek Sandstone	SFR-NT
Ptlr	Rosie Creek Sandstone Member	SFR-NT

Ptm	Warramana Sandstone	SFR-NT
Ptn	Wununmantyla Sandstone	SFR-NT
Ptnw	Wuraliwuntya Member	SFR-NT
Pto	Wollogorang Formation	SFR-NT
Ptq	Aquarium Formation	SFR-NT
Pts	Seigal Volcanics	SFR-NT
Ptt	Tanumbirini Rhyolite	SFR-NT
Pty	Yiyintyi Sandstone	SFR-NT
Pu	Nyanantu Formation	SFR-NT
Pw	Wilthorpe Formation (Heines Member)	SFR-DG
Yd	Doolgunna Formation	SFR-DG
Yj	Johnson Cairn Formation	SFR-DG
Yu	Juderina Formation	SFR-DG

### Regolith Profile

Code	Description
ACY	Clay rich alluvium
AEO	Aeolian sediment
AGV	Gravel rich alluvium
ASD	Sand rich alluvium
AST	Silt rich alluvium
AUN	Undifferentiated alluvium
CAL	Calcrete
FER	Ferricrete
FR	Fresh rock
GOS	Gossan
HDP	Hardpan
IS	Ironstone
LAC	Lacustrine sediment
LAT	Laterite
LSAP	Lower Saprolite
MZ	Mottled Zone
NC	Clays
NCL	Colluvium
NCS	Sand rich colluvium
NCT	Silt rich colluvium
NG	Gravel rich colluvium
PIS	Pisolites
SAP	Saprolite
SCR	Scree
SIL	Silcrete
SPR	Saprock
USAP	Upper Saprolite
WS	Oxidation on joint planes in fresh rocks

### Person

Code	Person_Type	Description
AB	DRILLER	CONNECTOR- A Bennett
AC	DRILLER	DDH - Alan Clark
AD	DRILLER	DDH- Anthony Dwyer
AH	GEOLOGIST	SFR- Andy Hansen
AHKNIGHT	CARGO	AHKNIGHT

AM	DRILLER	DDH- Andrew Marcis
AMAN	FIELDY	VAC-Alex Mangl
Angus	FIELDY	ALFORD - SA
ANH	FIELDY	SFR- Anna Humphreys
AP	DRILLER	DDH- A Pearse
AR	FIELDY	SFR - Angus Reynolds
ASARCO	SURVEY	ASARCO
ASSAFW	GEOLOGIST	Coffey- Assaf Weinberg
AVW	GEOLOGIST	SFR- Allan Wynne
AW	DRILLER	DDH- Aaron White
BDLP	DRILLER	DDH - Brock Dunlop
BDOM	FIELDY	SFR- Brendon Dombrowsky
BHAL	FIELDY	SFR- Ben Haley
BHOOP	METALLURGY	SFR - Ben Hooper
BILLD	DRILLER	DDH - Bill Derbyshire
BJ	GEOLOGIST	SFR- Bob Jeffery
BNJ	GEOLOGIST	SFR- Barry Junor
BJON	DRILLER	SWICK-Ben Jones
BJONES	METALLURGY	SFR - Brad Jones
BMOS	DRILLER	VM-Beau Moses
BPC	COMPANY	Beefwood Pastoral Co
BR	FIELDY	SFR- Ben Richardson
BSHER	DRILLER	VM-Brett Sheriff
BSTEELE	DRILLER	SWICK - B STEELE
BSTILL	DRILLER	SWICK - Ben Still
CAM	FIELDY	SFR- Clare Anne McAuliffe
CB	DRILLER	DDH- Colin Behan
CBES	FIELDY	SFR- Craig Beswarick
CBOY	DRILLER	DDH-Clinton Boyes
CBUCH	SURVEY	GyroAus - Clyde Buchanan
CD	DRILLER	Dunlop- C Dunlop
CF	DRILLER	DDH- Chris Flowers
CGB	GEOLOGIST	SFR- Craig Butler
CHL	FIELDY	SFR- Chris Liggett
CHOL	DRILLER	MCKAY - C Holland
CJ	SURVEY	Surtron- Carey Jones
CLUP	FIELDY	SFR- Craig Lupton
CP	GEOLOGIST	SFR- Chris Piggott (VAC Student)
CRD	FIELDY	SFR- Corinne Donovan
CSHER	SURVEY	Surtron - COLIN SHERRARD
CTRU	FIELDY	SFR- Cameron Trump (vac student)
CW	DRILLER	DDH- Clayton Wells
DAB	FIELDY	SFR- Dave Barry
DBALL	DRILLER	SWICK - Dennis Ballantyne
DC	DRILLER	ALLTERRAIN- D. Carthew
DDH1_UNK	DRILLER	UNKNOWN_DDH
DGUNKO	DRILLER	DDH- Dylan Gunko
DHOLMES	DRILLER	SWICK- Dylan Holmes
DHUN	DRILLER	VM-Derek Hunter
DKETT	DRILLER	SWICK- Daryl Kett
DM	SURVEY	Surtron- D Millington
DMARTIN	DRILLER	SWICK- Dan Martin

DMG	DRILLER	TDS- D McGrolan
DO	DRILLER	MCKAY- Dan Oleary
DSTEP	GEOLOGIST	SFR-Damien Stephens
DW	SURVEY	Surtron- D Waugh
EC	SURVEY	SFR- Evan Connell
ED	GEOLOGIST	SFR - Elizabeth Doran
EKRE	FIELDY	SFR- Erin Kremer
EP	FIELDY	SFR- Erin Patherick
EW	FIELDY	SFR- Etchri Wallace
EYEV	SURVEY	SFR- Eleanor Yeverino
GB	DRILLER	TOPDRILL- Grant Butters
GBEE	GEOLOGIST	Cloncurry- Glenn BEERE
GCAMPBELL	DRILLER	SWICK- G Campbell
GCK	SURVEY	Surtron - G Cook
GD	SURVEY	Surtron - GD
GE	DRILLER	DDH- Ghilain Eloy
GIACCI	CARGO	Giacci
GM	SURVEY	Surtron- Guy Milne
GPORT	COMPANY	Geraldton Port
GRM	COMPANY	Ground Water Resource Management
GW	DRILLER	BOSTECH- Geoff Walden
GWB	FIELDY	SFR- Geoff Wijnberg
HAM	DRILLER	BOSTECH- Hamish Maxwell
HEYHOE	SURVEY	Heyhoe Surveys- Phil Heyhoe
HOKE	FIELDY	SFR - Helen O'Keefe
IDEVRIES	SURVEY	Dean Smith Survey - Issac de Vries
IO	GEOLOGIST	SFR - Ian O'Grady
JA	GEOTECH	SFR- Julianne Armstrong
JB	DRILLER	DDH- Jesse Bullock
JBOLL	FIELDY	SFR- Jarrah Boll
JBRETT	FIELDY	SFR- Jason Brett
JBUCH	SURVEY	GYRO AUSTRALIA - James Buchanan
JC	GEOLOGIST	SFR- Jo Condon
JCH	DRILLER	TDS- J Charlton
JCROW	GEOLOGIST	SFR- James Crow
JD	DRILLER	DDH- Jarrah Dwyer
JDW	FIELDY	SFR-John Willis
JESSED	DRILLER	DDH - Jesse Donovan
JGAR	GEOLOGIST	SFR - John Garrity
JH	GEOLOGIST	SFR- Jamin Howman
JKNEE	DRILLER	SWICK-James Kneebone
JL	FIELDY	SFR- Jon Lupton
JMCC	DRILLER	VM- Jason McColl
JMG	SURVEY	SURTRON- John MacGillivray
JOLI	DRILLER	CONNECTOR - JARROD OLIVE
JP	DRILLER	DDH- Jonathan Parkin
JPRIEST	DRILLER	SWICK- J Priest
JR	GEOLOGIST	SFR- Jaco Rautenbach
JRW	DRILLER	BOSTECH- Jace R Willard
JS	FIELDY	SFR- Johnathan Schneider
JSAW	DRILLER	BOSTECH- Jason Sawford
JTHOMAS	DRILLER	SWICK- Jared Thomas

JTL	GEOLOGIST	SFR- Justine Loiseau
JTON	DRILLER	DDH- Jarrod Tondut
JUB	GEOLOGIST	SFR - Juan Barrera
JW	SURVEY	Surtron- Jeff Will
JWIGG	DRILLER	DDH- Jaimeson Wigg
JWILSON	DRILLER	DDH- Jamie Wilson
JX	GEOLOGIST	SFR- Jane Xie
KA	FIELDY	SFR- Kristian Almond
KB	FIELDY	SFR- Kim Brand
KDENT	DRILLER	BOSTECH - Kieran Dent
KF	FIELDY	SFR- Kaye Finch
KJ	DRILLER	ALLTERRAIN- K. Jacques
KJEWELL	DRILLER	DDH - Kane Jewell
KK	DRILLER	TDS- Klai Kohler
KKR	GEOLOGIST	SFR- Kim Kremer
KM	FIELDY	SFR- Kevin Miller
KMAT	GEOLOGIST	SFR- Kylie Matonia
KN	SURVEY	Surtron- Kail Noack
KW	DRILLER	DDH- Kevin Wyllie
KWAL	DRILLER	MCKAY - Kieran Wallace
KWEST	DRILLER	SWICK - K. Westernman
LA	DBA	SFR- Lauren Agnew
LBARRAUD	DRILLER	DDH-Leslie Barraud
LC	GEOLOGIST	SFR- Louise Christie
LCARR	DRILLER	DDH- Lee Carrington
LEF	SURVEY	Surtron- Linton Fariss
LH	DRILLER	MCKAY - Luke Harrington
LHAR	FIELDY	SFR- Luke Hardy
LMUL	GEOLOGIST	SFR- Lucy Mulvey
LMURFET	DRILLER	CONNECTOR - LEON MURFET
LR	DRILLER	DDH- Lee Rhodes
LRR	FIELDY	SFR- Lynley Rattray
LSPI	GEOLOGIST	SFR - Lara Spina
MA	SURVEY	Surtron- M Allum
MAG	FIELDY	SFR- Mike Gibbs
MAP	GEOLOGIST	SFR- Maureen Price
MAS	FIELDY	SFR- Matt Steedman
MAT	FIELDY	SFR- Hamish Taylor
MC	FIELDY	SFR- Matthew Cusack
MCBELL	DRILLER	DDH- Mark Campbell
MCOL	DRILLER	VM-Mitch Collins
MCOLLEY	DRILLER	DDH- Mark Colley
MEK	SURVEY	Surtron- Meagan Eriksson
MET_LAB	METALLURGY	SFR - Mettallurgy Lab Sampler Not Recorded
MF	FIELDY	SFR- Mike Finch
MFARR	DRILLER	SWICK- Michael Farr
MG	DRILLER	DDH- Matthew Gunn
MGE	DBA	SFR- Mellany Endrinal
MGREW	DRILLER	DDH- Matthew Grew
MH	DRILLER	DDH- Mark Hillier
MHK	FIELDY	SFR- Mitchell Haylock
MHN	DRILLER	DDH- Matthew Hinton

MHUSKINS	DRILLER	SWICK- Michael Huskins
ML	DRILLER	DRILLPOWER- M. Lorne
MLAN	FIELDY	VAC- Mark Langsford
MMASON	DRILLER	SWICK- Marcel Mason
MMEL	GEOTECH	SFR- Mario Melhem
MMIERS	DRILLER	CONNECTOR- Morris Miers
MP	DRILLER	DDH- Murray Pollock
MPAT	DRILLER	SWICK- M Patterson
MPIER	DRILLER	DDH - Matthew Pierson
MR	DRILLER	TOPDRILL- Mark Ryan
MS	GEOLOGIST	SFR - M Skwasnecki
MSCHULZE	METALLURGY	VAC-Matt Schulze
MSCOTT	DRILLER	SWICK- Matt Scott
MSH	DRILLER	BOSTECH-Mick Shorter
MSLOANE	SURVEY	Surtron - Michael Sloane
MT	DRILLER	DDH- Miles Thurlow
MWENN	DRILLER	DDH- Michael Wenn
NC	DRILLER	DDH- Nathan Comer
NDOS	DRILLER	SWICK - Nathan Dos Remedios
NJON	FIELDY	SFR- Nichola Jones
NK	FIELDY	SFR- Nathaniel Kanara
PETE C	SURVEY	Surtron- Pete C
PHAR	DRILLER	Swick - Peter Harvey
PHILL	GEOLOGIST	SFR- Paul Hilliard
PKN	FIELDY	SFR- Pat Keegan
PL	GEOLOGIST	SFR- Paul Lauricella
PLEIGH	DRILLER	DDH- Pritchard Leighton
PPK	GEOLOGIST	SFR- Phillipa Kiernan
PSCAN	DRILLER	BULLION - Paul Scanlon
PT	DRILLER	DDH- Peter Tyrrell
PW	SURVEY	Surtron- Peter Wimsett
QG	DRILLER	DDH- Quinn Gardner
QUBE	CARGO	Qube
RA	GEOLOGIST	SFR-Rheann Allen
RADAM	DRILLER	Swick - Roy Adam
RAND	DRILLER	VM- Rorey Andrews
RBEA	DRILLER	SWICK- Ricki Beange
RBECK	GEOLOGIST	SFR - Richard Beckley
RD	DRILLER	MCKAY- R Davies
RDAL	GEOLOGIST	SFR-Roseanna Dale
REX	DRILLER	MCKAY- Rex
RF	SURVEY	SURTRON- Rob F
RG	GEOLOGIST	GroundWater_GRM- Rob Garnham
RH	FIELDY	SFR- Rolf Hansen
RHARRISON	DRILLER	SWICK- Roche Harrisson
RHUD	SURVEY	Surtron- R Hudson
RLANG	GEOLOGIST	Richard Langford
RMCG	DRILLER	DDH- Robert McGregor
RMR	DRILLER	BOSTECH-Richard Miller
RNASH	GEOLOGIST	SFR-Richard Nash
RNICH	METALLURGY	SFR - Ruth Nicholaidis
ROBG	DRILLER	BOSTECH-Rob Gibson

RR	GEOLOGIST SFR- Ron Roberts
RS	FIELDY SFR- Rob Sinclair
RW	DRILLER DRILLPOWER-Roy Wybenga
RWT	DRILLER DDH- Robert Wright
SA	DRILLER DDH - Samuel Austin
SB	GEOLOGIST SFR- Shannan Bamforth
SBARRETT	SURVEY SFR- Sean Barrett
SBK	GEOLOGIST SFR - Shayne Brooks
SBUCK	DRILLER SWICK- Shaun Buckley
SC	GEOTECH Peter O'Bryan & Associates- Scott Campbell
SE	FIELDY SFR - Steyson Ellames
SFOLAN	FIELDY SFR - Stacy Folan
SFR	COMPANY Sandfire Resources
SG	FIELDY SFR- Shakira Geerssen
SHAY	DRILLER MCKAY- Sean Haynes
She	FIELDY ALFORD - SA
SKAM	FIELDY SFR- Shea Kamerling
SKEO	FIELDY SFR - Stephen Keogh
SMW	FIELDY SFR-Siobhan Millard Webb
SN	SURVEY SFR- Sandy Knox
SROB	GEOLOGIST SFR - Simon Robinson
SRSE	DRILLER DDH - Samuel Rouse
SRYE	GEOLOGIST SFR- Sarah Rye
SSPL	DRILLER MCKAY - S. Splisbury
ST	FIELDY SFR- Samuel Evans-Thomson
STAMAH0	DRILLER SWICK- S Tamaho
SURTRON	SURVEY Surtron- General
SW	GEOLOGIST GRM- Shane Wilkes
TAIT	DRILLER MCKAY- Henry Taitt
TCAM	DRILLER MCKAY- T Cameron
TE	DRILLER MCKAY- T Ewhare
TG	FIELDY SFR - Tane Gurnick
TH	SURVEY Surtron- T Hathaway
TMAJ	GEOLOGIST SFR - Tim Major
TMET	DRILLER DDH- Teariki Metuangaro
TNGA	DRILLER VM-Tyson Ngamu
TOA	DRILLER DDH- Opden-Akker, Timothy
TREES	METALLURGY SFR - Tyron Rees
TRL	GEOLOGIST SFR- Tim Lewis
TS	DRILLER DDH- Thomas Stephens
TT	DRILLER TOPDRILL- Tim Topham
TTHOM	DRILLER SWICK- T. Thompson
TWEST	DRILLER BULLION - Tim Westerman
UK	FIELDY SFR-Ultan Keily
WB	DRILLER BOSTECH- Warwick B Irvine
WE	DRILLER MCKAY- Wayne Edgelow
WG	DRILLER DDH- William Greer
WJE	GEOLOGIST SFR- John Evans
WM	DRILLER MCKAY- Wayde Merritt
ZOEJACKSON	GEOLOGIST Zoe Jackson

<b>Code</b>	<b>Description</b>
AA	Andalusite
AB	Albite
AF	Alkalifeldspar
AH	Anhydrite
AK	Ankerite
AM	Amphibole
AN	Andalusite
ANTH	Anorthite
AP	Apatite
AR	Antigorite
AS	Asbestos (undiff.)
ASBL	Asbestos blue
ASBR	Asbestos brown
ASGN	Asbestos green
ASWH	Asbestos white
AT	Actinolite
AZ	Azurite
BA	Barites
BI	Biotite
BU	Brucite
CA	Calcite
CB	Carbonate
CD	Chlorotoid
CE	Cerrusite
CH	Chlorite
CM	Cummingtonite
CN	Carnotite
CO	Cordierite
CX	Clinopyroxene
CY	Unclassified clay
DO	Dolomite
DP	Diopside
EP	Epidote
FD	Feldspar
FL	Fluorite
FU	Fuchsite
GH	Goethite
GI	Gibbsite
GL	Glaucophane
GR	Graphite
GT	Garnet
GU	Grunerite
GY	Gypsum
HA	Halite
HB	Hornblende
HE	Hematite
IL	Ilmenite
JA	Jarosite
JS	Jaspilite
KA	Kaolinite
KF	K-feldspar

KY	Kyanite
LE	Lepidolite
LL	Illite
LM	Limonite
LX	Leucoxene
LZ	Lizardite
MA	Marcasite
MF	Mafic Minerals (undiff)
MI	Mica
MM	Montmorillonite
MN	Manganese
MS	Magnesite
MV	Muscovite
MZ	Monazite
NO	Nontronite
OL	Olivine
OR	Orthoclase
OV	Olivine
OX	Orthopyroxene
PE	Prehnite
PH	Phlogopite
PL	Plagioclase
PR	Pyrophyllite
PS	Phosphate
PX	Pyroxene
QZ	Quartz
RT	Rutile
SB	Stibnite
SC	Scheelite
SD	Siderite
SE	Sericite
SF	Sodic feldspar
SH	Sphene
SI	Siliceous
SL	Sillimanite
SM	Smectite
SN	Stannite
SR	Serpentine
SS	Smithsonite
ST	Staurolite
SU	Sulphide
TA	Talc
TI	Titanite
TO	Tourmaline
TR	Tremolite
TT	Tantalite
UR	Uraninite
VE	Vermiculite
WF	Wolframite
ZR	Zircon

## Mineral Style

<b>Code</b>	<b>Description</b>
AGG	Aggregates
BLB	Blebs
BND	Banded
BOX	Boxworked
BX	Brecciated
COA	Coatings
DE	Dendritic
DS	Disseminated
FF	Fracture Filling
FLA	Flakes
IN	Interstitial
LA	Layered
MAS	Massive
MF	Matrix Filling
MX	Matrix Sulphides
NE	Needles
PA	Patches (as in quilts)
PER	Pervasive
QV	Quartz Vein
RE	Replacement
RM	Remobilised
SEL	Selvages and Envelopes
SK	Stockwork
SM	Semi-Massive
SPK	Specks
SPO	Spotty
SR	Stringers
Z	Unaltered

#### **Sulphide Code**

<b>Code</b>	<b>Description</b>
AG	Silver
ASP	Arsenopyrite
ATA	Atacamite
AU	Gold
AZ	Azurite
BN	Bornite
CC	Chalcocite
CI	Cuprite
CP	Chalcopyrite
CR	Chromite
CS	Cassiterite
CSC	Chrysocolla (secondary Cu mineral)
CU	Native Copper
CV	Covellite
EN	Enargite
GA	Galena
GG	Gangue
MH	Maghematite
ML	Malachite
MO	Molybdenite

MT	Magnetite
NT	Neoticite (manganese wad)
PN	Pentlandite
PO	Pyrrhotite
PY	Pyrite
SP	Sphalerite
SU	Sulphide

### Sulphide Style

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SK	Stockwork
SM	Semi-Massive
SPK	Specks
SPO	Spotty
SR	Stringers
Z	Unaltered

### Vein Comp

<b>Code</b>	<b>Description</b>
VCA	Calcite
VCB	Carbonate
VCH	Chlorite vein
VCY	Clay
VEP	Epidote
VFD	Feldspar vein
VFE	Unclassified iron oxide
VGE	Goethite
VGH	Geothite vein
VHB	Hornblende vein
VHE	Haematite

VKA	Kaolin
VLM	Unclassified hydrated iron oxide
VMN	Unclassified manganese oxide
VMT	Magnetite
VPY	Pyrite
VQB	Quartz carbonate vein
VQC	Quartz chlorite vein
VQFD	Quartz-feldspar vein
VQM	Quartz molybdenite
VQP	Quartz pyrite vein
VQT	Quartz tourmaline vein
VQZ	Quartz vein
VSI	Silicified vein
VSU	Unclassified sulphide

#### Vein Style

Code	Description
CVN	Concordant Veining
DVN	Discordant Veining
STV	Stockwork Veining
SVN	Sheeted Veining
VLT	Veinlets ( <2mm )

#### Structure Classification

Code	Description
MAJ	Major
MIN	Minor
SIGNIF	Significant
VMIN	Very Minor

#### Geology Structure Type

Code	Description
BDD	Bedding
BDSZ	Brittle-Ductile Shear Zone
CLV	Cleavage
FCC	Fault (Cataclasite filled)
FCV	Fault (Cataclasite + Vein filled)
FFZ	Fault Fracture Zone
FG	Fault (Gouge filled)
FGV	Fault (Gouge + Vein filled)
FLD	Fold
FPT	Fault (Pseudotachylite filled)
FPTV	Fault (Pseudotachylite + Vein filled)
FRA	Fractured
FV	Fault (Vein filled)
IL	Igneous Layering
MFOL	Metamorphic Foliation
SZ	Shear Zone
SZRAF	Shear Zone Reactivated As Fault
VN	Vein (undifferentiated)

#### Younging Direction

<b>Code</b>	<b>Description</b>
DOWN	Down Hole
INVERT	Inverted
RWUP	Right Way Up
UP	Up Hole

#### **Younging Indicator**

<b>Code</b>	<b>Description</b>
AGUC	Angular Unconformity
GBD	Graded-Bedding
LCAS	Load Casts
LFMG	Lava Flow Margins
MCRA	Mud Cracks
PSUR	Pillow Surface
PVES	Pillow Vesicles
RMAR	Ripple Marks
SMAR	Sole Markings
XBED	Cross-Bedding

#### **Geology Plane Type**

<b>Code</b>	<b>Description</b>
BDP	Bedding Plane
CLAY	Cumulate Layering
CON	Contact
CRNCLV	Crenulation Cleavage
FAP	Fold Axial Plane
FBD	Flow Banding
FLT	Fault Plane
FOLCC	Foliated Cataclasite
FRA	Fracture
GNBND	Gneissic banding
MYL	Mylonite
PENCLV	Penetrative Cleavage
PHY	Phyllonite
PHYFOL	Phyllitic Foliation
SCHFOL	Schistose Foliation
SLTFOL	Slaty Foliation
SPCCLV	Spaced Cleavage
SSF	Slickensided Fracture

#### **Geology Plane Intensity**

<b>Code</b>	<b>Description</b>
INTENSE	Intense
MODERATE	Moderate
STRONG	Strong
WEAK	Weak

#### **Geology Lineation Type**

<b>Code</b>	<b>Description</b>
FA	Fold Axis
ISL	Intersection Lineation
ML	Mineral Lineation

RC	Ripple Crest
SL	Stretching Lineation
ST	Striations
TA	Trough Axis

#### Kinematic Indicator

Code	Description
CTSHB	C -Type Shear Bands
DPM	Displaced Marker
ETFRAC	Extension Fractures
ETVN	Extension Veins
FDRAG	Fault Drag
FIBLS	Fibrous Lineation Steps
FLDASY	Fold Asymmetry
MPPC	Mantled Porphyroclasts
RIESH	Riedel Shears
ROTM	Rotated Marker
SCFAB	S-C Fabric
SHFLD	Sheath Folds

#### Movement Sense

Code	Description
DEX	Dextral
NOR	Normal
ODN	Oblique Dextral-Normal
ODR	Oblique Dextral-Reverse
OND	Oblique Normal-Dextral
ONS	Oblique Normal-Sinistral
ORD	Oblique Reverse-Dextral
ORS	Oblique Reverse-Sinistral
OSN	Oblique Sinistral-Normal
OSR	Oblique Sinistral-Reverse
REV	Reverse
SIN	Sinistral

#### Validation

Code	Description
0	Historic Data Unvalidated
1	Historic Data Validated
2	New Data

#### Intensity Library

Code	Description
ES	Extremely Strong
EW	Extremely Weak
M	Moderate
MS	Moderately Strong
NT	Not tested
S	Strong
T	Trace
V	Variable
VS	Very Strong

VW	Very Weak
W	Weak

#### Hole Diameter

Code	Description
100MM	MR 00mm
10INCH	0 inch
121/4INCH	2 /4 inch
140MM	MR 40mm
14INCH	4 inch
171/2INCH	7 /2 INCH
215/16INCH	2 5/6 inch Rock Bit
31/2INCH	3 /2 inch
33/4INCH	3 3/4 inch Rock Bit
37/8INCH	3 7/8 inch Rock Bit
41/2INCH	4/2 inch
43/4INCH	4 3/4 INCH
47/8INCH	4 7/8 Rock Bit
4INBLADE	4 inch Blade
4INCH	4 inch
4INHAM	4 inch Hammer/Percussion
51/2INCH	5 /2 Inch
51/2INHAM	5/2 inch Hammer/Percussion
51/4BLADE	5 /4 INCH Blade
51/4INHAM	5/4inch Hammer/Percussion
51/8INCH	5/8 inc Rock Roll
51/8INHAM	5/4inch Hammer/Percussion
55/16INCH	5 5/6 INCH Hammer/Percussion
55/8INHAM	55/8 inch Hammer/Percussion
57/8INCH	5 7/8 inch PCD
5INCH	5 inch Hammer
61/2INCH	6 /2 inch Rock Bit
61/4INCH	6 /4 inch Rock Bit
67/8INCH	6 7/8 inch
6INCH	6 Inch
71/2INCH	7 /2 inch
81/2INCH	8 /2 Inch Hammer
BQ	BQ Diamond Bit
HQ	HQ Diamond Bit
HQ2	HQ2 Diamond Bit
HQ3	HQ3 Diamond Bit
LC	LOST CORE
NQ	NQ Diamond Bit
NQ2	NQ2 Diamond Bit
NQ3	NQ3 Diamond Bit
NR	Not Recorded
NX	NX NAVI
PQ	PQ Diamond Bit
PQ3	PQ3 Diamond Bit

#### Origin Reliability

Code	Description
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0	Failed orientation
1	Line based on a single Orientation
2	Line based on 2 correlatable Orientation (+_0deg)

#### Geotech Strength

Code	Description
EH	Extremely High >250MPa
EL	Extremely weak 0.25-MPa
H	Hig h 50-00MPa
L	Low 5-25MPa
M	Medium 25-50MPa
NT	Not Tested
VH	Very high 00-250MPa
VL	Very Low -5MPa

#### Geotech Hardness

Code	Description
GN	Gouge - Nominal
GT	Gouge - Thick
HC	Hard - Coarse Grained
HF	Hard - Fine Grained
HM	Hard - Medium Grained
NON	No Fill/ Clean
SC	Soft - Coarse Grained
SF	Soft - Fine Grained
SM	Soft - Medium Grained

#### Zone Type

Code	Description
AR	Artificial breaks (drill-induced or handling)
BR	Broken zones
CR	Crushed zones

#### Oxidation

Code	Description
CW	Completely Weathered
EW	Extremely Weathered
FR	Fresh
HW	Highly Weathered
MW	Moderately Weathered
NR	Not Recorded
SW	Slightly Weathered