Appendix A: Petrographic variables

Variable name	Variable code	Provenance related	Values
INCLUS_DISTRIB	I1	no	poorly, poorly to moderately, moderately, moderately to well, well, none
INCLUS_ORIENT	I2	no	unparallel, slightly parallel, parallel, none
TEMP	F1	no	unfired, 700-800oC, 800-900oC, 900-1000oC, 1000-1100oC
ATM	F2	no	reducing, reducing to oxidising, oxidising, indeterminate; in this data set all are oxidising
POST_ATM	F3	no	reducing, reducing to oxidising, oxidising, indeterminate; in this data set all are either oxidising or indeterminate
VOID_OVERALL	V1	no	none, very few, few, common, abundant, very abundant
VOID_VESIC_MEGA	V2	no	For all 'VOID_X_Y' variables: none, few, frequent, predominant
VOID_VESIC_MACRO	V3	no	. . .
VOID_VESIC_MESO	V4	no	. . .
VOID_VESIC_MICRO	V5	no	. . .
VOID_VUGH_MEGA	V6	no	. . .
VOID_VUGH_MACRO	V7	no	. . .
VOID_VUGH_MESO	V8	no	. . .
VOID_VUGH_MICRO	V9	no	. . .
VOID_CHAN_MEGA	V10	no	. . .
VOID_CHAN_MACRO	V11	no	. . .
VOID_CHAN_MESO	V12	no	. . .
VOID_CHAN_MICRO	V13	no	. . .
VOID_PLAN_MEGA	V14	no	. . .
VOID_PLAN_MACRO	V15	no	. . .
VOID_PLAN_MESO	V16	no	. . .
VOID_PLAN_MICRO	V17	no	. . .
COAR_FREQ	L1	no	none, very few, few, common, abundant, very abundant
COAR_GRAINSIZE	L2	no	none, very fine, very fine to fine, fine, fine to medium, medium, medium to coarse, coarse, coarse to very coarse, very coarse
COAR_ROUNDNESS	L3	yes	angular, angular to subangular, subangular, subangular to subrounded, subrounded, subrounded to rounded, rounded, none
COAR_FORM	L4	yes	elongate, elongate to equidimensional, equidimensional, equidimensional to laminar, laminar, none
COAR_SPACING	L5	no	single-spaced, single to double-spaced, double-spaced, double to open-spaced, open-spaced, none
COAR_SORTING	L6	no	poorly-sorted, poorly to moderately-sorted, moderately-sorted, moderately to well-sorted, well-sorted, none

Variable name	Variable code	Provenance related	Values
COAR_R_GRANIT	L7	yes	For all 'COAR_R_X' variables: none, few, common, frequent, dominant, predominant
COAR_R_RHYOL	L8	yes	. . .
COAR_R_DIOR	L9	yes	. . .
COAR_R_DAC_AND	L10	yes	. . .
COAR_R_GABBRO	L11	yes	. . .
COAR_R_BASALT	L12	yes	. . .
COAR_R_SYEN	L13	yes	. . .
COAR_R_TRACHY	L14	yes	. . .
COAR_R_CONGBREC	L15	yes	. . .
COAR_R_QTZSANDST	L16	yes	. . .
COAR_R_FELDSANDST	L17	yes	. . .
COAR_R_LITSANDST	L18	yes	. . .
COAR_R_CASILTST	L19	yes	. . .
COAR_R_FESILTST	L20	yes	. . .
COAR_R_CAMUDST	L21	yes	. . .
COAR_R_FEMUDST	L22	yes	. . .
COAR_R_CLAYST	L23	yes	. . .
COAR_R_LIMEST	L24	yes	. . .
COAR_R_CALS	L25	yes	. . .
COAR_R_DOLOM	L26	yes	. . .
COAR_R_CALM	L27	yes	. . .
COAR_R_SPELEO	L28	yes	. . .
COAR_R_CAL.FOS	L29	yes	. . .
COAR_R_BIVAL	L30	yes	. . .
COAR_R_TRAV	L31	yes	. . .
COAR_R_EVAP	L32	yes	. . .
COAR_R_CHERT	L33	yes	. . .
COAR_R_RADIO	L34	yes	. . .
COAR_R_SLATE	L35	yes	. . .
COAR_R_PHYLL	L36	yes	. . .
COAR_R_SCHIST	L37	yes	. . .
COAR_R_GNEISS	L38	yes	. . .
COAR_R_QUARTZ	L39	yes	. . .
COAR_R_MARBLE	L40	yes	. . .
COAR_R_AMP	L41	yes	. . .
COAR_R_SERP	L42	yes	. . .
COAR_C_QTZ	L43	yes	For all 'COAR_C_X' variables: none, few, common, frequent, dominant, predominant
COAR_C_PL	L44	yes	. . .
COAR_C_KFS	L45	yes	. . .
COAR_C_SA	L46	yes	. . .
COAR_C_MS	L47	yes	. . .
COAR_C_BT	L48	yes	. . .
COAR_C_SRP	L49	yes	. . .
COAR_C_OP	L50	yes	. . .
COAR_C_RT	L51	yes	. . .
COAR_C_SPL	L52	yes	. . .
COAR_C_EP	L53	yes	. . .
COAR_C_AM	L54	yes	. . .
COAR_C_CPX	L55	yes	. . .

Variable name	Variable code	Provenance related	Values
COAR_C_OPX	L56	yes	...
COAR_C_OL	L57	yes	...
COAR_C_GRT	L58	yes	...
COAR_C_SIL	L59	yes	...
COAR_C_ST	L60	yes	...
COAR_C_TTN	L61	yes	...
COAR_C_ZRN	L62	yes	...
COAR_C_AP	L63	yes	...
COAR_C_PY	L64	yes	...
FINE_FREQ	S1	no	none, very few, few, common, abundant, very abundant
FINE_GRAINSIZE	S2	no	none, very fine silt, very fine to fine silt, fine silt, fine to medium silt, medium silt, medium to coarse silt, coarse silt, coarse silt to very fine sand
FINE_FORM	S3	yes	elongate, elongate to equidimensional, equidimensional, equidimensional to laminar, laminar, none
FINE_C_CAL	S4	yes	For all 'FINE_C_X' variables: none, few, frequent, predominant
FINE_C_CALFOS	S5	yes	...
FINE_C_QTZ	S6	yes	...
FINE_C_PL	S7	yes	...
FINE_C_KFS	S8	yes	...
FINE_C_SA	S9	yes	...
FINE_C_MS	S10	yes	...
FINE_C_BT	S11	yes	...
FINE_C_SRP	S12	yes	...
FINE_C_OP	S13	yes	...
FINE_C_RT	S14	yes	...
FINE_C_EP	S15	yes	...
FINE_C_AM	S16	yes	...
FINE_C_CPX	S17	yes	...
FINE_C_OPX	S18	yes	...
FINE_C_OL	S19	yes	...
FINE_C_GRT	S20	yes	...
FINE_C_ZRN	S21	yes	...