

Supplement of Earth Syst. Sci. Data, 10, 2123–2139, 2018  
<https://doi.org/10.5194/essd-10-2123-2018-supplement>  
© Author(s) 2018. This work is distributed under  
the Creative Commons Attribution 4.0 License.



Open Access  
Earth System  
Science  
Data

*Supplement of*

## **OCTOPUS: an open cosmogenic isotope and luminescence database**

**Alexandru T. Codilean et al.**

*Correspondence to:* Alexandru T. Codilean ([codilean@uow.edu.au](mailto:codilean@uow.edu.au))

The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.

**TABLE S1: Description of CRN attribute table entries**

Field Name	Type & Units	Values	Example	Description
<b>Source of data and version information</b>				
<b>SMPID1</b>	String	[S###WTS###]	S101WTS001	Unique sample identifier provided as part of the compilation
<b>SMPID2</b>	String	[Sample Name]	Achina	Original sample identifier (as published)
<b>IGSNID</b>	String	[IGSN Sample Name] or NA – for not applicable	NA	Placeholder for <i>International Geo Sample Number</i> unique ID. Not in use and set by default to NA
<b>STUDYID</b>	String	[S###]	S101	Unique study identifier provided as part of the compilation
<b>AUTH</b>	String	[Author Name]	Munack	Last name of lead author
<b>PUBYEAR</b>	Integer	[YYYY] – for published data or 9999 – for data not published	2014	Year of publication
<b>REFID</b>	String	[Abbrev_Publ_Name_Vol] or PhD_Thesis MSc_Thesis Hons_Thesis Not_Published	Geol_Soc_Am_Bull_126	Abbreviated name of journal and volume number, or type of publication (i.e., PhD thesis Master thesis, etc.)
<b>REFDOI</b>	String	[DOI String] – where available or ND – for no data NA – for not applicable	10.1130/B30979.1	Digital object identifier (DOI) where available
<b>DBDOI</b>	String	[DOI String]	10.4225/48/5a8367feac9b2	Digital object identifier (DOI) of the CRN sub-collection as provided by UOW Library
<b>DBVER</b>	Integer	[YYYY]	2017	Version of the sub-collection. The year when version with DOI provided in DBDOI was published online
<b>Location of sample site</b>				
<b>BASIN</b>	String	[Name] or ND – for no data	Upper Indus	River basin from where sample is from; Use name of river or stream sampled; If not available, use name of higher order stream or river
<b>AHGFL1</b>	String	CC – Carpentaria Coast LEB – Lake Eyre Basin MDB – Murray-Darling Basin NEC – North East Coast	NA	Geofabric AHGF river region code. Only used for data from Australia

		NWP – North Western Plateau PG – Pilbara-Gascoyne SAG – South Australian Gulf SEN – South East Coast NSW SEV – South East Coast VIC SWC – South West Coast SWP – South Western Plateau TAS – Tasmania TTS – Tanami-Timor Sea Coast  NA – for basins outside Australia		
<b>AHGFL2</b>	String	[AHGFCode##] or NA – for basins outside Australia	NA	Geofabric AHGF combined river region code (AHGLF1) and topographic drainage division two-digit number; Only used for data from Australia
<b>REGION</b>	String	[Name] or ND – for no data	Himalaya	Name of the study region; This might be the name of a drainage basin, mountain range, geographic region, or administrative region, etc.
<b>CNTRY</b>	String	[ISO Code]	IND	ISO 3-letter country code from where sample is from
<b>X_WGS84</b>	Float [decimal degree]	[value; six decimal places]	76.630114	WGS84 longitude of sample site as identified on the DEM (N.B. not necessarily the published X coordinate)
<b>Y_WGS84</b>	Float [decimal degree]	[value; six decimal places]	34.504037	WGS84 latitude of sample site as identified on the DEM (N.B. not necessarily the published Y coordinate)
<b>Type of material sampled</b>				
<b>MATERIAL</b>	Integer	1 – sand 2 – gravel 3 – mix of sand and gravel 9 – other grain size  0 – no data	1	Type of material sampled
<b>SIZEMIN</b>	Integer [micron]	[size in microns] or 0 – for no data	125	Minimum grain size sampled
<b>SIZEMAX</b>	Integer [micron]	[size in microns] or 0 – for no data	500	Maximum grain size sampled
<b>Cosmogenic Be-10 data</b>				

<b>BE10NP</b>	Integer <i>[atoms.g<sup>-1</sup>]</i>	<i>[value]</i> or -9999 – for not data	723742	Published Be-10 concentration
<b>BE10NP_ERR</b>	Integer <i>[atoms.g<sup>-1</sup>]</i>	<i>[value]</i> or -9999 – for not data	24087	Published 1-sigma uncertainty in Be-10 concentration
<b>BE10EP</b>	Float <i>[mm.kyr<sup>-1</sup>]</i>	<i>[value; two decimal places]</i> or -9999.99 – for not data	62.91	Published Be-10 denudation rate
<b>BE10EP_ERR</b>	Float <i>[mm.kyr<sup>-1</sup>]</i>	<i>[value; two decimal places]</i> or -9999.99 – for not data	5.45	Published 1-sigma uncertainty in Be-10 denudation rate
<b>BESTND</b>	String	07KNSTD KNSTD NIST_Cert NIST_30000 NIST_30200 NIST_30300 NIST_30600 NIST_27900 BEST433 S555 S2007 BEST433N S555N S2007N STD11 LLNL31000 LLNL10000 LLNL3000 LLNL1000 LLNL300  ND – when standard info not provided (KNSTD assumed) NA – when not applicable	S2007N	Name of AMS Be standardisation used; When information is not provided, it is assumed that authors used the KNSTD standardisation as this is was the most commonly used standardisation prior to 2007 at AMS labs in the United States
<b>BECORR</b>	Float <i>[dimensionless]</i>	1.0000 <i>[07KNSTD, NIST_27900, BEST433N, S555N, S2007N, STD11]</i> 0.9042 <i>[KNSTD, LLNL10000]</i>	1.0000	Correction factor for renormalising Be-10 concentration and uncertainty to 07KNSTD standard

		1.0425 [NIST_Cert] 0.9313 [NIST_30000, LLNL1000] 0.9251 [NIST_30200] 0.9221 [NIST_30300] 0.9130 [NIST_30600] 0.9124 [BEST433, S555, S2007] 0.8761 [LLNL31000] 0.8644 [LLNL3000] 0.8562 [LLNL300]  -9.9999 – for not data		
<b>BEAMS</b>	String	[name]  ND – when not provided NA – when not applicable	ETH-Zuerich	Name of AMS where measurements were done
<b>BE10NC</b>	Integer [atoms.g <sup>-1</sup> ]	[value] or -9999 – for not data	723742	Be-10 concentration normalised to 07KNSTD
<b>BE10NC_ERR</b>	Integer [atoms.g <sup>-1</sup> ]	[value] or -9999 – for not data	24087	Uncertainty in Be-10 concentration normalised to 07KNSTD
<b>Cosmogenic Al-26 data</b>				
<b>AL26NP</b>	Integer [atoms.g <sup>-1</sup> ]	[value] or -9999 – for not data	-9999	Published Al-26 concentration
<b>AL26NP_ERR</b>	Integer [atoms.g <sup>-1</sup> ]	[value] or -9999 – for not data	-9999	Published 1-sigma uncertainty in Al-26 concentration
<b>AL26EP</b>	Float [mm.kyr <sup>-1</sup> ]	[value; two decimal places] or -9999.99 – for not data	-9999.99	Published Al-26 denudation rate
<b>AL26EP_ERR</b>	Float [mm.kyr <sup>-1</sup> ]	[value; two decimal places] or -9999.99 – for not data	-9999.99	Published 1-sigma uncertainty in Al-26 denudation rate
<b>ALSTND</b>	String	KNSTD ZAL94 ZAL94N	NA	Name of AMS Al standardisation used; When information is not provided, it is assumed that authors used the KNSTD standardisation as this is the most common

		SMAL11 Z92-0222  ND – when standard info not provided (KNSTD assumed) NA – when not applicable		
<b>ALCORR</b>	Float <i>[dimensionless]</i>	1.0000 [KNSTD, ZAL94N, Z92-0222] 0.9134 [ZAL94] 1.0210 [SMAL11]  -9.9999 – for not data	-9.9999	Correction factor for renormalising Al-26 concentration and uncertainty to KNSTD standard
<b>ALAMS</b>	String	<i>[name]</i>  ND – when not provided NA – when not applicable	NA	Name of AMS where measurements were done
<b>AL26NC</b>	Integer <i>[atoms.g<sup>-1</sup>]</i>	<i>[value]</i> or -9999 – for not data	-9999	Al-26 concentration normalised to KNSTD
<b>AL26NC_ERR</b>	Integer <i>[atoms.g<sup>-1</sup>]</i>	<i>[value]</i> or -9999 – for not data	-9999	Uncertainty in Al-26 concentration normalised to KNSTD
<b>Denudation rate calculations using Be-10</b>				
<b>BEPROD</b>	Float <i>[dimensionless]</i>	<i>[value; three decimal places]</i> or -99.999 – for not data	16.148	CAIRN average production scaling correction for the basin
<b>BETOPO</b>	Float <i>[dimensionless]</i>	<i>[value; three decimal places]</i> or -9.999 – for not data	0.964	CAIRN average topographic shielding correction for the basin
<b>BESELF</b>	Float <i>[dimensionless]</i>	<i>[value; three decimal places]</i> or -9.999 – for not data	1.000	CAIRN average self shielding correction for the basin
<b>BESNOW</b>	Float <i>[dimensionless]</i>	<i>[value; three decimal places]</i> or -9.999 – for not data	1.000	CAIRN average snow shielding correction for the basin
<b>BETOTS</b>	Float <i>[dimensionless]</i>	<i>[value; three decimal places]</i> or -99.999 – for not data	15.606	CAIRN average combined shielding and scaling correction for the basin

<b>EBE_GCMYR</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	0.01499	CAIRN Be-10 denudation rate in mass per unit area
<b>ERRBE_AMS</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	0.00050	CAIRN Be-10 denudation rate uncertainty at 1-sigma level in mass per unit area derived from AMS uncertainty
<b>ERRBE_MUON</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	0.00021	CAIRN Be-10 denudation rate uncertainty at 1-sigma level in mass per unit area derived from muon uncertainty
<b>ERRBE_PROD</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	0.00266	CAIRN Be-10 denudation rate uncertainty at 1-sigma level in mass per unit area derived from uncertainty in the production rate
<b>ERRBE_TOT</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	0.00272	CAIRN Be-10 denudation rate uncertainty at 1-sigma level in mass per unit area that combines all uncertainties
<b>EBE_MMKYR</b>	Float [mm.kyr <sup>-1</sup> ]	[value; two decimal places] or -9999.99 – for not data	56.56	CAIRN Be-10 denudation rate calculated assuming density of 2650 kg.m <sup>-3</sup>
<b>EBE_ERR</b>	Float [mm.kyr <sup>-1</sup> ]	[value; two decimal places] or -9999.99 – for not data	10.26	CAIRN Be-10 denudation rate uncertainty at 1-sigma level calculated assuming density of 2650 kg.m <sup>-3</sup>
<b>Denudation rate calculations using AI-26</b>				
<b>ALPROD</b>	Float [dimensionless]	[value; three decimal places] or -99.999 – for not data	-99.999	CAIRN average production scaling correction for the basin
<b>ALTOPO</b>	Float [dimensionless]	[value; three decimal places] or -9.999 – for not data	-9.999	CAIRN average topographic shielding correction for the basin
<b>ALSELF</b>	Float [dimensionless]	[value; three decimal places] or -9.999 – for not data	-9.999	CAIRN average self shielding correction for the basin
<b>ALSNOW</b>	Float [dimensionless]	[value; three decimal places] or -9.999 – for not data	-9.999	CAIRN average snow shielding correction for the basin
<b>ALTOTS</b>	Float [dimensionless]	[value; three decimal places] or	-99.999	CAIRN average combined shielding and scaling correction for the basin



		-99.999 – for not data		
<b>EAL_GCMYR</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	-9.99999	CAIRN AL-26 denudation rate in mass per unit area
<b>ERRAL_AMS</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	-9.99999	CAIRN AL-26 denudation rate uncertainty at 1-sigma level in mass per unit area derived from AMS uncertainty
<b>ERRAL_MUON</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	-9.99999	CAIRN AL-26 denudation rate uncertainty at 1-sigma level in mass per unit area derived from muon uncertainty
<b>ERRAL_PROD</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	-9.99999	CAIRN AL-26 denudation rate uncertainty at 1-sigma level in mass per unit area derived from uncertainty in the production rate
<b>ERRAL_TOT</b>	Float [g.cm <sup>-2</sup> .yr <sup>-1</sup> ]	[value; five decimal places] or -9.99999 – for not data	-9.99999	CAIRN AL-26 denudation rate uncertainty at 1-sigma level in mass per unit area that combines all uncertainties
<b>EAL_MMKYR</b>	Float [mm.kyr <sup>-1</sup> ]	[value; two decimal places] or -9999.99 – for not data	-9999.99	CAIRN AL-26 denudation rate calculated assuming density of 2650 kg.m <sup>-3</sup>
<b>EAL_ERR</b>	Float [mm.kyr <sup>-1</sup> ]	[value; two decimal places] or -9999.99 – for not data	-9999.99	CAIRN AL-26 denudation rate uncertainty at 1-sigma level calculated assuming density of 2650 kg.m <sup>-3</sup>
<b>Topographic parameters</b>				
<b>PROJECTION</b>	String	[name]	WGS84_UTM_44N	Name of projected coordinate system used for calculations
<b>AREA</b>	Float [km <sup>2</sup> ]	[value; two decimal places]	65.41	Basin area as calculated from projected DEM
<b>ELEV_AVE</b>	Float [m]	[value; two decimal places]	4449.06	Mean elevation of basin as calculated from projected DEM
<b>ELEV_STD</b>	Float [m]	[value; two decimal places]	597.93	Standard deviation of elevation of basin as calculated from projected DEM
<b>SLP_AVE</b>	Float [m.km <sup>-1</sup> ]	[value; two decimal places]	512.30	Mean slope gradient of basin as calculated from projected DEM
<b>SLP_STD</b>	Float [m.km <sup>-1</sup> ]	[value; two decimal places]	181.90	Standard deviation of slope gradient of basin as calculated from projected DEM

**TABLE S2: Description of OSL/TL attribute table entries**

Field Name	Type & Units	Values	Example	Description
<b>Source of data and version information</b>				
<b>SMPID1</b>	String	[L###TL###] – for TL [L###OSL###] – for OSL	L139OSL001	Unique sample identifier provided as part of the compilation
<b>SMPID2</b>	String	[Sample Name]	NR99001	Original sample identifier (as published)
<b>IGSNID</b>	String	[IGSN Sample Name] or NA – for not applicable	NA	Placeholder for <i>International Geo Sample Number</i> unique ID. Not in use and set by default to NA
<b>STUDYID</b>	String	[S###]	L139	Unique study identifier provided as part of the compilation
<b>AUTH</b>	String	[Author Name]	Eriksson	Surname of the first author of the publication/thesis author
<b>PUBYEAR</b>	Integer	[YYYY] – Year or 9999 – for data not published	2006	Year of the publication
<b>REFID</b>	String	[Abbrev_Publ_Name_Vol] or PhD_Thesis MSc_Thesis Hons_Thesis Not_Published Report_Published Report_Unpublished	Geomorphology_81	Abbreviated name of journal and volume number, or type of publication (i.e., PhD thesis Master thesis, etc.)
<b>REFDOI</b>	String	[DOI String] – where available Or ND – for no data NA – for not applicable	10.1016/j.geomorph.2006.04.001	Digital object identifier (DOI) where available
<b>DBDOI</b>	String	[DOI String]	10.4225/48/5a836db1ac9b6	Digital object identifier (DOI) of the TL-OSL sub-collection as provided by UOW Library
<b>DBVER</b>	Integer	[YYYY]	2017	Version of the sub-collection. The year when version with DOI provided in DBDOI was published online
<b>Location of sample site</b>				
<b>BASIN</b>	String	[Name] or ND – for no data	Murrumbidgee River	River basin from where sample is from; Use name of river or stream sampled; If not available, use name of higher order stream or river

<b>AHGFL1</b>	String	CC – Carpentaria Coast LEB – Lake Eyre Basin MDB – Murray-Darling Basin NEC – North East Coast NWP – North Western Plateau PG – Pilbara-Gascoyne SAG – South Australian Gulf SEN – South East Coast NSW SEV – South East Coast VIC SWC – South West Coast SWP – South Western Plateau TAS – Tasmania TTS – Tanami-Timor Sea Coast	MDB	Geofabric AHGF river region code.
<b>AHGFL2</b>	String	[AHGFCode##] or NA – for basins outside Australia	MDB12	Geofabric AHGF combined river region code (AHGLF1) and topographic drainage division two-digit number
<b>X_WGS84</b>	Float [decimal degree]	[value; six decimal places] or -999 – no data	149.074222	WGS84 latitude of sample site
<b>Y_WGS84</b>	Float [decimal degree]	[value; six decimal places] or -999 – no data	-35.678042	WGS84 longitude of sample site
<b>CORDS</b>	String	ORG – originally published coordinates INTP – coordinates interpolated from the published map BAS – coordinates of river channel nearest to the sample site as identified on the DEM or ND – no data	INTP	Source of coordinates for the sample site
<b>SITENAME1</b>	String	[Name] or ND – for no data	Naas River	Name of the site, first degree such as name of the river
<b>SITENAME2</b>	String	[Name] or ND – for no data	ND	Name of the site, second degree such as locality along the river
<b>SITENAME3</b>	String	[Name]	Terrace 3	Outcrop name or number of the site/trench/core

		or ND – for no data		
<b><i>Geomorphological features and facies, and type of material sampled</i></b>				
<b>GEOTYPE</b>	Integer	1 – Terrace 2 – Floodplain 3 – Alluvial Fan 4 – Bench 5 – Island 6 – Slack Water Deposit 7 – Levee  0 – No data	1	Geomorphological type of feature sampled
<b>FACIES</b>	Integer	1 - Channel 2 - Overbank  0 – No data	1	Sedimentological facies type
<b>SITETYPE</b>	String	Outcrop Core Auger hole Pit or Quarry Artificial excavation (trench) or Unknown	Artificial excavation	Type of the site from which samples were extracted
<b>SITETCODE</b>	Integer	1 – Outcrop 2 – Core 3 – Auger hole 5 – Pit or Quarry 6 – Artificial excavation  9 - Unknown	6	Numerical code assigned to each SITETYPE option
<b>DEPTHICK</b>	Float [m]	[#.###] or -999.99 – for no data	-999.99	Total depth of the core or height of the outcrop
<b>SMPDEPTH</b>	Float [m]	[#.###] or -999.99 – for no data	1.35	Depth below the surface from which sample was extracted
<b>MATERIAL</b>	Integer	1 - Sand 2 - Silt	0	Type of stratigraphic unit sampled

		3 – Clay 9 - Bioturbated  0 - Unknown		
<b>Luminescence chronology data</b>				
<b>LUMAGE</b>	Float [ka]	[value]	0.915	Published luminescence age
<b>LUMERR</b>	Float [ka]	[value] or If value is -999.999, means sample reached saturation and author was not able to determine D <sub>e</sub> value	0.090	Published luminescence age error
<b>LUMTYPE</b>	String	OSL – Optically Stimulated Luminescence TL – Thermoluminescence	OSL	Type of luminescence method used in age determination
<b>MINERAL</b>	String	Q – Quartz F – Feldspar PM – Polymineral (when grains are < 10 microns)	Q	Type of mineral analysed
<b>SIZEMIN</b>	Integer [μm]	[###] or -999 – for no data	180	Minimum grain size sampled
<b>SIZEMAX</b>	Integer [μm]	[###] or -999 – for no data	212	Maximum grain size sampled
<b>PROTOCOL</b>	String	OSL: SAR – Single Aliquot Regenerative SGR – Single Grain Regenerative MA – Multi-grain Multiple Aliquot Additive Dose  TL: AS – ‘Australian Slide’ MAR – Multiple Aliquot Regenerative MAAD – Multiple Aliquot Additive Dose	SGR	Type of protocol used for luminescence dating

		CRAM – Combined Regenerative and Additive Method  ND – for no data		
<b>RESCOR</b>	String	Y – Yes N – No	N	Whether the residual correction was applied; mostly in TL
<b>AGEMODEL</b>	String	OSL: CAM – Central Age Model MAM – Minimum Age Model FMM – Finite Mixture Model MAX – Maximum Age Model PDFG – Pdf Gaussian Age Model  TL: Mean  ND – for no data	MAM	Type of age model applied for age determination
<b>PLAT_REG</b>	String [°C]	<i>[range]</i> or NA – not applicable, for OSL	NA	Pre-heat plateau region, for TL only; not applicable to OSL
<b>AN_TEMP1</b>	Integer [°C]	<i>[###]</i> or -999 – for no data	240	Specific temperature at which analysis performed, for TL; or pre-heat temperature 1 for OSL
<b>AN_TEMP2</b>	Integer [°C]	<i>[###]</i> or -999 – for no data	125	Pre-heat temperature 2 for OSL, and from which analytical data was obtained for age determination
<b>NALIQUOTS</b>	Integer	<i>[value]</i> or -999 – for no data	-999	Number of aliquots measured in either TL or OSL
<b>NGR_MEAS</b>	Integer	<i>[value]</i> Or -999 – not applicable for all the other techniques and methods than SGR OSL	-999	Number of grains measured during the analysis; SGR protocol in OSL only
<b>NGR_ACC</b>	Integer	-999 – not applicable for all the other techniques and methods than SGR OSL	-999	Number of grains accepted after the analysis; SGR protocol in OSL only

		Or -999 – for no data		
<b>EQUIVDOSE</b>	Float [Gy]	[value]	3.790	Equivalent dose (ED) or Dose equivalent (De) in OSL; Palaeodose in TL, used for age determination
<b>ED_ERR</b>	Float [Gy]	[value]	0.200	Published error for the dose
<b>ED_SAT</b>	Float [Gy]	[value] or -999.99 – for no data	-999.99	Equivalent dose (ED) for saturated age; mostly in TL
<b>ED_SATERR</b>	Float [Gy]	[value] or -999.99 – for no data	-999.99	Published error for saturated age
<b>OD</b>	Float [%]	[value] or -999.99 – for no data	-999.99	Overdispersion, value representing spread of data in aliquot or single grain data
<b>OD_ERR</b>	Float [%]	[value] or -999.99 – for no data	-999.99	Published error for overdispersion
<b>Radiation dose data</b>				
<b>DOSERATE</b>	Float [Gy/ka]	[value]	0.004	Dose rate, representing total dose of radiation received by the sample (in OSL) or annual radiation dose (in TL)
<b>DR_ERR</b>	Float [Gy/ka]	[value]	0.000	Published error for the dose rate
<b>K_CONTENT</b>	Float [%]	[value] or -999.99 – for no data	-999.99	Potassium (K) content within the sample
<b>K_CONERR</b>	Float [%]	[value] or -999.99 – for no data	-999.99	Published error for potassium content
<b>RB_CONTENT</b>	Float [ppm]	[value] or -999.99 – for no data	-999.99	Rubidium (Rb) content, mainly provided in TL data set
<b>U_TH</b>	Float [Bq/kg]	[value] or	-999.99	Elemental content expressing activity of radioactive elements (specific activity), mainly used in TL



		-999.99 – for no data		
<b>U_TH_ERR</b>	Float [Bq/kg]	[value] or -999.99 – for no data	-999.99	Published error for U + Th specific activity
<b>U238</b>	Float [Bq/kg]	[value] or -999.99 – for no data	36.00	<sup>238</sup> U content from High Resolution Gamma Spectrometry (HRGS)
<b>U238_ERR</b>	Float [Bq/kg]	[value] or -999.99 – for no data	2.00	Published error value
<b>RA226</b>	Float [Bq/kg]	[value] or -999.99 – for no data	31.40	<sup>226</sup> Ra content from High Resolution Gamma Spectrometry (HRGS)
<b>RA226_ERR</b>	Float [Bq/kg]	[value] or -999.99 – for no data	0.20	Published error value
<b>PB210</b>	Float [Bq/kg]	[value] or -999.99 – for no data	25.80	<sup>210</sup> Pb content from High Resolution Gamma Spectrometry (HRGS)
<b>PB210_ERR</b>	Float [Bq/kg]	[value] or -999.99 – for no data	1.60	Published error value
<b>TH232</b>	Float [Bq/kg]	[value] or -999.99 – for no data	59.20	<sup>232</sup> Th content from High Resolution Gamma Spectrometry (HRGS)
<b>TH232_ERR</b>	Float [Bq/kg]	[value] or -999.99 – for no data	0.60	Published error value
<b>K40</b>	Float [Bq/kg]	[value] or -999.99 – for no data	758.00	<sup>40</sup> K content from High Resolution Gamma Spectrometry (HRGS)
<b>K40_ERR</b>	Float [Bq/kg]	[value] or -999.99 – for no data	12.00	Published error value
<b>U</b>	Float [Bq/kg]	[value] or	-999.99	Uranium (U) content in the sample

		-999.99 – for no data		
<b>U_ERR</b>	Float [Bq/kg]	[value] or -999.99 – for no data	-999.99	Published error for uranium content
<b>TH</b>	Float [ppm]	[value] or -999.99 – for no data	-999.99	Thorium (Th) content in the sample
<b>TH_ERR</b>	Float [ppm]	[value] or -999.99 – for no data	-999.99	Published error for thorium content
<b>ALPHA</b>	Float [Gy/ka]	[value] or -999.99 – for no data	0.04	Measured or assumed alpha radiation values used for age determination
<b>ALPHA_ERR</b>	Float [Gy/ka]	[value] or -999.99 – for no data	0.02	Published error value
<b>BETA</b>	Float [Gy/ka]	[value] or -999.99 – for no data	-999.99	Measured beta radiation values used for age determination
<b>BETA_ERR</b>	Float [Gy/ka]	[value] or -999.99 – for no data	-999.99	Published error value
<b>GAMMA</b>	Float [Gy/ka]	[value] or -999.99 – for no data	-999.99	Measured gamma radiation values used for age determination
<b>GAMMA_ERR</b>	Float [Gy/ka]	[value] or -999.99 – for no data	-999.99	Published error value
<b>COSMIC</b>	Float [Gy/ka]	[value] or -999.99 – for no data	-999.99	Cosmic ray contribution to the dose of radiation received by the sample
<b>COSMIC_ERR</b>	Float [Gy/ka]	[value] or -999.99 – for no data	-999.99	Published error value
<b>H2O</b>	Float [%]	[value] or	6.10	Water content in the sample

		-999.99 – for no data		
<b>H2O_ERR</b>	Float [%]	[value] or -999.99 – for no data	-999.99	Published error value
<b>Additional information</b>				
<b>DRMETHOD</b>	String	LAB – dose rate data acquired only true analytical method  FIELD + LAB – dose rate data acquired by field and lab measurements	LAB	Dose rate method of data acquisition
<b>TSAC</b>	String	Y – Yes N – No or NA – not applicable	N	Thick-source alpha counting; OSL and TL
<b>BETA</b>	String	Y – Yes N – No or NA – not applicable	N	Beta particle counting, mainly OSL
<b>HRGS</b>	String	Y – Yes N – No or NA – not applicable	Y	High resolution gamma spectrometry
<b>ICP_MS_OES</b>	String	Y – Yes N – No or NA – not applicable	N	ICP-MS/ICP-OES for neutron activation
<b>FP_TSAC</b>	String	Y – Yes N – No or NA – not applicable	NA	Flame Photometry paired with thick-source alpha counting; TL only
<b>DOSERECOV</b>	String	Y – Yes N – No or NA – not applicable	N	Whether dose recovery was applied during age determination