

## APPENDIX 2

### Luminescence dates (OSL) for the Volochysk samples – Gliwice laboratory

Sample	No. lab Gd TL	<sup>238</sup> U [Bq/kg]	<sup>232</sup> Th [Bq/kg]	<sup>40</sup> K [Bq/kg]	Dose rate $d_r$ [Gy/ka] (90–125 $\mu$ m)	Equivalent dose $d_e$ [Gy] (90–125 $\mu$ m)	OSL age [ky] (90–125 $\mu$ m)	Dose rate $d_r$ [Gy/ka] (4–11 $\mu$ m)	Equivalent dose $d_e$ [Gy] (4–11 $\mu$ m)	Post-IR IRSL age [ky] (4–11 $\mu$ m)
W-3	1434	28.65±0.53	35.48 ± 0.86	490 ± 14	2.54 ± 0.15	59.9 ± 1.5	23.5 ± 1.5			
W-4	1435	28.98 ± 0.53	37.61 ± 0.82	508 ± 14	2.62 ± 0.15	141.3 ± 6.0	53.8 ± 4.0			
W-5	1436	28.17 ± 0.56	37.64 ± 0.89	540 ± 16	2.69 ± 0.16	62.0 ± 1.6	23.0 ± 1.5			
W-6	1437	29.50 ± 0.44	42.94 ± 0.73	527 ± 14	2.69 ± 0.15	64.7 ± 1.9	24.0 ± 1.6			
W-7	1438	28.83 ± 0.57	40.79 ± 0.88	543 ± 16	2.75 ± 0.16	109.3 ± 6.8	38.8 ± 3.4	3.30 ± 1.9	126.8 ± 3.3	38.4 ± 2.4
W-8		24.60 ± 0.57	39.68 ± 0.99	495 ± 14	–	–	–	3.03 ± 1.7	166.9 ± 2.9	55.0 ± 3.2
W-9	1439	26.09 ± 0.55	41.97 ± 0.96	484 ± 14	2.55 ± 0.16	140 ± 1.0	56.4 ± 4.6	3.08 ± 1.8	206.7 ± 3.7	67.0 ± 4.1
W-11	1440	28.04 ± 0.57	44.82 ± 0.94	591 ± 17	2.91 ± 0.17	196 ± 1.0	67.3 ± 5.7	3.48 ± 2.0	287.2 ± 4.8	82.5 ± 4.9
W-12	1441	24.49 ± 0.50	32.38 ± 0.86	412 ± 12	2.12 ± 0.13	180.1 ± 9.4	85.1 ± 6.9	2.61 ± 1.5	246.4 ± 3.4	94.4 ± 5.6
W-14	1442	25.22 ± 0.52	33.44 ± 0.89	426 ± 13	2.23 ± 0.13	205 ± 11	92.1 ± 7.5	2.69 ± 1.5	261.0 ± 4.5	97.0 ± 5.7
W-15	1443	28.13 ± 0.55	34.53 ± 0.82	500 ± 15	2.52 ± 0.15	60.7 ± 2.8	24.0 ± 1.9	3.03 ± 1.7	65.9 ± 1.6	21.7 ± 1.3
W-18	1444	29.19 ± 0.61	37.55 ± 0.99	542 ± 17	2.64 ± 0.16	36.8 ± 2.1	13.9 ± 1.2	3.22 ± 1.9	60.3 ± 1.4	18.7 ± 1.2