**Table 1. Summary of all existing 14C dates for the Afanasyevo sites**

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| Note, that samples of the same type with similar provenance represent duplicates/triplicates from the same object.In all cases samples of wood are taken from the ceilings of the graves.Data from: 1 Sementsov et al. 1969; 2 Vadetskaya 1981; 3 Zaitseva & van Geel 2004; 4 Zaitseva et al. 2005; 5 Ermolova & Markov 1983; 6 Svyatko et al. 2009; 7 Polyakov 2010; 8 Görsdorf et al. 1998; 9 Görsdorf 2002; 10 Görsdorf et al. 2004; 11 Stepanova 2009; 12 Orlova 1995; 13 Vdovina 2004; 14 Grushin 2009; 15 Kiryushin et al. 2009; 16 Derevyanko & Molodin 1994; 17 Orlova 1994; 18 Bazhenov et al. 2002; 19 Kovalev et al. 2008; 20 Bokovenko & Legran 2010; 21 Rasmussen at al. 2015; 22 Svyatko et al. 2017b; 23 Soenov & Trifanova 2010; 24 present study; 25 Soenov et al. 2012The 14C ages were calibrated using the OxCal 4.3.2 program (Bronk Ramsey 2009) and the IntCal13 calibration curve (Reimer et al. 2013). |
| **Lab ID** | **Sample type** | **Provenance** | **14C BP** | **Cal BC (2σ)** |
| **Middle Yenisei sites (39 dates)** |
| OxA-3122121 | human tooth | Afanasieva Gora, grave 15 | 4186±27 | 2887-2677 |
| OxA-3156821 | human tooth | Afanasieva Gora, grave 15 | 4224±36 | 2909-2679 |
| OxA-3122221 | human tooth | Afanasieva Gora, grave 17 | 4040±45 | 2851-2468 |
| UB-74896 | human bone | Afanasieva Gora, grave 25 | 4077±39 | 2861-2488 |
| UBA-79036 | human bone | Afanasieva Gora, grave 25 | 4037±31 | 2832-2473 |
| UBA-87726 | human bone | Afanasieva Gora, grave 27 | 4092±27 | 2859-2501 |
| Le-5321 | wood | Chernovaya VI, kurgan 4, grave 3 | 3700±80 | 2346-1883 |
| Le-89127 | wood | Itkol II, kurgan 23, grave 1 | 4170±35 | 2886-2631 |
| Le-89137 | human bone | Itkol II, kurgan 23, grave 1 | 4270±200 | 3505-2342 |
| Le-941023 | wood | Itkol II, kurgan 24, grave 1 | 4000±30 | 2577-2468 |
| Le-1143324 | wood | Itkol II, kurgan 25, grave 1 | 4240±50 | 3002-2635 |
| Le-85176 | wood | Itkol II, kurgan 27, grave 1 | 4170±30 | 2882-2635 |
| UBA-87736 | human bone | Karasuk III, enclosure 1, grave 2, skeleton 2 | 3996±26 | 2573-2469 |
| UBA-87746 | human bone | Karasuk III, enclosure 1, grave 3, skeleton 1 | 4148±26 | 2875-2630 |
| Le-9302 | wood | Krasniy Yar I, kurgan 7 | 4080±40 | 2863-2489 |
| Le-9312 | wood | Krasniy Yar I, kurgan 9 | 4170±50 | 2891-2601 |
| Le-10672, 3 | wood | Krasniy Yar I, kurgan 12 | 4240±60 | 3011-2629 |
| Le-10682, 3 | wood | Krasniy Yar I, kurgan 15 | 4160±40 | 2882-2623 |
| Le-16114, 5 | wood/charcoal | Letnik VI, enclosure 13 | 4250±40 | 2926-2679 |
| Le-16123 | charcoal | Letnik VI, enclosure 14 | 4410±50 | 3331-2909 |
| Le-21155 | wood/charcoal | Letnik VI, enclosure 14 | 4380±50 | 3322-2895 |
| Le-21165 | wood/charcoal | Letnik VI, enclosure 14 | 4410±50 | 3331-2909 |
| Le-20945 | wood/charcoal | Malinoviy Log, enclosure 1, grave 1 (closure) | 4770±60 | 3653-3376 |
| Le-20915 | wood/charcoal | Malinoviy Log, enclosure 4, grave 1 (closure) | 4780±50 | 3655-3377 |
| Le-20925 | wood/charcoal | Malinoviy Log, enclosure 4, grave 1 (closure) | 4790±50 | 3659-3379 |
| Le-20935 | wood/charcoal | Malinoviy Log, enclosure 4, grave 1 (closure) | 4820±50 | 3706-3384 |
| Le-4551 | charcoal | Maliye Kopeny II, kurgan 2 | 4440±150 | 3627-2696 |
| Le-614620 | human bone | Numakhyr, kurgan 1 | 4160±90 | 2915-2488 |
| Le-1098524 | human bone | Numakhyr, kurgan 10 | 3780±140 | 2618-1777 |
| Le-1138024 | human bone | Numakhyr, kurgan 11 | 4170±150 | 3322-2306 |
| Le-6941 | wood | Sargov Ulus, grave 3 | 4270±60 | 3084-2669 |
| Bln-47648 | wood | Sukhanikha, object 6, stone circle | 4409±70 | 3337-2904 |
| Bln-47658 | wood | Sukhanikha, object 6, stone circle | 4259±36 | 2927-2701 |
| Bln-47668 | wood | Sukhanikha, object 2, grave 2 | 4205±44 | 2904-2636 |
| Bln-47678 | wood | Sukhanikha, object 6, grave 1 | 4253±36 | 2923-2701 |
| Bln-47698 | wood | Sukhanikha, object 6, grave 1 | 4022±40 | 2834-2466 |
| Bln-49199 | wood | Sukhanikha, object 6, grave 15 | 3936±35 | 2566-2299 |
| Bln-52809, 10 | wood | Sukhanikha II, funeral structure 19a, grave 1 | 4271±30 | 2926-2778 |
| Le-13163 | charcoal | Vostochnoye, pit with charcoals within the kurgan | 3880±30 | 2467-2236 |
| **Altai Mountains sites (57 dates)***settlements* |
| SOAN-274416 | soil substance | Denisova cave | 5200±30 | 4048-3960 |
| SOAN-273416, 17 | soil | Denisova cave | 4190±30 | 2891-2671 |
| SOAN-273816, 17 | soil | Denisova cave | 4315±30 | 3014-2888 |
| SOAN-273916, 17 | charcoal | Denisova cave | 4265±30 | 2923-2765 |
| SOAN-274016, 17 | soil | Denisova cave | 4225±30 | 2907-2695 |
| SOAN-274216, 17 | soil | Denisova cave | 4725±70 | 3639-3370 |
| SOAN-231212 | charcoal | Kaminnaya cave | 4130±85 | 2894-2488 |
| SOAN-231312 | charcoal | Kaminnaya cave | 4180±90 | 3006-2488 |
| SOAN-256312 | charcoal | Kaminnaya cave | 4335±130 | 3362-2622 |
| SOAN-284412 | charcoal | Kaminnaya cave | 5000±140 | 4226-3384 |
| SOAN-162812 | wood | Kuyus (Kara-Tenesh), hearth | 4290±20 | 2919-2886 |
| UBA-2298922 | bone, sheep | Maliy Dugan | 4209±34 | 2901-2677 |
| UBA-2299022 | bone, roe-deer | Maliy Dugan | 4197±36 | 2896-2666 |
| *cemeteries* |
| UBA-2298822 | human bone | Ayrydash 1, burial 15 | 4336±34 | 3081-2892 |
| Le-16105 | wood | Elo-1, enclosure 2 | 4750±50 | 3641-3376 |
| SOAN-152112 | wood | Elo-1, enclosure 2  | 4720±25 | 3632-3377 |
| Le-16095 | wood | Elo-1, enclosure 4 | 4410±50 | 3331-2909 |
| SOAN-168512 | wood | Elo-1, enclosure 4 | 4420±30 | 3321-2921 |
| UBA-2298322 | human bone | Elo-Bashi, burial 3 | 4322±37 | 3078-2886 |
| UBA-2298422 | human bone | Elo-Bashi, burial 4 | 4392±40 | 3311-2905 |
| Le-16085 | wood | Elo-Bashi, burial 5 | 4920±50 | 3895-3636 |
| UBA-2640622 | human bone | Inskoy Dol, kurgan 9 | 4255±35 | 2922-2704 |
| UBA-2298522 | human bone | Kara-Koba 1, burial 1 | 4394±37 | 3308-2907 |
| UBA-2298622 | human bone | Kara-Koba 1, burial 3 | 4346±35 | 3084-2896 |
| Le-16075 | wood | Kara-Koba-1, burial 3 | 5100±50 | 3989-3775 |
| SOAN-614411 | wood | Kara-Koba-1, burial 3 | 4965±80 | 3949-3640 |
| UBA-3511624 | wood | Kara-Koba 1, burial 3 | 4331±31 | 3022-2893 |
| SOAN-792425 | wood | Nizhniy Ayry-Tash, kurgan 1 | 4780±85 | 3706-3369 |
| SOAN-792525 | wood | Nizhniy Ayry-Tash, kurgan 1 | 4840±95 | 3911-3372 |
| SOAN-545813 | wood | Nizhniy Ayry-Tash, kurgan 1 | 4480±50 | 3360-3013 |
| SOAN-545713 | human bone | Nizhniy Ayry-Tash, kurgan 1 | 4225±60 | 2999-2601 |
| SOAN-545913 | human bone | Nizhniy Ayry-Tash, kurgan 2 | 4725±40 | 3635-3375 |
| Le-16065 | wood | Nizhniy Tyumechin-1, burial 7 | 4860±60 | 3781-3520 |
| SOAN-602511 | human bone | Nizhniy Tyumechin-1, burial 9 | 3960±80 | 2849-2203 |
| UBA-2298722 | human bone | Ozernoye 2, kurgan 1 | 4404±36 | 3316-2911 |
| SOAN-602611 | human bone | Perviy Mezhelik-1, burial 10 | 4315±85 | 3331-2672 |
| UBA-2930822 | human bone | Perviy Mezhelik-1, burial 12 | 4389±33 | 3097-2912 |
| UBA-2930922 | animal bone | Perviy Mezhelik-1, burial 12 | 4473±35 | 3341-3026 |
| UBA-2930522 | human bone | Saldyar-1, burial 17 | 4344±41 | 3089-2891 |
| UBA-2930622 | human bone | Saldyar-1, burial 31 | 4462±34 | 3339-3021 |
| UBA-2930722 | human bone | Saldyar-1, burial 36 | 4409±34 | 3316-2915 |
| SOAN-602811 | human bone | Tarkhata-1, burial 8 | 3985±60 | 2836-2296 |
| SOAN-676115 | human bone | Tytkesken VI, kurgan 95 | 4250±110 | 3322-2496 |
| SOAN-747415 | human bone | Tytkesken VI, kurgan 95 | 4295±85 | 3323-2629 |
| Le-780514 | bone | Tytkesken VI, kurgan 95 | 3900±80 | 2580-2140 |
| SOAN-602711 | human bone | Ust-Teplaya, excavation 2, burial 7 | 3975±75 | 2852-2211 |
| OxA-3121921 | human tooth | Ust-Kuyum, grave 6 | 4423±29 | 3322-2923 |
| OxA-3122021 | human tooth | Ust-Kuyum, grave 6 | 4442±29 | 3331-2935 |
| SOAN-380218 | wood | Vladimirovka | 4665±75 | 3640-3122 |
| *Kurota Type* |
| Le-815715 | human bone | Bersyukta I, kurgan 1 | 4380±110 | 3369-2699 |
| SOAN-747515 | human bone | Bersyukta I, kurgan 1 | 4020±95 | 2873-2299 |
| Le-815815 | human bone | Bersyukta I, kurgan 2 | 4500±90 | 3495-2917 |
| Le-815915 | human bone | Bersyukta II, kurgan 2 | 4100±100 | 2908-2351 |
| Le-815415 | human bone | Choburak I, kurgan 1 | 4340±70 | 3331-2777 |
| Le-815515 | human bone | Choburak I, kurgan 2 | 4090±100 | 2903-2350 |
| Le-815615 | human bone | Choburak III, kurgan 1 | 3930±100 | 2855-2137 |
| SOAN-786223 | human bone | Nizhnyaya Tarkhata II, kurgan 4 | 4275±85 | 3265-2581 |
| **Mongolian sites (6 dates)** |
| Le-721919 | human bone | Kurgak Govi-1 | 4180±100 | 3050-2459 |
| Le-728919 | wood/charcoal | Kurgak Govi-1 | 4110±25 | 2862-2577 |
| Le-729019 | wood/charcoal | Kurgak Govi-1 | 4025±50 | 2856-2460 |
| Le-729119 | wood/charcoal | Kurgak Govi-1 | 4140±35 | 2875-2601 |
| Le-729219 | wood/charcoal | Kurgak Govi-1 | 4130±40 | 2873-2581 |
| Le-729319 | wood | Kurgak Govi-1 | 4085±30 | 2859-2497 |

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