

**Supplementary Table S1**

#	Lab. Code	Location	Dating technique	<sup>14</sup> C Age (BP)	Calibrated age BC/AD	Reference
1	SOAN-9091	Kuektanar mouth, furnace #2	LSC	1250 ± 65	<i>68.3% probability</i> 676AD (42.1%) 776AD 786AD (19.0%) 830AD 854AD (7.1%) 873AD <i>95.4% probability</i> 654AD (92.7%) 895AD 924AD (2.7%) 950AD	[30]
2	NSKA 00832	Kuektanar mouth, furnace #2	AMS	1368 ± 42	<i>68.3% probability</i> 608AD (7.4%) 620AD 638AD (53.7%) 680AD 748AD (7.2%) 758AD <i>95.4% probability</i> 600AD (78.7%) 706AD 737AD (16.8%) 774AD	[30]
3	Le-11999	Kuektanar mouth, furnace #3	LSC	1970 ± 170	<i>68.3% probability</i> 176BC (68.3%) 244AD <i>95.4% probability</i> 386BC (95.4%) 410AD	[31]
4	SOAN-5040	Kuektanar mouth, furnace #3	LSC	1775 ± 35	<i>68.3% probability</i> 238AD (18.0%) 259AD 279AD (50.3%) 334AD <i>95.4% probability</i> 212AD (95.4%) 380AD	[71]
5	Le-11997	Kuektanar mouth, furnace #3	LSC	1650 ± 80	<i>68.3% probability</i> 263AD (3.9%) 275AD 346AD (48.7%) 481AD 492AD (15.6%) 536AD <i>95.4% probability</i> 240AD (95.4%) 575AD	[31]
6	IAAA-171076	Kuektanar mouth, furnace #3	AMC	1540 ± 20	<i>68.3% probability</i> 481AD (7.9%) 492AD 536AD (60.4%) 574AD <i>95.4% probability</i> 436AD (10.8%) 464AD 475AD (13.4%) 501AD 508AD (1.5%) 516AD 529AD (69.8%) 594AD	[47]
7	NSKA 00833	Kuektanar mouth, furnace #3	AMS	1515 ± 33	<i>68.3% probability</i> 542AD (68.3%) 600AD <i>95.4% probability</i> 436AD (6.1%) 464AD 475AD (6.8%) 501AD 508AD (1.1%) 516AD 530AD (81.5%) 640AD	[30]
8	Le-11994	Kuektanar mouth, furnace #4	LSC	2190 ± 250	<i>68.3% probability</i> 541BC (67.3%) 81AD 98AD (1.0%) 110AD <i>95.4% probability</i> 826BC (95.4%) 360AD	[31]

9	Le-11992	Kuektanar mouth, furnace #4	LSC	$2020 \pm 150$	<p>68.3% probability  <i>336BC ( 0.9%) 330BC      198BC (65.2%) 167AD      186AD ( 2.2%) 202AD</i>      95.4% probability  <i>393BC (92.8%) 259AD      279AD ( 2.7%) 334AD</i></p>	[31]
10	Le-11993	Kuektanar mouth, furnace #4	LSC	$1840 \pm 180$	<p>68.3% probability  <i>33BC ( 2.1%) 16BC      6AD (66.1%) 410AD</i>      95.4% probability  <i>350BC ( 1.5%) 308BC      207BC (94.0%) 589AD</i></p>	[31]
11	NTU <sub>AMS</sub> -5803	Kuektanar mouth, furnace #4	AMC	$1743 \pm 69$	<p>68.3% probability  <i>244AD (67.2%) 384AD      398AD ( 1.0%) 400AD</i>      95.4% probability  <i>127AD (93.8%) 435AD      465AD ( 0.5%) 474AD      502AD ( 0.2%) 506AD      516AD ( 0.8%) 530AD</i></p>	[31]
12	NTU <sub>AMS</sub> -5800-1	Kuektanar mouth, furnace #4	AMS	$1710 \pm 60$	<p>68.3% probability  <i>252AD (18.5%) 290AD      320AD (49.8%) 414AD</i>      95.4% probability  <i>219AD (89.5%) 440AD      455AD ( 2.1%) 478AD      496AD ( 3.8%) 534AD</i></p>	[31]
13	Le-11828	Kuektanar mouth, furnace #4	LSC	$1680 \pm 50$	<p>68.3% probability  <i>258AD (11.3%) 280AD      332AD (56.9%) 425AD</i>      95.4% probability  <i>248AD (17.2%) 298AD      306AD (65.7%) 442AD      448AD ( 4.9%) 480AD      494AD ( 7.7%) 536AD</i></p>	[31]
14	Le-11995	Kuektanar mouth, furnace #4	LSC	$1680 \pm 45$	<p>68.3% probability  <i>260AD (10.3%) 278AD      338AD (57.9%) 422AD</i>      95.4% probability  <i>248AD (16.7%) 297AD      308AD (69.0%) 440AD      453AD ( 3.5%) 478AD      495AD ( 6.2%) 534AD</i></p>	[31]
15	NTU <sub>AMS</sub> -5802	Kuektanar mouth, furnace #4	AMS	$1666 \pm 62$	<p>68.3% probability  <i>259AD ( 8.1%) 279AD      335AD (48.3%) 436AD      464AD ( 3.7%) 475AD      500AD ( 3.0%) 509AD      515AD ( 5.2%) 530AD</i>      95.4% probability  <i>248AD (13.7%) 298AD      306AD (81.8%) 544AD</i></p>	[31]

16	Le-11996	Kuektanar mouth, furnace #4	LSC	$1660 \pm 70$	<i>68.3% probability</i> 260AD (6.6%) 278AD 336AD (42.0%) 440AD 456AD (7.0%) 478AD 496AD (12.6%) 534AD <i>95.4% probability</i> 246AD (95.4%) 552AD	[31]
17	NTU <sub>AMS</sub> -5801-1	Kuektanar mouth, furnace #4	AMS	$1614 \pm 60$	<i>68.3% probability</i> 412AD (68.3%) 540AD <i>95.4% probability</i> 260AD (2.6%) 278AD 337AD (92.9%) 583AD	[31]
18	Le-11825	Kuektanar mouth, furnace #4	LSC	$1610 \pm 30$	<i>68.3% probability</i> 418AD (17.9%) 440AD 454AD (19.0%) 478AD 496AD (31.3%) 534AD <i>95.4% probability</i> 412AD (95.4%) 542AD	[31]
19	IGAN <sub>AMS</sub> 5012	Turgun	AMS	$1270 \pm 70$	<i>68.3% probability</i> 665AD (53.4%) 775AD 788AD (14.9%) 826AD <i>95.4% probability</i> 645AD (93.4%) 895AD 924AD (2.0%) 950AD	[30]
20	Le-12001	Yustyd valley, left river bank	LSC	$1630 \pm 50$	<i>68.3% probability</i> 404AD (42.9%) 482AD 490AD (25.4%) 537AD <i>95.4% probability</i> 260AD (3.0%) 278AD 340AD (92.5%) 557AD	[39]
21	IGAN <sub>AMS</sub> 7165	Yustyd valley, left river bank	AMS	$1565 \pm 20$	<i>68.3% probability</i> 436AD (24.0%) 464AD 476AD (23.2%) 500AD 510AD (2.6%) 514AD 530AD (18.4%) 550AD <i>95.4% probability</i> 432AD (95.4%) 560AD	This paper
22	IAAA-171075	Yustyd valley, left river bank	AMS	$1540 \pm 20$	<i>68.3% probability</i> 481AD (7.9%) 492AD 536AD (60.4%) 574AD <i>95.4% probability</i> 436AD (10.8%) 464AD 475AD (13.4%) 501AD 508AD (1.5%) 516AD 529AD (69.8%) 594AD	[47]
23	IAAA-171074	Yustyd valley, left river bank	AMS	$1510 \pm 20$	<i>68.3% probability</i> 556AD (68.3%) 590AD <i>95.4% probability</i> 541AD (95.4%) 604AD	[47]
24	N/A	Yustyd valley, right river bank	LSC	$1830 \pm 40$	<i>68.3% probability</i> 130AD (5.9%) 144AD 155AD (56.5%) 250AD 296AD (5.9%) 309AD <i>95.4% probability</i> 120AD (77.8%) 259AD 278AD (17.6%) 334AD	[70]

25	Le-12003	Yustyd valley, left river bank	LSC	$2230 \pm 80$	<i>68.3% probability 390BC (68.3%) 197BC 95.4% probability 456BC (0.5%) 442BC 418BC (95.0%) 46BC</i>	[39]
26	Le-12004	Yustyd valley, left river bank	LSC	$1910 \pm 110$	<i>68.3% probability 36BC (4.4%) 14BC 4AD (63.9%) 240AD 95.4% probability 166BC (95.4%) 380AD</i>	[39]
27	Le-12002	Yustyd valley, left river bank	LSC	$1860 \pm 125$	<i>68.3% probability 22AD (56.1%) 260AD 278AD (12.2%) 338AD 95.4% probability 166BC (95.3%) 433AD 521AD (0.1%) 526AD</i>	[39]
28	NTU <sub>AMS</sub> -5804-1	Yustyd valley, right river bank	AMS	$1792 \pm 61$	<i>68.3% probability 204AD (68.3%) 360AD 95.4% probability 124AD (95.4%) 405AD</i>	[39]
29	NTU <sub>AMS</sub> -5805-1	Yustyd valley, right river bank	AMS	$1731 \pm 59$	<i>68.3% probability 250AD (22.5%) 294AD 314AD (45.8%) 402AD 95.4% probability 206AD (93.8%) 436AD 464AD (0.5%) 475AD 500AD (0.4%) 508AD 515AD (0.8%) 530AD</i>	[39]
30	IGAN <sub>AMS</sub> 7166	Yustyd valley, left river bank	AMS	$1720 \pm 20$	<i>68.3% probability 258AD (20.9%) 280AD 333AD (47.4%) 380AD 95.4% probability 254AD (26.9%) 287AD 324AD (68.6%) 406AD</i>	This paper

Available radiocarbon ages for charcoals from iron smelting furnaces in the Kosh-Agach ferrous metallurgy province. All of the dates were calibrated using OxCal v4.4.4 program [53] and the IntCal20 calibration curve [54]. Applied techniques: LSC = liquid scintillation; AMS = accelerated mass spectrometry.