

Table S1 $^{40}\text{Ar}/^{39}\text{Ar}$ data of muscovite furnace stage heating in beresite of Sanjia gold deposit

	Relative Abundances	^{36}Ar [fA]	% 1δ	^{37}Ar [fA]	% 1δ	^{38}Ar [fA]	% 1δ	^{39}Ar [fA]	% 1δ	^{40}Ar [fA]	% 1δ	$^{40}(\text{r})/$ $^{39}(\text{k})$	$\pm 2\delta$	Age (Ma)	$\pm 2\delta$	$^{40}\text{Ar}(\text{r})$ (%)	$^{39}\text{Ar}(\text{k})$ (%)	K/Ca	$\pm 2\delta$
16D37405	0.4%	0.24	0.54	0.05	384.41	0.19	13.58	12.22	0.20	312.79	0.08	19.83	0.11	55.98	0.30	77.48	1.10	102	± 782
16D37407	0.6%	0.03	2.58	0.10	188.34	0.07	36.91	3.73	0.60	162.26	0.15	40.92	0.52	113.70	1.41	94.16	0.34	16	± 58
16D37408	0.9%	0.05	1.79	0.16	129.10	0.08	30.89	5.18	0.45	240.05	0.10	43.60	0.41	120.90	1.11	94.17	0.47	14	± 37
16D37409	1.2%	0.04	1.94	0.23	83.89	0.10	25.84	5.45	0.41	252.14	0.10	43.84	0.38	121.54	1.01	94.82	0.49	10	± 17
16D37410	1.4%	0.07	1.26	0.14	143.52	0.11	21.93	6.99	0.33	313.54	0.08	41.81	0.29	116.09	0.78	93.27	0.63	22	± 62
16D37412	1.6%	0.02	5.03	0.02	1115.54	0.09	26.09	4.64	0.48	196.57	0.12	41.36	0.42	114.87	1.14	97.62	0.42	110	± 2455
16D37413	1.8%	0.02	4.13	0.13	154.89	0.09	27.76	5.41	0.42	230.24	0.11	41.49	0.37	115.23	1.00	97.48	0.49	18	± 56
16D37414	2.0%	0.03	2.52	0.13	157.34	0.09	28.58	6.09	0.38	265.36	0.09	41.94	0.34	116.45	0.90	96.32	0.55	20	± 64
16D37415	2.2%	0.08	1.15	0.05	419.77	0.14	17.04	10.40	0.22	465.71	0.05	42.50	0.20	117.95	0.54	94.90	0.93	97	± 816
16D37417	2.4%	0.01	6.28	0.10	195.17	0.11	22.42	7.81	0.30	330.27	0.07	41.82	0.27	116.10	0.72	98.85	0.70	32	± 126
16D37419	2.6%	0.01	9.62	0.04	535.99	0.09	28.66	6.89	0.32	285.76	0.09	41.11	0.28	114.21	0.75	99.14	0.62	82	± 882
16D37418	2.8%	0.13	0.77	0.21	96.38	0.25	9.08	16.58	0.15	740.99	0.03	42.33	0.14	117.47	0.37	94.73	1.49	34	± 66
16D37420	3.0%	0.07	1.33	0.18	109.03	0.25	9.35	17.74	0.15	751.07	0.03	41.22	0.13	114.49	0.35	97.36	1.59	43	± 93
16D37422	3.3%	0.01	5.78	0.13	150.36	0.15	16.56	12.69	0.20	524.51	0.05	41.01	0.18	113.94	0.47	99.21	1.14	41	± 124
16D37423	3.6%	0.05	1.91	0.07	262.38	0.32	7.81	24.99	0.12	1039.02	0.02	41.03	0.10	113.98	0.28	98.66	2.25	145	± 762
16D37424	3.9%	0.02	5.36	0.04	487.89	0.28	8.55	20.13	0.13	822.90	0.03	40.66	0.11	112.99	0.31	99.44	1.81	216	± 2108
16D37425	4.2%	0.01	5.83	0.17	115.82	0.32	7.79	24.68	0.11	1005.43	0.02	40.56	0.10	112.72	0.26	99.58	2.22	62	± 143
16D37427	4.5%	0.01	8.56	0.26	74.67	0.27	9.09	22.83	0.12	928.55	0.03	40.55	0.10	112.69	0.28	99.69	2.05	37	± 56
16D37428	4.9%	0.02	4.57	0.01	1603.65	0.34	7.20	28.72	0.11	1165.69	0.02	40.40	0.09	112.30	0.24	99.53	2.58	998	± 32015
16D37429	5.3%	0.02	4.50	0.07	279.48	0.40	6.01	33.68	0.10	1365.33	0.02	40.38	0.08	112.23	0.23	99.60	3.03	206	± 1153
16D37430	5.9%	0.03	3.22	0.17	113.58	0.50	4.60	40.16	0.09	1634.65	0.02	40.51	0.08	112.58	0.20	99.52	3.61	100	± 228
16D37432	6.5%	0.02	4.06	0.44	45.19	0.58	4.24	46.37	0.09	1884.18	0.01	40.50	0.07	112.56	0.19	99.67	4.17	45	± 41

Relative Abundances		³⁶ Ar [fA]	%1δ	³⁷ Ar [fA]	%1δ	³⁸ Ar [fA]	%1δ	³⁹ Ar [fA]	%1δ	⁴⁰ Ar [fA]	%1δ	⁴⁰ (r)/ ³⁹ (k)	±2δ	Age (Ma)	±2δ	⁴⁰ Ar(r) (%)	³⁹ Ar(k) (%)	K/Ca	±2δ
16D37433	7.1%	0.04	2.30	0.31	63.91	0.58	4.17	48.57	0.09	1985.30	0.01	40.63	0.07	112.92	0.19	99.41	4.37	68	±87
16D37434	7.7%	0.03	3.09	0.29	70.79	0.57	4.23	47.27	0.09	1941.71	0.01	40.90	0.07	113.63	0.20	99.56	4.25	71	±101
16D37435	8.5%	0.02	3.52	0.17	120.58	0.65	3.63	53.15	0.08	2195.26	0.01	41.16	0.07	114.34	0.19	99.66	4.78	135	±325
16D37437	9.2%	0.03	3.31	0.36	54.65	0.69	3.39	57.38	0.08	2377.74	0.01	41.30	0.07	114.72	0.19	99.66	5.16	68	±75
16D37438	9.8%	0.02	3.64	0.29	69.32	0.80	2.94	64.39	0.08	2674.88	0.01	41.43	0.07	115.06	0.18	99.73	5.79	95	±132
16D37439	10.5%	0.02	4.24	0.42	49.28	0.95	2.52	71.98	0.08	2989.90	0.01	41.45	0.07	115.11	0.18	99.78	6.47	74	±73
16D37440	11.2%	0.02	5.45	0.31	65.42	0.91	2.63	69.31	0.08	2894.40	0.01	41.69	0.07	115.75	0.18	99.83	6.23	96	±126
16D37442	11.8%	0.02	2.44	0.15	115.06	0.53	4.39	43.01	0.09	1803.22	0.01	41.79	0.08	116.04	0.21	99.68	3.87	121	±279
16D37443	12.2%	0.02	2.31	0.22	77.15	0.50	4.88	39.85	0.09	1672.85	0.01	41.82	0.08	116.12	0.21	99.63	3.58	76	±118
16D37444	12.6%	0.02	2.63	0.08	212.69	0.44	5.24	34.98	0.10	1471.58	0.01	41.93	0.08	116.40	0.23	99.65	3.14	181	±770
16D37445	13.0%	0.01	3.16	0.20	89.27	0.35	6.91	27.47	0.11	1154.74	0.02	41.89	0.10	116.29	0.26	99.64	2.47	60	±107
16D37447	13.5%	0.01	3.75	0.23	72.10	0.27	8.99	20.38	0.13	857.71	0.02	41.94	0.11	116.42	0.30	99.63	1.83	38	±55

	Relative Abundances	³⁶ Ar [fA]	%1δ	³⁷ Ar [fA]	%1δ	³⁸ Ar [fA]	%1δ	³⁹ Ar [fA]	%1δ	⁴⁰ Ar [fA]	%1δ	⁴⁰ (r)/ ³⁹ (k)	±2δ	Age (Ma)	±2δ	⁴⁰ Ar(r) (%)	³⁹ Ar(k) (%)	K/Ca	±2δ
16D37448	14.0%	0.02	2.71	0.21	82.38	0.29	8.34	22.5 4	0.12	951.19	0.02	41.99	0.11	116.57	0.28	99.51	2.03	46	±76
16D37449	14.5%	0.01	3.10	0.06	275.37	0.24	9.99	20.8 4	0.13	876.30	0.02	41.87	0.11	116.25	0.29	99.56	1.87	144	±791
16D37451	15.0%	0.02	2.47	0.02	1062.37	0.21	11.13	15.4 8	0.16	655.10	0.03	41.99	0.14	116.58	0.37	99.24	1.39	407	±8647
16D37452	15.5%	0.01	3.30	0.40	44.12	0.22	10.55	17.7 2	0.15	748.97	0.02	42.06	0.13	116.75	0.35	99.51	1.59	19	±17
16D37453	16.0%	0.01	2.89	0.04	458.96	0.19	12.90	15.6 3	0.16	663.33	0.03	42.16	0.14	117.02	0.38	99.36	1.41	181	±1658
16D37455	16.5%	0.01	4.06	0.03	529.64	0.16	14.76	12.5 8	0.20	530.61	0.03	41.95	0.17	116.46	0.47	99.48	1.13	169	±1789
16D37456	17.0%	0.01	4.12	0.25	65.47	0.14	17.09	12.1 4	0.20	513.40	0.03	42.06	0.17	116.75	0.46	99.43	1.09	21	±27
16D37457	17.5%	0.01	4.24	0.27	64.65	0.13	19.78	10.5 6	0.23	447.79	0.04	42.15	0.20	116.99	0.52	99.39	0.95	17	±21
16D37458	18.0%	0.01	3.85	0.03	582.96	0.09	27.07	8.20	0.28	346.79	0.05	41.91	0.24	116.35	0.64	99.14	0.74	123	±1435
16D37460	18.5%	0.01	3.99	0.08	218.72	0.08	32.66	5.73	0.41	246.96	0.07	42.66	0.35	118.36	0.95	98.90	0.51	32	±142
16D37461	19.0%	0.01	5.84	0.05	330.70	0.05	50.54	5.39	0.42	230.67	0.08	42.43	0.37	117.75	0.98	99.21	0.48	43	±287
16D37462	19.5%	0.01	6.13	0.05	329.22	0.06	41.50	5.06	0.46	214.64	0.08	42.02	0.39	116.66	1.06	99.14	0.46	42	±279
16D37463	20.0%	0.01	5.35	0.06	277.56	0.05	42.65	4.77	0.48	203.16	0.09	42.15	0.42	117.01	1.12	99.00	0.43	32	±178
16D37465	20.5%	0.00	7.47	0.02	1114.10	0.03	71.71	3.70	0.62	157.81	0.11	42.31	0.54	117.44	1.44	99.11	0.33	100	±2227
16D37466	21.0%	0.00	7.54	0.06	299.11	0.02	103.4 5	3.93	0.57	169.42	0.10	42.75	0.50	118.62	1.34	99.16	0.35	29	±173

	Relative Abundances	³⁶ Ar [fA]	%1δ	³⁷ Ar [fA]	%1δ	³⁸ Ar [fA]	%1δ	³⁹ Ar [fA]	%1δ	⁴⁰ Ar [fA]	%1δ	⁴⁰ (r)/ ³⁹ (k)	±2δ	Age (Ma)	±2δ	⁴⁰ Ar(r) (%)	³⁹ Ar(k) (%)	K/Ca	±2δ
16D37467	21.6%	0.00	7.77	0.10	180.09	0.02	97.51	3.51	0.63	151.49	0.12	42.70	0.55	118.49	1.48	99.08	0.32	16	±57
16D37469	22.3%	0.00	7.50	0.47	36.83	0.03	72.43	3.40	0.67	147.15	0.12	42.85	0.59	118.88	1.57	99.06	0.31	3	±2

J value = 0.00158574 ± 0.00000316; Total gas age = 114.31±0.44 (2σ); The test was completed by Oregon State University

Table S2 $^{40}\text{Ar}/^{39}\text{Ar}$ data of muscovite furnace stage heating in quartz–sulfide vein of Xipo gold deposit

	Relative Abundances	^{36}Ar [fA]	%1 δ	^{37}Ar [fA]	%1 δ	^{38}Ar [fA]	%1 δ	^{39}Ar [fA]	%1 δ	^{40}Ar [fA]	%1 δ	$^{40}(\text{r})/^{39}(\text{k})$	$\pm 2\delta$	Age (Ma)	$\pm 2\delta$	$^{40}\text{Ar}(\text{r})$ (%)	$^{39}\text{Ar}(\text{k})$ (%)	K/Ca	$\pm 2\delta$
16D37474	0.4%	0.56	0.39	0.18	97.12	0.21	10.88	7.73	0.31	438.08	0.06	35.26	0.28	98.52	0.77	62.21	0.65	18	35
16D37476	0.6%	0.03	2.22	0.04	519.12	0.04	55.13	2.00	1.14	86.95	0.30	38.41	0.94	107.06	2.54	88.44	0.17	24	253
16D37477	0.9%	0.07	1.15	0.29	59.82	0.11	21.52	3.94	0.55	178.49	0.14	39.76	0.47	110.73	1.28	87.67	0.33	6	7
16D37478	1.2%	0.09	0.98	0.13	129.31	0.06	37.19	5.93	0.38	264.30	0.10	40.06	0.33	111.53	0.88	89.92	0.50	19	49
16D37479	1.4%	0.04	1.86	0.14	116.75	0.09	26.57	5.28	0.44	224.84	0.12	40.22	0.38	111.95	1.01	94.38	0.44	16	38
16D37481	1.6%	0.06	1.38	0.06	282.92	0.10	22.77	6.63	0.36	287.89	0.09	40.75	0.31	113.40	0.84	93.83	0.56	44	250
16D37482	1.8%	0.05	1.62	0.16	109.48	0.09	25.30	7.26	0.31	313.22	0.08	41.11	0.27	114.37	0.73	95.26	0.61	19	42
16D37483	2.0%	0.05	1.76	0.19	91.27	0.12	18.72	8.36	0.28	359.02	0.07	41.37	0.25	115.07	0.67	96.28	0.70	19	34
16D37484	2.2%	0.05	1.62	0.24	75.86	0.14	16.58	9.47	0.25	412.12	0.06	41.96	0.22	116.65	0.59	96.42	0.79	17	26
16D37486	2.4%	0.03	2.33	0.10	177.19	0.12	18.99	9.37	0.25	403.78	0.06	42.04	0.23	116.87	0.61	97.54	0.79	40	141
16D37488	2.6%	0.02	4.62	0.32	56.52	0.11	21.69	8.02	0.28	343.41	0.08	42.25	0.25	117.43	0.69	98.63	0.67	11	12
16D37487	2.8%	0.06	1.45	0.11	159.24	0.16	14.20	14.89	0.17	647.38	0.04	42.34	0.15	117.68	0.42	97.41	1.25	58	186
16D37489	3.0%	0.03	2.66	0.17	105.10	0.20	11.57	12.74	0.19	552.92	0.05	42.73	0.17	118.71	0.46	98.47	1.07	31	66
16D37491	3.3%	0.03	2.70	0.13	138.69	0.18	12.68	14.38	0.18	624.96	0.04	42.86	0.16	119.06	0.43	98.63	1.21	49	135
16D37492	3.6%	0.03	2.68	0.04	476.98	0.21	11.36	16.51	0.15	716.62	0.04	42.89	0.14	119.15	0.37	98.79	1.38	189	1803
16D37493	3.9%	0.02	3.08	0.04	443.43	0.18	12.71	15.72	0.16	684.99	0.04	43.09	0.14	119.70	0.39	98.93	1.32	168	1490
16D37494	4.2%	0.03	2.65	0.13	132.20	0.27	8.49	22.44	0.13	980.85	0.03	43.32	0.11	120.31	0.30	99.11	1.88	74	195
16D37496	4.5%	0.02	3.32	0.25	71.30	0.27	8.60	20.14	0.14	879.82	0.03	43.35	0.12	120.40	0.33	99.22	1.69	35	49
16D37497	4.9%	0.02	4.66	0.12	152.02	0.18	13.25	15.64	0.16	685.88	0.04	43.55	0.15	120.93	0.40	99.29	1.31	56	171
16D37498	5.3%	0.02	4.13	0.04	419.65	0.20	11.72	16.21	0.16	709.46	0.04	43.42	0.14	120.58	0.39	99.23	1.36	169	1418
16D37499	5.9%	0.04	2.03	0.06	311.26	0.30	7.52	25.59	0.11	1118.43	0.02	43.25	0.10	120.12	0.28	98.96	2.14	196	1220
16D37501	6.5%	0.08	1.14	0.25	69.79	0.76	3.05	62.38	0.08	2733.30	0.01	43.44	0.07	120.62	0.19	99.13	5.23	106	149

	Relative	³⁶ Ar	³⁶ Ar	³⁷ Ar	³⁷ Ar	³⁸ Ar	³⁸ Ar	³⁹ Ar	³⁹ Ar	⁴⁰ Ar	⁴⁰ Ar	⁴⁰ (r)/	±2δ	Age	±2δ	⁴⁰ Ar(r)	³⁹ Ar(k)	K/Ca	±2δ
	Abundances	[fA]	%1δ	[fA]	%1δ	[fA]	%1δ	[fA]	%1δ	[fA]	%1δ	³⁹ (k)		(Ma)		(%)	(%)		
16D37502	7.1%	0.04	1.89	0.28	64.25	0.49	4.64	40.31	0.10	1768.10	0.01	43.55	0.08	120.92	0.23	99.28	3.38	61	79
16D37503	7.7%	0.05	1.60	0.04	455.45	0.73	3.23	58.12	0.08	2547.78	0.01	43.56	0.07	120.95	0.19	99.37	4.87	619	5640
16D37504	8.5%	0.08	1.12	0.28	63.01	1.06	2.14	87.79	0.08	3853.18	0.01	43.60	0.07	121.07	0.18	99.35	7.36	136	171
16D37506	9.2%	0.09	1.10	0.15	124.05	1.35	1.78	110.77	0.07	4860.48	0.01	43.63	0.07	121.15	0.17	99.44	9.28	318	789
16D37507	9.8%	0.05	1.60	0.18	100.57	0.94	2.53	76.34	0.08	3348.56	0.01	43.65	0.07	121.20	0.19	99.51	6.40	181	365
16D37508	10.5%	0.07	1.35	0.03	665.13	1.00	2.26	83.07	0.08	3650.12	0.01	43.70	0.07	121.34	0.18	99.46	6.96	1320	17561
16D37509	11.2%	0.08	1.18	0.29	63.50	0.76	3.09	62.03	0.08	2740.59	0.01	43.81	0.07	121.61	0.19	99.15	5.20	93	118
16D37511	11.8%	0.08	1.17	0.19	92.00	0.99	2.27	81.81	0.08	3602.81	0.01	43.75	0.07	121.47	0.18	99.35	6.86	188	345
16D37512	12.2%	0.03	2.60	0.08	236.52	0.52	4.48	45.12	0.09	1984.48	0.01	43.77	0.08	121.52	0.21	99.53	3.78	258	1219
16D37513	12.6%	0.04	2.04	0.39	47.08	0.79	2.84	64.67	0.08	2842.83	0.01	43.77	0.07	121.51	0.19	99.56	5.42	70	66
16D37514	13.0%	0.03	2.44	0.01	2188.77	0.47	4.62	39.63	0.09	1749.47	0.02	43.89	0.08	121.85	0.23	99.43	3.32	2170	94979
16D37516	13.5%	0.02	3.24	0.32	57.01	0.24	9.74	21.27	0.13	940.65	0.03	43.88	0.12	121.82	0.33	99.24	1.78	29	33
16D37517	14.0%	0.02	3.29	0.10	174.02	0.17	13.26	13.87	0.19	616.17	0.04	43.91	0.17	121.90	0.46	98.88	1.16	59	207
16D37518	14.5%	0.02	3.86	0.42	42.20	0.12	18.55	9.27	0.26	415.23	0.06	44.17	0.24	122.60	0.64	98.61	0.78	10	8
16D37520	15.0%	0.03	2.51	0.02	988.94	0.16	15.22	11.91	0.21	532.04	0.05	43.90	0.20	121.86	0.53	98.28	1.00	288	5689
16D37521	15.5%	0.02	4.53	0.25	72.54	0.09	26.97	7.88	0.31	351.59	0.07	44.00	0.28	122.13	0.76	98.63	0.66	14	±20
16D37522	16.0%	0.02	3.88	0.06	276.98	0.10	23.80	7.98	0.29	356.04	0.07	43.91	0.27	121.89	0.73	98.38	0.67	56	±309
16D37524	16.5%	0.02	3.88	0.20	94.45	0.19	12.48	12.76	0.18	566.86	0.05	43.99	0.17	122.10	0.45	98.99	1.07	27	±51
16D37525	17.0%	0.01	5.28	0.50	34.99	0.16	15.38	10.40	0.22	459.38	0.06	43.79	0.20	121.58	0.54	99.10	0.87	9	±6
16D37526	17.5%	0.01	7.12	0.15	116.09	0.07	31.36	5.79	0.39	257.14	0.10	43.89	0.36	121.83	0.96	98.81	0.49	16	±37
16D37527	18.0%	0.01	6.35	0.15	119.57	0.12	19.08	6.39	0.38	283.22	0.09	43.77	0.35	121.52	0.93	98.80	0.54	18	±42
16D37529	18.5%	0.01	6.19	0.18	99.25	0.11	21.75	5.60	0.41	251.53	0.10	44.26	0.38	122.83	1.03	98.59	0.47	13	±26
16D37530	19.0%	0.01	9.33	0.00	34476.32	0.05	49.40	2.90	0.78	131.79	0.20	44.67	0.74	123.94	1.98	98.23	0.24	2272	±1566595
16D37531	19.5%	0.01	10.0	0.28	67.85	0.04	55.60	1.80	1.24	81.17	0.32	43.96	1.15	122.02	3.09	97.38	0.15	3	±4

	Relative Abundances	³⁶ Ar [fA]	³⁶ Ar %1δ	³⁷ Ar [fA]	³⁷ Ar %1δ	³⁸ Ar [fA]	³⁸ Ar %1δ	³⁹ Ar [fA]	³⁹ Ar %1δ	⁴⁰ Ar [fA]	⁴⁰ Ar %1δ	⁴⁰ (r)/ ³⁹ (k)	±2δ	Age (Ma)	±2δ	⁴⁰ Ar(r) (%)	³⁹ Ar(k) (%)	K/Ca	±2δ
			5																
16D37532	20.0%	0.01	8.81	0.01	1328.44	0.02	104.1 3	2.99	0.76	135.24	0.19	44.45	0.71	123.34	1.91	98.20	0.25	93	±2463
16D37534	20.5%	0.01	7.39	0.04	421.90	0.05	43.96	3.26	0.68	148.59	0.17	44.68	0.64	123.95	1.73	98.00	0.27	33	±278
16D37535	21.0%	0.01	7.28	0.09	205.23	0.05	47.54	3.49	0.65	157.59	0.16	44.31	0.61	122.97	1.62	98.13	0.29	18	±72
16D37536	21.6%	0.01	7.79	0.21	90.20	0.05	50.21	2.08	1.09	96.15	0.27	44.93	1.03	124.64	2.76	97.16	0.17	4	±8
16D37538	22.3%	0.01	5.98	0.08	223.73	0.03	86.67	3.36	0.67	154.60	0.17	44.96	0.63	124.71	±1.70	97.66	0.28	17	±78

J value = 0.00158805 ± 0.00000316; Total gas age = 120.62±0.47 (2σ); The test was completed by Oregon State University

Table S3 $^{40}\text{Ar}/^{39}\text{Ar}$ data of muscovite furnace stage heating in quartz–sulfide vein of Yinggezhuang gold deposit

	Relative Abundances	^{36}Ar [fA]	%1 δ	^{37}Ar [fA]	%1 δ	^{38}Ar [fA]	%1 δ	^{39}Ar [fA]	%1 δ	^{40}Ar [fA]	%1 δ	$^{40}(\text{r})/^{39}(\text{k})$	$\pm 2\delta$	Age (Ma)	$\pm 2\delta$	$^{40}\text{Ar}(\text{r})$ (%)	$^{39}\text{Ar}(\text{k})$ (%)	K/Ca	$\pm 2\delta$
16D36049	0.3%	0.12	0.62	0.03	403.12	0.14	17.20	9.48	0.33	172.60	0.43	14.61	0.19	41.34	0.53	80.27	0.80	120	± 966
16D36050	0.4%	0.07	0.89	0.16	89.77	0.17	14.40	9.34	0.34	345.71	0.22	34.78	0.29	96.91	0.78	94.01	0.79	26	± 46
16D36051	0.5%	0.03	1.92	0.18	73.57	0.08	30.83	4.27	0.73	189.90	0.39	42.67	0.72	118.20	1.93	95.86	0.36	10	± 15
16D36052	0.6%	0.02	2.35	0.02	588.86	0.07	33.33	3.83	0.78	174.08	0.43	43.78	0.79	121.16	2.12	96.41	0.32	71	± 838
16D36054	0.7%	0.03	1.89	0.05	284.89	0.09	29.64	5.11	0.60	228.35	0.33	43.18	0.59	119.54	1.59	96.66	0.43	46	± 265
16D36055	0.8%	0.03	1.66	0.01	1319.92	0.07	32.39	4.69	0.68	213.29	0.35	43.77	0.68	121.14	1.81	96.16	0.40	197	± 5211
16D36056	0.9%	0.03	1.84	0.05	296.90	0.09	27.21	5.71	0.54	254.49	0.29	43.22	0.54	119.65	1.44	96.99	0.48	54	± 322
16D36057	1.0%	0.02	2.25	0.21	60.75	0.07	34.29	5.15	0.60	231.01	0.32	43.67	0.61	120.86	1.62	97.36	0.43	10	± 13
16D36059	1.1%	0.02	2.21	0.00	4410.93	0.08	29.89	5.72	0.54	255.49	0.29	43.59	0.54	120.64	1.44	97.63	0.48	783	± 69077
16D36060	1.2%	0.02	2.03	0.02	871.17	0.08	31.64	7.08	0.45	326.01	0.23	45.08	0.46	124.63	1.22	97.91	0.60	195	± 3391
16D36061	1.3%	0.02	2.30	0.04	305.17	0.10	24.75	7.48	0.40	338.48	0.22	44.50	0.41	123.10	1.10	98.29	0.63	72	± 438
16D36062	1.4%	0.04	1.13	0.00	3309.29	0.13	19.30	8.75	0.36	402.48	0.19	44.47	0.36	123.01	0.98	96.71	0.74	942	± 62316
16D36063	1.5%	0.02	2.38	0.00	8448.00	0.10	24.45	8.96	0.36	396.95	0.19	43.65	0.36	120.82	0.95	98.51	0.76	2340	± 395382
16D36065	1.6%	0.02	2.16	0.15	91.13	0.13	18.21	10.84	0.30	481.59	0.16	43.80	0.30	121.21	0.79	98.62	0.91	32	± 58
16D36066	1.7%	0.02	2.27	0.07	186.66	0.16	15.52	12.17	0.26	542.89	0.14	44.10	0.27	122.01	0.71	98.83	1.03	72	± 268
16D36067	1.8%	0.02	2.42	0.17	82.92	0.15	15.64	12.05	0.27	538.80	0.14	44.22	0.27	122.32	0.73	98.90	1.02	30	± 51
16D36068	1.9%	0.02	2.01	0.05	308.01	0.17	14.24	13.85	0.24	620.30	0.12	44.26	0.24	122.44	0.65	98.84	1.17	131	± 805
16D36070	2.0%	0.02	2.52	0.17	81.50	0.17	14.16	14.28	0.22	631.21	0.12	43.81	0.22	121.23	0.59	99.11	1.20	37	± 60
16D36071	2.1%	0.02	2.79	0.04	319.06	0.17	14.49	13.85	0.24	617.69	0.12	44.27	0.24	122.46	0.65	99.23	1.17	138	± 878
16D36072	2.2%	0.02	2.76	0.05	287.41	0.19	12.70	16.35	0.20	722.30	0.10	43.87	0.20	121.39	0.54	99.31	1.38	150	± 864
16D36073	2.3%	0.01	3.05	0.04	336.68	0.20	12.31	15.97	0.21	708.96	0.11	44.12	0.21	122.07	0.56	99.37	1.35	163	± 1096
16D36075	2.4%	0.02	2.94	0.09	155.28	0.22	11.27	17.51	0.19	777.86	0.10	44.16	0.19	122.17	0.50	99.41	1.48	88	± 273

	Relative Abundances	³⁶ Ar [fA]	%1δ	³⁷ Ar [fA]	%1δ	³⁸ Ar [fA]	%1δ	³⁹ Ar [fA]	%1δ	⁴⁰ Ar [fA]	%1δ	⁴⁰ (r)/ ³⁹ (k)	±2δ	Age (Ma)	±2δ	⁴⁰ Ar(r) (%)	³⁹ Ar(k) (%)	K/Ca	±2δ
16D36076	2.6%	0.02	2.34	0.02	877.99	0.32	8.22	24.39	0.15	1078.31	0.07	43.97	0.14	121.66	0.38	99.45	2.06	684	±12008
16D36077	2.8%	0.03	1.94	0.10	132.08	0.34	7.44	30.31	0.13	1342.63	0.06	44.04	0.12	121.85	0.33	99.42	2.56	127	±335
16D36078	3.0%	0.03	1.93	0.07	184.40	0.42	5.87	34.42	0.12	1519.28	0.05	43.92	0.11	121.52	0.30	99.49	2.90	212	±783
16D36079	3.2%	0.02	2.30	0.01	1136.82	0.41	6.06	33.66	0.12	1481.60	0.05	43.82	0.11	121.28	0.31	99.56	2.84	1224	±27840
16D36081	3.4%	0.04	1.52	0.05	281.57	0.47	5.07	39.21	0.11	1730.03	0.04	43.84	0.10	121.33	0.28	99.36	3.31	345	±1945
16D36082	3.7%	0.03	1.50	0.15	90.89	0.60	4.16	48.71	0.10	2137.81	0.04	43.67	0.09	120.87	0.24	99.51	4.11	139	±252
16D36083	4.0%	0.03	1.68	0.09	151.90	0.57	4.33	48.31	0.10	2121.09	0.04	43.70	0.09	120.94	0.25	99.53	4.08	229	±695
16D36084	4.3%	0.04	1.52	0.04	327.73	0.57	4.26	44.90	0.10	1966.23	0.04	43.55	0.09	120.54	0.25	99.45	3.79	492	±3225
16D36085	4.7%	0.04	1.49	0.10	130.41	0.57	4.44	49.82	0.10	2175.06	0.03	43.44	0.09	120.25	0.24	99.50	4.20	210	±547
16D36087	5.0%	0.04	1.44	0.04	379.26	0.71	3.36	58.32	0.09	2545.65	0.03	43.42	0.08	120.19	0.23	99.48	4.92	714	±5417
16D36088	5.3%	0.03	1.69	0.21	65.01	0.65	3.74	54.32	0.09	2369.14	0.03	43.44	0.09	120.24	0.23	99.60	4.58	114	±148
16D36089	5.7%	0.03	1.69	0.15	92.17	0.77	3.04	62.72	0.09	2730.73	0.03	43.38	0.08	120.08	0.22	99.63	5.29	186	±342
16D36090	6.0%	0.03	1.96	0.23	60.16	0.64	3.74	53.21	0.10	2318.65	0.03	43.42	0.09	120.20	0.24	99.64	4.49	101	±122
16D36092	6.4%	0.04	1.50	0.13	111.71	1.00	2.41	79.68	0.08	3466.24	0.02	43.35	0.08	120.00	0.20	99.64	6.72	271	±604
16D36093	6.8%	0.07	0.98	0.75	18.47	0.92	2.52	74.14	0.08	3330.23	0.02	44.64	0.08	123.47	0.21	99.39	6.26	43	±16
16D36094	7.2%	0.04	1.43	0.14	100.23	0.94	2.46	75.97	0.08	3302.36	0.02	43.30	0.08	119.87	0.20	99.61	6.41	236	±474
16D36095	7.6%	0.04	1.49	0.20	66.30	0.97	2.60	80.48	0.08	3495.02	0.02	43.27	0.08	119.79	0.20	99.64	6.79	169	±224
16D36096	8.0%	0.04	1.58	0.24	58.35	0.97	2.41	80.24	0.08	3481.78	0.02	43.25	0.07	119.74	0.20	99.67	6.77	145	±170

J value = 0.00158282 ± 0.00000242; Total gas age = 120.01 ± 0.36 (2σ); The test was completed by Oregon State University