

Table DR1. The full isotopic argon data,with ratios, percentage of gas release and age data for all the individual sample steps of each of the samples.

Sample / Run ID#	Power W	Ca/K	± σ	Cl/K	³⁶ Ar/ ³⁹ Ar	± σ	% ³⁶ Ar(Ca) ^b	% ³⁶ Ar(a)	% ³⁸ Ar(Cl)	% ³⁹ Ar(K)	³⁷ Ar/ ³⁹ Ar	± σ	³⁸ Ar/ ³⁹ Ar	± σ	⁴⁰ Ar/ ³⁹ Ar	± σ	³⁹ Ar/ ⁴⁰ Ar	± σ	³⁶ Ar/ ⁴⁰ Ar	± σ	³⁹ Ar (Mol-14)	% ³⁹ Ar ^c	Cum. % ³⁹ Ar	% ⁴⁰ Ar ^{a,d}	Age (Ma)	± σ
BNB-13-020a / C1, Run ID# 2331-01 (I = 0.004692 ±0.0000052):																										
2331-01D	3.4	7.70E-03	9.96E-03	7.61E-04	2.52E-02	1.30E-04	0.0	100.0	1.5	100.0	3.32E-03	4.29E-03	1.71E-02	1.48E-04	59.09	0.17	1.50E-02	3.93E-05	3.79E-04	2.19E-06	1.07	2.0	2.0	88.8	441.48	1.15
2331-01G	4.2	1.10E-04	2.23E-03	3.10E-04	3.86E-03	3.05E-05	0.0	100.0	0.8	100.0	4.75E-05	9.63E-04	1.29E-02	8.40E-05	64.53	0.15	1.52E-02	3.46E-05	5.88E-05	4.83E-07	4.88	8.9	10.8	98.3	477.20	0.97
•2331-01H	4.4	5.94E-04	1.68E-03	9.50E-05	4.73E-04	1.21E-05	0.0	100.0	0.3	100.0	2.56E-04	7.25E-04	1.22E-02	6.57E-05	64.93	0.16	1.54E-02	3.79E-05	7.26E-06	1.87E-07	6.48	11.8	22.6	99.8	479.77	1.04
•2331-01I	4.6	9.32E-04	9.77E-04	5.45E-05	4.60E-04	9.70E-06	0.0	100.0	0.2	100.0	4.02E-04	4.21E-04	1.22E-02	6.72E-05	64.99	0.14	1.54E-02	3.26E-05	7.06E-06	1.50E-07	10.11	18.4	41.1	99.8	480.16	0.90
•2331-01J	4.8	1.10E-03	1.80E-03	2.01E-05	5.24E-04	1.36E-05	0.0	100.0	0.1	100.0	4.75E-04	7.75E-04	1.22E-02	1.03E-04	65.15	0.16	1.53E-02	3.80E-05	8.02E-06	2.09E-07	5.54	10.1	51.2	99.8	481.21	1.05
•2331-01K	5.0	1.20E-02	2.68E-03	2.48E-04	6.94E-04	1.88E-05	0.2	99.8	0.7	100.0	5.17E-03	1.15E-03	1.23E-02	1.62E-04	65.51	0.17	1.52E-02	3.94E-05	1.06E-05	2.87E-07	3.73	6.8	57.9	99.7	483.51	1.10
•2331-01L	5.3	1.06E-03	2.19E-03	7.98E-05	6.44E-04	1.40E-05	0.0	100.0	0.2	100.0	4.58E-04	9.44E-04	1.23E-02	8.71E-05	64.94	0.12	1.54E-02	2.76E-05	9.89E-06	2.16E-07	4.79	8.7	66.7	99.7	479.82	0.76
•2331-01M	5.6	5.30E-04	2.17E-03	6.43E-05	4.27E-04	1.54E-05	0.0	100.0	0.2	100.0	2.28E-04	9.34E-04	1.22E-02	1.06E-04	65.20	0.14	1.53E-02	3.24E-05	6.53E-06	2.36E-07	4.84	8.8	75.5	99.8	481.55	0.90
•2331-01N	5.9	2.46E-03	1.94E-03	3.98E-04	6.72E-04	1.34E-05	0.0	100.0	1.1	100.0	1.06E-03	8.38E-04	1.24E-02	1.73E-04	65.25	0.15	1.53E-02	3.56E-05	1.03E-05	2.06E-07	5.07	9.2	84.7	99.7	481.83	0.99
•2331-01O	6.2	4.19E-03	2.21E-03	1.22E-05	4.19E-04	2.00E-05	0.1	99.9	0.0	100.0	1.81E-03	9.54E-04	1.22E-02	1.07E-04	65.27	0.14	1.53E-02	3.17E-05	6.40E-06	3.06E-07	3.82	7.0	91.7	99.8	482.00	0.88
•2331-01P	6.5	4.88E-03	3.87E-03	4.87E-04	3.83E-04	2.88E-05	0.1	99.8	1.4	100.0	2.10E-03	1.67E-03	1.23E-02	1.50E-04	65.22	0.20	1.53E-02	4.73E-05	5.86E-06	4.41E-07	2.23	4.1	95.7	99.8	481.64	1.31
•2331-01Q	7.0	7.74E-03	6.78E-03	1.80E-04	7.28E-04	5.45E-05	0.1	99.9	0.5	100.0	3.34E-03	2.92E-03	1.23E-02	2.53E-04	65.17	0.21	1.53E-02	4.96E-05	1.11E-05	8.34E-07	1.27	2.3	98.0	99.7	481.31	1.37
•2331-01R	8.0	1.94E-02	1.02E-02	5.40E-04	9.52E-04	5.76E-05	0.2	99.8	1.5	100.0	8.35E-03	4.39E-03	1.25E-02	2.61E-04	65.09	0.15	1.53E-02	3.57E-05	1.46E-05	8.82E-07	1.08	2.0	100.0	99.6	480.82	0.99
Integrated Age=																										
(•) Plateau Age =																										
BNB-13-020b / C1, Run ID# 2331-02 (I = 0.004692 ±0.0000052):																										
2331-02G	4.2	8.43E-03	3.34E-02	2.00E-03	1.47E-02	2.84E-04	0.0	100.0	4.4	100.0	3.63E-03	1.44E-02	1.56E-02	3.85E-04	58.74	0.17	1.59E-02	3.88E-05	2.33E-04	4.54E-06	0.26	0.5	0.5	93.1	439.17	1.14
•2331-02H	4.4	2.96E-04	7.95E-04	1.76E-05	2.02E-03	1.52E-05	0.0	100.0	0.1	100.0	1.27E-04	3.43E-04	1.25E-02	8.14E-05	65.10	0.18	1.52E-02	4.21E-05	3.08E-05	2.47E-07	11.06	22.7	23.2	99.1	480.87	1.18
•2331-02I	4.6	5.27E-03	5.68E-03	3.27E-04	3.79E-04	3.22E-05	0.2	99.8	0.9	100.0	2.27E-03	2.45E-03	1.23E-02	1.88E-04	65.22	0.17	1.53E-02	3.94E-05	5.80E-06	4.93E-07	1.95	4.0	27.3	99.8	481.65	1.09
•2331-02J	4.8	1.35E-02	5.40E-03	3.56E-04	4.91E-04	3.10E-05	0.3	99.7	1.0	100.0	5.83E-03	2.33E-03	1.23E-02	1.24E-04	65.31	0.17	1.53E-02	3.92E-05	7.50E-06	4.74E-07	2.04	4.2	31.4	99.8	482.25	1.09
•2331-02K	5.0	1.11E-02	4.51E-03	5.06E-04	4.68E-04	2.71E-05	0.3	99.7	1.4	100.0	4.77E-03	1.94E-03	1.24E-02	1.67E-04	65.12	0.20	1.53E-02	4.62E-05	7.18E-06	4.16E-07	2.46	5.1	36.5	99.8	480.99	1.28
•2331-02L	5.3	6.36E-03	3.04E-03	2.12E-04	4.73E-04	2.25E-05	0.2	99.8	0.6	100.0	2.74E-03	1.31E-03	1.23E-02	1.01E-04	65.49	0.15	1.52E-02	3.44E-05	7.21E-06	3.43E-07	2.83	5.8	42.3	99.8	483.40	0.96
•2331-02M	5.6	2.12E-03	1.54E-03	1.53E-04	4.98E-04	1.39E-05	0.0	100.0	0.4	100.0	9.15E-04	6.63E-04	1.23E-02	1.14E-04	65.13	0.14	1.53E-02	3.21E-05	7.63E-06	2.14E-07	5.95	12.2	54.5	99.8	481.05	0.89
•2331-02N	5.9	9.08E-02	1.55E-03	1.40E-03	1.21E-03	1.29E-05	0.9	99.1	3.8	100.0	3.91E-02	6.69E-04	1.28E-02	6.04E-05	64.91	0.17	1.53E-02	4.03E-05	1.86E-05	2.04E-07	6.49	13.3	67.9	99.5	479.66	1.11
•2331-02O	6.2	9.59E-04	1.80E-03	3.59E-04	4.21E-04	1.35E-05	0.0	100.0	1.0	100.0	4.13E-04	7.78E-04	1.23E-02	2.08E-04	65.28	0.13	1.53E-02	3.06E-05	6.43E-06	2.07E-07	5.16	10.6	78.5	99.8	482.03	0.85
•2331-02P	6.5	1.93E-02	9.21E-03	2.49E-04	2.95E-04	6.50E-05	0.8	99.2	0.7	100.0	8.34E-03	3.97E-03	1.23E-02	2.55E-04	65.19	0.15	1.53E-02	3.42E-05	4.52E-06	9.96E-07	0.93	1.9	80.4	99.9	481.47	0.95
•2331-02Q	7.0	1.47E-03	2.00E-03	4.40E-04	4.41E-04	1.38E-05	0.0	100.0	1.2	100.0	6.36E-04	8.63E-04	1.23E-02	1.89E-04	65.46	0.15	1.52E-02	3.60E-05	6.72E-06	2.11E-07	4.97	10.2	90.6	99.8	483.20	1.00
•2331-02R	8.0	1.31E-02	2.04E-03	1.60E-05	4.63E-04	1.67E-05	0.3	99.7	0.1	100.0	5.64E-03	8.81E-04	1.22E-02	1.61E-04	65.41	0.12	1.53E-02	2.85E-05	7.07E-06	2.55E-07	4.59	9.4	100.0	99.8	482.88	0.79
Integrated Age=																										
(•) Plateau Age =																										
BNB-13-020c / C2, Run ID# 2332-02 (I = 0.004692 ±0.0000052):																										
2332-02C	3.1	1.55E-01	2.96E-02	3.87E-03	4.66E-02	3.23E-04	0.0	100.0	6.0	100.0	6.70E-02	1.28E-02	2.22E-02	3.07E-04	57.49	0.21	1.40E-02	4.08E-05	6.53E-04	4.92E-06	0.36	1.2	1.2	80.7	430.82	1.41
2332-02F	3.7	3.70E-03	5.68E-03	5.84E-04	1.26E-02	9.19E-05	0.0	100.0	1.4	100.0	1.60E-03	2.45E-03	1.47E-02	1.29E-04	65.90	0.15	1.44E-02	3.00E-05	1.81E-04	1.37E-06	1.82	6.1	7.3	94.6	486.07	0.95
2332-02G	4.0	2.87E-02	8.76E-03	1.91E-04	3.07E-03	6.51E-05	0.1	99.9	0.5	100.0	1.24E-02	3.78E-03	1.28E-02	1.12E-04	67.07	0.17	1.47E-02	3.77E-05	4.52E-05	9.65E-07	1.31	4.4	11.7	98.7	493.61	1.12
2332-02H	4.2	1.02E-02	4.19E-03	2.75E-04	1.54E-03	2.65E-05	0.1	99.9	0.8	100.0	4.39E-03	1.80E-03	1.25E-02	1.23E-04	66.40	0.16	1.50E-02	3.59E-05	2.30E-05	4.00E-07	2.84	9.6	21.3	99.3	489.29	1.03
2332-02I	4.4	5.48E-03	4.07E-03	5.53E-05	3.34E-03	3.79E-05	0.0	100.0	0.2	100.0	2.36E-03	1.75E-03	1.28E-02	7.66E-05	68.12	0.14	1.45E-02	2.97E-05	4.83E-05	5.57E-07	3.03	10.2	31.5	98.6	500.33	0.91
2332-02J	4.6	1.54E-03	2.90E-03	1.75E-04	3.99E-03	3.47E-05	0.0	100.0	0.5	100.0	6.66E-04	1.25E-03	1.29E-02	1.14E-04	67.03	0.16	1.47E-02	3.56E-05	5.84E-05	5.28E-07	3.58	12.1	43.6	98.3	493.37	1.06
2332-02K	4.8	3.45E-03	5.50E-03	5.10E-05	3.45E-03	5.58E-05	0.0	100.0	0.1	100.0	1.48E-03	2.37E-03	1.28E-02	1.17E-04	66.53	0.15	1.48E-02	3.26E-05	5.11E-05	8.34E-07	1.56	5.2	48.8	98.5	490.12	0.96
2332-02L	5.0	1.81E-02	1.45E-02	4.89E-04	2.91E-03	1.09E-04	0.1	99.9	1.3	100.0	7.78E-03	6.25E-03	1.28E-02	1.91E-04	66.77	0.16	1.48E-02	3.47E-05	4.30E-05	1.62E-06	0.72	2.4	51.2	98.7	491.65	1.04
2332-02M	5.3	2.21E-02	5.10E-02	1.65E-04	3.45E-04	1.31E-04	0.7	99.3	0.5	100.0	9.55E-03	2.20E-02	1.22E-02	4.38E-04	68.32	0.42	1.46E-02	8.83E-05	5.04E-06	2.79E-06	0.33	1.1	52.3	99.9	501.66	2.67
2332-02N	5.6	1.64E-03	4.95E-03	1.88E-04	1.92E-03	3.36E-05	0.0	100.0	0.5	100.0	7.07E-04	2.13E-03	1.25E-02	8.37E-05	67.00	0.14	1.48E-02	3.04E-05	2.85E-05	5.01E-07	2.21	7.4	59.8	99.2	493.16	0.89
2332-02O	5.9	5.09E-04	4.51E-03	2.17E-04	9.15E-04	2.77E-05	0.0	100.0	0.6	100.0	2.20E-04	1.94E-03	1.24E-02	7.71E-05	66.81	0.13	1.49E-02	2.94E-05	1.36E-05	4.14E-07	2.75	9.3	69.0	99.6	491.90	0.85
2332-02P	6.2	7.31E-03	4.92E-03	8.32E-05	1.03E-03	3.00E-05	0.1	99.9	0.2	100.0	3.15E-03	2.12E-03	1.23E-02	8.33E-05	66.90	0.16	1.49E-02	3.63E-05	1.53E-05	4.48E-07	2.10	7				