Supplementary Content: Appendices

Appendices to accompany the *American Journal of Archaeology* publication:

Heterogeneous Production and Enchained Consumption: Minoan Gold in a Changing World (ca. 2000 BCE)

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Appendix 1: Summary Data on Objects Studied in the Project.

The table includes the site and context (when available) where each item was found, the museum or excavation inventory number (HNM = Archaeological Museum of Hagios Nikolaos number; or Sissi Archaeological Project number) a brief description of the item, average elemental composition by pXRF, calculated %Ag/(Ag+Au), the spray attribution of the Mochlos leaves by Davaras and our own classification, the attributed date based on context, and publication references.

Site	Context	Inventory number	Description	Ti	Fe	Cu	Ag	Au	%Ag/(Ag+Au)	Davaras (1975) leaf type and spray	Leaf reclas-sification (this paper)	Date	References
Hagios Chara-lambos		HNM 11901	disk A			1.23	14.8	84.0	14.9			Neolithic–MM II	Muhly, J. D. 2014, 58, fig. 30, Pl. 15.
Hagios Chara-lambos		HNM 11901	disk B			1.23	14.7	84.1	14.9			Neolithic–MM II	Muhly, J. D. 2014, 58, fig. 30, Pl. 15.
Hagios Chara-lambos		HNM 13782	sheet			0.47	16.7	82.9	16.7			Neolithic–MM II	Muhly, J. D. 2014, 58, fig. 30.
Hagios Chara-lambos		HNM 13800	sheet			0.66	16.5	82.9	16.6			Neolithic–MM II	Muhly, J. D. 2014, 58.
Hagios Chara-lambos		HNM 13862	bead			0.48	12.2	87.3	12.2			Neolithic–MM II	Muhly, J. D. 2014, 58, fig. 30.
Hagios Chara-lambos		HNM 13865	sheet	0.27	1.37	0.91	15.1	82.4	15.4			Neolithic–MM II	Muhly, J. D. 2014, 58.
Hagios Chara-lambos		HNM 13867	bead - bottom part			0.71	20.3	79.0	20.4			Neolithic–MM II	Muhly, J. D. 2014, 58, fig. 30.
Hagios Chara-lambos		HNM 13867	bead - join area			0.89	19.8	79.3	20.0			Neolithic–MM II	Muhly, J. D. 2014, 58, fig. 30.
Hagios Chara-lambos		HNM 11868	ring - hoop			3.55	14.0	82.5	14.5			Neolithic–MM II	Betancourt 2011; Muhly, J. D. 2014, 58, fig. 30, Pl. 15.
Hagios Chara-lambos		HNM 11868	ring - bezel			4.17	13.3	82.5	13.9			Neolithic–MM II	Betancourt 2011; Muhly, J. D. 2014, 58, fig. 30, Pl. 15.
Mochlos	Area Tombs IV/V/VI	HNM 3107	bead			0.42	15.5	84.1	15.5			EM II–III	Davaras 1975: 106, Pls. 16b, 22d, lower left (object 22 in Pl. 22d); Vasilakis 1996: 191-192; de Checchi 2006: 26-27, figs. 3, 13-14.
Mochlos	Area Tombs IV/V/VI	HNM 3108	bead			1.89	33.2	64.9	33.8			EM II–III	Davaras 1975: 106, Pls. 22a, 22d, upper left (object 23 in Pl. 22d); Vasilakis 1996: 192.
Mochlos	Area Tombs IV/V/VI	HNM 3109	flower - center			0.56	17.3	82.2	17.4			EM II–III	Davaras 1975: 106, Pls. 19a, 22d, right (object 21 in Pl. 22d); Vasilakis 1996: 171.
Mochlos	Area Tombs IV/V/VI	HNM 3109	flower - petal			0.54	17.7	81.8	17.8			EM II–III	Davaras 1975: 106, Pls. 19a, 22d, right (object 21 in Pl. 22d); Vasilakis 1996: 171.
Mochlos	Tomb VI	HNM 4300	bead			0.71	19.5	79.8	19.6			EM II–III	Davaras 1975: 104-105, Pl. 22b (object 7); Vasilakis 1996: 191.

Site	Context	Inventory number	Description	Ti	Fe	Cu	Ag	Au	%Ag/(Ag+Au)	Davaras (1975) leaf type and spray	Leaf reclas-sification (this paper)	Date	References
Mochlos	Tomb VI	HNM 4301	chain with pendant - chain			0.52	24.1	75.4	24.2			EM II–III	Davaras 1975: 104, Pl. 21a, upper right (object 3 in Pl. 21a); Vasilakis 1996: 158.
Mochlos	Tomb VI	HNM 4301	chain with pendant - pendant			0.68	13.8	85.6	13.9			EM II–III	Davaras 1975: 104, Pl. 21a, upper right (object 3 in Pl. 21a); Vasilakis 1996: 158.
Mochlos	Tomb VI	HNM 4302	chain			0.56	21.3	78.2	21.4			EM II–III	Davaras 1975: 104, Pl. 21a, upper left (object 2 in Pl. 21a); Vasilakis 1996:158; de Checchi 2006: 24-25, figs. 4, 12.
Mochlos	Tomb VI	HNM 4303	bracelet			0.71	18.1	81.2	18.2			EM II–III	Davaras 1975: 104, Pl. 22a (objects 4, 5 in Pl. 22a); Vasilakis 1996: 179.
Mochlos	Tomb VI	HNM 4304	bracelet			0.83	18.6	80.6	18.7			EM II–III	Davaras 1975: 104, Pl. 22a (objects 4, 5 in Pl. 22a); Vasilakis 1996: 179.
Mochlos	Tomb VI	HNM 4305	sheet fragment			0.64	20.0	79.3	20.2			EM II–III	Davaras 1975: 104, Pl. 21b; Vasilakis 1996: 104
Mochlos	Tomb VI	HNM 4306	sheet fragment			0.68	18.9	80.5	19.0			EM II–III	Davaras 1975: 104, Pl. 21b; Vasilakis 1996: 104
Mochlos	Tomb VI	HNM 4307	sheet fragment			0.73	19.8	79.5	19.9			EM II–III	Davaras 1975: 104, Pl. 21b; Vasilakis 1996: 104
Mochlos	Tomb VI	HNM 4308	sheet fragment			0.75	19.6	79.6	19.8			EM II–III	Davaras 1975: 104, Pl. 21b; Vasilakis 1996: 104
Mochlos	Tomb VI	HNM 4309	sheet fragment			0.76	20.2	79.0	20.4			EM II–III	Davaras 1975: 104, Pl. 21b; Vasilakis 1996: 104
Mochlos	Tomb VI	HNM 4310	sheet fragment			0.74	20.8	78.4	21.0			EM II–III	Davaras 1975: 104, Pl. 21b; Vasilakis 1996: 104
Mochlos	Tomb VI	HNM 4311	sheet fragment			0.50	17.5	82.0	17.6			EM II–III	Davaras 1975: 104, Pl. 21b; Vasilakis 1996: 104
Mochlos	Tomb VI	HNM 4312	sheet fragment			0.90	18.9	80.2	19.1			EM II–III	Davaras 1975: 104, Pl. 21b; Vasilakis 1996: 104
Mochlos	Tomb VI	HNM 4313	diadem - main			0.23	15.2	84.6	15.2			EM II–III	Davaras 1975: 103-104, fig. 3, Pl. 18a (object 1 in Pl. 18a); Vasilakis 1996: 104-105, fig. 11.36; de Checchi 2006: 20-22, figs. 1, 5-8.
Mochlos	Tomb VI	HNM 4313	diadem - antenna A			0.71	20.6	78.7	20.7			EM II–III	Davaras 1975: 103-104, fig. 3, Pl. 18a (object 1 in Pl. 18a); Vasilakis 1996: 104-105, fig. 11.36; de Checchi 2006: 20-22, figs. 1, 5-8.
Mochlos	Tomb VI	HNM 4313	diadem - antenna B			0.68	20.0	79.3	20.2			EM II–III	Davaras 1975: 103-104, fig. 3, Pl. 18a (object 1 in Pl. 18a); Vasilakis 1996: 104-105, fig. 11.36; de Checchi 2006: 20-22, figs. 1, 5-8.
Mochlos	Tomb VI	HNM 4313	diadem - antenna C			0.72	19.8	79.5	19.9			EM II–III	Davaras 1975: 103-104, fig. 3, Pl. 18a (object 1 in Pl. 18a); Vasilakis 1996: 104-105, fig. 11.36; de Checchi 2006: 20-22, figs. 1, 5-8.

Site	Context	Inventory number	Description	Ti	Fe	Cu	Ag	Au	%Ag/(Ag+Au)	Davaras (1975) leaf type and spray	Leaf reclas-sification (this paper)	Date	References
Mochlos	Tomb VI	HNM 4313	diadem - antenna D			0.73	20.4	78.8	20.6			EM II–III	Davaras 1975: 103-104, fig. 3, Pl. 18a (object 1 in Pl. 18a); Vasilakis 1996: 104-105, fig. 11.36; de Checchi 2006: 20-22, figs. 1, 5-8.
Mochlos	Tomb VI	HNM 4313	diadem - antenna E			0.70	20.5	78.5	20.7			EM II–III	Davaras 1975: 103-104, fig. 3, Pl. 18a (object 1 in Pl. 18a); Vasilakis 1996: 104-105, fig. 11.36; de Checchi 2006: 20-22, figs. 1, 5-8.
Mochlos	Tomb VI	HNM 4313	diadem - antenna F			0.81	20.7	78.5	20.9			EM II–III	Davaras 1975: 103-104, fig. 3, Pl. 18a (object 1 in Pl. 18a Vasilakis 1996: 104-105, fig. 11.36; de Checchi 2006: 20-22, figs. 1, 5-8.
Mochlos	Tomb VI	HNM 4341a	leaf			0.81	18.7	80.5	18.8	Type D	Unassigned	EM II–III	Davaras 1975: 105, fig. 2d, Pls. 18b, 19d (object 12 in Pl. 19d); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4342a	antenna fragment			0.74	20.2	79.1	20.3			EM II–III	Davaras 1975: 105, Pl. 20a, left (object 13a in Pl. 20a). Vasilakis 1996: 136.
Mochlos	Tomb VI	HNM 4343a	leaf with stem - leaf			0.32	15.8	83.9	15.8			EM II–III	Davaras 1975: 105, Pl. 20a, left (object 13b in Pl. 20a). Vasilakis 1996: 119.
Mochlos	Tomb VI	HNM 4343a	leaf with stem - stem			0.34	15.6	84.1	15.6			EM II–III	Davaras 1975: 105, Pl. 20a, left (object 13b in Pl. 20a). Vasilakis 1996: 119.
Mochlos	Tomb VI	HNM 4344a	leaf			0.82	17.8	81.4	17.9	Type B spray 2	Unassigned	EM II–III	Davaras 1975: 105, Pl. 18b (object 10 in Pl. 18b); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4345a	leaf			0.70	17.6	81.7	17.7	Type B spray 2	Unassigned	EM II–III	Davaras 1975: 105, Pl. 18b; Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4346a	leaf spray - leaf A			0.88	21.8	77.3	22.0	Type A spray 3 (joined)	Spray 3	EM II–III	Davaras 1975: 105, Pls. 18b, 20c (Plate is mislabelled as d) (object 8 in Pl. 20c); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4346a	leaf spray - leaf B			0.82	21.6	77.5	21.8	Type A spray 3 (joined)	Spray 3	EM II–III	Davaras 1975: 105, Pls. 18b, 20c (Plate mislabelled as d) (object 8 in Pl. 20c); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4346a	leaf spray - leaf C			0.93	22.0	77.1	22.2	Type A spray 3 (joined)	Spray 3	EM II–III	Davaras 1975: 105, Pls. 18b, 20c (Plate mislabelled as d) (object 8 in Pl. 20c); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4346a	leaf spray - leaf D			0.89	22.2	76.9	22.4	Type A spray 3 (joined)	Spray 3	EM II–III	Davaras 1975: 105, Pls. 18b, 20c (Plate mislabelled as d) (object 8 in Pl. 20c); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4347	leaf			0.75	19.1	80.1	19.3	Type B spray 1	Spray 1	EM II–III	Davaras 1975: 105, fig. 2b, Pls. 18b, 20d (Plate mislabelled as c) (object 9 in Pl. 20d); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4347a	leaf			0.74	17.4	81.9	17.5	Type C spray 4	Spray 4	EM II–III	Davaras 1975:105, fig. 2c, Pls. 18b, 19b (object 14 in Pl. 19b); Vasilakis 1996:122.
Mochlos	Tomb VI	HNM 4348	leaf			0.83	19.3	79.9	19.5	Type B spray 1	Spray 1	EM II–III	Davaras 1975: 105, fig. 2b, Pls. 18b, 20d (Plate mislabelled as c) (object 9 in Pl. 20d); Vasilakis 1996: 120.

Site	Context	Inventory number	Description	Ti	Fe	Cu	Ag	Au	%Ag/(Ag+Au)	Davaras (1975) leaf type and spray	Leaf reclassification (this paper)	Date	References
Mochlos	Tomb VI	HNM 4348a	leaf			0.78	16.7	82.5	16.8	Type C spray 4	Spray 4	EM II–III	Davaras 1975: 105, fig. 2c, Pls. 18b, 19b (object 14 in Pl. 19b); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4349	leaf			0.75	18.8	80.4	19.0	Type B spray 1	Spray 1	EM II–III	Davaras 1975: 105, fig. 2b, Pls. 18b, 20d (Plate mislabelled as c) (object 9 in Pl. 20d); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4349a	leaf			1.08	23.0	75.9	23.2	Type A spray 5	Spray 5*	EM II–III	Davaras 1975: 105, fig. 2b, Pls. 18b, 20b (object 15 in Pl. 20b); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4350	leaf			0.84	20.7	78.4	20.9	Type A spray 5	Unassigned leaf	EM II–III	Davaras 1975: 105, fig. 2b, Pls. 18b, 20b (object 15 in Pl. 20b); Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4350a	leaf			0.59	21.8	77.6	21.9	Type F	Unassigned leaf	EM II–III	Davaras 1975: 105 (mislabelled in the publication as HNM4340A, HNM4350a is the likely correct number), fig. 2f, Pls. 18b, 19c; Vasilakis 1996: 122.
Mochlos	Tomb VI	HNM 4351	leaf			0.94	22.5	76.5	22.8	Type A spray 5	Unassigned leaf	EM II–III	Davaras 1975: 105, fig. 2b, Pls. 18b, 20b (object 15) [mislabelled in the publication, correct number likely 4352]; Vasilakis 1996: 120.
Mochlos	Tomb VI	HNM 4352	leaf			1.01	22.7	76.3	23.0	Type E spray 6	Spray 5*	EM II–III	Davaras 1975: 105, fig. 2e, Pls. 18b, 21d (object 16) [mislabelled in the publication, correct number likely 4351].
Mochlos	Tomb VI	HNM 4353	leaf			0.71	22.7	76.6	22.9	Type E spray 6	Spray 6*	EM II–III	Davaras 1975: 105, fig. 2e, Pls. 18b, 21d (object 16 in Pl. 21d).
Mochlos	Tomb VI	HNM 4354	leaf			0.72	22.9	76.4	23.1	Type E spray 6	Spray 6*	EM II–III	Davaras 1975: 105, fig. 2e, Pls. 18b, 21d (object 16 in Pl. 21d).
Mochlos	Tomb VI	HNM 4355	leaf			0.74	23.0	76.3	23.2	Type E spray 6	Spray 6*	EM II–III	Davaras 1975: 105, fig. 2e, Pls. 18b, 21d (object 16 in Pl. 21d).
Mochlos	Tomb VI	HNM 4356	leaf			0.97	20.7	78.4	20.9	Type plain spray 8	Spray 8	EM II–III	Davaras 1975: 105, Pls. 18b, 21c (object 18 in Pl. 21c); Vasilakis 1996: 120-121.
Mochlos	Tomb VI	HNM 4357	leaf			1.10	20.6	78.3	20.8	Type plain spray 8	Spray 8	EM II–III	Davaras 1975: 105, Pls. 18b, 21c (object 18 in Pl. 21c); Vasilakis 1996: 120-121.
Mochlos	Tomb VI	HNM 4358	leaf			1.03	20.5	78.5	20.7	Type plain spray 8	Spray 8	EM II–III	Davaras 1975: 105, Pls. 18b, 21c (object 18 in Pl. 21c); Vasilakis 1996: 120-121.
Mochlos	Tomb VI	HNM 4359	leaf			0.67	22.8	76.5	23.0	Type E spray 7	Spray 7*	EM II–III	Davaras 1975: 105, Pl. 18b (object 17 in Pl. 18b); Vasilakis 1996: 121.
Mochlos	Tomb VI	HNM 4360	leaf			0.99	21.4	77.6	21.6	Type E spray 7	Unassigned	EM II–III	Davaras 1975: 105, Pl. 18b (object 17 in Pl. 18b); Vasilakis 1996: 121.
Mochlos	Tomb VI	HNM 4361	leaf			0.40	16.6	83.0	16.7	Type E spray 7	Unassigned	EM II–III	Davaras 1975: 105, Pl. 18b (object 17 in Pl. 18b); Vasilakis 1996: 121.
Mochlos	Tomb VI	HNM 4362	leaf			0.70	23.1	76.2	23.2	Type E spray 7	Spray 7*	EM II–III	Davaras 1975: 105, Pl. 18b (object 17 in Pl. 18b); Vasilakis 1996: 121.

Site	Context	Inventory number	Description	Ti	Fe	Cu	Ag	Au	%Ag/(Ag+Au)	Davaras (1975) leaf type and spray	Leaf reclas-sification (this paper)	Date	References
Mochlos	Area Tombs IV/V/VI	HNM 4366a	bead			0.32	14.5	85.2	14.6			EM II–III	Davaras 1975: 106, Pl. 21a, lower left (object 24 in Pl. 21a); Vasilakis 1996: 192.
Mochlos	Area Tombs IV/V/VI	HNM 4366b	bead			0.49	17.9	81.6	18.0			EM II–III	Davaras 1975: 106, Pl. 21a, lower left (object in Pl. 21a); Vasilakis 1996: 192.
Mochlos	Area Tombs IV/V/VI	HNM 4367	ring			0.65	18.0	81.3	18.1			EM II–III	Davaras 1975: 106, Pl. 21a, lower right (object in Pl. 21a). Vasilakis 1996: 92.
Mochlos	Tomb XXII	HNM 7178	disk			0.60	10.8	88.6	10.9			EM II–III	Soles 1992, 86–87, object no. XXII-5
Mochlos	Tomb Gamma	HNM 7180	leaf			0.62	17.6	81.8	17.7	Type E	Unassigned	EM II–III	n/a
Sissi		15/10/2170/OB004	sheet			1.01	19.6	79.4	19.8				Driessen et al. forthcoming.
Sissi		15/11/3031/OB001	sheet - fragment A			0.72	19.9	79.4	20.1				Driessen et al. forthcoming.
Sissi		15/11/3031/OB001	sheet - fragment B			0.83	20.4	78.8	20.5				Driessen et al. forthcoming.
Sissi		15/11/3031/OB001	sheet - fragment C			0.83	20.6	78.6	20.8				Driessen et al. forthcoming.
Sissi		16/04/0099/OB011	bead			2.70	24.8	72.5	25.5				Driessen et al. forthcoming.
Sissi		16/10/2313/OB011	sheet	0.07	0.81	0.69	16.3	82.1	16.6				Driessen et al. forthcoming.
Sissi		16/10/2325/OB003	sheet			1.20	16.8	81.9	17.1				Driessen et al. forthcoming.
Sissi		16/10/2333/OB007	sheet			0.62	19.0	80.4	19.1				Driessen et al. forthcoming.
Sissi		16/10/2342/OB003	sheet			0.66	17.4	82.0	17.5				Driessen et al. forthcoming.
Sissi		16/10/2343/OB008	sheet			0.84	21.1	78.1	21.3				Driessen et al. forthcoming.
Sissi		16/10/2377/OB007	sheet	0.45	2.29	0.37	13.0	83.9	13.4				Driessen et al. forthcoming.
Sissi		16/10/2386/OB001	sheet	0.38	2.18	0.65	18.2	78.5	18.8				Driessen et al. forthcoming.
Sissi		18/09/4516/OB001	bead			5.31	24.9	69.7	26.3				Driessen et al. forthcoming.
Sissi		18/10/6057/OB004	sheet with wire			0.42	15.4	84.2	15.5				Driessen et al. forthcoming.
Sissi		18/11/3255/OB003	sheet			bdl	8.07	91.9	8.1				Driessen et al. forthcoming.
Sissi		18/18/3670/OB004	sheet			0.67	15.2	84.1	15.3				Driessen et al. forthcoming.
Sissi		19/1016140/OB001	sheet	0.66	3.34	0.87	20.7	74.4	21.8				Driessen et al. forthcoming.
Sissi	Tomb IX	11-09-9893-0B022 (= HNM 17356)	rivet?			1.45	17.9	80.6	18.2			MM IB–II	Schoep et al. 2013, 45 fig. 2.25a
Sissi	Tomb IX	11-09-9881-0B001 (= HNM 17357)	ring			1.27	24.7	74.0	25.1			MM IB–II	Schoep et al. 2013, 45 fig. 2.25b

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Appendix 2: Analytical Protocol for pXRF Analysis

Elemental analyses were carried out using an Olympus InnovX Delta Premium portable X-ray fluorescence spectrometer (pXRF), equipped with an Rh anode and a silicon drift detector (SDD), and providing a typical resolution of 145–155 eV FWHM for 5.9 kV X-rays (on an AISI 316 standard). The factory-built Alloy Plus method was employed, which uses a fundamental parameters algorithm for quantification. Analyses were performed at 40 kV and 100 μA using the so-called Beam 1, which includes an Al filter in the X-ray path, for measurement times of 30 seconds. The beam was collimated to a diameter of 3 mm, and all results are reported in percentage by weight (wt%).

Analytical performance was monitored through repeat analyses of three reference standards that were analyzed alongside the artifacts (see appx. 2 table). These results show high reproducibility between analytical batches, with coefficients of variation of 2.5% or better for Cu, Ag, and Au across the compositional range. These tests also show good agreement between analyzed and reference values, which show slight underreporting of Cu and Ag, but with relative errors never higher than 5.7%.

Archaeological artefacts were analysed directly without any surface preparation. Most of them were small enough to be placed in a field stand attached to the pXRF, which shields the radiation and allows for a more stable analysis. The few larger objects were analyzed in handheld mode. Most objects or object parts were analyzed three times in slightly different areas (or front/back), and average values are reported. Under our setup, the detection limits of the instrument are around 0.1% for most elements, but analytical uncertainty increases significantly for elements below 0.5%. We report average values for Cu, Ag, and Au, which were the elements consistently detected in all analyses. In addition, a small number of analyses yielded small concentrations of Ti and/or Fe, most likely deriving from surface contamination during burial but reported here to denote the lower data quality for these items. Finally, a number of analyses yielded traces of tin ranging 0.1–0.3%, typically in samples with higher Ag. Our analysis of reference materials show that we can reliably identify Sn in Au-Ag alloys in concentrations down to around 0.5%, but we cannot be confident of our quantification limits for Sn below this threshold. While tin may be

present in alluvial gold, upon examining the relevant spectra it was not possible to conclusively identify the Sn Kα peaks under the slope of the Ag Kβ—hence we decided not to report this element.

Results of pXRF analyses of reference materials over the course of the project, and comparison to reference values.

Date	Standard	Cu	Ag	Sn	Au
29/05/2018	MAC1	0.95	4.27	0.46	94.33
29/05/2018	MAC1	0.95	4.27	0.47	94.31
29/05/2018	MAC1	0.99	4.23	0.49	94.29
30/05/2018	MAC1	0.94	4.25	0.48	94.33
31/05/2018	MAC1	0.95	4.25	0.46	94.34
01/06/2018	MAC1	0.96	4.26	0.44	94.34
01/06/2018	MAC1	0.98	4.26	0.46	94.30
01/06/2018	MAC1	0.99	4.24	0.46	94.31
30/07/2019	MAC1	0.96	4.18	0.45	94.41
	Mean	**0.96**	**4.24**	**0.46**	**94.33**
	Std dev	0.02	0.03	0.02	0.03
	%RSD	1.7	0.6	3.6	0.0
	Reference	**1**	**4.5**	**0.5**	**94**
	Delta abs	-0.04	-0.26	-0.04	0.33
	Delta rel	-3.6	-5.7	-7.3	0.3
29/05/2018	MAC2	4.84	18.45	1.13	75.58
29/05/2018	MAC2	4.87	18.45	1.16	75.52
29/05/2018	MAC2	5.08	18.22	1.14	75.56
30/05/2018	MAC2	5.15	18.23	1.18	75.44
31/05/2018	MAC2	4.86	18.37	1.07	75.69
01/06/2018	MAC2	4.85	18.46	1.09	75.60
30/07/2019	MAC2	4.97	18.19	1.13	75.71
	Mean	**4.95**	**18.34**	**1.13**	**75.59**
	Std dev	0.13	0.12	0.04	0.09
	%RSD	2.5	0.7	3.3	0.1
	Reference	**5**	**19**	**1**	**75**
	Delta abs	-0.05	-0.66	0.13	0.59
	Delta rel	-1.1	-3.5	13.1	0.8

Date	Standard	Cu	Ag	Sn	Au
29/05/2018	MAC3	8.67	29.6	2.07	59.7
29/05/2018	MAC3	8.71	29.6	2.14	59.6
29/05/2018	MAC3	8.85	29.5	2.10	59.6
30/05/2018	MAC3	8.77	29.6	2.09	59.6
31/05/2018	MAC3	8.76	29.4	2.12	59.7
01/06/2018	MAC3	8.75	29.5	2.09	59.7
30/07/2019	MAC3	8.75	29.3	2.03	59.9
	Mean	**8.75**	**29.47**	**2.09**	**59.69**
	Std dev	0.05	0.10	0.04	0.12
	%RSD	0.6	0.3	1.7	0.2
	Reference	**9**	**30**	**2**	**59**
	Delta abs	-0.25	-0.53	0.09	0.69
	Delta rel	-2.8	-1.8	4.6	1.2