

**Table 1 – Data**

Sample	Consolidant Applied	Solvent Applied	Drying Method	$\delta^{13}\text{C}_{\text{structural carbonate}}$ (‰, VPDB)	$\delta^{18}\text{O}_{\text{structural carbonate}}$ (‰, VSMOW)	$\delta^{15}\text{N}_{\text{collagen}}$ (‰, AIR)	$\delta^{13}\text{C}_{\text{collagen}}$ (‰, VPDB)	$\delta^{18}\text{O}_{\text{phosphate}}$ (‰, VSMOW)
whale rib	none	none	N/A	-14.7	27.7	11.6	-18.1	19.9
whale rib	none	none	N/A	-14.8	28.0	11.5	-17.8	20.1
whale rib	none	none	N/A	-14.4	28.1	11.3	-17.8	20.3
			<i>average</i>	-14.6	27.9	11.5	-17.9	20.1
			<i>stdev</i>	0.18	0.21	0.17	0.17	0.21
whale rib	none	100% acetone	oven 80°C	-14.7	26.5	11.8	-18.5	18.6
whale rib	none	100% acetone	oven 80°C	-15.5	27.4	11.4	-18.3	19.9
whale rib	none	100% acetone	oven 80°C	-14.5	28.2	11.3	-17.9	20.0
			<i>average</i>	-14.9	27.4	11.5	-18.2	19.5
			<i>stdev</i>	0.53	0.84	0.28	0.32	0.81
whale rib	Duco cement in 100% acetone	none	N/A	-14.9	26.5	12.1	-19.8	19.3
whale rib	Duco cement in 100% acetone	none	N/A	-15.0	26.7	11.4	-18.2	20.8
whale rib	Duco cement in 100% acetone	none	N/A	-14.9	26.5	11.7	-17.9	20.7
			<i>average</i>	-14.9	26.6	11.7	-18.6	20.3
			<i>stdev</i>	0.07	0.09	0.31	1.03	0.84
whale rib	Duco cement in 100% acetone	100% acetone	oven 80°C	-14.5	26.7	11.7	-17.8	18.5
whale rib	Duco cement in 100% acetone	100% acetone	oven 80°C	-15.2	27.6	11.5	-18.0	19.7
whale rib	Duco cement in 100% acetone	100% acetone	oven 80°C	-14.7	27.6	11.2	-18.1	20.1
			<i>average</i>	-14.8	27.3	11.5	-18.0	19.5
			<i>stdev</i>	0.38	0.52	0.25	0.15	0.83
seal femur	none	none	N/A			18.4	-12.2	
seal femur	none	none	N/A			18.1	-12.2	
seal femur	none	none	N/A			18.2	-12.2	
			<i>average</i>			18.2	-12.2	
			<i>stdev</i>			0.16	0.02	
seal femur	none	100% acetone	oven 80°C			18.0	-12.8	
seal femur	none	100% acetone	oven 80°C			18.5	-13.0	

seal femur	none	100% acetone	oven 80°C	18.3	-12.4	
			<i>average</i>	18.3	-12.7	
			<i>stdev</i>	0.27	0.30	
seal femur	Duco cement in 100% acetone	none	N/A	18.5	-12.1	
seal femur	Duco cement in 100% acetone	none	N/A	18.1	-12.9	
seal femur	Duco cement in 100% acetone	none	N/A	18.1	-12.5	
			<i>average</i>	18.3	-12.5	
			<i>stdev</i>	0.25	0.40	
seal femur	Duco cement in 100% acetone	100% acetone	oven 80°C	18.6	-12.4	
seal femur	Duco cement in 100% acetone	100% acetone	oven 80°C	18.0	-12.3	
seal femur	Duco cement in 100% acetone	100% acetone	oven 80°C	18.7	-12.2	
			<i>average</i>	18.5	-12.3	
			<i>stdev</i>	0.40	0.13	
Duco cement				12.0*	-26.3*	26.5*

\*Note: Duco cement values do not originate from collagen or phosphate. The isotope values are placed in these categories because they were produced using the same mass spectrometry methods as the collagen and phosphate samples. The Duco cement isotope values are provided here as a reference for comparison to the sample values.