Specimen ID	S-ratio	IRM_{1T} (Am^2/kg)	Hard IRM (Am^2/kg)	Soft IRM (Am^2/kg)	NRM (Am^2/kg)	χ_B (m^3/kg)	T_C (°C) Heating	T_C (°C) Cooling	Color Change $\chi(T)$	Irreversible $\chi(T)$
CH160101A	-3.74×10^{-1}	9.91×10^{-3}	6.81×10^{-3}	3.10×10^{-3}	1.89×10^{-2}	1.49×10^{-7}	569	558	Black	Y
CH160102A	-3.48×10^{-1}	7.46×10^{-3}	5.03×10^{-3}	2.43×10^{-3}	1.36×10^{-2}	1.20×10^{-7}	572	561	Black	Y
CH160102BA	-3.23×10^{-1}	7.33×10^{-3}	4.84×10^{-3}	2.48×10^{-3}	3.84×10^{-2}	1.15×10^{-7}	569 & 680	575	Tan	Y
CH160103A	-1.79×10^{-1}	7.62×10^{-3}	4.49×10^{-3}	3.13×10^{-3}	9.63×10^{-3}	1.10×10^{-7}	395, 550-590, & 650	573 & 660	Red	N
CH160104A	-2.48×10^{-1}	5.84×10^{-3}	3.64×10^{-3}	2.19×10^{-3}	1.27×10^{-2}	8.98×10^{-8}	495, 565, & 650	478 & 550	Red	N
CH160105A	-3.09×10^{-1}	4.78×10^{-3}	3.13×10^{-3}	1.65×10^{-3}	9.02×10^{-3}	9.36×10^{-8}	565	578	Tan	Y
CH160106A	3.30×10^{-1}	6.40×10^{-3}	4.26×10^{-3}	2.15×10^{-3}	1.25×10^{-2}	1.09×10^{-7}	575	556	Black	Y
CH160107A	-3.29×10^{-1}	3.91×10^{-3}	2.60×10^{-3}	1.31×10^{-3}	2.30×10^{-2}	9.78×10^{-8}	560 & 650	561	Red	N
CH160108A	-2.71×10^{-1}	3.56×10^{-3}	2.26×10^{-3}	1.30×10^{-3}	7.34×10^{-3}	9.46×10^{-8}	550 & 680	582	Red	Y
CH160109A	-1.82×10^{-1}	3.83×10^{-3}	2.26×10^{-3}	1.56×10^{-3}	1.28×10^{-2}	9.50×10^{-8}	550 & 637	550 & 647	Red	N
CH160110A	-3.58×10^{-1}	9.12×10^{-3}	6.19×10^{-3}	2.93×10^{-3}	1.08×10^{-2}	1.46×10^{-7}	561 & 600	568	Red	N
CH160111A	-2.61×10^{-1}	5.65×10^{-3}	3.56×10^{-3}	2.09×10^{-3}	2.14×10^{-2}	1.12×10^{-7}	560	569 & 650	Red	N
CH160112A	-3.48×10^{-1}	9.34×10^{-3}	6.30×10^{-3}	3.04×10^{-3}	1.29×10^{-2}	1.43×10^{-7}	550 & 632	400, 575, & 629	Red	N

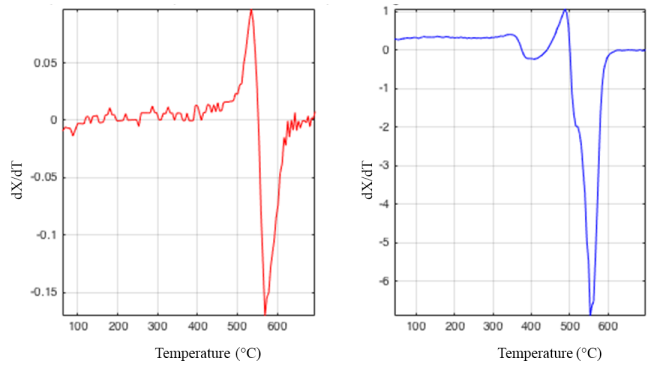
Table 1: The S-ratio, SIRM, Hard-IRM, and Soft-IRM concluded that high coercivity, hard minerals such as hematite dominated the magnetic remanence of the CHC. This table represents the magnetic characteristics of the CHC including: the natural remanent magnetization prior to any testing (NRM), the Curie temperatures identified on heating and cooling (T_C), the bulk susceptibility (χ_B), if a color change occurred during the high temperature susceptibility procedure ($\chi(T)$), and whether the $\chi(T)$ curves were strongly irreversible

Specimen ID	S-ratio	IRM_{1T} (Am^2/kg)	Hard IRM (Am^2/kg)	Soft IRM (Am^2/kg)	NRM (Am2/kg)	χ_B (m^3/kg)	Stratigraphic Height (m)
CH170101A	-3.50×10^{-1}	6.30×10^{-3}	4.25×10^{-3}	2.05×10^{-3}	8.80×10^{-3}	1.13×10^{-7}	14.4
CH170102A	-3.51×10^{-1}	6.51×10^{-3}	4.40×10^{-3}	2.11×10^{-3}	9.08×10^{-3}	1.12×10^{-7}	16.0
CH170103A	-2.41×10^{-1}	5.48×10^{-3}	3.40×10^{-3}	2.08×10^{-3}	1.01×10^{-2}	1.11×10^{-7}	16.0
CH170104A	-2.45×10^{-1}	4.85×10^{-3}	3.02×10^{-3}	1.83×10^{-3}	8.66×10^{-3}	9.45×10^{-8}	19.0
CH170105A	-3.24×10^{-1}	6.62×10^{-3}	4.38×10^{-3}	2.24×10^{-3}	9.97×10^{-3}	1.22×10^{-7}	21.6
CH170106A	-3.87×10^{-1}	4.90×10^{-3}	3.40×10^{-3}	1.50×10^{-3}	9.91×10^{-3}	1.14×10^{-7}	26.0
CH170107A	-4.95×10^{-1}	6.67×10^{-3}	4.99×10^{-3}	1.68×10^{-3}	1.63×10^{-2}	1.39×10^{-7}	26.1
CH170108A	-6.09×10^{-1}	4.75×10^{-3}	3.83×10^{-3}	9.29×10^{-4}	1.43×10^{-2}	1.29×10^{-7}	26.7
CH170109A	-4.12×10^{-1}	6.71×10^{-3}	4.74×10^{-3}	1.97×10^{-3}	1.44×10^{-2}	1.37×10^{-7}	26.8
CH170110A	-3.97×10^{-1}	4.86×10^{-3}	3.39×10^{-3}	1.47×10^{-3}	9.92×10^{-3}	1.18×10^{-7}	29.1
CH170110SA	-4.04×10^{-1}	5.06×10^{-3}	3.55×10^{-3}	1.51×10^{-3}	7.84×10^{-3}	1.23×10^{-7}	29.1
CH170111A	-3.53×10^{-1}	8.04×10^{-3}	5.44×10^{-3}	2.60×10^{-3}	1.35×10^{-2}	1.37×10^{-7}	30.2
CH170112A	-5.42×10^{-1}	5.40×10^{-3}	4.16×10^{-3}	1.24×10^{-3}	1.30×10^{-2}	1.41×10^{-7}	30.7
CH170113A	-3.92×10^{-1}	4.74×10^{-3}	3.30×10^{-3}	1.44×10^{-3}	1.08×10^{-2}	1.16×10^{-7}	34.7
CH170114A	-2.43×10^{-1}	5.32×10^{-3}	3.31×10^{-3}	2.01×10^{-3}	9.26×10^{-3}	1.09×10^{-7}	35.5
CH170115A	-2.51×10^{-1}	6.56×10^{-3}	4.10×10^{-3}	2.46×10^{-3}	1.06×10^{-2}	1.06×10^{-7}	37.0
CH170116A	-1.50×10^{-1}	6.12×10^{-3}	3.52×10^{-3}	2.60×10^{-3}	1.15×10^{-2}	1.14×10^{-7}	39.0
CH170117A	-3.70×10^{-1}	6.03×10^{-3}	4.13×10^{-3}	1.90×10^{-3}	1.65×10^{-2}	1.27×10^{-7}	40.6
CH170118A	-2.68×10^{-1}	5.59×10^{-3}	3.55×10^{-3}	2.05×10^{-3}	7.49×10^{-3}	9.71×10^{-8}	43.3
CH170119A	-2.69×10^{-1}	5.01×10^{-3}	3.18×10^{-3}	1.83×10^{-3}	6.98×10^{-3}	1.03×10^{-7}	45.2
CH170120A	-4.39×10^{-1}	6.27×10^{-3}	4.51×10^{-3}	1.76×10^{-3}	1.44×10^{-2}	1.52×10^{-7}	47.5
CH170121A	-3.33×10^{-1}	6.29×10^{-3}	4.19×10^{-3}	2.10×10^{-3}	7.34×10^{-3}	1.20×10^{-7}	48.9
CH170123A	-4.56×10^{-1}	4.52×10^{-3}	3.29×10^{-3}	1.23×10^{-3}	1.05×10^{-2}	1.18×10^{-7}	50.7
CH170124A	-4.15×10^{-1}	5.27×10^{-3}	3.73×10^{-3}	1.54×10^{-3}	1.32×10^{-2}	1.21×10^{-7}	52.7
CH170125A	-3.28×10^{-1}	6.26×10^{-3}	4.15×10^{-3}	2.10×10^{-3}	8.50×10^{-3}	1.16×10^{-7}	53.7
CH170126A	-3.09×10^{-1}	5.51×10^{-3}	3.61×10^{-3}	1.90×10^{-3}	6.15×10^{-3}	1.14×10^{-7}	54.2
CH170127A	-4.82×10^{-1}	5.59×10^{-3}	4.14×10^{-3}	1.45×10^{-3}	1.30×10^{-2}	1.30×10^{-7}	55.4
CH170128A	-3.09×10^{-1}	8.12×10^{-3}	5.31×10^{-3}	2.81×10^{-3}	1.65×10^{-2}	1.20×10^{-7}	55.9

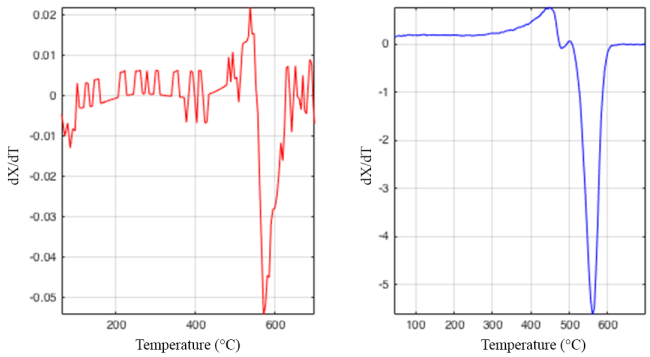
Table 2: The S-ratio, SIRM, Hard-IRM, and Soft-IRM concluded that high coercivity, hard minerals such as hematite dominated the magnetic remanence of the CHC. Magnetic characteristics of the CHC are listed as well including the natural remanent magnetization prior to any testing (NRM), the bulk susceptibility (χ_B), and their stratigraphic height relative to the boat launch at Union Bay Campground.

Specimen ID	Bh_{C1} (log units)	DP_{C1} (log units)	EC_{C1} mean		Bh_{C2} (log units)	DP_{C2} (log units	EC_{C2} mean
CH160101A	1.70	0.25	0.06		2.81	0.36	0.94
CH160106A	1.70	0.25	0.06		2.79	0.37	0.94
CH160107A	1.71	0.27	0.06		2.85	0.39	0.94
CH160108A	1.71	0.28	0.08		2.79	0.39	0.92
CH160109A	1.69	0.26	0.07		2.73	0.40	0.93
CH160110A	1.71	0.27	0.06		2.82	0.38	0.94
CH160111A	1.73	0.28	0.08		2.79	0.39	0.92
CH160112A	1.72	0.26	0.06		2.80	0.36	0.94

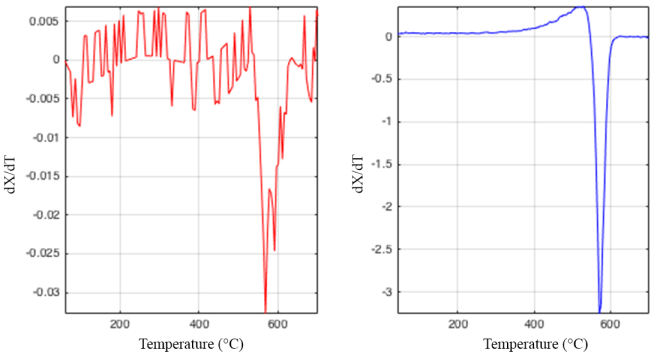
Table 3: Data headings contain subscript of C1 or C2 to denote Component 1 or 2, respectively. B_h represents the mean coercivity of the component, DP represents the dispersion parameter about the peak coercivity, and the ECmean represents the extrapolated component proportions since the samples were not fully saturated in a 1T field. Locality 1: Component 1 demonstrated a lower B_h on average (1.71 log units ± 0.01) than Component 2 (2.80 log units ± 0.03) as well as an overall lower DP (Component 1 (0.27 log units ± 0.01)); Component 2 (0.38 log units ± 0.01). The average coercivity of Component 1 was 51.2 mT, suggestive of magnetite and the coercivity of Component 2 was 630.6 mT, suggestive of hematite.



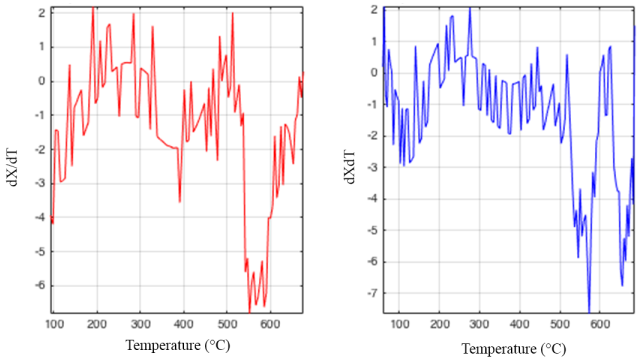
CH160101 First Derivative (heating & cooling)



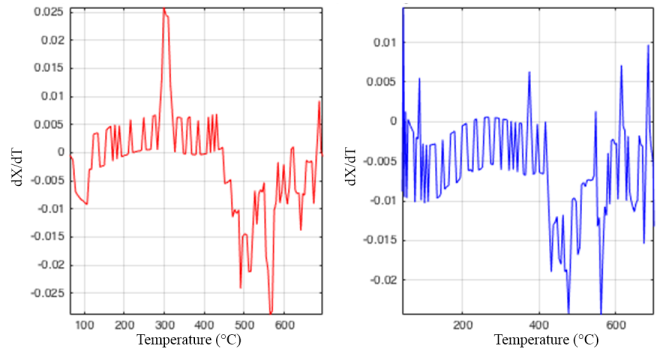
CH160102 First Derivative (heating & cooling)



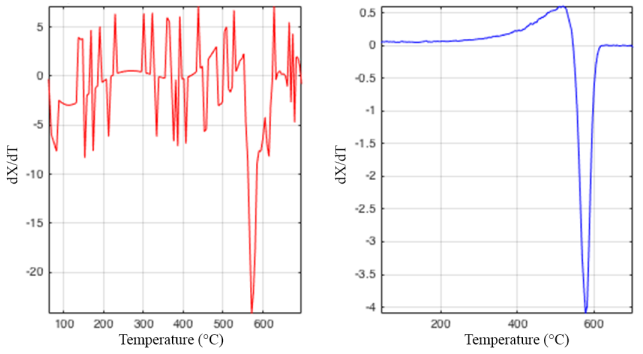
CH160102b First Derivative (heating & cooling)



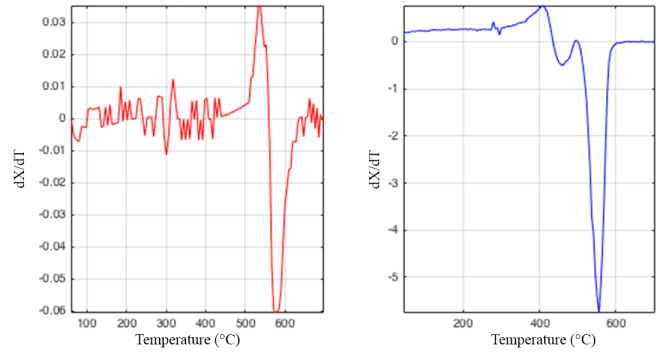
CH160103 First Derivative (heating and cooling)



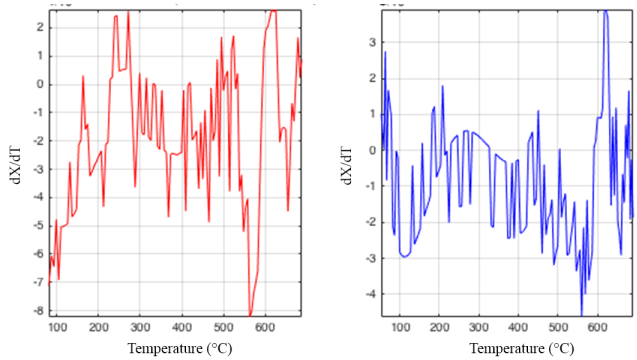
CH160104 First Derivative (heating & cooling)



CH160105 First Derivative (heating & cooling)

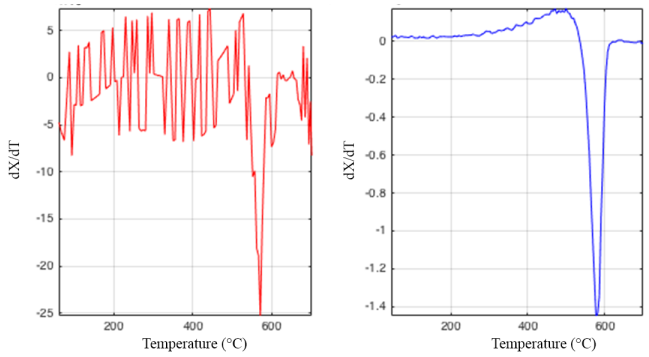


CH160106 First Derivative (heating & cooling)

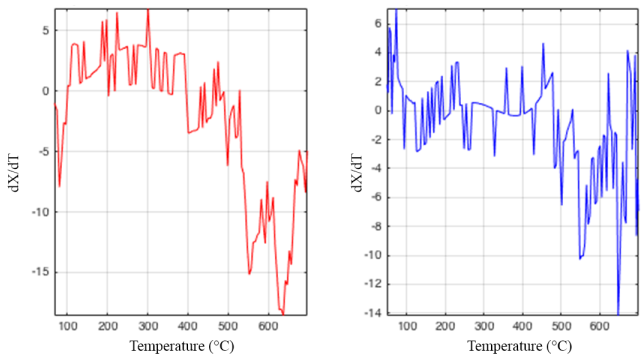


CH160107 First Derivative (heating & cooling)

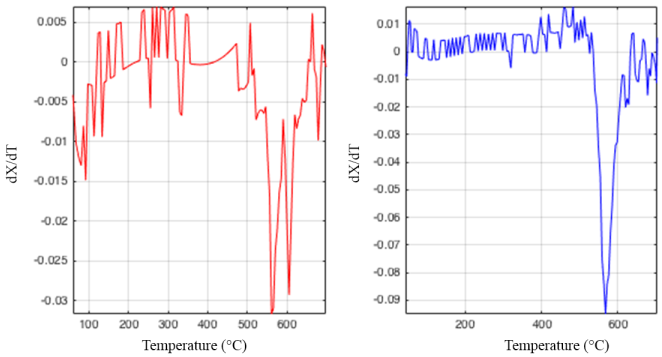
First derivative of temperature dependent susceptibility acquisition.



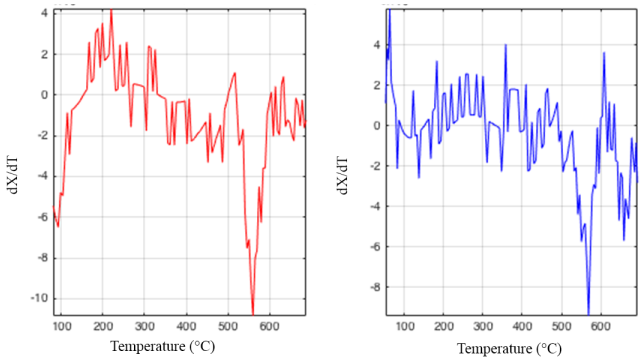
CH160108 First Derivative (heating & cooling)



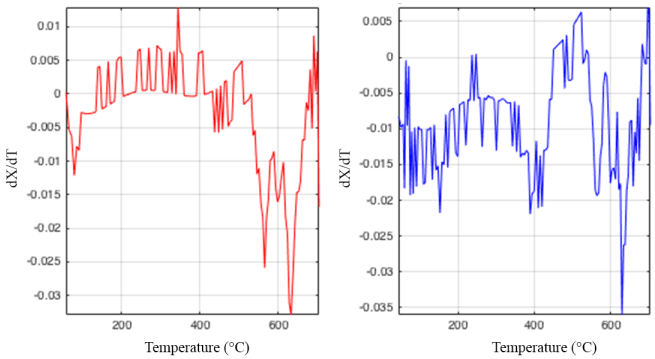
CH160109 First Derivative (heating & cooling)



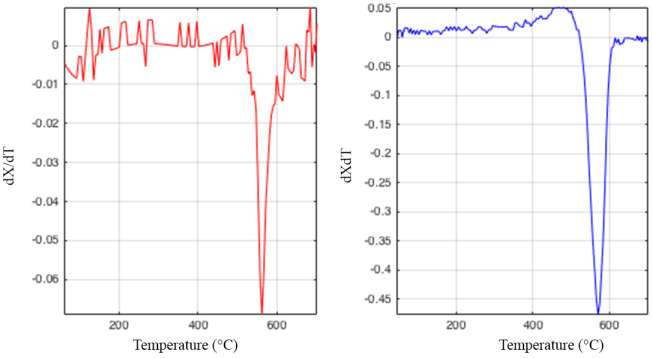
CH160110 First Derivative (heating & cooling)



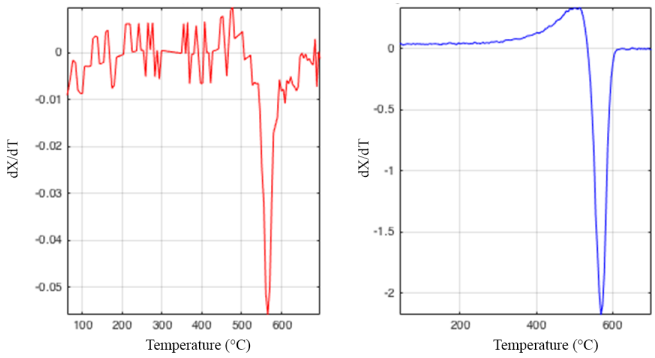
CH160111 First Derivative (heating & cooling)



CH160112 First Derivative (heating & cooling)

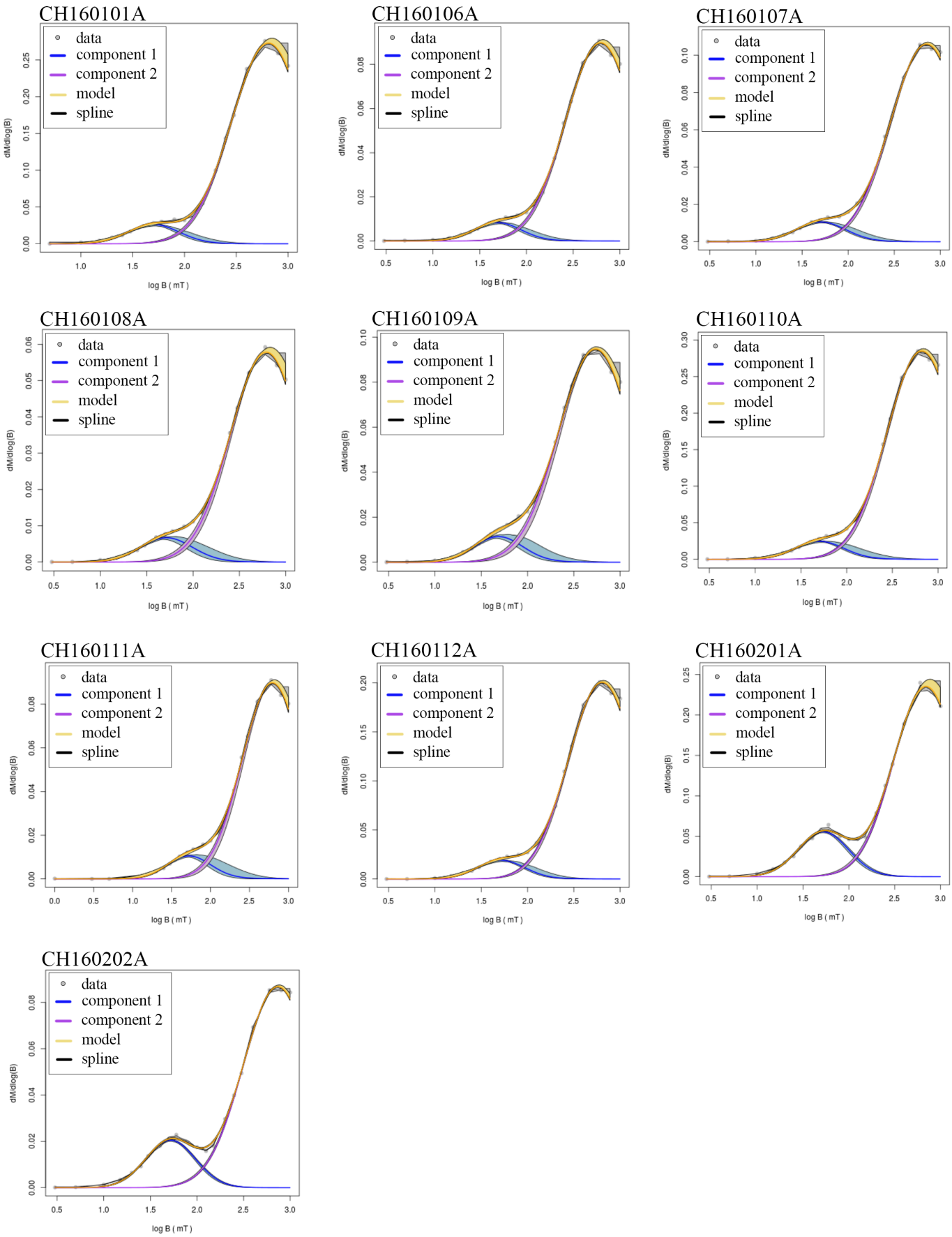


CH160201 First Derivative (heating & cooling)



CH160202 First Derivative (heating & cooling)

First derivative of temperature dependent susceptibility acquisition.



First derivative of 20-step isothermal remanent magnetization acquisition (using MAX Un-Mix web application developed by Maxbauer et al. (2016)).