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TABLE 1. Commonly used extractions and the main minerals extracted (for methodology see Poulton and Canfield, 2005).

Extraction	Main Minerals Extracted
Na acetate, pH 4.5, 24 hr	Carbonate Fe, including siderite and ankerite
Na dithionite, pH 4.8, 2 hr	Ferrihydrite, lepidocrocite, goethite, hematite
NH ₄ oxalate, pH 3.2, 6 hr	Magnetite
Boiling 12 N HCl, 2 mins	All Fe (oxyhydr)oxides, carbonate Fe and some silicate iron

TABLE 2. Modern sediment proxy values (data from Anderson and Raiswell, 2004; Raiswell and Canfield, 1998).

Sediment	Fe_{HR}/Fe_T	Fe_{py}/Fe_{HR}
Black Sea	0.70±0.19	0.88±0.02
Cariaco Basin	0.51±0.03	0.89±0.02
Dysoxic or Fluctuating	0.28±0.10	0.63±0.27
Continental Margin + Deep Sea	0.26±0.08	0.10±0.17

TABLE 3. Best practice thresholds for the iron proxies.

Environment	Best Practice Thresholds			
	DOP*	Fe_T/Al**	Fe_{HR}/Fe_T⁺	Fe_{py}/Fe_{HR}⁺⁺
Oxic, Dysoxic	<0.45	0.55±0.11	<0.22 or 0.38	<1.0
Anoxic, Ferruginous	<0.75	>0.66	0.22(0.38) to >0.7	0.22(0.38)-0.7
Euxinic	>0.75	>0.66	>0.7	>0.7

* See DOP section; consider constraints 1-5

**See Fe_T/Al section; consider local thresholds and dilution effects. Hydrothermal inputs possible for Fe_T/Al > 2.

⁺See Fe_{HR}/Fe_T section; consider compositional constraints (Fe_T >0.5%, organic C >0.5%). Modern sediment values in brackets.

⁺⁺See Fe_{py}/Fe_{HR} section; consider in conjunction with Fe_T/Al and Fe_{HR}/Fe_T. Modern sediment values in brackets.

