

Table S2: Summary of on-station data acquisition during Pandora

Instrument/Sampler	Parameters	Coverage
CTD	T, S, O ₂ , Transmissiometry, Fluorimetry	All stations, except 81
Clean CTD	T, S, O ₂ , Fluorimetry	Stations 0, 4, 10, 13, 21, 34, 39, 42, 43, 60, 71, 77, 81, 82
Lowered ADCP	U, V	All stations except 6, 77-81
Rosette and Clean Rosette	S samples	All stations, except 35, 70
Rosette and Clean Rosette	NO ₃ , NO ₂ , SiO ₄	All stations, except 35, 74
	PO ₄	All stations, except 0-14, 28, 35, 50, 62, 74, 81
Bottle samples	O ₂ samples	All stations, except 20, 30, 35, 81
	Chl- <i>a</i>	Stations 1, 2, 4, 5, 7, 9, 12, 15, 17, 18, 24, 25, 27, 28, 30, 37, 39, 41, 43, 50, 51, 55, 57, 59, 60, 62, 68, 69, 76
	Pigments, POC, Primary production, Nitrogen fixation	Stations 3, 6, 11, 14, 20 ^a , 23, 26, 29, 33, 34, 36, 38 ^a , 39 ^b , 40, 44, 49, 53, 56, 57 ^a , 58 ^a , 60 ^b , 61 ^b , 64 ^b , 65, 70 ^b , 71, 76 ^a , 77 ^b , 82
	CO ₂ Parameters	Stations 3, 11, 14, 23, 26, 29, 36, 42, 44, 51, 57, 60, 71, 73, 77, 82
	¹⁵ N	Stations 1, 3, 5, 6, 7, 8, 9, 12, 14, 34, 42, 50, 53, 57, 58, 60, 62, 64, 66, 68, 69, 71, 77
	¹⁸ O, ¹³ C	Stations 14, 20, 23 ^a , 26 ^a , 29 ^a , 36, 42, 44, 51 ^b , 53, 57, 58 ^a , 60, 71, 73, 77, 82 ^b
	Deep CH ₄	Stations 39, 51, 58, 71, 76, 77
	²³¹ Pa/ ²³⁰ Th	Stations 4, 10, 36, 42, 53, 57, 60, 70, 81
	Rare Earth Elements (REE); Nd, ε _{Nd}	Stations 4, 10, 13, 20, 21, 29, 34, 36, 42, 43, 46, 53, 56, 57, 58
	Ra isotopes	Stations 10, 21, 34, 35, 42, 60, 70, 71, 77
	Ba, Al, TBa	Stations 1 ^b , 4 ^b , 6 ^b , 7 ^b , 9 ^b , 10, 13, 21, 34, 42, 43, 51 ^b , 53 ^a , 57, 58, 60, 71 ^b , 73 ^b , 77 ^b , 82 ^b
Clean Rosette	Hg, Fe, Al, Mn, Cu, Ni, Zn, Co, Cd and Fe, Cu, Zn, Pb isotopes	Stations 10, 34, 39, 42, 60, 77
	Hg, Fe, Al, Mn, Cu, Ni, Zn, Co, Cd and Fe isotopes	Stations 4, 13, 21, 43, 71, 81 ^a , 82
In situ Pumps	Dissolved and particulate matter	Stations 10, 34, 60 ^c , 71, 77
Repeated Stations (number of casts / time on station)	4 (4/6h45), 10 (9/19h27), 13 (4/5h06), 21 (11/23h09), 34 (6/17h22), 35 (5/7h30), 39 (5/6h24), 42 (10/24 h16), 43 (3/3h24), 60 (13/37h25), 71 (11/17h30), 73 (2/3h29), 77 (10/20h44), 82 (4/5h03)	

^a only Pigments ; no ²³¹Pa/²³⁰Th ; only Al only ¹⁸O ; no Fe isotopes

^b no Pigments ; only Ba ; only ¹³C

^c 2 in situ pump deployments.