SM3_method - Description of methods - Figure and tables

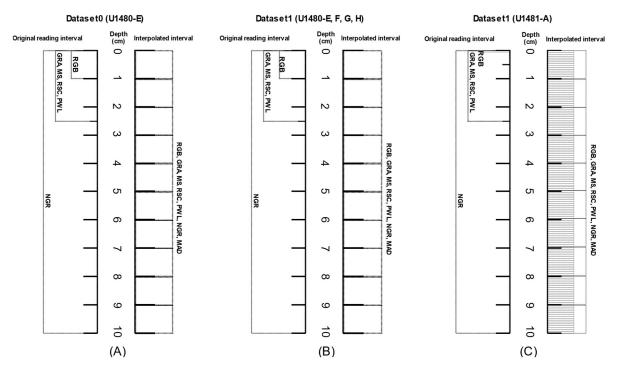


Figure 1 Original reading interval of the geophysical properties according to the formation of the dataset. Dataset0 is formed by the original values of the geophysical properties GRA, MS, RSC, PWL, NGR and RGB with values interpolated at a depth of 1 cm on site U1480, Hole E. Dataset1 (B) is formed by the original values of the geophysical properties GRA, MS, RSC, PWL, NGR and RGB with values interpolated at a depth of 1 cm on site U1480, Holes E, F, G, H. Dataset1 (C) is formed by the original values of the geophysical properties GRA, MS, RSC, PWL, NGR and RGB with values interpolated at a depth of 0.04 cm and 1 cm at site U1481, Hole A. Original value for the MAD geophysical property follows a different reading pattern than other properties.

Table 1: Organization, division and grouping of images IODP-Expedition 362 according to site, hole, total of original images, annotated images and lithology group.

Site	Hole	Total Original Images	Annotated Images	Lithologies present by Groups (cod_lit)
U1480	E	81	179	Group 1: 0, 2, 3, 5, 8, 9, 11, 12, 13 Group 2: 0, 1, 2, 3, 4, 5
	F	257	622	Group 1: 0, 1, 2, 3, 5, 8, 9, 10, 11, 12, 13 Group 2: 0, 1, 2, 3, 4, 5
	G	247	746	Group 1: 0, 1, 2, 3, 5, 6, 8, 9, 10, 11, 12, 13

				Group 2: 0, 1, 2, 3, 4, 5
	Н	100	197	Group 1: 0, 1, 2, 3, 5, 8, 9, 10, 11, 12, 13
				Group 2: 0, 1, 2, 3, 4, 5
U1481	А	128	857	Group1: 0, 1, 2, 3, 5, 8, 9, 10, 11, 12, 13
				Group 2: 0, 1, 2, 3, 4, 5

Table 2: Division of lithologies by group and dataset with number of records interpolated by the Akima interpolator

Group	Cod_lit	Lithology or Group Litology	Record Dataset0: U1480-E	Record Dataset1: U1480	Record Dataset1: U1481	Record Dataset2: U1480	Record Dataset2: U1481
	0	Alternating sand/sandstone and mud/mudstone layers	1046	7130	3626	6193	402
	1	Alternating silt/siltstone and clay/claystone layers	0	12776	78035	10823	6142
	2	Ash/tuff	3	258	163	175	7
	3	Calcareous clay/claystone	3330	5880	21	4020	0
	4 Calcared silt/siltsto		0	0	0	0	0
4	5	Clay/claystone	3833	22963	51347	18563	3893
1	6	Coarse sand/sandstone	0	38		42	0
	7	Conglomerate	0	0	0	0	0
	8	Fine sand/sandstone	1508	11120	17567	9770	1619
	9	Medium sand/sandstone	2816	4232	10151	2856	808
	10	Sand/sandstone- silt/siltstone-clay/ claystone	0	472	0	436	0
	11	Silt/Siltstone	461	11524	5801	1895	487
	12	Silty clay/claystone	349	2280	34032	9492	2771
	13	Very fine sand/sandstone	2634	5336	11193	3729	935
2	0	Group 1, cod_lit: 0, 1, 10		20378	81661	17452	6544

	(Alternating layers)				
1	Group 1, cod_lit: 2 (Ash/tuff)	258	163	175	7
2	Group 1, cod_lit: 3 (Calcareous clay/claystone)	5880	21	4020	0
3	Group 1, cod_lit: 5 (Clay/claystone)	22963	51347	18563	3893
4	Group 1, cod_lit: 11, 12 (Silt/Clay)	13804	39833	11387	3258
5	Group 1, cod_lit: 6, 8, 9, 13 (Sand)	20726	38911	16397	3362

Table 3: Interpolation intervals separated at site U1480 and site U1481 using the defined interpolator. The lowest reading resolution on the sites U1480 and U1481 is in the RGB geophysical property.

Site	Interpolador	Depth range for interpolation	Lower reading resolution
U1480	Akima	1,00 cm	1,00 cm
U1481	Akima	1,00 cm	0,04 cm

Table 4: Original records and interpolated records by Akima separated by site and core in each geophysical property used. The total number of records interpolated in U1480-E: 15980, U1480-F: 16538, U1480-G: 33876, U1480-H: 17615, totaling 84009. For the original records, the sum of records does not meet in all depths. In U1480-F, the RGB geophysical property does not require interpolation. The total number of records interpolated in U1481-A: 211936. For the original records, the sum of records does not meet in all depths. In U1481-A, the RGB geophysical property does not require interpolation.

Site	Hole	Original Records	Interpolated Records	
	E	GRA - 3333 MAD - 125 MS - 3333 NGR - 810 PWL - 3253 RGB - 8314 RSC - 3081	GRA – 12647 MAD – 15855 MS – 12647 NGR – 15170 PWL – 12727 RGB – 7666 RSC – 12899	
U1480	F	GRA – 8108 MAD – 166 MS – 8108 NGR – 1885 PWL – 6636 RGB – 19815 RSC – 6806	GRA – 8430 MAD – 16372 MS – 8430 NGR – 14653 PWL – 9902 RGB – -3277 RSC – 9732	
	G	GRA – 8753 MAD – 305	GRA – 25123 MAD – 33571	

		140 0750	NAC 05400
		MS – 8753	MS – 25123
		NGR – 2066	NGR – 31810
		PWL – 5578	PWL – 28298
		RGB - 20940	RGB – 12936
		RSC -10787	RSC - 23089
		GRA – 4135	GRA – 13480
		MAD – 107	MAD – 17508
		MS – 4135	MS – 13480
	Н	NGR – 994	NGR – 16621
		PWL - 3530	PWL - 14085
		RGB - 10230	RGB – 7385
		RSC - 4099	RSC - 13516
		GRA – 4679	GRA – 207257
		MAD – 172	MAD – 211764
		MS – 4679	MS - 207257
U1481	Α	NGR – 1123	NGR - 210813
2		PWL - 3371	PWL - 208565
		RGB - 250162	RGB – -38226
		RSC – 4632	RSC - 207304

Table 5: Formation of datasets with number of records per group and number of features used.

Dataset	Site- Hole	Group	Quantity interpolated records	Quantity features	Record interval
Dataset0	U1480-E	1	15980	17	depending on the interpolation configuration
Dataset1	U1480- E,F,G,H	1	84009	17	depending on the interpolation configuration
Dataset1	U1480- E,F,G,H	2	84009	17	depending on the interpolation configuration
Dataset1	U1481-A	1	211936	17	depending on the interpolation configuration
Dataset1	U1481-A	2	211936	17	depending on the interpolation configuration
Dataset2	U1480- E,F,G,H	1	67994	90	according to the segmentation interval via SLIC
Dataset2	U1480- E,F,G,H	2	67994	90	according to the segmentation interval via SLIC
Dataset2	U1481-A	1	17064	90	according to the segmentation interval via SLIC
Dataset2	U1481-A	2	17064	90	according to the segmentation interval via SLIC