

Station	Water depth	Mean O ₂ penetration depth	Mean O ₂ at 60 mm depth	O ₂ uptake (modeled/measured with 2-D optode)	³⁵ S-SRR (0–30 cm) duplicates	DIC flux (modeled in anaerobic zone/measured with whole core incubation)	Average pore-water DIC / NH ₄ ⁺
	m	mm	μmol L ⁻¹	mmol m ⁻² d ⁻¹	mmol m ⁻² d ⁻¹	mmol m ⁻² d ⁻¹	
1	3146	>60	217	1.48 ± 0.08	0.05/0.21	-0.11	
2	2900	>60	213	1.32 ± 0.05			
3	2601	>60	194	0.81 ± 0.06			
4	2106	>60	89	1.32 ± 0.05	0.17/0.17	-0.15	
6	89	36	0	2.61 ± 0.01	0.03/0.05	-0.08	
23	56	13	0	5.00 ± 0.09; 5.3 ± 0.2	0.56	-0.12; -5.1 ± 0.4	13
24	46	10	0	7.95 ± 0.14		-0.22	10
27	44	16	0	3.75 ± 0.08	0.37/0.20	-0.27	12
30	69	16	0	2.61 ± 0.11	0.06/0.03	-0.12	15
31	3056	>60	194	1.78 ± 0.07			
35	541	>60	30	2.43 ± 0.32			
37	205	44	0	2.51 ± 0.10			
Average Laptev Sea shelf				4.2	0.19	0.2; 5.1	12
40	45	12	0	4.62 ± 0.08	0.33/0.24	-0.19	16
43	42	13	0	4.7 ± 0.10			
45	40	10	0	4.02 ± 0.10	0.23/0.19	-0.37	13
48	49	5	0	9.14 ± 0.22	0.68/0.53	-0.71	10
50	44	9	0	5.65 ± 0.43; 5.2 ± 0.1	1.32/1.40	-1.01; -5.2 ± 0.2	12
53	47	10	0	4.53 ± 0.08; 4.7 ± 0.1	0.10/0.17	-0.20	14
58	54	3	0	11.49 ± 0.52	1.01	-1.27	24
63	67	4	0	10.72 ± 0.15; 10.8 ± 0.3	1.41	-1.35; -10.8 ± 0.6	12
Average East Siberian Sea shelf				7.2		0.7; 8.0	14