

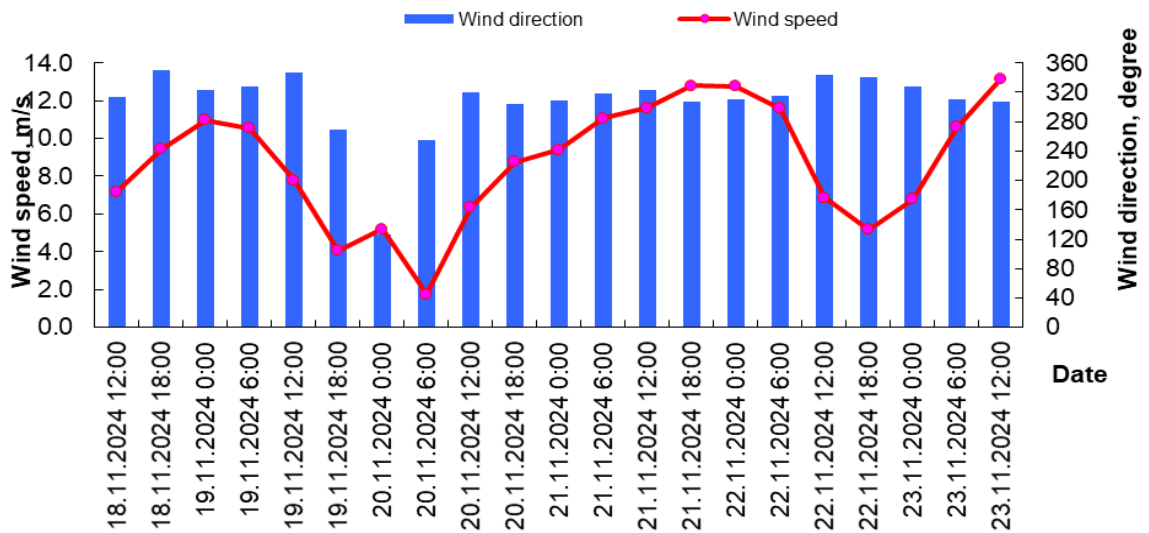


**MINISTRY OF ECOLOGY AND NATURAL RESOURCES
OF THE REPUBLIC OF KAZAKHSTAN**

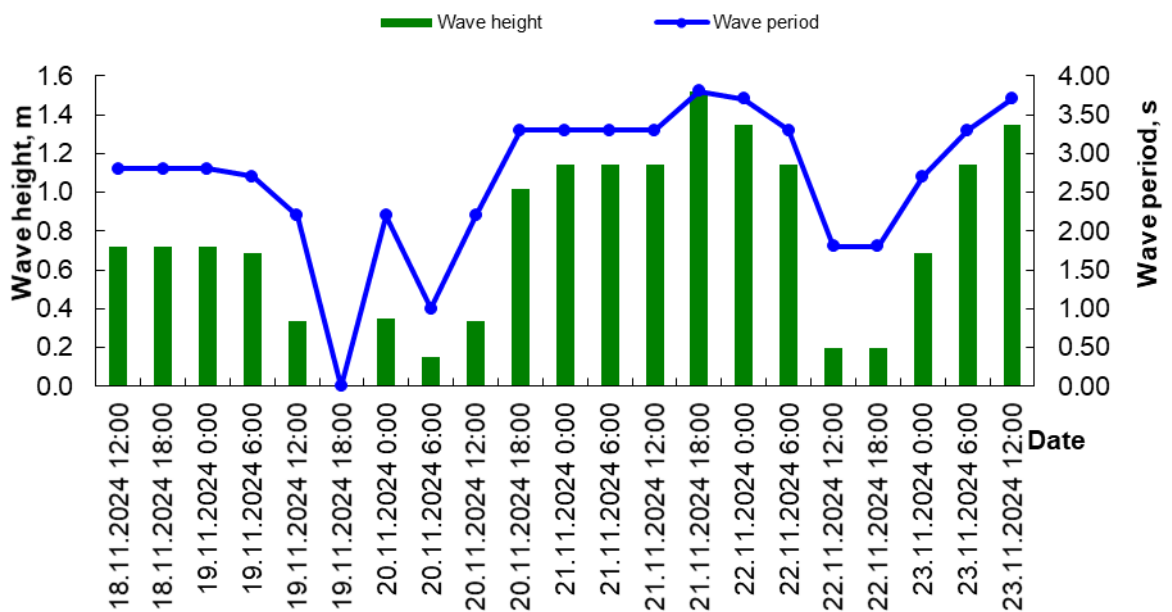
RSE «KAZHYDROMET»

**Wave and wind forecast for the Middle part of the Caspian Sea with a 5-day
advance for the period November 18 – 23, 2024**

Wind condition in the 21050 unit

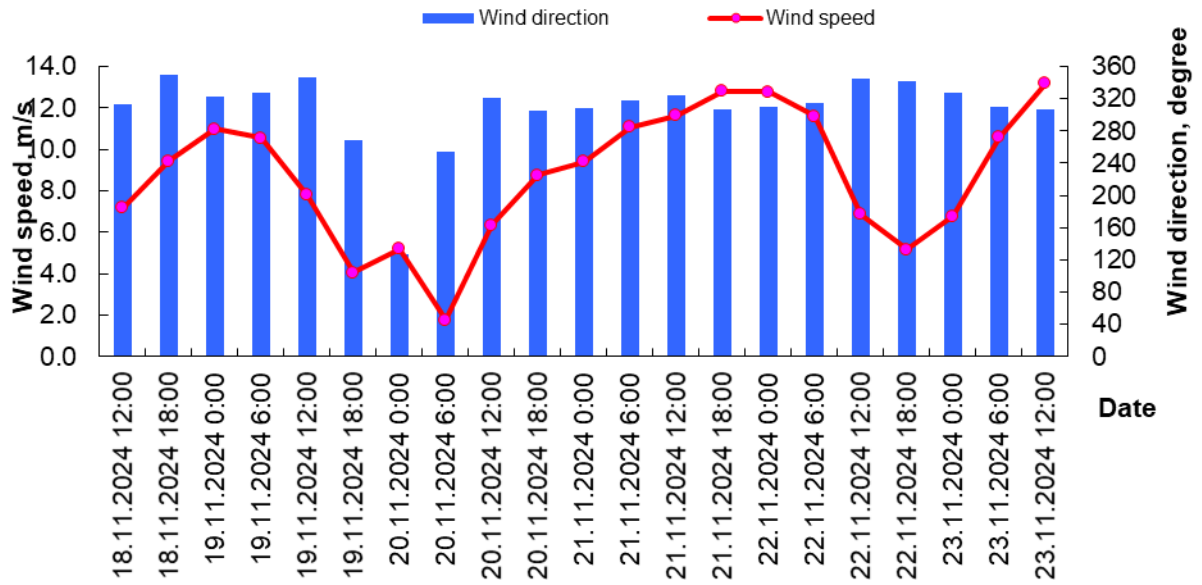


Wave condition in the 21050 unit

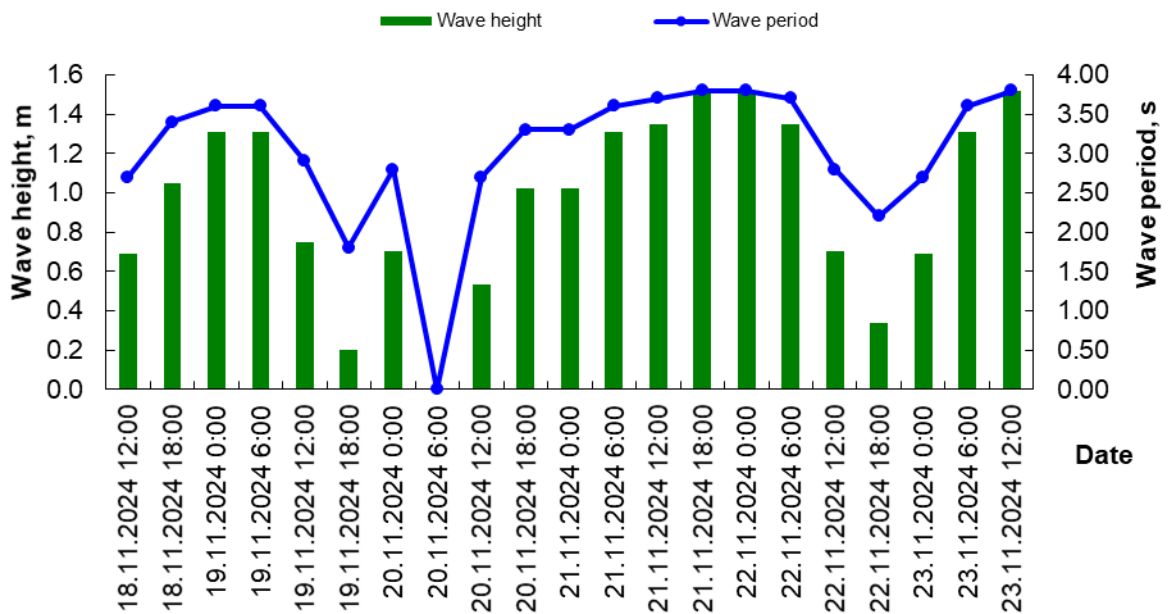


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
18.11.2024 12:00	8	NW	0.72	2.80
18.11.2024 18:00	8	N	0.72	2.80
19.11.2024 0:00	8	NW	0.72	2.80
19.11.2024 6:00	7	NW	0.69	2.70
19.11.2024 12:00	5	N	0.34	2.20
19.11.2024 18:00	1	W	0.00	0.00
20.11.2024 0:00	5	SE	0.35	2.20
20.11.2024 6:00	3	W	0.15	1.00
20.11.2024 12:00	5	NW	0.34	2.20
20.11.2024 18:00	9	NW	1.02	3.30
21.11.2024 0:00	10	NW	1.14	3.30
21.11.2024 6:00	10	NW	1.14	3.30
21.11.2024 12:00	10	NW	1.14	3.30
21.11.2024 18:00	13	NW	1.52	3.80
22.11.2024 0:00	12	NW	1.35	3.70
22.11.2024 6:00	10	NW	1.14	3.30
22.11.2024 12:00	4	N	0.20	1.80
22.11.2024 18:00	4	N	0.20	1.80
23.11.2024 0:00	7	NW	0.69	2.70
23.11.2024 6:00	10	NW	1.14	3.30
23.11.2024 12:00	12	NW	1.35	3.70

Wind condition in the 21141 unit

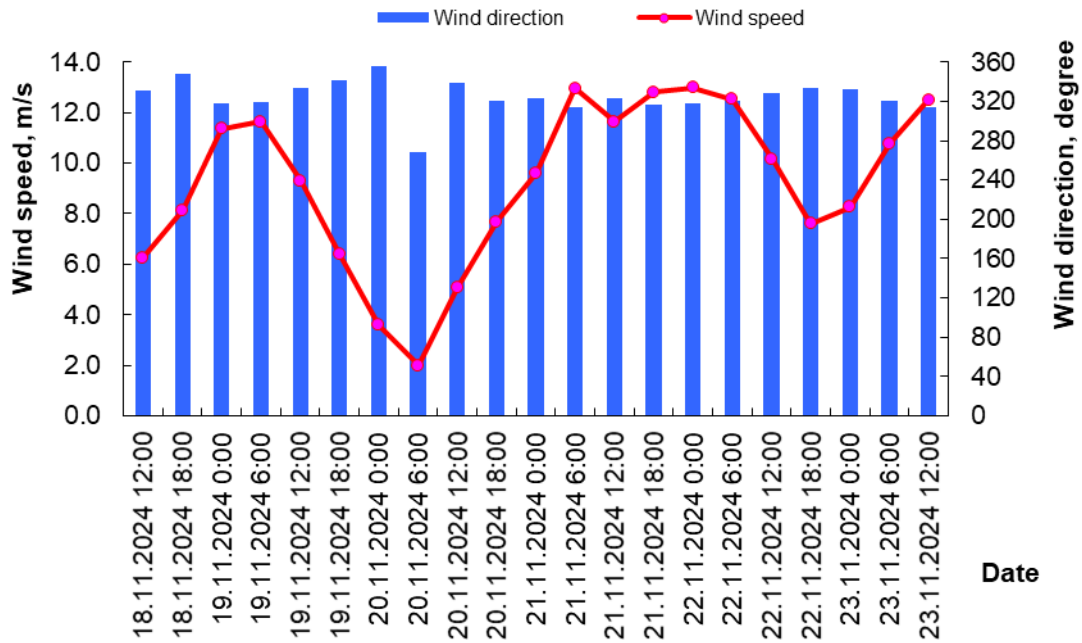


Wave condition in the 21141 unit

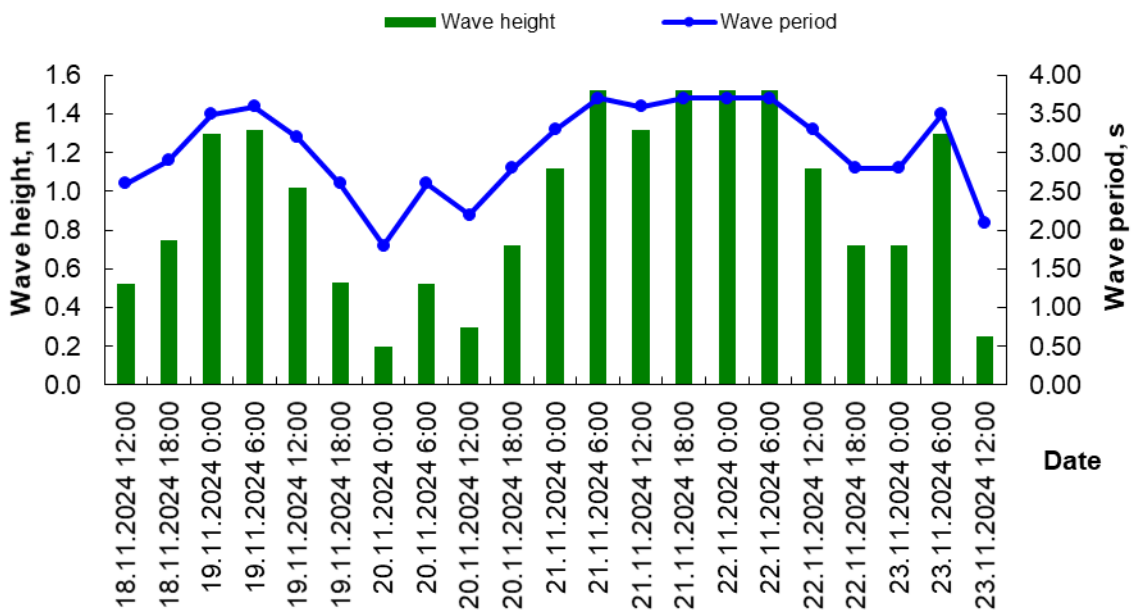


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
18.11.2024 12:00	7	NW	0.69	2.70
18.11.2024 18:00	9	N	1.05	3.40
19.11.2024 0:00	11	NW	1.31	3.60
19.11.2024 6:00	11	NW	1.31	3.60
19.11.2024 12:00	8	N	0.75	2.90
19.11.2024 18:00	4	W	0.20	1.80
20.11.2024 0:00	7	SE	0.70	2.80
20.11.2024 6:00	2	W	0.00	0.00
20.11.2024 12:00	6	NW	0.53	2.70
20.11.2024 18:00	9	NW	1.02	3.30
21.11.2024 0:00	9	NW	1.02	3.30
21.11.2024 6:00	11	NW	1.31	3.60
21.11.2024 12:00	12	NW	1.35	3.70
21.11.2024 18:00	13	NW	1.52	3.80
22.11.2024 0:00	13	NW	1.52	3.80
22.11.2024 6:00	12	NW	1.35	3.70
22.11.2024 12:00	7	N	0.70	2.80
22.11.2024 18:00	5	N	0.34	2.20
23.11.2024 0:00	7	NW	0.69	2.70
23.11.2024 6:00	11	NW	1.31	3.60
23.11.2024 12:00	13	NW	1.52	3.80

Wind condition in the 21142 unit

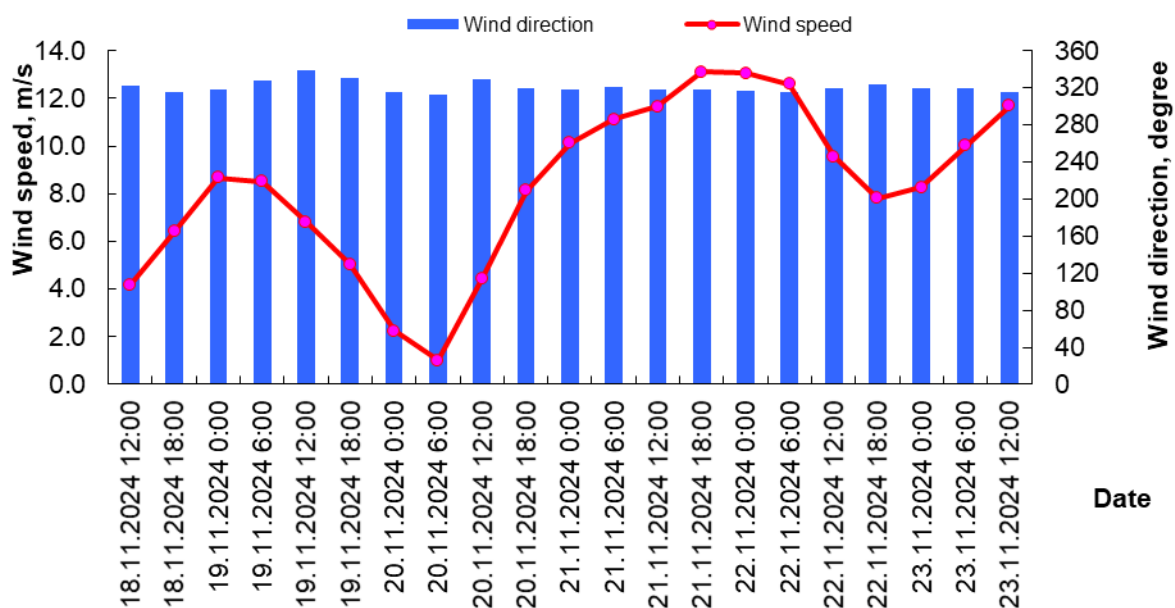


Wave condition in the 21142 unit

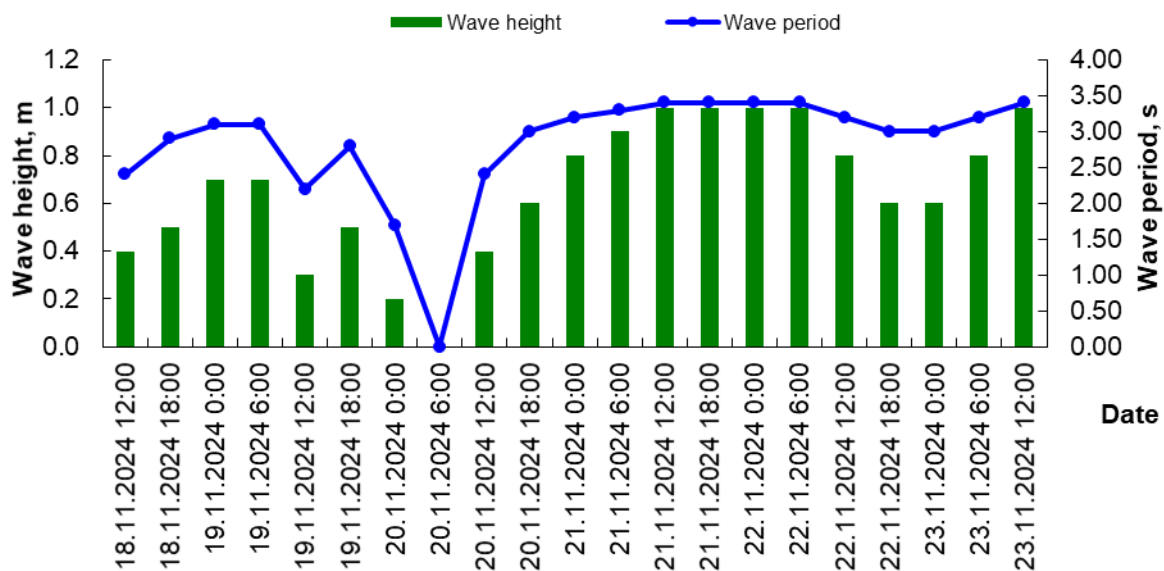


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
18.11.2024 12:00	6	NW	0.52	2.60
18.11.2024 18:00	8	N	0.75	2.90
19.11.2024 0:00	11	NW	1.30	3.50
19.11.2024 6:00	12	NW	1.32	3.60
19.11.2024 12:00	9	NW	1.02	3.20
19.11.2024 18:00	6	N	0.53	2.60
20.11.2024 0:00	4	N	0.20	1.80
20.11.2024 6:00	6	W	0.52	2.60
20.11.2024 12:00	5	N	0.30	2.20
20.11.2024 18:00	8	NW	0.72	2.80
21.11.2024 0:00	10	NW	1.12	3.30
21.11.2024 6:00	13	NW	1.52	3.70
21.11.2024 12:00	12	NW	1.32	3.60
21.11.2024 18:00	13	NW	1.52	3.70
22.11.2024 0:00	13	NW	1.52	3.70
22.11.2024 6:00	13	NW	1.52	3.70
22.11.2024 12:00	10	NW	1.12	3.30
22.11.2024 18:00	8	NW	0.72	2.80
23.11.2024 0:00	8	NW	0.72	2.80
23.11.2024 6:00	11	NW	1.30	3.50
23.11.2024 12:00	5	NW	0.25	2.10

Wind condition in the Bautino Bay

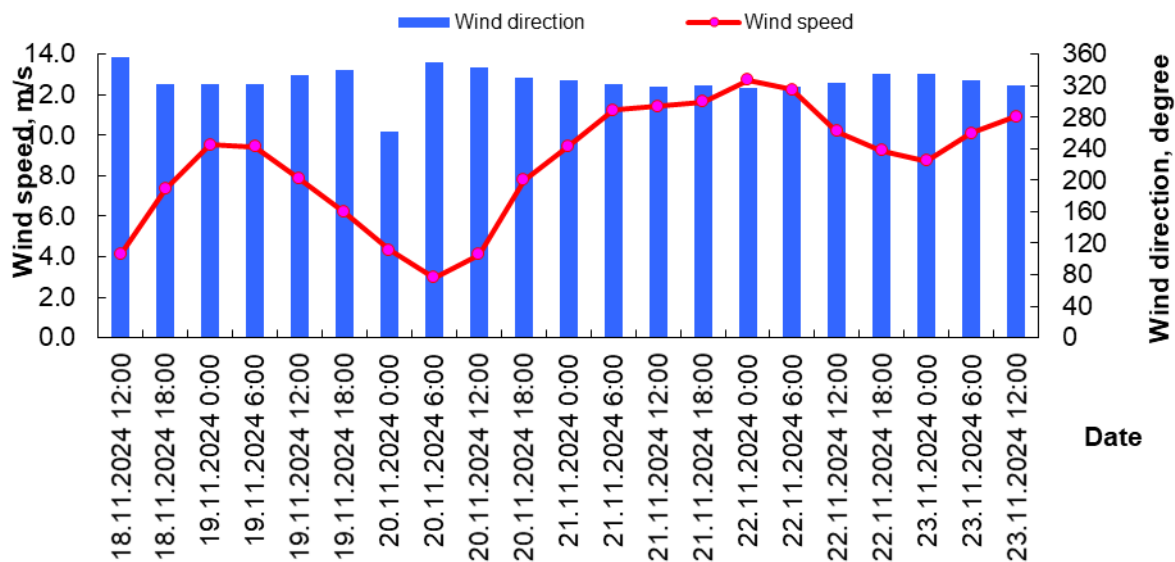


Wave condition in the Bautino Bay

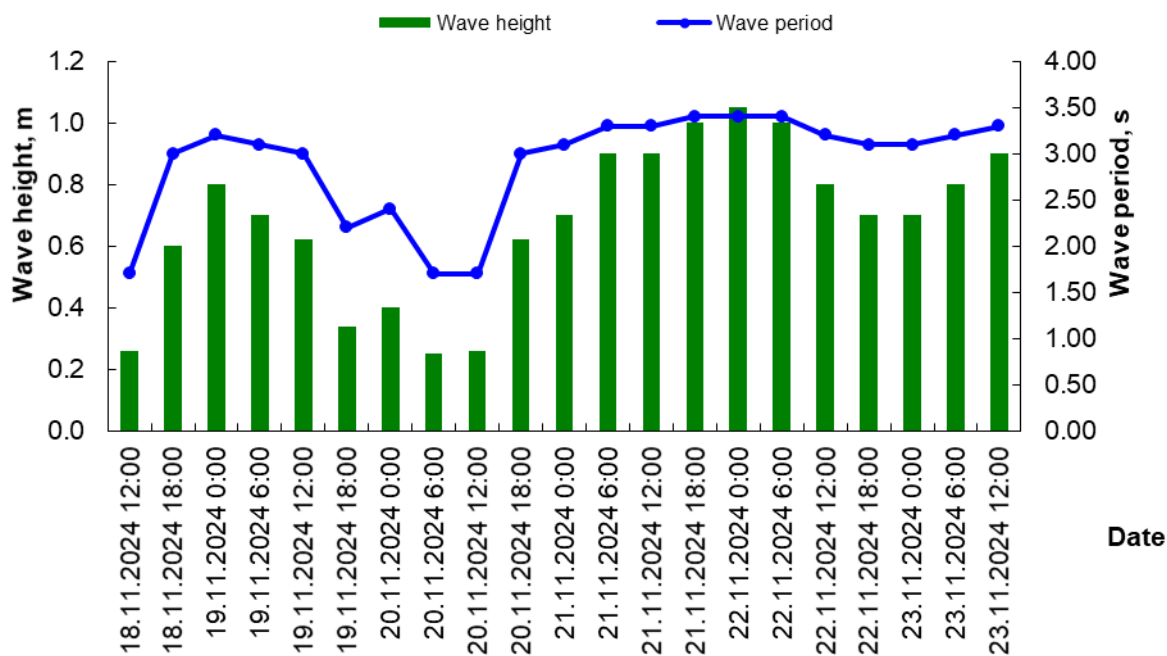


Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
	18.11.2024 12:00	4	NW	0.40
18.11.2024 18:00	6	NW	0.50	2.90
19.11.2024 0:00	9	NW	0.70	3.10
19.11.2024 6:00	9	NW	0.70	3.10
19.11.2024 12:00	7	N	0.30	2.20
19.11.2024 18:00	5	NW	0.50	2.80
20.11.2024 0:00	2	NW	0.20	1.70
20.11.2024 6:00	1	NW	0.00	0.00
20.11.2024 12:00	4	NW	0.40	2.40
20.11.2024 18:00	8	NW	0.60	3.00
21.11.2024 0:00	10	NW	0.80	3.20
21.11.2024 6:00	11	NW	0.90	3.30
21.11.2024 12:00	12	NW	1.00	3.40
21.11.2024 18:00	13	NW	1.00	3.40
22.11.2024 0:00	13	NW	1.00	3.40
22.11.2024 6:00	13	NW	1.00	3.40
22.11.2024 12:00	10	NW	0.80	3.20
22.11.2024 18:00	8	NW	0.60	3.00
23.11.2024 0:00	8	NW	0.60	3.00
23.11.2024 6:00	10	NW	0.80	3.20
23.11.2024 12:00	12	NW	1.00	3.40

Wind condition in the Kuryik Bay



Wave condition in the Kuryik Bay



Date Time	Wind speed (WS) and wind direction (WD)		Wave height (H) and wave period (τ)	
	WS, m/s	WD, rumb	H, m	t, s
18.11.2024 12:00	4	N	0.26	1.70
18.11.2024 18:00	7	NW	0.60	3.00
19.11.2024 0:00	10	NW	0.80	3.20
19.11.2024 6:00	9	NW	0.70	3.10
19.11.2024 12:00	8	NW	0.62	3.00
19.11.2024 18:00	6	N	0.34	2.20
20.11.2024 0:00	4	W	0.40	2.40
20.11.2024 6:00	3	N	0.25	1.70
20.11.2024 12:00	4	N	0.26	1.70
20.11.2024 18:00	8	NW	0.62	3.00
21.11.2024 0:00	9	NW	0.70	3.10
21.11.2024 6:00	11	NW	0.90	3.30
21.11.2024 12:00	11	NW	0.90	3.30
21.11.2024 18:00	12	NW	1.00	3.40
22.11.2024 0:00	13	NW	1.05	3.40
22.11.2024 6:00	12	NW	1.00	3.40
22.11.2024 12:00	10	NW	0.80	3.20
22.11.2024 18:00	9	NW	0.70	3.10
23.11.2024 0:00	9	NW	0.70	3.10
23.11.2024 6:00	10	NW	0.80	3.20
23.11.2024 12:00	11	NW	0.90	3.30

Made by: Zhagparova N.N.

Checked by: Shishkina G.