



**ҚАЗАҚСТАН РЕСПУБЛИКАСЫ ЭКОЛОГИЯ ЖӘНЕ  
ТАБИҒИ РЕСУРСТАР МИНИСТРЛІГІ  
«ҚАЗГИДРОМЕТ» РМК**

**2024 Ж. 18 - 23 ҚАРАША АРАЛЫҒЫНДАҒЫ КАСПИЙ  
ТЕҢІЗІНІҢ ДЕҢГЕЙІНІҢ БОЛЖАМЫ (ОРТА КАСПИЙ)**

| № | Пункттың атауы | Каспий теңізінің болжамды деңгейіне тән мәндер, см (абс. м) |                        |                                |                        |                                |
|---|----------------|---|------------------------|--------------------------------|------------------------|--------------------------------|
|   |                | Ең жоғары   | Күні, уақыты, ГОУ*     | Ең төмені                      | Күні, уақыты, ГОУ*     | Орташа                         |
| 1 | Форт-Шевченко  | <b>-157</b><br><b>(-29,57)</b>                              | 22/11/2024<br>01:00:00 | <b>-166</b><br><b>(-29,66)</b> | 18/11/2024<br>14:00:00 | <b>-156</b><br><b>(-29,56)</b> |
| 2 | Ақтау          | <b>-168</b><br><b>(-29,68)</b>                              | 18/11/2024<br>23:00:00 | <b>-174</b><br><b>(-29,74)</b> | 18/11/2024<br>14:00:00 | <b>-167</b><br><b>(-29,67)</b> |
| 3 | Фетисово       | <b>-128</b><br><b>(-29,28)</b>                              | 18/11/2024<br>18:00:00 | <b>-139</b><br><b>(-29,39)</b> | 19/11/2024<br>00:00:00 | <b>-115</b><br><b>(-29,15)</b> |
| 4 | Махачкала      | <b>-105</b><br><b>(-29,05)</b>                              | 22/11/2024<br>02:00:00 | <b>-116</b><br><b>(-29,16)</b> | 20/11/2024<br>01:00:00 | <b>-125</b><br><b>(-29,25)</b> |

| №   | Теңіздің болжанып отырған деңгейі, м |       |          |           | Жыл, ай, күні, уақыты, ГОУ* |
|-----|--------------------------------------|-------|----------|-----------|-----------------------------|
|     | Форт-Шевченко                        | Ақтау | Фетисово | Махачкала |                             |
| 1.  | -1.64                                | -1.70 | -1.30    | -1.16     | 18.11.2024 12:00            |
| 2.  | -1.65                                | -1.71 | -1.30    | -1.15     | 18.11.2024 13:00            |
| 3.  | -1.66                                | -1.74 | -1.31    | -1.13     | 18.11.2024 14:00            |
| 4.  | -1.64                                | -1.70 | -1.30    | -1.11     | 18.11.2024 15:00            |
| 5.  | -1.63                                | -1.71 | -1.29    | -1.12     | 18.11.2024 16:00            |
| 6.  | -1.62                                | -1.71 | -1.29    | -1.13     | 18.11.2024 17:00            |
| 7.  | -1.60                                | -1.70 | -1.28    | -1.14     | 18.11.2024 18:00            |
| 8.  | -1.60                                | -1.70 | -1.30    | -1.13     | 18.11.2024 19:00            |
| 9.  | -1.61                                | -1.69 | -1.33    | -1.12     | 18.11.2024 20:00            |
| 10. | -1.60                                | -1.70 | -1.35    | -1.11     | 18.11.2024 21:00            |
| 11. | -1.60                                | -1.69 | -1.36    | -1.11     | 18.11.2024 22:00            |
| 12. | -1.59                                | -1.68 | -1.37    | -1.12     | 18.11.2024 23:00            |
| 13. | -1.58                                | -1.68 | -1.39    | -1.12     | 19.11.2024 0:00             |
| 14. | -1.59                                | -1.69 | -1.38    | -1.12     | 19.11.2024 1:00             |
| 15. | -1.60                                | -1.70 | -1.37    | -1.12     | 19.11.2024 2:00             |
| 16. | -1.61                                | -1.71 | -1.35    | -1.12     | 19.11.2024 3:00             |
| 17. | -1.63                                | -1.72 | -1.34    | -1.12     | 19.11.2024 4:00             |
| 18. | -1.64                                | -1.71 | -1.33    | -1.13     | 19.11.2024 5:00             |
| 19. | -1.65                                | -1.71 | -1.32    | -1.13     | 19.11.2024 6:00             |
| 20. | -1.65                                | -1.71 | -1.32    | -1.13     | 19.11.2024 7:00             |
| 21. | -1.65                                | -1.70 | -1.32    | -1.13     | 19.11.2024 8:00             |
| 22. | -1.64                                | -1.70 | -1.31    | -1.13     | 19.11.2024 9:00             |
| 23. | -1.64                                | -1.70 | -1.31    | -1.13     | 19.11.2024 10:00            |
| 24. | -1.63                                | -1.70 | -1.30    | -1.13     | 19.11.2024 11:00            |
| 25. | -1.64                                | -1.70 | -1.30    | -1.13     | 19.11.2024 12:00            |
| 26. | -1.64                                | -1.70 | -1.31    | -1.14     | 19.11.2024 13:00            |
| 27. | -1.65                                | -1.70 | -1.32    | -1.14     | 19.11.2024 14:00            |
| 28. | -1.65                                | -1.70 | -1.32    | -1.14     | 19.11.2024 15:00            |
| 29. | -1.65                                | -1.71 | -1.32    | -1.15     | 19.11.2024 16:00            |
| 30. | -1.65                                | -1.71 | -1.32    | -1.15     | 19.11.2024 17:00            |
| 31. | -1.66                                | -1.71 | -1.31    | -1.15     | 19.11.2024 18:00            |

| №<br>пп | Теңіздің болжанып отырған деңгейі, м |       |          |           | Жыл, ай, күні, уақыты, ГОУ* |
|---------|--------------------------------------|-------|----------|-----------|-----------------------------|
|         | Форт-Шевченко                        | Ақтау | Фетисово | Махачкала |                             |
| 32.     | -1.66                                | -1.71 | -1.31    | -1.15     | 19.11.2024 19:00            |
| 33.     | -1.65                                | -1.71 | -1.31    | -1.16     | 19.11.2024 20:00            |
| 34.     | -1.65                                | -1.70 | -1.31    | -1.16     | 19.11.2024 21:00            |
| 35.     | -1.64                                | -1.70 | -1.31    | -1.16     | 19.11.2024 22:00            |
| 36.     | -1.64                                | -1.70 | -1.31    | -1.16     | 19.11.2024 23:00            |
| 37.     | -1.64                                | -1.70 | -1.31    | -1.16     | 20.11.2024 0:00             |
| 38.     | -1.64                                | -1.70 | -1.31    | -1.16     | 20.11.2024 1:00             |
| 39.     | -1.64                                | -1.70 | -1.31    | -1.16     | 20.11.2024 2:00             |
| 40.     | -1.64                                | -1.70 | -1.31    | -1.15     | 20.11.2024 3:00             |
| 41.     | -1.65                                | -1.71 | -1.31    | -1.15     | 20.11.2024 4:00             |
| 42.     | -1.65                                | -1.71 | -1.32    | -1.14     | 20.11.2024 5:00             |
| 43.     | -1.65                                | -1.71 | -1.32    | -1.14     | 20.11.2024 6:00             |
| 44.     | -1.65                                | -1.71 | -1.32    | -1.14     | 20.11.2024 7:00             |
| 45.     | -1.65                                | -1.71 | -1.32    | -1.14     | 20.11.2024 8:00             |
| 46.     | -1.65                                | -1.71 | -1.32    | -1.13     | 20.11.2024 9:00             |
| 47.     | -1.65                                | -1.71 | -1.32    | -1.13     | 20.11.2024 10:00            |
| 48.     | -1.65                                | -1.71 | -1.32    | -1.13     | 20.11.2024 11:00            |
| 49.     | -1.65                                | -1.71 | -1.33    | -1.12     | 20.11.2024 12:00            |
| 50.     | -1.65                                | -1.71 | -1.33    | -1.12     | 20.11.2024 13:00            |
| 51.     | -1.65                                | -1.71 | -1.33    | -1.12     | 20.11.2024 14:00            |
| 52.     | -1.65                                | -1.72 | -1.34    | -1.12     | 20.11.2024 15:00            |
| 53.     | -1.64                                | -1.72 | -1.34    | -1.12     | 20.11.2024 16:00            |
| 54.     | -1.64                                | -1.72 | -1.34    | -1.12     | 20.11.2024 17:00            |
| 55.     | -1.64                                | -1.72 | -1.34    | -1.12     | 20.11.2024 18:00            |
| 56.     | -1.63                                | -1.72 | -1.34    | -1.12     | 20.11.2024 19:00            |
| 57.     | -1.63                                | -1.72 | -1.34    | -1.12     | 20.11.2024 20:00            |
| 58.     | -1.63                                | -1.72 | -1.35    | -1.12     | 20.11.2024 21:00            |
| 59.     | -1.63                                | -1.71 | -1.35    | -1.13     | 20.11.2024 22:00            |
| 60.     | -1.62                                | -1.71 | -1.34    | -1.13     | 20.11.2024 23:00            |
| 61.     | -1.62                                | -1.71 | -1.34    | -1.13     | 21.11.2024 0:00             |
| 62.     | -1.62                                | -1.71 | -1.34    | -1.13     | 21.11.2024 1:00             |
| 63.     | -1.62                                | -1.71 | -1.34    | -1.13     | 21.11.2024 2:00             |
| 64.     | -1.61                                | -1.71 | -1.34    | -1.13     | 21.11.2024 3:00             |
| 65.     | -1.61                                | -1.71 | -1.34    | -1.13     | 21.11.2024 4:00             |
| 66.     | -1.61                                | -1.71 | -1.34    | -1.13     | 21.11.2024 5:00             |
| 67.     | -1.61                                | -1.71 | -1.34    | -1.13     | 21.11.2024 6:00             |
| 68.     | -1.61                                | -1.71 | -1.34    | -1.12     | 21.11.2024 7:00             |
| 69.     | -1.61                                | -1.71 | -1.33    | -1.12     | 21.11.2024 8:00             |
| 70.     | -1.61                                | -1.71 | -1.33    | -1.11     | 21.11.2024 9:00             |
| 71.     | -1.60                                | -1.71 | -1.33    | -1.10     | 21.11.2024 10:00            |
| 72.     | -1.60                                | -1.70 | -1.33    | -1.09     | 21.11.2024 11:00            |
| 73.     | -1.60                                | -1.70 | -1.33    | -1.08     | 21.11.2024 12:00            |
| 74.     | -1.60                                | -1.70 | -1.33    | -1.07     | 21.11.2024 13:00            |
| 75.     | -1.60                                | -1.71 | -1.33    | -1.07     | 21.11.2024 14:00            |
| 76.     | -1.60                                | -1.70 | -1.33    | -1.06     | 21.11.2024 15:00            |
| 77.     | -1.60                                | -1.71 | -1.33    | -1.07     | 21.11.2024 16:00            |
| 78.     | -1.60                                | -1.71 | -1.33    | -1.07     | 21.11.2024 17:00            |
| 79.     | -1.60                                | -1.71 | -1.33    | -1.07     | 21.11.2024 18:00            |
| 80.     | -1.59                                | -1.71 | -1.34    | -1.07     | 21.11.2024 19:00            |
| 81.     | -1.59                                | -1.71 | -1.34    | -1.07     | 21.11.2024 20:00            |
| 82.     | -1.58                                | -1.71 | -1.34    | -1.07     | 21.11.2024 21:00            |
| 83.     | -1.58                                | -1.71 | -1.34    | -1.07     | 21.11.2024 22:00            |
| 84.     | -1.57                                | -1.71 | -1.34    | -1.06     | 21.11.2024 23:00            |

| №<br>пп | Теңіздің болжанып отырған деңгейі, м |       |          |           | Жыл, ай, күні, уақыты, ГОУ* |
|---------|--------------------------------------|-------|----------|-----------|-----------------------------|
|         | Форт-Шевченко                        | Ақтау | Фетисово | Махачкала |                             |
| 85.     | -1.57                                | -1.71 | -1.34    | -1.06     | 22.11.2024 0:00             |
| 86.     | -1.57                                | -1.71 | -1.34    | -1.05     | 22.11.2024 1:00             |
| 87.     | -1.57                                | -1.70 | -1.34    | -1.05     | 22.11.2024 2:00             |
| 88.     | -1.58                                | -1.70 | -1.34    | -1.06     | 22.11.2024 3:00             |
| 89.     | -1.58                                | -1.70 | -1.34    | -1.06     | 22.11.2024 4:00             |
| 90.     | -1.58                                | -1.70 | -1.34    | -1.07     | 22.11.2024 5:00             |
| 91.     | -1.59                                | -1.70 | -1.34    | -1.07     | 22.11.2024 6:00             |
| 92.     | -1.59                                | -1.70 | -1.34    | -1.08     | 22.11.2024 7:00             |
| 93.     | -1.59                                | -1.70 | -1.34    | -1.08     | 22.11.2024 8:00             |
| 94.     | -1.59                                | -1.71 | -1.34    | -1.08     | 22.11.2024 9:00             |
| 95.     | -1.60                                | -1.71 | -1.34    | -1.09     | 22.11.2024 10:00            |
| 96.     | -1.61                                | -1.71 | -1.34    | -1.10     | 22.11.2024 11:00            |
| 97.     | -1.62                                | -1.71 | -1.34    | -1.10     | 22.11.2024 12:00            |
| 98.     | -1.63                                | -1.71 | -1.34    | -1.10     | 22.11.2024 13:00            |
| 99.     | -1.64                                | -1.72 | -1.34    | -1.11     | 22.11.2024 14:00            |
| 100.    | -1.65                                | -1.72 | -1.34    | -1.11     | 22.11.2024 15:00            |
| 101.    | -1.65                                | -1.72 | -1.35    | -1.10     | 22.11.2024 16:00            |
| 102.    | -1.65                                | -1.72 | -1.35    | -1.10     | 22.11.2024 17:00            |
| 103.    | -1.65                                | -1.72 | -1.35    | -1.10     | 22.11.2024 18:00            |
| 104.    | -1.65                                | -1.72 | -1.35    | -1.11     | 22.11.2024 19:00            |
| 105.    | -1.65                                | -1.73 | -1.35    | -1.11     | 22.11.2024 20:00            |
| 106.    | -1.64                                | -1.72 | -1.34    | -1.10     | 22.11.2024 21:00            |
| 107.    | -1.64                                | -1.72 | -1.34    | -1.09     | 22.11.2024 22:00            |
| 108.    | -1.63                                | -1.72 | -1.34    | -1.09     | 22.11.2024 23:00            |
| 109.    | -1.62                                | -1.72 | -1.34    | -1.09     | 23.11.2024 0:00             |
| 110.    | -1.62                                | -1.72 | -1.34    | -1.09     | 23.11.2024 1:00             |
| 111.    | -1.62                                | -1.71 | -1.34    | -1.09     | 23.11.2024 2:00             |
| 112.    | -1.62                                | -1.71 | -1.34    | -1.09     | 23.11.2024 3:00             |
| 113.    | -1.62                                | -1.71 | -1.35    | -1.09     | 23.11.2024 4:00             |
| 114.    | -1.61                                | -1.71 | -1.35    | -1.09     | 23.11.2024 5:00             |
| 115.    | -1.61                                | -1.71 | -1.35    | -1.09     | 23.11.2024 6:00             |
| 116.    | -1.61                                | -1.71 | -1.35    | -1.09     | 23.11.2024 7:00             |
| 117.    | -1.61                                | -1.71 | -1.35    | -1.09     | 23.11.2024 8:00             |
| 118.    | -1.61                                | -1.71 | -1.34    | -1.09     | 23.11.2024 9:00             |
| 119.    | -1.61                                | -1.71 | -1.34    | -1.09     | 23.11.2024 10:00            |
| 120.    | -1.60                                | -1.71 | -1.34    | -1.08     | 23.11.2024 11:00            |
| 121.    | -1.60                                | -1.71 | -1.34    | -1.08     | 23.11.2024 12:00            |

ГОУ\*- гринвич орташа уақыты

\* Теңіз болжамды деңгейіне тән мәндер "Қазгидромет" РМК Каспий теңізінің жағдайына бейімделген Mike 21 Flow Model моделінің гидродинамикалық модулі көмегімен алынды.

Құрастырған: Жағпарова Н.Н.

«Қазгидромет» РМК – Каспий теңізін гидрометеорологиялық зерттеу басқармасы

Tel. (717)2 79 83 12; E-mail: [ugmikm@meteo.kz](mailto:ugmikm@meteo.kz)



**ҚАЗАҚСТАН РЕСПУБЛИКАСЫ ЭКОЛОГИЯ ЖӘНЕ  
ТАБИҒИ РЕСУРСТАР МИНИСТРЛІГІ  
«ҚАЗГИДРОМЕТ» РМҚ**

**2024 Ж. 18- 23 ҚАРАША АРАЛЫҒЫНДАҒЫ КАСПИЙ ТЕҢІЗІНІҢ ДЕҢГЕЙІНІҢ  
БОЛЖАМЫ (СОЛТҮСТІК КАСПИЙ)**

| № | Пункттың атауы | Каспий теңізінің болжамды деңгейіне тән мәндер, см (абс. м)<br>Характерные значения прогнозного уровня Каспийского моря, см (м абс.) |                        |                                |                        |                                |
|---|----------------|--|------------------------|--------------------------------|------------------------|--------------------------------|
|   |                | Ең жоғары  | Күні, уақыты, ГОУ*     | Ең төмені                      | Күні, уақыты, ГОУ*     | Орташа                         |
| 1 | Жанбай         | <b>-57</b><br><b>(-28,57)</b>  | 20/11/2024<br>05:00:00 | <b>-81</b><br><b>(-28,81)</b>  | 19/11/2024<br>08:00:00 | <b>-64</b><br><b>(-28,64)</b>  |
| 2 | Пешной         | <b>-79</b><br><b>(-28,79)</b>  | 22/11/2024<br>00:00:00 | <b>-92</b><br><b>(-28,92)</b>  | 19/11/2024<br>00:00:00 | <b>-85</b><br><b>(-28,85)</b>  |
| 3 | Қаратон        | <b>-11</b><br><b>(-28,11)</b>  | 23/11/2024<br>00:00:00 | <b>-15</b><br><b>(-28,15)</b>  | 18/11/2024<br>12:00:00 | <b>-13</b><br><b>(-28,13)</b>  |
| 4 | Қаламқас       | <b>-10</b><br><b>(-28,10)</b>  | 20/11/2024<br>18:00:00 | <b>-23</b><br><b>(-28,23)</b>  | 18/11/2024<br>12:00:00 | <b>-15</b><br><b>(-28,15)</b>  |
| 5 | Құлалы         | <b>-152</b><br><b>(-29,52)</b>   | 22/11/2024<br>05:00:00 | <b>-160</b><br><b>(-29,60)</b> | 19/11/2024<br>08:00:00 | <b>-156</b><br><b>(-29,56)</b> |
| 6 | Тюлений        | <b>-108</b><br><b>(-29,08)</b>   | 21/11/2024<br>03:00:00 | <b>-121</b><br><b>(-29,21)</b> | 18/11/2024<br>12:00:00 | <b>-113</b><br><b>(-29,13)</b> |

| №  | Теңіздің болжанып отырған деңгейі, м |        |         |          |        |         | Жыл, ай, күні, уақыты, ГОУ* |
|----|--------------------------------------|--------|---------|----------|--------|---------|-----------------------------|
|    | Жанбай                               | Пешной | Қаратон | Қаламқас | Құлалы | Тюлений |                             |
| 1  | -0.60                                | -0.91  | -0.15   | -0.23    | -1.57  | -1.21   | 18.11.2024 12:00            |
| 2  | -0.61                                | -0.91  | -0.15   | -0.23    | -1.57  | -1.20   | 18.11.2024 13:00            |
| 3  | -0.62                                | -0.91  | -0.15   | -0.21    | -1.58  | -1.18   | 18.11.2024 14:00            |
| 4  | -0.64                                | -0.91  | -0.15   | -0.20    | -1.57  | -1.17   | 18.11.2024 15:00            |
| 5  | -0.67                                | -0.91  | -0.15   | -0.20    | -1.56  | -1.18   | 18.11.2024 16:00            |
| 6  | -0.69                                | -0.91  | -0.15   | -0.19    | -1.56  | -1.18   | 18.11.2024 17:00            |
| 7  | -0.72                                | -0.91  | -0.14   | -0.18    | -1.55  | -1.19   | 18.11.2024 18:00            |
| 8  | -0.74                                | -0.90  | -0.14   | -0.18    | -1.55  | -1.18   | 18.11.2024 19:00            |
| 9  | -0.76                                | -0.90  | -0.14   | -0.17    | -1.56  | -1.17   | 18.11.2024 20:00            |
| 10 | -0.77                                | -0.90  | -0.14   | -0.17    | -1.56  | -1.16   | 18.11.2024 21:00            |
| 11 | -0.78                                | -0.91  | -0.14   | -0.17    | -1.55  | -1.17   | 18.11.2024 22:00            |
| 12 | -0.80                                | -0.91  | -0.14   | -0.17    | -1.55  | -1.16   | 18.11.2024 23:00            |
| 13 | -0.80                                | -0.92  | -0.14   | -0.17    | -1.54  | -1.16   | 19.11.2024 0:00             |
| 14 | -0.81                                | -0.91  | -0.14   | -0.16    | -1.56  | -1.16   | 19.11.2024 1:00             |
| 15 | -0.80                                | -0.91  | -0.14   | -0.16    | -1.56  | -1.15   | 19.11.2024 2:00             |
| 16 | -0.80                                | -0.91  | -0.14   | -0.16    | -1.57  | -1.13   | 19.11.2024 3:00             |
| 17 | -0.80                                | -0.90  | -0.14   | -0.16    | -1.57  | -1.12   | 19.11.2024 4:00             |
| 18 | -0.80                                | -0.90  | -0.14   | -0.16    | -1.58  | -1.11   | 19.11.2024 5:00             |
| 19 | -0.80                                | -0.89  | -0.14   | -0.15    | -1.59  | -1.10   | 19.11.2024 6:00             |
| 20 | -0.80                                | -0.88  | -0.14   | -0.17    | -1.60  | -1.10   | 19.11.2024 7:00             |
| 21 | -0.81                                | -0.88  | -0.14   | -0.18    | -1.60  | -1.10   | 19.11.2024 8:00             |
| 22 | -0.80                                | -0.88  | -0.14   | -0.18    | -1.59  | -1.10   | 19.11.2024 9:00             |
| 23 | -0.79                                | -0.87  | -0.14   | -0.18    | -1.59  | -1.10   | 19.11.2024 10:00            |
| 24 | -0.77                                | -0.87  | -0.14   | -0.17    | -1.58  | -1.11   | 19.11.2024 11:00            |
| 25 | -0.75                                | -0.87  | -0.14   | -0.16    | -1.58  | -1.11   | 19.11.2024 12:00            |
| 26 | -0.72                                | -0.87  | -0.14   | -0.15    | -1.57  | -1.11   | 19.11.2024 13:00            |
| 27 | -0.70                                | -0.87  | -0.14   | -0.15    | -1.57  | -1.12   | 19.11.2024 14:00            |

| №  | Теңіздің болжанып отырған деңгейі, м |        |         |          |        |         | Жыл, ай, күні,<br>уақыты, ГОУ* |
|----|--------------------------------------|--------|---------|----------|--------|---------|--------------------------------|
|    | Жанбай                               | Пешной | Қаратон | Қаламқас | Құлалы | Тюлений |                                |
| 28 | -0.67                                | -0.86  | -0.14   | -0.15    | -1.57  | -1.12   | 19.11.2024 15:00               |
| 29 | -0.65                                | -0.86  | -0.14   | -0.15    | -1.58  | -1.13   | 19.11.2024 16:00               |
| 30 | -0.63                                | -0.86  | -0.14   | -0.15    | -1.58  | -1.14   | 19.11.2024 17:00               |
| 31 | -0.61                                | -0.86  | -0.14   | -0.15    | -1.58  | -1.14   | 19.11.2024 18:00               |
| 32 | -0.60                                | -0.85  | -0.14   | -0.15    | -1.58  | -1.15   | 19.11.2024 19:00               |
| 33 | -0.59                                | -0.85  | -0.14   | -0.15    | -1.58  | -1.16   | 19.11.2024 20:00               |
| 34 | -0.58                                | -0.85  | -0.14   | -0.16    | -1.58  | -1.16   | 19.11.2024 21:00               |
| 35 | -0.58                                | -0.85  | -0.14   | -0.16    | -1.58  | -1.17   | 19.11.2024 22:00               |
| 36 | -0.58                                | -0.86  | -0.14   | -0.15    | -1.57  | -1.17   | 19.11.2024 23:00               |
| 37 | -0.58                                | -0.87  | -0.14   | -0.15    | -1.57  | -1.18   | 20.11.2024 0:00                |
| 38 | -0.58                                | -0.87  | -0.14   | -0.14    | -1.57  | -1.18   | 20.11.2024 1:00                |
| 39 | -0.57                                | -0.88  | -0.14   | -0.13    | -1.56  | -1.18   | 20.11.2024 2:00                |
| 40 | -0.57                                | -0.88  | -0.14   | -0.12    | -1.56  | -1.18   | 20.11.2024 3:00                |
| 41 | -0.57                                | -0.88  | -0.14   | -0.12    | -1.56  | -1.18   | 20.11.2024 4:00                |
| 42 | -0.57                                | -0.89  | -0.14   | -0.12    | -1.56  | -1.18   | 20.11.2024 5:00                |
| 43 | -0.57                                | -0.89  | -0.13   | -0.12    | -1.56  | -1.18   | 20.11.2024 6:00                |
| 44 | -0.57                                | -0.89  | -0.13   | -0.12    | -1.56  | -1.17   | 20.11.2024 7:00                |
| 45 | -0.57                                | -0.90  | -0.13   | -0.12    | -1.57  | -1.17   | 20.11.2024 8:00                |
| 46 | -0.58                                | -0.90  | -0.13   | -0.12    | -1.57  | -1.17   | 20.11.2024 9:00                |
| 47 | -0.58                                | -0.90  | -0.13   | -0.12    | -1.57  | -1.17   | 20.11.2024 10:00               |
| 48 | -0.58                                | -0.90  | -0.13   | -0.12    | -1.57  | -1.16   | 20.11.2024 11:00               |
| 49 | -0.59                                | -0.90  | -0.13   | -0.12    | -1.57  | -1.15   | 20.11.2024 12:00               |
| 50 | -0.59                                | -0.90  | -0.13   | -0.12    | -1.57  | -1.14   | 20.11.2024 13:00               |
| 51 | -0.59                                | -0.90  | -0.13   | -0.12    | -1.58  | -1.13   | 20.11.2024 14:00               |
| 52 | -0.60                                | -0.90  | -0.13   | -0.11    | -1.58  | -1.12   | 20.11.2024 15:00               |
| 53 | -0.60                                | -0.90  | -0.13   | -0.11    | -1.58  | -1.12   | 20.11.2024 16:00               |
| 54 | -0.60                                | -0.90  | -0.13   | -0.11    | -1.58  | -1.12   | 20.11.2024 17:00               |
| 55 | -0.61                                | -0.90  | -0.13   | -0.10    | -1.58  | -1.11   | 20.11.2024 18:00               |
| 56 | -0.61                                | -0.89  | -0.13   | -0.10    | -1.57  | -1.10   | 20.11.2024 19:00               |
| 57 | -0.62                                | -0.89  | -0.13   | -0.10    | -1.57  | -1.10   | 20.11.2024 20:00               |
| 58 | -0.63                                | -0.89  | -0.13   | -0.10    | -1.57  | -1.09   | 20.11.2024 21:00               |
| 59 | -0.64                                | -0.88  | -0.13   | -0.10    | -1.57  | -1.09   | 20.11.2024 22:00               |
| 60 | -0.65                                | -0.88  | -0.13   | -0.10    | -1.57  | -1.09   | 20.11.2024 23:00               |
| 61 | -0.66                                | -0.87  | -0.13   | -0.11    | -1.56  | -1.08   | 21.11.2024 0:00                |
| 62 | -0.67                                | -0.87  | -0.13   | -0.11    | -1.56  | -1.08   | 21.11.2024 1:00                |
| 63 | -0.68                                | -0.86  | -0.13   | -0.11    | -1.56  | -1.08   | 21.11.2024 2:00                |
| 64 | -0.68                                | -0.86  | -0.13   | -0.11    | -1.55  | -1.08   | 21.11.2024 3:00                |
| 65 | -0.68                                | -0.85  | -0.13   | -0.11    | -1.55  | -1.09   | 21.11.2024 4:00                |
| 66 | -0.68                                | -0.85  | -0.13   | -0.11    | -1.55  | -1.09   | 21.11.2024 5:00                |
| 67 | -0.67                                | -0.84  | -0.13   | -0.10    | -1.55  | -1.09   | 21.11.2024 6:00                |
| 68 | -0.67                                | -0.84  | -0.13   | -0.10    | -1.55  | -1.09   | 21.11.2024 7:00                |
| 69 | -0.67                                | -0.83  | -0.13   | -0.12    | -1.55  | -1.09   | 21.11.2024 8:00                |
| 70 | -0.67                                | -0.83  | -0.13   | -0.12    | -1.55  | -1.10   | 21.11.2024 9:00                |
| 71 | -0.67                                | -0.83  | -0.13   | -0.12    | -1.55  | -1.10   | 21.11.2024 10:00               |
| 72 | -0.67                                | -0.82  | -0.13   | -0.12    | -1.55  | -1.12   | 21.11.2024 11:00               |
| 73 | -0.68                                | -0.82  | -0.13   | -0.12    | -1.54  | -1.10   | 21.11.2024 12:00               |
| 74 | -0.68                                | -0.82  | -0.13   | -0.10    | -1.54  | -1.10   | 21.11.2024 13:00               |
| 75 | -0.68                                | -0.82  | -0.13   | -0.10    | -1.54  | -1.11   | 21.11.2024 14:00               |
| 76 | -0.68                                | -0.82  | -0.13   | -0.10    | -1.54  | -1.10   | 21.11.2024 15:00               |
| 77 | -0.67                                | -0.81  | -0.12   | -0.10    | -1.54  | -1.11   | 21.11.2024 16:00               |
| 78 | -0.66                                | -0.81  | -0.12   | -0.10    | -1.54  | -1.11   | 21.11.2024 17:00               |
| 79 | -0.65                                | -0.80  | -0.12   | -0.10    | -1.54  | -1.11   | 21.11.2024 18:00               |
| 80 | -0.64                                | -0.80  | -0.12   | -0.11    | -1.54  | -1.11   | 21.11.2024 19:00               |
| 81 | -0.64                                | -0.80  | -0.12   | -0.11    | -1.53  | -1.12   | 21.11.2024 20:00               |

| №   | Теңіздің болжанып отырған деңгейі, м |        |         |          |        |         | Жыл, ай, күні,<br>уақыты, ГОУ* |
|-----|--------------------------------------|--------|---------|----------|--------|---------|--------------------------------|
|     | Жанбай                               | Пешной | Қаратон | Қаламқас | Құлалы | Тюлений |                                |
| 82  | -0.63                                | -0.79  | -0.12   | -0.12    | -1.53  | -1.12   | 21.11.2024 21:00               |
| 83  | -0.63                                | -0.79  | -0.12   | -0.13    | -1.53  | -1.12   | 21.11.2024 22:00               |
| 84  | -0.62                                | -0.79  | -0.12   | -0.14    | -1.53  | -1.11   | 21.11.2024 23:00               |
| 85  | -0.62                                | -0.79  | -0.12   | -0.15    | -1.53  | -1.11   | 22.11.2024 0:00                |
| 86  | -0.61                                | -0.79  | -0.12   | -0.16    | -1.53  | -1.12   | 22.11.2024 1:00                |
| 87  | -0.61                                | -0.79  | -0.12   | -0.16    | -1.52  | -1.12   | 22.11.2024 2:00                |
| 88  | -0.60                                | -0.80  | -0.12   | -0.17    | -1.52  | -1.12   | 22.11.2024 3:00                |
| 89  | -0.60                                | -0.80  | -0.12   | -0.18    | -1.52  | -1.13   | 22.11.2024 4:00                |
| 90  | -0.59                                | -0.79  | -0.12   | -0.18    | -1.52  | -1.13   | 22.11.2024 5:00                |
| 91  | -0.59                                | -0.79  | -0.12   | -0.18    | -1.52  | -1.13   | 22.11.2024 6:00                |
| 92  | -0.59                                | -0.81  | -0.12   | -0.19    | -1.52  | -1.14   | 22.11.2024 7:00                |
| 93  | -0.58                                | -0.81  | -0.12   | -0.19    | -1.52  | -1.14   | 22.11.2024 8:00                |
| 94  | -0.58                                | -0.81  | -0.12   | -0.19    | -1.52  | -1.14   | 22.11.2024 9:00                |
| 95  | -0.58                                | -0.80  | -0.12   | -0.19    | -1.52  | -1.12   | 22.11.2024 10:00               |
| 96  | -0.58                                | -0.80  | -0.12   | -0.19    | -1.52  | -1.13   | 22.11.2024 11:00               |
| 97  | -0.58                                | -0.81  | -0.12   | -0.19    | -1.53  | -1.13   | 22.11.2024 12:00               |
| 98  | -0.59                                | -0.81  | -0.12   | -0.19    | -1.53  | -1.13   | 22.11.2024 13:00               |
| 99  | -0.59                                | -0.81  | -0.12   | -0.19    | -1.54  | -1.12   | 22.11.2024 14:00               |
| 100 | -0.59                                | -0.81  | -0.12   | -0.18    | -1.56  | -1.12   | 22.11.2024 15:00               |
| 101 | -0.59                                | -0.82  | -0.12   | -0.18    | -1.57  | -1.12   | 22.11.2024 16:00               |
| 102 | -0.59                                | -0.81  | -0.12   | -0.17    | -1.58  | -1.11   | 22.11.2024 17:00               |
| 103 | -0.58                                | -0.80  | -0.12   | -0.17    | -1.59  | -1.11   | 22.11.2024 18:00               |
| 104 | -0.58                                | -0.79  | -0.12   | -0.16    | -1.59  | -1.10   | 22.11.2024 19:00               |
| 105 | -0.58                                | -0.79  | -0.12   | -0.16    | -1.59  | -1.10   | 22.11.2024 20:00               |
| 106 | -0.58                                | -0.80  | -0.12   | -0.15    | -1.59  | -1.10   | 22.11.2024 21:00               |
| 107 | -0.58                                | -0.80  | -0.12   | -0.15    | -1.59  | -1.11   | 22.11.2024 22:00               |
| 108 | -0.58                                | -0.80  | -0.12   | -0.15    | -1.58  | -1.11   | 22.11.2024 23:00               |
| 109 | -0.58                                | -0.81  | -0.11   | -0.15    | -1.58  | -1.12   | 23.11.2024 0:00                |
| 110 | -0.58                                | -0.82  | -0.11   | -0.15    | -1.58  | -1.13   | 23.11.2024 1:00                |
| 111 | -0.59                                | -0.82  | -0.11   | -0.15    | -1.57  | -1.14   | 23.11.2024 2:00                |
| 112 | -0.60                                | -0.82  | -0.11   | -0.15    | -1.57  | -1.14   | 23.11.2024 3:00                |
| 113 | -0.61                                | -0.83  | -0.11   | -0.15    | -1.56  | -1.14   | 23.11.2024 4:00                |
| 114 | -0.62                                | -0.83  | -0.11   | -0.15    | -1.56  | -1.12   | 23.11.2024 5:00                |
| 115 | -0.62                                | -0.82  | -0.11   | -0.14    | -1.56  | -1.12   | 23.11.2024 6:00                |
| 116 | -0.63                                | -0.82  | -0.11   | -0.14    | -1.56  | -1.12   | 23.11.2024 7:00                |
| 117 | -0.63                                | -0.81  | -0.11   | -0.13    | -1.57  | -1.11   | 23.11.2024 8:00                |
| 118 | -0.63                                | -0.81  | -0.11   | -0.13    | -1.57  | -1.11   | 23.11.2024 9:00                |
| 119 | -0.63                                | -0.81  | -0.11   | -0.12    | -1.57  | -1.13   | 23.11.2024 10:00               |
| 120 | -0.63                                | -0.81  | -0.11   | -0.12    | -1.56  | -1.12   | 23.11.2024 11:00               |
| 121 | -0.63                                | -0.80  | -0.11   | -0.12    | -1.56  | -1.11   | 23.11.2024 12:00               |

ГОУ\*- гринвич орташа уақыты

\* Теңіз болжамды деңгейіне тән мәндер "Қазгидромет" РМК Каспий теңізінің жағдайына бейімделген Mike 21 Flow Model моделінің гидродинамикалық модулі көмегімен алынды. Құрастырған: Жағпарова Н.Н.

«Қазгидромет» РМК – Каспий теңізін гидрометеорологиялық зерттеу басқармасы

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