

WATER QUALITY DATA PADRE ISLES AND CONTIGUOUS WATERS

June 27-28, 2023

July 4-5, 2023

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INTRODUCTION

The following are water quality reports for the canals and contiguous waters of Padre Isles, Corpus Christi, Texas, which fulfill the monitoring requirements as set forth in a letter from TCEQ (Sidne Tiemann) to the USACE (Mark King) dated October 12, 1994. All temperature measurements are in degrees centigrade. All dissolved oxygen measurements are in milligrams per liter.

METEOROLOGICAL CONDITIONS

June 27, 2023. Day. Clear. Wind SSE 15 mph. 34.0 C.

June 28, 2023. Night. Wind S 10 mph. 27.0 C.

July 4, 2023. Day. Pt. Cloudy. Wind ESE 15 mph. 34.2 C.

July 5, 2023. Night. Wind SSE 5 mph. 30.2 C.

| Date | Time | Station | Temp. C | D.O. mg/l |
|-----------|------|---------|---------|-----------|
| 6/27/2023 | 1930 | 1 | 31 | 7.7 |
| | 1640 | 2 | 31.6 | 4.7 |
| | 1940 | 3 | 33.7 | 8.3 |
| | 1810 | 4 | 32.8 | 9 |
| | 1650 | 5 | 32.4 | 4.9 |
| | 1710 | 6 | 31.3 | 5.8 |
| | 1730 | 7 | 32 | 5.9 |
| | 1825 | 8 | 32.4 | 9.3 |
| | 1840 | 9 | 31.4 | 8.2 |
| | 1850 | 10 | 32.8 | 9.2 |
| | 1900 | 11 | 31.7 | 7.5 |
| | 1915 | 12 | 31.5 | 7.1 |
| | 1800 | 13 | 31.9 | 7.6 |
| | 1755 | 21 | 32.3 | 7.4 |
| | 1750 | 23 | 32.2 | 7.7 |

All measurements taken one foot below the surface.

| Date | Time | Station | Temp. C | D.O. mg/l |
|-----------|------|---------|---------|-----------|
| 6/28/2023 | 720 | 1 | 27.2 | 5.7 |
| | 430 | 2 | 30.2 | 2.6 |
| | 730 | 3 | 28.7 | 4.9 |
| | 555 | 4 | 31 | 5.3 |
| | 440 | 5 | 31.1 | 3.1 |
| | 455 | 6 | 30.4 | 3.2 |
| | 515 | 7 | 31 | 4.1 |
| | 615 | 8 | 28.5 | 3.8 |
| | 630 | 9 | 29.9 | 5.4 |
| | 640 | 10 | 28.5 | 5.1 |
| | 650 | 11 | 26 | 6.1 |
| | 705 | 12 | 30.2 | 4.9 |
| | 545 | 13 | 30.5 | 5.2 |
| | 540 | 21 | 30.4 | 4.7 |
| | 535 | 23 | 30.6 | 5.3 |

All measurements taken one foot below the surface

NUTRIENTS

Water samples for nutrient analyses were collected one foot below the surface (S) and one foot above the bottom (B) at stations 1,5,6,8,9,10 and 11. Values are reported as milligrams per liter (mg/l or PPM) of the element in the compound. * The lower limit of detection is 0.001 mg/l for nitrate (NO₃-N) and nitrite (NO₂-N) nitrogen, and 0.016 mg/l for phosphate phosphorus (PO₄-P). ND means not detectable.

* Strickland and Parsons (1968). A Practical Handbook of Seawater Analysis. Fisheries Research Board of Canada. Ottawa.

| Date | Time | Station | Depth(ft) | NO ₃ -N | NO ₂ -N | PO ₄ -P |
|-----------|------|---------|-----------|--------------------|--------------------|--------------------|
| 6/27/2023 | 1930 | 1B | 13 | 0.008 | 0.003 | ND |
| | | 1S | | 0.004 | 0.003 | ND |
| | 1650 | 5B | 11 | 0.011 | 0.004 | 0.062 |
| | | 5S | | 0.006 | 0.013 | 0.052 |
| | 1710 | 6B | 14 | 0.004 | 0.007 | ND |
| | | 6S | | 0.002 | 0.009 | ND |
| | 1825 | 8B | 12 | ND | 0.001 | ND |
| | | 8S | | ND | ND | ND |
| | 1840 | 9B | 13 | 0.014 | 0.004 | ND |
| | | 9S | | 0.019 | 0.004 | ND |
| | 1850 | 10B | 14 | 0.001 | 0.001 | ND |
| | | 10S | | 0.001 | ND | ND |
| | 1900 | 11B | 13 | 0.001 | 0.001 | ND |
| | | 11S | | 0.001 | ND | ND |

| Date | Time | Station | Temp C | D.O.mg/l |
|----------|------|---------|--------|----------|
| 7/4/2023 | 1835 | 21 | 32.7 | 7.3 |
| | 1845 | 23 | 32.5 | 7.6 |
| 7/5/2023 | 535 | 21 | 30.6 | 4.2 |
| | 545 | 23 | 30.8 | 4.8 |
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