

**Fecha: Lunes 13/12/2021**

El presente informe muestra un resumen inicial de los resultados de los muestreos coordinados por el IMIDA y realizados por el IMIDA en el Mar Menor (MM) en la fecha indicada mediante Sonda multiparamétrica (CTD), que mide un total de 7 variables: temperatura, conductividad, turbidez, pH, oxígeno, salinidad y clorofila.

Cada punto de muestreo puede llegar a proporcionar en torno a 10.000 datos, que son tratados de forma automatizada por los técnicos del IMIDA. Tal cantidad de información requiere, además de su descarga, un complejo proceso de análisis, procesado y de transformación de datos.

Para controlar rápidamente la situación de la laguna con respecto a los niveles de oxígeno y llevar un seguimiento diario de la misma, se ha decidido identificar y alertar únicamente de los valores que representan situaciones de posible anoxia/hipoxia en base a la siguiente clasificación. Se considerarán no preocupantes los valores de oxígeno superiores a 4 miligramos por litro (mg/L):

**0-2 mg/L: ANOXIA**

**2-4 mg/L: HIPOXIA**

**>4 mg/L: NO PREOCUPANTE**

Las tablas siguientes incluyen los datos necesarios para tener una visión global de todo el proceso:

### OBSERVACIONES GENERALES

Se realiza **UNA SALIDA** en barco para muestreo por la mañana, en horario de 8:00 a 11:00 horas.  
 Salida desde el puerto de Lo Pagán, con los técnicos y un patrón del IMIDA.

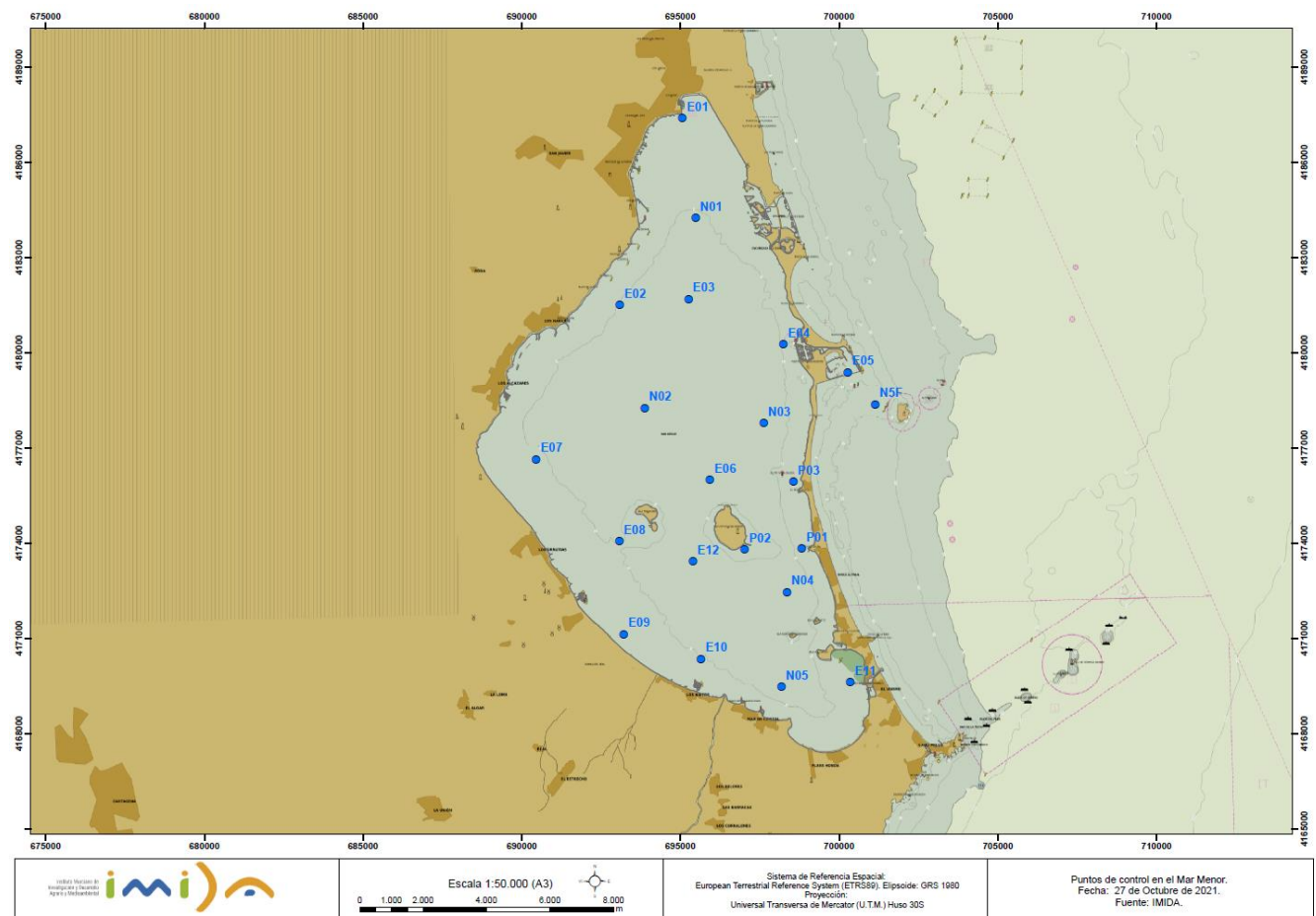
| ORDEN | Punto | D. Secchi | Hora     | Fondo | Viento (km/h) | Dirección | Sonda |
|-------|-------|-----------|----------|-------|---------------|-----------|-------|
| 1     | E01   | 2.3       | 7:59:00  | Si    | 6             | W         | 2.3   |
| 2     | N01   | 5.6       | 8:13:00  | No    | 6             | W         | 5.6   |
| 3     | E03   | 6.3       | 8:21:00  | No    | 6             | W         | 6.3   |
| 4     | E02   | 5.5       | 8:28:00  | No    | 6             | W         | 5.5   |
| 5     | N02   | 6.2       | 8:37:00  | No    | 6             | W         | 6.2   |
| 6     | E07   | 4.3       | 8:54:00  | No    | 0             |           | 4.8   |
| 7     | E08   | 4.9       | 9:08:00  | No    | 0             |           | 4.9   |
| 8     | E09   | 1.1       | 9:15:00  | Si    | 6             | W         | 1.1   |
| 9     | E10   | 4.9       | 9:23:00  | Si    | 6             | W         | 4.9   |
| 10    | N05   | 5.0       | 9:31:00  | No    | 6             | W         | 5.6   |
| 11    | E11   | 4.2       | 9:37:00  | Si    | 10            | W         | 4.2   |
| 12    | N04   | 5.3       | 9:47:00  | No    | 10            | W         | 5.9   |
| 13    | P01   | 1.6       | 9:53:00  | Si    | 10            | W         | 1.6   |
| 14    | P02   | 3.2       | 9:58:00  | Si    | 10            | W         | 3.2   |
| 15    | E12   | 5.9       | 10:01:00 | No    | 10            | W         | 5.9   |
| 16    | E06   | 6.1       | 10:12:00 | No    | 10            | W         | 6.6   |
| 17    | P03   | 1.5       | 10:20:00 | Si    | 10            | W         | 1.5   |
| 18    | N03   | 6.4       | 10:26:00 | No    | 10            | W         | 6.4   |
| 19    | E04   | 5.2       | 10:33:00 | Si    | 10            | W         | 5.2   |
| 20    | E05   | 5.2       | 10:45:00 | Si    | 10            | W         | 5.2   |
| 21    | N5F   | 8.5       | 10:50:00 | No    | 10            | W         | 10.3  |

### UBICACIÓN DE LOS TRABAJOS

**Estación de Acuicultura Marina de San Pedro del Pinatar:** Coordinación para la organización de las salidas al mar, manejo y mantenimiento de sondas.

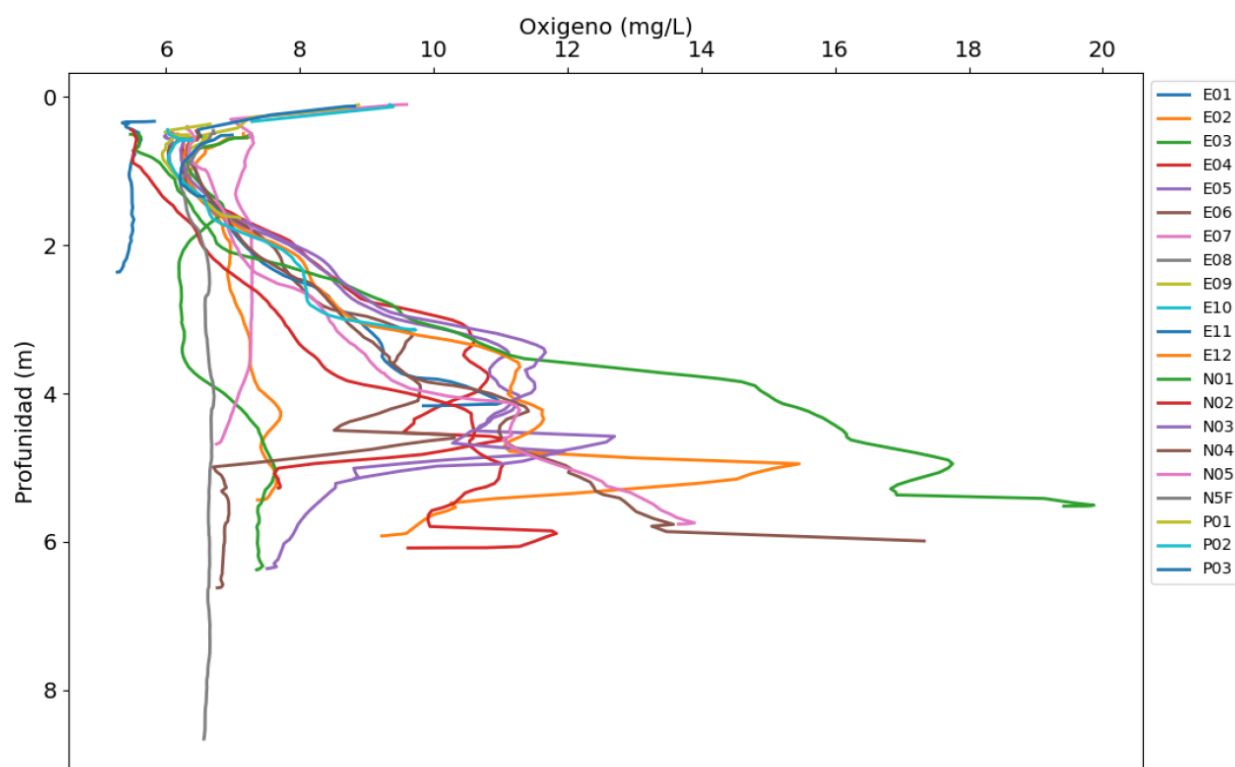
**Instalaciones del IMIDA de La Alberca:** Diseño y puesta en marcha de la encuesta para la toma de datos, procesamiento, tratamiento, análisis de datos, cartografía y maquetación.

**Mar Menor:** El IMIDA ha muestreado un total de 21 puntos con el CTD, previamente establecidos por el grupo de monitorización.

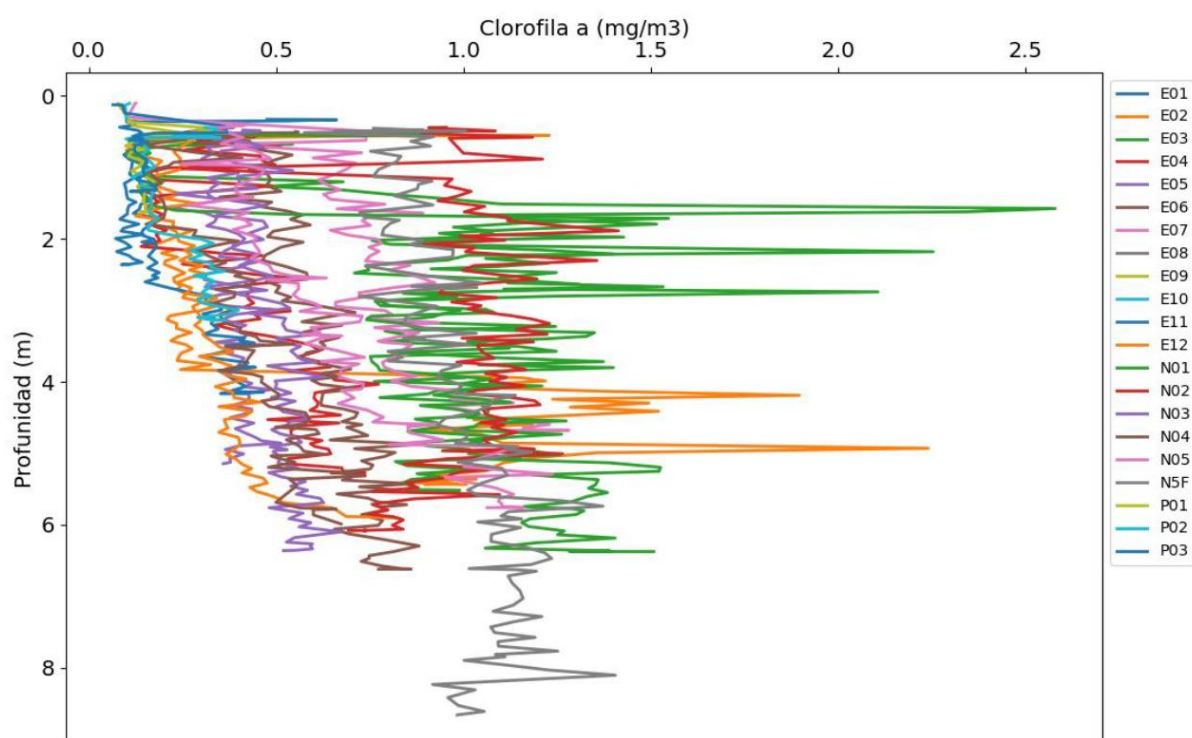


## SITUACIÓN GENERAL

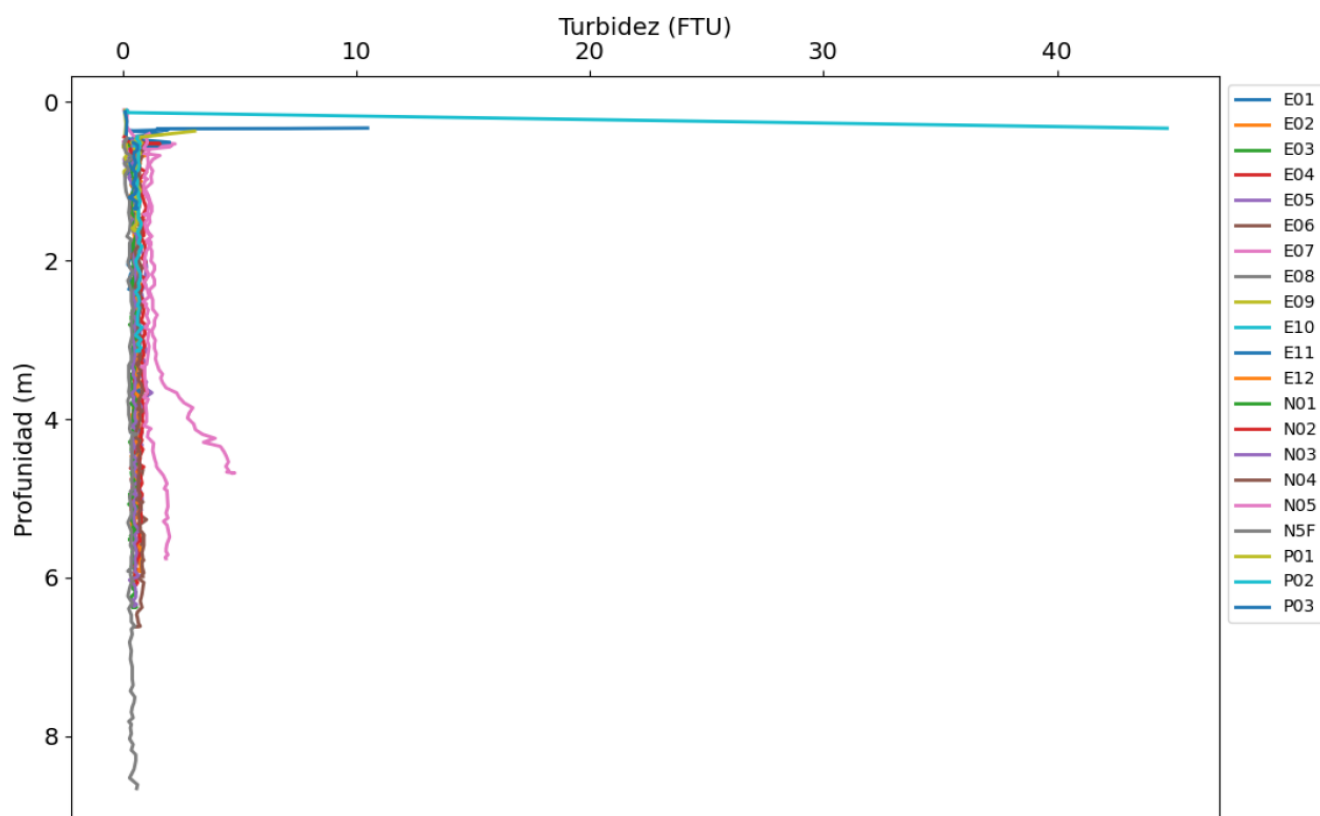
Los niveles medios de oxígeno son normales en todos los puntos ( $> 6$  mg/L). Los valores medios de clorofila están por debajo 1 mg/m<sup>3</sup> y los máximos por debajo de 2.5 mg/m<sup>3</sup>. Los valores medios de turbidez siguen bajando, pero todavía se han registrado máximos altos en una estación. La transparencia del agua sigue aumentando.



Perfiles de oxígeno (mg/L) por estación



Perfiles de los valores de clorofila (mg/m<sup>3</sup>)

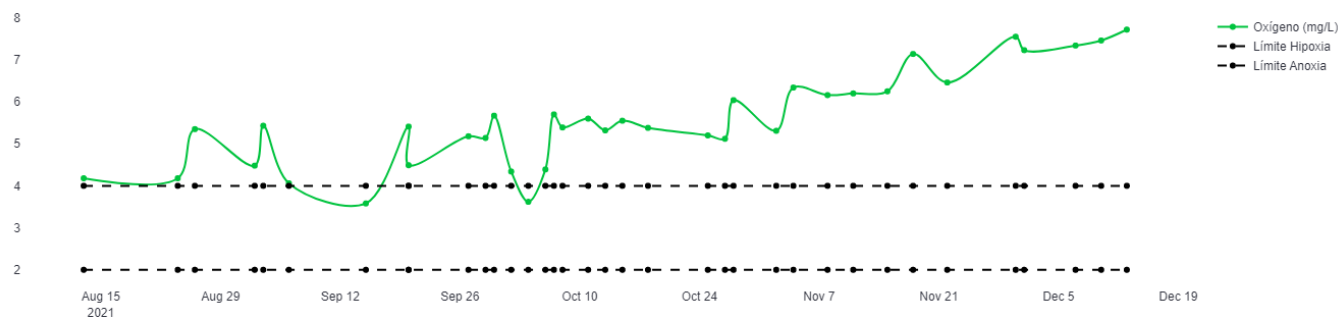


Perfiles de los valores de turbidez (FTU)

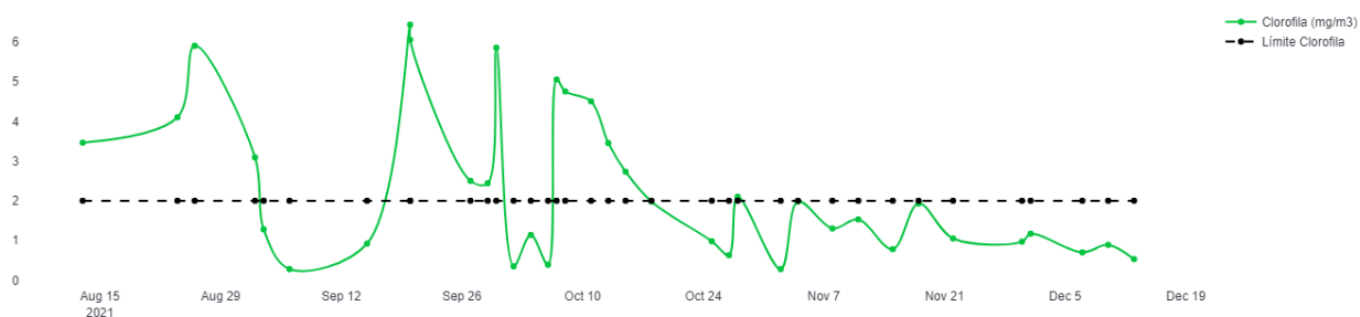
Valores medios (media geométrica por isobata) del Mar Menor:

- Clorofila (mg/m3): 0.56
- Turbidez (FTU): 0.74
- Oxígeno (mg/L): 8.18
- Temperatura (° C): 12.89
- Salinidad (PSU): 42.39





Evolución del contenido de oxígeno (mg/L)

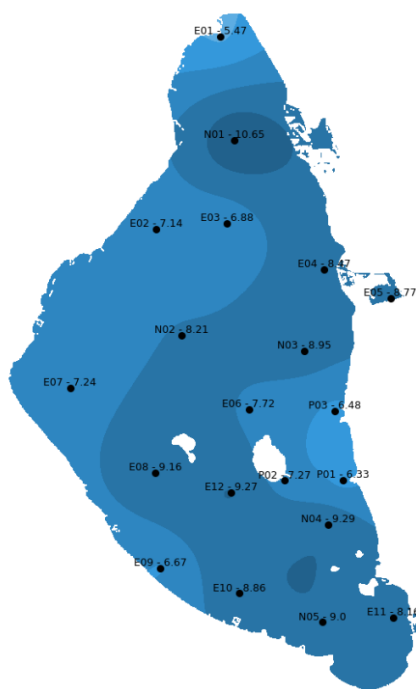


Evolución de la clorofila *a* (mg/m3)

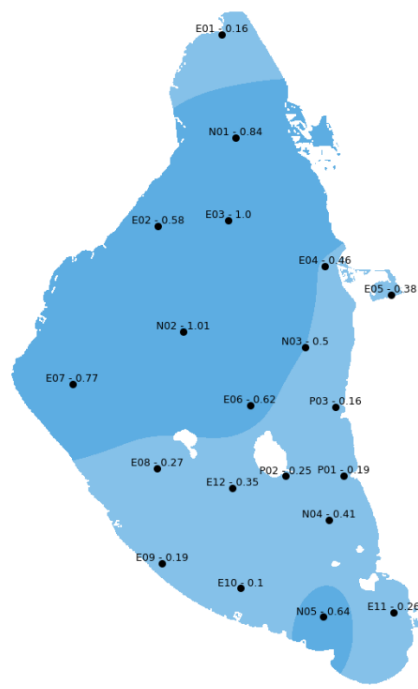


Evolución de la turbidez (FTU)

Interpolación Oxígeno



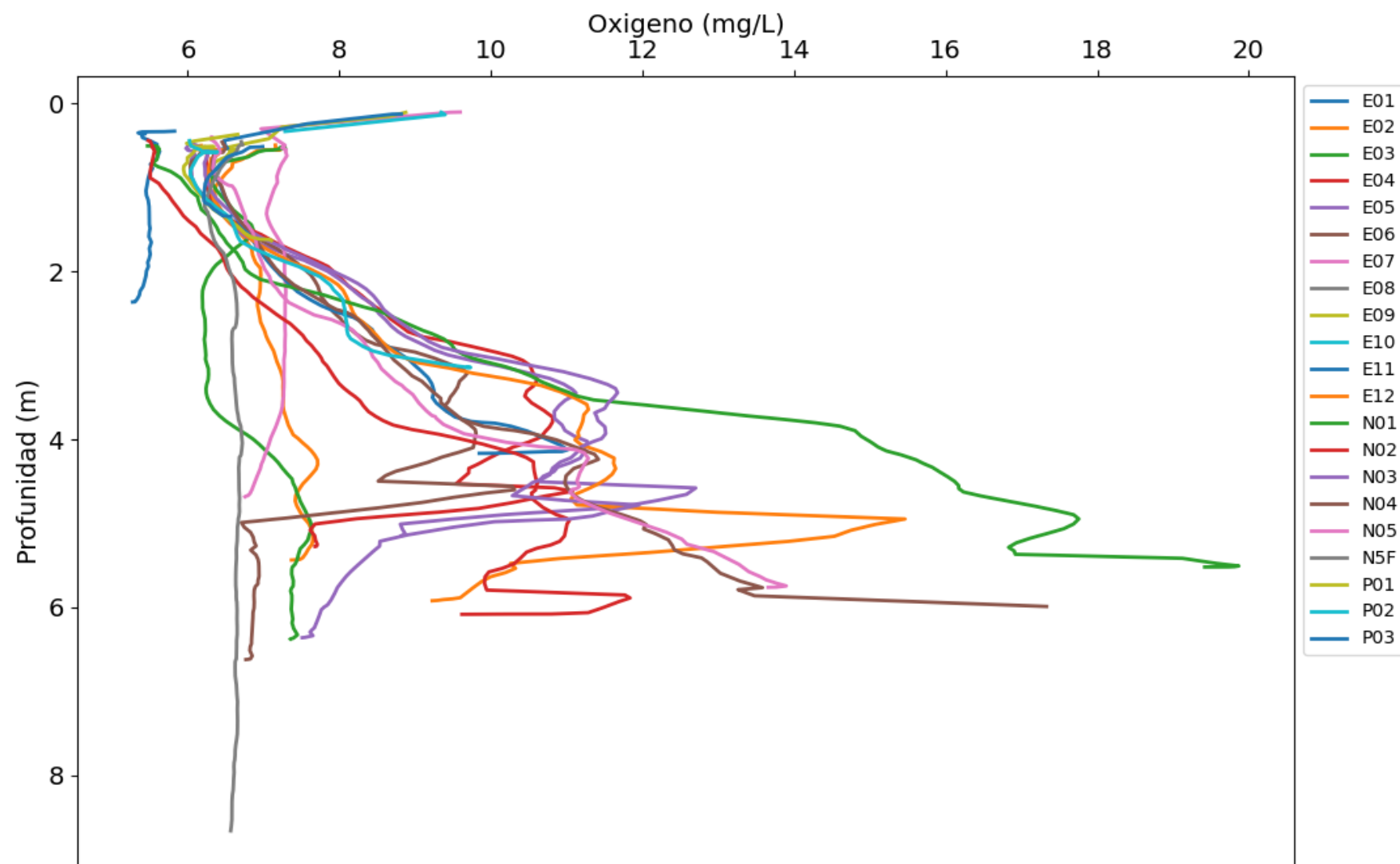
Interpolación Clorofila

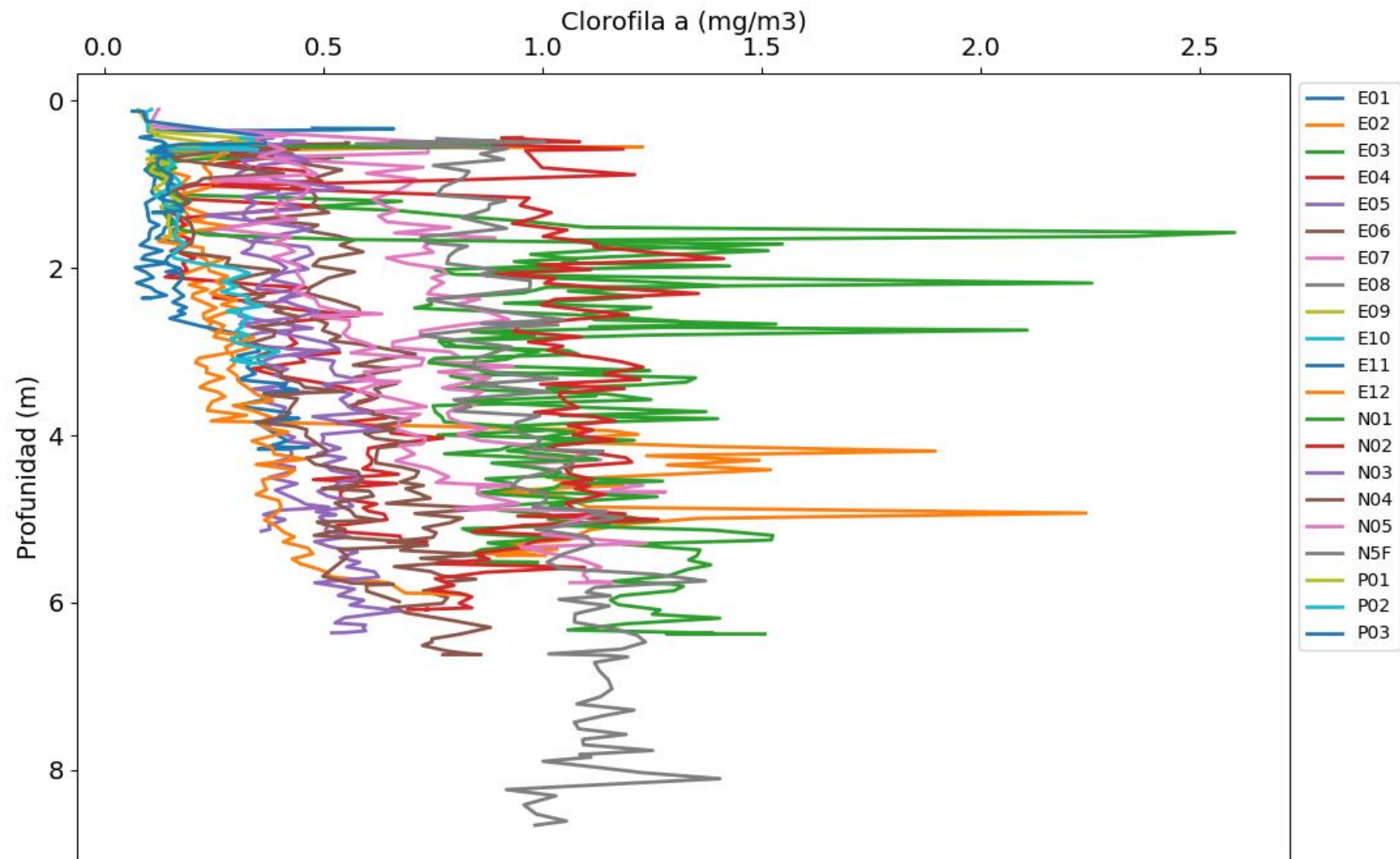


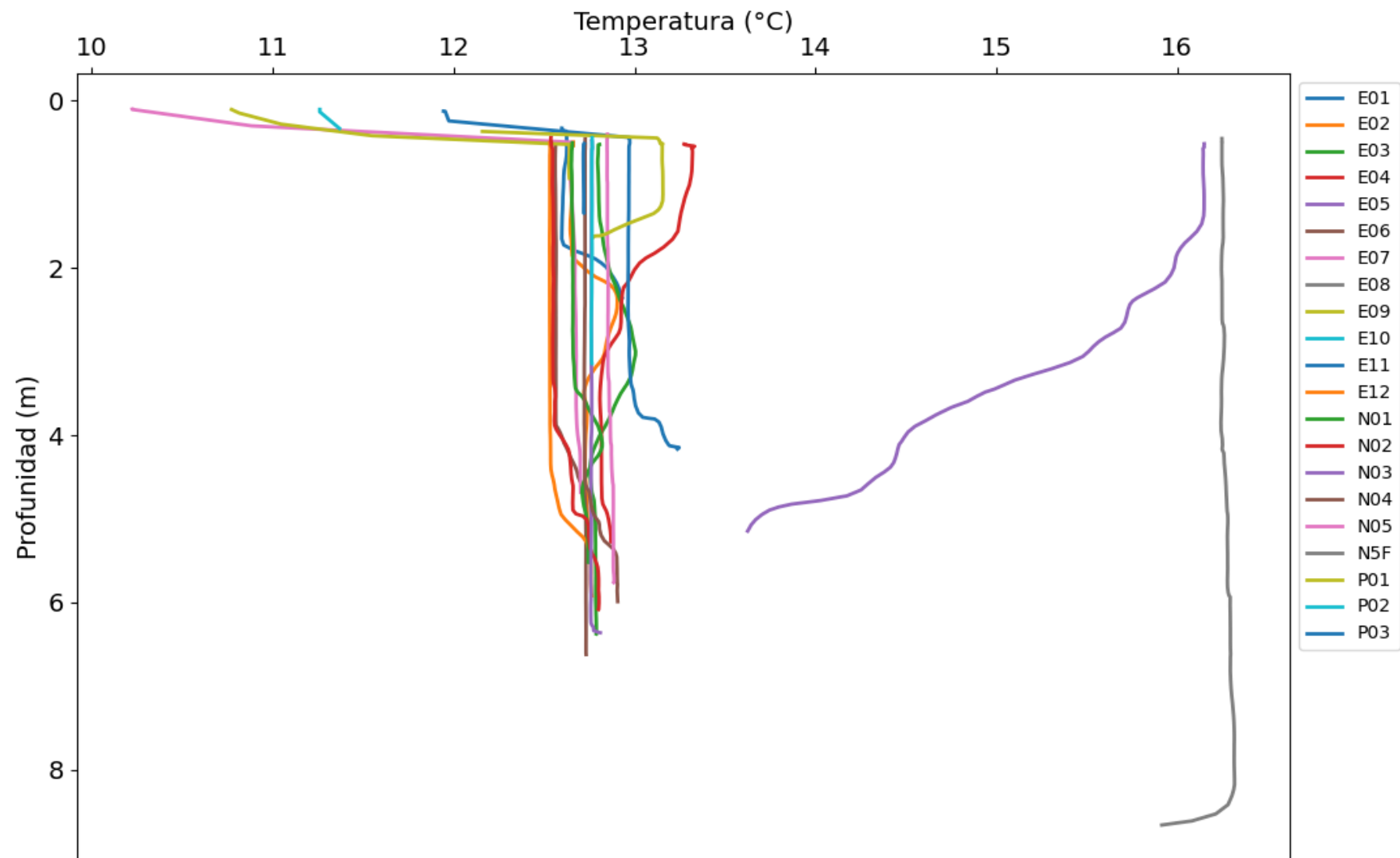
Interpolación de los valores medios de oxígeno (mg/L) y clorofila a (mg/m3)

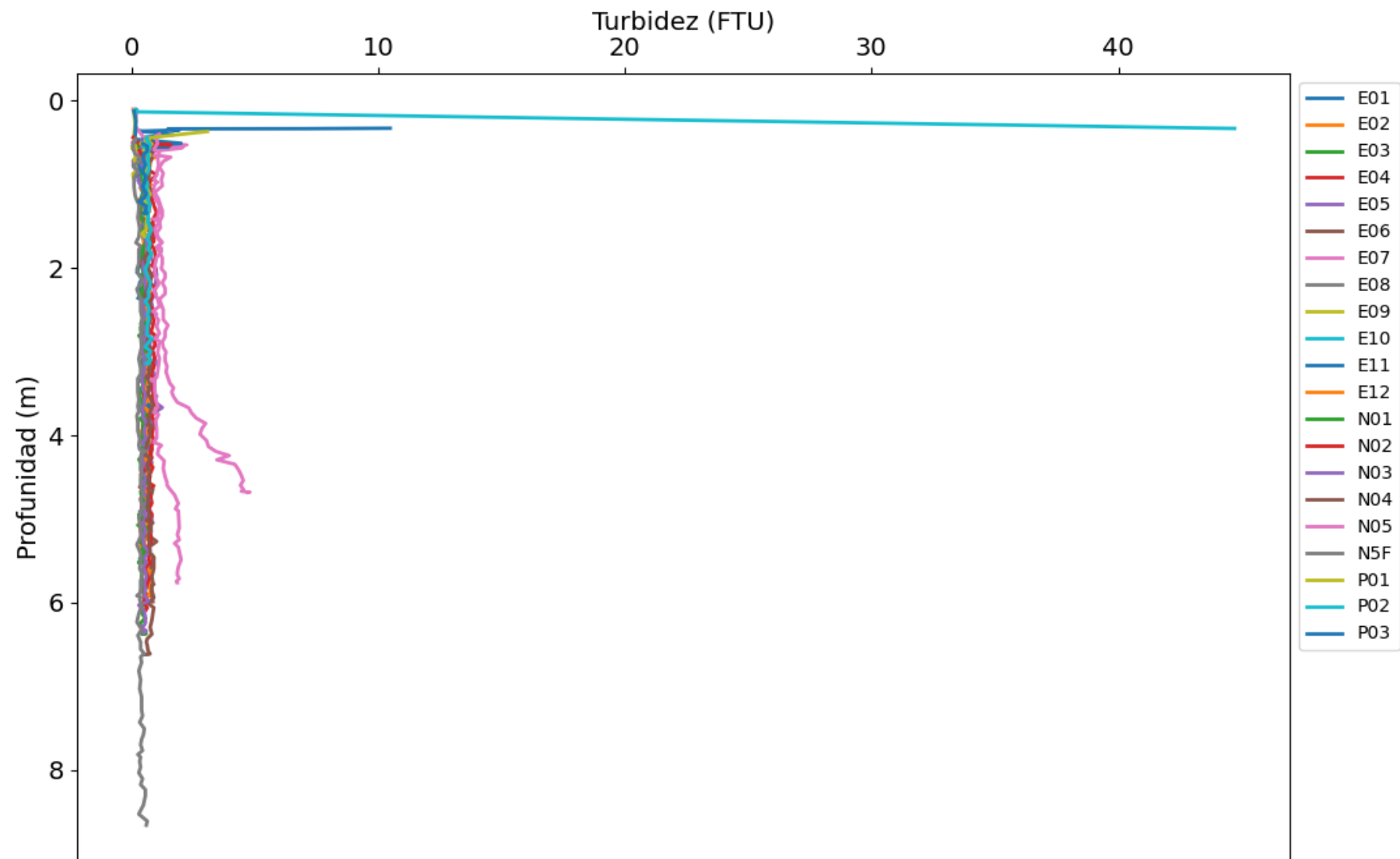


Imagen sentinel 2 del día 11/12/2021

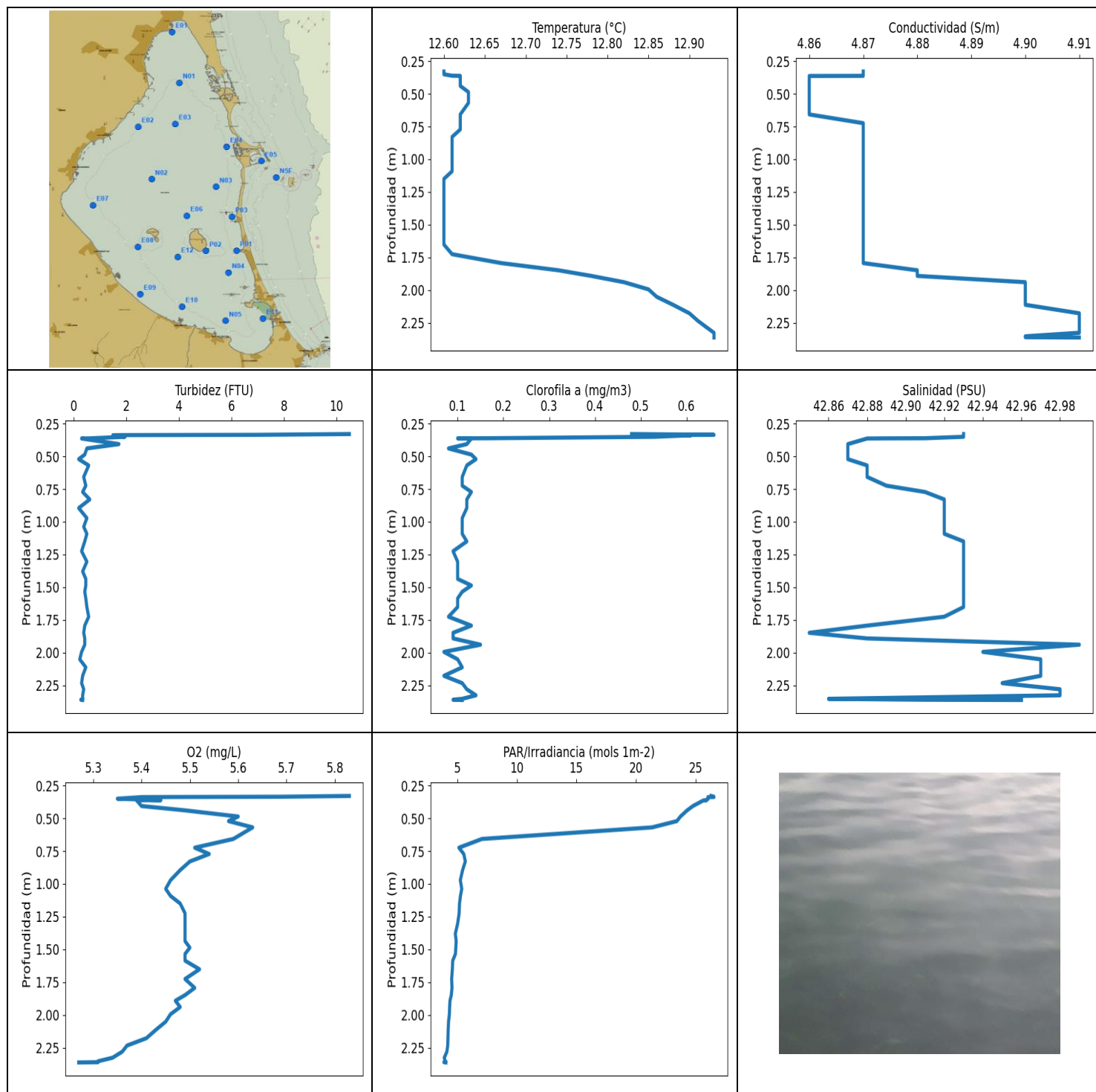












### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.6          | 4.86                   | 0.19              | 5.27              | 3.86                           | 0.07                              | 42.85              |
| <b>PROF (metros)</b> | 0.329         | 0.363                  | 0.521             | 2.363             | 2.361                          | 1.995                             | 1.849              |
| <b>MÁXIMO</b>        | 12.93         | 12.93                  | 10.49             | 5.83              | 26.56                          | 0.66                              | 42.99              |
| <b>PROF (metros)</b> | 2.327         | 2.178                  | 0.329             | 0.329             | 0.337                          | 0.335                             | 1.94               |

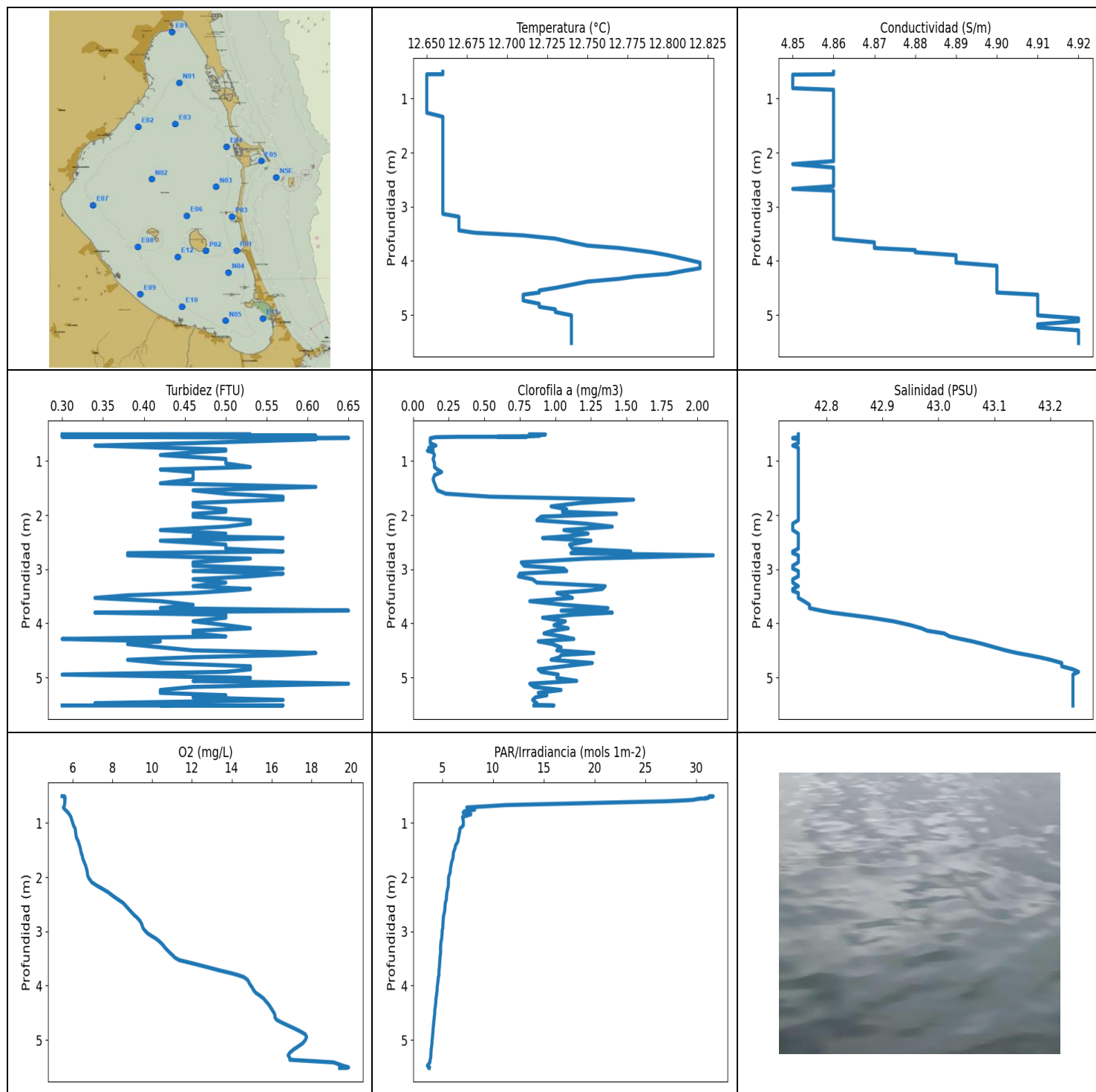


| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E01 - Punto 001                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.61      | 4.87                | 1.6            | 5.51           | 18.98                       | 0.24              | 42.9            |
| 1 - 2m                                                     | 12.65      | 4.87                | 0.43           | 5.49           | 4.77                        | 0.11              | 42.92           |
| 2 - 3m                                                     | 12.91      | 4.91                | 0.33           | 5.36           | 4.08                        | 0.11              | 42.95           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.329                                                          | 12.6       | 4.87                | 10.49          | 5.83           | 26.31                       | 0.48              | 42.93           |
| 0.335                                                          | 12.6       | 4.87                | 6.98           | 5.69           | 26.55                       | 0.66              | 42.93           |
| 0.337                                                          | 12.6       | 4.87                | 1.91           | 5.46           | 26.56                       | 0.5               | 42.93           |
| 0.338                                                          | 12.6       | 4.87                | 1.49           | 5.4            | 26.05                       | 0.61              | 42.93           |
| 0.35                                                           | 12.6       | 4.87                | 1.95           | 5.35           | 26.07                       | 0.53              | 42.93           |
| 0.361                                                          | 12.61      | 4.87                | 0.72           | 5.44           | 25.89                       | 0.17              | 42.91           |
| 0.362                                                          | 12.62      | 4.87                | 0.61           | 5.4            | 25.93                       | 0.1               | 42.89           |
| 0.363                                                          | 12.62      | 4.86                | 0.3            | 5.39           | 25.67                       | 0.13              | 42.88           |
| 0.406                                                          | 12.62      | 4.86                | 1.72           | 5.4            | 24.79                       | 0.12              | 42.87           |
| 0.439                                                          | 12.62      | 4.86                | 0.5            | 5.49           | 24.3                        | 0.08              | 42.87           |
| 0.486                                                          | 12.63      | 4.86                | 0.42           | 5.6            | 23.74                       | 0.13              | 42.87           |
| 0.521                                                          | 12.63      | 4.86                | 0.19           | 5.58           | 23.44                       | 0.14              | 42.87           |
| 0.569                                                          | 12.63      | 4.86                | 0.57           | 5.63           | 21.35                       | 0.12              | 42.88           |
| 0.657                                                          | 12.62      | 4.86                | 0.38           | 5.59           | 7.06                        | 0.11              | 42.88           |
| 0.724                                                          | 12.62      | 4.87                | 0.46           | 5.51           | 5.12                        | 0.11              | 42.89           |
| 0.772                                                          | 12.62      | 4.87                | 0.34           | 5.54           | 5.53                        | 0.13              | 42.91           |
| 0.829                                                          | 12.61      | 4.87                | 0.61           | 5.5            | 5.66                        | 0.12              | 42.92           |
| 0.895                                                          | 12.61      | 4.87                | 0.19           | 5.48           | 5.43                        | 0.12              | 42.92           |
| 0.972                                                          | 12.61      | 4.87                | 0.5            | 5.46           | 5.24                        | 0.11              | 42.92           |
| 1.038                                                          | 12.61      | 4.87                | 0.38           | 5.45           | 5.36                        | 0.11              | 42.92           |
| 1.092                                                          | 12.61      | 4.87                | 0.5            | 5.46           | 5.25                        | 0.11              | 42.92           |
| 1.15                                                           | 12.6       | 4.87                | 0.42           | 5.48           | 5.17                        | 0.12              | 42.93           |
| 1.225                                                          | 12.6       | 4.87                | 0.3            | 5.49           | 5.14                        | 0.09              | 42.93           |
| 1.305                                                          | 12.6       | 4.87                | 0.5            | 5.49           | 5.01                        | 0.1               | 42.93           |
| 1.38                                                           | 12.6       | 4.87                | 0.34           | 5.49           | 4.82                        | 0.1               | 42.93           |
| 1.437                                                          | 12.6       | 4.87                | 0.46           | 5.49           | 4.89                        | 0.1               | 42.93           |
| 1.487                                                          | 12.6       | 4.87                | 0.46           | 5.5            | 4.86                        | 0.13              | 42.93           |
| 1.535                                                          | 12.6       | 4.87                | 0.42           | 5.49           | 4.83                        | 0.11              | 42.93           |
| 1.586                                                          | 12.6       | 4.87                | 0.46           | 5.49           | 4.6                         | 0.1               | 42.93           |
| 1.652                                                          | 12.6       | 4.87                | 0.5            | 5.52           | 4.57                        | 0.1               | 42.93           |
| 1.726                                                          | 12.61      | 4.87                | 0.57           | 5.49           | 4.51                        | 0.08              | 42.92           |
| 1.794                                                          | 12.67      | 4.87                | 0.42           | 5.51           | 4.54                        | 0.13              | 42.88           |
| 1.849                                                          | 12.74      | 4.88                | 0.38           | 5.49           | 4.48                        | 0.09              | 42.85           |
| 1.892                                                          | 12.78      | 4.88                | 0.42           | 5.47           | 4.37                        | 0.09              | 42.88           |
| 1.94                                                           | 12.82      | 4.9                 | 0.42           | 5.48           | 4.34                        | 0.15              | 42.99           |
| 1.995                                                          | 12.85      | 4.9                 | 0.3            | 5.46           | 4.32                        | 0.07              | 42.94           |
| 2.052                                                          | 12.86      | 4.9                 | 0.23           | 5.45           | 4.25                        | 0.1               | 42.97           |
| 2.113                                                          | 12.88      | 4.9                 | 0.46           | 5.43           | 4.22                        | 0.11              | 42.97           |
| 2.178                                                          | 12.9       | 4.91                | 0.34           | 5.41           | 4.2                         | 0.07              | 42.97           |

|       |       |      |      |      |      |      |       |
|-------|-------|------|------|------|------|------|-------|
| 2.234 | 12.91 | 4.91 | 0.3  | 5.37 | 4.18 | 0.11 | 42.95 |
| 2.281 | 12.92 | 4.91 | 0.38 | 5.36 | 4.11 | 0.12 | 42.98 |
| 2.327 | 12.93 | 4.91 | 0.34 | 5.34 | 3.89 | 0.14 | 42.98 |
| 2.354 | 12.93 | 4.9  | 0.34 | 5.31 | 3.97 | 0.11 | 42.86 |
| 2.361 | 12.93 | 4.9  | 0.27 | 5.31 | 3.86 | 0.09 | 42.91 |
| 2.363 | 12.93 | 4.91 | 0.34 | 5.27 | 4.03 | 0.11 | 42.96 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.65         | 4.85                   | 0.31              | 5.47              | 3.56                           | 0.1                               | 42.74              |
| <b>PROF (metros)</b> | 0.551         | 0.558                  | 0.505             | 0.505             | 5.475                          | 0.808                             | 0.572              |
| <b>MÁXIMO</b>        | 12.82         | 12.82                  | 0.65              | 19.87             | 31.65                          | 2.11                              | 43.25              |
| <b>PROF (metros)</b> | 4.032         | 5.063                  | 0.572             | 5.506             | 0.507                          | 2.742                             | 4.896              |

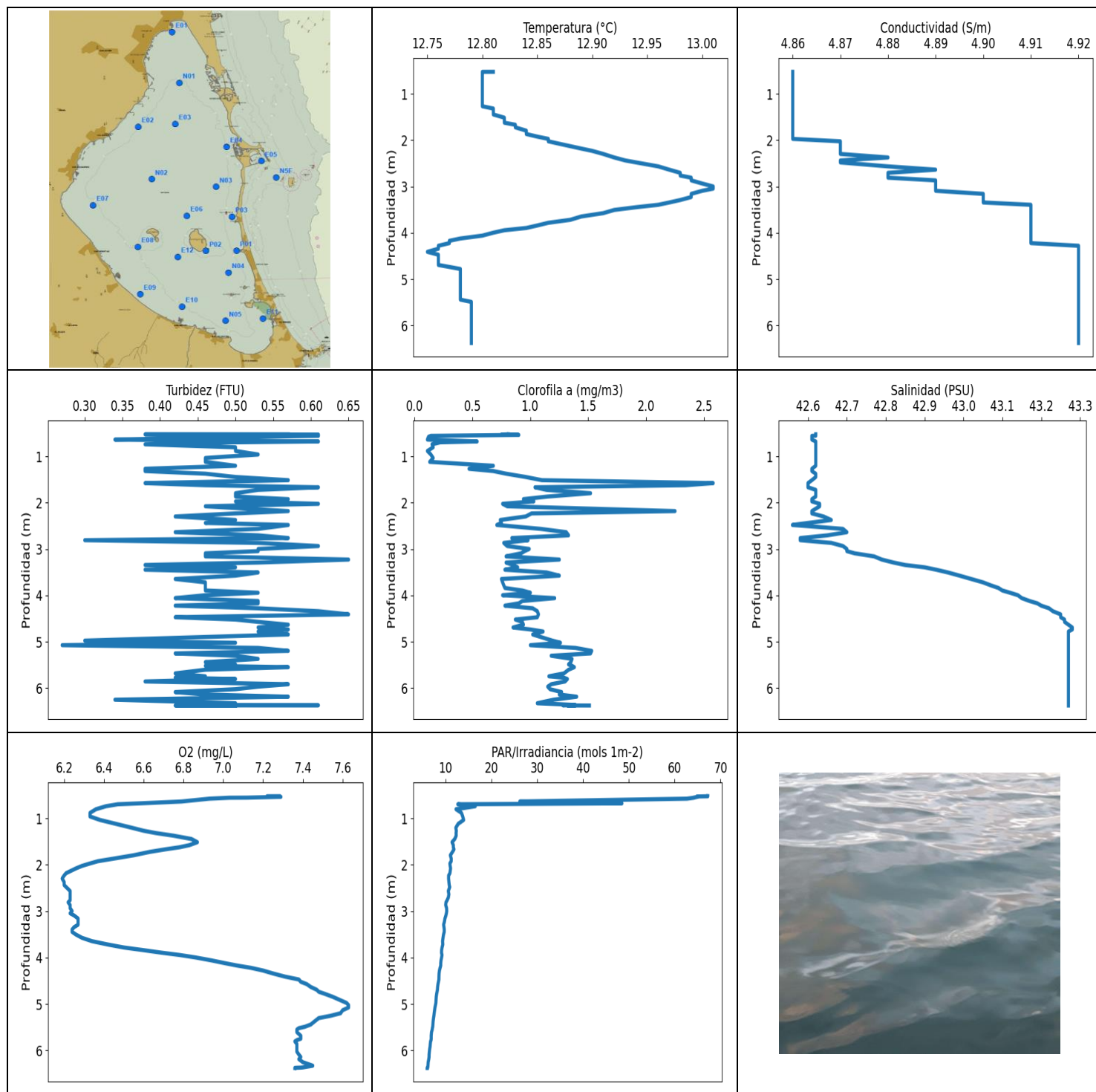
| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD N01 - Punto 002                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.65      | 4.86                | 0.47           | 5.65           | 23.29                       | 0.47              | 42.75           |
| 1 - 2m                                                     | 12.66      | 4.86                | 0.49           | 6.42           | 6.25                        | 0.56              | 42.75           |
| 2 - 3m                                                     | 12.66      | 4.86                | 0.49           | 8.46           | 5.32                        | 1.15              | 42.75           |
| 3 - 4m                                                     | 12.71      | 4.87                | 0.47           | 11.96          | 4.79                        | 1.06              | 42.78           |
| 4 - 5m                                                     | 12.75      | 4.9                 | 0.46           | 16.21          | 4.29                        | 1.03              | 43.11           |
| 5 - 6m                                                     | 12.74      | 4.92                | 0.47           | 18.2           | 3.83                        | 0.92              | 43.24           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.505                                                          | 12.66      | 4.86                | 0.3            | 5.47           | 31.34                       | 0.82              | 42.75           |
| 0.506                                                          | 12.66      | 4.86                | 0.53           | 5.58           | 31.64                       | 0.87              | 42.75           |
| 0.507                                                          | 12.66      | 4.86                | 0.42           | 5.59           | 31.65                       | 0.93              | 42.75           |
| 0.522                                                          | 12.66      | 4.86                | 0.46           | 5.61           | 31.18                       | 0.89              | 42.75           |
| 0.53                                                           | 12.66      | 4.86                | 0.61           | 5.61           | 31.11                       | 0.81              | 42.75           |
| 0.531                                                          | 12.66      | 4.86                | 0.34           | 5.61           | 31.08                       | 0.89              | 42.75           |
| 0.534                                                          | 12.66      | 4.86                | 0.57           | 5.61           | 31.2                        | 0.86              | 42.75           |
| 0.538                                                          | 12.66      | 4.86                | 0.3            | 5.6            | 30.98                       | 0.85              | 42.75           |
| 0.545                                                          | 12.66      | 4.86                | 0.42           | 5.62           | 30.81                       | 0.73              | 42.75           |
| 0.547                                                          | 12.66      | 4.86                | 0.5            | 5.62           | 30.89                       | 0.59              | 42.75           |
| 0.548                                                          | 12.66      | 4.86                | 0.53           | 5.62           | 30.64                       | 0.77              | 42.75           |
| 0.55                                                           | 12.66      | 4.86                | 0.5            | 5.62           | 30.34                       | 0.8               | 42.75           |
| 0.551                                                          | 12.65      | 4.86                | 0.3            | 5.61           | 30.31                       | 0.32              | 42.75           |
| 0.558                                                          | 12.65      | 4.85                | 0.42           | 5.61           | 30.07                       | 0.16              | 42.75           |
| 0.572                                                          | 12.65      | 4.85                | 0.65           | 5.61           | 29.66                       | 0.13              | 42.74           |
| 0.58                                                           | 12.65      | 4.85                | 0.61           | 5.6            | 29.1                        | 0.12              | 42.74           |
| 0.597                                                          | 12.65      | 4.85                | 0.61           | 5.61           | 27.17                       | 0.12              | 42.75           |
| 0.668                                                          | 12.65      | 4.85                | 0.46           | 5.59           | 11.32                       | 0.12              | 42.75           |
| 0.713                                                          | 12.65      | 4.85                | 0.34           | 5.53           | 7.43                        | 0.16              | 42.74           |
| 0.752                                                          | 12.65      | 4.85                | 0.42           | 5.61           | 8.21                        | 0.11              | 42.75           |
| 0.785                                                          | 12.65      | 4.85                | 0.5            | 5.71           | 7.18                        | 0.14              | 42.75           |
| 0.808                                                          | 12.65      | 4.85                | 0.5            | 5.77           | 7.08                        | 0.1               | 42.75           |
| 0.838                                                          | 12.65      | 4.86                | 0.46           | 5.83           | 7.83                        | 0.14              | 42.75           |
| 0.888                                                          | 12.65      | 4.86                | 0.42           | 5.91           | 7.01                        | 0.15              | 42.75           |
| 0.962                                                          | 12.65      | 4.86                | 0.5            | 5.97           | 7.09                        | 0.14              | 42.75           |
| 1.043                                                          | 12.65      | 4.86                | 0.5            | 6.04           | 7.09                        | 0.15              | 42.75           |
| 1.11                                                           | 12.65      | 4.86                | 0.53           | 6.13           | 6.74                        | 0.15              | 42.75           |
| 1.155                                                          | 12.65      | 4.86                | 0.42           | 6.14           | 6.74                        | 0.17              | 42.75           |
| 1.202                                                          | 12.65      | 4.86                | 0.46           | 6.16           | 6.68                        | 0.2               | 42.75           |
| 1.262                                                          | 12.65      | 4.86                | 0.46           | 6.18           | 6.62                        | 0.15              | 42.75           |
| 1.337                                                          | 12.66      | 4.86                | 0.46           | 6.28           | 6.56                        | 0.14              | 42.75           |
| 1.411                                                          | 12.66      | 4.86                | 0.42           | 6.34           | 6.33                        | 0.15              | 42.75           |
| 1.477                                                          | 12.66      | 4.86                | 0.61           | 6.39           | 6.26                        | 0.16              | 42.75           |
| 1.54                                                           | 12.66      | 4.86                | 0.46           | 6.42           | 6.12                        | 0.17              | 42.75           |
| 1.603                                                          | 12.66      | 4.86                | 0.5            | 6.48           | 6.1                         | 0.23              | 42.75           |
| 1.658                                                          | 12.66      | 4.86                | 0.57           | 6.51           | 6.06                        | 0.54              | 42.75           |

|       |       |      |      |       |      |      |       |
|-------|-------|------|------|-------|------|------|-------|
| 1.713 | 12.66 | 4.86 | 0.57 | 6.57  | 5.95 | 1.55 | 42.75 |
| 1.775 | 12.66 | 4.86 | 0.46 | 6.64  | 5.89 | 1.17 | 42.75 |
| 1.837 | 12.66 | 4.86 | 0.46 | 6.69  | 5.83 | 0.97 | 42.75 |
| 1.892 | 12.66 | 4.86 | 0.5  | 6.73  | 5.81 | 1.08 | 42.75 |
| 1.937 | 12.66 | 4.86 | 0.5  | 6.74  | 5.76 | 1.05 | 42.75 |
| 1.976 | 12.66 | 4.86 | 0.46 | 6.76  | 5.67 | 1.43 | 42.75 |
| 2.027 | 12.66 | 4.86 | 0.46 | 6.83  | 5.63 | 0.9  | 42.75 |
| 2.093 | 12.66 | 4.86 | 0.53 | 6.96  | 5.63 | 0.87 | 42.75 |
| 2.156 | 12.66 | 4.86 | 0.53 | 7.22  | 5.62 | 1.21 | 42.74 |
| 2.212 | 12.66 | 4.85 | 0.5  | 7.49  | 5.56 | 1.4  | 42.74 |
| 2.275 | 12.66 | 4.86 | 0.42 | 7.78  | 5.48 | 1.06 | 42.74 |
| 2.341 | 12.66 | 4.86 | 0.5  | 8.01  | 5.44 | 1.23 | 42.75 |
| 2.387 | 12.66 | 4.86 | 0.46 | 8.19  | 5.43 | 1.09 | 42.75 |
| 2.421 | 12.66 | 4.86 | 0.57 | 8.32  | 5.41 | 0.91 | 42.75 |
| 2.472 | 12.66 | 4.86 | 0.42 | 8.53  | 5.32 | 1.25 | 42.75 |
| 2.544 | 12.66 | 4.86 | 0.5  | 8.71  | 5.29 | 1.1  | 42.75 |
| 2.618 | 12.66 | 4.86 | 0.5  | 8.89  | 5.26 | 1.12 | 42.75 |
| 2.67  | 12.66 | 4.85 | 0.57 | 9.02  | 5.2  | 1.53 | 42.74 |
| 2.702 | 12.66 | 4.86 | 0.38 | 9.1   | 5.16 | 1.11 | 42.74 |
| 2.742 | 12.66 | 4.86 | 0.38 | 9.23  | 5.13 | 2.11 | 42.75 |
| 2.802 | 12.66 | 4.86 | 0.53 | 9.38  | 5.11 | 1.23 | 42.75 |
| 2.872 | 12.66 | 4.86 | 0.46 | 9.48  | 5.08 | 0.76 | 42.75 |
| 2.935 | 12.66 | 4.86 | 0.46 | 9.53  | 5.07 | 0.78 | 42.74 |
| 2.987 | 12.66 | 4.86 | 0.57 | 9.64  | 5.01 | 1.06 | 42.74 |
| 3.033 | 12.66 | 4.86 | 0.46 | 9.76  | 5.01 | 1.08 | 42.75 |
| 3.08  | 12.66 | 4.86 | 0.57 | 9.95  | 4.98 | 0.75 | 42.75 |
| 3.131 | 12.66 | 4.86 | 0.53 | 10.18 | 4.97 | 0.74 | 42.75 |
| 3.184 | 12.67 | 4.86 | 0.46 | 10.36 | 4.9  | 0.84 | 42.74 |
| 3.246 | 12.67 | 4.86 | 0.5  | 10.53 | 4.87 | 0.87 | 42.74 |
| 3.312 | 12.67 | 4.86 | 0.46 | 10.67 | 4.85 | 1.35 | 42.75 |
| 3.364 | 12.67 | 4.86 | 0.53 | 10.81 | 4.86 | 1.33 | 42.74 |
| 3.4   | 12.67 | 4.86 | 0.5  | 10.91 | 4.85 | 1.21 | 42.74 |
| 3.437 | 12.67 | 4.86 | 0.46 | 11.02 | 4.83 | 1.01 | 42.75 |
| 3.481 | 12.68 | 4.86 | 0.38 | 11.13 | 4.79 | 1.07 | 42.75 |
| 3.529 | 12.71 | 4.86 | 0.34 | 11.36 | 4.79 | 1.12 | 42.75 |
| 3.589 | 12.73 | 4.86 | 0.42 | 12.03 | 4.76 | 0.82 | 42.76 |
| 3.657 | 12.74 | 4.87 | 0.46 | 12.75 | 4.74 | 1.06 | 42.77 |
| 3.718 | 12.75 | 4.87 | 0.42 | 13.38 | 4.7  | 1.37 | 42.77 |
| 3.763 | 12.77 | 4.87 | 0.65 | 13.89 | 4.69 | 1.04 | 42.79 |
| 3.801 | 12.78 | 4.88 | 0.34 | 14.28 | 4.7  | 1.4  | 42.81 |
| 3.841 | 12.79 | 4.88 | 0.5  | 14.6  | 4.64 | 1.12 | 42.84 |
| 3.895 | 12.8  | 4.89 | 0.5  | 14.8  | 4.61 | 0.91 | 42.88 |
| 3.962 | 12.81 | 4.89 | 0.46 | 14.89 | 4.57 | 1.07 | 42.92 |
| 4.032 | 12.82 | 4.89 | 0.5  | 15.02 | 4.52 | 0.99 | 42.95 |
| 4.091 | 12.82 | 4.9  | 0.53 | 15.11 | 4.51 | 1.09 | 42.97 |
| 4.136 | 12.82 | 4.9  | 0.46 | 15.22 | 4.48 | 0.98 | 42.98 |
| 4.185 | 12.81 | 4.9  | 0.46 | 15.42 | 4.45 | 0.92 | 43.01 |
| 4.241 | 12.8  | 4.9  | 0.5  | 15.61 | 4.4  | 1.05 | 43.02 |
| 4.288 | 12.78 | 4.9  | 0.3  | 15.71 | 4.39 | 1.13 | 43.04 |
| 4.331 | 12.77 | 4.9  | 0.42 | 15.82 | 4.37 | 0.88 | 43.06 |
| 4.383 | 12.75 | 4.9  | 0.38 | 15.92 | 4.34 | 0.98 | 43.08 |
| 4.442 | 12.74 | 4.9  | 0.42 | 16.02 | 4.29 | 1.04 | 43.1  |
| 4.499 | 12.73 | 4.9  | 0.46 | 16.12 | 4.28 | 1.01 | 43.12 |
| 4.547 | 12.72 | 4.9  | 0.61 | 16.17 | 4.26 | 1.27 | 43.14 |
| 4.585 | 12.72 | 4.9  | 0.57 | 16.17 | 4.23 | 1.04 | 43.16 |
| 4.625 | 12.71 | 4.91 | 0.46 | 16.24 | 4.22 | 1.03 | 43.18 |
| 4.673 | 12.71 | 4.91 | 0.38 | 16.47 | 4.18 | 0.97 | 43.2  |
| 4.732 | 12.71 | 4.91 | 0.42 | 16.81 | 4.16 | 1.26 | 43.22 |

|       |       |      |      |       |      |      |       |
|-------|-------|------|------|-------|------|------|-------|
| 4.793 | 12.72 | 4.91 | 0.53 | 17.17 | 4.12 | 1.06 | 43.22 |
| 4.849 | 12.72 | 4.91 | 0.53 | 17.47 | 4.11 | 0.88 | 43.24 |
| 4.896 | 12.73 | 4.91 | 0.5  | 17.69 | 4.08 | 0.9  | 43.25 |
| 4.946 | 12.73 | 4.91 | 0.3  | 17.76 | 4.06 | 1.02 | 43.24 |
| 5.007 | 12.74 | 4.91 | 0.53 | 17.69 | 4.02 | 1.01 | 43.24 |
| 5.063 | 12.74 | 4.92 | 0.46 | 17.56 | 4.01 | 1.15 | 43.24 |
| 5.115 | 12.74 | 4.92 | 0.65 | 17.36 | 3.98 | 0.82 | 43.24 |
| 5.174 | 12.74 | 4.91 | 0.46 | 17.12 | 3.93 | 0.85 | 43.24 |
| 5.231 | 12.74 | 4.91 | 0.42 | 16.93 | 3.91 | 1.04 | 43.24 |
| 5.284 | 12.74 | 4.92 | 0.42 | 16.83 | 3.9  | 0.88 | 43.24 |
| 5.328 | 12.74 | 4.92 | 0.5  | 16.91 | 3.88 | 0.94 | 43.24 |
| 5.367 | 12.74 | 4.92 | 0.46 | 16.92 | 3.83 | 0.86 | 43.24 |
| 5.415 | 12.74 | 4.92 | 0.57 | 19.12 | 3.8  | 0.84 | 43.24 |
| 5.475 | 12.74 | 4.92 | 0.34 | 19.57 | 3.56 | 0.87 | 43.24 |
| 5.506 | 12.74 | 4.92 | 0.46 | 19.87 | 3.76 | 0.85 | 43.24 |
| 5.514 | 12.74 | 4.92 | 0.42 | 19.81 | 3.69 | 0.97 | 43.24 |
| 5.517 | 12.74 | 4.92 | 0.57 | 19.74 | 3.68 | 0.99 | 43.24 |
| 5.518 | 12.74 | 4.92 | 0.3  | 19.42 | 3.73 | 0.85 | 43.24 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/l) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m <sup>3</sup> ) | Salinidad (PSU) |
|----------------------|------------|---------------------|----------------|----------------|-----------------------------|--------------------------------|-----------------|
| <b>MÍNIMO</b>        | 12.75      | 4.86                | 0.27           | 6.19           | 5.9                         | 0.11                           | 42.56           |
| <b>PROF (metros)</b> | 4.408      | 0.523               | 5.073          | 2.296          | 6.373                       | 0.637                          | 2.479           |
| <b>MÁXIMO</b>        | 13.01      | 13.01               | 0.65           | 7.63           | 67.24                       | 2.58                           | 43.28           |
| <b>PROF (metros)</b> | 2.997      | 4.277               | 3.226          | 5.021          | 0.523                       | 1.576                          | 4.691           |



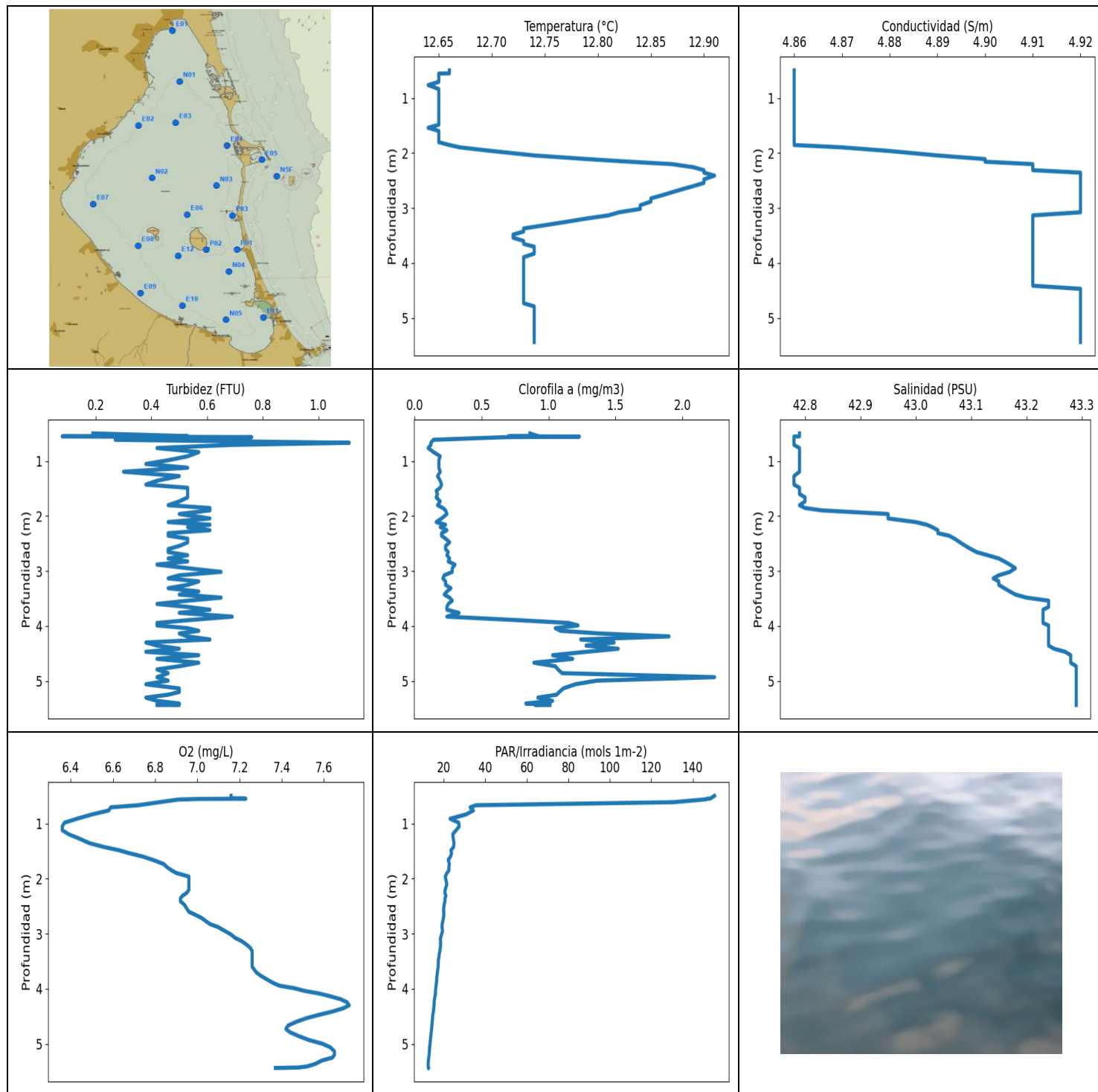
| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E03 - Punto 003                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.8       | 4.86                | 0.52           | 6.81           | 42.73                       | 0.37              | 42.62           |
| 1 - 2m                                                     | 12.82      | 4.86                | 0.48           | 6.61           | 11.84                       | 1.04              | 42.61           |
| 2 - 3m                                                     | 12.94      | 4.88                | 0.51           | 6.22           | 10.53                       | 1.01              | 42.64           |
| 3 - 4m                                                     | 12.92      | 4.91                | 0.48           | 6.4            | 9.46                        | 0.9               | 42.94           |
| 4 - 5m                                                     | 12.77      | 4.92                | 0.52           | 7.32           | 8.39                        | 1.0               | 43.24           |
| 5 - 6m                                                     | 12.79      | 4.92                | 0.48           | 7.45           | 7.05                        | 1.3               | 43.27           |
| 6 - 7m                                                     | 12.79      | 4.92                | 0.48           | 7.38           | 6.1                         | 1.3               | 43.27           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.523                                                          | 12.81      | 4.86                | 0.57           | 7.28           | 67.24                       | 0.81              | 42.62           |
| 0.524                                                          | 12.8       | 4.86                | 0.38           | 7.22           | 67.24                       | 0.81              | 42.62           |
| 0.529                                                          | 12.8       | 4.86                | 0.61           | 7.22           | 64.89                       | 0.75              | 42.62           |
| 0.536                                                          | 12.8       | 4.86                | 0.61           | 7.29           | 64.96                       | 0.9               | 42.62           |
| 0.554                                                          | 12.8       | 4.86                | 0.61           | 7.12           | 64.18                       | 0.23              | 42.62           |
| 0.556                                                          | 12.8       | 4.86                | 0.61           | 7.03           | 64.18                       | 0.14              | 42.61           |
| 0.576                                                          | 12.8       | 4.86                | 0.53           | 6.93           | 62.68                       | 0.12              | 42.61           |
| 0.637                                                          | 12.8       | 4.86                | 0.34           | 6.79           | 26.15                       | 0.11              | 42.61           |
| 0.677                                                          | 12.8       | 4.86                | 0.61           | 6.58           | 48.47                       | 0.54              | 42.62           |
| 0.696                                                          | 12.8       | 4.86                | 0.5            | 6.47           | 12.6                        | 0.22              | 42.62           |
| 0.739                                                          | 12.8       | 4.86                | 0.38           | 6.41           | 16.42                       | 0.15              | 42.62           |
| 0.803                                                          | 12.8       | 4.86                | 0.5            | 6.36           | 12.21                       | 0.16              | 42.62           |
| 0.882                                                          | 12.8       | 4.86                | 0.5            | 6.33           | 13.39                       | 0.11              | 42.62           |
| 0.959                                                          | 12.8       | 4.86                | 0.53           | 6.33           | 13.68                       | 0.14              | 42.62           |
| 1.034                                                          | 12.8       | 4.86                | 0.46           | 6.38           | 13.88                       | 0.16              | 42.62           |
| 1.118                                                          | 12.8       | 4.86                | 0.46           | 6.46           | 12.68                       | 0.13              | 42.62           |
| 1.202                                                          | 12.8       | 4.86                | 0.5            | 6.54           | 12.17                       | 0.68              | 42.62           |
| 1.267                                                          | 12.8       | 4.86                | 0.38           | 6.6            | 12.28                       | 0.47              | 42.61           |
| 1.316                                                          | 12.81      | 4.86                | 0.38           | 6.66           | 12.23                       | 0.68              | 42.61           |
| 1.373                                                          | 12.81      | 4.86                | 0.46           | 6.75           | 12.25                       | 0.79              | 42.62           |
| 1.444                                                          | 12.81      | 4.86                | 0.5            | 6.84           | 11.94                       | 0.96              | 42.62           |
| 1.513                                                          | 12.82      | 4.86                | 0.57           | 6.87           | 11.34                       | 1.1               | 42.61           |
| 1.576                                                          | 12.82      | 4.86                | 0.38           | 6.83           | 11.63                       | 2.58              | 42.6            |
| 1.622                                                          | 12.82      | 4.86                | 0.46           | 6.78           | 11.62                       | 2.34              | 42.6            |
| 1.666                                                          | 12.83      | 4.86                | 0.61           | 6.71           | 11.77                       | 1.04              | 42.6            |
| 1.722                                                          | 12.83      | 4.86                | 0.53           | 6.63           | 11.44                       | 1.14              | 42.62           |
| 1.794                                                          | 12.84      | 4.86                | 0.5            | 6.55           | 10.97                       | 1.52              | 42.62           |
| 1.866                                                          | 12.84      | 4.86                | 0.5            | 6.45           | 11.17                       | 1.15              | 42.62           |
| 1.922                                                          | 12.85      | 4.86                | 0.57           | 6.37           | 11.16                       | 0.94              | 42.61           |
| 1.971                                                          | 12.86      | 4.86                | 0.5            | 6.33           | 10.87                       | 1.03              | 42.61           |
| 2.023                                                          | 12.86      | 4.87                | 0.61           | 6.29           | 10.93                       | 0.76              | 42.63           |
| 2.076                                                          | 12.87      | 4.87                | 0.46           | 6.26           | 11.02                       | 0.8               | 42.63           |
| 2.18                                                           | 12.89      | 4.87                | 0.57           | 6.21           | 10.88                       | 2.25              | 42.61           |
| 2.23                                                           | 12.9       | 4.87                | 0.5            | 6.2            | 10.6                        | 1.01              | 42.61           |
| 2.296                                                          | 12.91      | 4.87                | 0.42           | 6.19           | 10.59                       | 0.96              | 42.64           |

|       |       |      |      |      |       |      |       |
|-------|-------|------|------|------|-------|------|-------|
| 2.372 | 12.92 | 4.88 | 0.5  | 6.2  | 10.66 | 0.74 | 42.66 |
| 2.436 | 12.93 | 4.87 | 0.46 | 6.2  | 10.73 | 0.75 | 42.6  |
| 2.479 | 12.94 | 4.87 | 0.57 | 6.21 | 10.84 | 0.71 | 42.56 |
| 2.564 | 12.96 | 4.88 | 0.53 | 6.23 | 10.53 | 1.09 | 42.69 |
| 2.635 | 12.97 | 4.89 | 0.42 | 6.23 | 10.65 | 1.31 | 42.7  |
| 2.703 | 12.98 | 4.88 | 0.53 | 6.23 | 10.54 | 1.33 | 42.65 |
| 2.762 | 12.98 | 4.88 | 0.57 | 6.23 | 10.27 | 0.84 | 42.58 |
| 2.808 | 12.99 | 4.88 | 0.3  | 6.22 | 10.02 | 0.98 | 42.58 |
| 2.866 | 12.99 | 4.89 | 0.53 | 6.23 | 9.96  | 0.77 | 42.66 |
| 2.934 | 13.0  | 4.89 | 0.61 | 6.23 | 10.15 | 0.8  | 42.69 |
| 2.997 | 13.01 | 4.89 | 0.53 | 6.24 | 10.18 | 0.99 | 42.7  |
| 3.044 | 13.01 | 4.89 | 0.53 | 6.23 | 10.11 | 0.95 | 42.7  |
| 3.091 | 13.0  | 4.89 | 0.46 | 6.25 | 10.0  | 0.92 | 42.72 |
| 3.157 | 12.99 | 4.9  | 0.46 | 6.27 | 9.79  | 0.79 | 42.77 |
| 3.226 | 12.99 | 4.9  | 0.65 | 6.27 | 9.67  | 1.25 | 42.79 |
| 3.29  | 12.98 | 4.9  | 0.53 | 6.27 | 9.5   | 0.79 | 42.82 |
| 3.343 | 12.97 | 4.9  | 0.38 | 6.25 | 9.58  | 0.85 | 42.85 |
| 3.393 | 12.96 | 4.91 | 0.5  | 6.24 | 9.64  | 0.89 | 42.9  |
| 3.445 | 12.94 | 4.91 | 0.38 | 6.24 | 9.63  | 0.78 | 42.93 |
| 3.504 | 12.92 | 4.91 | 0.53 | 6.26 | 9.48  | 1.14 | 42.96 |
| 3.573 | 12.91 | 4.91 | 0.5  | 6.29 | 9.37  | 1.25 | 42.99 |
| 3.645 | 12.89 | 4.91 | 0.42 | 6.34 | 9.28  | 0.75 | 43.02 |
| 3.717 | 12.88 | 4.91 | 0.46 | 6.42 | 9.32  | 0.76 | 43.05 |
| 3.781 | 12.86 | 4.91 | 0.46 | 6.5  | 9.16  | 0.77 | 43.07 |
| 3.839 | 12.85 | 4.91 | 0.46 | 6.6  | 9.06  | 0.78 | 43.09 |
| 3.893 | 12.84 | 4.91 | 0.46 | 6.69 | 9.04  | 0.93 | 43.1  |
| 3.942 | 12.82 | 4.91 | 0.53 | 6.78 | 9.15  | 1.0  | 43.12 |
| 3.995 | 12.81 | 4.91 | 0.46 | 6.86 | 9.06  | 0.76 | 43.14 |
| 4.058 | 12.8  | 4.91 | 0.42 | 6.94 | 8.93  | 1.21 | 43.15 |
| 4.12  | 12.78 | 4.91 | 0.53 | 7.01 | 8.87  | 0.93 | 43.17 |
| 4.17  | 12.77 | 4.91 | 0.53 | 7.07 | 8.87  | 0.9  | 43.19 |
| 4.22  | 12.77 | 4.91 | 0.42 | 7.14 | 8.73  | 0.78 | 43.2  |
| 4.277 | 12.76 | 4.92 | 0.53 | 7.2  | 8.59  | 1.02 | 43.22 |
| 4.34  | 12.76 | 4.92 | 0.61 | 7.25 | 8.51  | 1.06 | 43.23 |
| 4.408 | 12.75 | 4.92 | 0.65 | 7.31 | 8.48  | 1.07 | 43.25 |
| 4.47  | 12.76 | 4.92 | 0.42 | 7.38 | 8.47  | 1.06 | 43.25 |
| 4.52  | 12.76 | 4.92 | 0.5  | 7.39 | 8.37  | 0.87 | 43.26 |
| 4.57  | 12.76 | 4.92 | 0.53 | 7.42 | 8.27  | 0.93 | 43.26 |
| 4.631 | 12.76 | 4.92 | 0.57 | 7.44 | 8.19  | 0.94 | 43.27 |
| 4.691 | 12.76 | 4.92 | 0.53 | 7.47 | 8.15  | 0.85 | 43.28 |
| 4.734 | 12.77 | 4.92 | 0.57 | 7.48 | 8.07  | 1.0  | 43.28 |
| 4.778 | 12.78 | 4.92 | 0.53 | 7.51 | 7.98  | 1.11 | 43.27 |
| 4.842 | 12.78 | 4.92 | 0.57 | 7.55 | 7.89  | 1.02 | 43.27 |
| 4.975 | 12.78 | 4.92 | 0.3  | 7.62 | 7.81  | 1.19 | 43.27 |
| 5.021 | 12.78 | 4.92 | 0.5  | 7.63 | 7.72  | 1.26 | 43.27 |
| 5.073 | 12.78 | 4.92 | 0.27 | 7.63 | 7.61  | 1.0  | 43.27 |
| 5.132 | 12.78 | 4.92 | 0.53 | 7.6  | 7.53  | 1.39 | 43.27 |
| 5.196 | 12.78 | 4.92 | 0.57 | 7.59 | 7.44  | 1.53 | 43.27 |
| 5.251 | 12.78 | 4.92 | 0.42 | 7.54 | 7.38  | 1.52 | 43.27 |
| 5.301 | 12.78 | 4.92 | 0.5  | 7.48 | 7.3   | 1.18 | 43.27 |
| 5.369 | 12.78 | 4.92 | 0.53 | 7.46 | 7.21  | 1.36 | 43.27 |
| 5.439 | 12.78 | 4.92 | 0.46 | 7.44 | 7.16  | 1.35 | 43.27 |
| 5.488 | 12.79 | 4.92 | 0.5  | 7.41 | 7.12  | 1.33 | 43.27 |
| 5.518 | 12.79 | 4.92 | 0.46 | 7.38 | 7.04  | 1.36 | 43.27 |
| 5.548 | 12.79 | 4.92 | 0.57 | 7.37 | 7.01  | 1.38 | 43.27 |
| 5.603 | 12.79 | 4.92 | 0.46 | 7.37 | 6.86  | 1.33 | 43.27 |
| 5.682 | 12.79 | 4.92 | 0.42 | 7.39 | 6.79  | 1.29 | 43.27 |
| 5.745 | 12.79 | 4.92 | 0.46 | 7.39 | 6.79  | 1.16 | 43.27 |

|       |       |      |      |      |      |      |       |
|-------|-------|------|------|------|------|------|-------|
| 5.775 | 12.79 | 4.92 | 0.42 | 7.37 | 6.76 | 1.29 | 43.27 |
| 5.803 | 12.79 | 4.92 | 0.5  | 7.36 | 6.65 | 1.32 | 43.27 |
| 5.856 | 12.79 | 4.92 | 0.38 | 7.37 | 6.59 | 1.3  | 43.27 |
| 5.916 | 12.79 | 4.92 | 0.57 | 7.37 | 6.54 | 1.18 | 43.27 |
| 5.968 | 12.79 | 4.92 | 0.53 | 7.37 | 6.45 | 1.15 | 43.27 |
| 6.023 | 12.79 | 4.92 | 0.5  | 7.37 | 6.39 | 1.17 | 43.27 |
| 6.085 | 12.79 | 4.92 | 0.42 | 7.38 | 6.33 | 1.27 | 43.27 |
| 6.138 | 12.79 | 4.92 | 0.46 | 7.39 | 6.32 | 1.25 | 43.27 |
| 6.185 | 12.79 | 4.92 | 0.57 | 7.38 | 6.26 | 1.4  | 43.27 |
| 6.25  | 12.79 | 4.92 | 0.34 | 7.4  | 6.13 | 1.2  | 43.27 |
| 6.326 | 12.79 | 4.92 | 0.5  | 7.45 | 6.08 | 1.06 | 43.27 |
| 6.363 | 12.79 | 4.92 | 0.46 | 7.4  | 6.04 | 1.39 | 43.27 |
| 6.367 | 12.79 | 4.92 | 0.53 | 7.39 | 5.98 | 1.3  | 43.27 |
| 6.37  | 12.79 | 4.92 | 0.61 | 7.37 | 5.95 | 1.28 | 43.27 |
| 6.373 | 12.79 | 4.92 | 0.5  | 7.36 | 5.9  | 1.39 | 43.27 |
| 6.374 | 12.79 | 4.92 | 0.42 | 7.36 | 5.91 | 1.32 | 43.27 |
| 6.375 | 12.79 | 4.92 | 0.5  | 7.36 | 5.91 | 1.51 | 43.27 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

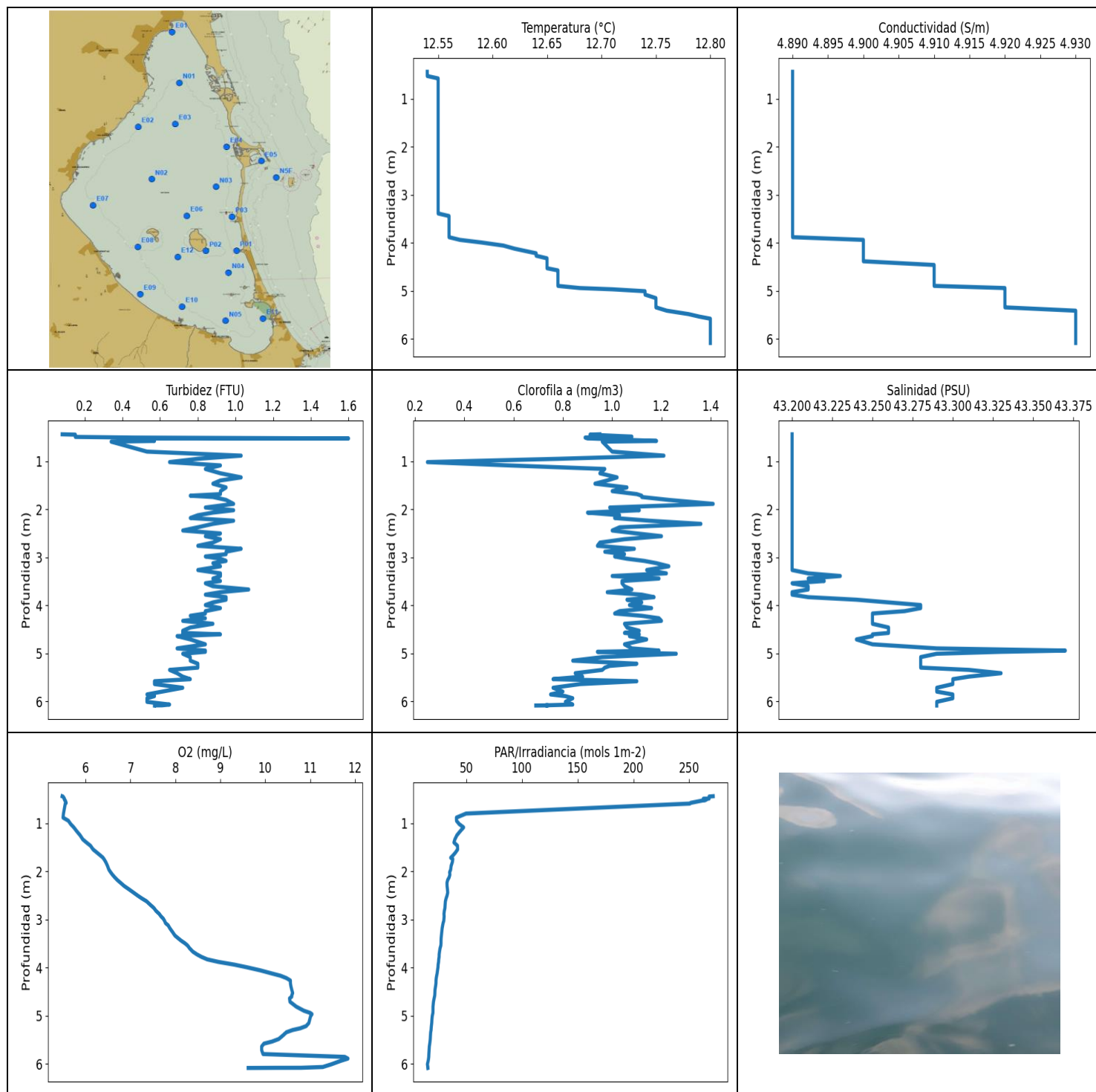
|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.64         | 4.86                   | 0.08              | 6.36              | 12.52                          | 0.1                               | 42.78              |
| <b>PROF (metros)</b> | 0.761         | 0.495                  | 0.548             | 1.051             | 5.361                          | 0.761                             | 0.552              |
| <b>MÁXIMO</b>        | 12.91         | 12.91                  | 1.11              | 7.72              | 150.42                         | 2.24                              | 43.29              |
| <b>PROF (metros)</b> | 2.409         | 2.355                  | 0.666             | 4.298             | 0.495                          | 4.929                             | 4.73               |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E02 - Punto 004                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.65      | 4.86                | 0.49           | 6.79           | 87.66                       | 0.45              | 42.79           |
| 1 - 2m                                                     | 12.65      | 4.86                | 0.49           | 6.66           | 23.66                       | 0.19              | 42.8            |
| 2 - 3m                                                     | 12.86      | 4.91                | 0.51           | 6.98           | 20.28                       | 0.23              | 43.08           |
| 3 - 4m                                                     | 12.75      | 4.91                | 0.53           | 7.28           | 17.5                        | 0.38              | 43.2            |
| 4 - 5m                                                     | 12.73      | 4.92                | 0.48           | 7.57           | 14.8                        | 1.3               | 43.26           |
| 5 - 6m                                                     | 12.74      | 4.92                | 0.45           | 7.54           | 12.75                       | 1.0               | 43.29           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.495                                                          | 12.66      | 4.86                | 0.19           | 7.16           | 150.42                      | 0.86              | 42.79           |
| 0.544                                                          | 12.66      | 4.86                | 0.53           | 7.16           | 148.41                      | 0.92              | 42.79           |
| 0.548                                                          | 12.66      | 4.86                | 0.08           | 7.23           | 147.07                      | 0.7               | 42.79           |
| 0.552                                                          | 12.65      | 4.86                | 0.23           | 7.01           | 146.94                      | 1.23              | 42.78           |
| 0.563                                                          | 12.65      | 4.86                | 0.76           | 6.91           | 145.01                      | 0.68              | 42.78           |
| 0.611                                                          | 12.65      | 4.86                | 0.27           | 6.82           | 130.59                      | 0.14              | 42.78           |
| 0.666                                                          | 12.65      | 4.86                | 1.11           | 6.72           | 35.51                       | 0.12              | 42.78           |
| 0.704                                                          | 12.65      | 4.86                | 0.69           | 6.59           | 32.74                       | 0.12              | 42.78           |
| 0.761                                                          | 12.64      | 4.86                | 0.42           | 6.58           | 34.31                       | 0.1               | 42.79           |
| 0.834                                                          | 12.65      | 4.86                | 0.57           | 6.5            | 30.66                       | 0.14              | 42.79           |
| 0.911                                                          | 12.65      | 4.86                | 0.53           | 6.43           | 23.07                       | 0.19              | 42.79           |
| 0.983                                                          | 12.65      | 4.86                | 0.46           | 6.37           | 27.21                       | 0.18              | 42.79           |
| 1.051                                                          | 12.65      | 4.86                | 0.38           | 6.36           | 27.47                       | 0.18              | 42.79           |
| 1.119                                                          | 12.65      | 4.86                | 0.53           | 6.36           | 25.97                       | 0.18              | 42.79           |
| 1.192                                                          | 12.65      | 4.86                | 0.3            | 6.39           | 24.36                       | 0.19              | 42.79           |
| 1.271                                                          | 12.65      | 4.86                | 0.5            | 6.44           | 24.59                       | 0.17              | 42.78           |
| 1.356                                                          | 12.65      | 4.86                | 0.42           | 6.49           | 24.97                       | 0.19              | 42.78           |
| 1.426                                                          | 12.65      | 4.86                | 0.38           | 6.56           | 24.73                       | 0.2               | 42.78           |
| 1.484                                                          | 12.65      | 4.86                | 0.53           | 6.63           | 23.47                       | 0.19              | 42.79           |
| 1.539                                                          | 12.64      | 4.86                | 0.53           | 6.68           | 23.78                       | 0.16              | 42.79           |
| 1.596                                                          | 12.65      | 4.86                | 0.53           | 6.74           | 23.31                       | 0.17              | 42.79           |
| 1.659                                                          | 12.65      | 4.86                | 0.53           | 6.79           | 22.18                       | 0.16              | 42.8            |
| 1.732                                                          | 12.65      | 4.86                | 0.5            | 6.84           | 22.74                       | 0.19              | 42.8            |
| 1.801                                                          | 12.65      | 4.86                | 0.46           | 6.86           | 22.48                       | 0.17              | 42.79           |
| 1.852                                                          | 12.66      | 4.86                | 0.61           | 6.88           | 22.48                       | 0.21              | 42.8            |
| 1.895                                                          | 12.67      | 4.87                | 0.61           | 6.9            | 21.57                       | 0.23              | 42.83           |
| 1.961                                                          | 12.7       | 4.88                | 0.5            | 6.96           | 20.75                       | 0.24              | 42.95           |
| 2.042                                                          | 12.74      | 4.89                | 0.61           | 6.96           | 21.2                        | 0.2               | 42.95           |
| 2.108                                                          | 12.79      | 4.9                 | 0.46           | 6.96           | 21.48                       | 0.16              | 43.0            |
| 2.156                                                          | 12.83      | 4.9                 | 0.61           | 6.96           | 21.03                       | 0.23              | 43.02           |
| 2.2                                                            | 12.87      | 4.91                | 0.53           | 6.96           | 20.71                       | 0.19              | 43.03           |
| 2.256                                                          | 12.89      | 4.91                | 0.61           | 6.95           | 20.55                       | 0.24              | 43.04           |
| 2.31                                                           | 12.9       | 4.91                | 0.46           | 6.93           | 21.06                       | 0.2               | 43.04           |
| 2.355                                                          | 12.9       | 4.92                | 0.46           | 6.92           | 20.64                       | 0.2               | 43.06           |
| 2.409                                                          | 12.91      | 4.92                | 0.53           | 6.92           | 20.59                       | 0.23              | 43.07           |
| 2.477                                                          | 12.9       | 4.92                | 0.53           | 6.94           | 20.2                        | 0.26              | 43.08           |

|       |       |      |      |      |       |      |       |
|-------|-------|------|------|------|-------|------|-------|
| 2.542 | 12.9  | 4.92 | 0.5  | 6.95 | 19.96 | 0.23 | 43.09 |
| 2.6   | 12.89 | 4.92 | 0.46 | 6.96 | 19.99 | 0.23 | 43.1  |
| 2.654 | 12.88 | 4.92 | 0.46 | 6.99 | 20.08 | 0.25 | 43.11 |
| 2.711 | 12.87 | 4.92 | 0.53 | 7.02 | 19.88 | 0.24 | 43.13 |
| 2.77  | 12.86 | 4.92 | 0.46 | 7.04 | 19.56 | 0.26 | 43.15 |
| 2.823 | 12.85 | 4.92 | 0.53 | 7.06 | 19.25 | 0.25 | 43.16 |
| 2.881 | 12.85 | 4.92 | 0.42 | 7.1  | 19.18 | 0.3  | 43.17 |
| 2.947 | 12.84 | 4.92 | 0.53 | 7.13 | 19.43 | 0.28 | 43.18 |
| 3.014 | 12.84 | 4.92 | 0.65 | 7.16 | 18.97 | 0.28 | 43.17 |
| 3.076 | 12.82 | 4.92 | 0.5  | 7.18 | 18.43 | 0.22 | 43.15 |
| 3.132 | 12.81 | 4.91 | 0.46 | 7.21 | 18.48 | 0.21 | 43.14 |
| 3.187 | 12.79 | 4.91 | 0.57 | 7.23 | 18.5  | 0.23 | 43.15 |
| 3.25  | 12.77 | 4.91 | 0.53 | 7.25 | 18.38 | 0.23 | 43.15 |
| 3.311 | 12.75 | 4.91 | 0.46 | 7.26 | 18.16 | 0.27 | 43.16 |
| 3.37  | 12.73 | 4.91 | 0.57 | 7.26 | 17.86 | 0.24 | 43.17 |
| 3.426 | 12.73 | 4.91 | 0.5  | 7.26 | 17.68 | 0.22 | 43.18 |
| 3.482 | 12.72 | 4.91 | 0.65 | 7.26 | 17.42 | 0.26 | 43.2  |
| 3.538 | 12.72 | 4.91 | 0.53 | 7.26 | 17.37 | 0.28 | 43.24 |
| 3.597 | 12.73 | 4.91 | 0.42 | 7.26 | 17.36 | 0.25 | 43.24 |
| 3.651 | 12.73 | 4.91 | 0.53 | 7.27 | 17.14 | 0.24 | 43.24 |
| 3.702 | 12.74 | 4.91 | 0.61 | 7.28 | 16.95 | 0.24 | 43.23 |
| 3.759 | 12.74 | 4.91 | 0.5  | 7.3  | 16.76 | 0.33 | 43.23 |
| 3.828 | 12.74 | 4.91 | 0.69 | 7.33 | 16.61 | 0.24 | 43.23 |
| 3.893 | 12.73 | 4.91 | 0.53 | 7.36 | 16.5  | 0.78 | 43.23 |
| 3.943 | 12.73 | 4.91 | 0.42 | 7.39 | 16.3  | 1.15 | 43.23 |
| 3.988 | 12.73 | 4.91 | 0.42 | 7.46 | 16.18 | 1.22 | 43.24 |
| 4.038 | 12.73 | 4.91 | 0.53 | 7.51 | 16.04 | 1.05 | 43.24 |
| 4.086 | 12.73 | 4.91 | 0.57 | 7.58 | 16.04 | 1.09 | 43.24 |
| 4.134 | 12.73 | 4.91 | 0.5  | 7.63 | 15.79 | 1.38 | 43.24 |
| 4.188 | 12.73 | 4.91 | 0.53 | 7.68 | 15.55 | 1.9  | 43.24 |
| 4.243 | 12.73 | 4.91 | 0.61 | 7.71 | 15.42 | 1.24 | 43.24 |
| 4.298 | 12.73 | 4.91 | 0.38 | 7.72 | 15.35 | 1.49 | 43.24 |
| 4.354 | 12.73 | 4.91 | 0.42 | 7.69 | 15.2  | 1.28 | 43.24 |
| 4.412 | 12.73 | 4.91 | 0.5  | 7.64 | 15.05 | 1.52 | 43.25 |
| 4.468 | 12.73 | 4.92 | 0.38 | 7.58 | 14.76 | 1.28 | 43.27 |
| 4.529 | 12.73 | 4.92 | 0.57 | 7.52 | 14.63 | 1.03 | 43.28 |
| 4.596 | 12.73 | 4.92 | 0.42 | 7.47 | 14.47 | 1.18 | 43.28 |
| 4.666 | 12.73 | 4.92 | 0.57 | 7.43 | 14.3  | 0.89 | 43.28 |
| 4.73  | 12.73 | 4.92 | 0.5  | 7.42 | 14.15 | 1.05 | 43.29 |
| 4.788 | 12.74 | 4.92 | 0.42 | 7.44 | 13.98 | 1.07 | 43.29 |
| 4.856 | 12.74 | 4.92 | 0.46 | 7.48 | 13.79 | 1.1  | 43.29 |
| 4.929 | 12.74 | 4.92 | 0.42 | 7.53 | 13.58 | 2.24 | 43.29 |
| 4.992 | 12.74 | 4.92 | 0.46 | 7.59 | 13.44 | 1.36 | 43.29 |
| 5.058 | 12.74 | 4.92 | 0.38 | 7.63 | 13.22 | 1.2  | 43.29 |
| 5.134 | 12.74 | 4.92 | 0.5  | 7.65 | 13.09 | 1.11 | 43.29 |
| 5.198 | 12.74 | 4.92 | 0.5  | 7.65 | 12.97 | 1.08 | 43.29 |
| 5.248 | 12.74 | 4.92 | 0.46 | 7.64 | 12.8  | 1.06 | 43.29 |
| 5.301 | 12.74 | 4.92 | 0.38 | 7.59 | 12.64 | 0.92 | 43.29 |
| 5.361 | 12.74 | 4.92 | 0.42 | 7.56 | 12.52 | 1.03 | 43.29 |
| 5.408 | 12.74 | 4.92 | 0.5  | 7.52 | 12.57 | 0.83 | 43.29 |
| 5.427 | 12.74 | 4.92 | 0.46 | 7.48 | 12.59 | 0.98 | 43.29 |
| 5.43  | 12.74 | 4.92 | 0.5  | 7.44 | 12.6  | 0.92 | 43.29 |
| 5.434 | 12.74 | 4.92 | 0.5  | 7.4  | 12.6  | 0.9  | 43.29 |
| 5.435 | 12.74 | 4.92 | 0.42 | 7.37 | 12.62 | 1.01 | 43.29 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.54         | 4.89                   | 0.08              | 5.48              | 15.04                          | 0.25                              | 43.2               |
| <b>PROF (metros)</b> | 0.441         | 0.441                  | 0.441             | 0.441             | 6.006                          | 1.019                             | 0.441              |
| <b>MÁXIMO</b>        | 12.8          | 12.8                   | 1.6               | 11.84             | 271.5                          | 1.41                              | 43.37              |
| <b>PROF (metros)</b> | 5.577         | 5.41                   | 0.527             | 5.887             | 0.441                          | 1.888                             | 4.939              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD N02 - Punto 005                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.54      | 4.89                | 0.52           | 5.53           | 207.92                      | 0.98              | 43.2            |
| 1 - 2m                                                     | 12.55      | 4.89                | 0.89           | 6.15           | 40.05                       | 0.98              | 43.2            |
| 2 - 3m                                                     | 12.55      | 4.89                | 0.88           | 7.15           | 32.19                       | 1.05              | 43.2            |
| 3 - 4m                                                     | 12.56      | 4.89                | 0.9            | 8.34           | 26.85                       | 1.1               | 43.21           |
| 4 - 5m                                                     | 12.65      | 4.91                | 0.8            | 10.56          | 21.78                       | 1.09              | 43.27           |
| 5 - 6m                                                     | 12.77      | 4.92                | 0.68           | 10.68          | 17.56                       | 0.91              | 43.29           |
| 6 - 7m                                                     | 12.8       | 4.93                | 0.59           | 10.68          | 15.35                       | 0.76              | 43.29           |

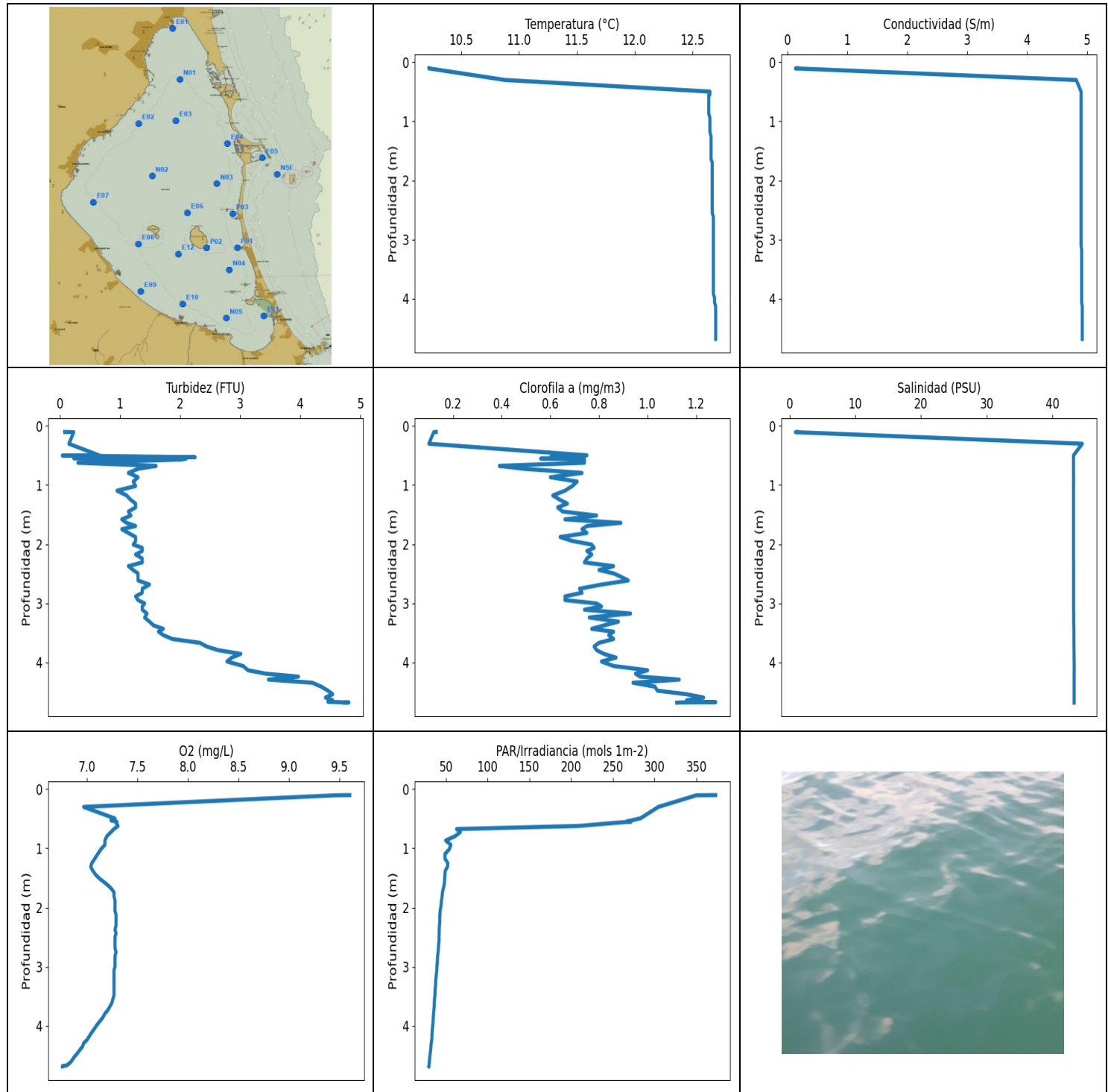
| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.441                                                          | 12.54      | 4.89                | 0.08           | 5.48           | 271.5                       | 0.95              | 43.2            |
| 0.448                                                          | 12.54      | 4.89                | 0.15           | 5.5            | 267.82                      | 0.91              | 43.2            |
| 0.49                                                           | 12.54      | 4.89                | 0.15           | 5.53           | 267.82                      | 1.08              | 43.2            |
| 0.495                                                          | 12.54      | 4.89                | 0.15           | 5.53           | 262.59                      | 0.95              | 43.2            |
| 0.509                                                          | 12.54      | 4.89                | 0.46           | 5.53           | 265.53                      | 0.89              | 43.2            |
| 0.527                                                          | 12.54      | 4.89                | 1.6            | 5.54           | 263.87                      | 0.9               | 43.2            |
| 0.529                                                          | 12.54      | 4.89                | 0.38           | 5.55           | 262.11                      | 0.92              | 43.2            |
| 0.579                                                          | 12.55      | 4.89                | 0.57           | 5.57           | 251.34                      | 1.18              | 43.2            |
| 0.594                                                          | 12.55      | 4.89                | 0.34           | 5.55           | 250.52                      | 0.96              | 43.2            |
| 0.801                                                          | 12.55      | 4.89                | 0.53           | 5.51           | 49.73                       | 1.0               | 43.2            |
| 0.885                                                          | 12.55      | 4.89                | 1.03           | 5.5            | 41.08                       | 1.21              | 43.2            |
| 0.951                                                          | 12.55      | 4.89                | 0.8            | 5.62           | 41.16                       | 0.78              | 43.2            |
| 1.019                                                          | 12.55      | 4.89                | 0.65           | 5.67           | 43.57                       | 0.25              | 43.2            |
| 1.088                                                          | 12.55      | 4.89                | 0.92           | 5.74           | 47.55                       | 0.58              | 43.2            |
| 1.162                                                          | 12.55      | 4.89                | 0.84           | 5.8            | 44.67                       | 0.97              | 43.2            |
| 1.252                                                          | 12.55      | 4.89                | 0.92           | 5.88           | 41.49                       | 0.95              | 43.2            |
| 1.337                                                          | 12.55      | 4.89                | 1.03           | 5.94           | 39.69                       | 1.02              | 43.2            |
| 1.401                                                          | 12.55      | 4.89                | 0.92           | 6.02           | 38.86                       | 0.98              | 43.2            |
| 1.468                                                          | 12.55      | 4.89                | 0.88           | 6.11           | 42.04                       | 0.93              | 43.2            |
| 1.546                                                          | 12.55      | 4.89                | 0.95           | 6.17           | 42.17                       | 1.06              | 43.2            |
| 1.623                                                          | 12.55      | 4.89                | 0.92           | 6.27           | 39.8                        | 1.0               | 43.2            |
| 1.685                                                          | 12.55      | 4.89                | 0.92           | 6.35           | 37.42                       | 1.1               | 43.2            |
| 1.718                                                          | 12.55      | 4.89                | 0.76           | 6.39           | 35.94                       | 1.12              | 43.2            |
| 1.745                                                          | 12.55      | 4.89                | 0.88           | 6.41           | 37.83                       | 1.12              | 43.2            |
| 1.806                                                          | 12.55      | 4.89                | 0.95           | 6.45           | 37.47                       | 1.23              | 43.2            |
| 1.888                                                          | 12.55      | 4.89                | 0.99           | 6.49           | 36.32                       | 1.41              | 43.2            |
| 1.964                                                          | 12.55      | 4.89                | 0.84           | 6.52           | 35.93                       | 0.99              | 43.2            |
| 2.02                                                           | 12.55      | 4.89                | 0.99           | 6.56           | 34.97                       | 1.11              | 43.2            |
| 2.07                                                           | 12.55      | 4.89                | 0.88           | 6.6            | 35.22                       | 0.9               | 43.2            |
| 2.124                                                          | 12.55      | 4.89                | 0.8            | 6.65           | 34.56                       | 1.03              | 43.2            |
| 2.182                                                          | 12.55      | 4.89                | 0.76           | 6.71           | 33.21                       | 1.01              | 43.2            |
| 2.238                                                          | 12.55      | 4.89                | 0.99           | 6.78           | 32.62                       | 1.15              | 43.2            |
| 2.304                                                          | 12.55      | 4.89                | 0.88           | 6.86           | 32.7                        | 1.36              | 43.2            |
| 2.375                                                          | 12.55      | 4.89                | 0.8            | 6.97           | 33.04                       | 1.03              | 43.2            |
| 2.442                                                          | 12.55      | 4.89                | 0.72           | 7.07           | 33.26                       | 1.0               | 43.2            |



|       |       |      |      |       |       |      |       |
|-------|-------|------|------|-------|-------|------|-------|
| 2.503 | 12.55 | 4.89 | 0.92 | 7.16  | 32.69 | 1.1  | 43.2  |
| 2.56  | 12.55 | 4.89 | 0.84 | 7.25  | 31.86 | 1.2  | 43.2  |
| 2.623 | 12.55 | 4.89 | 0.92 | 7.36  | 31.18 | 1.05 | 43.2  |
| 2.693 | 12.55 | 4.89 | 0.88 | 7.44  | 30.96 | 0.95 | 43.2  |
| 2.76  | 12.55 | 4.89 | 0.8  | 7.52  | 30.78 | 0.94 | 43.2  |
| 2.822 | 12.55 | 4.89 | 1.03 | 7.57  | 30.24 | 1.09 | 43.2  |
| 2.883 | 12.55 | 4.89 | 0.95 | 7.64  | 29.93 | 0.97 | 43.2  |
| 2.934 | 12.55 | 4.89 | 0.95 | 7.68  | 30.06 | 1.05 | 43.2  |
| 2.982 | 12.55 | 4.89 | 0.84 | 7.73  | 29.91 | 1.01 | 43.2  |
| 3.029 | 12.55 | 4.89 | 0.92 | 7.76  | 29.72 | 1.06 | 43.2  |
| 3.074 | 12.55 | 4.89 | 0.95 | 7.78  | 29.14 | 1.13 | 43.2  |
| 3.122 | 12.55 | 4.89 | 0.88 | 7.84  | 28.74 | 1.18 | 43.2  |
| 3.186 | 12.55 | 4.89 | 0.92 | 7.88  | 28.26 | 1.23 | 43.2  |
| 3.264 | 12.55 | 4.89 | 0.8  | 7.94  | 27.91 | 1.14 | 43.2  |
| 3.333 | 12.55 | 4.89 | 0.92 | 7.99  | 27.6  | 1.22 | 43.21 |
| 3.388 | 12.55 | 4.89 | 0.92 | 8.06  | 27.37 | 1.0  | 43.23 |
| 3.441 | 12.56 | 4.89 | 0.88 | 8.13  | 27.27 | 1.19 | 43.21 |
| 3.492 | 12.56 | 4.89 | 0.92 | 8.21  | 27.26 | 1.04 | 43.22 |
| 3.539 | 12.56 | 4.89 | 0.84 | 8.27  | 27.11 | 1.04 | 43.2  |
| 3.601 | 12.56 | 4.89 | 0.88 | 8.32  | 26.37 | 1.05 | 43.21 |
| 3.669 | 12.56 | 4.89 | 1.07 | 8.39  | 25.91 | 1.08 | 43.21 |
| 3.725 | 12.56 | 4.89 | 0.92 | 8.48  | 25.59 | 0.98 | 43.2  |
| 3.776 | 12.56 | 4.89 | 0.84 | 8.58  | 25.55 | 1.12 | 43.2  |
| 3.828 | 12.56 | 4.89 | 0.95 | 8.71  | 25.2  | 1.17 | 43.21 |
| 3.881 | 12.56 | 4.89 | 0.95 | 8.96  | 25.06 | 1.06 | 43.24 |
| 3.937 | 12.57 | 4.9  | 0.88 | 9.31  | 24.68 | 1.12 | 43.26 |
| 3.992 | 12.59 | 4.9  | 0.84 | 9.59  | 24.54 | 1.07 | 43.28 |
| 4.056 | 12.61 | 4.9  | 0.92 | 9.89  | 24.14 | 1.16 | 43.28 |
| 4.119 | 12.62 | 4.9  | 0.84 | 10.14 | 23.78 | 1.03 | 43.27 |
| 4.168 | 12.63 | 4.9  | 0.84 | 10.34 | 23.34 | 1.01 | 43.25 |
| 4.216 | 12.64 | 4.9  | 0.76 | 10.47 | 22.98 | 1.12 | 43.25 |
| 4.267 | 12.64 | 4.9  | 0.84 | 10.56 | 22.77 | 1.19 | 43.25 |
| 4.321 | 12.65 | 4.9  | 0.72 | 10.56 | 22.73 | 1.2  | 43.25 |
| 4.382 | 12.65 | 4.9  | 0.88 | 10.57 | 22.4  | 1.05 | 43.25 |
| 4.459 | 12.65 | 4.91 | 0.76 | 10.59 | 21.87 | 1.06 | 43.26 |
| 4.527 | 12.65 | 4.91 | 0.72 | 10.61 | 21.75 | 1.11 | 43.26 |
| 4.572 | 12.66 | 4.91 | 0.72 | 10.59 | 21.65 | 1.05 | 43.26 |
| 4.602 | 12.66 | 4.91 | 0.92 | 10.59 | 21.42 | 1.11 | 43.25 |
| 4.638 | 12.66 | 4.91 | 0.69 | 10.54 | 21.07 | 1.07 | 43.25 |
| 4.707 | 12.66 | 4.91 | 0.76 | 10.55 | 20.51 | 1.14 | 43.24 |
| 4.809 | 12.66 | 4.91 | 0.84 | 10.69 | 20.07 | 1.05 | 43.25 |
| 4.894 | 12.66 | 4.91 | 0.69 | 10.86 | 20.05 | 1.08 | 43.29 |
| 4.939 | 12.68 | 4.92 | 0.84 | 11.0  | 20.0  | 1.19 | 43.37 |
| 4.965 | 12.71 | 4.92 | 0.84 | 11.04 | 19.74 | 0.94 | 43.33 |
| 5.005 | 12.74 | 4.92 | 0.72 | 11.01 | 19.39 | 1.26 | 43.29 |
| 5.075 | 12.74 | 4.92 | 0.76 | 10.99 | 19.1  | 0.96 | 43.28 |
| 5.149 | 12.75 | 4.92 | 0.76 | 10.97 | 18.93 | 0.84 | 43.28 |
| 5.212 | 12.75 | 4.92 | 0.8  | 10.91 | 18.61 | 1.1  | 43.28 |
| 5.258 | 12.75 | 4.92 | 0.8  | 10.78 | 18.44 | 0.99 | 43.28 |
| 5.294 | 12.75 | 4.92 | 0.8  | 10.61 | 18.35 | 0.97 | 43.28 |
| 5.341 | 12.75 | 4.92 | 0.65 | 10.47 | 17.98 | 0.96 | 43.31 |
| 5.41  | 12.76 | 4.93 | 0.69 | 10.39 | 17.77 | 0.85 | 43.33 |
| 5.481 | 12.78 | 4.93 | 0.72 | 10.3  | 17.61 | 0.88 | 43.31 |
| 5.534 | 12.79 | 4.93 | 0.76 | 10.15 | 17.38 | 0.76 | 43.3  |
| 5.577 | 12.8  | 4.93 | 0.57 | 9.97  | 17.14 | 1.1  | 43.3  |
| 5.636 | 12.8  | 4.93 | 0.57 | 9.92  | 16.77 | 0.87 | 43.3  |
| 5.713 | 12.8  | 4.93 | 0.72 | 9.92  | 16.57 | 0.76 | 43.29 |
| 5.793 | 12.8  | 4.93 | 0.61 | 9.95  | 16.35 | 0.8  | 43.29 |

|       |      |      |      |       |       |      |       |
|-------|------|------|------|-------|-------|------|-------|
| 5.852 | 12.8 | 4.93 | 0.53 | 11.77 | 16.25 | 0.75 | 43.3  |
| 5.887 | 12.8 | 4.93 | 0.57 | 11.84 | 16.08 | 0.81 | 43.3  |
| 5.931 | 12.8 | 4.93 | 0.53 | 11.69 | 15.77 | 0.84 | 43.3  |
| 6.006 | 12.8 | 4.93 | 0.53 | 11.47 | 15.04 | 0.81 | 43.29 |
| 6.062 | 12.8 | 4.93 | 0.65 | 11.28 | 15.48 | 0.84 | 43.29 |
| 6.078 | 12.8 | 4.93 | 0.61 | 10.8  | 15.46 | 0.73 | 43.29 |
| 6.079 | 12.8 | 4.93 | 0.57 | 10.23 | 15.39 | 0.74 | 43.29 |
| 6.082 | 12.8 | 4.93 | 0.57 | 9.62  | 15.41 | 0.69 | 43.29 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 10.22         | 0.13                   | 0.04              | 6.76              | 29.54                          | 0.1                               | 0.91               |
| <b>PROF (metros)</b> | 0.102         | 0.105                  | 0.5               | 4.679             | 4.682                          | 0.301                             | 0.105              |
| <b>MÁXIMO</b>        | 12.7          | 12.7                   | 4.81              | 9.6               | 373.23                         | 1.28                              | 44.53              |
| <b>PROF (metros)</b> | 4.134         | 4.134                  | 4.679             | 0.102             | 0.102                          | 4.675                             | 0.301              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E07 - Punto 006                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.23      | 4.3                 | 1.02           | 7.52           | 214.38                      | 0.54              | 38.01           |
| 1 - 2m                                                     | 12.66      | 4.9                 | 1.16           | 7.16           | 48.3                        | 0.7               | 43.2            |
| 2 - 3m                                                     | 12.67      | 4.9                 | 1.31           | 7.29           | 41.62                       | 0.78              | 43.21           |
| 3 - 4m                                                     | 12.68      | 4.91                | 1.95           | 7.23           | 36.68                       | 0.82              | 43.25           |
| 4 - 5m                                                     | 12.7       | 4.92                | 4.15           | 6.9            | 31.28                       | 1.08              | 43.29           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.102                                                          | 10.22      | 0.16                | 0.08           | 9.6            | 373.23                      | 0.13              | 1.13            |
| 0.105                                                          | 10.22      | 0.13                | 0.23           | 9.46           | 350.02                      | 0.12              | 0.91            |
| 0.301                                                          | 10.88      | 4.82                | 0.15           | 6.97           | 304.58                      | 0.1               | 44.53           |
| 0.497                                                          | 12.65      | 4.9                 | 0.65           | 7.28           | 282.74                      | 0.75              | 43.2            |
| 0.5                                                            | 12.65      | 4.9                 | 0.04           | 7.27           | 280.98                      | 0.72              | 43.2            |
| 0.529                                                          | 12.65      | 4.9                 | 2.25           | 7.24           | 272.26                      | 0.6               | 43.2            |
| 0.546                                                          | 12.65      | 4.9                 | 0.23           | 7.29           | 266.95                      | 0.63              | 43.2            |
| 0.552                                                          | 12.64      | 4.9                 | 1.72           | 7.3            | 271.76                      | 0.56              | 43.2            |
| 0.554                                                          | 12.64      | 4.9                 | 2.1            | 7.29           | 267.38                      | 0.6               | 43.2            |
| 0.568                                                          | 12.64      | 4.9                 | 2.02           | 7.29           | 255.09                      | 0.74              | 43.2            |
| 0.623                                                          | 12.64      | 4.9                 | 0.3            | 7.31           | 208.56                      | 0.74              | 43.2            |
| 0.675                                                          | 12.64      | 4.9                 | 1.6            | 7.27           | 62.72                       | 0.39              | 43.2            |
| 0.725                                                          | 12.64      | 4.9                 | 1.3            | 7.24           | 67.28                       | 0.49              | 43.2            |
| 0.795                                                          | 12.64      | 4.9                 | 1.14           | 7.2            | 60.99                       | 0.73              | 43.2            |
| 0.868                                                          | 12.64      | 4.9                 | 1.3            | 7.18           | 49.66                       | 0.6               | 43.21           |
| 0.941                                                          | 12.65      | 4.9                 | 1.22           | 7.18           | 55.9                        | 0.71              | 43.21           |
| 1.017                                                          | 12.65      | 4.9                 | 1.26           | 7.14           | 53.95                       | 0.69              | 43.2            |
| 1.095                                                          | 12.65      | 4.9                 | 0.95           | 7.11           | 48.83                       | 0.66              | 43.2            |
| 1.176                                                          | 12.65      | 4.9                 | 1.11           | 7.08           | 48.88                       | 0.61              | 43.2            |
| 1.252                                                          | 12.66      | 4.9                 | 1.18           | 7.05           | 52.3                        | 0.64              | 43.2            |
| 1.314                                                          | 12.66      | 4.9                 | 1.26           | 7.04           | 51.82                       | 0.67              | 43.2            |
| 1.378                                                          | 12.66      | 4.9                 | 1.26           | 7.06           | 49.18                       | 0.63              | 43.2            |
| 1.448                                                          | 12.66      | 4.9                 | 1.14           | 7.09           | 48.74                       | 0.65              | 43.2            |
| 1.516                                                          | 12.66      | 4.9                 | 1.18           | 7.13           | 48.49                       | 0.79              | 43.2            |
| 1.581                                                          | 12.66      | 4.9                 | 1.03           | 7.18           | 48.16                       | 0.66              | 43.2            |
| 1.64                                                           | 12.66      | 4.9                 | 1.11           | 7.22           | 47.51                       | 0.89              | 43.2            |
| 1.693                                                          | 12.67      | 4.9                 | 1.26           | 7.25           | 46.59                       | 0.75              | 43.2            |
| 1.747                                                          | 12.67      | 4.9                 | 1.03           | 7.27           | 45.77                       | 0.73              | 43.2            |
| 1.811                                                          | 12.67      | 4.9                 | 1.14           | 7.27           | 45.42                       | 0.75              | 43.2            |
| 1.879                                                          | 12.67      | 4.9                 | 1.26           | 7.28           | 44.67                       | 0.64              | 43.2            |
| 1.946                                                          | 12.67      | 4.9                 | 1.26           | 7.28           | 44.21                       | 0.69              | 43.2            |
| 2.007                                                          | 12.67      | 4.9                 | 1.22           | 7.28           | 43.64                       | 0.77              | 43.2            |
| 2.062                                                          | 12.67      | 4.9                 | 1.37           | 7.28           | 43.0                        | 0.78              | 43.2            |
| 2.116                                                          | 12.67      | 4.9                 | 1.37           | 7.29           | 42.73                       | 0.75              | 43.2            |
| 2.175                                                          | 12.67      | 4.9                 | 1.26           | 7.29           | 42.54                       | 0.77              | 43.2            |
| 2.243                                                          | 12.67      | 4.9                 | 1.37           | 7.29           | 42.59                       | 0.75              | 43.2            |
| 2.309                                                          | 12.67      | 4.9                 | 1.37           | 7.29           | 42.12                       | 0.74              | 43.21           |

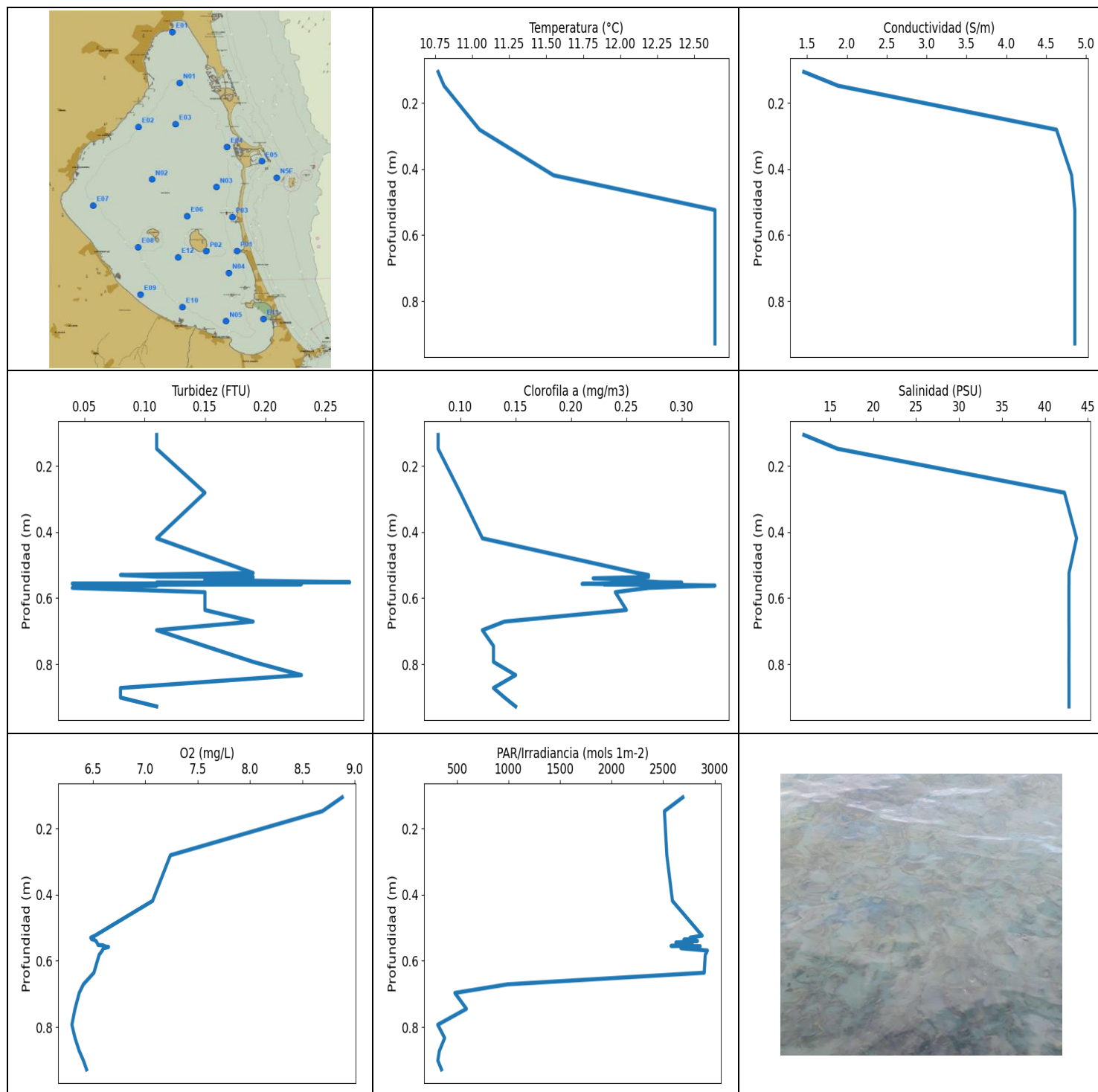
|       |       |      |      |      |       |      |       |
|-------|-------|------|------|------|-------|------|-------|
| 2.372 | 12.67 | 4.9  | 1.14 | 7.28 | 41.9  | 0.86 | 43.21 |
| 2.438 | 12.67 | 4.9  | 1.22 | 7.29 | 41.92 | 0.8  | 43.21 |
| 2.495 | 12.67 | 4.9  | 1.3  | 7.28 | 41.62 | 0.86 | 43.21 |
| 2.551 | 12.67 | 4.9  | 1.3  | 7.28 | 41.76 | 0.89 | 43.21 |
| 2.615 | 12.68 | 4.9  | 1.3  | 7.28 | 41.27 | 0.92 | 43.21 |
| 2.684 | 12.68 | 4.9  | 1.49 | 7.28 | 40.94 | 0.81 | 43.21 |
| 2.754 | 12.68 | 4.9  | 1.37 | 7.29 | 40.6  | 0.72 | 43.21 |
| 2.822 | 12.68 | 4.9  | 1.37 | 7.28 | 39.98 | 0.73 | 43.21 |
| 2.885 | 12.68 | 4.9  | 1.26 | 7.28 | 39.78 | 0.66 | 43.21 |
| 2.947 | 12.68 | 4.9  | 1.3  | 7.28 | 39.51 | 0.66 | 43.21 |
| 3.003 | 12.68 | 4.9  | 1.41 | 7.28 | 39.11 | 0.79 | 43.21 |
| 3.054 | 12.68 | 4.9  | 1.37 | 7.27 | 39.07 | 0.81 | 43.21 |
| 3.109 | 12.68 | 4.9  | 1.37 | 7.27 | 38.65 | 0.74 | 43.21 |
| 3.174 | 12.68 | 4.91 | 1.45 | 7.27 | 38.15 | 0.93 | 43.22 |
| 3.241 | 12.68 | 4.91 | 1.41 | 7.27 | 37.7  | 0.76 | 43.22 |
| 3.311 | 12.68 | 4.91 | 1.49 | 7.27 | 37.55 | 0.88 | 43.22 |
| 3.376 | 12.68 | 4.91 | 1.56 | 7.27 | 37.07 | 0.82 | 43.23 |
| 3.433 | 12.68 | 4.91 | 1.72 | 7.27 | 36.9  | 0.77 | 43.25 |
| 3.481 | 12.68 | 4.91 | 1.64 | 7.27 | 36.84 | 0.86 | 43.25 |
| 3.539 | 12.68 | 4.91 | 1.72 | 7.26 | 36.35 | 0.84 | 43.25 |
| 3.605 | 12.68 | 4.91 | 1.87 | 7.25 | 36.02 | 0.86 | 43.25 |
| 3.67  | 12.68 | 4.91 | 2.33 | 7.23 | 35.93 | 0.8  | 43.26 |
| 3.731 | 12.68 | 4.91 | 2.44 | 7.21 | 35.55 | 0.78 | 43.26 |
| 3.793 | 12.68 | 4.91 | 2.63 | 7.18 | 35.17 | 0.79 | 43.27 |
| 3.857 | 12.68 | 4.91 | 3.01 | 7.16 | 34.76 | 0.82 | 43.28 |
| 3.92  | 12.68 | 4.91 | 2.86 | 7.13 | 34.67 | 0.87 | 43.28 |
| 3.986 | 12.69 | 4.91 | 2.78 | 7.1  | 34.16 | 0.81 | 43.29 |
| 4.062 | 12.69 | 4.91 | 3.05 | 7.07 | 33.66 | 0.86 | 43.3  |
| 4.134 | 12.7  | 4.92 | 3.13 | 7.04 | 33.3  | 1.0  | 43.3  |
| 4.192 | 12.7  | 4.92 | 3.43 | 7.02 | 33.25 | 0.95 | 43.29 |
| 4.242 | 12.7  | 4.92 | 3.97 | 7.0  | 32.87 | 0.97 | 43.29 |
| 4.292 | 12.7  | 4.92 | 3.47 | 6.97 | 32.35 | 1.13 | 43.29 |
| 4.345 | 12.7  | 4.92 | 4.2  | 6.96 | 32.01 | 0.94 | 43.29 |
| 4.411 | 12.7  | 4.92 | 4.35 | 6.93 | 31.61 | 1.03 | 43.29 |
| 4.479 | 12.7  | 4.92 | 4.46 | 6.9  | 30.98 | 1.04 | 43.29 |
| 4.54  | 12.7  | 4.92 | 4.54 | 6.87 | 30.5  | 1.16 | 43.29 |
| 4.596 | 12.7  | 4.92 | 4.42 | 6.85 | 30.13 | 1.23 | 43.29 |
| 4.643 | 12.7  | 4.92 | 4.54 | 6.82 | 29.89 | 1.16 | 43.29 |
| 4.668 | 12.7  | 4.92 | 4.46 | 6.8  | 29.74 | 1.18 | 43.29 |
| 4.675 | 12.7  | 4.92 | 4.65 | 6.77 | 29.72 | 1.28 | 43.29 |
| 4.679 | 12.7  | 4.92 | 4.81 | 6.76 | 29.66 | 1.14 | 43.29 |
| 4.682 | 12.7  | 4.92 | 4.73 | 6.76 | 29.54 | 1.12 | 43.29 |



| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E08 - Punto 007                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 10.42      | 0.26                | 0.34           | 9.16           | 644.81                      | 0.27              | 1.87            |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.112                                                          | 10.42      | 0.26                | 0.34           | 9.16           | 644.81                      | 0.27              | 1.87            |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

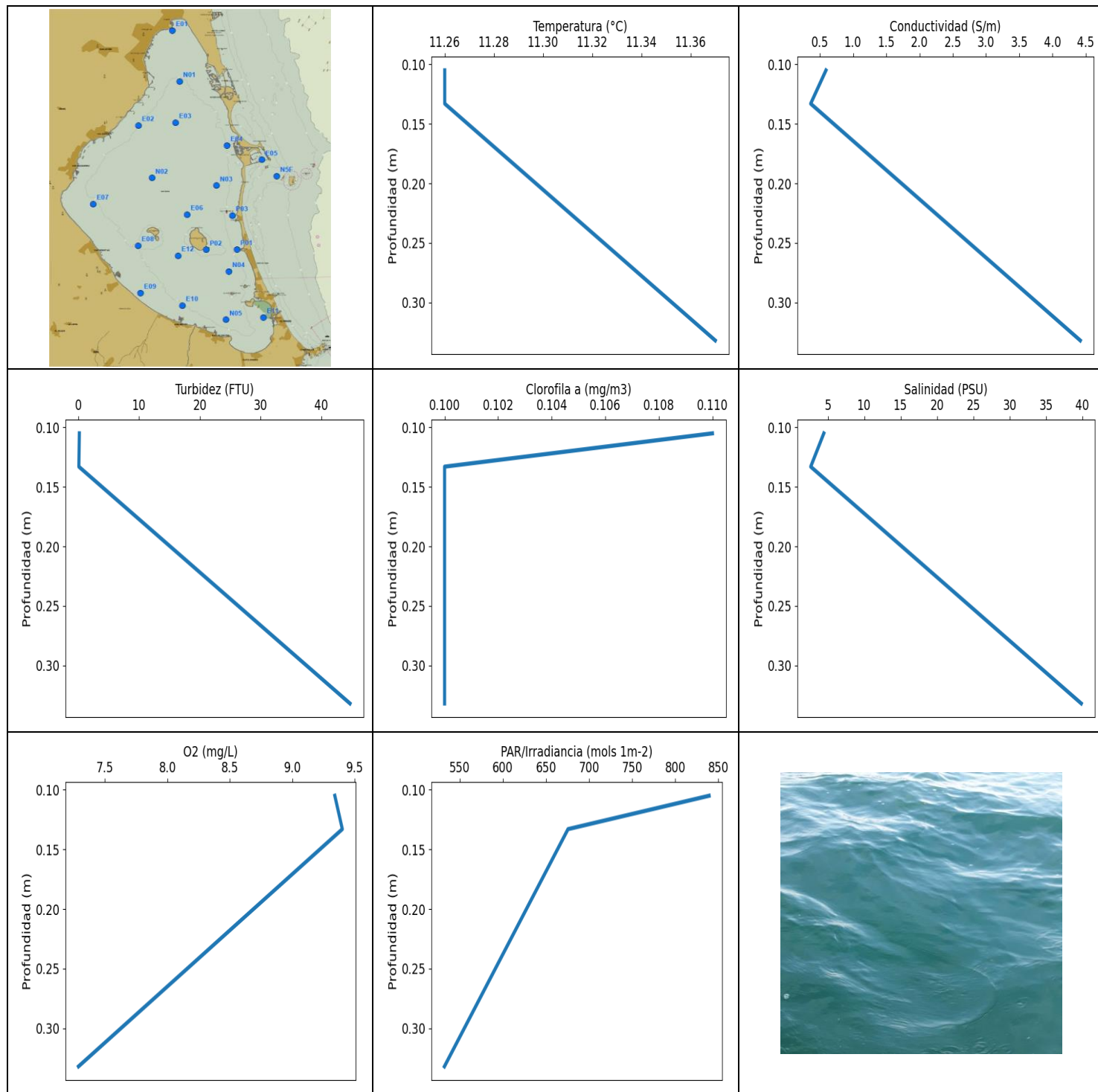
|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m³) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|----------------------|--------------------|
| <b>MÍNIMO</b>        | 10.77         | 1.46                   | 0.04              | 6.3               | 312.08                         | 0.08                 | 11.93              |
| <b>PROF (metros)</b> | 0.106         | 0.106                  | 0.556             | 0.793             | 0.793                          | 0.106                | 0.106              |
| <b>MÁXIMO</b>        | 12.64         | 12.64                  | 0.27              | 8.88              | 2930.5                         | 0.33                 | 43.7               |
| <b>PROF (metros)</b> | 0.524         | 0.524                  | 0.552             | 0.106             | 0.569                          | 0.562                | 0.419              |



| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E09 - Punto 008                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.43      | 4.64                | 0.14           | 6.7            | 2132.73                     | 0.2               | 40.9            |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.106                                                          | 10.77      | 1.46                | 0.11           | 8.88           | 2692.1                      | 0.08              | 11.93           |
| 0.148                                                          | 10.81      | 1.89                | 0.11           | 8.69           | 2513.1                      | 0.08              | 15.85           |
| 0.281                                                          | 11.05      | 4.63                | 0.15           | 7.24           | 2536.5                      | 0.1               | 42.29           |
| 0.419                                                          | 11.55      | 4.82                | 0.11           | 7.07           | 2591.1                      | 0.12              | 43.7            |
| 0.524                                                          | 12.64      | 4.86                | 0.19           | 6.52           | 2879.3                      | 0.26              | 42.82           |
| 0.53                                                           | 12.64      | 4.86                | 0.08           | 6.48           | 2762.9                      | 0.27              | 42.82           |
| 0.535                                                          | 12.64      | 4.86                | 0.11           | 6.49           | 2790.6                      | 0.27              | 42.82           |
| 0.536                                                          | 12.64      | 4.86                | 0.19           | 6.51           | 2702.8                      | 0.27              | 42.82           |
| 0.54                                                           | 12.64      | 4.86                | 0.15           | 6.53           | 2833.6                      | 0.22              | 42.82           |
| 0.545                                                          | 12.64      | 4.86                | 0.15           | 6.54           | 2624.4                      | 0.25              | 42.82           |
| 0.552                                                          | 12.64      | 4.86                | 0.27           | 6.55           | 2757.2                      | 0.28              | 42.82           |
| 0.553                                                          | 12.64      | 4.86                | 0.11           | 6.59           | 2787.4                      | 0.3               | 42.82           |
| 0.555                                                          | 12.64      | 4.86                | 0.23           | 6.61           | 2577.9                      | 0.24              | 42.82           |
| 0.556                                                          | 12.64      | 4.86                | 0.04           | 6.6            | 2860.0                      | 0.23              | 42.82           |
| 0.557                                                          | 12.64      | 4.86                | 0.08           | 6.62           | 2808.8                      | 0.21              | 42.82           |
| 0.558                                                          | 12.64      | 4.86                | 0.23           | 6.65           | 2704.0                      | 0.25              | 42.82           |
| 0.559                                                          | 12.64      | 4.86                | 0.15           | 6.64           | 2722.9                      | 0.23              | 42.82           |
| 0.56                                                           | 12.64      | 4.86                | 0.08           | 6.63           | 2684.0                      | 0.29              | 42.82           |
| 0.562                                                          | 12.64      | 4.86                | 0.11           | 6.6            | 2674.7                      | 0.33              | 42.81           |
| 0.569                                                          | 12.64      | 4.86                | 0.04           | 6.59           | 2930.5                      | 0.27              | 42.81           |
| 0.582                                                          | 12.64      | 4.86                | 0.15           | 6.56           | 2909.5                      | 0.24              | 42.81           |
| 0.636                                                          | 12.64      | 4.86                | 0.15           | 6.51           | 2899.4                      | 0.25              | 42.81           |
| 0.671                                                          | 12.64      | 4.86                | 0.19           | 6.41           | 990.5                       | 0.14              | 42.81           |
| 0.697                                                          | 12.64      | 4.86                | 0.11           | 6.37           | 478.17                      | 0.12              | 42.82           |
| 0.745                                                          | 12.64      | 4.86                | 0.15           | 6.33           | 590.73                      | 0.13              | 42.82           |
| 0.793                                                          | 12.64      | 4.86                | 0.19           | 6.3            | 312.08                      | 0.13              | 42.81           |
| 0.833                                                          | 12.64      | 4.86                | 0.23           | 6.33           | 379.16                      | 0.15              | 42.82           |
| 0.872                                                          | 12.64      | 4.86                | 0.08           | 6.37           | 327.95                      | 0.13              | 42.82           |
| 0.901                                                          | 12.64      | 4.86                | 0.08           | 6.41           | 312.81                      | 0.14              | 42.82           |
| 0.928                                                          | 12.64      | 4.86                | 0.11           | 6.44           | 347.92                      | 0.15              | 42.82           |



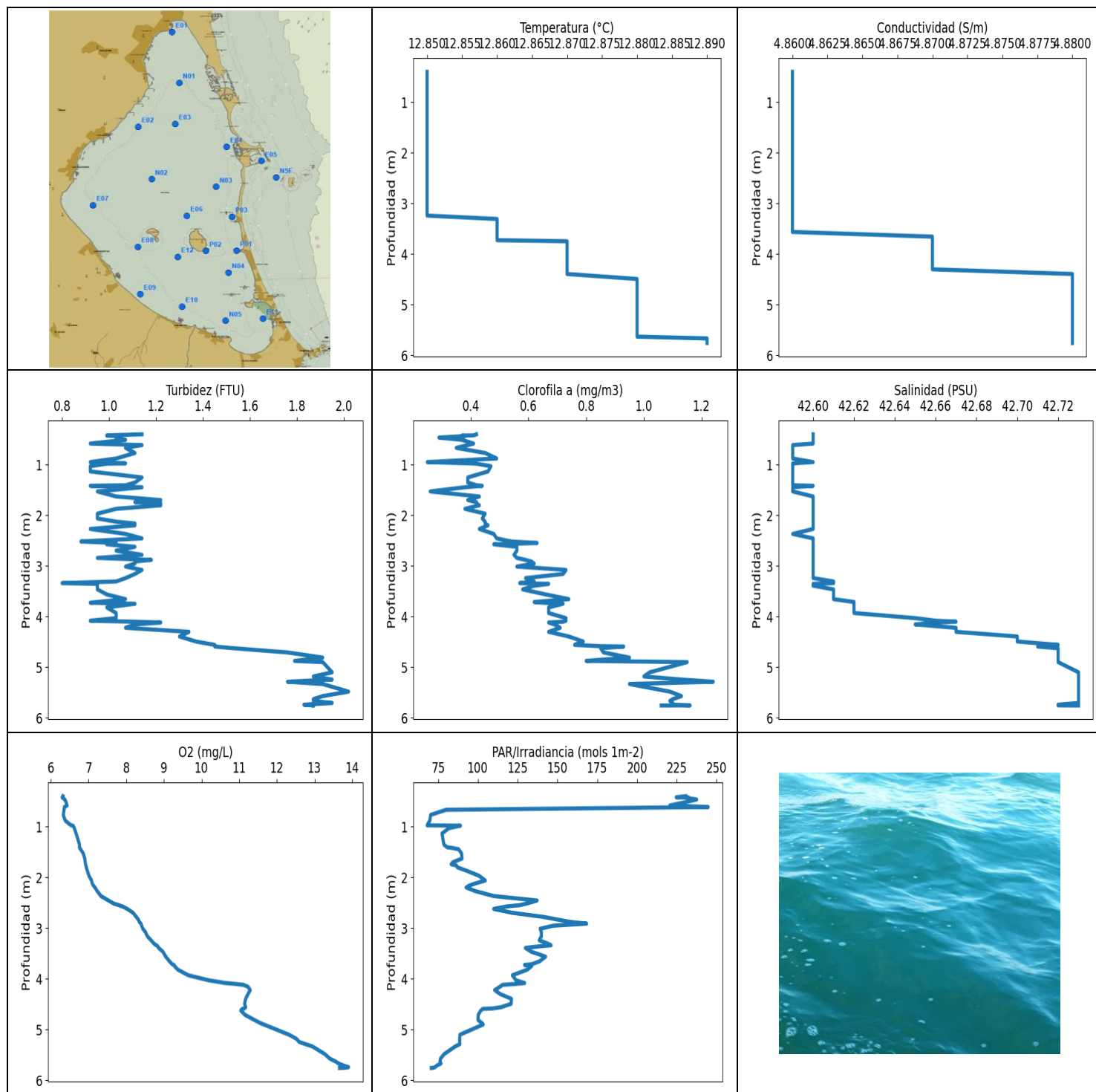
### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m³) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|----------------------|--------------------|
| <b>MÍNIMO</b>        | 11.26         | 0.36                   | 0.11              | 7.29              | 532.34                         | 0.1                  | 2.64               |
| <b>PROF (metros)</b> | 0.105         | 0.133                  | 0.133             | 0.332             | 0.332                          | 0.133                | 0.133              |
| <b>MÁXIMO</b>        | 11.37         | 11.37                  | 44.71             | 9.4               | 839.43                         | 0.11                 | 39.85              |
| <b>PROF (metros)</b> | 0.332         | 0.332                  | 0.332             | 0.133             | 0.105                          | 0.105                | 0.332              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E10 - Punto 009                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 11.3       | 1.79                | 15.0           | 8.68           | 682.5                       | 0.1               | 15.64           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.105                                                          | 11.26      | 0.59                | 0.19           | 9.34           | 839.43                      | 0.11              | 4.44            |
| 0.133                                                          | 11.26      | 0.36                | 0.11           | 9.4            | 675.72                      | 0.1               | 2.64            |
| 0.332                                                          | 11.37      | 4.42                | 44.71          | 7.29           | 532.34                      | 0.1               | 39.85           |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

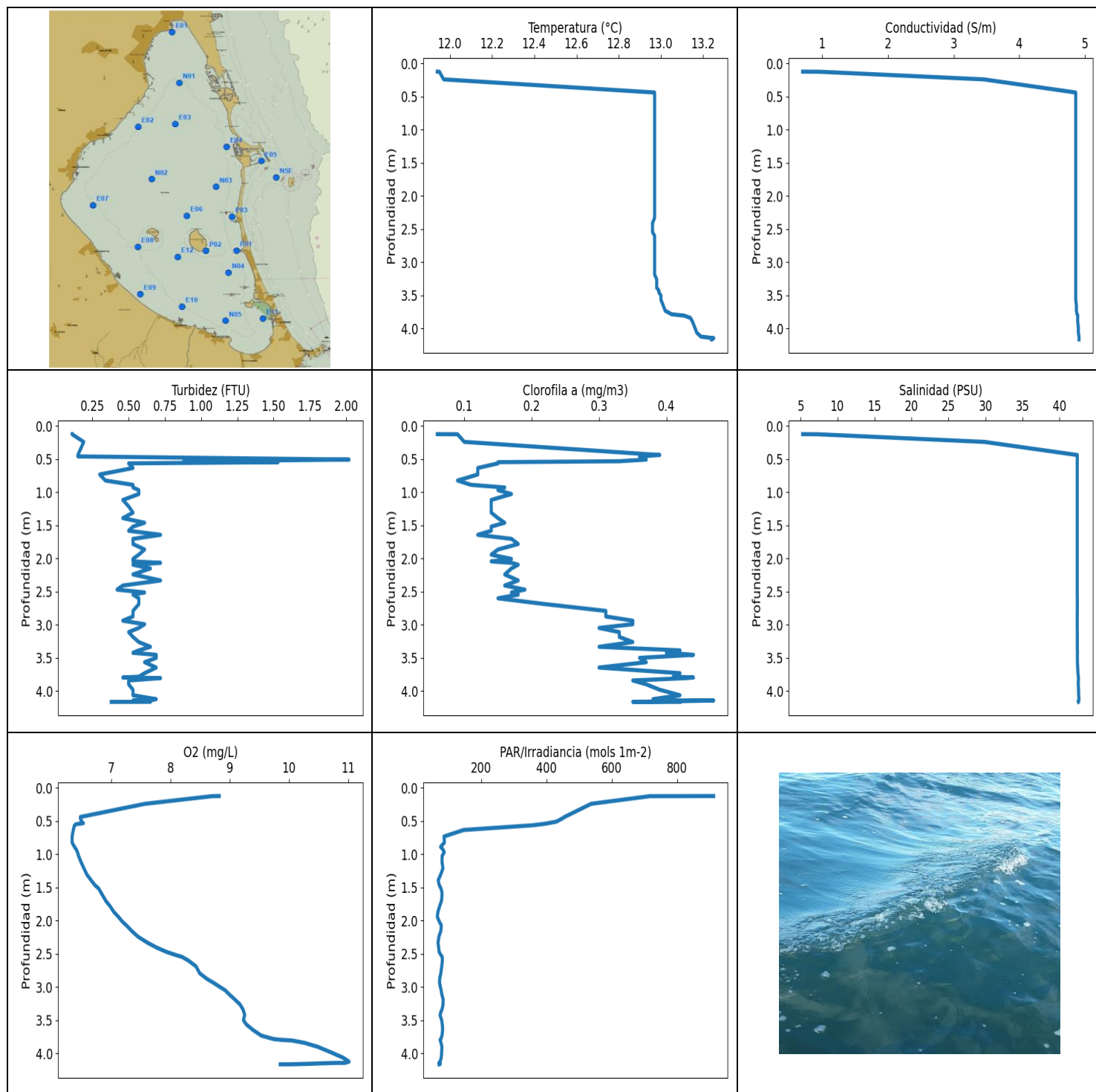
|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.85         | 4.86                   | 0.8               | 6.3               | 68.07                          | 0.25                              | 42.59              |
| <b>PROF (metros)</b> | 0.4           | 0.4                    | 3.341             | 0.426             | 0.974                          | 0.949                             | 0.613              |
| <b>MÁXIMO</b>        | 12.89         | 12.89                  | 2.02              | 13.9              | 244.73                         | 1.24                              | 42.73              |
| <b>PROF (metros)</b> | 5.67          | 4.396                  | 5.486             | 5.744             | 0.613                          | 5.29                              | 5.104              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD N05 - Punto 010                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.85      | 4.86                | 1.04           | 6.39           | 164.2                       | 0.39              | 42.6            |
| 1 - 2m                                                     | 12.85      | 4.86                | 1.06           | 6.84           | 85.5                        | 0.41              | 42.59           |
| 2 - 3m                                                     | 12.85      | 4.86                | 1.05           | 7.76           | 124.05                      | 0.52              | 42.6            |
| 3 - 4m                                                     | 12.86      | 4.86                | 1.01           | 8.96           | 136.37                      | 0.65              | 42.61           |
| 4 - 5m                                                     | 12.88      | 4.88                | 1.39           | 11.12          | 112.18                      | 0.8               | 42.69           |
| 5 - 6m                                                     | 12.88      | 4.88                | 1.89           | 13.24          | 79.84                       | 1.09              | 42.73           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.4                                                            | 12.85      | 4.86                | 1.14           | 6.32           | 230.68                      | 0.42              | 42.6            |
| 0.421                                                          | 12.85      | 4.86                | 0.99           | 6.31           | 224.67                      | 0.41              | 42.6            |
| 0.426                                                          | 12.85      | 4.86                | 0.99           | 6.3            | 232.4                       | 0.37              | 42.6            |
| 0.434                                                          | 12.85      | 4.86                | 1.03           | 6.32           | 231.06                      | 0.38              | 42.6            |
| 0.465                                                          | 12.85      | 4.86                | 1.03           | 6.37           | 237.52                      | 0.29              | 42.6            |
| 0.509                                                          | 12.85      | 4.86                | 1.07           | 6.4            | 231.59                      | 0.37              | 42.6            |
| 0.583                                                          | 12.85      | 4.86                | 0.92           | 6.43           | 220.69                      | 0.41              | 42.6            |
| 0.613                                                          | 12.85      | 4.86                | 1.14           | 6.36           | 244.73                      | 0.39              | 42.59           |
| 0.668                                                          | 12.85      | 4.86                | 1.07           | 6.35           | 79.93                       | 0.35              | 42.59           |
| 0.769                                                          | 12.85      | 4.86                | 1.11           | 6.33           | 70.25                       | 0.45              | 42.59           |
| 0.878                                                          | 12.85      | 4.86                | 1.03           | 6.38           | 69.78                       | 0.49              | 42.59           |
| 0.949                                                          | 12.85      | 4.86                | 0.92           | 6.49           | 68.45                       | 0.25              | 42.6            |
| 0.974                                                          | 12.85      | 4.86                | 1.07           | 6.54           | 68.07                       | 0.4               | 42.59           |
| 0.981                                                          | 12.85      | 4.86                | 0.99           | 6.59           | 89.0                        | 0.42              | 42.59           |
| 1.029                                                          | 12.85      | 4.86                | 0.92           | 6.62           | 81.86                       | 0.47              | 42.59           |
| 1.134                                                          | 12.85      | 4.86                | 0.92           | 6.67           | 77.45                       | 0.46              | 42.59           |
| 1.253                                                          | 12.85      | 4.86                | 1.14           | 6.72           | 78.01                       | 0.39              | 42.59           |
| 1.353                                                          | 12.85      | 4.86                | 1.11           | 6.76           | 78.6                        | 0.39              | 42.59           |
| 1.407                                                          | 12.85      | 4.86                | 1.07           | 6.76           | 80.62                       | 0.42              | 42.59           |
| 1.418                                                          | 12.85      | 4.86                | 0.92           | 6.76           | 83.45                       | 0.44              | 42.6            |
| 1.446                                                          | 12.85      | 4.86                | 1.14           | 6.79           | 87.86                       | 0.38              | 42.59           |
| 1.529                                                          | 12.85      | 4.86                | 0.95           | 6.86           | 89.71                       | 0.26              | 42.59           |
| 1.629                                                          | 12.85      | 4.86                | 1.03           | 6.9            | 90.0                        | 0.43              | 42.6            |
| 1.7                                                            | 12.85      | 4.86                | 1.22           | 6.91           | 84.36                       | 0.39              | 42.6            |
| 1.741                                                          | 12.85      | 4.86                | 1.11           | 6.92           | 83.16                       | 0.42              | 42.6            |
| 1.766                                                          | 12.85      | 4.86                | 1.22           | 6.93           | 86.44                       | 0.42              | 42.6            |
| 1.803                                                          | 12.85      | 4.86                | 1.22           | 6.94           | 87.08                       | 0.43              | 42.6            |
| 1.873                                                          | 12.85      | 4.86                | 1.03           | 6.97           | 93.16                       | 0.38              | 42.6            |
| 1.969                                                          | 12.85      | 4.86                | 0.95           | 7.01           | 100.68                      | 0.45              | 42.6            |
| 2.063                                                          | 12.85      | 4.86                | 0.95           | 7.08           | 104.63                      | 0.44              | 42.6            |
| 2.127                                                          | 12.85      | 4.86                | 1.03           | 7.1            | 97.65                       | 0.45              | 42.6            |
| 2.162                                                          | 12.85      | 4.86                | 1.11           | 7.13           | 94.6                        | 0.45              | 42.6            |
| 2.199                                                          | 12.85      | 4.86                | 1.11           | 7.17           | 92.58                       | 0.46              | 42.6            |
| 2.271                                                          | 12.85      | 4.86                | 0.92           | 7.23           | 98.33                       | 0.43              | 42.6            |
| 2.369                                                          | 12.85      | 4.86                | 1.07           | 7.33           | 109.9                       | 0.48              | 42.59           |
| 2.457                                                          | 12.85      | 4.86                | 1.14           | 7.53           | 137.19                      | 0.49              | 42.6            |

|       |       |      |      |       |        |      |       |
|-------|-------|------|------|-------|--------|------|-------|
| 2.518 | 12.85 | 4.86 | 0.88 | 7.67  | 130.56 | 0.54 | 42.6  |
| 2.548 | 12.85 | 4.86 | 1.03 | 7.8   | 126.42 | 0.63 | 42.6  |
| 2.574 | 12.85 | 4.86 | 0.99 | 7.9   | 118.06 | 0.48 | 42.6  |
| 2.623 | 12.85 | 4.86 | 1.11 | 8.03  | 109.9  | 0.56 | 42.6  |
| 2.699 | 12.85 | 4.86 | 1.03 | 8.18  | 121.5  | 0.56 | 42.6  |
| 2.782 | 12.85 | 4.86 | 1.14 | 8.27  | 141.49 | 0.55 | 42.6  |
| 2.843 | 12.85 | 4.86 | 0.95 | 8.33  | 151.71 | 0.56 | 42.6  |
| 2.882 | 12.85 | 4.86 | 1.18 | 8.35  | 158.62 | 0.59 | 42.6  |
| 2.913 | 12.85 | 4.86 | 1.11 | 8.39  | 168.31 | 0.61 | 42.6  |
| 2.954 | 12.85 | 4.86 | 1.11 | 8.41  | 147.41 | 0.62 | 42.6  |
| 3.014 | 12.85 | 4.86 | 1.07 | 8.44  | 139.15 | 0.56 | 42.6  |
| 3.08  | 12.85 | 4.86 | 1.14 | 8.51  | 139.86 | 0.73 | 42.6  |
| 3.16  | 12.85 | 4.86 | 1.11 | 8.56  | 139.92 | 0.72 | 42.6  |
| 3.242 | 12.85 | 4.86 | 1.07 | 8.66  | 138.57 | 0.59 | 42.6  |
| 3.309 | 12.86 | 4.86 | 1.03 | 8.74  | 144.07 | 0.62 | 42.61 |
| 3.341 | 12.86 | 4.86 | 0.8  | 8.8   | 145.99 | 0.57 | 42.61 |
| 3.356 | 12.86 | 4.86 | 0.95 | 8.83  | 140.22 | 0.67 | 42.6  |
| 3.392 | 12.86 | 4.86 | 0.95 | 8.86  | 129.83 | 0.62 | 42.6  |
| 3.465 | 12.86 | 4.86 | 0.95 | 8.97  | 133.37 | 0.58 | 42.61 |
| 3.565 | 12.86 | 4.86 | 0.99 | 9.05  | 142.51 | 0.66 | 42.61 |
| 3.658 | 12.86 | 4.87 | 1.07 | 9.15  | 138.66 | 0.74 | 42.61 |
| 3.714 | 12.86 | 4.87 | 0.95 | 9.22  | 133.93 | 0.62 | 42.62 |
| 3.728 | 12.86 | 4.87 | 0.92 | 9.27  | 129.32 | 0.65 | 42.62 |
| 3.749 | 12.87 | 4.87 | 1.11 | 9.28  | 133.77 | 0.72 | 42.62 |
| 3.821 | 12.87 | 4.87 | 0.99 | 9.37  | 131.07 | 0.67 | 42.62 |
| 3.932 | 12.87 | 4.87 | 1.03 | 9.65  | 121.64 | 0.67 | 42.62 |
| 4.033 | 12.87 | 4.87 | 1.03 | 10.2  | 124.01 | 0.73 | 42.65 |
| 4.084 | 12.87 | 4.87 | 0.92 | 10.63 | 129.38 | 0.73 | 42.66 |
| 4.104 | 12.87 | 4.87 | 1.11 | 10.91 | 123.18 | 0.72 | 42.67 |
| 4.12  | 12.87 | 4.87 | 1.22 | 11.11 | 115.52 | 0.67 | 42.66 |
| 4.157 | 12.87 | 4.87 | 1.11 | 11.23 | 113.92 | 0.69 | 42.65 |
| 4.224 | 12.87 | 4.87 | 1.07 | 11.29 | 110.51 | 0.71 | 42.67 |
| 4.304 | 12.87 | 4.87 | 1.34 | 11.23 | 114.08 | 0.67 | 42.67 |
| 4.396 | 12.87 | 4.88 | 1.3  | 11.17 | 121.08 | 0.74 | 42.7  |
| 4.495 | 12.88 | 4.88 | 1.37 | 11.14 | 120.86 | 0.79 | 42.7  |
| 4.562 | 12.88 | 4.88 | 1.45 | 11.17 | 114.4  | 0.76 | 42.72 |
| 4.587 | 12.88 | 4.88 | 1.45 | 11.13 | 109.06 | 0.85 | 42.71 |
| 4.594 | 12.88 | 4.88 | 1.45 | 11.08 | 103.04 | 0.93 | 42.71 |
| 4.628 | 12.88 | 4.88 | 1.53 | 11.04 | 101.79 | 0.85 | 42.72 |
| 4.711 | 12.88 | 4.88 | 1.76 | 11.15 | 100.19 | 0.86 | 42.72 |
| 4.813 | 12.88 | 4.88 | 1.91 | 11.4  | 100.03 | 0.95 | 42.72 |
| 4.878 | 12.88 | 4.88 | 1.79 | 11.57 | 102.64 | 0.8  | 42.72 |
| 4.902 | 12.88 | 4.88 | 1.91 | 11.65 | 103.31 | 1.15 | 42.72 |
| 5.104 | 12.88 | 4.88 | 1.95 | 12.32 | 88.67  | 1.02 | 42.73 |
| 5.186 | 12.88 | 4.88 | 1.87 | 12.52 | 88.49  | 1.0  | 42.73 |
| 5.247 | 12.88 | 4.88 | 1.95 | 12.59 | 88.55  | 1.13 | 42.73 |
| 5.29  | 12.88 | 4.88 | 1.76 | 12.76 | 88.63  | 1.24 | 42.73 |
| 5.335 | 12.88 | 4.88 | 1.91 | 12.94 | 85.76  | 0.95 | 42.73 |
| 5.486 | 12.88 | 4.88 | 2.02 | 13.27 | 78.79  | 1.09 | 42.73 |
| 5.574 | 12.88 | 4.88 | 1.91 | 13.4  | 76.47  | 1.13 | 42.73 |
| 5.634 | 12.88 | 4.88 | 1.87 | 13.56 | 76.15  | 1.1  | 42.73 |
| 5.67  | 12.89 | 4.88 | 1.87 | 13.63 | 76.8   | 1.09 | 42.73 |
| 5.71  | 12.89 | 4.88 | 1.95 | 13.76 | 74.32  | 1.1  | 42.73 |
| 5.744 | 12.89 | 4.88 | 1.83 | 13.9  | 73.04  | 1.1  | 42.72 |
| 5.758 | 12.89 | 4.88 | 1.87 | 13.77 | 71.61  | 1.16 | 42.72 |
| 5.76  | 12.89 | 4.88 | 1.87 | 13.66 | 70.69  | 1.06 | 42.73 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 11.94         | 0.7                    | 0.11              | 6.34              | 65.74                          | 0.06                              | 5.27               |
| <b>PROF (metros)</b> | 0.125         | 0.125                  | 0.125             | 0.734             | 1.943                          | 0.125                             | 0.125              |
| <b>MÁXIMO</b>        | 13.25         | 13.25                  | 2.02              | 11.01             | 912.05                         | 0.47                              | 42.65              |
| <b>PROF (metros)</b> | 4.144         | 4.124                  | 0.509             | 4.124             | 0.125                          | 4.144                             | 4.124              |

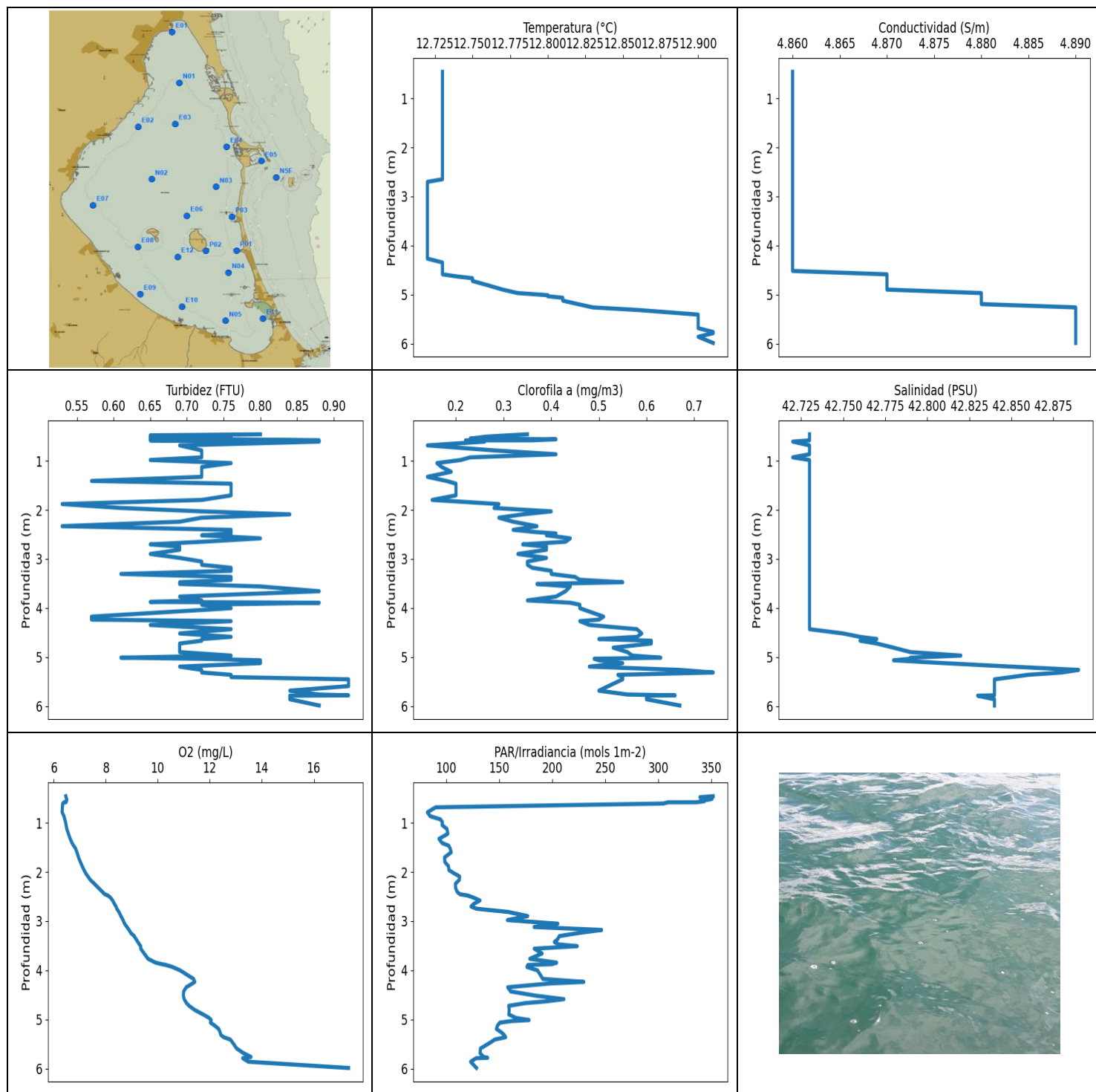
| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E11 - Punto 011                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.77      | 4.23                | 0.56           | 6.81           | 347.63                      | 0.18              | 36.76           |
| 1 - 2m                                                     | 12.97      | 4.86                | 0.55           | 6.77           | 75.47                       | 0.15              | 42.41           |
| 2 - 3m                                                     | 12.97      | 4.86                | 0.56           | 7.92           | 74.83                       | 0.21              | 42.41           |
| 3 - 4m                                                     | 13.03      | 4.87                | 0.58           | 9.54           | 78.54                       | 0.37              | 42.48           |
| 4 - 5m                                                     | 13.23      | 4.91                | 0.59           | 10.55          | 73.37                       | 0.41              | 42.6            |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.125                                                          | 11.94      | 0.7                 | 0.11           | 8.82           | 912.05                      | 0.06              | 5.27            |
| 0.127                                                          | 11.95      | 0.96                | 0.11           | 8.7            | 716.53                      | 0.09              | 7.34            |
| 0.242                                                          | 11.97      | 3.46                | 0.19           | 7.57           | 536.93                      | 0.1               | 29.85           |
| 0.44                                                           | 12.97      | 4.86                | 0.15           | 6.48           | 455.35                      | 0.39              | 42.42           |
| 0.461                                                          | 12.97      | 4.86                | 0.15           | 6.48           | 448.96                      | 0.36              | 42.42           |
| 0.509                                                          | 12.97      | 4.86                | 2.02           | 6.5            | 430.91                      | 0.37              | 42.42           |
| 0.534                                                          | 12.97      | 4.86                | 0.88           | 6.53           | 405.24                      | 0.33              | 42.41           |
| 0.548                                                          | 12.97      | 4.86                | 1.53           | 6.41           | 386.89                      | 0.15              | 42.41           |
| 0.566                                                          | 12.97      | 4.86                | 0.5            | 6.38           | 355.67                      | 0.15              | 42.41           |
| 0.636                                                          | 12.97      | 4.86                | 0.53           | 6.36           | 146.49                      | 0.12              | 42.41           |
| 0.734                                                          | 12.97      | 4.86                | 0.3            | 6.34           | 86.16                       | 0.12              | 42.41           |
| 0.825                                                          | 12.97      | 4.86                | 0.34           | 6.34           | 87.51                       | 0.09              | 42.41           |
| 0.89                                                           | 12.97      | 4.86                | 0.53           | 6.38           | 75.66                       | 0.11              | 42.41           |
| 0.93                                                           | 12.97      | 4.86                | 0.53           | 6.41           | 83.01                       | 0.16              | 42.41           |
| 0.97                                                           | 12.97      | 4.86                | 0.57           | 6.43           | 87.02                       | 0.15              | 42.41           |
| 1.029                                                          | 12.97      | 4.86                | 0.57           | 6.45           | 80.36                       | 0.17              | 42.41           |
| 1.118                                                          | 12.97      | 4.86                | 0.46           | 6.49           | 80.22                       | 0.14              | 42.41           |
| 1.215                                                          | 12.97      | 4.86                | 0.5            | 6.54           | 82.85                       | 0.14              | 42.41           |
| 1.309                                                          | 12.97      | 4.86                | 0.53           | 6.59           | 75.92                       | 0.14              | 42.41           |
| 1.392                                                          | 12.97      | 4.86                | 0.46           | 6.66           | 68.48                       | 0.15              | 42.41           |
| 1.462                                                          | 12.97      | 4.86                | 0.61           | 6.72           | 71.35                       | 0.16              | 42.41           |
| 1.52                                                           | 12.97      | 4.86                | 0.53           | 6.79           | 77.3                        | 0.14              | 42.41           |
| 1.583                                                          | 12.97      | 4.86                | 0.5            | 6.83           | 80.17                       | 0.14              | 42.41           |
| 1.644                                                          | 12.97      | 4.86                | 0.72           | 6.87           | 79.76                       | 0.12              | 42.41           |
| 1.705                                                          | 12.97      | 4.86                | 0.53           | 6.91           | 78.39                       | 0.17              | 42.41           |
| 1.783                                                          | 12.97      | 4.86                | 0.53           | 6.98           | 72.9                        | 0.18              | 42.41           |
| 1.866                                                          | 12.97      | 4.86                | 0.61           | 7.04           | 67.69                       | 0.15              | 42.41           |
| 1.943                                                          | 12.97      | 4.86                | 0.57           | 7.12           | 65.74                       | 0.14              | 42.41           |
| 2.008                                                          | 12.97      | 4.86                | 0.53           | 7.18           | 71.2                        | 0.17              | 42.41           |
| 2.045                                                          | 12.97      | 4.86                | 0.53           | 7.22           | 74.92                       | 0.14              | 42.41           |
| 2.067                                                          | 12.97      | 4.86                | 0.72           | 7.25           | 77.72                       | 0.17              | 42.41           |
| 2.095                                                          | 12.97      | 4.86                | 0.53           | 7.28           | 77.66                       | 0.18              | 42.41           |
| 2.152                                                          | 12.97      | 4.86                | 0.65           | 7.34           | 76.77                       | 0.17              | 42.41           |
| 2.242                                                          | 12.97      | 4.86                | 0.53           | 7.45           | 70.64                       | 0.16              | 42.41           |
| 2.333                                                          | 12.97      | 4.86                | 0.72           | 7.61           | 67.93                       | 0.18              | 42.41           |
| 2.409                                                          | 12.96      | 4.86                | 0.46           | 7.77           | 69.87                       | 0.16              | 42.41           |
| 2.471                                                          | 12.96      | 4.86                | 0.42           | 7.93           | 71.22                       | 0.19              | 42.41           |



|       |       |      |      |       |       |      |       |
|-------|-------|------|------|-------|-------|------|-------|
| 2.514 | 12.96 | 4.86 | 0.61 | 8.07  | 76.08 | 0.17 | 42.41 |
| 2.546 | 12.96 | 4.86 | 0.53 | 8.19  | 80.71 | 0.18 | 42.41 |
| 2.602 | 12.97 | 4.86 | 0.57 | 8.3   | 81.33 | 0.15 | 42.42 |
| 2.69  | 12.97 | 4.86 | 0.57 | 8.43  | 79.25 | 0.22 | 42.42 |
| 2.792 | 12.97 | 4.86 | 0.53 | 8.49  | 76.54 | 0.31 | 42.42 |
| 2.876 | 12.97 | 4.86 | 0.53 | 8.61  | 72.85 | 0.31 | 42.41 |
| 2.94  | 12.97 | 4.86 | 0.46 | 8.73  | 72.53 | 0.35 | 42.41 |
| 2.993 | 12.97 | 4.86 | 0.61 | 8.82  | 74.96 | 0.35 | 42.41 |
| 3.049 | 12.97 | 4.86 | 0.57 | 8.92  | 77.36 | 0.3  | 42.41 |
| 3.112 | 12.97 | 4.86 | 0.5  | 8.99  | 79.52 | 0.33 | 42.42 |
| 3.185 | 12.97 | 4.86 | 0.53 | 9.08  | 83.49 | 0.33 | 42.42 |
| 3.262 | 12.98 | 4.86 | 0.57 | 9.17  | 83.31 | 0.35 | 42.42 |
| 3.334 | 12.98 | 4.86 | 0.65 | 9.22  | 80.39 | 0.3  | 42.42 |
| 3.388 | 12.98 | 4.86 | 0.57 | 9.24  | 75.73 | 0.42 | 42.43 |
| 3.424 | 12.99 | 4.86 | 0.53 | 9.25  | 74.18 | 0.4  | 42.44 |
| 3.455 | 12.99 | 4.86 | 0.69 | 9.24  | 76.15 | 0.44 | 42.43 |
| 3.501 | 13.0  | 4.86 | 0.69 | 9.23  | 79.14 | 0.36 | 42.43 |
| 3.566 | 13.0  | 4.86 | 0.61 | 9.28  | 81.05 | 0.37 | 42.44 |
| 3.647 | 13.01 | 4.87 | 0.69 | 9.39  | 82.01 | 0.3  | 42.47 |
| 3.732 | 13.02 | 4.87 | 0.61 | 9.53  | 79.98 | 0.42 | 42.51 |
| 3.785 | 13.05 | 4.88 | 0.57 | 9.74  | 76.4  | 0.41 | 42.56 |
| 3.797 | 13.08 | 4.89 | 0.46 | 9.88  | 74.16 | 0.44 | 42.58 |
| 3.806 | 13.11 | 4.89 | 0.72 | 10.05 | 74.78 | 0.43 | 42.58 |
| 3.842 | 13.14 | 4.89 | 0.5  | 10.26 | 77.2  | 0.35 | 42.56 |
| 3.9   | 13.15 | 4.89 | 0.5  | 10.48 | 79.76 | 0.37 | 42.55 |
| 3.982 | 13.16 | 4.9  | 0.53 | 10.7  | 79.08 | 0.39 | 42.59 |
| 4.065 | 13.17 | 4.9  | 0.53 | 10.91 | 77.74 | 0.42 | 42.6  |
| 4.124 | 13.19 | 4.91 | 0.69 | 11.01 | 74.42 | 0.38 | 42.65 |
| 4.143 | 13.24 | 4.91 | 0.65 | 10.94 | 70.74 | 0.42 | 42.61 |
| 4.144 | 13.25 | 4.91 | 0.53 | 10.76 | 71.53 | 0.47 | 42.59 |
| 4.15  | 13.25 | 4.91 | 0.61 | 10.54 | 73.32 | 0.44 | 42.57 |
| 4.158 | 13.24 | 4.91 | 0.65 | 10.3  | 74.7  | 0.4  | 42.58 |
| 4.164 | 13.24 | 4.91 | 0.65 | 10.05 | 73.44 | 0.35 | 42.59 |
| 4.165 | 13.24 | 4.91 | 0.38 | 9.85  | 71.05 | 0.42 | 42.58 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

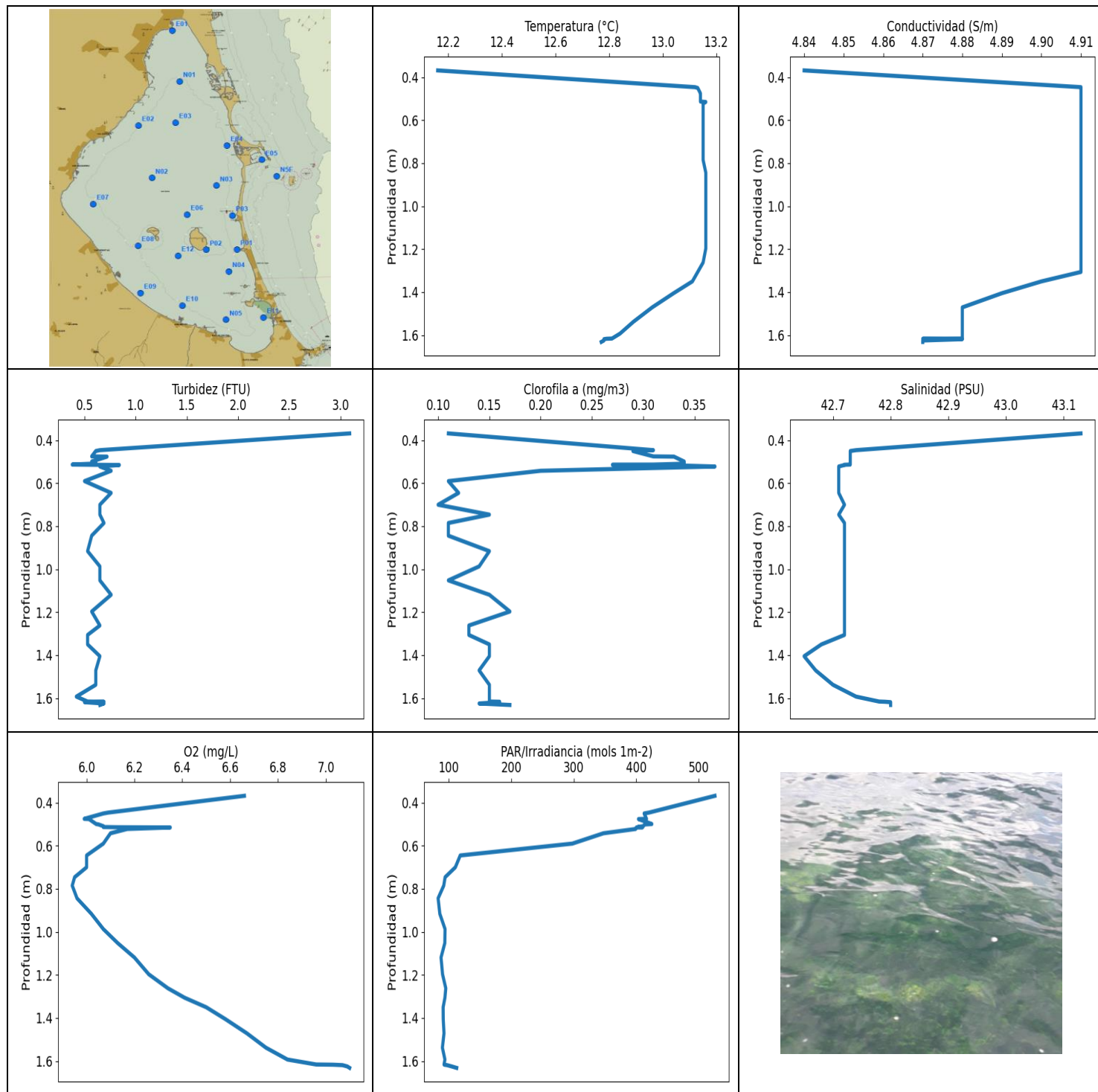
|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.72         | 4.86                   | 0.53              | 6.32              | 82.26                          | 0.14                              | 42.72              |
| <b>PROF (metros)</b> | 2.703         | 0.459                  | 1.881             | 0.787             | 0.787                          | 0.685                             | 0.608              |
| <b>MÁXIMO</b>        | 12.91         | 12.91                  | 0.92              | 17.33             | 351.81                         | 0.74                              | 42.89              |
| <b>PROF (metros)</b> | 5.764         | 5.262                  | 5.454             | 5.988             | 0.459                          | 5.315                             | 5.262              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD N04 - Punto 012                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.73      | 4.86                | 0.73           | 6.43           | 254.27                      | 0.28              | 42.73           |
| 1 - 2m                                                     | 12.73      | 4.86                | 0.7            | 6.8            | 100.01                      | 0.2               | 42.73           |
| 2 - 3m                                                     | 12.73      | 4.86                | 0.71           | 8.03           | 126.37                      | 0.37              | 42.73           |
| 3 - 4m                                                     | 12.72      | 4.86                | 0.74           | 9.43           | 200.79                      | 0.41              | 42.73           |
| 4 - 5m                                                     | 12.74      | 4.87                | 0.7            | 11.25          | 180.91                      | 0.54              | 42.76           |
| 5 - 6m                                                     | 12.87      | 4.89                | 0.8            | 13.0           | 144.43                      | 0.58              | 42.84           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.459                                                          | 12.73      | 4.86                | 0.8            | 6.46           | 351.81                      | 0.35              | 42.73           |
| 0.48                                                           | 12.73      | 4.86                | 0.65           | 6.47           | 339.32                      | 0.31              | 42.73           |
| 0.509                                                          | 12.73      | 4.86                | 0.65           | 6.49           | 350.84                      | 0.26              | 42.73           |
| 0.524                                                          | 12.73      | 4.86                | 0.76           | 6.5            | 348.81                      | 0.25              | 42.73           |
| 0.547                                                          | 12.73      | 4.86                | 0.65           | 6.49           | 341.69                      | 0.23              | 42.73           |
| 0.554                                                          | 12.73      | 4.86                | 0.76           | 6.48           | 340.11                      | 0.32              | 42.73           |
| 0.561                                                          | 12.73      | 4.86                | 0.76           | 6.48           | 343.36                      | 0.41              | 42.73           |
| 0.582                                                          | 12.73      | 4.86                | 0.88           | 6.47           | 336.11                      | 0.36              | 42.73           |
| 0.583                                                          | 12.73      | 4.86                | 0.65           | 6.39           | 309.2                       | 0.22              | 42.73           |
| 0.608                                                          | 12.73      | 4.86                | 0.88           | 6.34           | 304.79                      | 0.26              | 42.72           |
| 0.685                                                          | 12.73      | 4.86                | 0.69           | 6.33           | 89.98                       | 0.14              | 42.73           |
| 0.787                                                          | 12.73      | 4.86                | 0.72           | 6.32           | 82.26                       | 0.28              | 42.73           |
| 0.866                                                          | 12.73      | 4.86                | 0.72           | 6.39           | 84.93                       | 0.41              | 42.73           |
| 0.929                                                          | 12.73      | 4.86                | 0.72           | 6.42           | 94.49                       | 0.23              | 42.72           |
| 0.983                                                          | 12.73      | 4.86                | 0.65           | 6.45           | 96.37                       | 0.21              | 42.73           |
| 1.046                                                          | 12.73      | 4.86                | 0.76           | 6.47           | 96.14                       | 0.16              | 42.73           |
| 1.126                                                          | 12.73      | 4.86                | 0.72           | 6.5            | 100.75                      | 0.17              | 42.73           |
| 1.223                                                          | 12.73      | 4.86                | 0.72           | 6.56           | 101.53                      | 0.19              | 42.73           |
| 1.326                                                          | 12.73      | 4.86                | 0.72           | 6.63           | 93.18                       | 0.14              | 42.73           |
| 1.41                                                           | 12.73      | 4.86                | 0.57           | 6.7            | 96.06                       | 0.18              | 42.73           |
| 1.465                                                          | 12.73      | 4.86                | 0.76           | 6.76           | 102.35                      | 0.2               | 42.73           |
| 1.517                                                          | 12.73      | 4.86                | 0.76           | 6.83           | 103.67                      | 0.2               | 42.73           |
| 1.6                                                            | 12.73      | 4.86                | 0.76           | 6.89           | 104.71                      | 0.2               | 42.73           |
| 1.704                                                          | 12.73      | 4.86                | 0.76           | 6.95           | 98.42                       | 0.2               | 42.73           |
| 1.797                                                          | 12.73      | 4.86                | 0.72           | 7.02           | 98.7                        | 0.15              | 42.73           |
| 1.881                                                          | 12.73      | 4.86                | 0.53           | 7.09           | 102.12                      | 0.29              | 42.73           |
| 1.961                                                          | 12.73      | 4.86                | 0.61           | 7.16           | 102.54                      | 0.28              | 42.73           |
| 2.03                                                           | 12.73      | 4.86                | 0.72           | 7.23           | 107.61                      | 0.4               | 42.73           |
| 2.091                                                          | 12.73      | 4.86                | 0.84           | 7.31           | 112.64                      | 0.34              | 42.73           |
| 2.159                                                          | 12.73      | 4.86                | 0.72           | 7.4            | 112.37                      | 0.29              | 42.73           |
| 2.241                                                          | 12.73      | 4.86                | 0.69           | 7.56           | 108.64                      | 0.32              | 42.73           |
| 2.332                                                          | 12.73      | 4.86                | 0.53           | 7.73           | 108.94                      | 0.37              | 42.73           |
| 2.407                                                          | 12.73      | 4.86                | 0.76           | 7.87           | 110.39                      | 0.32              | 42.73           |
| 2.454                                                          | 12.73      | 4.86                | 0.76           | 7.96           | 113.13                      | 0.37              | 42.73           |
| 2.48                                                           | 12.73      | 4.86                | 0.76           | 8.08           | 120.33                      | 0.41              | 42.73           |
| 2.518                                                          | 12.73      | 4.86                | 0.72           | 8.17           | 125.25                      | 0.39              | 42.73           |

|       |       |      |      |       |        |      |       |
|-------|-------|------|------|-------|--------|------|-------|
| 2.58  | 12.73 | 4.86 | 0.8  | 8.26  | 131.83 | 0.44 | 42.73 |
| 2.65  | 12.73 | 4.86 | 0.72 | 8.33  | 126.01 | 0.43 | 42.73 |
| 2.703 | 12.72 | 4.86 | 0.65 | 8.39  | 123.41 | 0.34 | 42.73 |
| 2.748 | 12.72 | 4.86 | 0.69 | 8.42  | 128.57 | 0.39 | 42.73 |
| 2.813 | 12.72 | 4.86 | 0.69 | 8.5   | 158.21 | 0.39 | 42.73 |
| 2.898 | 12.72 | 4.86 | 0.65 | 8.58  | 176.87 | 0.33 | 42.73 |
| 2.979 | 12.72 | 4.86 | 0.69 | 8.66  | 157.74 | 0.39 | 42.73 |
| 3.053 | 12.72 | 4.86 | 0.72 | 8.72  | 205.25 | 0.35 | 42.73 |
| 3.12  | 12.72 | 4.86 | 0.72 | 8.81  | 182.96 | 0.35 | 42.73 |
| 3.18  | 12.72 | 4.86 | 0.76 | 8.89  | 246.55 | 0.36 | 42.73 |
| 3.242 | 12.72 | 4.86 | 0.76 | 8.96  | 224.87 | 0.4  | 42.73 |
| 3.306 | 12.72 | 4.86 | 0.61 | 9.09  | 206.63 | 0.4  | 42.73 |
| 3.367 | 12.72 | 4.86 | 0.76 | 9.16  | 205.2  | 0.45 | 42.73 |
| 3.425 | 12.72 | 4.86 | 0.76 | 9.23  | 201.99 | 0.46 | 42.73 |
| 3.475 | 12.72 | 4.86 | 0.69 | 9.29  | 206.2  | 0.55 | 42.73 |
| 3.51  | 12.72 | 4.86 | 0.69 | 9.34  | 223.58 | 0.37 | 42.73 |
| 3.561 | 12.72 | 4.86 | 0.8  | 9.34  | 183.04 | 0.44 | 42.73 |
| 3.658 | 12.72 | 4.86 | 0.88 | 9.47  | 190.49 | 0.43 | 42.73 |
| 3.767 | 12.72 | 4.86 | 0.69 | 9.62  | 178.85 | 0.41 | 42.73 |
| 3.845 | 12.72 | 4.86 | 0.72 | 9.91  | 204.16 | 0.35 | 42.73 |
| 3.876 | 12.72 | 4.86 | 0.65 | 10.15 | 199.76 | 0.41 | 42.73 |
| 3.893 | 12.72 | 4.86 | 0.88 | 10.31 | 176.95 | 0.44 | 42.73 |
| 3.933 | 12.72 | 4.86 | 0.72 | 10.56 | 176.14 | 0.46 | 42.73 |
| 4.004 | 12.72 | 4.86 | 0.76 | 10.86 | 186.17 | 0.46 | 42.73 |
| 4.176 | 12.72 | 4.86 | 0.57 | 11.37 | 191.11 | 0.51 | 42.73 |
| 4.237 | 12.72 | 4.86 | 0.57 | 11.42 | 229.77 | 0.5  | 42.73 |
| 4.268 | 12.72 | 4.86 | 0.76 | 11.33 | 198.33 | 0.46 | 42.73 |
| 4.346 | 12.73 | 4.86 | 0.65 | 11.09 | 158.03 | 0.48 | 42.73 |
| 4.432 | 12.73 | 4.86 | 0.76 | 10.99 | 160.91 | 0.58 | 42.73 |
| 4.519 | 12.73 | 4.86 | 0.69 | 10.98 | 185.01 | 0.59 | 42.75 |
| 4.588 | 12.73 | 4.87 | 0.76 | 11.01 | 210.99 | 0.58 | 42.76 |
| 4.633 | 12.74 | 4.87 | 0.72 | 11.06 | 194.19 | 0.5  | 42.77 |
| 4.667 | 12.75 | 4.87 | 0.72 | 11.1  | 175.12 | 0.61 | 42.76 |
| 4.724 | 12.75 | 4.87 | 0.69 | 11.2  | 158.91 | 0.61 | 42.77 |
| 4.809 | 12.76 | 4.87 | 0.69 | 11.42 | 159.46 | 0.53 | 42.78 |
| 4.899 | 12.77 | 4.87 | 0.69 | 11.74 | 159.06 | 0.56 | 42.79 |
| 4.97  | 12.78 | 4.88 | 0.76 | 11.97 | 165.72 | 0.57 | 42.82 |
| 5.013 | 12.8  | 4.88 | 0.61 | 12.05 | 178.15 | 0.63 | 42.79 |
| 5.035 | 12.8  | 4.88 | 0.72 | 12.03 | 161.1  | 0.49 | 42.79 |
| 5.066 | 12.81 | 4.88 | 0.8  | 12.02 | 150.59 | 0.5  | 42.78 |
| 5.124 | 12.81 | 4.88 | 0.8  | 12.18 | 148.41 | 0.55 | 42.81 |
| 5.195 | 12.82 | 4.88 | 0.69 | 12.34 | 147.35 | 0.48 | 42.85 |
| 5.262 | 12.83 | 4.89 | 0.72 | 12.39 | 151.96 | 0.67 | 42.89 |
| 5.315 | 12.86 | 4.89 | 0.72 | 12.42 | 154.62 | 0.74 | 42.88 |
| 5.362 | 12.88 | 4.89 | 0.76 | 12.53 | 156.03 | 0.54 | 42.86 |
| 5.409 | 12.9  | 4.89 | 0.76 | 12.78 | 145.85 | 0.55 | 42.85 |
| 5.454 | 12.9  | 4.89 | 0.92 | 12.85 | 142.81 | 0.55 | 42.84 |
| 5.592 | 12.9  | 4.89 | 0.92 | 13.03 | 132.32 | 0.52 | 42.84 |
| 5.686 | 12.9  | 4.89 | 0.84 | 13.29 | 131.95 | 0.5  | 42.84 |
| 5.764 | 12.91 | 4.89 | 0.88 | 13.58 | 135.21 | 0.56 | 42.84 |
| 5.781 | 12.91 | 4.89 | 0.92 | 13.36 | 139.08 | 0.66 | 42.84 |
| 5.788 | 12.91 | 4.89 | 0.84 | 13.26 | 128.34 | 0.6  | 42.83 |
| 5.861 | 12.9  | 4.89 | 0.84 | 13.48 | 123.01 | 0.6  | 42.84 |
| 5.988 | 12.91 | 4.89 | 0.88 | 17.33 | 128.54 | 0.67 | 42.84 |



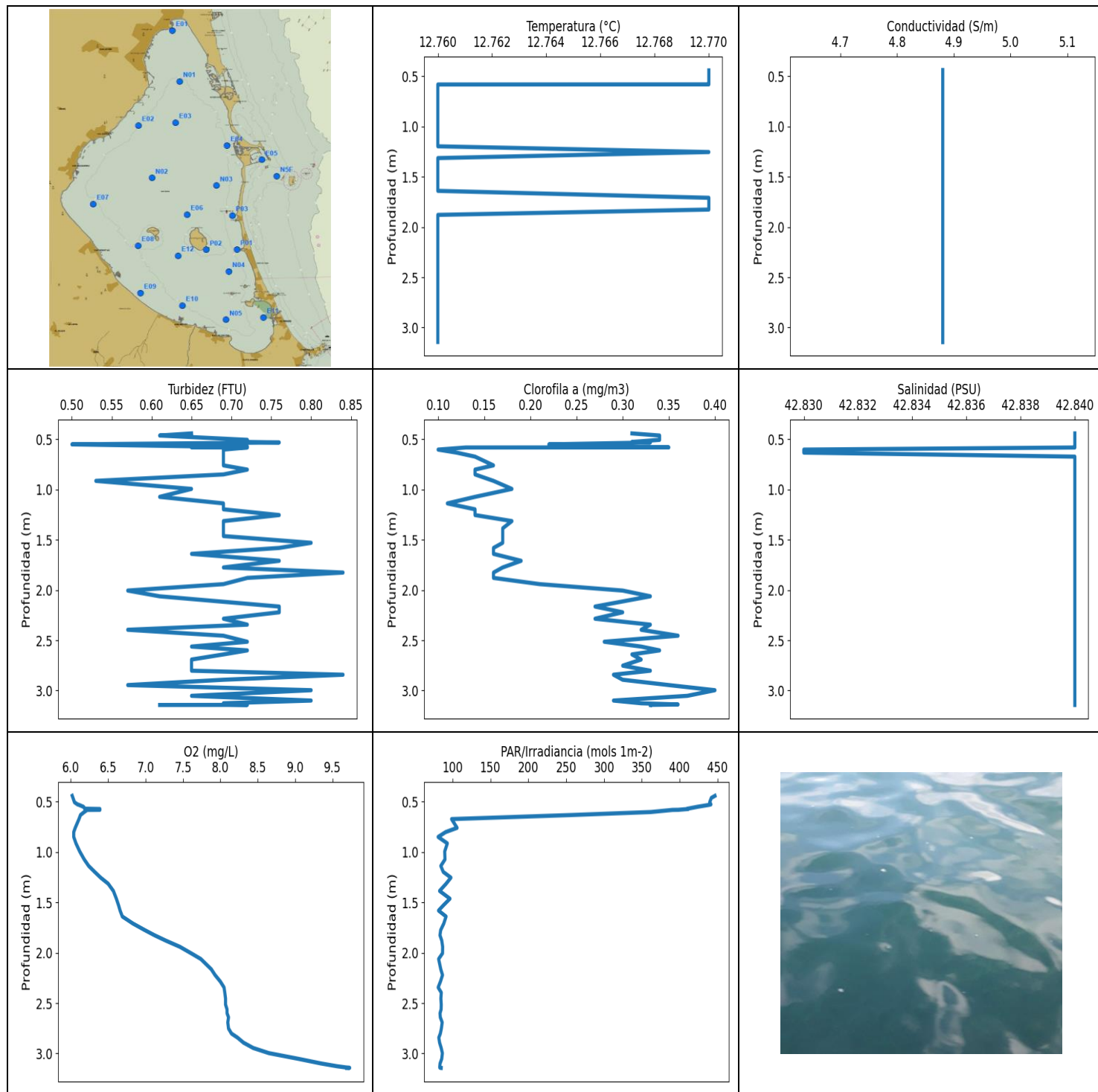
### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m³) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|----------------------|--------------------|
| <b>MÍNIMO</b>        | 12.16         | 4.84                   | 0.38              | 5.94              | 83.08                          | 0.1                  | 42.65              |
| <b>PROF (metros)</b> | 0.368         | 0.368                  | 0.513             | 0.785             | 0.844                          | 0.7                  | 1.405              |
| <b>MÁXIMO</b>        | 13.16         | 13.16                  | 3.09              | 7.1               | 526.09                         | 0.37                 | 43.13              |
| <b>PROF (metros)</b> | 0.515         | 0.446                  | 0.368             | 1.632             | 0.368                          | 0.522                | 0.368              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD P01 - Punto 013                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 13.1       | 4.91                | 0.74           | 6.09           | 303.14                      | 0.23              | 42.74           |
| 1 - 2m                                                     | 12.97      | 4.89                | 0.6            | 6.66           | 94.71                       | 0.15              | 42.73           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.368                                                          | 12.16      | 4.84                | 3.09           | 6.66           | 526.09                      | 0.11              | 43.13           |
| 0.446                                                          | 13.12      | 4.91                | 0.65           | 6.09           | 420.45                      | 0.31              | 42.74           |
| 0.45                                                           | 13.13      | 4.91                | 0.61           | 6.07           | 412.73                      | 0.29              | 42.73           |
| 0.475                                                          | 13.14      | 4.91                | 0.57           | 5.99           | 416.57                      | 0.31              | 42.73           |
| 0.476                                                          | 13.14      | 4.91                | 0.72           | 6.01           | 403.65                      | 0.33              | 42.73           |
| 0.499                                                          | 13.14      | 4.91                | 0.57           | 6.04           | 425.06                      | 0.34              | 42.73           |
| 0.501                                                          | 13.14      | 4.91                | 0.61           | 6.05           | 413.98                      | 0.34              | 42.73           |
| 0.509                                                          | 13.14      | 4.91                | 0.57           | 6.07           | 411.01                      | 0.34              | 42.73           |
| 0.513                                                          | 13.14      | 4.91                | 0.38           | 6.07           | 402.53                      | 0.31              | 42.73           |
| 0.514                                                          | 13.15      | 4.91                | 0.57           | 6.13           | 410.35                      | 0.27              | 42.72           |
| 0.515                                                          | 13.16      | 4.91                | 0.84           | 6.35           | 400.29                      | 0.32              | 42.72           |
| 0.522                                                          | 13.15      | 4.91                | 0.65           | 6.17           | 399.18                      | 0.37              | 42.71           |
| 0.542                                                          | 13.15      | 4.91                | 0.76           | 6.1            | 347.6                       | 0.2               | 42.71           |
| 0.59                                                           | 13.15      | 4.91                | 0.5            | 6.07           | 297.81                      | 0.11              | 42.71           |
| 0.645                                                          | 13.15      | 4.91                | 0.76           | 6.0            | 118.47                      | 0.12              | 42.71           |
| 0.7                                                            | 13.15      | 4.91                | 0.65           | 6.0            | 110.64                      | 0.1               | 42.72           |
| 0.746                                                          | 13.15      | 4.91                | 0.65           | 5.95           | 94.29                       | 0.15              | 42.71           |
| 0.785                                                          | 13.15      | 4.91                | 0.69           | 5.94           | 92.09                       | 0.11              | 42.72           |
| 0.844                                                          | 13.16      | 4.91                | 0.57           | 5.96           | 83.08                       | 0.11              | 42.72           |
| 0.916                                                          | 13.16      | 4.91                | 0.53           | 6.02           | 85.8                        | 0.15              | 42.72           |
| 0.987                                                          | 13.16      | 4.91                | 0.65           | 6.07           | 94.18                       | 0.14              | 42.72           |
| 1.052                                                          | 13.16      | 4.91                | 0.65           | 6.13           | 93.79                       | 0.11              | 42.72           |
| 1.119                                                          | 13.16      | 4.91                | 0.76           | 6.2            | 87.75                       | 0.15              | 42.72           |
| 1.197                                                          | 13.16      | 4.91                | 0.57           | 6.26           | 90.17                       | 0.17              | 42.72           |
| 1.262                                                          | 13.15      | 4.91                | 0.65           | 6.34           | 95.35                       | 0.13              | 42.72           |
| 1.306                                                          | 13.13      | 4.91                | 0.53           | 6.41           | 93.98                       | 0.13              | 42.72           |
| 1.35                                                           | 13.11      | 4.9                 | 0.53           | 6.5            | 91.13                       | 0.15              | 42.68           |
| 1.405                                                          | 13.04      | 4.89                | 0.65           | 6.58           | 91.28                       | 0.15              | 42.65           |
| 1.471                                                          | 12.96      | 4.88                | 0.61           | 6.67           | 92.49                       | 0.14              | 42.67           |
| 1.538                                                          | 12.89      | 4.88                | 0.61           | 6.75           | 89.94                       | 0.15              | 42.7            |
| 1.593                                                          | 12.84      | 4.88                | 0.42           | 6.84           | 93.98                       | 0.15              | 42.74           |
| 1.616                                                          | 12.81      | 4.88                | 0.53           | 6.96           | 92.54                       | 0.15              | 42.78           |
| 1.617                                                          | 12.79      | 4.87                | 0.69           | 7.03           | 93.03                       | 0.16              | 42.79           |
| 1.619                                                          | 12.78      | 4.88                | 0.5            | 7.07           | 97.42                       | 0.16              | 42.8            |
| 1.625                                                          | 12.78      | 4.87                | 0.69           | 7.09           | 104.85                      | 0.14              | 42.8            |
| 1.632                                                          | 12.77      | 4.87                | 0.65           | 7.1            | 112.87                      | 0.17              | 42.8            |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m³) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|----------------------|--------------------|
| <b>MÍNIMO</b>        | 12.76         | 4.88                   | 0.5               | 6.02              | 80.62                          | 0.1                  | 42.83              |
| <b>PROF (metros)</b> | 0.582         | 0.442                  | 0.551             | 0.442             | 0.85                           | 0.603                | 0.603              |
| <b>MÁXIMO</b>        | 12.77         | 12.77                  | 0.84              | 9.73              | 446.78                         | 0.4                  | 42.84              |
| <b>PROF (metros)</b> | 0.442         | 0.442                  | 1.826             | 3.142             | 0.442                          | 2.996                | 0.442              |

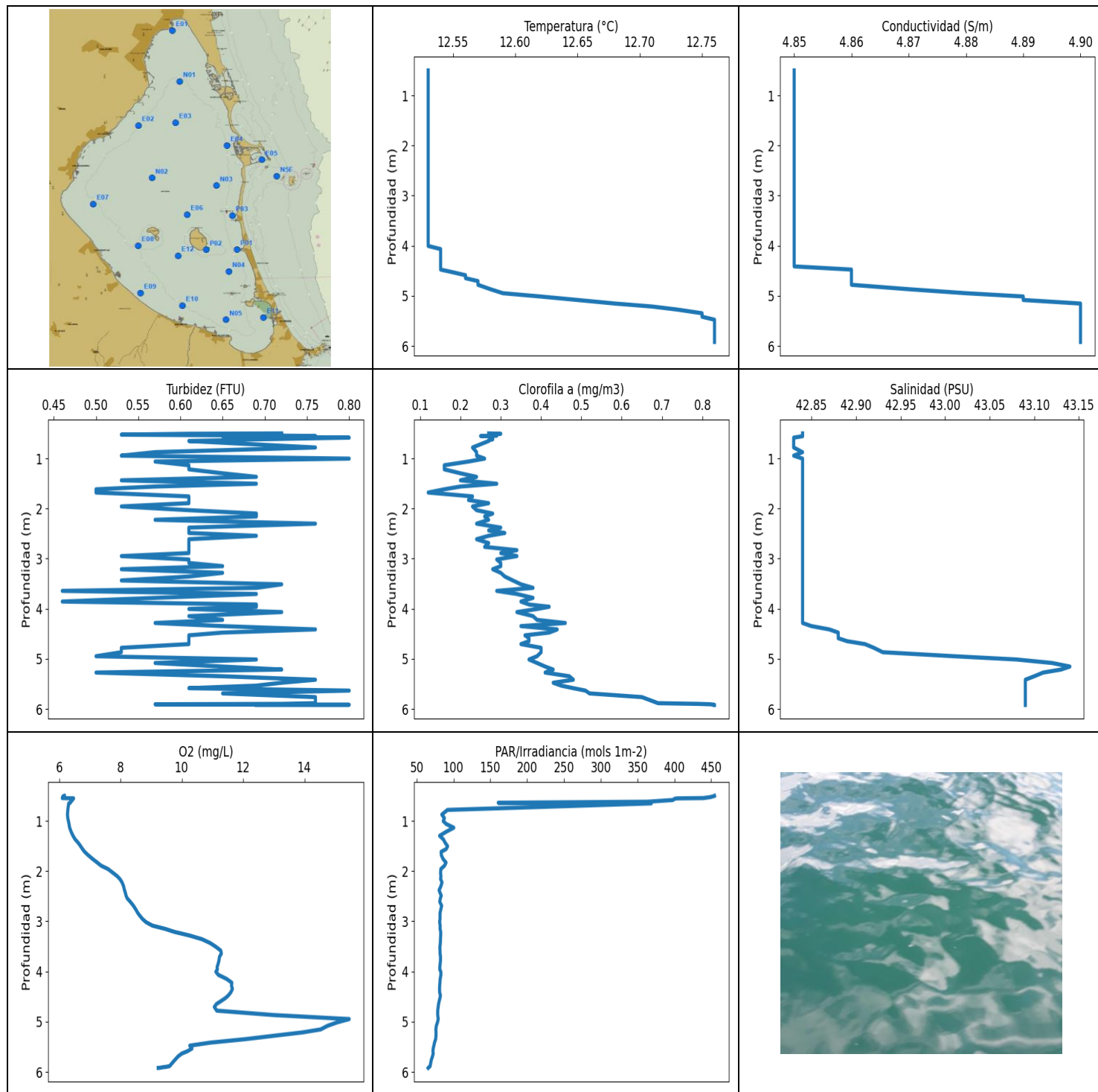
| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD P02 - Punto 014                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.77      | 4.88                | 0.67           | 6.13           | 301.01                      | 0.23              | 42.84           |
| 1 - 2m                                                     | 12.76      | 4.88                | 0.71           | 6.7            | 87.74                       | 0.16              | 42.84           |
| 2 - 3m                                                     | 12.76      | 4.88                | 0.68           | 8.09           | 84.07                       | 0.32              | 42.84           |
| 3 - 4m                                                     | 12.76      | 4.88                | 0.69           | 9.51           | 83.7                        | 0.33              | 42.84           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.442                                                          | 12.77      | 4.88                | 0.65           | 6.02           | 446.78                      | 0.31              | 42.84           |
| 0.463                                                          | 12.77      | 4.88                | 0.61           | 6.03           | 441.94                      | 0.34              | 42.84           |
| 0.506                                                          | 12.77      | 4.88                | 0.72           | 6.05           | 439.79                      | 0.34              | 42.84           |
| 0.527                                                          | 12.77      | 4.88                | 0.72           | 6.09           | 441.43                      | 0.31              | 42.84           |
| 0.532                                                          | 12.77      | 4.88                | 0.76           | 6.11           | 438.88                      | 0.33              | 42.84           |
| 0.551                                                          | 12.77      | 4.88                | 0.5            | 6.17           | 423.68                      | 0.22              | 42.84           |
| 0.57                                                           | 12.77      | 4.88                | 0.65           | 6.19           | 410.54                      | 0.29              | 42.84           |
| 0.573                                                          | 12.77      | 4.88                | 0.72           | 6.39           | 411.2                       | 0.28              | 42.84           |
| 0.581                                                          | 12.77      | 4.88                | 0.65           | 6.39           | 398.26                      | 0.35              | 42.84           |
| 0.582                                                          | 12.76      | 4.88                | 0.72           | 6.22           | 390.58                      | 0.13              | 42.84           |
| 0.603                                                          | 12.76      | 4.88                | 0.69           | 6.18           | 361.9                       | 0.1               | 42.83           |
| 0.633                                                          | 12.76      | 4.88                | 0.69           | 6.13           | 255.74                      | 0.12              | 42.83           |
| 0.673                                                          | 12.76      | 4.88                | 0.69           | 6.11           | 98.44                       | 0.14              | 42.84           |
| 0.76                                                           | 12.76      | 4.88                | 0.69           | 6.06           | 105.7                       | 0.16              | 42.84           |
| 0.802                                                          | 12.76      | 4.88                | 0.72           | 6.04           | 90.56                       | 0.14              | 42.84           |
| 0.85                                                           | 12.76      | 4.88                | 0.69           | 6.04           | 80.62                       | 0.14              | 42.84           |
| 0.914                                                          | 12.76      | 4.88                | 0.53           | 6.07           | 92.82                       | 0.16              | 42.84           |
| 0.994                                                          | 12.76      | 4.88                | 0.65           | 6.12           | 89.33                       | 0.18              | 42.84           |
| 1.073                                                          | 12.76      | 4.88                | 0.61           | 6.18           | 89.71                       | 0.14              | 42.84           |
| 1.138                                                          | 12.76      | 4.88                | 0.69           | 6.24           | 84.21                       | 0.11              | 42.84           |
| 1.197                                                          | 12.76      | 4.88                | 0.69           | 6.32           | 87.41                       | 0.14              | 42.84           |
| 1.254                                                          | 12.77      | 4.88                | 0.76           | 6.4            | 97.56                       | 0.14              | 42.84           |
| 1.314                                                          | 12.76      | 4.88                | 0.69           | 6.5            | 91.24                       | 0.18              | 42.84           |
| 1.386                                                          | 12.76      | 4.88                | 0.69           | 6.57           | 82.56                       | 0.17              | 42.84           |
| 1.463                                                          | 12.76      | 4.88                | 0.69           | 6.61           | 96.28                       | 0.17              | 42.84           |
| 1.53                                                           | 12.76      | 4.88                | 0.8            | 6.64           | 87.45                       | 0.17              | 42.84           |
| 1.581                                                          | 12.76      | 4.88                | 0.76           | 6.66           | 81.18                       | 0.16              | 42.84           |
| 1.64                                                           | 12.76      | 4.88                | 0.65           | 6.69           | 91.11                       | 0.16              | 42.84           |
| 1.709                                                          | 12.77      | 4.88                | 0.76           | 6.83           | 88.16                       | 0.19              | 42.84           |
| 1.775                                                          | 12.77      | 4.88                | 0.69           | 6.99           | 84.01                       | 0.17              | 42.84           |
| 1.826                                                          | 12.77      | 4.88                | 0.84           | 7.12           | 83.08                       | 0.16              | 42.84           |
| 1.879                                                          | 12.76      | 4.88                | 0.72           | 7.27           | 85.45                       | 0.16              | 42.84           |
| 1.941                                                          | 12.76      | 4.88                | 0.69           | 7.46           | 86.62                       | 0.21              | 42.84           |
| 2.005                                                          | 12.76      | 4.88                | 0.57           | 7.61           | 86.46                       | 0.3               | 42.84           |
| 2.062                                                          | 12.76      | 4.88                | 0.61           | 7.74           | 81.29                       | 0.33              | 42.84           |
| 2.164                                                          | 12.76      | 4.88                | 0.76           | 7.88           | 84.17                       | 0.27              | 42.84           |
| 2.221                                                          | 12.76      | 4.88                | 0.76           | 7.93           | 86.44                       | 0.3               | 42.84           |
| 2.285                                                          | 12.76      | 4.88                | 0.69           | 8.0            | 83.74                       | 0.27              | 42.84           |



|       |       |      |      |      |       |      |       |
|-------|-------|------|------|------|-------|------|-------|
| 2.344 | 12.76 | 4.88 | 0.72 | 8.05 | 80.67 | 0.33 | 42.84 |
| 2.395 | 12.76 | 4.88 | 0.57 | 8.06 | 84.81 | 0.32 | 42.84 |
| 2.454 | 12.76 | 4.88 | 0.69 | 8.07 | 84.28 | 0.36 | 42.84 |
| 2.514 | 12.76 | 4.88 | 0.72 | 8.07 | 84.76 | 0.28 | 42.84 |
| 2.562 | 12.76 | 4.88 | 0.65 | 8.09 | 84.58 | 0.32 | 42.84 |
| 2.6   | 12.76 | 4.88 | 0.72 | 8.09 | 83.14 | 0.34 | 42.84 |
| 2.64  | 12.76 | 4.88 | 0.69 | 8.11 | 83.51 | 0.31 | 42.84 |
| 2.691 | 12.76 | 4.88 | 0.65 | 8.1  | 86.0  | 0.32 | 42.84 |
| 2.752 | 12.76 | 4.88 | 0.65 | 8.11 | 84.93 | 0.3  | 42.84 |
| 2.802 | 12.76 | 4.88 | 0.65 | 8.15 | 83.56 | 0.33 | 42.84 |
| 2.842 | 12.76 | 4.88 | 0.84 | 8.23 | 81.54 | 0.29 | 42.84 |
| 2.892 | 12.76 | 4.88 | 0.69 | 8.31 | 82.56 | 0.3  | 42.84 |
| 2.945 | 12.76 | 4.88 | 0.57 | 8.44 | 84.7  | 0.35 | 42.84 |
| 2.996 | 12.76 | 4.88 | 0.8  | 8.65 | 86.24 | 0.4  | 42.84 |
| 3.052 | 12.76 | 4.88 | 0.65 | 9.04 | 85.41 | 0.37 | 42.84 |
| 3.099 | 12.76 | 4.88 | 0.8  | 9.35 | 83.22 | 0.29 | 42.84 |
| 3.126 | 12.76 | 4.88 | 0.69 | 9.56 | 82.83 | 0.32 | 42.84 |
| 3.138 | 12.76 | 4.88 | 0.69 | 9.68 | 82.74 | 0.36 | 42.84 |
| 3.142 | 12.76 | 4.88 | 0.72 | 9.73 | 83.3  | 0.33 | 42.84 |
| 3.143 | 12.76 | 4.88 | 0.61 | 9.69 | 84.72 | 0.33 | 42.84 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

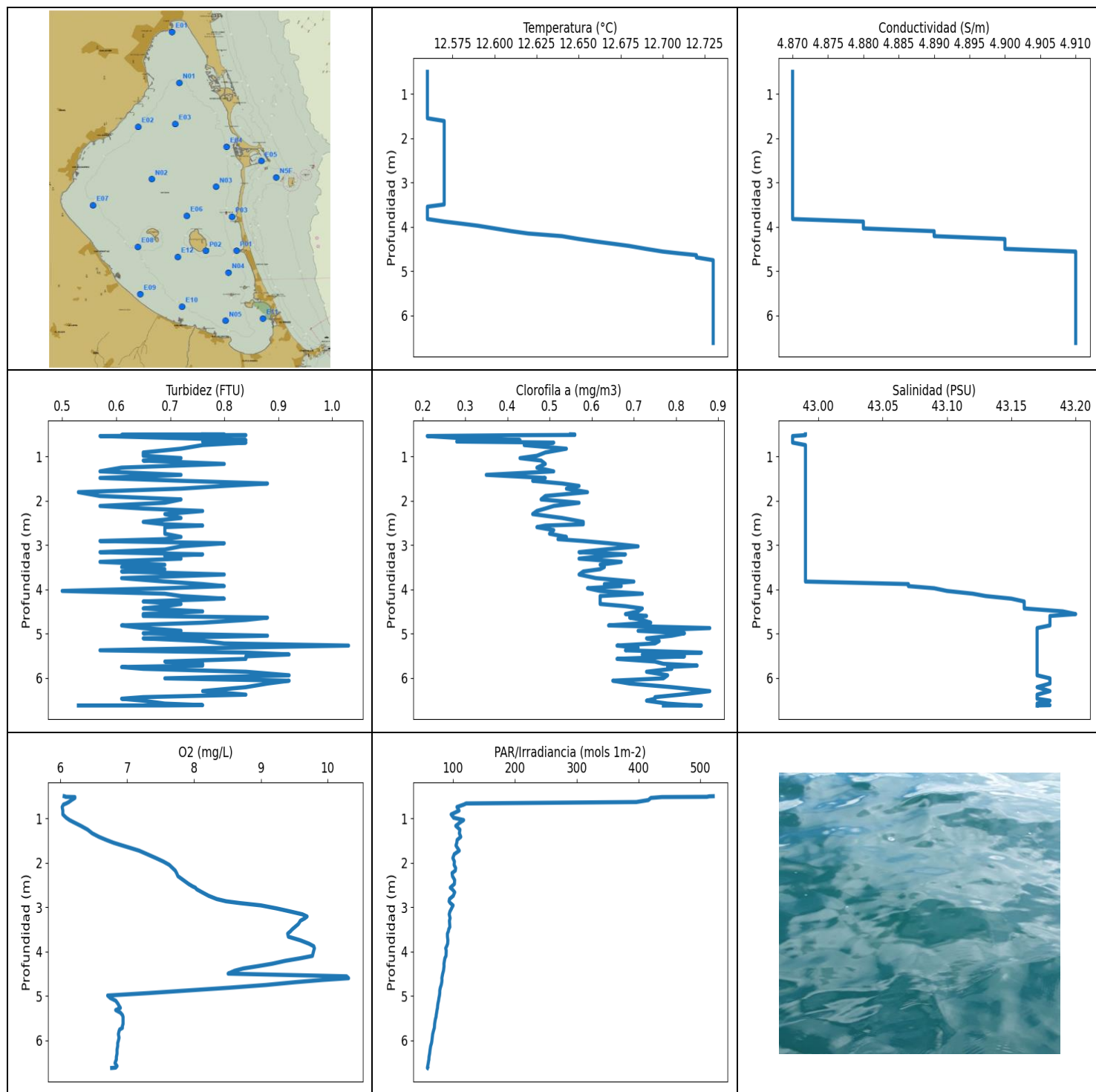
|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.53         | 4.85                   | 0.46              | 6.1               | 65.51                          | 0.12                              | 42.83              |
| <b>PROF (metros)</b> | 0.501         | 0.501                  | 3.643             | 0.546             | 5.92                           | 1.681                             | 0.585              |
| <b>MÁXIMO</b>        | 12.76         | 12.76                  | 0.8               | 15.46             | 454.61                         | 0.83                              | 43.14              |
| <b>PROF (metros)</b> | 5.476         | 5.153                  | 0.585             | 4.947             | 0.501                          | 5.916                             | 5.153              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E12 - Punto 015                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.53      | 4.85                | 0.66           | 6.29           | 319.75                      | 0.27              | 42.84           |
| 1 - 2m                                                     | 12.53      | 4.85                | 0.61           | 6.76           | 87.76                       | 0.21              | 42.84           |
| 2 - 3m                                                     | 12.53      | 4.85                | 0.63           | 8.24           | 82.32                       | 0.28              | 42.84           |
| 3 - 4m                                                     | 12.53      | 4.85                | 0.61           | 10.57          | 81.83                       | 0.33              | 42.84           |
| 4 - 5m                                                     | 12.55      | 4.86                | 0.62           | 11.75          | 80.74                       | 0.39              | 42.88           |
| 5 - 6m                                                     | 12.74      | 4.9                 | 0.68           | 11.21          | 72.05                       | 0.55              | 43.1            |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.501                                                          | 12.53      | 4.85                | 0.72           | 6.17           | 454.61                      | 0.27              | 42.84           |
| 0.508                                                          | 12.53      | 4.85                | 0.61           | 6.13           | 453.56                      | 0.3               | 42.84           |
| 0.526                                                          | 12.53      | 4.85                | 0.53           | 6.11           | 449.17                      | 0.28              | 42.84           |
| 0.546                                                          | 12.53      | 4.85                | 0.72           | 6.1            | 439.69                      | 0.29              | 42.84           |
| 0.552                                                          | 12.53      | 4.85                | 0.76           | 6.47           | 404.49                      | 0.25              | 42.84           |
| 0.557                                                          | 12.53      | 4.85                | 0.65           | 6.45           | 400.94                      | 0.27              | 42.84           |
| 0.585                                                          | 12.53      | 4.85                | 0.8            | 6.43           | 397.98                      | 0.28              | 42.83           |
| 0.619                                                          | 12.53      | 4.85                | 0.69           | 6.38           | 363.5                       | 0.28              | 42.83           |
| 0.639                                                          | 12.53      | 4.85                | 0.65           | 6.36           | 160.73                      | 0.27              | 42.83           |
| 0.652                                                          | 12.53      | 4.85                | 0.61           | 6.31           | 368.68                      | 0.27              | 42.83           |
| 0.782                                                          | 12.53      | 4.85                | 0.76           | 6.28           | 91.73                       | 0.23              | 42.83           |
| 0.875                                                          | 12.53      | 4.85                | 0.57           | 6.27           | 84.05                       | 0.24              | 42.84           |
| 0.945                                                          | 12.53      | 4.85                | 0.53           | 6.28           | 87.57                       | 0.24              | 42.83           |
| 1.004                                                          | 12.53      | 4.85                | 0.8            | 6.3            | 85.98                       | 0.26              | 42.84           |
| 1.062                                                          | 12.53      | 4.85                | 0.57           | 6.32           | 90.04                       | 0.22              | 42.84           |
| 1.136                                                          | 12.53      | 4.85                | 0.61           | 6.34           | 100.31                      | 0.16              | 42.84           |
| 1.218                                                          | 12.53      | 4.85                | 0.61           | 6.39           | 89.85                       | 0.16              | 42.84           |
| 1.297                                                          | 12.53      | 4.85                | 0.65           | 6.45           | 81.07                       | 0.2               | 42.84           |
| 1.368                                                          | 12.53      | 4.85                | 0.69           | 6.52           | 86.16                       | 0.24              | 42.84           |
| 1.437                                                          | 12.53      | 4.85                | 0.53           | 6.62           | 88.67                       | 0.2               | 42.84           |
| 1.505                                                          | 12.53      | 4.85                | 0.69           | 6.7            | 91.92                       | 0.29              | 42.84           |
| 1.561                                                          | 12.53      | 4.85                | 0.57           | 6.76           | 89.98                       | 0.2               | 42.84           |
| 1.616                                                          | 12.53      | 4.85                | 0.5            | 6.83           | 83.12                       | 0.16              | 42.84           |
| 1.681                                                          | 12.53      | 4.85                | 0.5            | 6.94           | 83.41                       | 0.12              | 42.84           |
| 1.758                                                          | 12.53      | 4.85                | 0.61           | 7.09           | 85.68                       | 0.23              | 42.84           |
| 1.83                                                           | 12.53      | 4.85                | 0.61           | 7.24           | 89.77                       | 0.22              | 42.84           |
| 1.893                                                          | 12.53      | 4.85                | 0.61           | 7.37           | 87.65                       | 0.27              | 42.84           |
| 1.958                                                          | 12.53      | 4.85                | 0.53           | 7.59           | 82.76                       | 0.23              | 42.84           |
| 2.033                                                          | 12.53      | 4.85                | 0.61           | 7.75           | 82.35                       | 0.24              | 42.84           |
| 2.1                                                            | 12.53      | 4.85                | 0.69           | 7.89           | 82.81                       | 0.28              | 42.84           |
| 2.158                                                          | 12.53      | 4.85                | 0.69           | 7.98           | 82.41                       | 0.26              | 42.84           |
| 2.225                                                          | 12.53      | 4.85                | 0.57           | 8.05           | 84.3                        | 0.27              | 42.84           |
| 2.302                                                          | 12.53      | 4.85                | 0.76           | 8.1            | 82.74                       | 0.24              | 42.84           |
| 2.381                                                          | 12.53      | 4.85                | 0.61           | 8.13           | 80.37                       | 0.3               | 42.84           |
| 2.437                                                          | 12.53      | 4.85                | 0.61           | 8.16           | 81.78                       | 0.27              | 42.84           |
| 2.488                                                          | 12.53      | 4.85                | 0.61           | 8.18           | 83.31                       | 0.31              | 42.84           |

|       |       |      |      |       |       |      |       |
|-------|-------|------|------|-------|-------|------|-------|
| 2.544 | 12.53 | 4.85 | 0.69 | 8.22  | 82.01 | 0.27 | 42.84 |
| 2.612 | 12.53 | 4.85 | 0.61 | 8.32  | 81.27 | 0.24 | 42.84 |
| 2.689 | 12.53 | 4.85 | 0.61 | 8.42  | 83.8  | 0.27 | 42.84 |
| 2.765 | 12.53 | 4.85 | 0.61 | 8.5   | 82.68 | 0.26 | 42.84 |
| 2.831 | 12.53 | 4.85 | 0.61 | 8.56  | 81.67 | 0.34 | 42.84 |
| 2.889 | 12.53 | 4.85 | 0.61 | 8.63  | 81.61 | 0.3  | 42.84 |
| 2.949 | 12.53 | 4.85 | 0.53 | 8.71  | 81.65 | 0.34 | 42.84 |
| 3.016 | 12.53 | 4.85 | 0.61 | 8.83  | 81.08 | 0.29 | 42.84 |
| 3.086 | 12.53 | 4.85 | 0.61 | 9.04  | 81.82 | 0.3  | 42.84 |
| 3.15  | 12.53 | 4.85 | 0.65 | 9.45  | 81.69 | 0.3  | 42.84 |
| 3.211 | 12.53 | 4.85 | 0.53 | 9.76  | 82.54 | 0.28 | 42.84 |
| 3.283 | 12.53 | 4.85 | 0.65 | 10.25 | 82.49 | 0.3  | 42.84 |
| 3.357 | 12.53 | 4.85 | 0.61 | 10.66 | 82.24 | 0.31 | 42.84 |
| 3.435 | 12.53 | 4.85 | 0.53 | 10.93 | 82.03 | 0.33 | 42.84 |
| 3.512 | 12.53 | 4.85 | 0.72 | 11.12 | 81.42 | 0.35 | 42.84 |
| 3.583 | 12.53 | 4.85 | 0.69 | 11.27 | 81.58 | 0.38 | 42.84 |
| 3.643 | 12.53 | 4.85 | 0.46 | 11.29 | 81.69 | 0.29 | 42.84 |
| 3.705 | 12.53 | 4.85 | 0.69 | 11.23 | 82.26 | 0.34 | 42.84 |
| 3.783 | 12.53 | 4.85 | 0.57 | 11.21 | 82.24 | 0.38 | 42.84 |
| 3.856 | 12.53 | 4.85 | 0.46 | 11.18 | 81.73 | 0.35 | 42.84 |
| 3.915 | 12.53 | 4.85 | 0.69 | 11.15 | 81.31 | 0.37 | 42.84 |
| 3.96  | 12.53 | 4.85 | 0.69 | 11.16 | 81.29 | 0.42 | 42.84 |
| 4.004 | 12.53 | 4.85 | 0.61 | 11.11 | 82.74 | 0.39 | 42.84 |
| 4.066 | 12.54 | 4.85 | 0.72 | 11.19 | 82.79 | 0.34 | 42.84 |
| 4.147 | 12.54 | 4.85 | 0.61 | 11.46 | 81.84 | 0.38 | 42.84 |
| 4.222 | 12.54 | 4.85 | 0.65 | 11.63 | 81.48 | 0.39 | 42.84 |
| 4.284 | 12.54 | 4.85 | 0.57 | 11.62 | 81.14 | 0.46 | 42.84 |
| 4.346 | 12.54 | 4.85 | 0.65 | 11.65 | 80.97 | 0.35 | 42.85 |
| 4.412 | 12.54 | 4.85 | 0.76 | 11.6  | 81.07 | 0.44 | 42.87 |
| 4.475 | 12.54 | 4.86 | 0.65 | 11.52 | 82.16 | 0.42 | 42.88 |
| 4.53  | 12.55 | 4.86 | 0.61 | 11.42 | 81.5  | 0.36 | 42.88 |
| 4.588 | 12.56 | 4.86 | 0.61 | 11.28 | 80.49 | 0.37 | 42.88 |
| 4.647 | 12.56 | 4.86 | 0.61 | 11.13 | 79.61 | 0.37 | 42.89 |
| 4.705 | 12.57 | 4.86 | 0.61 | 11.06 | 79.12 | 0.35 | 42.91 |
| 4.779 | 12.57 | 4.86 | 0.53 | 11.14 | 78.48 | 0.4  | 42.92 |
| 4.867 | 12.58 | 4.87 | 0.53 | 13.0  | 78.46 | 0.4  | 42.93 |
| 4.947 | 12.59 | 4.88 | 0.5  | 15.46 | 79.19 | 0.39 | 43.01 |
| 5.012 | 12.62 | 4.89 | 0.69 | 15.07 | 78.15 | 0.37 | 43.08 |
| 5.082 | 12.65 | 4.89 | 0.57 | 14.75 | 76.56 | 0.39 | 43.12 |
| 5.153 | 12.68 | 4.9  | 0.65 | 14.53 | 75.97 | 0.41 | 43.14 |
| 5.213 | 12.71 | 4.9  | 0.72 | 13.93 | 76.15 | 0.43 | 43.13 |
| 5.273 | 12.73 | 4.9  | 0.5  | 13.09 | 76.13 | 0.41 | 43.11 |
| 5.347 | 12.75 | 4.9  | 0.65 | 12.07 | 75.67 | 0.47 | 43.1  |
| 5.416 | 12.75 | 4.9  | 0.76 | 10.93 | 74.11 | 0.48 | 43.09 |
| 5.476 | 12.76 | 4.9  | 0.72 | 10.26 | 73.28 | 0.43 | 43.09 |
| 5.534 | 12.76 | 4.9  | 0.69 | 10.33 | 72.33 | 0.45 | 43.09 |
| 5.585 | 12.76 | 4.9  | 0.61 | 10.19 | 72.01 | 0.48 | 43.09 |
| 5.633 | 12.76 | 4.9  | 0.8  | 10.0  | 72.33 | 0.51 | 43.09 |
| 5.689 | 12.76 | 4.9  | 0.65 | 9.88  | 71.38 | 0.52 | 43.09 |
| 5.763 | 12.76 | 4.9  | 0.76 | 9.77  | 69.71 | 0.65 | 43.09 |
| 5.884 | 12.76 | 4.9  | 0.76 | 9.6   | 68.16 | 0.69 | 43.09 |
| 5.898 | 12.76 | 4.9  | 0.72 | 9.49  | 67.3  | 0.79 | 43.09 |
| 5.906 | 12.76 | 4.9  | 0.57 | 9.38  | 66.48 | 0.82 | 43.09 |
| 5.916 | 12.76 | 4.9  | 0.8  | 9.3   | 65.7  | 0.83 | 43.09 |
| 5.92  | 12.76 | 4.9  | 0.69 | 9.23  | 65.51 | 0.83 | 43.09 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.56         | 4.87                   | 0.5               | 6.03              | 58.51                          | 0.21                              | 42.98              |
| <b>PROF (metros)</b> | 0.501         | 0.501                  | 4.035             | 0.744             | 6.618                          | 0.54                              | 0.54               |
| <b>MÁXIMO</b>        | 12.73         | 12.73                  | 1.03              | 10.31             | 520.87                         | 0.88                              | 43.2               |
| <b>PROF (metros)</b> | 4.751         | 4.557                  | 5.268             | 4.599             | 0.501                          | 4.873                             | 4.557              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E06 - Punto 016                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.56      | 4.87                | 0.73           | 6.1            | 297.61                      | 0.44              | 42.99           |
| 1 - 2m                                                     | 12.57      | 4.87                | 0.69           | 6.79           | 107.52                      | 0.49              | 42.99           |
| 2 - 3m                                                     | 12.57      | 4.87                | 0.69           | 8.07           | 99.42                       | 0.53              | 42.99           |
| 3 - 4m                                                     | 12.57      | 4.87                | 0.69           | 9.57           | 92.73                       | 0.63              | 43.0            |
| 4 - 5m                                                     | 12.69      | 4.9                 | 0.7            | 9.0            | 83.19                       | 0.7               | 43.16           |
| 5 - 6m                                                     | 12.73      | 4.91                | 0.79           | 6.89           | 71.95                       | 0.75              | 43.17           |
| 6 - 7m                                                     | 12.73      | 4.91                | 0.73           | 6.84           | 61.3                        | 0.77              | 43.17           |

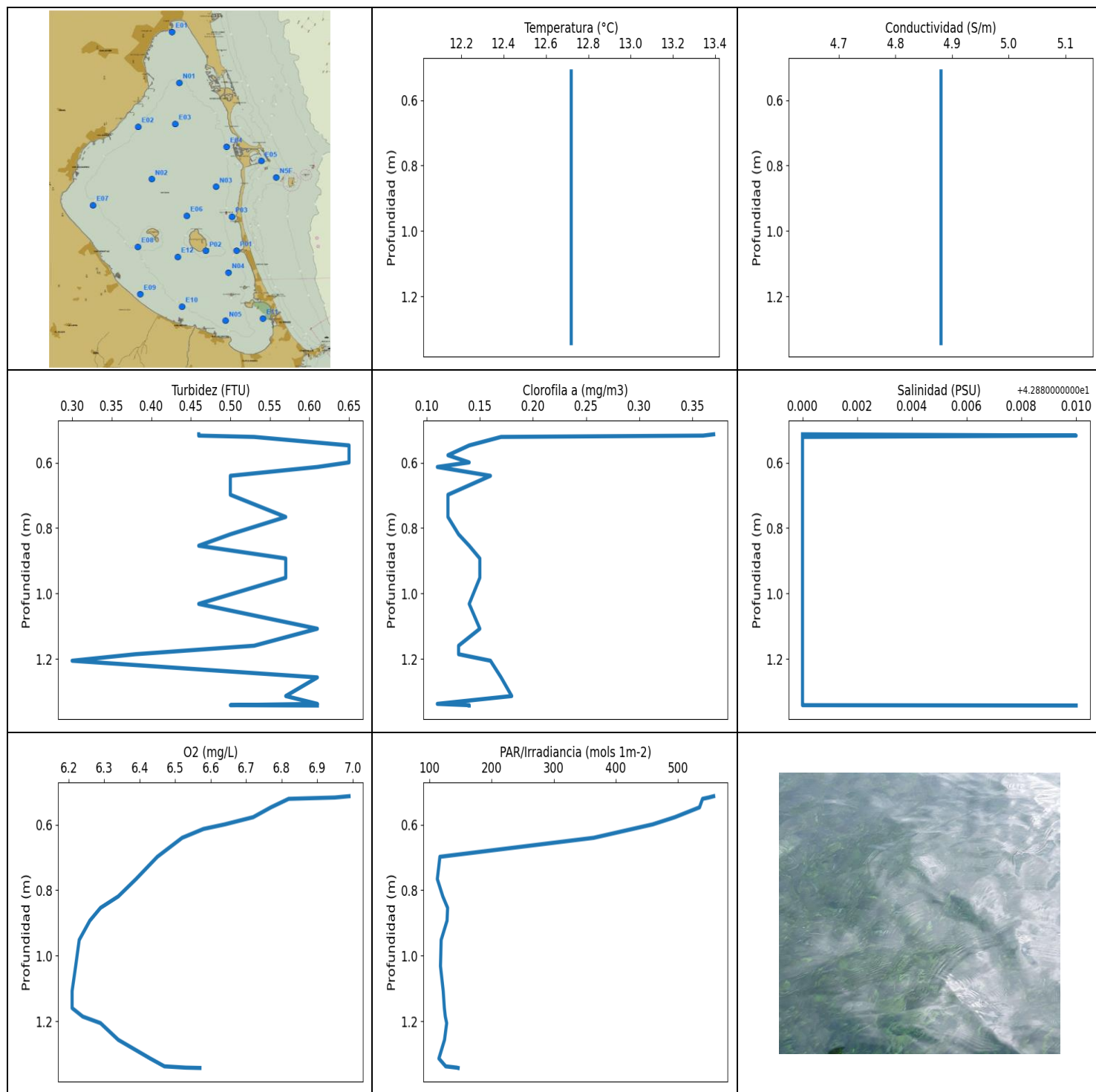
| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.501                                                          | 12.56      | 4.87                | 0.76           | 6.06           | 520.87                      | 0.55              | 42.99           |
| 0.504                                                          | 12.56      | 4.87                | 0.8            | 6.07           | 514.27                      | 0.56              | 42.99           |
| 0.515                                                          | 12.56      | 4.87                | 0.61           | 6.08           | 510.71                      | 0.56              | 42.99           |
| 0.52                                                           | 12.56      | 4.87                | 0.84           | 6.22           | 437.86                      | 0.44              | 42.99           |
| 0.54                                                           | 12.56      | 4.87                | 0.57           | 6.22           | 419.97                      | 0.21              | 42.98           |
| 0.588                                                          | 12.56      | 4.87                | 0.72           | 6.17           | 415.9                       | 0.29              | 42.98           |
| 0.632                                                          | 12.56      | 4.87                | 0.84           | 6.13           | 396.51                      | 0.43              | 42.98           |
| 0.664                                                          | 12.56      | 4.87                | 0.76           | 6.09           | 121.19                      | 0.28              | 42.98           |
| 0.688                                                          | 12.56      | 4.87                | 0.84           | 6.05           | 117.68                      | 0.51              | 42.98           |
| 0.744                                                          | 12.56      | 4.87                | 0.76           | 6.03           | 106.34                      | 0.44              | 42.99           |
| 0.826                                                          | 12.56      | 4.87                | 0.72           | 6.04           | 109.75                      | 0.54              | 42.99           |
| 0.911                                                          | 12.56      | 4.87                | 0.65           | 6.04           | 96.95                       | 0.49              | 42.99           |
| 0.985                                                          | 12.56      | 4.87                | 0.65           | 6.09           | 100.92                      | 0.47              | 42.99           |
| 1.038                                                          | 12.56      | 4.87                | 0.72           | 6.14           | 117.11                      | 0.43              | 42.99           |
| 1.093                                                          | 12.56      | 4.87                | 0.65           | 6.21           | 111.31                      | 0.48              | 42.99           |
| 1.169                                                          | 12.56      | 4.87                | 0.8            | 6.31           | 104.41                      | 0.49              | 42.99           |
| 1.253                                                          | 12.56      | 4.87                | 0.61           | 6.41           | 111.13                      | 0.47              | 42.99           |
| 1.337                                                          | 12.56      | 4.87                | 0.57           | 6.48           | 110.21                      | 0.51              | 42.99           |
| 1.416                                                          | 12.56      | 4.87                | 0.72           | 6.58           | 112.5                       | 0.35              | 42.99           |
| 1.486                                                          | 12.56      | 4.87                | 0.57           | 6.69           | 106.62                      | 0.49              | 42.99           |
| 1.55                                                           | 12.56      | 4.87                | 0.72           | 6.8            | 106.07                      | 0.46              | 42.99           |
| 1.611                                                          | 12.57      | 4.87                | 0.88           | 6.93           | 104.71                      | 0.53              | 42.99           |
| 1.666                                                          | 12.57      | 4.87                | 0.8            | 7.05           | 107.23                      | 0.57              | 42.99           |
| 1.727                                                          | 12.57      | 4.87                | 0.72           | 7.18           | 110.05                      | 0.54              | 42.99           |
| 1.806                                                          | 12.57      | 4.87                | 0.53           | 7.3            | 102.0                       | 0.59              | 42.99           |
| 1.893                                                          | 12.57      | 4.87                | 0.57           | 7.43           | 99.66                       | 0.49              | 42.99           |
| 1.97                                                           | 12.57      | 4.87                | 0.72           | 7.54           | 102.21                      | 0.48              | 42.99           |
| 2.046                                                          | 12.57      | 4.87                | 0.69           | 7.63           | 101.72                      | 0.57              | 42.99           |
| 2.118                                                          | 12.57      | 4.87                | 0.57           | 7.68           | 104.24                      | 0.51              | 42.99           |
| 2.176                                                          | 12.57      | 4.87                | 0.65           | 7.72           | 103.69                      | 0.49              | 42.99           |
| 2.231                                                          | 12.57      | 4.87                | 0.76           | 7.74           | 98.44                       | 0.47              | 42.99           |
| 2.301                                                          | 12.57      | 4.87                | 0.69           | 7.76           | 99.09                       | 0.46              | 42.99           |
| 2.389                                                          | 12.57      | 4.87                | 0.72           | 7.84           | 102.61                      | 0.53              | 42.99           |
| 2.477                                                          | 12.57      | 4.87                | 0.65           | 7.92           | 102.19                      | 0.58              | 42.99           |
| 2.532                                                          | 12.57      | 4.87                | 0.69           | 7.98           | 97.7                        | 0.58              | 42.99           |

|       |       |      |      |       |        |      |       |
|-------|-------|------|------|-------|--------|------|-------|
| 2.56  | 12.57 | 4.87 | 0.76 | 8.02  | 95.54  | 0.49 | 42.99 |
| 2.596 | 12.57 | 4.87 | 0.69 | 8.04  | 98.72  | 0.47 | 42.99 |
| 2.663 | 12.57 | 4.87 | 0.69 | 8.12  | 102.71 | 0.51 | 42.99 |
| 2.744 | 12.57 | 4.87 | 0.69 | 8.22  | 100.36 | 0.5  | 42.99 |
| 2.816 | 12.57 | 4.87 | 0.72 | 8.34  | 94.31  | 0.54 | 42.99 |
| 2.867 | 12.57 | 4.87 | 0.69 | 8.48  | 93.59  | 0.52 | 42.99 |
| 2.908 | 12.57 | 4.87 | 0.57 | 8.69  | 95.68  | 0.58 | 42.99 |
| 2.959 | 12.57 | 4.87 | 0.8  | 9.0   | 100.08 | 0.64 | 42.99 |
| 3.029 | 12.57 | 4.87 | 0.72 | 9.24  | 97.51  | 0.71 | 42.99 |
| 3.1   | 12.57 | 4.87 | 0.69 | 9.45  | 94.88  | 0.63 | 42.99 |
| 3.16  | 12.57 | 4.87 | 0.57 | 9.62  | 93.83  | 0.57 | 42.99 |
| 3.209 | 12.57 | 4.87 | 0.76 | 9.69  | 94.6   | 0.68 | 42.99 |
| 3.246 | 12.57 | 4.87 | 0.69 | 9.66  | 95.21  | 0.63 | 42.99 |
| 3.306 | 12.57 | 4.87 | 0.72 | 9.59  | 94.16  | 0.57 | 42.99 |
| 3.379 | 12.57 | 4.87 | 0.57 | 9.56  | 94.49  | 0.67 | 42.99 |
| 3.444 | 12.57 | 4.87 | 0.69 | 9.51  | 94.82  | 0.62 | 42.99 |
| 3.495 | 12.57 | 4.87 | 0.61 | 9.47  | 93.08  | 0.63 | 42.99 |
| 3.544 | 12.56 | 4.87 | 0.69 | 9.44  | 92.41  | 0.62 | 42.99 |
| 3.596 | 12.56 | 4.87 | 0.61 | 9.4   | 90.88  | 0.58 | 42.99 |
| 3.664 | 12.56 | 4.87 | 0.8  | 9.41  | 90.94  | 0.57 | 42.99 |
| 3.746 | 12.56 | 4.87 | 0.61 | 9.59  | 91.64  | 0.61 | 42.99 |
| 3.823 | 12.56 | 4.87 | 0.69 | 9.72  | 91.24  | 0.7  | 42.99 |
| 3.88  | 12.57 | 4.88 | 0.76 | 9.79  | 89.67  | 0.63 | 43.07 |
| 3.926 | 12.58 | 4.88 | 0.8  | 9.8   | 88.1   | 0.67 | 43.07 |
| 3.974 | 12.59 | 4.88 | 0.69 | 9.79  | 88.98  | 0.59 | 43.09 |
| 4.035 | 12.6  | 4.88 | 0.5  | 9.78  | 88.82  | 0.62 | 43.1  |
| 4.097 | 12.61 | 4.89 | 0.69 | 9.77  | 88.61  | 0.72 | 43.12 |
| 4.15  | 12.62 | 4.89 | 0.72 | 9.59  | 86.76  | 0.62 | 43.13 |
| 4.209 | 12.64 | 4.89 | 0.8  | 9.36  | 86.06  | 0.62 | 43.15 |
| 4.273 | 12.65 | 4.9  | 0.65 | 9.17  | 85.31  | 0.62 | 43.16 |
| 4.329 | 12.66 | 4.9  | 0.72 | 8.95  | 85.45  | 0.62 | 43.16 |
| 4.379 | 12.67 | 4.9  | 0.69 | 8.74  | 85.01  | 0.68 | 43.16 |
| 4.43  | 12.68 | 4.9  | 0.65 | 8.61  | 84.56  | 0.72 | 43.16 |
| 4.496 | 12.69 | 4.9  | 0.76 | 8.51  | 83.26  | 0.71 | 43.19 |
| 4.557 | 12.7  | 4.91 | 0.65 | 10.28 | 82.43  | 0.68 | 43.2  |
| 4.599 | 12.71 | 4.91 | 0.65 | 10.31 | 81.88  | 0.73 | 43.18 |
| 4.637 | 12.72 | 4.91 | 0.88 | 9.93  | 82.12  | 0.69 | 43.18 |
| 4.689 | 12.72 | 4.91 | 0.84 | 9.51  | 81.78  | 0.72 | 43.18 |
| 4.751 | 12.73 | 4.91 | 0.76 | 9.08  | 80.88  | 0.74 | 43.18 |
| 4.813 | 12.73 | 4.91 | 0.61 | 8.53  | 79.43  | 0.64 | 43.18 |
| 4.873 | 12.73 | 4.91 | 0.65 | 7.93  | 78.57  | 0.88 | 43.17 |
| 4.934 | 12.73 | 4.91 | 0.72 | 7.32  | 78.48  | 0.71 | 43.17 |
| 4.989 | 12.73 | 4.91 | 0.65 | 6.71  | 78.02  | 0.82 | 43.17 |
| 5.045 | 12.73 | 4.91 | 0.88 | 6.75  | 77.16  | 0.79 | 43.17 |
| 5.105 | 12.73 | 4.91 | 0.65 | 6.83  | 76.56  | 0.73 | 43.17 |
| 5.165 | 12.73 | 4.91 | 0.76 | 6.86  | 75.6   | 0.76 | 43.17 |
| 5.219 | 12.73 | 4.91 | 0.8  | 6.88  | 75.08  | 0.75 | 43.17 |
| 5.268 | 12.73 | 4.91 | 1.03 | 6.9   | 74.84  | 0.66 | 43.17 |
| 5.317 | 12.73 | 4.91 | 0.8  | 6.83  | 74.04  | 0.71 | 43.17 |
| 5.374 | 12.73 | 4.91 | 0.57 | 6.9   | 73.46  | 0.68 | 43.17 |
| 5.426 | 12.73 | 4.91 | 0.84 | 6.93  | 72.78  | 0.86 | 43.17 |
| 5.468 | 12.73 | 4.91 | 0.92 | 6.94  | 72.56  | 0.72 | 43.17 |
| 5.511 | 12.73 | 4.91 | 0.84 | 6.94  | 71.61  | 0.82 | 43.17 |
| 5.568 | 12.73 | 4.91 | 0.84 | 6.94  | 70.87  | 0.66 | 43.17 |
| 5.628 | 12.73 | 4.91 | 0.69 | 6.94  | 70.2   | 0.75 | 43.17 |
| 5.679 | 12.73 | 4.91 | 0.76 | 6.93  | 69.97  | 0.77 | 43.17 |
| 5.719 | 12.73 | 4.91 | 0.76 | 6.93  | 69.74  | 0.85 | 43.17 |
| 5.752 | 12.73 | 4.91 | 0.61 | 6.89  | 68.99  | 0.78 | 43.17 |

|       |       |      |      |      |       |      |       |
|-------|-------|------|------|------|-------|------|-------|
| 5.792 | 12.73 | 4.91 | 0.65 | 6.88 | 68.23 | 0.79 | 43.17 |
| 5.858 | 12.73 | 4.91 | 0.84 | 6.87 | 67.04 | 0.73 | 43.17 |
| 5.938 | 12.73 | 4.91 | 0.92 | 6.88 | 66.36 | 0.78 | 43.17 |
| 6.007 | 12.73 | 4.91 | 0.69 | 6.87 | 65.79 | 0.77 | 43.18 |
| 6.06  | 12.73 | 4.91 | 0.92 | 6.86 | 65.17 | 0.65 | 43.18 |
| 6.124 | 12.73 | 4.91 | 0.88 | 6.86 | 63.82 | 0.69 | 43.18 |
| 6.206 | 12.73 | 4.91 | 0.84 | 6.85 | 62.88 | 0.79 | 43.17 |
| 6.295 | 12.73 | 4.91 | 0.76 | 6.85 | 62.11 | 0.88 | 43.18 |
| 6.375 | 12.73 | 4.91 | 0.84 | 6.84 | 61.11 | 0.81 | 43.17 |
| 6.431 | 12.73 | 4.91 | 0.65 | 6.84 | 60.93 | 0.75 | 43.17 |
| 6.467 | 12.73 | 4.91 | 0.61 | 6.83 | 60.38 | 0.75 | 43.17 |
| 6.511 | 12.73 | 4.91 | 0.65 | 6.82 | 59.91 | 0.73 | 43.18 |
| 6.577 | 12.73 | 4.91 | 0.69 | 6.85 | 59.02 | 0.78 | 43.17 |
| 6.612 | 12.73 | 4.91 | 0.76 | 6.83 | 58.55 | 0.83 | 43.18 |
| 6.618 | 12.73 | 4.91 | 0.69 | 6.79 | 58.51 | 0.86 | 43.17 |
| 6.62  | 12.73 | 4.91 | 0.53 | 6.77 | 58.7  | 0.77 | 43.17 |





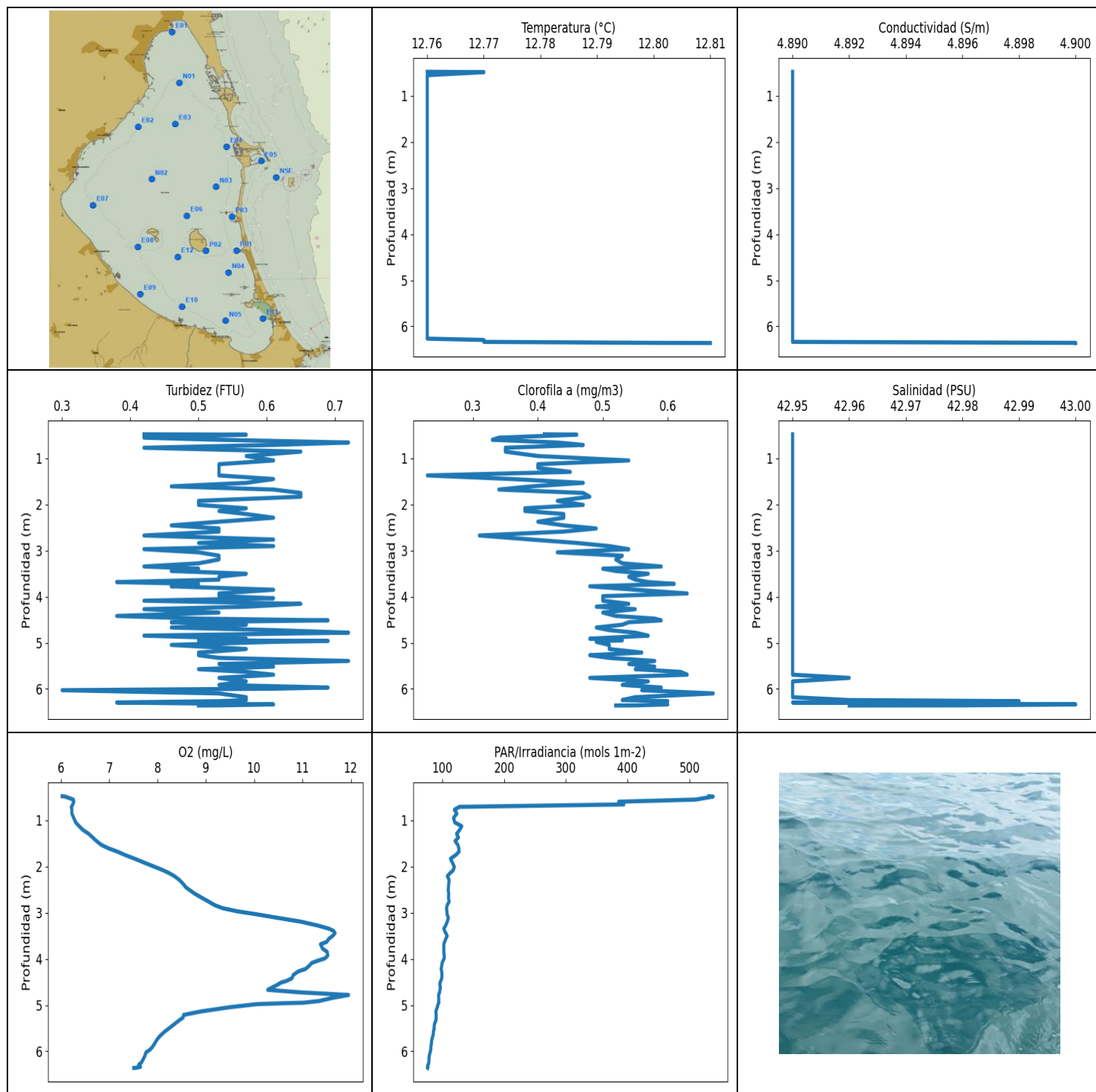
### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m <sup>-2</sup> ) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|---------------------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.72         | 4.88                   | 0.31              | 6.21              | 112.66                                      | 0.11                              | 42.88              |
| <b>PROF (metros)</b> | 0.513         | 0.513                  | 1.206             | 1.108             | 0.766                                       | 0.613                             | 0.513              |
| <b>MÁXIMO</b>        | 12.72         | 12.72                  | 0.65              | 6.99              | 557.6                                       | 0.37                              | 42.89              |
| <b>PROF (metros)</b> | 0.513         | 0.513                  | 0.547             | 0.513             | 0.513                                       | 0.513                             | 0.517              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD P03 - Punto 017                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.72      | 4.88                | 0.55           | 6.57           | 332.49                      | 0.17              | 42.88           |
| 1 - 2m                                                     | 12.72      | 4.88                | 0.52           | 6.35           | 127.29                      | 0.15              | 42.88           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.513                                                          | 12.72      | 4.88                | 0.46           | 6.99           | 557.6                       | 0.37              | 42.88           |
| 0.517                                                          | 12.72      | 4.88                | 0.46           | 6.95           | 549.52                      | 0.36              | 42.89           |
| 0.521                                                          | 12.72      | 4.88                | 0.53           | 6.82           | 539.67                      | 0.17              | 42.88           |
| 0.547                                                          | 12.72      | 4.88                | 0.65           | 6.77           | 534.81                      | 0.14              | 42.88           |
| 0.577                                                          | 12.72      | 4.88                | 0.65           | 6.72           | 495.2                       | 0.12              | 42.88           |
| 0.599                                                          | 12.72      | 4.88                | 0.65           | 6.64           | 459.38                      | 0.14              | 42.88           |
| 0.613                                                          | 12.72      | 4.88                | 0.61           | 6.58           | 426.84                      | 0.11              | 42.88           |
| 0.64                                                           | 12.72      | 4.88                | 0.5            | 6.52           | 364.51                      | 0.16              | 42.88           |
| 0.698                                                          | 12.72      | 4.88                | 0.5            | 6.45           | 116.81                      | 0.12              | 42.88           |
| 0.766                                                          | 12.72      | 4.88                | 0.57           | 6.39           | 112.66                      | 0.12              | 42.88           |
| 0.819                                                          | 12.72      | 4.88                | 0.5            | 6.34           | 121.5                       | 0.13              | 42.88           |
| 0.854                                                          | 12.72      | 4.88                | 0.46           | 6.29           | 129.23                      | 0.14              | 42.88           |
| 0.893                                                          | 12.72      | 4.88                | 0.57           | 6.26           | 128.34                      | 0.15              | 42.88           |
| 0.952                                                          | 12.72      | 4.88                | 0.57           | 6.23           | 118.83                      | 0.15              | 42.88           |
| 1.032                                                          | 12.72      | 4.88                | 0.46           | 6.22           | 117.76                      | 0.14              | 42.88           |
| 1.108                                                          | 12.72      | 4.88                | 0.61           | 6.21           | 122.15                      | 0.15              | 42.88           |
| 1.16                                                           | 12.72      | 4.88                | 0.53           | 6.21           | 123.98                      | 0.13              | 42.88           |
| 1.186                                                          | 12.72      | 4.88                | 0.38           | 6.24           | 125.51                      | 0.13              | 42.88           |
| 1.206                                                          | 12.72      | 4.88                | 0.3            | 6.29           | 127.74                      | 0.16              | 42.88           |
| 1.257                                                          | 12.72      | 4.88                | 0.61           | 6.34           | 124.27                      | 0.17              | 42.88           |
| 1.314                                                          | 12.72      | 4.88                | 0.57           | 6.43           | 115.22                      | 0.18              | 42.88           |
| 1.338                                                          | 12.72      | 4.88                | 0.61           | 6.47           | 126.18                      | 0.11              | 42.88           |
| 1.342                                                          | 12.72      | 4.88                | 0.5            | 6.53           | 143.97                      | 0.14              | 42.88           |
| 1.343                                                          | 12.72      | 4.88                | 0.61           | 6.57           | 146.16                      | 0.14              | 42.89           |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 12.76         | 4.89                   | 0.31              | 6.03              | 75.78                          | 0.23                              | 42.95              |
| <b>PROF (metros)</b> | 0.479         | 0.479                  | 6.028             | 0.479             | 6.357                          | 1.371                             | 0.479              |
| <b>MÁXIMO</b>        | 12.81         | 12.81                  | 0.73              | 11.95             | 538.67                         | 0.67                              | 43.0               |
| <b>PROF (metros)</b> | 6.36          | 6.357                  | 0.657             | 4.78              | 0.487                          | 6.098                             | 6.336              |

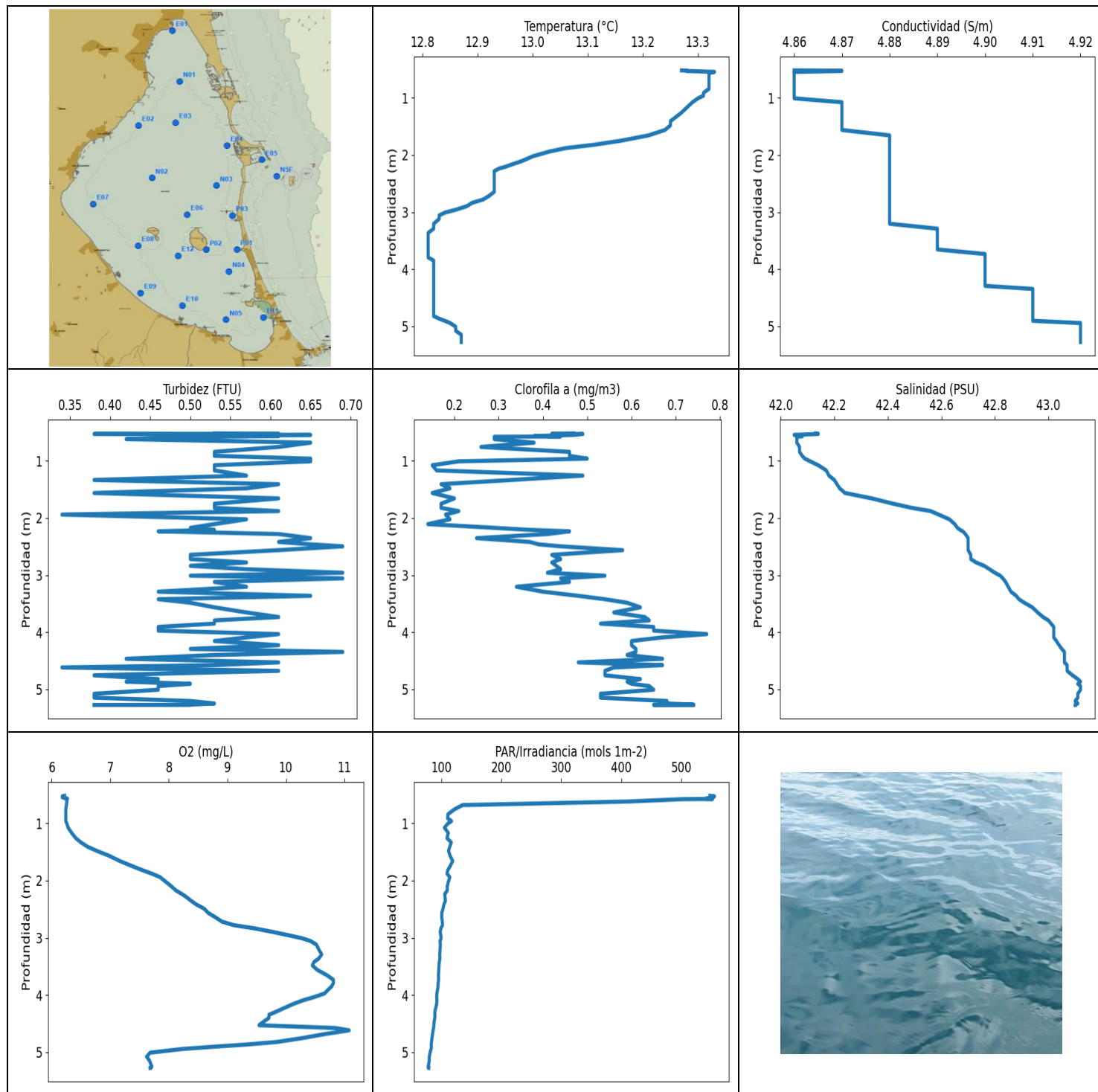
| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD N03 - Punto 018                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 12.76      | 4.89                | 0.55           | 6.2            | 316.55                      | 0.39              | 42.95           |
| 1 - 2m                                                     | 12.76      | 4.89                | 0.57           | 6.89           | 123.3                       | 0.41              | 42.95           |
| 2 - 3m                                                     | 12.76      | 4.89                | 0.53           | 8.7            | 110.82                      | 0.44              | 42.95           |
| 3 - 4m                                                     | 12.76      | 4.89                | 0.51           | 11.31          | 104.7                       | 0.54              | 42.95           |
| 4 - 5m                                                     | 12.76      | 4.89                | 0.55           | 10.9           | 96.67                       | 0.52              | 42.95           |
| 5 - 6m                                                     | 12.76      | 4.89                | 0.56           | 8.28           | 85.92                       | 0.55              | 42.95           |
| 6 - 7m                                                     | 12.77      | 4.89                | 0.5            | 7.65           | 77.5                        | 0.57              | 42.97           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.479                                                          | 12.76      | 4.89                | 0.42           | 6.03           | 531.85                      | 0.41              | 42.95           |
| 0.487                                                          | 12.77      | 4.89                | 0.57           | 6.09           | 538.67                      | 0.46              | 42.95           |
| 0.552                                                          | 12.76      | 4.89                | 0.42           | 6.26           | 510.23                      | 0.34              | 42.95           |
| 0.598                                                          | 12.76      | 4.89                | 0.53           | 6.27           | 385.63                      | 0.33              | 42.95           |
| 0.657                                                          | 12.76      | 4.89                | 0.72           | 6.25           | 393.85                      | 0.43              | 42.95           |
| 0.709                                                          | 12.76      | 4.89                | 0.61           | 6.22           | 127.62                      | 0.47              | 42.95           |
| 0.771                                                          | 12.76      | 4.89                | 0.42           | 6.23           | 119.49                      | 0.35              | 42.95           |
| 0.855                                                          | 12.76      | 4.89                | 0.65           | 6.23           | 123.55                      | 0.35              | 42.95           |
| 0.95                                                           | 12.76      | 4.89                | 0.57           | 6.27           | 118.06                      | 0.4               | 42.95           |
| 1.046                                                          | 12.76      | 4.89                | 0.61           | 6.31           | 120.1                       | 0.54              | 42.95           |
| 1.127                                                          | 12.76      | 4.89                | 0.53           | 6.38           | 131.44                      | 0.4               | 42.95           |
| 1.208                                                          | 12.76      | 4.89                | 0.53           | 6.46           | 128.04                      | 0.4               | 42.95           |
| 1.294                                                          | 12.76      | 4.89                | 0.53           | 6.58           | 123.01                      | 0.45              | 42.95           |
| 1.371                                                          | 12.76      | 4.89                | 0.53           | 6.66           | 126.15                      | 0.23              | 42.95           |
| 1.449                                                          | 12.76      | 4.89                | 0.61           | 6.74           | 120.61                      | 0.36              | 42.95           |
| 1.532                                                          | 12.76      | 4.89                | 0.57           | 6.84           | 125.1                       | 0.47              | 42.95           |
| 1.608                                                          | 12.76      | 4.89                | 0.46           | 6.99           | 126.71                      | 0.39              | 42.95           |
| 1.677                                                          | 12.76      | 4.89                | 0.61           | 7.17           | 127.15                      | 0.34              | 42.95           |
| 1.751                                                          | 12.76      | 4.89                | 0.65           | 7.33           | 121.73                      | 0.47              | 42.95           |
| 1.832                                                          | 12.76      | 4.89                | 0.65           | 7.53           | 113.13                      | 0.48              | 42.95           |
| 1.922                                                          | 12.76      | 4.89                | 0.5            | 7.74           | 116.49                      | 0.43              | 42.95           |
| 2.01                                                           | 12.76      | 4.89                | 0.5            | 7.95           | 119.47                      | 0.47              | 42.95           |
| 2.083                                                          | 12.76      | 4.89                | 0.57           | 8.12           | 117.43                      | 0.38              | 42.95           |
| 2.142                                                          | 12.76      | 4.89                | 0.53           | 8.24           | 112.56                      | 0.38              | 42.95           |
| 2.208                                                          | 12.76      | 4.89                | 0.57           | 8.35           | 108.13                      | 0.44              | 42.95           |
| 2.288                                                          | 12.76      | 4.89                | 0.61           | 8.45           | 110.85                      | 0.44              | 42.95           |
| 2.375                                                          | 12.76      | 4.89                | 0.53           | 8.53           | 110.36                      | 0.4               | 42.95           |
| 2.454                                                          | 12.76      | 4.89                | 0.46           | 8.59           | 109.83                      | 0.44              | 42.95           |
| 2.521                                                          | 12.76      | 4.89                | 0.53           | 8.68           | 109.57                      | 0.49              | 42.95           |
| 2.588                                                          | 12.76      | 4.89                | 0.53           | 8.77           | 110.31                      | 0.44              | 42.95           |
| 2.673                                                          | 12.76      | 4.89                | 0.42           | 8.91           | 109.93                      | 0.31              | 42.95           |
| 2.761                                                          | 12.76      | 4.89                | 0.61           | 9.06           | 110.95                      | 0.39              | 42.95           |
| 2.835                                                          | 12.76      | 4.89                | 0.5            | 9.18           | 107.91                      | 0.46              | 42.95           |
| 2.903                                                          | 12.76      | 4.89                | 0.61           | 9.35           | 106.74                      | 0.51              | 42.95           |
| 2.97                                                           | 12.76      | 4.89                | 0.42           | 9.65           | 107.38                      | 0.54              | 42.95           |

|       |       |      |      |       |        |      |       |
|-------|-------|------|------|-------|--------|------|-------|
| 3.038 | 12.76 | 4.89 | 0.5  | 10.07 | 107.73 | 0.43 | 42.95 |
| 3.111 | 12.76 | 4.89 | 0.53 | 10.48 | 109.77 | 0.53 | 42.95 |
| 3.193 | 12.76 | 4.89 | 0.53 | 10.96 | 107.96 | 0.52 | 42.95 |
| 3.277 | 12.76 | 4.89 | 0.5  | 11.31 | 105.41 | 0.53 | 42.95 |
| 3.345 | 12.76 | 4.89 | 0.42 | 11.54 | 102.42 | 0.59 | 42.95 |
| 3.393 | 12.76 | 4.89 | 0.5  | 11.64 | 103.69 | 0.5  | 42.95 |
| 3.443 | 12.76 | 4.89 | 0.46 | 11.67 | 105.61 | 0.52 | 42.95 |
| 3.502 | 12.76 | 4.89 | 0.57 | 11.62 | 107.81 | 0.57 | 42.95 |
| 3.567 | 12.76 | 4.89 | 0.53 | 11.54 | 105.56 | 0.54 | 42.95 |
| 3.631 | 12.76 | 4.89 | 0.53 | 11.5  | 103.59 | 0.55 | 42.95 |
| 3.683 | 12.76 | 4.89 | 0.38 | 11.37 | 102.42 | 0.57 | 42.95 |
| 3.723 | 12.76 | 4.89 | 0.5  | 11.39 | 102.4  | 0.61 | 42.95 |
| 3.775 | 12.76 | 4.89 | 0.46 | 11.41 | 102.38 | 0.48 | 42.95 |
| 3.85  | 12.76 | 4.89 | 0.61 | 11.51 | 102.4  | 0.55 | 42.95 |
| 3.93  | 12.76 | 4.89 | 0.53 | 11.52 | 102.95 | 0.63 | 42.95 |
| 3.989 | 12.76 | 4.89 | 0.53 | 11.46 | 103.02 | 0.5  | 42.95 |
| 4.033 | 12.76 | 4.89 | 0.61 | 11.33 | 101.32 | 0.5  | 42.95 |
| 4.087 | 12.76 | 4.89 | 0.42 | 11.19 | 99.62  | 0.5  | 42.95 |
| 4.155 | 12.76 | 4.89 | 0.65 | 11.13 | 98.97  | 0.54 | 42.95 |
| 4.217 | 12.76 | 4.89 | 0.57 | 11.06 | 98.04  | 0.49 | 42.95 |
| 4.271 | 12.76 | 4.89 | 0.42 | 10.91 | 98.86  | 0.55 | 42.95 |
| 4.344 | 12.76 | 4.89 | 0.53 | 10.81 | 99.43  | 0.5  | 42.95 |
| 4.418 | 12.76 | 4.89 | 0.38 | 10.78 | 99.02  | 0.52 | 42.95 |
| 4.475 | 12.76 | 4.89 | 0.5  | 10.67 | 97.6   | 0.58 | 42.95 |
| 4.514 | 12.76 | 4.89 | 0.69 | 10.55 | 96.23  | 0.59 | 42.95 |
| 4.554 | 12.76 | 4.89 | 0.46 | 10.49 | 95.79  | 0.54 | 42.95 |
| 4.608 | 12.76 | 4.89 | 0.57 | 10.39 | 96.88  | 0.53 | 42.95 |
| 4.669 | 12.76 | 4.89 | 0.46 | 10.28 | 96.17  | 0.49 | 42.95 |
| 4.725 | 12.76 | 4.89 | 0.61 | 10.97 | 95.43  | 0.51 | 42.95 |
| 4.78  | 12.76 | 4.89 | 0.72 | 11.95 | 93.9   | 0.55 | 42.95 |
| 4.845 | 12.76 | 4.89 | 0.42 | 11.61 | 94.05  | 0.57 | 42.95 |
| 4.911 | 12.76 | 4.89 | 0.57 | 11.34 | 94.09  | 0.48 | 42.95 |
| 4.948 | 12.76 | 4.89 | 0.5  | 11.02 | 94.44  | 0.53 | 42.95 |
| 4.96  | 12.76 | 4.89 | 0.69 | 10.57 | 93.86  | 0.5  | 42.95 |
| 4.979 | 12.76 | 4.89 | 0.61 | 10.05 | 92.97  | 0.49 | 42.95 |
| 5.046 | 12.76 | 4.89 | 0.46 | 9.49  | 91.79  | 0.51 | 42.95 |
| 5.135 | 12.76 | 4.89 | 0.57 | 8.91  | 89.46  | 0.51 | 42.95 |
| 5.212 | 12.76 | 4.89 | 0.5  | 8.54  | 90.0   | 0.56 | 42.95 |
| 5.269 | 12.76 | 4.89 | 0.5  | 8.53  | 89.92  | 0.48 | 42.95 |
| 5.328 | 12.76 | 4.89 | 0.53 | 8.45  | 89.69  | 0.51 | 42.95 |
| 5.394 | 12.76 | 4.89 | 0.72 | 8.37  | 87.55  | 0.58 | 42.95 |
| 5.459 | 12.76 | 4.89 | 0.53 | 8.29  | 86.72  | 0.54 | 42.95 |
| 5.517 | 12.76 | 4.89 | 0.61 | 8.22  | 86.6   | 0.58 | 42.95 |
| 5.572 | 12.76 | 4.89 | 0.5  | 8.15  | 85.52  | 0.55 | 42.95 |
| 5.631 | 12.76 | 4.89 | 0.57 | 8.09  | 85.31  | 0.62 | 42.95 |
| 5.692 | 12.76 | 4.89 | 0.61 | 8.03  | 84.09  | 0.63 | 42.95 |
| 5.761 | 12.76 | 4.89 | 0.53 | 7.98  | 82.72  | 0.48 | 42.96 |
| 5.836 | 12.76 | 4.89 | 0.57 | 7.94  | 82.2   | 0.57 | 42.95 |
| 5.913 | 12.76 | 4.89 | 0.53 | 7.89  | 81.27  | 0.53 | 42.95 |
| 5.97  | 12.76 | 4.89 | 0.69 | 7.84  | 81.27  | 0.59 | 42.95 |
| 5.995 | 12.76 | 4.89 | 0.61 | 7.8   | 80.62  | 0.58 | 42.95 |
| 6.028 | 12.76 | 4.89 | 0.3  | 7.76  | 80.1   | 0.56 | 42.95 |
| 6.098 | 12.76 | 4.89 | 0.53 | 7.74  | 78.75  | 0.67 | 42.95 |
| 6.18  | 12.76 | 4.89 | 0.57 | 7.7   | 78.33  | 0.55 | 42.95 |
| 6.242 | 12.76 | 4.89 | 0.57 | 7.67  | 78.06  | 0.53 | 42.96 |
| 6.266 | 12.76 | 4.89 | 0.53 | 7.64  | 77.81  | 0.6  | 42.99 |
| 6.294 | 12.77 | 4.89 | 0.38 | 7.61  | 76.59  | 0.59 | 42.95 |
| 6.336 | 12.77 | 4.89 | 0.61 | 7.65  | 75.8   | 0.6  | 43.0  |

|       |       |     |      |      |       |      |       |
|-------|-------|-----|------|------|-------|------|-------|
| 6.357 | 12.8  | 4.9 | 0.53 | 7.55 | 75.78 | 0.55 | 42.98 |
| 6.36  | 12.81 | 4.9 | 0.5  | 7.51 | 76.27 | 0.52 | 42.96 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m³) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|----------------------|--------------------|
| <b>MÍNIMO</b>        | 12.81         | 4.86                   | 0.34              | 6.18              | 77.86                          | 0.14                 | 42.05              |
| <b>PROF (metros)</b> | 3.363         | 0.519                  | 1.94              | 0.529             | 5.268                          | 2.107                | 0.545              |
| <b>MÁXIMO</b>        | 13.33         | 13.33                  | 0.69              | 11.08             | 555.41                         | 0.77                 | 43.12              |
| <b>PROF (metros)</b> | 0.545         | 4.943                  | 2.496             | 4.617             | 0.529                          | 4.033                | 4.866              |

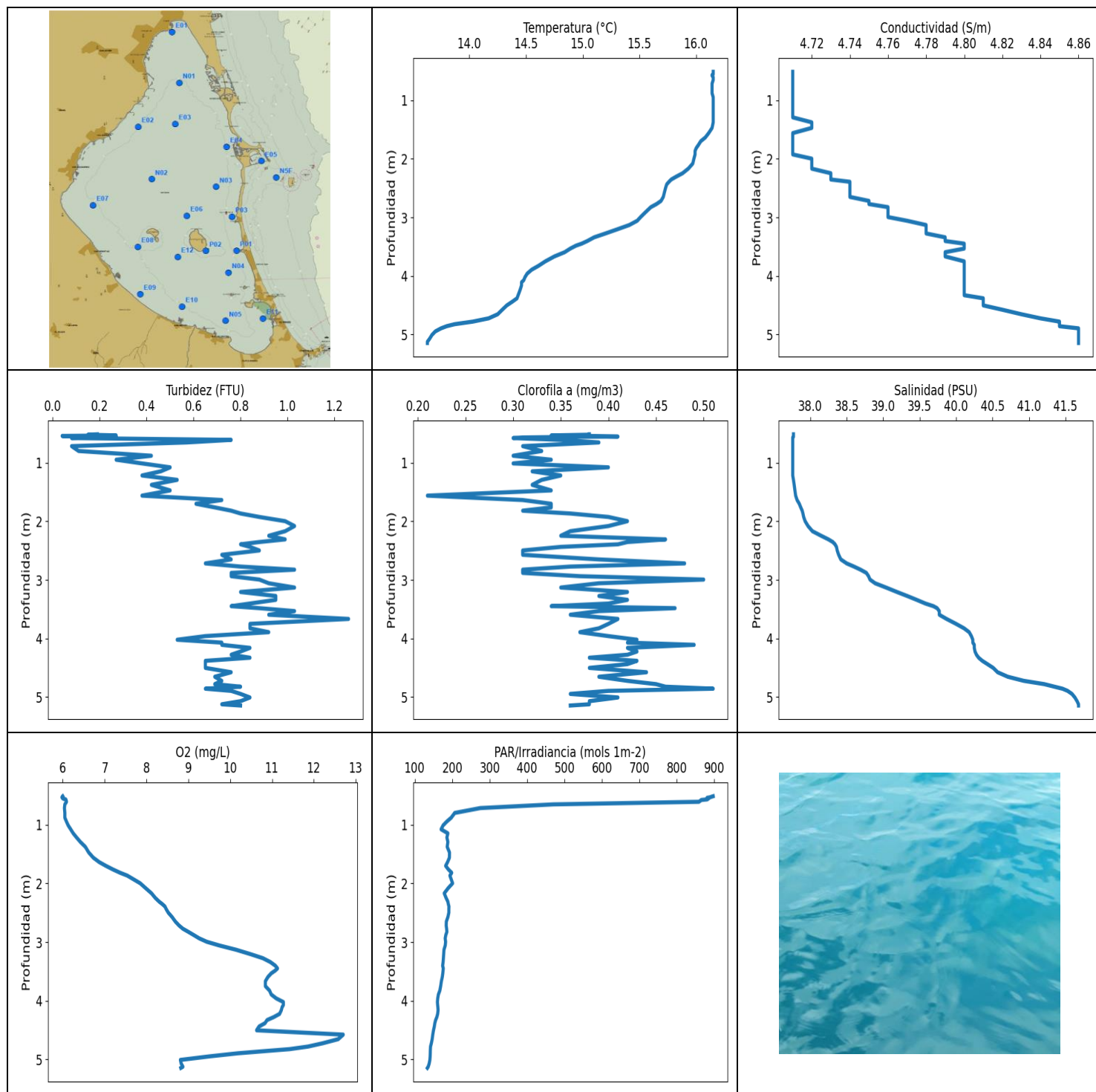
| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E04 - Punto 019                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 13.31      | 4.86                | 0.56           | 6.24           | 393.0                       | 0.41              | 42.08           |
| 1 - 2m                                                     | 13.21      | 4.87                | 0.53           | 6.91           | 112.22                      | 0.21              | 42.3            |
| 2 - 3m                                                     | 12.93      | 4.88                | 0.57           | 8.68           | 103.89                      | 0.38              | 42.7            |
| 3 - 4m                                                     | 12.82      | 4.89                | 0.54           | 10.59          | 95.99                       | 0.54              | 42.92           |
| 4 - 5m                                                     | 12.82      | 4.91                | 0.52           | 9.9            | 87.28                       | 0.61              | 43.07           |
| 5 - 6m                                                     | 12.87      | 4.92                | 0.45           | 7.68           | 78.97                       | 0.65              | 43.11           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.519                                                          | 13.27      | 4.86                | 0.53           | 6.22           | 547.74                      | 0.47              | 42.13           |
| 0.524                                                          | 13.28      | 4.87                | 0.61           | 6.19           | 553.09                      | 0.42              | 42.14           |
| 0.529                                                          | 13.28      | 4.87                | 0.38           | 6.18           | 555.41                      | 0.49              | 42.14           |
| 0.545                                                          | 13.33      | 4.86                | 0.65           | 6.18           | 551.81                      | 0.47              | 42.05           |
| 0.565                                                          | 13.32      | 4.86                | 0.5            | 6.25           | 545.83                      | 0.38              | 42.08           |
| 0.568                                                          | 13.32      | 4.86                | 0.61           | 6.26           | 541.3                       | 0.41              | 42.08           |
| 0.571                                                          | 13.32      | 4.86                | 0.57           | 6.27           | 540.92                      | 0.41              | 42.08           |
| 0.573                                                          | 13.32      | 4.86                | 0.57           | 6.26           | 552.32                      | 0.44              | 42.07           |
| 0.578                                                          | 13.32      | 4.86                | 0.53           | 6.25           | 501.56                      | 0.29              | 42.06           |
| 0.619                                                          | 13.32      | 4.86                | 0.42           | 6.26           | 410.35                      | 0.29              | 42.06           |
| 0.681                                                          | 13.32      | 4.86                | 0.65           | 6.25           | 135.21                      | 0.38              | 42.06           |
| 0.756                                                          | 13.32      | 4.86                | 0.61           | 6.24           | 121.56                      | 0.26              | 42.07           |
| 0.842                                                          | 13.32      | 4.86                | 0.53           | 6.24           | 110.82                      | 0.46              | 42.07           |
| 0.912                                                          | 13.31      | 4.86                | 0.53           | 6.24           | 110.28                      | 0.46              | 42.08           |
| 0.961                                                          | 13.31      | 4.86                | 0.65           | 6.24           | 116.76                      | 0.5               | 42.09           |
| 1.008                                                          | 13.3       | 4.86                | 0.65           | 6.26           | 110.26                      | 0.21              | 42.11           |
| 1.076                                                          | 13.29      | 4.87                | 0.53           | 6.28           | 104.97                      | 0.15              | 42.14           |
| 1.167                                                          | 13.28      | 4.87                | 0.53           | 6.34           | 111.44                      | 0.16              | 42.17           |
| 1.258                                                          | 13.27      | 4.87                | 0.57           | 6.41           | 109.19                      | 0.49              | 42.18           |
| 1.334                                                          | 13.26      | 4.87                | 0.38           | 6.5            | 116.38                      | 0.33              | 42.2            |
| 1.408                                                          | 13.25      | 4.87                | 0.61           | 6.61           | 113.84                      | 0.17              | 42.21           |
| 1.481                                                          | 13.25      | 4.87                | 0.57           | 6.77           | 111.78                      | 0.19              | 42.22           |
| 1.562                                                          | 13.24      | 4.87                | 0.38           | 6.97           | 114.24                      | 0.15              | 42.24           |
| 1.657                                                          | 13.21      | 4.88                | 0.61           | 7.16           | 118.75                      | 0.2               | 42.34           |
| 1.75                                                           | 13.16      | 4.88                | 0.53           | 7.38           | 114.4                       | 0.17              | 42.42           |
| 1.823                                                          | 13.11      | 4.88                | 0.53           | 7.56           | 110.36                      | 0.17              | 42.49           |
| 1.879                                                          | 13.06      | 4.88                | 0.61           | 7.71           | 109.34                      | 0.21              | 42.56           |
| 1.94                                                           | 13.03      | 4.88                | 0.34           | 7.85           | 113.92                      | 0.18              | 42.59           |
| 2.023                                                          | 13.0       | 4.88                | 0.57           | 7.95           | 111.44                      | 0.19              | 42.63           |
| 2.107                                                          | 12.98      | 4.88                | 0.53           | 8.05           | 109.6                       | 0.14              | 42.65           |
| 2.172                                                          | 12.96      | 4.88                | 0.5            | 8.12           | 109.72                      | 0.29              | 42.66           |
| 2.208                                                          | 12.95      | 4.88                | 0.53           | 8.18           | 107.46                      | 0.37              | 42.67           |
| 2.233                                                          | 12.94      | 4.88                | 0.46           | 8.22           | 105.46                      | 0.46              | 42.68           |
| 2.281                                                          | 12.93      | 4.88                | 0.61           | 8.29           | 105.9                       | 0.41              | 42.69           |
| 2.353                                                          | 12.93      | 4.88                | 0.65           | 8.38           | 106.54                      | 0.25              | 42.7            |
| 2.419                                                          | 12.93      | 4.88                | 0.61           | 8.47           | 104.1                       | 0.37              | 42.7            |



|       |       |      |      |       |        |      |       |
|-------|-------|------|------|-------|--------|------|-------|
| 2.461 | 12.93 | 4.88 | 0.65 | 8.55  | 103.12 | 0.39 | 42.7  |
| 2.496 | 12.93 | 4.88 | 0.69 | 8.61  | 102.47 | 0.44 | 42.7  |
| 2.563 | 12.93 | 4.88 | 0.61 | 8.67  | 100.61 | 0.58 | 42.7  |
| 2.645 | 12.93 | 4.88 | 0.5  | 8.8   | 100.5  | 0.42 | 42.71 |
| 2.719 | 12.92 | 4.88 | 0.5  | 8.91  | 101.48 | 0.44 | 42.71 |
| 2.779 | 12.91 | 4.88 | 0.57 | 9.11  | 101.79 | 0.42 | 42.73 |
| 2.837 | 12.89 | 4.88 | 0.5  | 9.47  | 99.04  | 0.43 | 42.76 |
| 2.897 | 12.88 | 4.88 | 0.57 | 9.77  | 97.94  | 0.44 | 42.78 |
| 2.959 | 12.86 | 4.88 | 0.69 | 10.06 | 98.92  | 0.41 | 42.8  |
| 3.01  | 12.84 | 4.88 | 0.5  | 10.28 | 99.34  | 0.54 | 42.82 |
| 3.057 | 12.83 | 4.88 | 0.69 | 10.42 | 97.6   | 0.44 | 42.83 |
| 3.119 | 12.83 | 4.88 | 0.53 | 10.52 | 98.17  | 0.46 | 42.84 |
| 3.204 | 12.82 | 4.88 | 0.57 | 10.56 | 97.65  | 0.34 | 42.85 |
| 3.29  | 12.82 | 4.89 | 0.46 | 10.61 | 97.11  | 0.4  | 42.86 |
| 3.363 | 12.81 | 4.89 | 0.65 | 10.56 | 97.42  | 0.48 | 42.88 |
| 3.422 | 12.81 | 4.89 | 0.46 | 10.48 | 96.41  | 0.54 | 42.89 |
| 3.484 | 12.81 | 4.89 | 0.5  | 10.45 | 95.9   | 0.59 | 42.91 |
| 3.564 | 12.81 | 4.89 | 0.53 | 10.54 | 95.52  | 0.62 | 42.94 |
| 3.654 | 12.81 | 4.89 | 0.57 | 10.7  | 95.02  | 0.56 | 42.96 |
| 3.734 | 12.81 | 4.9  | 0.61 | 10.81 | 95.24  | 0.63 | 42.98 |
| 3.793 | 12.81 | 4.9  | 0.53 | 10.81 | 94.44  | 0.64 | 43.0  |
| 3.849 | 12.82 | 4.9  | 0.53 | 10.78 | 94.22  | 0.53 | 43.01 |
| 3.907 | 12.82 | 4.9  | 0.46 | 10.72 | 93.53  | 0.65 | 43.02 |
| 3.972 | 12.82 | 4.9  | 0.46 | 10.66 | 92.28  | 0.65 | 43.02 |
| 4.033 | 12.82 | 4.9  | 0.61 | 10.49 | 92.17  | 0.77 | 43.02 |
| 4.09  | 12.82 | 4.9  | 0.57 | 10.3  | 92.41  | 0.67 | 43.02 |
| 4.154 | 12.82 | 4.9  | 0.53 | 10.13 | 92.04  | 0.6  | 43.03 |
| 4.227 | 12.82 | 4.9  | 0.61 | 9.97  | 90.48  | 0.6  | 43.04 |
| 4.292 | 12.82 | 4.9  | 0.5  | 9.83  | 89.02  | 0.61 | 43.05 |
| 4.345 | 12.82 | 4.91 | 0.69 | 9.71  | 88.98  | 0.61 | 43.06 |
| 4.399 | 12.82 | 4.91 | 0.53 | 9.71  | 88.86  | 0.59 | 43.06 |
| 4.465 | 12.82 | 4.91 | 0.42 | 9.62  | 87.77  | 0.67 | 43.06 |
| 4.528 | 12.82 | 4.91 | 0.61 | 9.54  | 87.33  | 0.48 | 43.06 |
| 4.576 | 12.82 | 4.91 | 0.53 | 10.84 | 86.9   | 0.67 | 43.07 |
| 4.617 | 12.82 | 4.91 | 0.34 | 11.08 | 86.04  | 0.56 | 43.07 |
| 4.676 | 12.82 | 4.91 | 0.61 | 10.7  | 85.27  | 0.54 | 43.07 |
| 4.754 | 12.82 | 4.91 | 0.38 | 10.27 | 84.19  | 0.54 | 43.09 |
| 4.821 | 12.82 | 4.91 | 0.46 | 9.84  | 83.41  | 0.62 | 43.11 |
| 4.866 | 12.83 | 4.91 | 0.42 | 9.31  | 82.91  | 0.59 | 43.12 |
| 4.903 | 12.84 | 4.91 | 0.5  | 8.77  | 83.18  | 0.6  | 43.11 |
| 4.943 | 12.85 | 4.92 | 0.46 | 8.23  | 82.74  | 0.64 | 43.12 |
| 5.007 | 12.86 | 4.92 | 0.46 | 7.68  | 81.01  | 0.65 | 43.12 |
| 5.078 | 12.86 | 4.92 | 0.38 | 7.62  | 79.76  | 0.53 | 43.11 |
| 5.146 | 12.87 | 4.92 | 0.38 | 7.67  | 79.54  | 0.53 | 43.11 |
| 5.204 | 12.87 | 4.92 | 0.5  | 7.69  | 78.9   | 0.68 | 43.1  |
| 5.248 | 12.87 | 4.92 | 0.53 | 7.71  | 77.88  | 0.68 | 43.11 |
| 5.268 | 12.87 | 4.92 | 0.5  | 7.7   | 77.86  | 0.74 | 43.1  |
| 5.272 | 12.87 | 4.92 | 0.5  | 7.69  | 77.97  | 0.65 | 43.1  |
| 5.274 | 12.87 | 4.92 | 0.38 | 7.68  | 78.86  | 0.74 | 43.1  |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

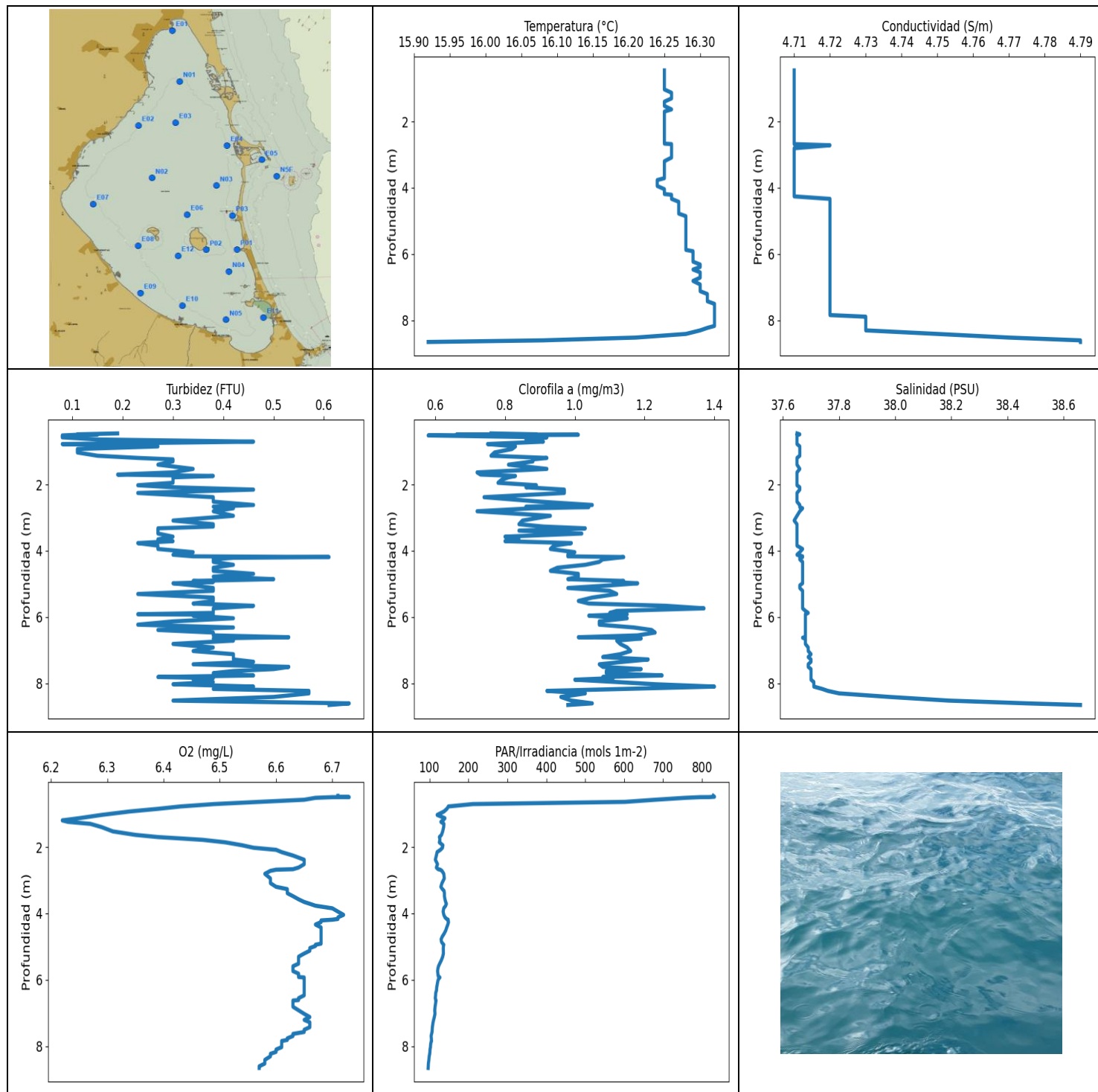
|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 13.63         | 4.71                   | 0.04              | 5.98              | 133.37                         | 0.21                              | 37.76              |
| <b>PROF (metros)</b> | 5.124         | 0.515                  | 0.543             | 0.534             | 5.145                          | 1.562                             | 0.569              |
| <b>MÁXIMO</b>        | 16.15         | 16.15                  | 1.26              | 12.7              | 897.79                         | 0.51                              | 41.68              |
| <b>PROF (metros)</b> | 0.515         | 4.895                  | 3.667             | 4.577             | 0.515                          | 4.858                             | 5.124              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD E05 - Punto 020                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 16.15      | 4.71                | 0.25           | 6.04           | 662.25                      | 0.35              | 37.76           |
| 1 - 2m                                                     | 16.08      | 4.71                | 0.6            | 6.85           | 188.47                      | 0.34              | 37.82           |
| 2 - 3m                                                     | 15.72      | 4.74                | 0.86           | 8.64           | 185.77                      | 0.38              | 38.42           |
| 3 - 4m                                                     | 14.95      | 4.79                | 0.91           | 10.8           | 172.7                       | 0.39              | 39.66           |
| 4 - 5m                                                     | 14.23      | 4.82                | 0.72           | 11.2           | 151.0                       | 0.43              | 40.69           |
| 5 - 6m                                                     | 13.64      | 4.86                | 0.79           | 8.83           | 136.74                      | 0.38              | 41.66           |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.515                                                          | 16.15      | 4.71                | 0.19           | 6.0            | 897.79                      | 0.38              | 37.77           |
| 0.522                                                          | 16.15      | 4.71                | 0.15           | 5.99           | 894.26                      | 0.38              | 37.77           |
| 0.534                                                          | 16.15      | 4.71                | 0.27           | 5.98           | 889.09                      | 0.34              | 37.77           |
| 0.543                                                          | 16.15      | 4.71                | 0.04           | 5.99           | 881.3                       | 0.38              | 37.77           |
| 0.554                                                          | 16.15      | 4.71                | 0.15           | 6.01           | 885.6                       | 0.41              | 37.77           |
| 0.557                                                          | 16.15      | 4.71                | 0.27           | 6.01           | 881.91                      | 0.37              | 37.77           |
| 0.569                                                          | 16.14      | 4.71                | 0.15           | 6.07           | 881.91                      | 0.31              | 37.76           |
| 0.579                                                          | 16.14      | 4.71                | 0.08           | 6.08           | 866.11                      | 0.3               | 37.76           |
| 0.61                                                           | 16.15      | 4.71                | 0.76           | 6.09           | 859.71                      | 0.35              | 37.76           |
| 0.654                                                          | 16.15      | 4.71                | 0.57           | 6.05           | 470.48                      | 0.39              | 37.76           |
| 0.717                                                          | 16.14      | 4.71                | 0.08           | 6.04           | 274.92                      | 0.31              | 37.76           |
| 0.8                                                            | 16.14      | 4.71                | 0.11           | 6.05           | 206.49                      | 0.33              | 37.76           |
| 0.881                                                          | 16.14      | 4.71                | 0.42           | 6.05           | 197.09                      | 0.3               | 37.76           |
| 0.949                                                          | 16.15      | 4.71                | 0.27           | 6.09           | 184.88                      | 0.34              | 37.76           |
| 1.012                                                          | 16.15      | 4.71                | 0.38           | 6.13           | 175.36                      | 0.3               | 37.76           |
| 1.079                                                          | 16.15      | 4.71                | 0.5            | 6.19           | 170.0                       | 0.4               | 37.76           |
| 1.147                                                          | 16.15      | 4.71                | 0.46           | 6.25           | 188.16                      | 0.32              | 37.76           |
| 1.218                                                          | 16.15      | 4.71                | 0.38           | 6.33           | 185.48                      | 0.35              | 37.76           |
| 1.293                                                          | 16.15      | 4.71                | 0.53           | 6.42           | 188.12                      | 0.33              | 37.77           |
| 1.378                                                          | 16.15      | 4.72                | 0.42           | 6.54           | 186.34                      | 0.32              | 37.78           |
| 1.473                                                          | 16.14      | 4.72                | 0.5            | 6.62           | 192.49                      | 0.34              | 37.79           |
| 1.562                                                          | 16.11      | 4.71                | 0.38           | 6.73           | 192.26                      | 0.21              | 37.8            |
| 1.637                                                          | 16.08      | 4.71                | 0.72           | 6.87           | 187.38                      | 0.31              | 37.82           |
| 1.701                                                          | 16.04      | 4.71                | 0.61           | 7.03           | 182.16                      | 0.34              | 37.85           |
| 1.763                                                          | 16.02      | 4.71                | 0.69           | 7.2            | 189.65                      | 0.34              | 37.87           |
| 1.819                                                          | 16.0       | 4.71                | 0.76           | 7.37           | 198.42                      | 0.31              | 37.89           |
| 1.867                                                          | 15.99      | 4.71                | 0.8            | 7.54           | 193.56                      | 0.36              | 37.9            |
| 1.926                                                          | 15.99      | 4.71                | 0.88           | 7.68           | 196.77                      | 0.4               | 37.91           |
| 1.998                                                          | 15.98      | 4.72                | 0.99           | 7.85           | 200.83                      | 0.42              | 37.93           |
| 2.081                                                          | 15.97      | 4.72                | 1.03           | 7.98           | 188.95                      | 0.4               | 37.97           |
| 2.169                                                          | 15.93      | 4.72                | 0.99           | 8.12           | 178.39                      | 0.36              | 38.03           |
| 2.247                                                          | 15.88      | 4.73                | 0.92           | 8.21           | 183.34                      | 0.35              | 38.15           |
| 2.309                                                          | 15.82      | 4.73                | 0.99           | 8.3            | 187.99                      | 0.46              | 38.25           |
| 2.354                                                          | 15.78      | 4.73                | 0.88           | 8.38           | 189.43                      | 0.42              | 38.31           |
| 2.393                                                          | 15.76      | 4.74                | 0.8            | 8.44           | 190.97                      | 0.41              | 38.34           |
| 2.437                                                          | 15.74      | 4.74                | 0.84           | 8.47           | 190.75                      | 0.35              | 38.36           |

|       |       |      |      |       |        |      |       |
|-------|-------|------|------|-------|--------|------|-------|
| 2.498 | 15.73 | 4.74 | 0.88 | 8.52  | 190.75 | 0.31 | 38.37 |
| 2.572 | 15.72 | 4.74 | 0.72 | 8.61  | 188.25 | 0.31 | 38.39 |
| 2.651 | 15.71 | 4.74 | 0.76 | 8.69  | 184.02 | 0.39 | 38.42 |
| 2.719 | 15.69 | 4.75 | 0.65 | 8.78  | 183.68 | 0.48 | 38.5  |
| 2.773 | 15.65 | 4.75 | 0.8  | 8.87  | 184.79 | 0.36 | 38.6  |
| 2.826 | 15.6  | 4.76 | 1.03 | 9.0   | 185.48 | 0.31 | 38.69 |
| 2.881 | 15.57 | 4.76 | 0.76 | 9.13  | 182.58 | 0.31 | 38.77 |
| 2.937 | 15.54 | 4.76 | 0.76 | 9.26  | 180.93 | 0.37 | 38.8  |
| 2.995 | 15.51 | 4.76 | 0.88 | 9.44  | 182.07 | 0.5  | 38.82 |
| 3.058 | 15.48 | 4.77 | 0.92 | 9.74  | 181.1  | 0.39 | 38.89 |
| 3.131 | 15.41 | 4.78 | 1.03 | 10.14 | 177.69 | 0.35 | 39.04 |
| 3.207 | 15.3  | 4.78 | 0.8  | 10.49 | 176.91 | 0.42 | 39.19 |
| 3.275 | 15.2  | 4.78 | 0.95 | 10.78 | 176.18 | 0.39 | 39.33 |
| 3.341 | 15.1  | 4.79 | 0.95 | 10.96 | 175.4  | 0.42 | 39.46 |
| 3.404 | 15.04 | 4.79 | 0.84 | 11.08 | 174.15 | 0.4  | 39.58 |
| 3.449 | 14.99 | 4.8  | 0.76 | 11.13 | 175.89 | 0.34 | 39.69 |
| 3.483 | 14.94 | 4.8  | 0.88 | 11.08 | 175.32 | 0.47 | 39.74 |
| 3.533 | 14.89 | 4.8  | 1.03 | 10.98 | 174.59 | 0.39 | 39.77 |
| 3.595 | 14.84 | 4.79 | 0.92 | 10.9  | 173.22 | 0.36 | 39.77 |
| 3.667 | 14.75 | 4.79 | 1.26 | 10.84 | 170.79 | 0.41 | 39.87 |
| 3.751 | 14.67 | 4.8  | 0.84 | 10.84 | 168.86 | 0.4  | 40.0  |
| 3.827 | 14.61 | 4.8  | 0.84 | 10.94 | 166.6  | 0.39 | 40.11 |
| 3.893 | 14.55 | 4.8  | 0.92 | 10.98 | 162.75 | 0.37 | 40.18 |
| 3.96  | 14.51 | 4.8  | 0.65 | 11.1  | 160.99 | 0.4  | 40.21 |
| 4.022 | 14.49 | 4.8  | 0.53 | 11.27 | 160.21 | 0.43 | 40.23 |
| 4.071 | 14.48 | 4.8  | 0.72 | 11.27 | 160.8  | 0.42 | 40.23 |
| 4.109 | 14.46 | 4.8  | 0.72 | 11.24 | 161.4  | 0.49 | 40.25 |
| 4.161 | 14.46 | 4.8  | 0.84 | 11.22 | 161.92 | 0.42 | 40.25 |
| 4.223 | 14.45 | 4.8  | 0.8  | 11.18 | 160.87 | 0.43 | 40.26 |
| 4.278 | 14.44 | 4.8  | 0.76 | 11.04 | 158.65 | 0.42 | 40.28 |
| 4.329 | 14.43 | 4.8  | 0.84 | 10.88 | 155.38 | 0.38 | 40.31 |
| 4.382 | 14.42 | 4.81 | 0.65 | 10.83 | 153.27 | 0.43 | 40.36 |
| 4.438 | 14.38 | 4.81 | 0.65 | 10.69 | 151.92 | 0.42 | 40.43 |
| 4.503 | 14.33 | 4.81 | 0.65 | 10.63 | 149.69 | 0.38 | 40.51 |
| 4.577 | 14.29 | 4.82 | 0.76 | 12.7  | 147.76 | 0.44 | 40.57 |
| 4.654 | 14.25 | 4.83 | 0.69 | 12.58 | 146.16 | 0.39 | 40.71 |
| 4.724 | 14.17 | 4.84 | 0.72 | 12.21 | 143.97 | 0.42 | 40.93 |
| 4.78  | 14.03 | 4.85 | 0.69 | 11.86 | 141.75 | 0.45 | 41.21 |
| 4.824 | 13.87 | 4.85 | 0.8  | 11.42 | 141.36 | 0.46 | 41.35 |
| 4.858 | 13.8  | 4.85 | 0.65 | 10.82 | 141.13 | 0.51 | 41.46 |
| 4.895 | 13.75 | 4.86 | 0.76 | 10.18 | 141.03 | 0.4  | 41.53 |
| 4.947 | 13.7  | 4.86 | 0.8  | 9.51  | 140.74 | 0.36 | 41.59 |
| 5.008 | 13.67 | 4.86 | 0.84 | 8.81  | 139.99 | 0.41 | 41.63 |
| 5.071 | 13.65 | 4.86 | 0.8  | 8.83  | 138.12 | 0.38 | 41.66 |
| 5.124 | 13.63 | 4.86 | 0.72 | 8.87  | 135.49 | 0.38 | 41.68 |
| 5.145 | 13.63 | 4.86 | 0.8  | 8.82  | 133.37 | 0.36 | 41.68 |



### VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE

|                      | Temp.<br>(°C) | Conductividad<br>(S/m) | Turbidez<br>(FTU) | Oxígeno<br>(mg/l) | PAR/Irradiancia<br>(mols-1m-2) | Clorofila<br>(mg/m <sup>3</sup> ) | Salinidad<br>(PSU) |
|----------------------|---------------|------------------------|-------------------|-------------------|--------------------------------|-----------------------------------|--------------------|
| <b>MÍNIMO</b>        | 15.92         | 4.71                   | 0.08              | 6.22              | 96.35                          | 0.58                              | 37.64              |
| <b>PROF (metros)</b> | 8.659         | 0.453                  | 0.514             | 1.194             | 8.659                          | 0.514                             | 3.086              |
| <b>MÁXIMO</b>        | 16.32         | 16.32                  | 0.65              | 6.73              | 832.46                         | 1.41                              | 38.66              |
| <b>PROF (metros)</b> | 7.507         | 8.61                   | 8.61              | 0.493             | 0.481                          | 8.103                             | 8.659              |

| DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| CTD N5F - Punto 021                                        | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0 - 1m                                                     | 16.25      | 4.71                | 0.16           | 6.59           | 563.35                      | 0.82              | 37.65           |
| 1 - 2m                                                     | 16.25      | 4.71                | 0.27           | 6.35           | 130.49                      | 0.82              | 37.65           |
| 2 - 3m                                                     | 16.25      | 4.71                | 0.37           | 6.61           | 125.45                      | 0.9               | 37.66           |
| 3 - 4m                                                     | 16.25      | 4.71                | 0.29           | 6.64           | 136.97                      | 0.9               | 37.65           |
| 4 - 5m                                                     | 16.27      | 4.72                | 0.4            | 6.69           | 139.52                      | 1.04              | 37.67           |
| 5 - 6m                                                     | 16.28      | 4.72                | 0.36           | 6.64           | 127.01                      | 1.11              | 37.67           |
| 6 - 7m                                                     | 16.3       | 4.72                | 0.38           | 6.64           | 116.47                      | 1.14              | 37.68           |
| 7 - 8m                                                     | 16.31      | 4.72                | 0.4            | 6.64           | 106.83                      | 1.12              | 37.7            |
| 8 - 9m                                                     | 16.23      | 4.75                | 0.48           | 6.59           | 99.03                       | 1.08              | 38.0            |

| OBSERVACIONES GENERALES |
|-------------------------|
|                         |

| DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA |            |                     |                |                |                             |                   |                 |
|----------------------------------------------------------------|------------|---------------------|----------------|----------------|-----------------------------|-------------------|-----------------|
| Profundidad (m)                                                | Temp. (°C) | Conductividad (S/m) | Turbidez (FTU) | Oxígeno (mg/L) | PAR/Irradiancia (mols-1m-2) | Clorofila (mg/m3) | Salinidad (PSU) |
| 0.453                                                          | 16.25      | 4.71                | 0.19           | 6.71           | 829.18                      | 0.76              | 37.65           |
| 0.481                                                          | 16.25      | 4.71                | 0.11           | 6.71           | 832.46                      | 0.89              | 37.66           |
| 0.492                                                          | 16.25      | 4.71                | 0.15           | 6.72           | 818.87                      | 0.85              | 37.65           |
| 0.493                                                          | 16.25      | 4.71                | 0.15           | 6.73           | 804.94                      | 0.66              | 37.65           |
| 0.494                                                          | 16.25      | 4.71                | 0.11           | 6.7            | 795.12                      | 1.01              | 37.65           |
| 0.514                                                          | 16.25      | 4.71                | 0.08           | 6.67           | 756.82                      | 0.58              | 37.65           |
| 0.572                                                          | 16.25      | 4.71                | 0.08           | 6.65           | 679.65                      | 0.92              | 37.65           |
| 0.636                                                          | 16.25      | 4.71                | 0.15           | 6.57           | 602.2                       | 0.86              | 37.65           |
| 0.702                                                          | 16.25      | 4.71                | 0.46           | 6.49           | 211.14                      | 0.91              | 37.65           |
| 0.774                                                          | 16.25      | 4.71                | 0.08           | 6.43           | 148.34                      | 0.75              | 37.65           |
| 0.846                                                          | 16.25      | 4.71                | 0.27           | 6.39           | 144.4                       | 0.83              | 37.66           |
| 0.925                                                          | 16.25      | 4.71                | 0.11           | 6.34           | 137.07                      | 0.82              | 37.66           |
| 1.029                                                          | 16.25      | 4.71                | 0.11           | 6.29           | 119.44                      | 0.77              | 37.66           |
| 1.128                                                          | 16.26      | 4.71                | 0.15           | 6.25           | 139.41                      | 0.76              | 37.66           |
| 1.194                                                          | 16.26      | 4.71                | 0.23           | 6.22           | 134.46                      | 0.92              | 37.65           |
| 1.238                                                          | 16.26      | 4.71                | 0.3            | 6.23           | 128.99                      | 0.88              | 37.65           |
| 1.299                                                          | 16.26      | 4.71                | 0.3            | 6.27           | 136.81                      | 0.88              | 37.65           |
| 1.397                                                          | 16.25      | 4.71                | 0.27           | 6.29           | 136.12                      | 0.81              | 37.65           |
| 1.526                                                          | 16.25      | 4.71                | 0.34           | 6.31           | 133.62                      | 0.92              | 37.66           |
| 1.631                                                          | 16.26      | 4.71                | 0.3            | 6.35           | 130.59                      | 0.72              | 37.65           |
| 1.697                                                          | 16.25      | 4.71                | 0.19           | 6.39           | 125.16                      | 0.73              | 37.65           |
| 1.738                                                          | 16.25      | 4.71                | 0.38           | 6.43           | 126.09                      | 0.83              | 37.65           |
| 1.781                                                          | 16.25      | 4.71                | 0.3            | 6.47           | 126.45                      | 0.81              | 37.65           |
| 1.856                                                          | 16.25      | 4.71                | 0.3            | 6.51           | 125.02                      | 0.79              | 37.65           |
| 1.945                                                          | 16.25      | 4.71                | 0.3            | 6.54           | 134.21                      | 0.78              | 37.65           |
| 2.019                                                          | 16.25      | 4.71                | 0.23           | 6.56           | 133.09                      | 0.89              | 37.65           |
| 2.081                                                          | 16.25      | 4.71                | 0.3            | 6.6            | 127.83                      | 0.86              | 37.66           |
| 2.151                                                          | 16.25      | 4.71                | 0.46           | 6.61           | 119.27                      | 0.97              | 37.66           |
| 2.253                                                          | 16.25      | 4.71                | 0.23           | 6.63           | 117.41                      | 0.97              | 37.65           |
| 2.38                                                           | 16.25      | 4.71                | 0.38           | 6.65           | 114.77                      | 0.74              | 37.65           |
| 2.515                                                          | 16.25      | 4.71                | 0.38           | 6.65           | 120.38                      | 0.9               | 37.65           |
| 2.616                                                          | 16.25      | 4.71                | 0.46           | 6.64           | 117.43                      | 1.05              | 37.66           |
| 2.666                                                          | 16.25      | 4.71                | 0.38           | 6.63           | 121.9                       | 0.86              | 37.66           |

|       |       |      |      |      |        |      |       |
|-------|-------|------|------|------|--------|------|-------|
| 2.68  | 16.26 | 4.71 | 0.42 | 6.6  | 127.3  | 1.04 | 37.66 |
| 2.715 | 16.26 | 4.72 | 0.42 | 6.59 | 131.74 | 0.88 | 37.67 |
| 2.805 | 16.26 | 4.71 | 0.38 | 6.58 | 136.5  | 0.72 | 37.66 |
| 2.943 | 16.26 | 4.71 | 0.42 | 6.59 | 137.77 | 0.93 | 37.65 |
| 3.086 | 16.26 | 4.71 | 0.3  | 6.59 | 131.83 | 0.85 | 37.64 |
| 3.197 | 16.25 | 4.71 | 0.38 | 6.6  | 128.93 | 0.84 | 37.65 |
| 3.267 | 16.25 | 4.71 | 0.38 | 6.62 | 133.03 | 0.91 | 37.65 |
| 3.321 | 16.25 | 4.71 | 0.27 | 6.62 | 137.23 | 1.03 | 37.65 |
| 3.39  | 16.25 | 4.71 | 0.27 | 6.62 | 138.09 | 0.84 | 37.65 |
| 3.478 | 16.25 | 4.71 | 0.27 | 6.63 | 138.09 | 1.02 | 37.65 |
| 3.573 | 16.25 | 4.71 | 0.3  | 6.64 | 139.47 | 0.8  | 37.65 |
| 3.654 | 16.25 | 4.71 | 0.27 | 6.65 | 141.29 | 0.84 | 37.65 |
| 3.709 | 16.25 | 4.71 | 0.3  | 6.66 | 143.2  | 0.8  | 37.65 |
| 3.767 | 16.24 | 4.71 | 0.23 | 6.67 | 141.29 | 0.99 | 37.65 |
| 3.845 | 16.24 | 4.71 | 0.27 | 6.7  | 136.37 | 0.94 | 37.65 |
| 3.945 | 16.24 | 4.71 | 0.27 | 6.71 | 134.83 | 0.93 | 37.67 |
| 4.042 | 16.25 | 4.71 | 0.34 | 6.72 | 136.56 | 1.0  | 37.66 |
| 4.118 | 16.25 | 4.71 | 0.3  | 6.71 | 139.63 | 0.98 | 37.65 |
| 4.167 | 16.25 | 4.71 | 0.34 | 6.71 | 143.97 | 0.98 | 37.67 |
| 4.189 | 16.25 | 4.71 | 0.61 | 6.7  | 147.72 | 1.14 | 37.67 |
| 4.211 | 16.26 | 4.71 | 0.42 | 6.68 | 147.35 | 1.12 | 37.66 |
| 4.26  | 16.26 | 4.71 | 0.38 | 6.68 | 148.62 | 1.08 | 37.66 |
| 4.335 | 16.26 | 4.72 | 0.38 | 6.67 | 146.8  | 1.07 | 37.67 |
| 4.423 | 16.27 | 4.72 | 0.42 | 6.68 | 144.04 | 1.03 | 37.67 |
| 4.511 | 16.27 | 4.72 | 0.38 | 6.68 | 141.55 | 0.95 | 37.67 |
| 4.605 | 16.27 | 4.72 | 0.38 | 6.68 | 137.58 | 0.93 | 37.67 |
| 4.696 | 16.27 | 4.72 | 0.46 | 6.68 | 132.63 | 1.01 | 37.67 |
| 4.78  | 16.27 | 4.72 | 0.38 | 6.68 | 129.59 | 1.01 | 37.67 |
| 4.857 | 16.28 | 4.72 | 0.5  | 6.68 | 130.56 | 0.98 | 37.67 |
| 4.911 | 16.28 | 4.72 | 0.34 | 6.68 | 133.71 | 1.14 | 37.67 |
| 4.944 | 16.28 | 4.72 | 0.38 | 6.67 | 136.46 | 1.11 | 37.67 |
| 4.982 | 16.28 | 4.72 | 0.3  | 6.67 | 135.55 | 1.18 | 37.67 |
| 5.045 | 16.28 | 4.72 | 0.34 | 6.66 | 135.24 | 1.1  | 37.66 |
| 5.124 | 16.28 | 4.72 | 0.38 | 6.66 | 135.33 | 0.98 | 37.66 |
| 5.209 | 16.28 | 4.72 | 0.38 | 6.65 | 135.46 | 1.1  | 37.67 |
| 5.305 | 16.28 | 4.72 | 0.23 | 6.64 | 133.65 | 1.12 | 37.67 |
| 5.413 | 16.28 | 4.72 | 0.38 | 6.64 | 130.1  | 1.05 | 37.67 |
| 5.515 | 16.28 | 4.72 | 0.38 | 6.64 | 125.92 | 1.01 | 37.67 |
| 5.593 | 16.28 | 4.72 | 0.34 | 6.63 | 122.83 | 1.04 | 37.67 |
| 5.661 | 16.28 | 4.72 | 0.46 | 6.63 | 121.42 | 1.26 | 37.67 |
| 5.739 | 16.28 | 4.72 | 0.38 | 6.63 | 120.55 | 1.37 | 37.67 |
| 5.816 | 16.28 | 4.72 | 0.38 | 6.64 | 121.28 | 1.12 | 37.68 |
| 5.876 | 16.28 | 4.72 | 0.38 | 6.64 | 121.81 | 1.1  | 37.69 |
| 5.917 | 16.29 | 4.72 | 0.23 | 6.64 | 124.64 | 1.15 | 37.68 |
| 5.931 | 16.29 | 4.72 | 0.38 | 6.65 | 126.53 | 1.11 | 37.68 |
| 5.96  | 16.29 | 4.72 | 0.34 | 6.65 | 123.41 | 1.04 | 37.68 |
| 6.038 | 16.29 | 4.72 | 0.42 | 6.65 | 121.17 | 1.15 | 37.68 |
| 6.133 | 16.29 | 4.72 | 0.3  | 6.65 | 119.74 | 1.07 | 37.68 |
| 6.232 | 16.29 | 4.72 | 0.23 | 6.65 | 118.25 | 1.07 | 37.68 |
| 6.318 | 16.3  | 4.72 | 0.42 | 6.65 | 117.73 | 1.17 | 37.68 |
| 6.392 | 16.3  | 4.72 | 0.27 | 6.65 | 115.81 | 1.22 | 37.68 |
| 6.47  | 16.29 | 4.72 | 0.38 | 6.65 | 115.41 | 1.23 | 37.68 |
| 6.555 | 16.3  | 4.72 | 0.38 | 6.64 | 114.58 | 1.18 | 37.68 |
| 6.612 | 16.3  | 4.72 | 0.53 | 6.64 | 115.76 | 1.01 | 37.68 |
| 6.626 | 16.3  | 4.72 | 0.46 | 6.63 | 116.76 | 1.14 | 37.67 |
| 6.648 | 16.3  | 4.72 | 0.38 | 6.63 | 116.27 | 1.19 | 37.68 |
| 6.714 | 16.3  | 4.72 | 0.42 | 6.63 | 115.36 | 1.12 | 37.68 |
| 6.814 | 16.29 | 4.72 | 0.3  | 6.63 | 114.05 | 1.13 | 37.68 |

|       |       |      |      |      |        |      |       |
|-------|-------|------|------|------|--------|------|-------|
| 6.921 | 16.3  | 4.72 | 0.38 | 6.64 | 113.24 | 1.15 | 37.69 |
| 7.028 | 16.3  | 4.72 | 0.34 | 6.65 | 113.84 | 1.16 | 37.69 |
| 7.124 | 16.3  | 4.72 | 0.42 | 6.66 | 112.17 | 1.13 | 37.7  |
| 7.21  | 16.31 | 4.72 | 0.42 | 6.65 | 110.34 | 1.08 | 37.69 |
| 7.283 | 16.31 | 4.72 | 0.42 | 6.66 | 108.99 | 1.21 | 37.7  |
| 7.353 | 16.31 | 4.72 | 0.46 | 6.66 | 108.03 | 1.14 | 37.7  |
| 7.429 | 16.31 | 4.72 | 0.34 | 6.66 | 107.14 | 1.07 | 37.69 |
| 7.507 | 16.32 | 4.72 | 0.53 | 6.65 | 106.69 | 1.08 | 37.69 |
| 7.574 | 16.32 | 4.72 | 0.5  | 6.65 | 106.29 | 1.19 | 37.7  |
| 7.633 | 16.32 | 4.72 | 0.42 | 6.63 | 105.07 | 1.09 | 37.7  |
| 7.697 | 16.32 | 4.72 | 0.38 | 6.63 | 103.91 | 1.09 | 37.7  |
| 7.766 | 16.32 | 4.72 | 0.46 | 6.62 | 104.49 | 1.25 | 37.7  |
| 7.814 | 16.32 | 4.72 | 0.27 | 6.62 | 104.66 | 1.08 | 37.7  |
| 7.846 | 16.32 | 4.72 | 0.38 | 6.61 | 104.97 | 1.11 | 37.7  |
| 7.895 | 16.32 | 4.73 | 0.34 | 6.61 | 103.38 | 1.0  | 37.7  |
| 7.965 | 16.32 | 4.73 | 0.38 | 6.61 | 102.54 | 1.12 | 37.71 |
| 8.032 | 16.32 | 4.73 | 0.3  | 6.61 | 102.24 | 1.23 | 37.71 |
| 8.103 | 16.32 | 4.73 | 0.46 | 6.6  | 101.06 | 1.4  | 37.71 |
| 8.174 | 16.32 | 4.73 | 0.38 | 6.6  | 100.78 | 1.14 | 37.74 |
| 8.233 | 16.31 | 4.73 | 0.57 | 6.59 | 100.26 | 0.92 | 37.76 |
| 8.308 | 16.3  | 4.73 | 0.57 | 6.59 | 99.02  | 1.03 | 37.8  |
| 8.416 | 16.28 | 4.75 | 0.5  | 6.58 | 98.15  | 0.96 | 37.98 |
| 8.526 | 16.21 | 4.77 | 0.3  | 6.58 | 96.9   | 0.99 | 38.19 |
| 8.61  | 16.08 | 4.79 | 0.65 | 6.57 | 96.55  | 1.05 | 38.47 |
| 8.659 | 15.92 | 4.79 | 0.61 | 6.57 | 96.34  | 0.98 | 38.66 |