RESULTADOS
MEDIDAS DE SONDA OCEÁNICA (CTD-IMIDA)
COORDINADAS POR EL IMIDA EN EL MM

Fecha: Lunes 4/10/2021

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:

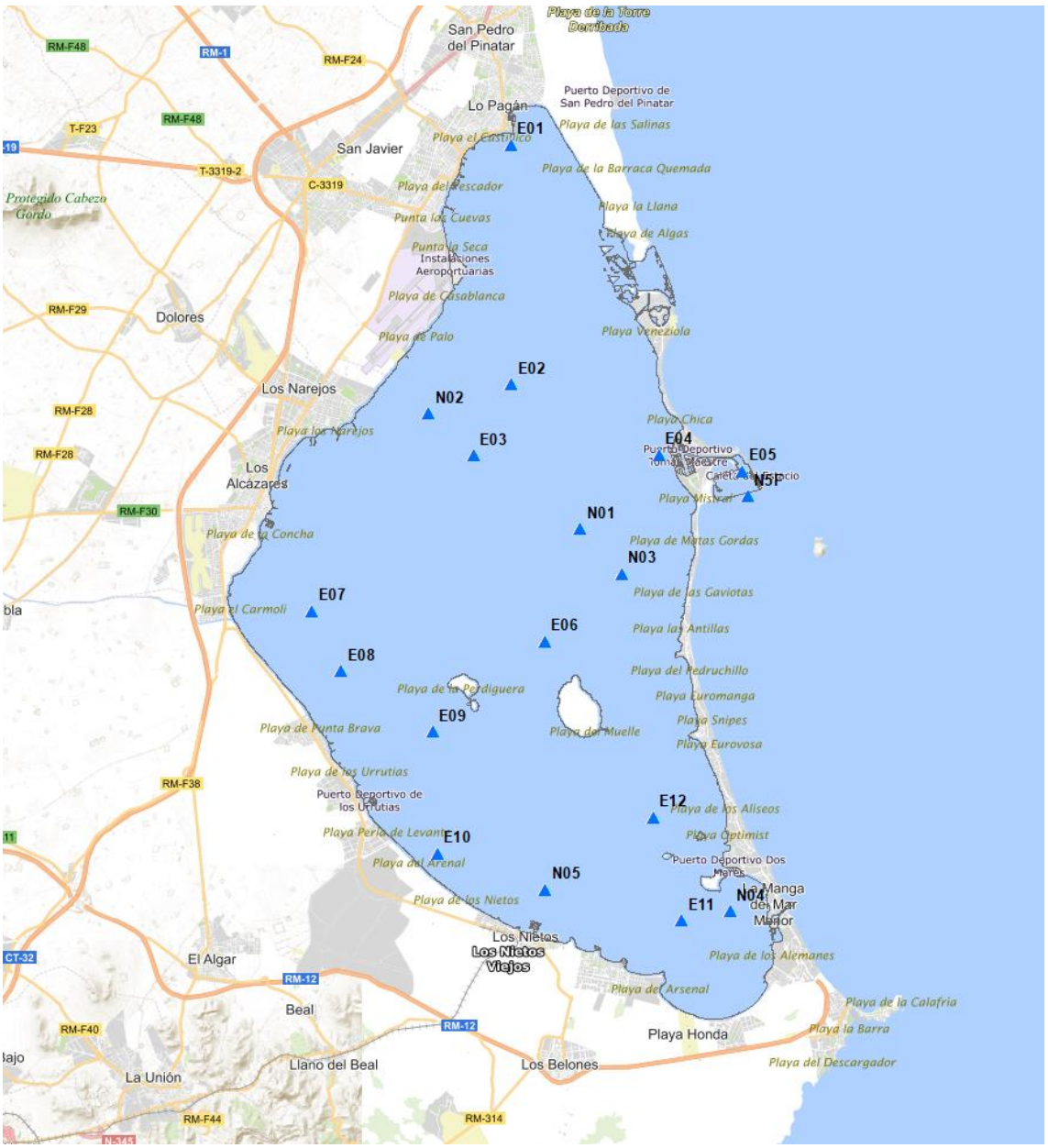
OBSERVACIONES GENERALES

Se realiza **UNA SALIDA** en barco para muestreo por la mañana, en horario de 07:30 a 11:00 horas.

Salida desde el puerto de Lo Pagán, con los técnicos y un patrón del IMIDA.

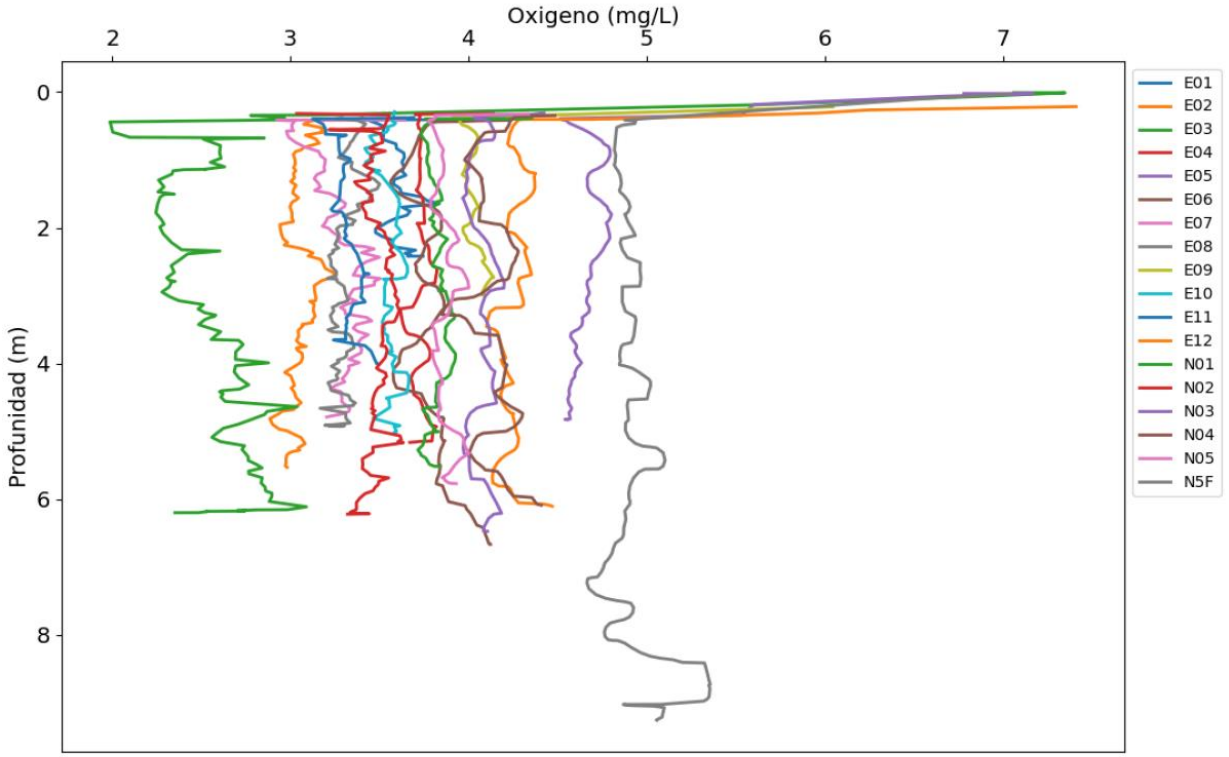
ORDEN	Punto	D. Secchi	Hora	Fondo	Viento (km/h)	Dirección	Sonda
1	E01	2,20	08:00	no	14	NW	2,50
2	N01	1,70	08:12	no	14	NW	5,60
3	E03	1,60	08:22	no	24	NW	6,10
4	E02	1,90	08:31	no	24	NW	5,50
5	N02	1,80	08:39	no	24	NW	6,20
6	E07	1,00	08:59	no	24	NW	4,80
6	E08	1,00	09:14	no	22	NW	4,90
8	E09	1,00	09:22	no	22	NW	2,60
9	E10	1,00	09:32	no	26	NW	5,00
10	N05	1,20	09:41	no	26	NW	6,00
11	E11	1,30	09:49	no	35	NW	4,20
12	N04	1,30	10:03	no	35	NW	6,00
13	E12	1,30	10:14	no	35	NW	6,30
14	E06	1,20	10:23	no	35	NW	6,80
15	N03	1,70	10:33	no	35	NW	6,50
16	E04	1,70	10:43	no	35	NW	5,40
17	E05	3,80	10:52	no	35	NW	5,20
18	N5F	10,00	10:59	no	35	NW	10,00

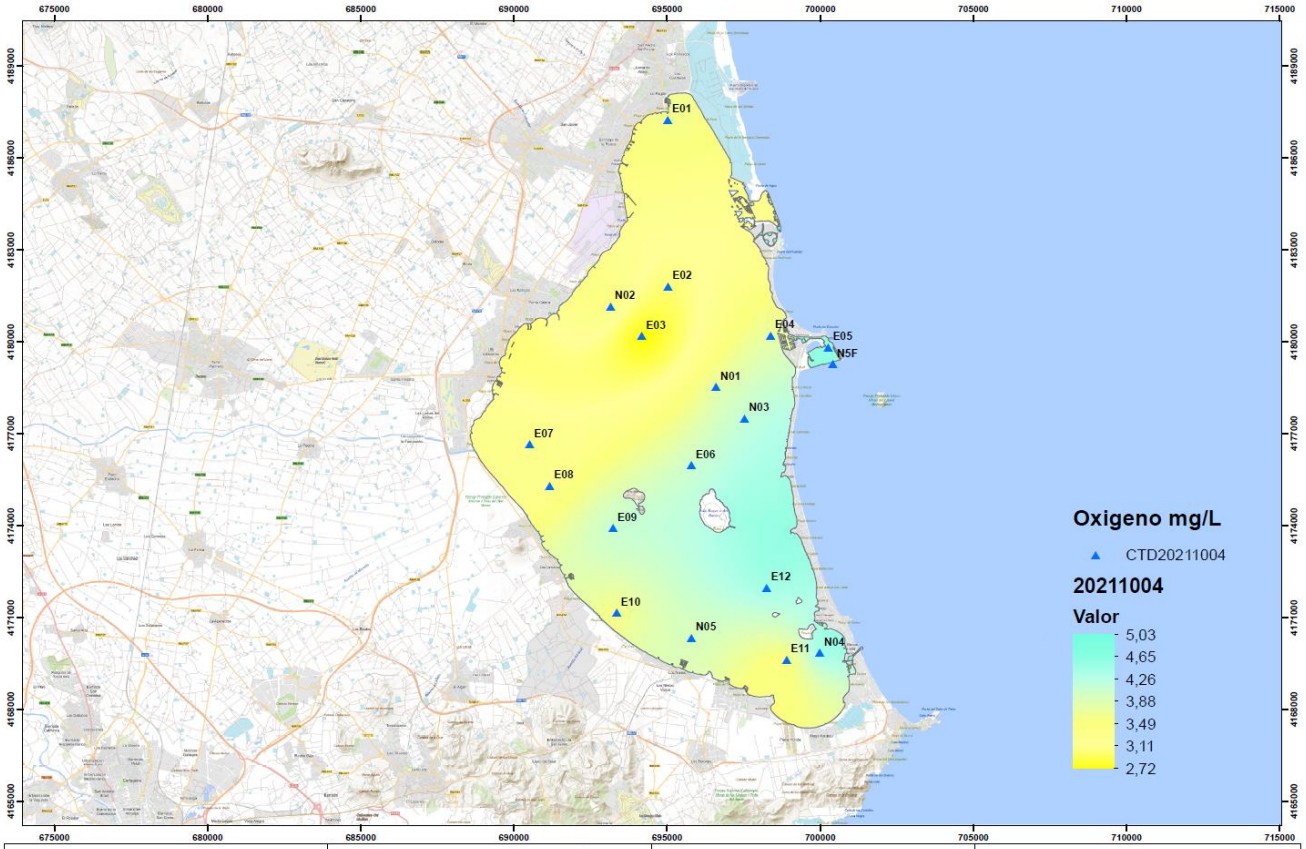
UBICACIÓN DE LOS TRABAJOS
Estación de Acuicultura Marina de San Pedro del Pinatar: Coordinación para la organización de las salidas al mar, manejo y mantenimiento de sondas.
Instalaciones del IMIDA de La Alberca: Diseño y puesta en marcha de la encuesta para la toma de datos, procesamiento, tratamiento, análisis de datos, cartografía y maquetación.
Mar Menor: El IMIDA ha muestreado un total de 18 puntos con el CTD, previamente establecidos por el grupo de monitorización.



SITUACIÓN GENERAL

El día 4 de octubre se observa un aumento de los puntos muestreo de hipoxia respecto a los datos del sábado día 2 de octubre, en una superficie aproximadamente el doble. Además del número de superficie se observa una leve disminución de los valores de oxígeno en su totalidad, correspondiendo el punto más crítico a la muestrea E03 llegando a valores de 1,99mg/L de oxígeno, límite entre la hipoxia y la anoxia a una profundidad de 0,5m. En el resto de la columna de agua oscila entre valores de 2mg/L y 3mg/L. El punto correspondiente más al norte N01 se observa valores de hipoxia entre 3,7mg/L y 4 en toda la columna de agua menos en la superficie, esta circunstancia se debe al viento de Noroeste entre 12 y 16 m/s. Al oeste en el punto E02 los valores de oxígeno se encuentran entre 2,9mg/L y 3,4mg/L en toda la columna de agua. Hacia el sur en los puntos N02 y E07 la hipoxia sigue en toda la columna de agua. Sin embargo, al este en el punto E03 y al sur de este no hay valores de hipoxia en la columna de agua





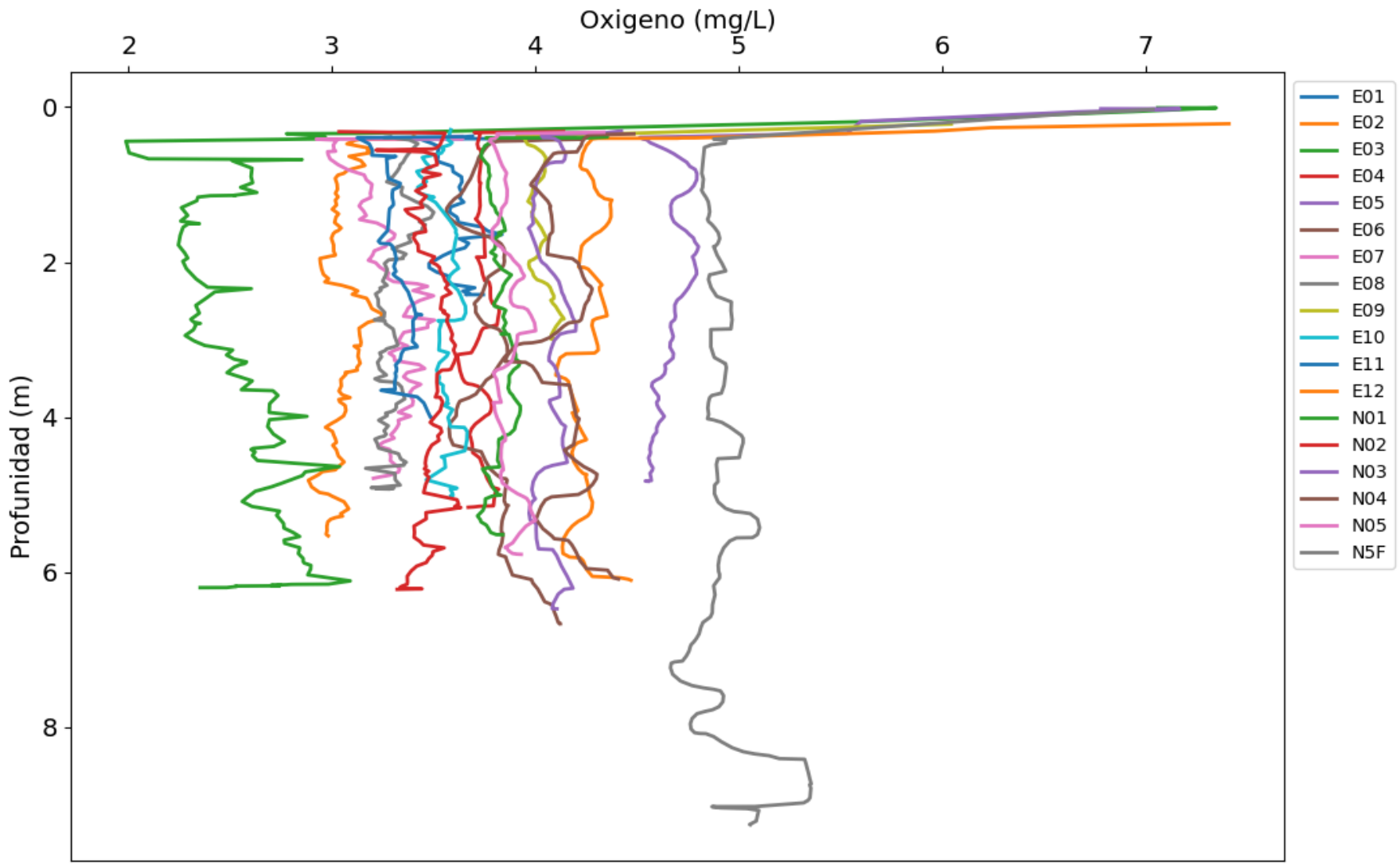
Escala 1:50.000 (A3)

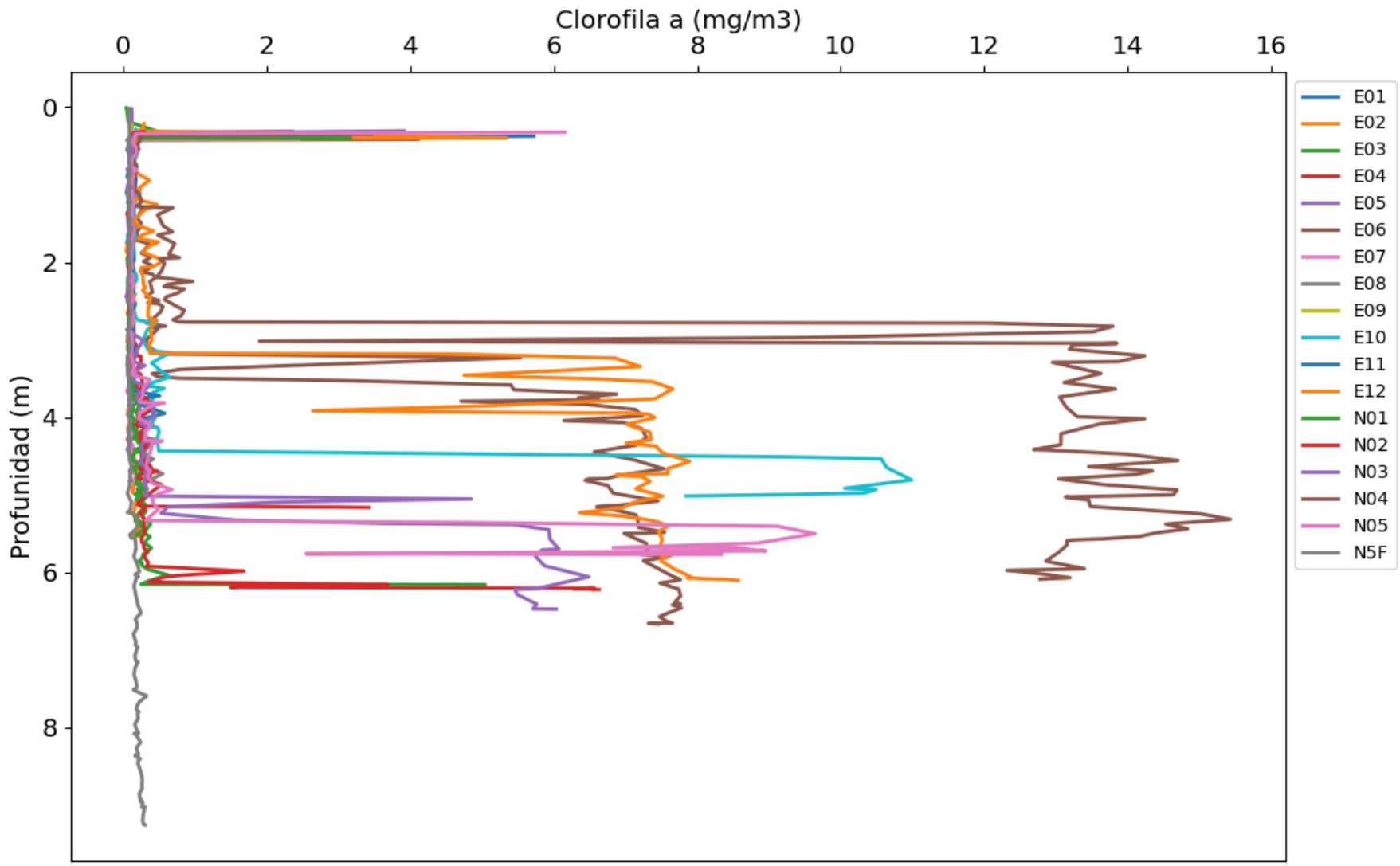
0 1.000 2.000 4.000 6.000 8.000 m

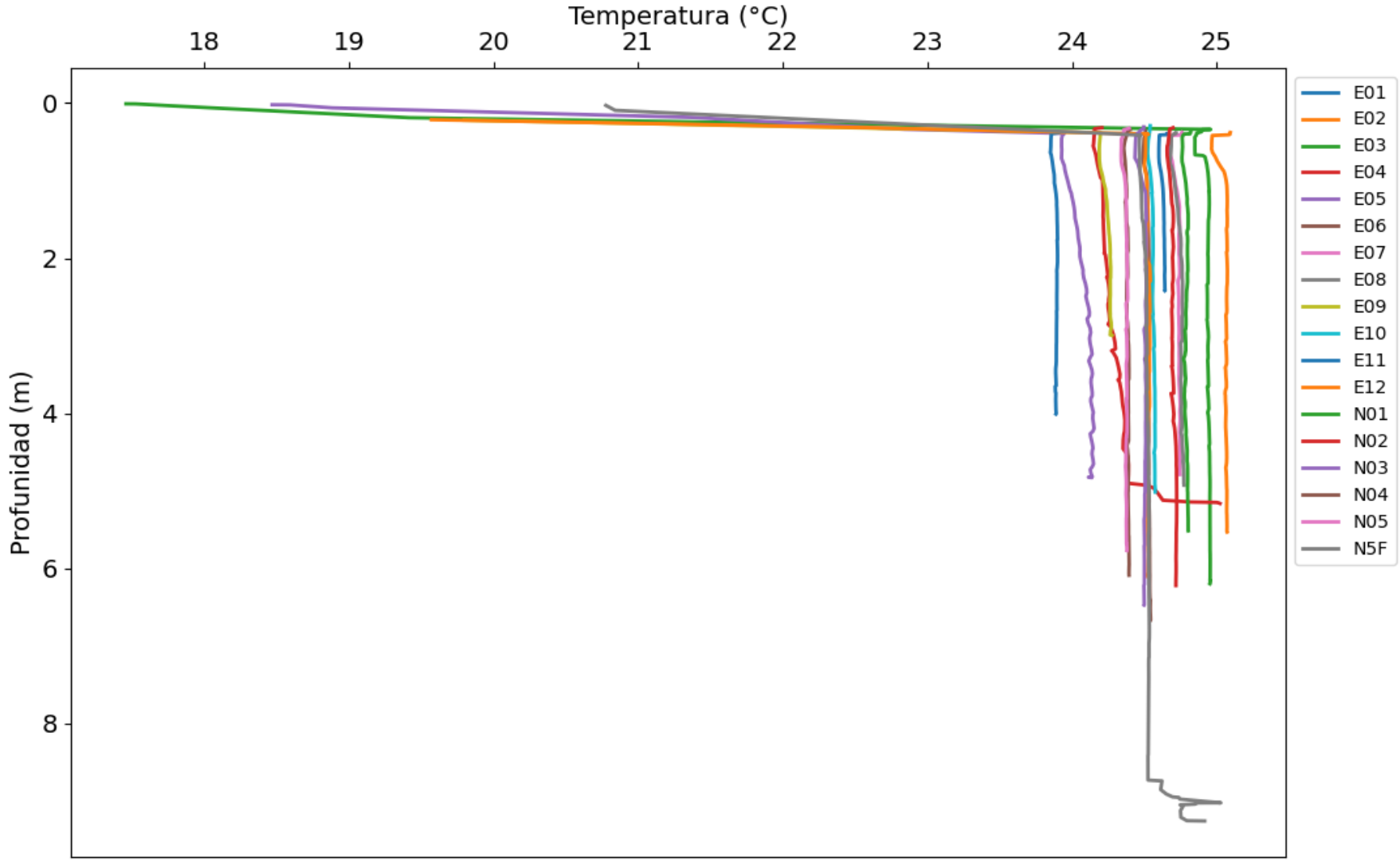
Sistema de Referencia Espacial:
European Terrestrial Reference System (ETRS89). Elipsoide: GRS 1980
Proyección:
Universal Transversa de Mercator (U.T.M.) Huso 30S

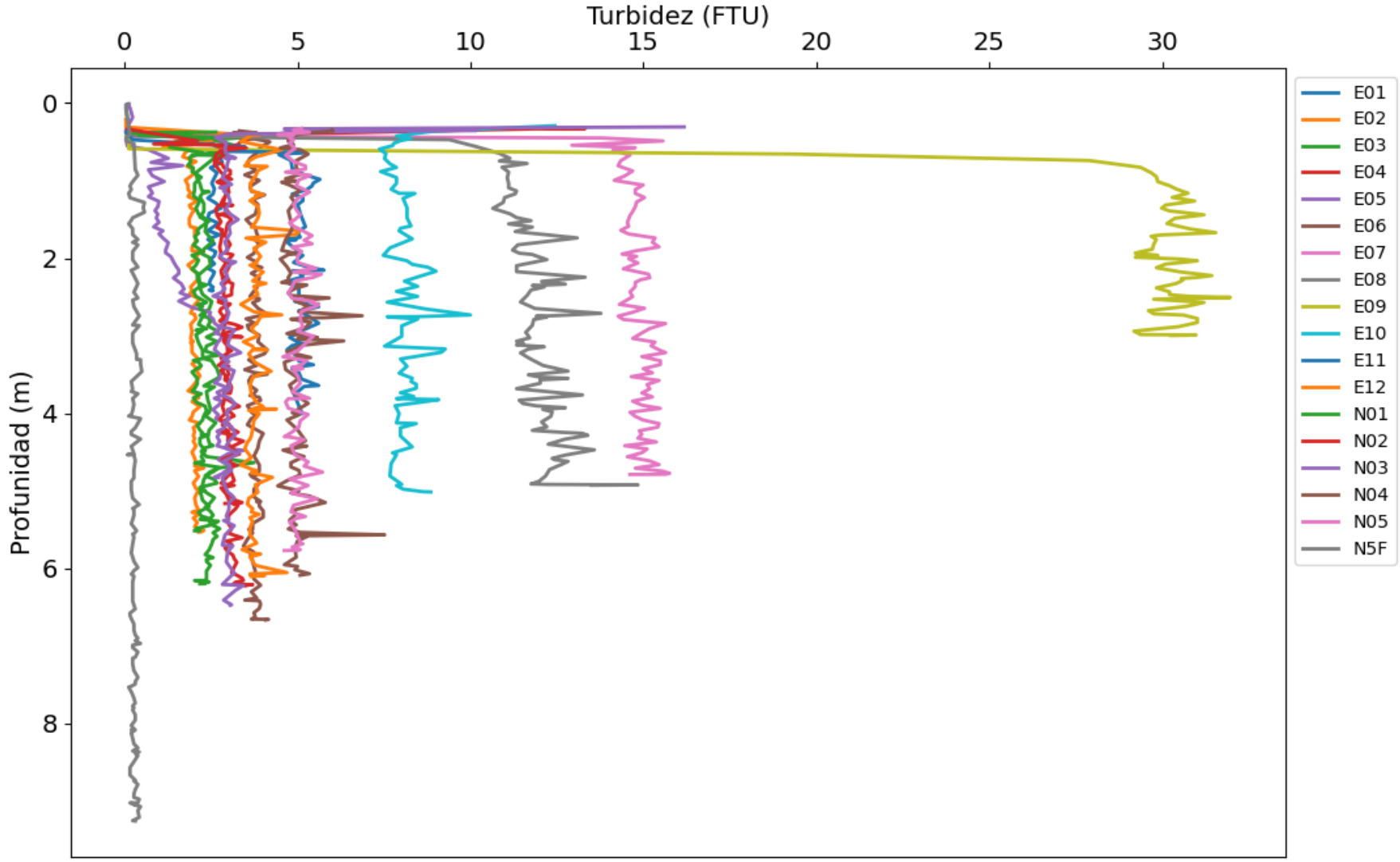
Puntos de control y nivel de oxigeno en el Mar Menor.
Fecha: 4 de Octubre de 2021.
Fuente: IMIDA.

FICHA GENERAL DE MUESTREOS PARA OXÍGENO, TURBIDEZ, CLOROFILA Y TEMPERATURA **FECHA: 04-10-2021**

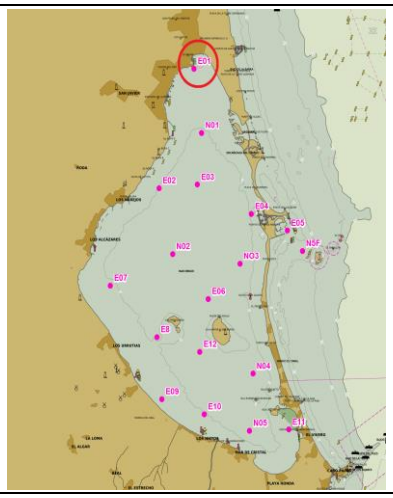


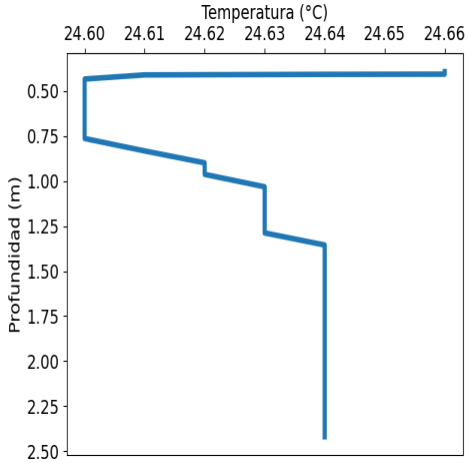

Clorofila a (mg/m3)
0
2
4
6
8
10
12
14
16
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F

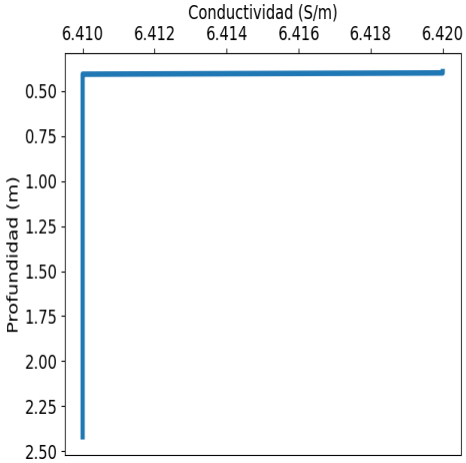

Temperatura (°C)
18
19
20
21
22
23
24
25
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F

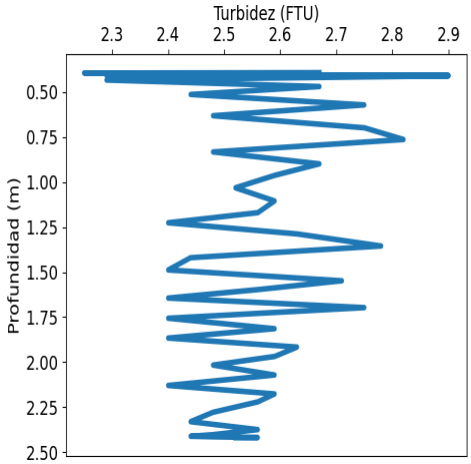

Turbidez (FTU)
0
5
10
15
20
25
30
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F

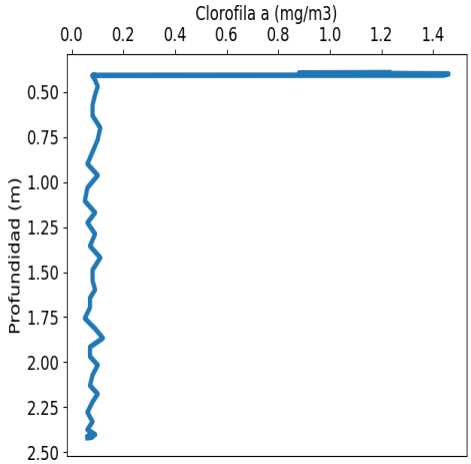
Nombre: CTD E01 - Punto 001 **Fecha: 04/10/2021** **Hora: 07:10:03**

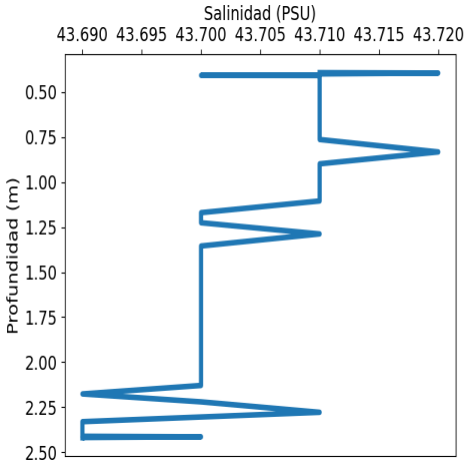


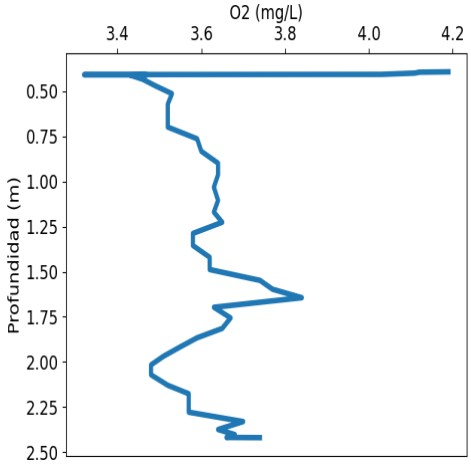


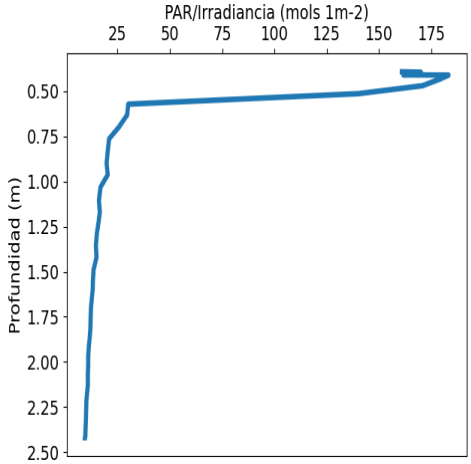












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.6	6.41	2.25	3.32	9.33	0.05	43.69
PROF (metros)	0.434	0.407	0.395	0.409	2.418	1.105	2.176
MÁXIMO	24.66	24.66	2.9	4.19	183.17	1.46	43.72
PROF (metros)	0.393	0.393	0.408	0.393	0.411	0.4	0.395

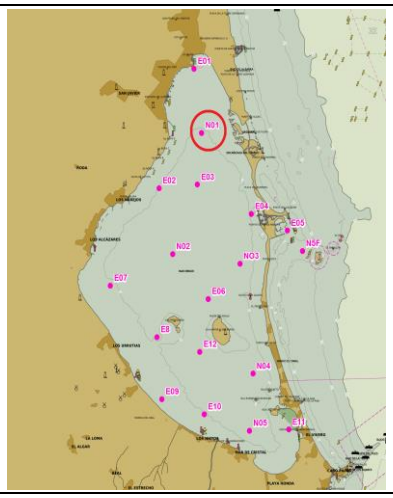
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01 - Punto 001	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	24.62	6.41	2.59	3.65	110.46	0.35	43.71
1 - 2m	24.64	6.41	2.55	3.64	13.69	0.08	43.7
2 - 3m	24.64	6.41	2.51	3.61	9.98	0.08	43.7

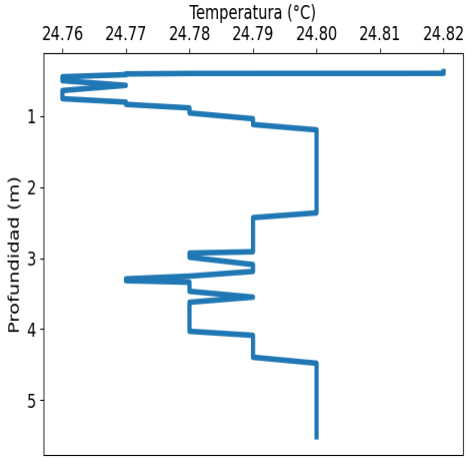
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m con los valores 3.65, 3.64, 3.61 respectivamente.

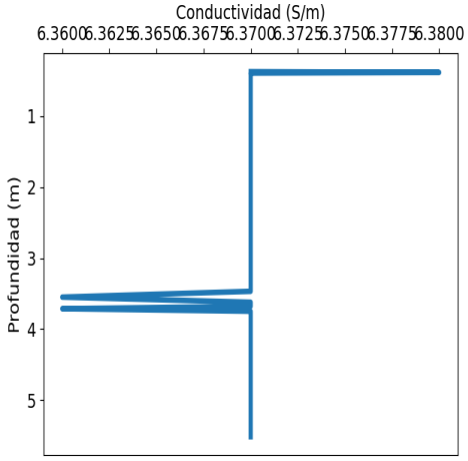
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.393	24.66	6.42	2.67	4.19	160.87	1.23	43.71
0.395	24.66	6.42	2.25	4.12	169.96	0.88	43.72
0.4	24.66	6.42	2.63	4.11	164.88	1.46	43.71
0.407	24.66	6.41	2.44	4.03	164.88	1.44	43.71
0.408	24.64	6.41	2.9	3.47	164.95	0.08	43.7
0.409	24.63	6.41	2.29	3.32	161.96	0.09	43.71
0.41	24.62	6.41	2.63	3.47	161.58	0.08	43.71
0.411	24.61	6.41	2.9	3.43	183.17	0.08	43.71
0.434	24.6	6.41	2.29	3.46	178.85	0.09	43.71
0.47	24.6	6.41	2.67	3.49	170.71	0.1	43.71
0.514	24.6	6.41	2.44	3.53	140.05	0.09	43.71
0.572	24.6	6.41	2.75	3.52	30.08	0.08	43.71
0.632	24.6	6.41	2.48	3.52	29.55	0.08	43.71
0.699	24.6	6.41	2.75	3.52	25.6	0.11	43.71
0.764	24.6	6.41	2.82	3.59	20.94	0.1	43.71
0.833	24.61	6.41	2.48	3.6	20.29	0.08	43.72
0.899	24.62	6.41	2.67	3.64	19.73	0.06	43.71
0.963	24.62	6.41	2.59	3.64	20.27	0.1	43.71
1.032	24.63	6.41	2.52	3.63	16.82	0.06	43.71
1.105	24.63	6.41	2.59	3.64	16.08	0.05	43.71
1.17	24.63	6.41	2.56	3.63	16.51	0.09	43.7
1.226	24.63	6.41	2.4	3.65	15.9	0.06	43.7
1.288	24.63	6.41	2.63	3.58	15.09	0.09	43.71
1.355	24.64	6.41	2.78	3.58	14.63	0.07	43.7
1.42	24.64	6.41	2.44	3.62	14.92	0.11	43.7
1.488	24.64	6.41	2.4	3.62	13.53	0.08	43.7
1.548	24.64	6.41	2.71	3.74	13.21	0.08	43.7
1.597	24.64	6.41	2.56	3.77	13.11	0.09	43.7
1.644	24.64	6.41	2.4	3.84	12.7	0.07	43.7
1.697	24.64	6.41	2.75	3.63	12.29	0.07	43.7
1.756	24.64	6.41	2.4	3.67	12.12	0.05	43.7
1.814	24.64	6.41	2.59	3.65	12.0	0.09	43.7
1.866	24.64	6.41	2.4	3.59	11.67	0.12	43.7
1.916	24.64	6.41	2.63	3.55	11.23	0.07	43.7
1.968	24.64	6.41	2.59	3.51	10.95	0.07	43.7
2.016	24.64	6.41	2.48	3.48	10.95	0.1	43.7
2.071	24.64	6.41	2.59	3.48	10.77	0.08	43.7

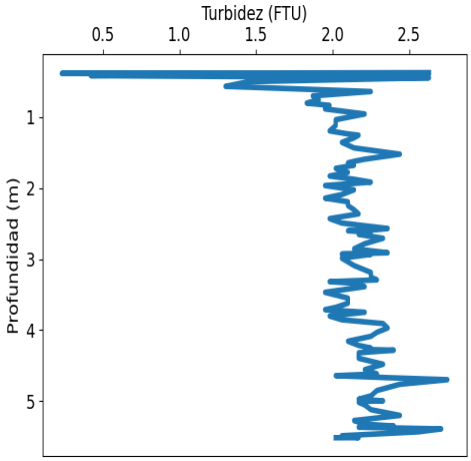
2.129	24.64	6.41	2.4	3.52	10.78	0.07	43.7
2.176	24.64	6.41	2.59	3.57	10.39	0.1	43.69
2.22	24.64	6.41	2.56	3.57	10.06	0.08	43.7
2.278	24.64	6.41	2.48	3.57	9.95	0.06	43.71
2.33	24.64	6.41	2.44	3.7	9.83	0.08	43.69
2.374	24.64	6.41	2.56	3.64	9.65	0.06	43.69
2.402	24.64	6.41	2.48	3.68	9.59	0.09	43.69
2.411	24.64	6.41	2.44	3.67	9.6	0.06	43.69
2.414	24.64	6.41	2.48	3.67	9.49	0.08	43.7
2.418	24.64	6.41	2.56	3.66	9.33	0.07	43.69
2.419	24.64	6.41	2.52	3.74	9.33	0.06	43.69

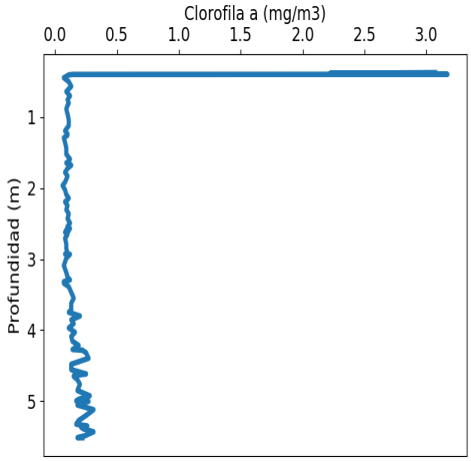
Nombre: CTD N01 - Punto 002 **Fecha: 04/10/2021** **Hora: 07:10:43**

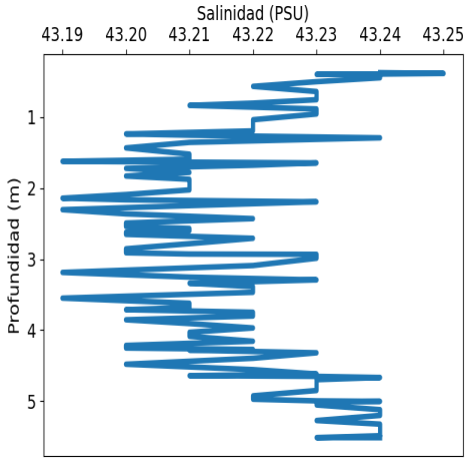


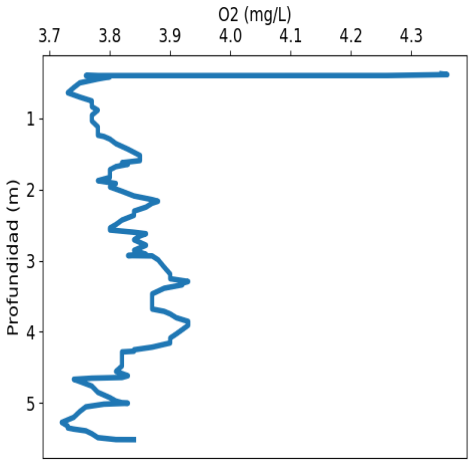


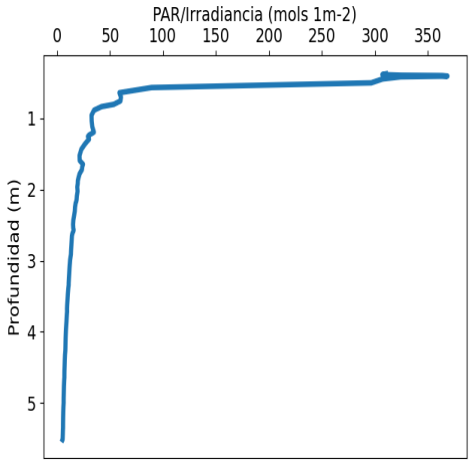


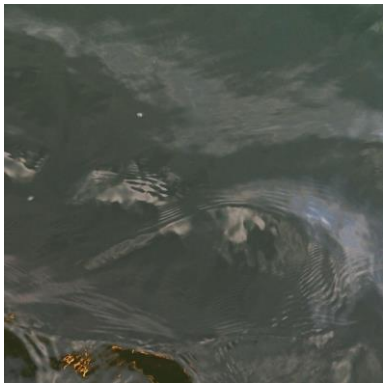












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.76	6.36	0.23	3.72	5.19	0.06	43.19
PROF (metros)	0.445	3.549	0.384	5.273	5.515	1.963	1.622
MÁXIMO	24.82	24.82	2.75	4.36	368.68	3.17	43.25
PROF (metros)	0.373	0.384	4.698	0.384	0.405	0.397	0.384

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	24.78	6.37	1.62	3.89	199.69	0.76	43.23
1 - 2m	24.8	6.37	2.11	3.8	25.09	0.09	43.21
2 - 3m	24.79	6.37	2.15	3.84	15.37	0.1	43.21
3 - 4m	24.78	6.37	2.14	3.9	10.03	0.12	43.21
4 - 5m	24.79	6.37	2.27	3.82	7.13	0.18	43.22
5 - 6m	24.8	6.37	2.27	3.77	5.64	0.23	43.24

OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 3.89, 3.8, 3.84, 3.9, 3.82, 3.77 respectivamente.

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)
0.373	24.82	6.37	2.63	4.35	310.64	3.07	43.24
0.384	24.82	6.38	0.23	4.36	307.13	2.22	43.25
0.393	24.82	6.37	1.91	4.29	325.08	3.1	43.24
0.397	24.82	6.37	1.14	4.26	359.23	3.17	43.23
0.398	24.78	6.37	0.95	3.76	363.92	0.14	43.24
0.405	24.77	6.37	0.8	3.78	368.68	0.11	43.24
0.415	24.77	6.37	0.42	3.8	324.48	0.1	43.24
0.445	24.76	6.37	2.63	3.78	307.49	0.07	43.24
0.5	24.76	6.37	1.45	3.75	296.64	0.11	43.23
0.566	24.77	6.37	1.3	3.74	89.21	0.13	43.22
0.639	24.76	6.37	2.25	3.73	58.86	0.09	43.23
0.7	24.76	6.37	1.87	3.75	60.35	0.12	43.23
0.754	24.76	6.37	1.91	3.77	59.85	0.1	43.23
0.802	24.77	6.37	1.83	3.77	53.56	0.11	43.22
0.834	24.77	6.37	1.98	3.77	42.04	0.1	43.21
0.884	24.78	6.37	1.95	3.78	34.96	0.09	43.23
0.955	24.78	6.37	2.21	3.77	32.53	0.1	43.23
1.036	24.79	6.37	2.02	3.77	32.66	0.11	43.22
1.118	24.79	6.37	2.02	3.78	33.26	0.11	43.22
1.193	24.8	6.37	1.98	3.78	34.75	0.08	43.22
1.236	24.8	6.37	2.1	3.78	30.04	0.1	43.2
1.254	24.8	6.37	2.17	3.79	29.12	0.1	43.21
1.291	24.8	6.37	2.14	3.8	30.2	0.07	43.24
1.355	24.8	6.37	2.06	3.81	26.53	0.08	43.21
1.433	24.8	6.37	2.14	3.83	22.94	0.09	43.2
1.521	24.8	6.37	2.44	3.85	21.2	0.09	43.21
1.592	24.8	6.37	2.21	3.85	21.34	0.12	43.21
1.622	24.8	6.37	2.14	3.82	23.18	0.11	43.19
1.644	24.8	6.37	2.1	3.83	24.49	0.09	43.23
1.677	24.8	6.37	2.14	3.81	23.77	0.13	43.22
1.721	24.8	6.37	2.02	3.8	23.44	0.1	43.2
1.778	24.8	6.37	2.1	3.8	21.25	0.08	43.21

1.829	24.8	6.37	1.98	3.8	20.32	0.1	43.2
1.875	24.8	6.37	2.14	3.78	19.62	0.09	43.21
1.915	24.8	6.37	2.25	3.81	19.51	0.08	43.21
1.963	24.8	6.37	1.95	3.8	19.05	0.06	43.21
2.024	24.8	6.37	2.14	3.82	19.35	0.08	43.21
2.09	24.8	6.37	2.06	3.84	18.68	0.09	43.2
2.141	24.8	6.37	1.95	3.87	18.43	0.11	43.19
2.164	24.8	6.37	2.02	3.88	18.11	0.1	43.2
2.192	24.8	6.37	2.1	3.87	17.51	0.08	43.23
2.246	24.8	6.37	2.1	3.86	16.97	0.1	43.21
2.303	24.8	6.37	2.14	3.84	16.72	0.09	43.19
2.362	24.8	6.37	2.17	3.84	16.12	0.11	43.2
2.429	24.79	6.37	1.98	3.82	15.36	0.1	43.22
2.491	24.79	6.37	2.06	3.81	15.08	0.12	43.2
2.54	24.79	6.37	2.25	3.8	15.26	0.1	43.2
2.568	24.79	6.37	2.36	3.8	15.64	0.12	43.21
2.584	24.79	6.37	2.29	3.82	15.37	0.09	43.21
2.6	24.79	6.37	2.1	3.84	14.91	0.11	43.21
2.621	24.79	6.37	2.25	3.86	14.42	0.08	43.2
2.651	24.79	6.37	2.17	3.85	14.02	0.1	43.2
2.706	24.79	6.37	2.33	3.84	13.8	0.08	43.22
2.782	24.79	6.37	2.21	3.86	13.51	0.09	43.21
2.854	24.79	6.37	2.14	3.84	13.21	0.09	43.2
2.91	24.79	6.37	2.36	3.86	13.06	0.1	43.2
2.928	24.78	6.37	2.06	3.83	12.89	0.08	43.21
2.932	24.78	6.37	2.25	3.87	12.84	0.12	43.23
2.987	24.78	6.37	2.06	3.88	12.32	0.09	43.23
3.09	24.79	6.37	2.14	3.89	11.79	0.07	43.22
3.187	24.79	6.37	2.25	3.9	11.44	0.09	43.19
3.253	24.78	6.37	2.25	3.9	11.17	0.1	43.21
3.292	24.77	6.37	2.29	3.93	11.04	0.12	43.23
3.317	24.77	6.37	1.98	3.92	10.95	0.07	43.22
3.339	24.78	6.37	2.14	3.92	10.96	0.07	43.21
3.387	24.78	6.37	2.21	3.89	10.6	0.11	43.22
3.467	24.78	6.37	1.95	3.87	10.17	0.13	43.22
3.549	24.79	6.36	2.1	3.87	9.85	0.15	43.19
3.621	24.78	6.37	2.1	3.87	9.53	0.13	43.21
3.679	24.78	6.37	2.02	3.87	9.37	0.13	43.21
3.712	24.78	6.36	1.95	3.89	9.45	0.13	43.2
3.748	24.78	6.37	2.21	3.9	9.25	0.11	43.22
3.801	24.78	6.37	1.98	3.91	9.04	0.2	43.22
3.854	24.78	6.37	2.06	3.93	8.88	0.13	43.2
3.907	24.78	6.37	2.33	3.93	8.65	0.15	43.21
3.969	24.78	6.37	2.36	3.92	8.39	0.11	43.22
4.03	24.78	6.37	2.29	3.91	8.21	0.16	43.21
4.087	24.79	6.37	2.25	3.9	8.07	0.13	43.21
4.156	24.79	6.37	2.1	3.9	7.97	0.14	43.22
4.215	24.79	6.37	2.17	3.87	7.89	0.19	43.2
4.252	24.79	6.37	2.25	3.84	7.83	0.16	43.2
4.272	24.79	6.37	2.21	3.84	7.76	0.14	43.22
4.282	24.79	6.37	2.4	3.82	7.71	0.22	43.21
4.319	24.79	6.37	2.17	3.82	7.49	0.25	43.23
4.396	24.79	6.37	2.17	3.82	7.27	0.27	43.22
4.48	24.8	6.37	2.33	3.82	7.11	0.13	43.2
4.556	24.8	6.37	2.21	3.81	6.94	0.13	43.22
4.617	24.8	6.37	2.29	3.83	6.9	0.25	43.23
4.641	24.8	6.37	2.02	3.82	6.9	0.15	43.21
4.651	24.8	6.37	2.14	3.77	6.84	0.15	43.23

4.667	24.8	6.37	2.33	3.74	6.77	0.16	43.24
4.698	24.8	6.37	2.75	3.75	6.67	0.18	43.23
4.762	24.8	6.37	2.44	3.77	6.48	0.2	43.23
4.85	24.8	6.37	2.29	3.78	6.34	0.18	43.23
4.925	24.8	6.37	2.25	3.8	6.21	0.28	43.22
4.973	24.8	6.37	2.17	3.81	6.18	0.19	43.22
4.996	24.8	6.37	2.33	3.82	6.2	0.17	43.23
5.003	24.8	6.37	2.21	3.83	6.17	0.27	43.24
5.016	24.8	6.37	2.17	3.79	6.12	0.22	43.23
5.054	24.8	6.37	2.21	3.76	5.99	0.18	43.23
5.12	24.8	6.37	2.25	3.75	5.85	0.31	43.24
5.201	24.8	6.37	2.44	3.74	5.73	0.25	43.24
5.273	24.8	6.37	2.14	3.72	5.66	0.19	43.23
5.324	24.8	6.37	2.21	3.73	5.63	0.17	43.24
5.35	24.8	6.37	2.4	3.73	5.62	0.26	43.24
5.367	24.8	6.37	2.17	3.74	5.55	0.21	43.24
5.391	24.8	6.37	2.71	3.76	5.49	0.23	43.24
5.432	24.8	6.37	2.56	3.77	5.42	0.31	43.24
5.487	24.8	6.37	2.06	3.78	5.3	0.24	43.24
5.514	24.8	6.37	2.17	3.81	5.22	0.18	43.23
5.515	24.8	6.37	2.02	3.84	5.19	0.22	43.24

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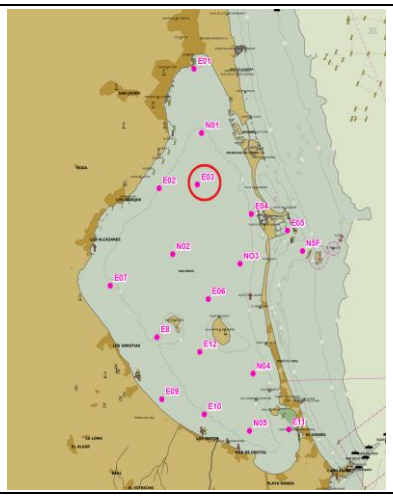
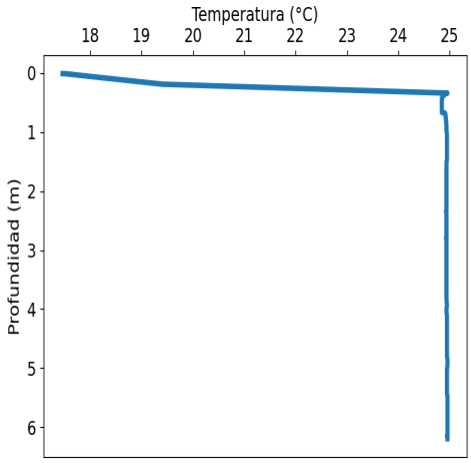
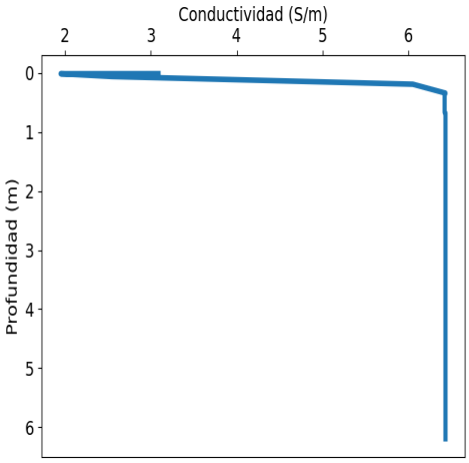
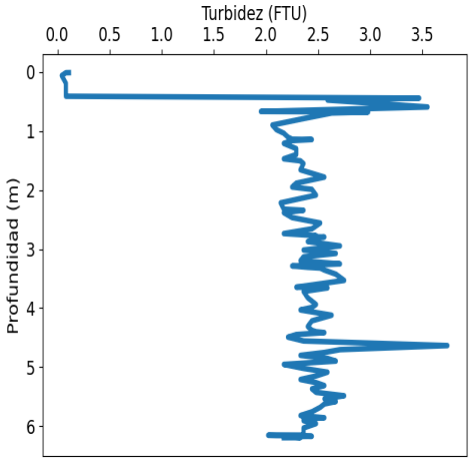
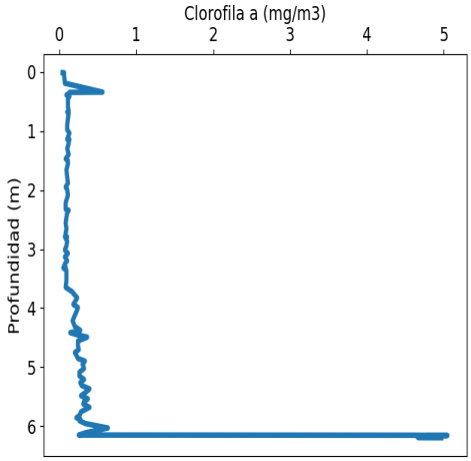
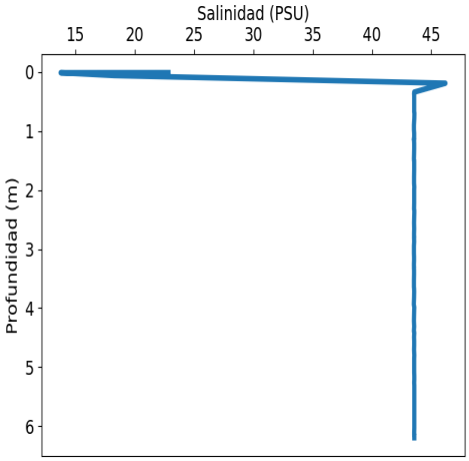


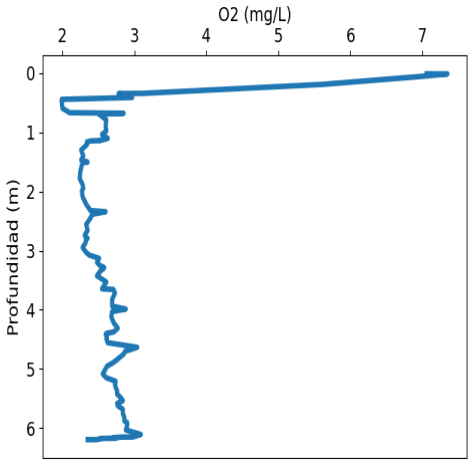


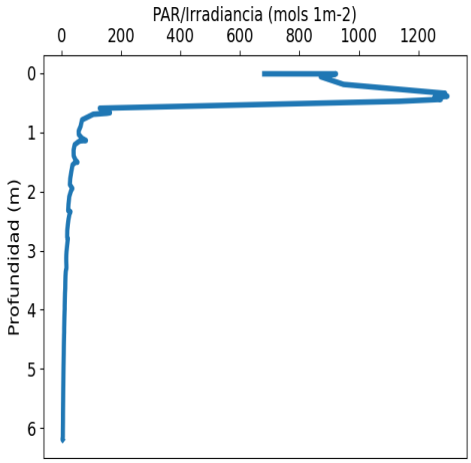












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	17.46	1.95	0.04	1.99	4.07	0.04	13.74
PROF (metros)	0.009	0.01	0.058	0.441	6.197	0.009	0.01
MÁXIMO	24.96	24.96	3.74	7.35	1297.5	5.05	46.2
PROF (metros)	0.339	0.339	4.636	0.01	0.387	6.16	0.188

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	23.39	5.76	1.35	3.5	721.29	0.12	39.49
1 - 2m	24.95	6.43	2.3	2.35	49.05	0.11	43.55
2 - 3m	24.94	6.43	2.39	2.36	22.61	0.09	43.56
3 - 4m	24.94	6.43	2.48	2.58	14.56	0.11	43.55
4 - 5m	24.95	6.43	2.52	2.72	8.79	0.24	43.56
5 - 6m	24.96	6.43	2.49	2.78	6.03	0.3	43.57
6 - 7m	24.96	6.43	2.28	2.73	4.57	3.75	43.57

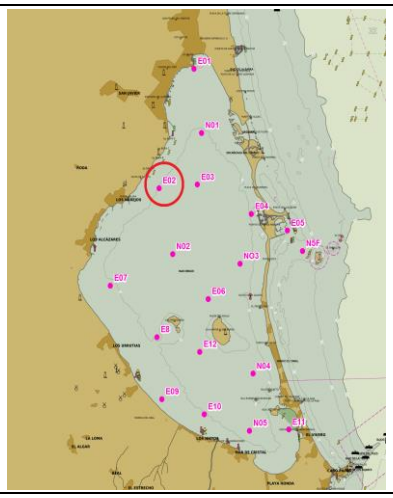
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m, 6 - 7m con los valores 3.5, 2.35, 2.36, 2.58, 2.72, 2.78, 2.73 respectivamente. CLOROFILA elevada en la(s) columna(s) de agua 6 - 7m con los valores 3.75 respectivamente

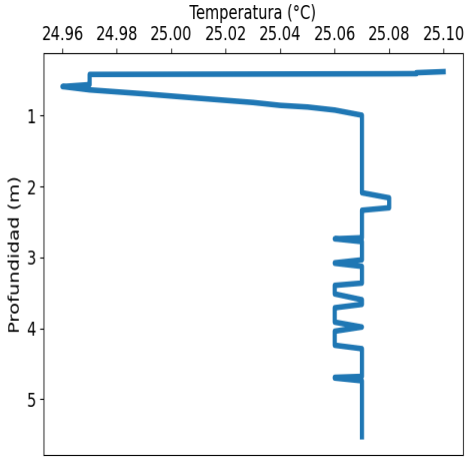
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.009	17.46	3.09	0.11	7.06	681.54	0.04	22.84
0.01	17.52	1.95	0.08	7.35	923.11	0.06	13.74
0.058	18.02	2.55	0.04	6.94	871.35	0.06	18.28
0.188	19.41	6.05	0.08	5.61	948.27	0.07	46.2
0.339	24.96	6.43	0.08	3.13	1289.7	0.56	43.56
0.343	24.9	6.43	0.08	2.78	1277.0	0.13	43.56
0.37	24.9	6.42	0.08	2.91	1286.8	0.12	43.55
0.387	24.86	6.42	0.08	2.97	1297.5	0.09	43.56
0.409	24.86	6.42	0.08	2.97	1253.2	0.13	43.56
0.441	24.85	6.42	3.47	1.99	1275.5	0.11	43.56
0.474	24.85	6.42	2.59	1.99	1135.4	0.11	43.56
0.591	24.85	6.42	3.55	2.0	128.84	0.11	43.56
0.667	24.85	6.42	1.95	2.1	163.54	0.12	43.56
0.676	24.91	6.43	2.98	2.85	152.21	0.1	43.56
0.693	24.92	6.43	2.63	2.51	107.09	0.12	43.58
0.788	24.93	6.43	2.36	2.61	69.46	0.11	43.57
0.897	24.94	6.43	2.06	2.6	64.64	0.1	43.54
0.976	24.94	6.43	2.1	2.61	58.12	0.1	43.54
1.035	24.95	6.43	2.17	2.55	58.4	0.13	43.56
1.101	24.95	6.43	2.21	2.63	69.81	0.11	43.56
1.137	24.95	6.43	2.25	2.52	82.79	0.1	43.53
1.138	24.95	6.43	2.29	2.52	77.27	0.1	43.56
1.143	24.95	6.43	2.44	2.4	63.08	0.13	43.55
1.161	24.95	6.43	2.25	2.34	56.76	0.12	43.55
1.208	24.95	6.43	2.17	2.34	44.67	0.12	43.56
1.297	24.95	6.43	2.29	2.26	41.08	0.1	43.56
1.397	24.95	6.43	2.29	2.29	41.36	0.12	43.55
1.47	24.95	6.43	2.17	2.26	47.88	0.08	43.54
1.504	24.94	6.43	2.33	2.35	54.15	0.11	43.55
1.506	24.94	6.43	2.33	2.29	46.75	0.11	43.56
1.55	24.94	6.43	2.36	2.27	37.54	0.11	43.56

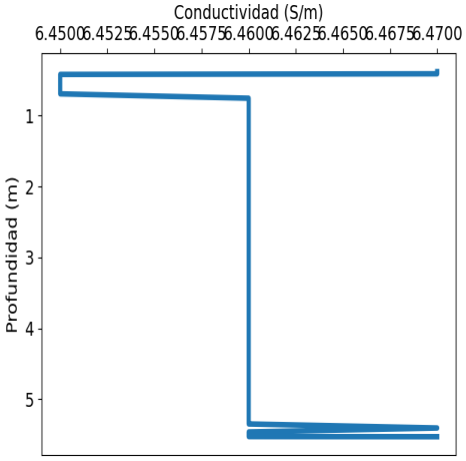
1.656	24.94	6.43	2.33	2.25	33.67	0.09	43.56
1.78	24.94	6.43	2.56	2.24	29.8	0.1	43.55
1.883	24.94	6.43	2.29	2.28	28.53	0.11	43.55
1.948	24.94	6.43	2.25	2.29	37.02	0.08	43.57
1.988	24.94	6.43	2.44	2.27	32.41	0.1	43.56
2.085	24.94	6.43	2.48	2.28	26.59	0.11	43.56
2.216	24.94	6.43	2.14	2.33	23.92	0.08	43.56
2.323	24.94	6.43	2.17	2.39	22.84	0.08	43.55
2.342	24.93	6.43	2.36	2.6	30.75	0.12	43.57
2.383	24.94	6.43	2.17	2.42	27.3	0.1	43.57
2.466	24.94	6.43	2.25	2.38	24.08	0.09	43.56
2.558	24.94	6.43	2.52	2.33	21.8	0.08	43.55
2.657	24.94	6.43	2.44	2.35	19.91	0.09	43.56
2.737	24.94	6.43	2.17	2.31	19.58	0.08	43.55
2.772	24.94	6.43	2.48	2.32	19.64	0.08	43.55
2.79	24.93	6.43	2.44	2.35	20.43	0.07	43.56
2.795	24.93	6.43	2.56	2.33	21.81	0.1	43.55
2.812	24.94	6.43	2.48	2.33	21.53	0.08	43.55
2.872	24.94	6.43	2.4	2.32	20.27	0.1	43.56
2.946	24.94	6.43	2.71	2.28	18.71	0.09	43.54
3.016	24.94	6.43	2.36	2.32	17.35	0.07	43.54
3.074	24.94	6.43	2.67	2.37	16.68	0.11	43.54
3.132	24.94	6.43	2.36	2.51	16.4	0.07	43.55
3.197	24.94	6.43	2.33	2.48	16.54	0.1	43.55
3.251	24.94	6.43	2.71	2.52	16.93	0.07	43.54
3.286	24.94	6.43	2.25	2.58	17.03	0.06	43.54
3.309	24.94	6.43	2.4	2.57	16.67	0.08	43.55
3.322	24.94	6.43	2.52	2.55	15.79	0.05	43.54
3.356	24.94	6.43	2.56	2.52	14.69	0.09	43.55
3.426	24.94	6.43	2.67	2.48	13.88	0.09	43.55
3.531	24.94	6.43	2.75	2.61	13.32	0.09	43.54
3.646	24.94	6.43	2.29	2.55	13.01	0.08	43.54
3.658	24.94	6.43	2.59	2.71	12.86	0.09	43.55
3.719	24.94	6.43	2.36	2.73	12.21	0.16	43.56
3.826	24.94	6.43	2.4	2.69	11.69	0.23	43.55
3.939	24.95	6.43	2.48	2.69	11.2	0.18	43.53
3.989	24.94	6.43	2.44	2.88	11.22	0.24	43.57
4.032	24.94	6.43	2.33	2.69	10.84	0.23	43.56
4.121	24.95	6.43	2.63	2.68	10.32	0.2	43.55
4.217	24.95	6.43	2.44	2.71	9.92	0.17	43.54
4.313	24.95	6.43	2.4	2.77	9.49	0.2	43.56
4.377	24.95	6.43	2.44	2.71	9.47	0.27	43.54
4.401	24.95	6.43	2.48	2.61	9.34	0.21	43.54
4.416	24.95	6.43	2.56	2.6	9.18	0.14	43.57
4.449	24.95	6.43	2.29	2.62	9.05	0.22	43.56
4.493	24.95	6.43	2.21	2.61	8.85	0.36	43.55
4.558	24.95	6.43	2.36	2.63	8.55	0.24	43.56
4.636	24.95	6.43	3.74	3.04	8.26	0.24	43.56
4.705	24.95	6.43	2.71	2.87	8.11	0.25	43.55
4.753	24.95	6.43	2.56	2.85	7.97	0.2	43.56
4.802	24.95	6.43	2.33	2.8	7.76	0.22	43.57
4.854	24.96	6.43	2.59	2.75	7.62	0.24	43.56
4.899	24.96	6.43	2.67	2.7	7.49	0.33	43.56
4.955	24.96	6.43	2.17	2.62	7.26	0.3	43.56
5.023	24.95	6.43	2.36	2.59	7.11	0.32	43.56
5.087	24.95	6.43	2.59	2.56	6.95	0.26	43.56
5.151	24.95	6.43	2.48	2.61	6.8	0.26	43.57
5.211	24.95	6.43	2.33	2.74	6.67	0.32	43.57

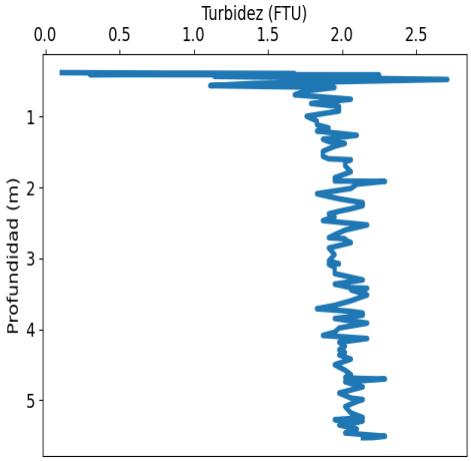
5.264	24.95	6.43	2.48	2.73	6.55	0.27	43.56
5.314	24.95	6.43	2.56	2.74	6.4	0.29	43.57
5.37	24.95	6.43	2.44	2.76	6.29	0.39	43.57
5.429	24.95	6.43	2.48	2.76	6.16	0.34	43.57
5.487	24.96	6.43	2.75	2.81	6.05	0.28	43.57
5.539	24.96	6.43	2.56	2.84	5.98	0.37	43.57
5.585	24.96	6.43	2.67	2.76	5.84	0.32	43.57
5.626	24.96	6.43	2.56	2.77	5.77	0.31	43.57
5.683	24.96	6.43	2.52	2.84	5.64	0.39	43.57
5.759	24.96	6.43	2.44	2.84	5.5	0.28	43.57
5.822	24.96	6.43	2.33	2.86	5.46	0.26	43.57
5.86	24.96	6.43	2.56	2.86	5.44	0.22	43.57
5.882	24.96	6.43	2.36	2.86	5.4	0.27	43.57
5.91	24.96	6.43	2.36	2.9	5.35	0.26	43.57
5.959	24.96	6.43	2.48	2.9	5.24	0.34	43.57
6.033	24.96	6.43	2.36	2.88	5.08	0.63	43.57
6.111	24.96	6.43	2.36	3.09	4.99	0.35	43.56
6.153	24.96	6.43	2.36	2.98	4.93	0.25	43.56
6.155	24.95	6.43	2.36	2.83	4.83	3.37	43.57
6.156	24.96	6.43	2.02	2.8	4.8	4.6	43.57
6.16	24.96	6.43	2.1	2.77	4.74	5.05	43.57
6.163	24.96	6.43	2.36	2.73	4.67	4.77	43.57
6.165	24.96	6.43	2.25	2.75	4.55	4.87	43.57
6.167	24.96	6.43	2.33	2.7	4.46	4.74	43.57
6.174	24.96	6.43	2.44	2.74	4.33	4.73	43.57
6.178	24.96	6.43	2.25	2.53	4.25	4.89	43.57
6.183	24.96	6.43	2.25	2.53	4.1	4.66	43.57
6.197	24.96	6.43	2.33	2.48	4.07	4.67	43.57
6.198	24.96	6.43	2.17	2.35	4.22	4.97	43.57

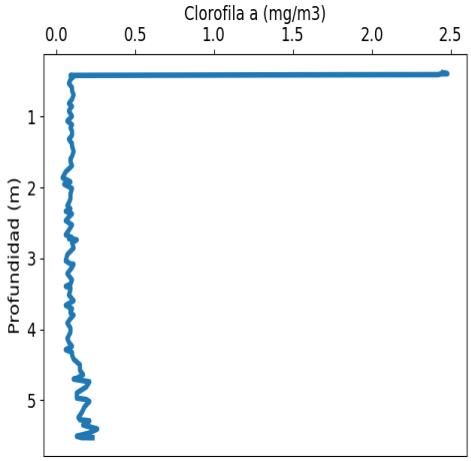
Nombre: CTD E02 - Punto 004 **Fecha: 04/10/2021** **Hora: 07:10:22**

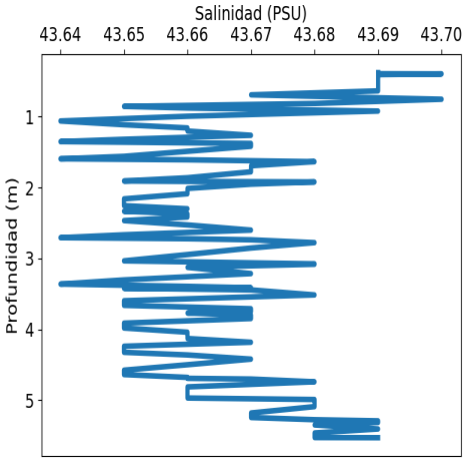


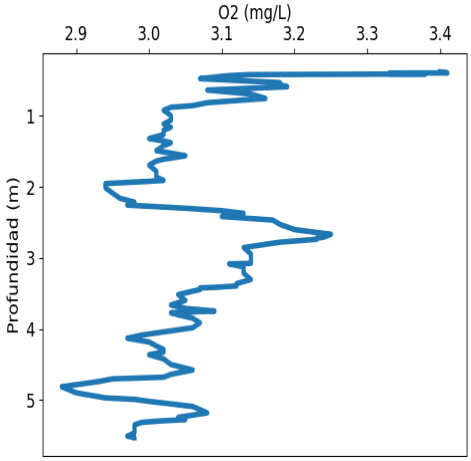


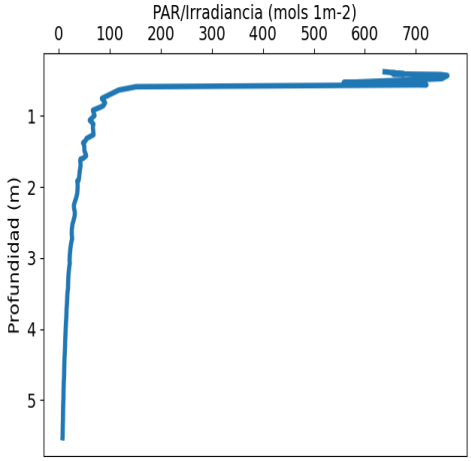


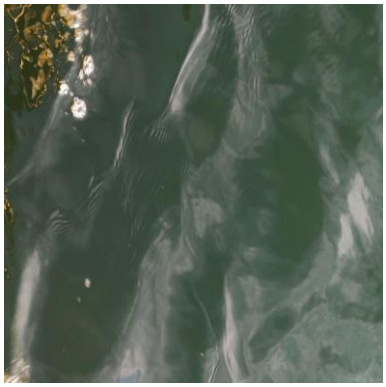












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.97	6.45	0.11	2.88	7.4	0.04	43.64
PROF (metros)	0.417	0.417	0.378	4.813	5.53	1.861	1.06
MÁXIMO	25.1	25.1	2.71	3.41	761.92	2.48	43.7
PROF (metros)	0.378	0.378	0.474	0.393	0.431	0.393	0.395

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	25.02	6.46	1.62	3.17	404.04	0.68	43.68
1 - 2m	25.07	6.46	1.98	3.01	49.64	0.09	43.66
2 - 3m	25.07	6.46	2.0	3.11	28.66	0.09	43.66
3 - 4m	25.06	6.46	2.03	3.09	17.34	0.09	43.66
4 - 5m	25.07	6.46	2.04	2.99	10.95	0.12	43.66
5 - 6m	25.07	6.46	2.1	3.01	7.96	0.19	43.68

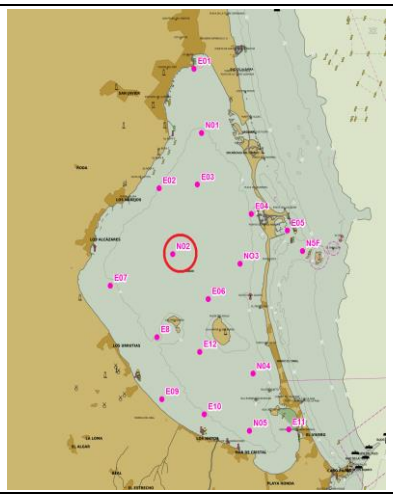
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 3.17, 3.01, 3.11, 3.09, 2.99, 3.01 respectivamente.

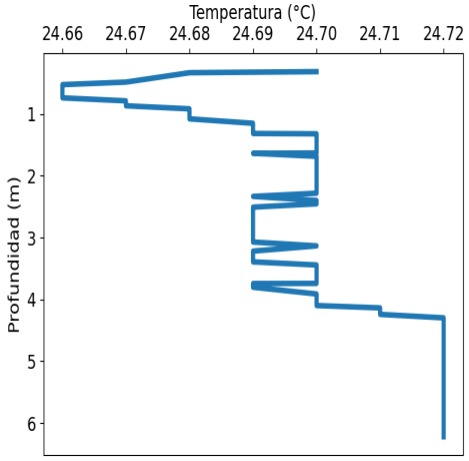
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.378	25.1	6.47	0.11	3.4	638.57	2.45	43.69
0.393	25.09	6.47	1.68	3.41	659.93	2.48	43.69
0.395	25.09	6.47	0.92	3.33	653.84	2.44	43.7
0.406	25.09	6.47	0.3	3.33	676.98	2.42	43.69
0.408	25.08	6.47	2.25	3.38	654.91	1.76	43.69
0.417	24.97	6.45	2.25	3.14	748.96	0.09	43.69
0.431	24.97	6.45	1.14	3.11	761.92	0.11	43.69
0.474	24.97	6.45	2.71	3.07	750.7	0.09	43.69
0.53	24.97	6.45	1.41	3.18	558.25	0.08	43.69
0.561	24.97	6.45	1.11	3.18	720.86	0.09	43.69
0.588	24.96	6.45	1.95	3.19	151.68	0.1	43.69
0.635	24.97	6.45	1.76	3.08	117.54	0.1	43.69
0.691	24.99	6.45	1.68	3.14	101.88	0.11	43.67
0.753	25.01	6.46	2.06	3.16	84.4	0.1	43.7
0.813	25.03	6.46	1.79	3.08	90.77	0.08	43.68
0.854	25.04	6.46	1.98	3.06	87.49	0.1	43.65
0.877	25.05	6.46	1.98	3.03	81.18	0.09	43.66
0.92	25.06	6.46	1.98	3.02	66.79	0.08	43.69
0.993	25.07	6.46	1.76	3.03	70.1	0.1	43.66
1.06	25.07	6.46	1.83	3.03	60.66	0.07	43.64
1.113	25.07	6.46	1.83	3.02	67.93	0.1	43.65
1.158	25.07	6.46	1.91	3.03	66.72	0.09	43.66
1.202	25.07	6.46	1.83	3.02	67.28	0.1	43.66
1.262	25.07	6.46	2.1	3.02	68.21	0.1	43.67
1.318	25.07	6.46	1.87	3.0	54.2	0.08	43.65
1.351	25.07	6.46	1.91	3.02	52.03	0.09	43.64
1.377	25.07	6.46	2.02	3.03	47.46	0.1	43.67
1.417	25.07	6.46	1.95	3.02	49.87	0.1	43.67
1.488	25.07	6.46	1.87	3.01	50.16	0.11	43.66
1.559	25.07	6.46	1.87	3.05	53.68	0.1	43.65
1.594	25.07	6.46	1.91	3.03	48.15	0.09	43.64
1.608	25.07	6.46	2.06	3.02	42.39	0.09	43.66

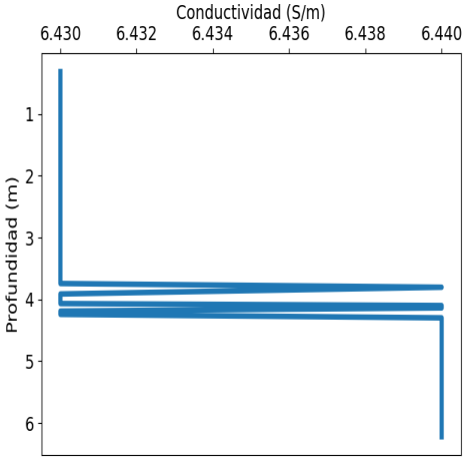
1.634	25.07	6.46	2.02	3.01	41.94	0.09	43.68
1.692	25.07	6.46	2.02	3.0	42.79	0.1	43.67
1.777	25.07	6.46	2.06	3.01	41.02	0.06	43.67
1.861	25.07	6.46	1.95	3.01	39.84	0.04	43.66
1.907	25.07	6.46	1.95	3.02	38.83	0.08	43.65
1.913	25.07	6.46	2.29	3.01	36.28	0.08	43.66
1.92	25.07	6.46	2.25	3.0	36.04	0.09	43.68
1.952	25.07	6.46	2.1	2.94	36.91	0.05	43.67
2.012	25.07	6.46	2.06	2.94	36.89	0.1	43.66
2.087	25.07	6.46	1.83	2.95	36.23	0.09	43.66
2.159	25.08	6.46	1.98	2.96	33.85	0.09	43.65
2.213	25.08	6.46	2.14	2.98	31.2	0.08	43.65
2.255	25.08	6.46	2.14	2.97	29.6	0.07	43.65
2.299	25.08	6.46	2.06	3.05	29.85	0.09	43.66
2.334	25.07	6.46	1.98	3.1	30.9	0.06	43.65
2.371	25.07	6.46	1.91	3.13	31.55	0.1	43.66
2.415	25.07	6.46	1.95	3.1	30.8	0.08	43.66
2.466	25.07	6.46	1.87	3.17	29.01	0.06	43.65
2.527	25.07	6.46	2.17	3.18	26.74	0.1	43.66
2.6	25.07	6.46	2.02	3.2	25.5	0.08	43.67
2.666	25.07	6.46	1.95	3.25	25.36	0.06	43.65
2.707	25.07	6.46	1.91	3.24	25.92	0.1	43.64
2.722	25.07	6.46	2.02	3.23	26.28	0.08	43.66
2.737	25.06	6.46	2.02	3.23	25.86	0.13	43.67
2.777	25.07	6.46	2.06	3.18	24.53	0.1	43.68
2.853	25.07	6.46	1.91	3.13	22.87	0.11	43.67
2.945	25.07	6.46	1.95	3.14	21.71	0.07	43.66
3.034	25.07	6.46	1.91	3.14	21.1	0.06	43.65
3.076	25.06	6.46	1.98	3.14	21.6	0.09	43.68
3.082	25.06	6.46	1.91	3.11	21.31	0.11	43.68
3.126	25.07	6.46	1.95	3.13	20.49	0.1	43.66
3.214	25.07	6.46	1.95	3.13	19.2	0.07	43.67
3.303	25.07	6.46	2.14	3.14	18.48	0.1	43.65
3.362	25.07	6.46	1.95	3.12	18.23	0.09	43.64
3.394	25.06	6.46	2.02	3.12	18.08	0.06	43.66
3.414	25.06	6.46	2.06	3.09	18.16	0.09	43.67
3.421	25.06	6.46	2.17	3.07	18.25	0.09	43.65
3.444	25.06	6.46	2.06	3.07	17.64	0.09	43.67
3.515	25.06	6.46	2.17	3.04	16.76	0.08	43.68
3.597	25.07	6.46	2.06	3.05	16.26	0.11	43.65
3.662	25.07	6.46	1.95	3.03	15.83	0.06	43.65
3.71	25.06	6.46	1.83	3.05	15.33	0.1	43.67
3.747	25.06	6.46	2.06	3.09	15.11	0.09	43.67
3.771	25.06	6.46	2.14	3.03	15.05	0.09	43.66
3.8	25.06	6.46	2.14	3.04	14.9	0.11	43.67
3.848	25.06	6.46	1.95	3.06	14.62	0.09	43.67
3.913	25.06	6.46	2.17	3.07	14.06	0.07	43.65
3.982	25.07	6.46	1.98	3.06	13.61	0.09	43.65
4.041	25.06	6.46	1.95	3.02	13.21	0.09	43.66
4.086	25.06	6.46	1.87	2.99	13.0	0.08	43.66
4.13	25.06	6.46	2.17	2.97	12.74	0.07	43.66
4.183	25.06	6.46	1.98	3.0	12.49	0.08	43.67
4.239	25.06	6.46	2.02	3.01	12.24	0.1	43.65
4.288	25.07	6.46	1.98	3.02	11.98	0.06	43.65
4.325	25.07	6.46	2.02	3.02	11.8	0.1	43.65
4.362	25.07	6.46	1.98	3.0	11.5	0.1	43.66
4.421	25.07	6.46	2.06	3.02	11.1	0.11	43.67
4.5	25.07	6.46	1.95	3.03	10.82	0.15	43.66

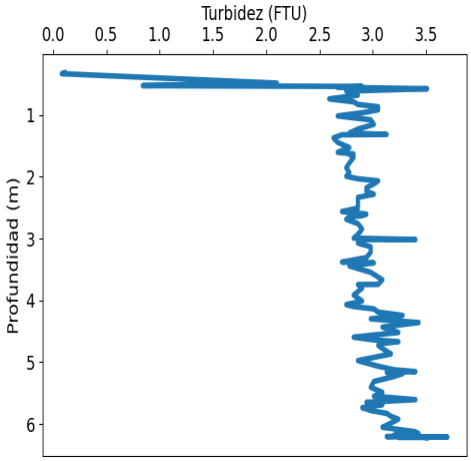
4.577	25.07	6.46	2.02	3.06	10.56	0.15	43.65
4.639	25.07	6.46	2.06	3.03	10.38	0.17	43.65
4.679	25.07	6.46	2.02	3.02	10.28	0.14	43.66
4.692	25.06	6.46	2.1	2.98	10.19	0.13	43.66
4.702	25.06	6.46	2.29	2.95	10.08	0.11	43.67
4.741	25.07	6.46	2.02	2.93	9.8	0.21	43.68
4.813	25.07	6.46	2.14	2.88	9.53	0.19	43.66
4.899	25.07	6.46	1.98	2.9	9.21	0.13	43.66
4.97	25.07	6.46	2.06	2.94	9.11	0.13	43.66
4.991	25.07	6.46	2.14	2.98	9.07	0.19	43.68
5.019	25.07	6.46	2.1	3.0	8.84	0.21	43.68
5.091	25.07	6.46	2.02	3.06	8.52	0.18	43.68
5.181	25.07	6.46	2.06	3.08	8.31	0.16	43.67
5.245	25.07	6.46	2.14	3.04	8.21	0.14	43.67
5.276	25.07	6.46	1.95	3.05	8.19	0.15	43.68
5.292	25.07	6.46	2.14	3.02	8.11	0.21	43.69
5.315	25.07	6.46	2.1	2.99	7.95	0.2	43.69
5.35	25.07	6.46	1.98	2.98	7.85	0.17	43.68
5.407	25.07	6.47	2.1	2.98	7.67	0.26	43.69
5.463	25.07	6.46	2.02	2.98	7.56	0.21	43.68
5.509	25.07	6.46	2.29	2.97	7.48	0.13	43.68
5.528	25.07	6.46	2.21	2.98	7.43	0.16	43.68
5.53	25.07	6.47	2.14	2.98	7.4	0.23	43.69

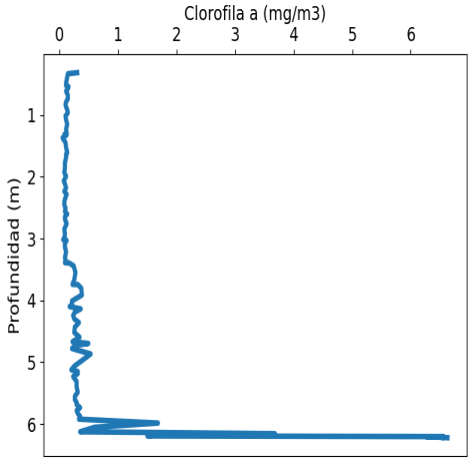
Nombre: CTD N02 - Punto 005 **Fecha: 04/10/2021** **Hora: 07:10:24**

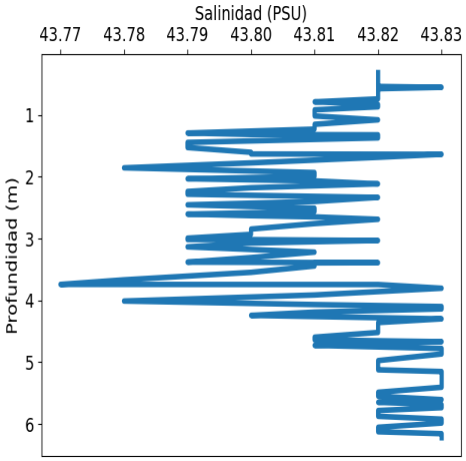


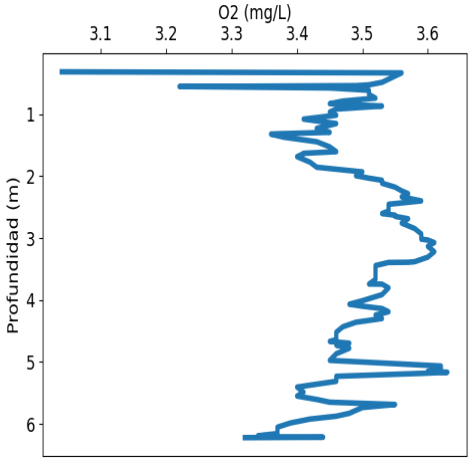


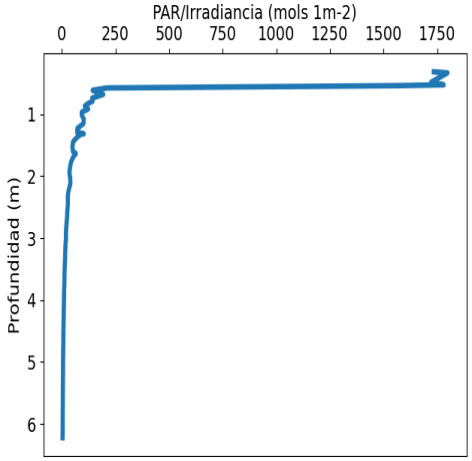


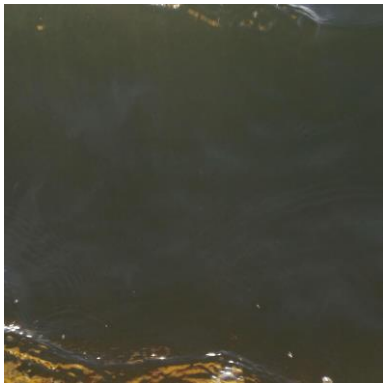












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.66	6.43	0.08	3.04	3.91	0.05	43.77
PROF (metros)	0.527	0.317	0.334	0.317	6.22	1.372	3.741
MÁXIMO	24.72	24.72	3.7	3.63	1797.4	6.63	43.83
PROF (metros)	4.298	3.803	6.209	5.165	0.334	6.22	0.554

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	24.67	6.43	2.34	3.45	729.76	0.14	43.82
1 - 2m	24.69	6.43	2.8	3.43	66.78	0.1	43.81
2 - 3m	24.7	6.43	2.88	3.56	28.35	0.09	43.8
3 - 4m	24.69	6.43	2.95	3.56	15.18	0.18	43.8
4 - 5m	24.72	6.44	3.05	3.49	8.25	0.29	43.82
5 - 6m	24.72	6.44	3.12	3.49	5.25	0.36	43.83
6 - 7m	24.72	6.44	3.35	3.37	4.14	4.03	43.83

OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m, 6 - 7m con los valores 3.45, 3.43, 3.56, 3.56, 3.49, 3.49, 3.37 respectivamente. CLOROFILA elevada en la(s) columna(s) de agua 6 - 7m con los valores 4.03 respectivamente

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)
0.317	24.7	6.43	0.11	3.04	1733.6	0.3	43.82
0.334	24.68	6.43	0.08	3.56	1797.4	0.14	43.82
0.486	24.67	6.43	2.1	3.53	1721.2	0.11	43.82
0.527	24.66	6.43	0.84	3.51	1779.6	0.11	43.82
0.54	24.66	6.43	2.9	3.49	1562.6	0.15	43.82
0.554	24.66	6.43	2.67	3.22	1073.0	0.15	43.83
0.577	24.66	6.43	3.51	3.45	210.26	0.14	43.82
0.615	24.66	6.43	2.75	3.51	144.0	0.11	43.82
0.681	24.66	6.43	2.86	3.51	193.42	0.14	43.82
0.741	24.66	6.43	2.59	3.52	141.72	0.14	43.82
0.789	24.67	6.43	2.82	3.47	144.04	0.11	43.81
0.831	24.67	6.43	2.86	3.45	121.62	0.1	43.82
0.869	24.67	6.43	3.05	3.53	107.36	0.11	43.82
0.918	24.68	6.43	3.05	3.46	123.03	0.13	43.81
0.966	24.68	6.43	2.9	3.45	93.53	0.14	43.81
1.017	24.68	6.43	2.67	3.46	93.01	0.1	43.81
1.08	24.68	6.43	2.98	3.41	102.92	0.11	43.82
1.152	24.69	6.43	3.01	3.46	101.06	0.13	43.81
1.23	24.69	6.43	2.86	3.43	72.63	0.11	43.81
1.293	24.69	6.43	2.78	3.45	71.66	0.12	43.79
1.317	24.69	6.43	3.13	3.37	103.0	0.08	43.8
1.322	24.7	6.43	2.71	3.36	90.67	0.12	43.82
1.372	24.7	6.43	2.63	3.38	71.53	0.05	43.82
1.445	24.7	6.43	2.67	3.43	52.96	0.1	43.79
1.528	24.7	6.43	2.78	3.45	49.64	0.11	43.79
1.605	24.7	6.43	2.67	3.46	52.58	0.13	43.8
1.632	24.7	6.43	2.82	3.41	65.17	0.12	43.8
1.637	24.69	6.43	2.78	3.41	65.64	0.11	43.83
1.686	24.7	6.43	2.82	3.4	54.54	0.11	43.82
1.776	24.7	6.43	2.78	3.42	42.87	0.09	43.8
1.856	24.7	6.43	2.75	3.43	38.9	0.09	43.78

1.932	24.7	6.43	2.78	3.5	35.87	0.08	43.81
1.993	24.7	6.43	2.75	3.49	37.38	0.11	43.81
2.033	24.7	6.43	2.86	3.51	39.51	0.09	43.79
2.067	24.7	6.43	3.05	3.53	39.96	0.07	43.81
2.115	24.7	6.43	3.01	3.53	40.27	0.09	43.82
2.178	24.7	6.43	2.94	3.55	35.92	0.11	43.8
2.238	24.7	6.43	2.94	3.56	31.94	0.08	43.79
2.283	24.7	6.43	3.01	3.57	29.56	0.12	43.79
2.334	24.69	6.43	2.86	3.56	28.36	0.1	43.82
2.4	24.7	6.43	2.86	3.59	28.34	0.08	43.81
2.454	24.7	6.43	2.86	3.54	28.55	0.08	43.79
2.508	24.69	6.43	2.86	3.54	27.45	0.1	43.81
2.563	24.69	6.43	2.71	3.54	25.97	0.09	43.81
2.604	24.69	6.43	2.94	3.53	25.41	0.13	43.79
2.63	24.69	6.43	2.9	3.55	25.38	0.1	43.8
2.649	24.69	6.43	2.78	3.55	25.25	0.09	43.81
2.688	24.69	6.43	2.75	3.57	24.17	0.09	43.82
2.758	24.69	6.43	2.86	3.56	22.57	0.12	43.81
2.846	24.69	6.43	2.9	3.58	20.7	0.08	43.8
2.932	24.69	6.43	2.86	3.59	19.6	0.09	43.8
2.993	24.69	6.43	2.82	3.59	19.72	0.08	43.79
3.015	24.69	6.43	3.4	3.59	20.2	0.06	43.79
3.017	24.69	6.43	2.9	3.59	20.01	0.1	43.8
3.031	24.69	6.43	2.9	3.6	19.16	0.12	43.82
3.072	24.69	6.43	2.86	3.61	18.16	0.09	43.8
3.134	24.7	6.43	2.98	3.6	17.22	0.09	43.79
3.219	24.69	6.43	2.98	3.61	16.27	0.11	43.81
3.307	24.69	6.43	2.94	3.6	15.66	0.09	43.8
3.381	24.69	6.43	2.71	3.58	15.14	0.11	43.79
3.39	24.69	6.43	2.98	3.57	15.3	0.09	43.82
3.393	24.69	6.43	3.01	3.54	14.93	0.16	43.81
3.443	24.7	6.43	2.78	3.52	14.06	0.24	43.81
3.546	24.7	6.43	2.98	3.52	13.09	0.27	43.8
3.667	24.7	6.43	3.09	3.52	12.32	0.25	43.78
3.741	24.7	6.43	3.05	3.51	12.22	0.22	43.77
3.743	24.69	6.43	2.86	3.53	12.25	0.31	43.82
3.803	24.69	6.44	2.9	3.54	11.44	0.37	43.83
3.912	24.7	6.43	2.82	3.53	10.66	0.38	43.81
4.01	24.7	6.43	2.9	3.5	10.24	0.21	43.78
4.067	24.7	6.43	2.75	3.48	10.06	0.21	43.81
4.099	24.7	6.44	2.82	3.5	9.91	0.17	43.83
4.137	24.71	6.44	3.01	3.53	9.62	0.36	43.83
4.189	24.71	6.43	3.05	3.54	9.43	0.26	43.81
4.242	24.71	6.43	3.28	3.52	9.22	0.23	43.8
4.298	24.72	6.44	2.98	3.53	8.87	0.25	43.83
4.358	24.72	6.44	3.43	3.49	8.51	0.33	43.82
4.431	24.72	6.44	3.09	3.47	8.12	0.26	43.82
4.518	24.72	6.44	3.24	3.46	7.73	0.25	43.82
4.594	24.72	6.44	2.82	3.46	7.58	0.34	43.81
4.638	24.72	6.44	3.01	3.46	7.56	0.27	43.81
4.667	24.72	6.44	3.24	3.45	7.41	0.22	43.83
4.696	24.72	6.44	3.09	3.48	7.38	0.49	43.82
4.727	24.72	6.44	3.05	3.46	7.21	0.27	43.81
4.777	24.72	6.44	3.09	3.48	6.92	0.21	43.83
4.866	24.72	6.44	3.17	3.46	6.55	0.53	43.83
4.973	24.72	6.44	2.86	3.45	6.25	0.38	43.82
5.064	24.72	6.44	3.05	3.62	6.09	0.25	43.82
5.122	24.72	6.44	3.2	3.62	6.01	0.2	43.82

5.15	24.72	6.44	3.4	3.6	6.02	0.31	43.83
5.165	24.72	6.44	3.13	3.63	6.01	0.29	43.83
5.183	24.72	6.44	3.28	3.59	5.92	0.31	43.83
5.23	24.72	6.44	3.2	3.46	5.76	0.23	43.83
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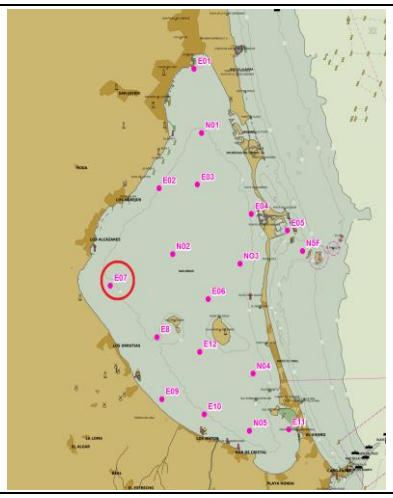
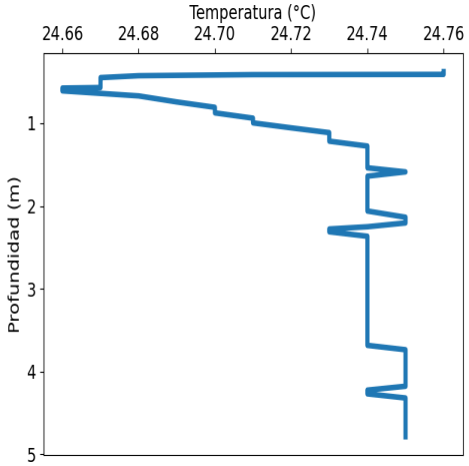
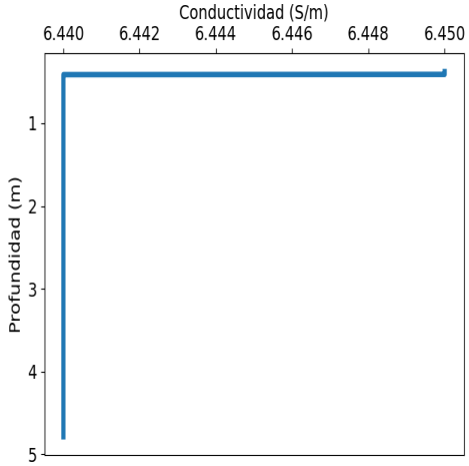
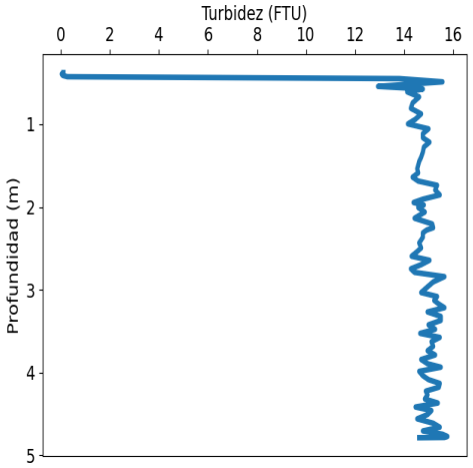
5.485	24.72	6.44	3.09	3.41	5.17	0.31	43.82
5.549	24.72	6.44	3.01	3.4	5.08	0.26	43.82
5.604	24.72	6.44	3.4	3.43	5.01	0.26	43.83
5.648	24.72	6.44	2.94	3.45	4.97	0.29	43.82
5.685	24.72	6.44	3.09	3.55	4.91	0.29	43.83
5.734	24.72	6.44	2.9	3.5	4.86	0.35	43.83
5.78	24.72	6.44	2.98	3.49	4.77	0.29	43.82
5.827	24.72	6.44	3.13	3.48	4.68	0.31	43.82
5.874	24.72	6.44	3.17	3.46	4.62	0.35	43.82
5.92	24.72	6.44	3.24	3.42	4.56	0.33	43.83
5.983	24.72	6.44	3.17	3.39	4.43	1.68	43.83
6.051	24.72	6.44	3.09	3.37	4.4	0.6	43.82
6.124	24.72	6.44	3.4	3.37	4.33	0.35	43.82
6.155	24.72	6.44	3.43	3.37	4.28	3.68	43.83
6.177	24.72	6.44	3.2	3.35	4.23	1.6	43.83
6.191	24.72	6.44	3.28	3.34	4.15	1.5	43.83
6.202	24.72	6.44	3.13	3.36	4.12	6.56	43.83
6.209	24.72	6.44	3.7	3.36	4.07	6.28	43.83
6.213	24.72	6.44	3.24	3.44	3.99	6.57	43.83
6.216	24.72	6.44	3.51	3.4	3.94	6.53	43.83
6.22	24.72	6.44	3.51	3.32	3.9	6.63	43.83

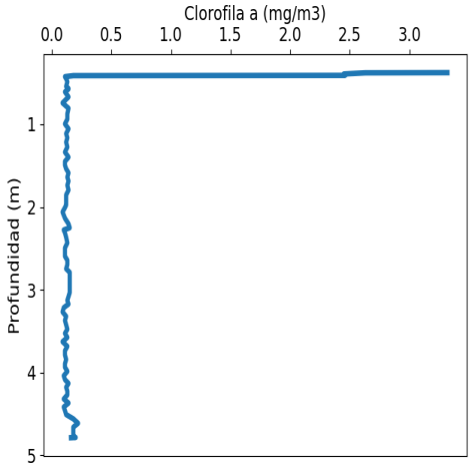
Nombre: CTD E07 - Punto 006 **Fecha: 04/10/2021** **Hora: 08:10:18**

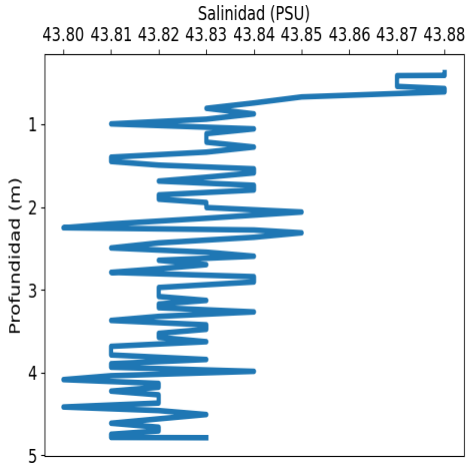


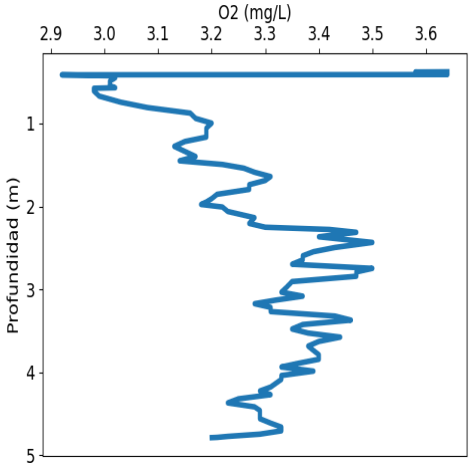


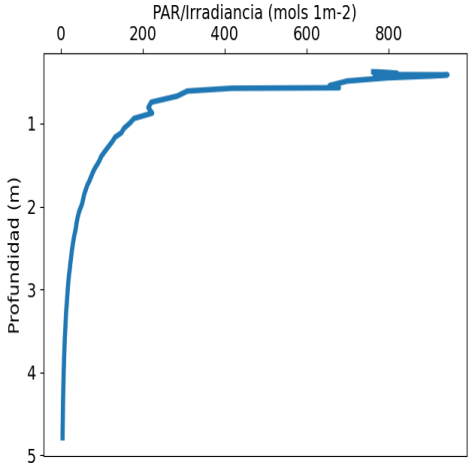












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.66	6.44	0.04	2.92	4.53	0.09	43.8
PROF (metros)	0.575	0.413	0.393	0.413	4.746	0.743	4.086
MÁXIMO	24.76	24.76	15.76	3.64	944.1	3.32	43.88
PROF (metros)	0.377	0.377	4.773	0.377	0.413	0.377	0.377

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	24.7	6.44	9.61	3.17	546.17	0.7	43.86
1 - 2m	24.74	6.44	14.79	3.21	90.47	0.13	43.83
2 - 3m	24.74	6.44	14.78	3.38	30.17	0.13	43.83
3 - 4m	24.74	6.44	15.14	3.37	11.29	0.12	43.82
4 - 5m	24.75	6.44	15.09	3.28	5.5	0.15	43.82

OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m con los valores 3.17, 3.21, 3.38, 3.37, 3.28 respectivamente.

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)
0.377	24.76	6.45	0.11	3.64	762.63	3.32	43.88
0.379	24.76	6.45	0.11	3.58	776.9	2.63	43.88
0.393	24.76	6.45	0.04	3.62	820.39	2.45	43.88
0.41	24.76	6.45	0.08	3.64	766.35	2.46	43.88
0.413	24.71	6.44	0.11	2.92	944.1	0.18	43.87
0.426	24.68	6.44	0.27	3.02	911.42	0.11	43.87
0.449	24.67	6.44	13.81	3.02	797.88	0.12	43.87
0.488	24.67	6.44	15.56	3.01	699.3	0.13	43.87
0.543	24.67	6.44	12.93	3.01	656.27	0.12	43.87
0.569	24.67	6.44	14.5	3.02	679.33	0.14	43.88
0.575	24.66	6.44	14.76	2.98	417.64	0.14	43.88
0.609	24.66	6.44	14.12	2.98	308.92	0.11	43.88
0.67	24.68	6.44	14.61	2.99	284.25	0.14	43.85
0.743	24.69	6.44	14.34	3.03	221.1	0.09	43.84
0.808	24.7	6.44	14.27	3.08	213.75	0.14	43.83
0.875	24.7	6.44	14.69	3.16	223.32	0.13	43.84
0.939	24.71	6.44	14.46	3.17	178.97	0.13	43.83
0.996	24.71	6.44	14.15	3.2	168.59	0.11	43.81
1.056	24.72	6.44	14.99	3.19	154.84	0.14	43.84
1.114	24.73	6.44	14.76	3.19	147.62	0.12	43.83
1.164	24.73	6.44	14.76	3.19	132.88	0.13	43.83
1.217	24.73	6.44	15.03	3.15	126.07	0.12	43.83
1.276	24.74	6.44	14.8	3.13	117.0	0.13	43.84
1.337	24.74	6.44	14.76	3.15	107.58	0.11	43.83
1.398	24.74	6.44	14.69	3.17	98.81	0.14	43.81
1.45	24.74	6.44	14.61	3.14	94.25	0.11	43.81
1.494	24.74	6.44	14.57	3.22	89.19	0.11	43.82
1.539	24.74	6.44	14.53	3.26	83.45	0.12	43.84
1.588	24.75	6.44	14.57	3.28	78.6	0.14	43.84
1.64	24.74	6.44	14.34	3.31	74.25	0.13	43.83
1.687	24.74	6.44	14.57	3.3	70.56	0.14	43.82
1.738	24.74	6.44	15.34	3.27	65.35	0.13	43.84
1.795	24.74	6.44	15.26	3.27	61.33	0.14	43.84

1.854	24.74	6.44	15.45	3.21	57.33	0.12	43.82
1.906	24.74	6.44	14.76	3.2	55.02	0.12	43.82
1.946	24.74	6.44	14.38	3.19	53.14	0.12	43.83
1.976	24.74	6.44	14.8	3.18	51.66	0.12	43.83
2.007	24.74	6.44	14.57	3.22	49.15	0.11	43.83
2.061	24.74	6.44	14.84	3.23	45.02	0.09	43.85
2.136	24.75	6.44	14.42	3.28	41.14	0.11	43.83
2.205	24.75	6.44	15.14	3.27	38.41	0.14	43.81
2.251	24.74	6.44	15.18	3.3	37.27	0.15	43.8
2.278	24.73	6.44	14.92	3.42	36.32	0.1	43.84
2.312	24.73	6.44	14.76	3.47	34.88	0.11	43.85
2.366	24.74	6.44	14.76	3.4	32.49	0.12	43.84
2.434	24.74	6.44	14.61	3.5	30.2	0.13	43.82
2.495	24.74	6.44	14.69	3.43	28.39	0.11	43.81
2.546	24.74	6.44	14.5	3.39	26.88	0.11	43.83
2.595	24.74	6.44	14.3	3.37	25.79	0.11	43.84
2.644	24.74	6.44	15.03	3.37	24.59	0.13	43.82
2.697	24.74	6.44	14.69	3.35	23.2	0.13	43.83
2.747	24.74	6.44	14.27	3.5	22.3	0.12	43.82
2.79	24.74	6.44	14.42	3.47	21.18	0.15	43.81
2.842	24.74	6.44	15.64	3.47	19.84	0.15	43.84
2.906	24.74	6.44	15.18	3.35	18.67	0.15	43.84
2.973	24.74	6.44	14.92	3.34	17.5	0.15	43.82
3.034	24.74	6.44	14.69	3.33	16.71	0.15	43.82
3.082	24.74	6.44	15.34	3.37	15.92	0.14	43.82
3.129	24.74	6.44	15.22	3.32	15.32	0.13	43.83
3.173	24.74	6.44	15.41	3.28	14.71	0.14	43.82
3.217	24.74	6.44	15.64	3.31	14.06	0.1	43.82
3.268	24.74	6.44	14.95	3.31	13.27	0.09	43.84
3.322	24.74	6.44	15.49	3.43	12.69	0.12	43.82
3.371	24.74	6.44	15.49	3.46	12.21	0.11	43.81
3.424	24.74	6.44	14.99	3.37	11.7	0.12	43.83
3.478	24.74	6.44	15.26	3.35	11.18	0.13	43.83
3.527	24.74	6.44	14.65	3.38	10.65	0.11	43.82
3.576	24.74	6.44	15.45	3.44	10.13	0.13	43.82
3.628	24.74	6.44	15.11	3.4	9.68	0.09	43.83
3.684	24.74	6.44	15.18	3.38	9.27	0.13	43.81
3.737	24.75	6.44	14.95	3.39	8.9	0.11	43.81
3.788	24.75	6.44	15.26	3.4	8.48	0.11	43.81
3.843	24.75	6.44	14.69	3.4	8.07	0.12	43.83
3.894	24.75	6.44	14.95	3.36	7.93	0.11	43.81
3.936	24.75	6.44	15.49	3.33	7.61	0.11	43.81
3.986	24.75	6.44	14.61	3.39	7.27	0.13	43.84
4.039	24.75	6.44	14.76	3.33	7.06	0.1	43.81
4.086	24.75	6.44	14.99	3.33	6.86	0.11	43.8
4.132	24.75	6.44	15.45	3.32	6.66	0.14	43.82
4.178	24.75	6.44	15.41	3.31	6.42	0.12	43.82
4.225	24.74	6.44	14.88	3.29	6.21	0.13	43.81
4.27	24.74	6.44	14.95	3.31	5.99	0.13	43.82
4.32	24.75	6.44	14.84	3.25	5.79	0.1	43.82
4.369	24.75	6.44	15.37	3.23	5.64	0.14	43.82
4.417	24.75	6.44	14.46	3.28	5.51	0.1	43.8
4.46	24.75	6.44	15.11	3.29	5.37	0.11	43.82
4.508	24.75	6.44	14.95	3.29	5.22	0.12	43.83
4.56	24.75	6.44	14.53	3.29	5.09	0.18	43.82
4.613	24.75	6.44	15.18	3.31	4.93	0.22	43.81
4.661	24.75	6.44	15.45	3.33	4.79	0.18	43.82
4.706	24.75	6.44	14.76	3.33	4.7	0.18	43.82

4.746	24.75	6.44	15.56	3.29	4.53	0.18	43.81
4.773	24.75	6.44	15.76	3.23	4.6	0.18	43.81
4.785	24.75	6.44	15.64	3.21	4.55	0.2	43.81
4.788	24.75	6.44	14.61	3.2	4.54	0.16	43.83

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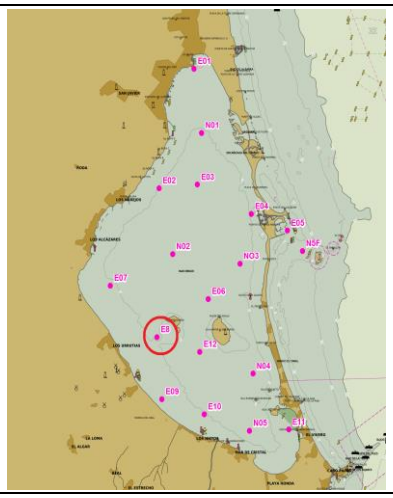
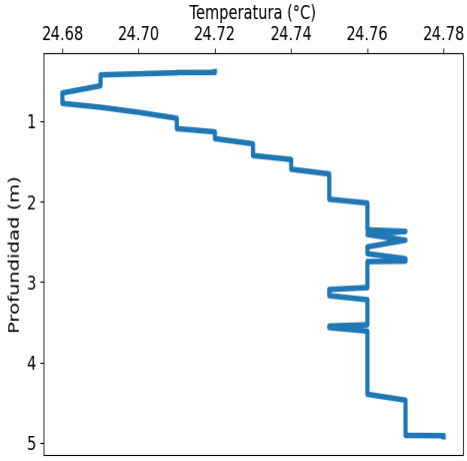
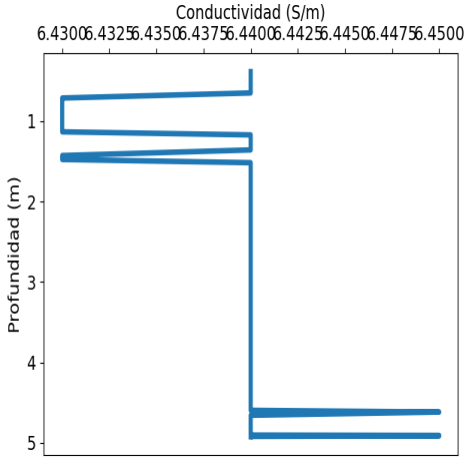
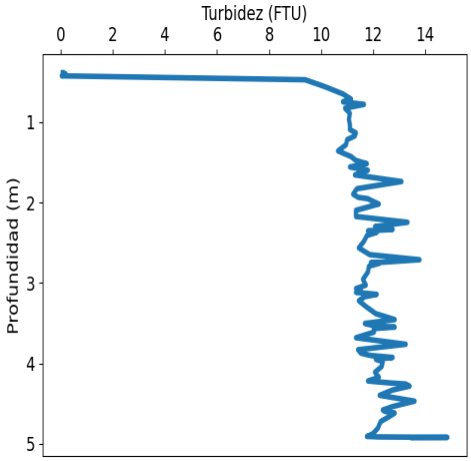
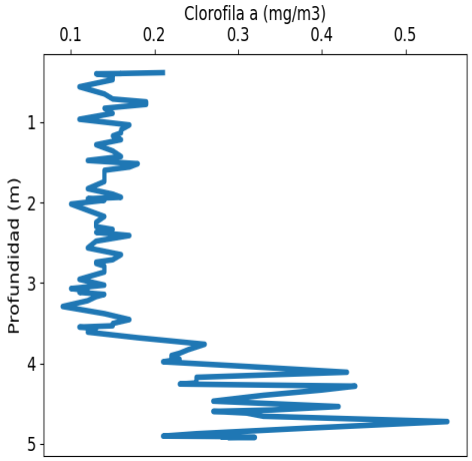
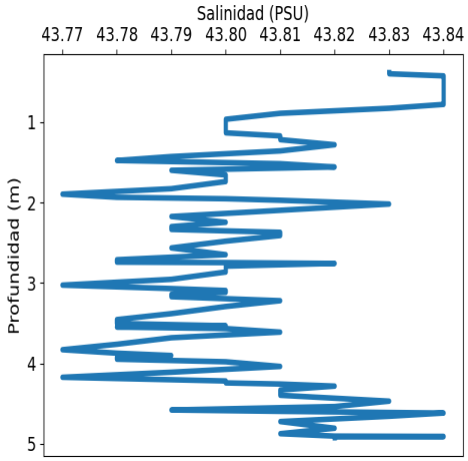


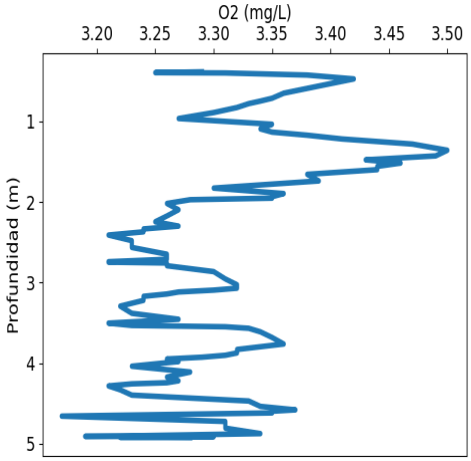


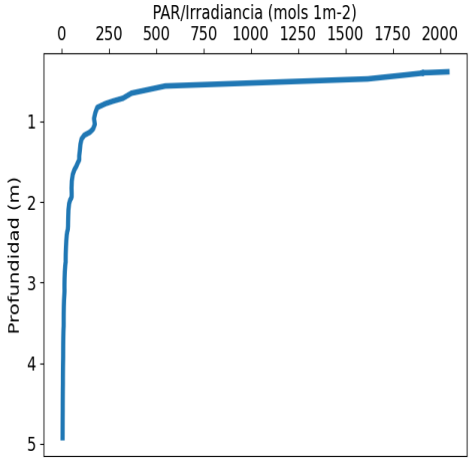


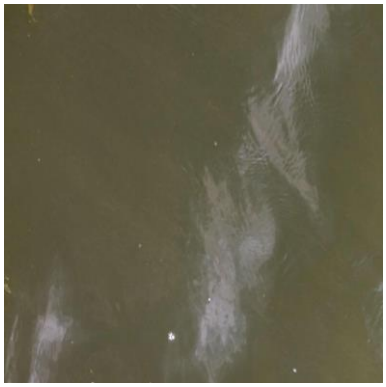












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.68	6.43	0.04	3.17	3.67	0.09	43.77
PROF (metros)	0.648	0.711	0.423	4.659	4.922	3.293	1.895
MÁXIMO	24.78	24.78	14.84	3.5	2038.0	0.55	43.84
PROF (metros)	4.913	4.619	4.922	1.357	0.383	4.725	0.423

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	24.7	6.44	6.96	3.33	963.5	0.15	43.83
1 - 2m	24.74	6.44	11.4	3.39	87.91	0.15	43.8
2 - 3m	24.76	6.44	12.06	3.25	25.25	0.13	43.8
3 - 4m	24.76	6.44	11.95	3.29	9.64	0.16	43.79
4 - 5m	24.77	6.44	12.57	3.27	4.52	0.32	43.81

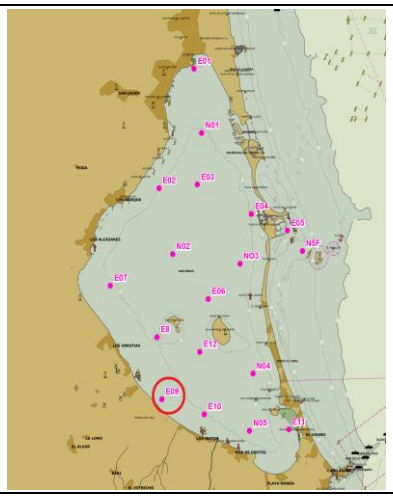
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m con los valores 3.33, 3.39, 3.25, 3.29, 3.27 respectivamente.

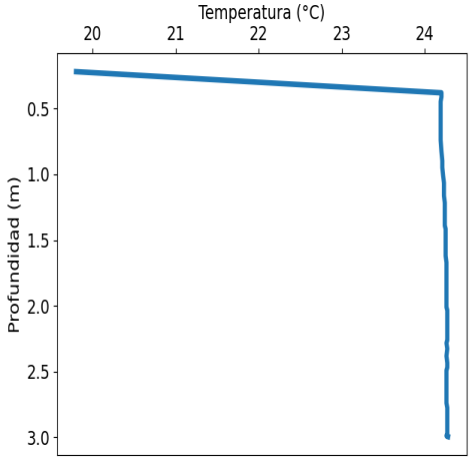
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.383	24.72	6.44	0.08	3.29	2038.0	0.21	43.83
0.393	24.72	6.44	0.08	3.25	1934.5	0.16	43.83
0.394	24.71	6.44	0.08	3.26	1903.3	0.16	43.83
0.397	24.71	6.44	0.19	3.31	1913.0	0.13	43.83
0.423	24.69	6.44	0.04	3.38	1810.8	0.15	43.84
0.471	24.69	6.44	9.38	3.42	1616.4	0.15	43.84
0.559	24.69	6.44	10.15	3.39	546.47	0.11	43.84
0.648	24.68	6.44	10.83	3.36	368.08	0.14	43.84
0.711	24.68	6.43	11.14	3.35	322.83	0.15	43.84
0.746	24.68	6.43	10.83	3.34	271.0	0.19	43.84
0.778	24.68	6.43	11.64	3.33	230.47	0.19	43.84
0.826	24.69	6.43	10.91	3.32	187.12	0.14	43.83
0.889	24.7	6.43	11.1	3.3	177.04	0.15	43.81
0.963	24.71	6.43	11.06	3.27	169.92	0.11	43.8
1.034	24.71	6.43	11.1	3.35	174.19	0.17	43.8
1.092	24.71	6.43	11.1	3.34	165.11	0.16	43.8
1.132	24.72	6.43	11.33	3.35	148.51	0.16	43.8
1.17	24.72	6.44	11.29	3.38	118.64	0.15	43.81
1.217	24.72	6.44	10.99	3.41	103.98	0.16	43.81
1.28	24.73	6.44	10.95	3.47	98.1	0.13	43.82
1.357	24.73	6.44	10.64	3.5	95.02	0.15	43.81
1.427	24.73	6.43	11.14	3.49	91.68	0.16	43.79
1.476	24.74	6.43	11.33	3.43	91.66	0.12	43.78
1.516	24.74	6.44	11.75	3.46	83.43	0.18	43.81
1.557	24.74	6.44	11.1	3.44	76.06	0.17	43.82
1.598	24.74	6.44	11.79	3.44	66.28	0.14	43.79
1.656	24.75	6.44	11.29	3.38	57.58	0.14	43.8
1.738	24.75	6.44	13.08	3.39	52.41	0.14	43.8
1.827	24.75	6.44	11.37	3.3	50.99	0.12	43.79
1.895	24.75	6.44	11.22	3.36	51.66	0.15	43.77
1.934	24.75	6.44	11.41	3.35	51.49	0.16	43.78
1.952	24.75	6.44	11.79	3.35	49.37	0.12	43.8
1.971	24.75	6.44	11.9	3.28	44.17	0.14	43.81

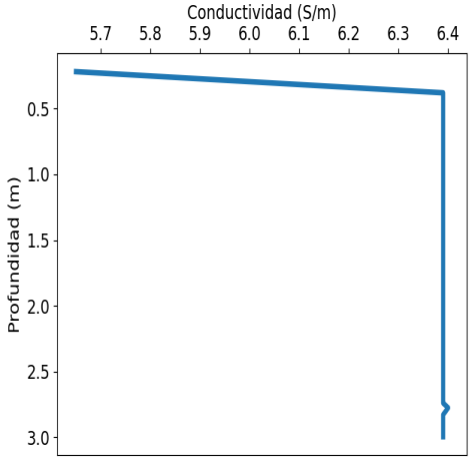
2.018	24.76	6.44	12.21	3.26	38.42	0.1	43.83
2.096	24.76	6.44	11.33	3.27	34.77	0.12	43.81
2.173	24.76	6.44	11.33	3.26	33.7	0.14	43.79
2.245	24.76	6.44	13.31	3.25	32.93	0.13	43.8
2.299	24.76	6.44	12.06	3.27	32.58	0.13	43.79
2.334	24.76	6.44	12.74	3.24	31.6	0.15	43.79
2.352	24.76	6.44	11.79	3.24	30.18	0.14	43.8
2.37	24.77	6.44	12.13	3.24	28.24	0.13	43.81
2.41	24.76	6.44	11.75	3.21	25.66	0.17	43.81
2.48	24.77	6.44	11.64	3.23	23.36	0.13	43.8
2.564	24.76	6.44	11.44	3.23	21.54	0.12	43.79
2.648	24.76	6.44	11.86	3.26	20.2	0.16	43.8
2.711	24.77	6.44	13.77	3.26	19.88	0.15	43.78
2.741	24.77	6.44	12.4	3.21	20.02	0.13	43.78
2.747	24.76	6.44	11.9	3.21	19.94	0.13	43.8
2.757	24.76	6.44	12.21	3.26	19.13	0.13	43.82
2.791	24.76	6.44	11.83	3.26	17.71	0.14	43.8
2.864	24.76	6.44	11.79	3.3	15.59	0.14	43.8
2.955	24.76	6.44	11.6	3.31	14.24	0.11	43.79
3.027	24.76	6.44	11.71	3.32	13.74	0.14	43.77
3.07	24.76	6.44	11.33	3.32	13.72	0.1	43.79
3.094	24.75	6.44	11.52	3.3	13.94	0.12	43.8
3.117	24.75	6.44	11.33	3.27	13.77	0.11	43.8
3.142	24.75	6.44	12.13	3.26	13.28	0.14	43.79
3.171	24.75	6.44	11.67	3.24	12.54	0.13	43.79
3.221	24.76	6.44	11.44	3.24	11.36	0.12	43.81
3.293	24.76	6.44	11.71	3.22	10.35	0.09	43.8
3.382	24.76	6.44	12.09	3.23	9.63	0.14	43.79
3.456	24.76	6.44	12.82	3.27	9.47	0.17	43.78
3.504	24.76	6.44	11.67	3.21	9.48	0.15	43.78
3.533	24.76	6.44	12.02	3.23	9.42	0.15	43.8
3.549	24.75	6.44	12.82	3.31	9.25	0.11	43.78
3.568	24.75	6.44	12.02	3.33	8.79	0.13	43.8
3.612	24.76	6.44	12.02	3.34	8.17	0.12	43.81
3.682	24.76	6.44	11.33	3.35	7.55	0.18	43.79
3.763	24.76	6.44	13.24	3.36	7.09	0.26	43.78
3.831	24.76	6.44	11.41	3.32	6.93	0.24	43.77
3.874	24.76	6.44	11.52	3.32	6.84	0.23	43.78
3.903	24.76	6.44	11.9	3.31	6.8	0.22	43.79
3.927	24.76	6.44	12.74	3.29	6.72	0.22	43.78
3.949	24.76	6.44	12.09	3.26	6.59	0.23	43.78
3.981	24.76	6.44	12.36	3.27	6.27	0.21	43.8
4.039	24.76	6.44	12.32	3.23	5.9	0.31	43.81
4.111	24.76	6.44	12.06	3.28	5.6	0.43	43.79
4.174	24.76	6.44	12.21	3.26	5.41	0.25	43.77
4.22	24.76	6.44	11.79	3.27	5.38	0.25	43.8
4.244	24.76	6.44	12.63	3.26	5.39	0.25	43.8
4.258	24.76	6.44	13.24	3.23	5.37	0.23	43.81
4.284	24.76	6.44	13.39	3.21	5.22	0.44	43.82
4.332	24.76	6.44	12.74	3.22	4.98	0.4	43.81
4.398	24.76	6.44	12.24	3.23	4.76	0.33	43.81
4.471	24.77	6.44	13.58	3.33	4.57	0.27	43.83
4.538	24.77	6.44	12.74	3.34	4.42	0.42	43.82
4.581	24.77	6.44	12.36	3.37	4.42	0.34	43.79
4.598	24.77	6.44	12.44	3.35	4.41	0.27	43.81
4.619	24.77	6.45	12.82	3.35	4.33	0.31	43.84
4.659	24.77	6.44	12.63	3.17	4.22	0.33	43.83
4.725	24.77	6.44	12.28	3.31	4.05	0.55	43.81

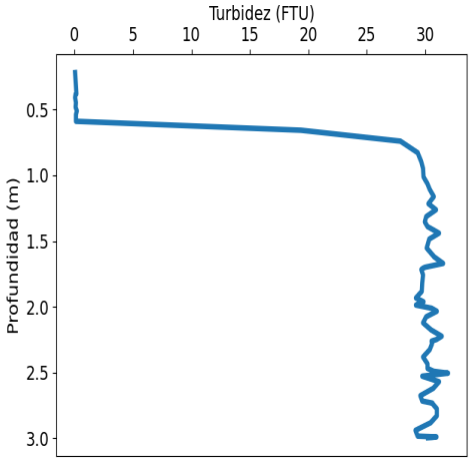
4.808	24.77	6.44	12.17	3.31	3.92	0.38	43.82
4.876	24.77	6.44	11.98	3.34	3.82	0.25	43.81
4.906	24.77	6.44	11.79	3.22	3.8	0.21	43.82
4.91	24.77	6.45	11.75	3.19	3.79	0.27	43.84
4.913	24.78	6.45	12.02	3.28	3.75	0.3	43.84
4.916	24.78	6.45	12.17	3.3	3.68	0.28	43.82
4.922	24.78	6.44	14.84	3.22	3.67	0.32	43.82
4.926	24.78	6.44	13.5	3.28	3.67	0.29	43.82

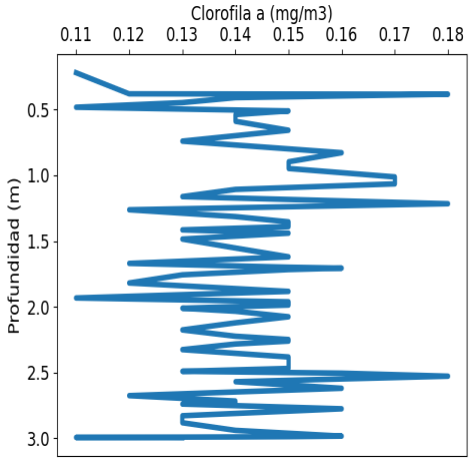
Nombre: CTD E09 - Punto 008 **Fecha: 04/10/2021** **Hora: 08:10:03**

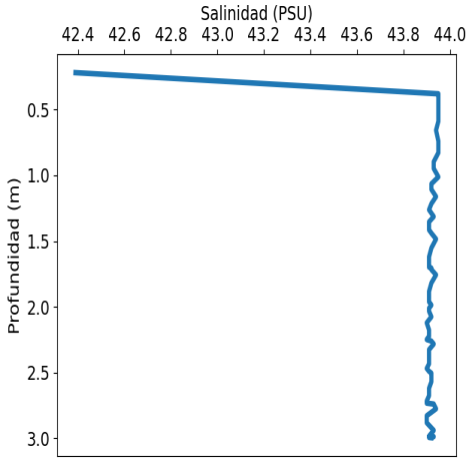


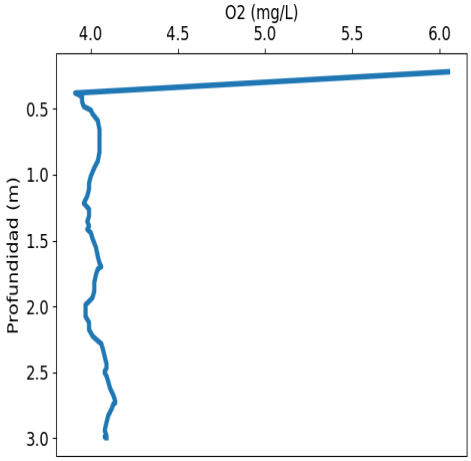


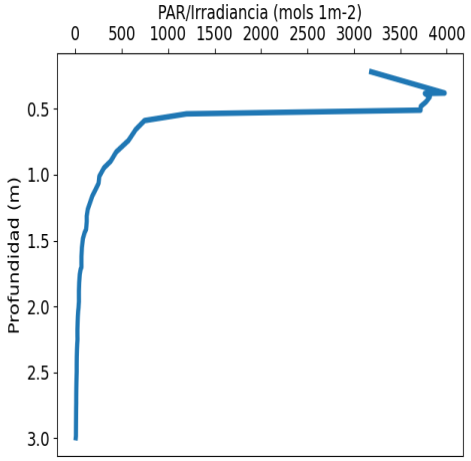












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	19.8	5.65	0.04	3.91	4.83	0.11	42.39
PROF (metros)	0.219	0.219	0.219	0.38	2.996	0.219	0.219
MÁXIMO	24.28	24.28	31.97	6.05	3977.5	0.18	43.95
PROF (metros)	2.996	2.776	2.505	0.219	0.38	0.383	0.38

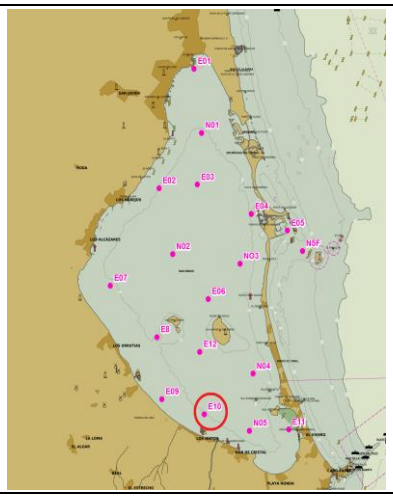
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E09 - Punto 008	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	23.88	6.33	9.79	4.14	2160.8	0.14	43.83
1 - 2m	24.25	6.39	30.19	4.01	103.98	0.14	43.92
2 - 3m	24.27	6.39	30.47	4.07	14.57	0.14	43.91

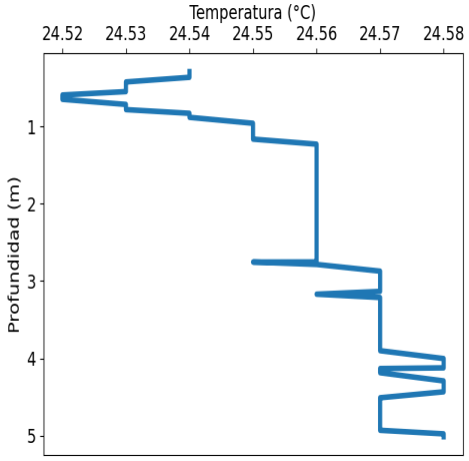
OBSERVACIONES GENERALES

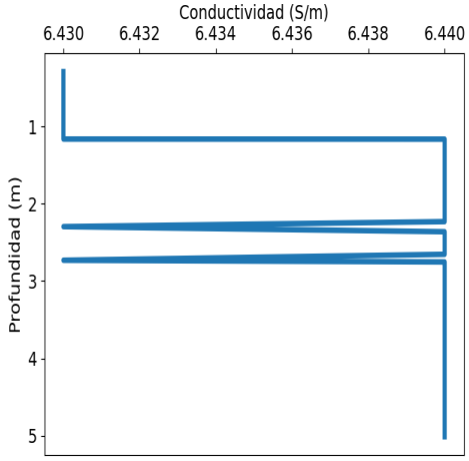
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.219	19.8	5.65	0.04	6.05	3185.5	0.11	42.39
0.38	24.2	6.39	0.15	3.91	3977.5	0.12	43.95
0.383	24.2	6.39	0.08	3.92	3763.1	0.18	43.95
0.409	24.2	6.39	0.04	3.95	3817.6	0.14	43.95
0.447	24.19	6.39	0.11	3.95	3776.2	0.13	43.95
0.482	24.19	6.39	0.08	3.96	3718.9	0.11	43.95
0.51	24.19	6.39	0.19	4.0	3718.0	0.15	43.95
0.538	24.19	6.39	0.11	4.01	1197.6	0.14	43.95
0.589	24.19	6.39	0.11	4.04	744.98	0.14	43.95
0.657	24.19	6.39	19.38	4.05	650.52	0.15	43.94
0.74	24.19	6.39	27.89	4.05	572.4	0.13	43.95
0.828	24.2	6.39	29.37	4.05	439.38	0.16	43.95
0.897	24.21	6.39	29.68	4.04	381.1	0.15	43.93
0.948	24.21	6.39	29.83	4.02	308.49	0.15	43.93
1.012	24.22	6.39	29.87	4.0	258.49	0.17	43.95
1.065	24.23	6.39	30.21	3.99	250.29	0.17	43.92
1.107	24.23	6.39	30.4	3.99	221.72	0.14	43.92
1.162	24.23	6.39	30.75	3.98	182.49	0.13	43.94
1.216	24.24	6.39	30.29	3.96	156.35	0.18	43.92
1.262	24.24	6.39	30.94	3.99	134.08	0.12	43.91
1.314	24.24	6.39	30.1	3.99	122.52	0.14	43.93
1.354	24.24	6.39	29.98	3.98	122.75	0.15	43.91
1.39	24.24	6.39	30.21	3.99	119.02	0.15	43.91
1.415	24.25	6.39	30.71	3.98	115.7	0.13	43.91
1.44	24.25	6.39	31.2	4.0	99.71	0.15	43.92
1.485	24.25	6.39	30.36	4.01	81.76	0.13	43.94
1.553	24.25	6.39	30.14	4.03	70.75	0.14	43.92
1.62	24.25	6.39	30.78	4.04	65.85	0.15	43.91
1.67	24.26	6.39	31.55	4.05	65.53	0.12	43.91
1.699	24.26	6.39	30.02	4.06	65.91	0.15	43.91
1.706	24.26	6.39	29.83	4.05	64.32	0.16	43.92
1.717	24.26	6.39	29.68	4.04	57.08	0.15	43.92
1.757	24.26	6.39	29.83	4.03	47.58	0.13	43.94
1.819	24.26	6.39	29.76	4.02	41.6	0.12	43.92
1.883	24.26	6.39	29.72	4.02	38.48	0.15	43.91
1.933	24.26	6.39	29.22	4.01	38.47	0.11	43.91
1.962	24.26	6.39	29.87	3.99	38.7	0.15	43.91
1.987	24.26	6.39	29.22	3.97	36.27	0.15	43.92
2.011	24.26	6.39	30.56	3.97	34.33	0.13	43.91

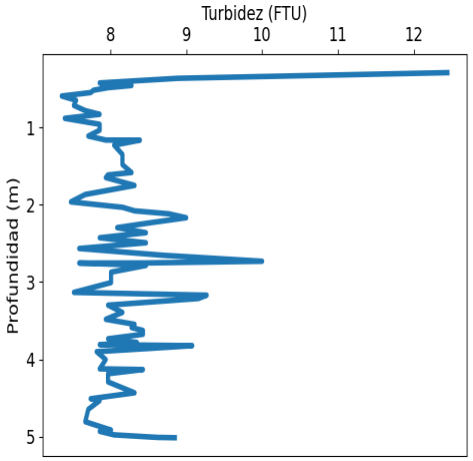
2.034	24.27	6.39	31.01	3.97	30.7	0.14	43.91
2.076	24.27	6.39	30.1	3.97	26.91	0.15	43.92
2.122	24.27	6.39	29.83	3.99	24.5	0.14	43.9
2.176	24.27	6.39	30.52	3.99	22.48	0.13	43.91
2.224	24.27	6.39	31.43	4.01	22.57	0.14	43.91
2.249	24.27	6.39	30.98	4.03	23.14	0.15	43.9
2.261	24.27	6.39	30.56	4.04	22.46	0.15	43.92
2.283	24.26	6.39	30.59	4.06	20.41	0.14	43.93
2.326	24.27	6.39	30.4	4.07	17.82	0.13	43.91
2.382	24.26	6.39	29.83	4.08	15.55	0.15	43.91
2.434	24.27	6.39	30.21	4.09	14.7	0.15	43.91
2.469	24.27	6.39	30.21	4.09	14.51	0.15	43.9
2.491	24.26	6.39	30.75	4.08	14.66	0.13	43.91
2.505	24.26	6.39	31.97	4.08	14.29	0.16	43.92
2.528	24.26	6.39	29.76	4.09	13.34	0.18	43.92
2.57	24.26	6.39	31.2	4.1	12.06	0.14	43.92
2.62	24.26	6.39	30.71	4.11	10.74	0.16	43.91
2.676	24.26	6.39	29.6	4.13	9.84	0.12	43.91
2.717	24.26	6.39	29.76	4.14	9.53	0.14	43.9
2.733	24.26	6.39	30.63	4.14	9.73	0.14	43.9
2.74	24.26	6.39	30.67	4.13	9.41	0.13	43.93
2.776	24.27	6.4	31.01	4.12	8.63	0.16	43.94
2.829	24.27	6.39	31.01	4.1	8.0	0.13	43.9
2.882	24.27	6.39	30.48	4.09	7.35	0.13	43.9
2.94	24.27	6.39	29.18	4.08	6.71	0.14	43.93
2.984	24.27	6.39	29.37	4.09	6.38	0.16	43.91
2.988	24.26	6.39	30.44	4.08	5.71	0.15	43.93
2.99	24.27	6.39	30.98	4.08	5.42	0.14	43.91
2.994	24.27	6.39	30.59	4.09	5.11	0.11	43.91
2.996	24.28	6.39	30.25	4.09	4.83	0.13	43.92

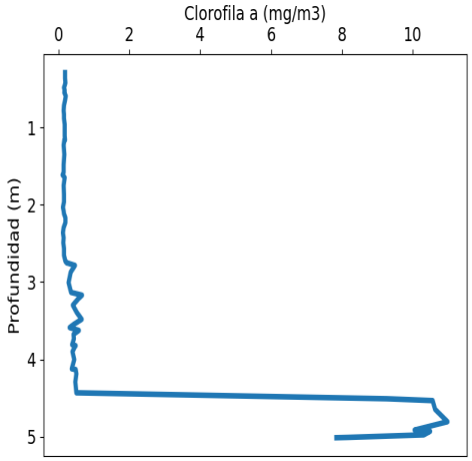
Nombre: CTD E10 - Punto 009 **Fecha: 04/10/2021** **Hora: 08:10:40**

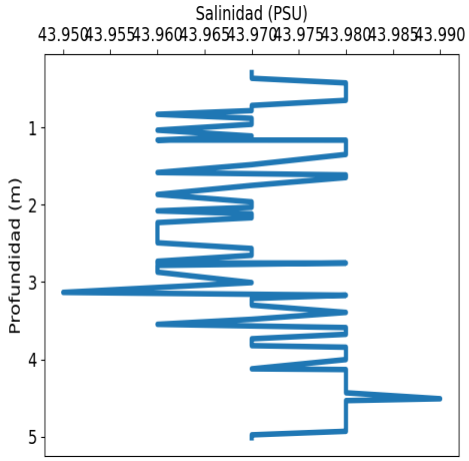


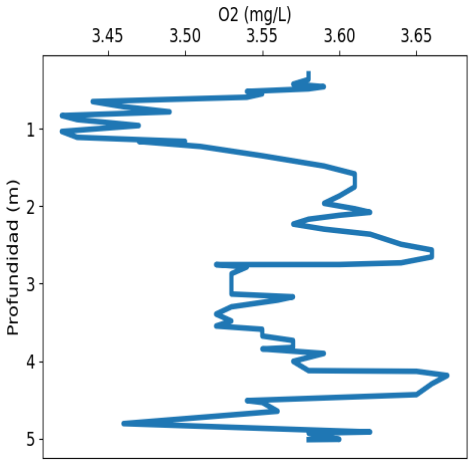


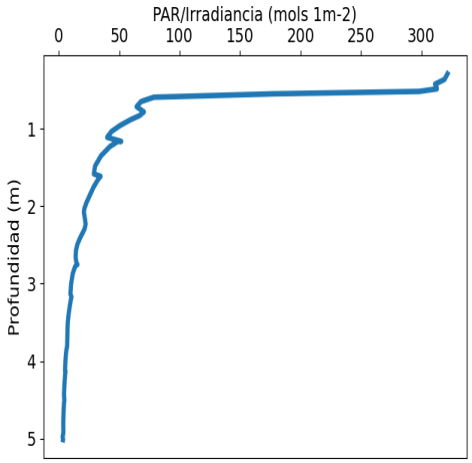












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.52	6.43	7.36	3.42	3.21	0.11	43.95
PROF (metros)	0.593	0.291	0.593	0.83	4.977	1.614	3.134
MÁXIMO	24.58	24.58	12.44	3.67	321.63	10.99	43.99
PROF (metros)	4.003	1.164	0.291	4.186	0.291	4.807	4.51

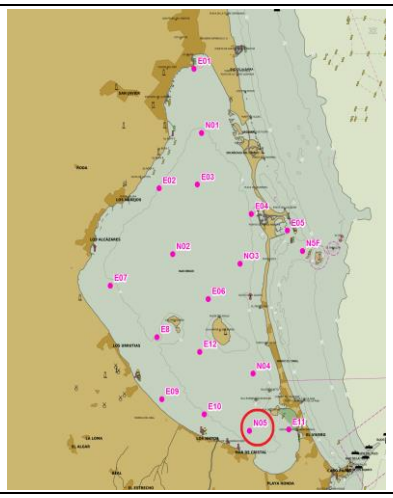
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E10 - Punto 009	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	24.53	6.43	8.16	3.52	179.52	0.17	43.97
1 - 2m	24.56	6.44	7.99	3.55	35.83	0.15	43.97
2 - 3m	24.56	6.44	8.41	3.6	17.43	0.19	43.97
3 - 4m	24.57	6.44	8.31	3.55	7.93	0.45	43.97
4 - 5m	24.57	6.44	7.95	3.59	4.51	5.78	43.98
5 - 6m	24.58	6.44	8.74	3.59	3.65	8.02	43.97

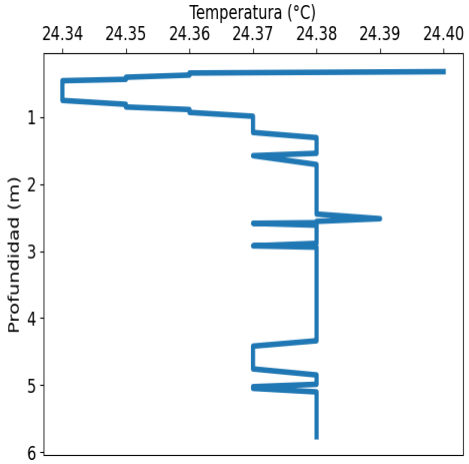
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 3.52, 3.55, 3.6, 3.55, 3.59, 3.59 respectivamente. CLOROFILA elevada en la(s) columna(s) de agua 4 - 5m, 5 - 6m con los valores 5.78, 8.02 respectivamente

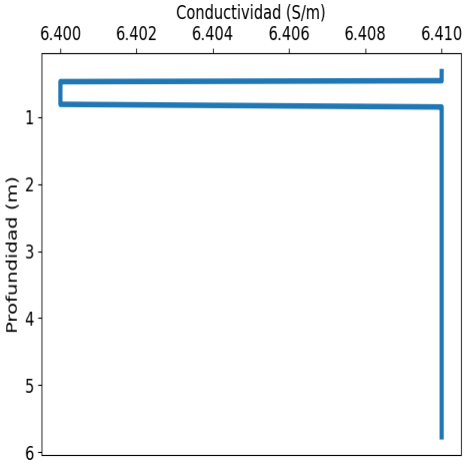
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.291	24.54	6.43	12.44	3.58	321.63	0.18	43.97
0.364	24.54	6.43	8.89	3.58	319.11	0.18	43.97
0.424	24.53	6.43	7.86	3.57	311.29	0.19	43.98
0.457	24.53	6.43	8.28	3.59	312.52	0.17	43.98
0.485	24.53	6.43	7.97	3.58	312.88	0.15	43.98
0.518	24.53	6.43	7.78	3.54	298.36	0.17	43.98
0.549	24.53	6.43	7.74	3.55	178.6	0.16	43.98
0.593	24.52	6.43	7.36	3.54	78.7	0.2	43.98
0.649	24.52	6.43	7.55	3.44	68.15	0.18	43.98
0.715	24.53	6.43	7.52	3.46	64.42	0.15	43.97
0.782	24.53	6.43	7.67	3.49	70.49	0.14	43.97
0.83	24.54	6.43	7.86	3.42	66.91	0.15	43.96
0.882	24.54	6.43	7.4	3.43	59.59	0.15	43.97
0.959	24.55	6.43	7.86	3.47	50.69	0.17	43.97
1.035	24.55	6.43	7.86	3.42	43.72	0.17	43.96
1.111	24.55	6.43	7.71	3.43	40.06	0.17	43.97
1.163	24.55	6.43	7.94	3.5	51.78	0.18	43.96
1.164	24.55	6.44	8.39	3.47	48.92	0.16	43.98
1.229	24.56	6.44	8.05	3.51	42.43	0.14	43.98
1.349	24.56	6.44	8.16	3.55	35.02	0.16	43.98
1.481	24.56	6.44	8.16	3.59	30.1	0.14	43.97
1.583	24.56	6.44	8.28	3.61	29.06	0.14	43.96
1.614	24.56	6.44	7.97	3.61	34.68	0.11	43.98
1.648	24.56	6.44	7.94	3.61	32.85	0.17	43.98
1.75	24.56	6.44	8.32	3.61	28.95	0.14	43.97
1.867	24.56	6.44	7.67	3.6	25.48	0.15	43.96
1.963	24.56	6.44	7.48	3.59	22.72	0.15	43.97
2.033	24.56	6.44	8.16	3.61	21.2	0.12	43.97
2.079	24.56	6.44	8.32	3.62	20.83	0.14	43.96
2.117	24.56	6.44	8.77	3.6	21.26	0.15	43.97
2.168	24.56	6.44	9.0	3.58	21.75	0.19	43.97
2.231	24.56	6.44	8.54	3.57	22.28	0.19	43.96

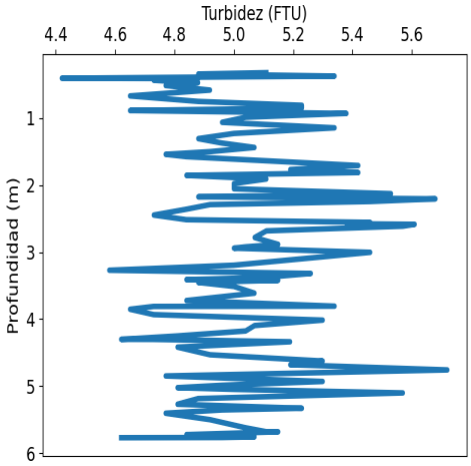
2.296	24.56	6.43	8.09	3.59	21.38	0.14	43.96
2.362	24.56	6.44	8.47	3.62	19.22	0.12	43.96
2.427	24.56	6.44	7.86	3.63	17.18	0.14	43.96
2.492	24.56	6.44	8.47	3.64	15.49	0.13	43.96
2.566	24.56	6.44	7.59	3.66	14.34	0.15	43.97
2.654	24.56	6.44	8.7	3.66	14.01	0.15	43.97
2.731	24.56	6.43	10.0	3.64	14.6	0.19	43.96
2.753	24.56	6.44	8.47	3.6	15.53	0.23	43.96
2.754	24.55	6.44	7.59	3.52	14.86	0.25	43.98
2.785	24.56	6.44	8.47	3.54	13.42	0.46	43.96
2.872	24.57	6.44	8.01	3.53	11.59	0.34	43.96
3.007	24.57	6.44	8.01	3.53	10.24	0.28	43.97
3.134	24.57	6.44	7.52	3.53	9.68	0.35	43.95
3.17	24.56	6.44	9.27	3.57	10.56	0.66	43.98
3.213	24.57	6.44	9.16	3.56	9.97	0.56	43.97
3.299	24.57	6.44	7.97	3.53	9.09	0.4	43.97
3.393	24.57	6.44	8.16	3.52	8.22	0.51	43.98
3.482	24.57	6.44	7.94	3.53	7.63	0.65	43.97
3.547	24.57	6.44	8.32	3.52	7.35	0.43	43.96
3.589	24.57	6.44	8.28	3.55	7.27	0.31	43.98
3.626	24.57	6.44	8.43	3.55	7.27	0.57	43.98
3.676	24.57	6.44	8.43	3.55	7.17	0.42	43.98
3.734	24.57	6.44	7.97	3.57	7.09	0.43	43.97
3.782	24.57	6.44	8.35	3.57	7.03	0.4	43.97
3.81	24.57	6.44	7.86	3.57	6.94	0.38	43.97
3.823	24.57	6.44	9.08	3.57	6.76	0.48	43.97
3.843	24.57	6.44	8.77	3.55	6.5	0.45	43.98
3.901	24.57	6.44	7.82	3.59	6.04	0.39	43.98
4.003	24.58	6.44	7.94	3.57	5.55	0.44	43.98
4.123	24.58	6.44	7.86	3.58	5.23	0.37	43.97
4.132	24.57	6.44	8.43	3.65	5.6	0.48	43.98
4.186	24.57	6.44	7.97	3.67	5.23	0.5	43.98
4.292	24.58	6.44	7.97	3.66	4.78	0.47	43.98
4.433	24.58	6.44	8.32	3.65	4.38	0.5	43.98
4.51	24.57	6.44	7.74	3.54	4.7	9.28	43.99
4.534	24.57	6.44	7.86	3.55	4.42	10.57	43.98
4.647	24.57	6.44	7.71	3.56	4.05	10.64	43.98
4.807	24.57	6.44	7.67	3.46	3.78	10.99	43.98
4.915	24.57	6.44	8.01	3.62	3.86	10.06	43.98
4.931	24.57	6.44	7.86	3.58	3.82	10.5	43.98
4.977	24.58	6.44	8.05	3.59	3.21	10.32	43.97
5.01	24.58	6.44	8.62	3.6	3.67	8.19	43.97
5.014	24.58	6.44	8.85	3.58	3.62	7.85	43.97

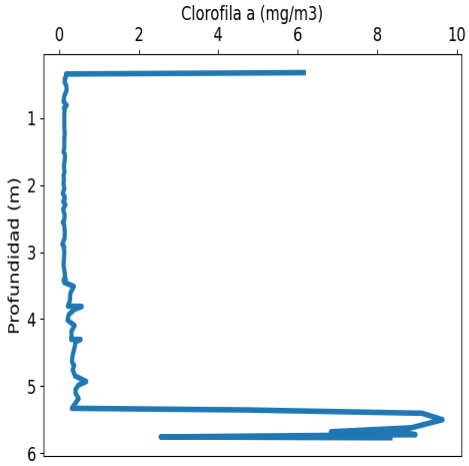
Nombre: CTD N05 - Punto 010 **Fecha: 04/10/2021** **Hora: 08:10:50**

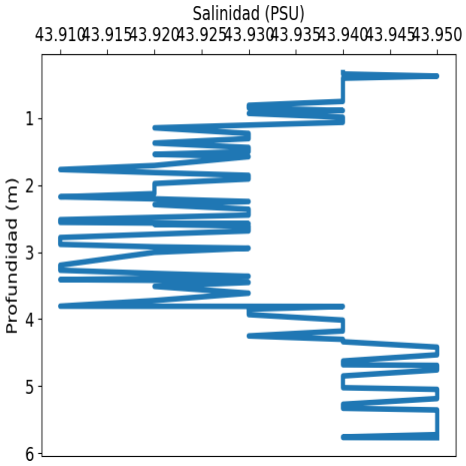


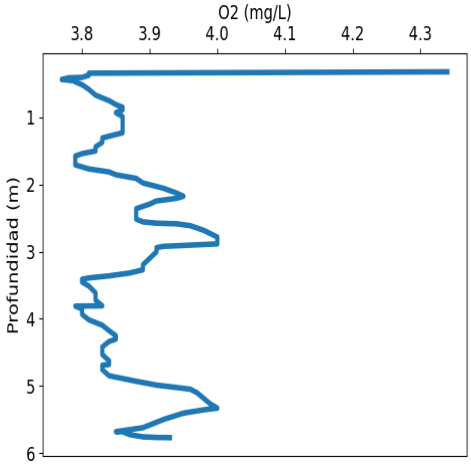


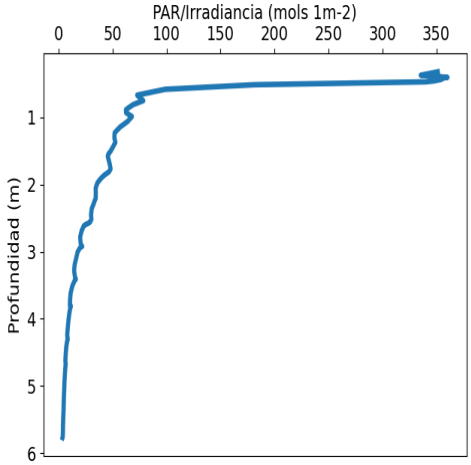












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.34	6.4	4.43	3.77	3.7	0.08	43.91
PROF (metros)	0.459	0.473	0.407	0.438	5.769	2.885	1.769
MÁXIMO	24.4	24.4	5.72	4.34	360.31	9.64	43.95
PROF (metros)	0.324	0.324	4.758	0.324	0.407	5.5	0.375

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	24.35	6.41	4.93	3.85	208.88	0.5	43.94
1 - 2m	24.38	6.41	5.05	3.83	48.51	0.13	43.93
2 - 3m	24.38	6.41	5.18	3.93	28.05	0.12	43.92
3 - 4m	24.38	6.41	4.98	3.83	13.42	0.22	43.92
4 - 5m	24.38	6.41	5.06	3.84	7.16	0.39	43.94
5 - 6m	24.38	6.41	4.98	3.93	4.42	4.78	43.95

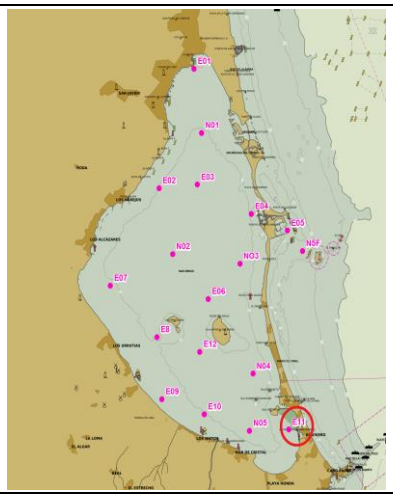
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 3.85, 3.83, 3.93, 3.83, 3.84, 3.93 respectivamente. CLOROFILA elevada en la(s) columna(s) de agua 5 - 6m con los valores 4.78 respectivamente

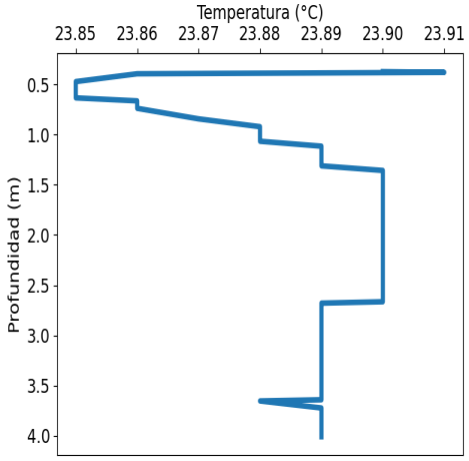
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.324	24.4	6.41	5.11	4.34	351.32	6.15	43.94
0.344	24.36	6.41	4.88	3.81	345.43	0.17	43.94
0.375	24.36	6.41	5.34	3.81	335.49	0.17	43.95
0.407	24.35	6.41	4.42	3.8	360.31	0.16	43.94
0.413	24.35	6.41	4.88	3.78	357.15	0.14	43.94
0.438	24.35	6.41	4.73	3.77	354.19	0.14	43.94
0.459	24.34	6.41	4.81	3.79	347.84	0.14	43.94
0.473	24.34	6.4	4.88	3.79	339.87	0.14	43.94
0.516	24.34	6.4	4.77	3.8	181.73	0.18	43.94
0.584	24.34	6.4	4.92	3.81	98.76	0.19	43.94
0.671	24.34	6.4	4.65	3.82	72.8	0.13	43.94
0.753	24.34	6.4	4.88	3.84	78.48	0.11	43.94
0.811	24.35	6.4	5.23	3.85	69.21	0.19	43.93
0.851	24.35	6.41	5.23	3.86	65.5	0.12	43.93
0.889	24.36	6.41	4.65	3.86	62.37	0.14	43.94
0.932	24.36	6.41	5.38	3.85	62.5	0.13	43.93
0.989	24.37	6.41	5.04	3.86	67.99	0.13	43.94
1.065	24.37	6.41	4.96	3.86	63.76	0.13	43.94
1.147	24.37	6.41	5.34	3.86	56.89	0.13	43.92
1.231	24.37	6.41	5.0	3.86	51.94	0.14	43.93
1.308	24.38	6.41	4.88	3.83	51.72	0.13	43.93
1.374	24.38	6.41	4.96	3.83	52.63	0.13	43.92
1.44	24.38	6.41	5.07	3.82	50.4	0.13	43.93
1.502	24.38	6.41	4.92	3.82	48.32	0.11	43.93
1.542	24.38	6.41	4.77	3.8	46.33	0.14	43.92
1.577	24.37	6.41	4.84	3.79	45.56	0.15	43.93
1.709	24.38	6.41	5.42	3.79	47.52	0.12	43.92
1.769	24.38	6.41	5.19	3.81	48.2	0.13	43.91
1.814	24.38	6.41	5.42	3.84	46.56	0.13	43.92
1.856	24.38	6.41	4.84	3.85	42.75	0.11	43.93
1.91	24.38	6.41	5.11	3.88	39.22	0.12	43.93
1.978	24.38	6.41	5.0	3.89	35.93	0.11	43.92

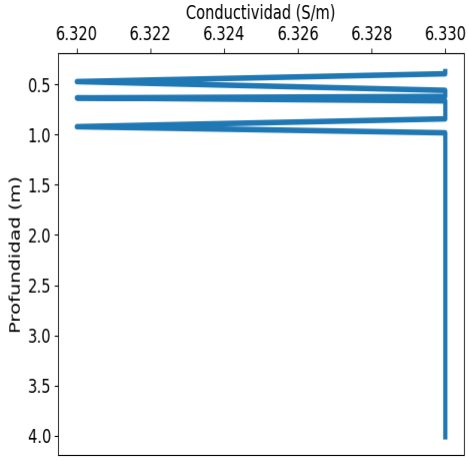
2.056	24.38	6.41	5.0	3.92	34.36	0.13	43.92
2.129	24.38	6.41	5.53	3.94	34.46	0.09	43.92
2.176	24.38	6.41	4.88	3.95	34.44	0.14	43.91
2.206	24.38	6.41	5.68	3.94	34.43	0.14	43.92
2.246	24.38	6.41	5.46	3.91	33.33	0.1	43.93
2.292	24.38	6.41	4.92	3.9	32.42	0.16	43.92
2.361	24.38	6.41	4.84	3.88	30.7	0.1	43.93
2.448	24.38	6.41	4.73	3.88	30.06	0.14	43.93
2.517	24.39	6.41	4.84	3.88	30.37	0.13	43.91
2.557	24.38	6.41	5.46	3.89	29.3	0.09	43.91
2.577	24.38	6.41	5.38	3.91	27.7	0.12	43.93
2.586	24.37	6.41	5.61	3.94	26.24	0.12	43.92
2.614	24.38	6.41	5.57	3.96	23.48	0.13	43.93
2.684	24.38	6.41	5.11	3.98	21.47	0.14	43.93
2.783	24.38	6.41	5.07	4.0	19.94	0.14	43.91
2.885	24.38	6.41	5.15	4.0	20.5	0.08	43.91
2.922	24.37	6.41	5.04	3.92	21.86	0.13	43.92
2.942	24.38	6.41	5.0	3.91	19.83	0.12	43.93
3.004	24.38	6.41	5.46	3.91	17.66	0.13	43.92
3.196	24.38	6.41	5.0	3.89	14.88	0.11	43.91
3.271	24.38	6.41	4.58	3.89	14.43	0.13	43.91
3.319	24.38	6.41	5.26	3.87	14.62	0.14	43.92
3.361	24.38	6.41	5.15	3.84	15.05	0.15	43.93
3.392	24.38	6.41	5.0	3.81	15.53	0.13	43.92
3.411	24.38	6.41	4.84	3.8	15.99	0.17	43.91
3.421	24.38	6.41	5.15	3.8	15.36	0.11	43.92
3.453	24.38	6.41	4.88	3.8	14.26	0.13	43.93
3.512	24.38	6.41	5.0	3.81	12.74	0.37	43.92
3.613	24.38	6.41	5.07	3.82	11.21	0.28	43.93
3.723	24.38	6.41	4.84	3.82	10.59	0.27	43.92
3.807	24.38	6.41	5.34	3.83	10.53	0.22	43.91
3.811	24.38	6.41	4.73	3.79	11.44	0.57	43.94
3.853	24.38	6.41	4.65	3.8	10.62	0.39	43.93
3.933	24.38	6.41	4.73	3.8	9.83	0.24	43.93
4.015	24.38	6.41	5.3	3.81	9.22	0.21	43.94
4.096	24.38	6.41	5.07	3.83	8.72	0.39	43.94
4.177	24.38	6.41	5.04	3.84	8.28	0.31	43.94
4.251	24.38	6.41	4.81	3.85	7.97	0.31	43.93
4.302	24.38	6.41	4.62	3.85	8.5	0.3	43.94
4.303	24.38	6.41	4.73	3.85	8.35	0.54	43.94
4.338	24.38	6.41	5.19	3.84	7.85	0.41	43.94
4.418	24.37	6.41	4.81	3.83	7.13	0.39	43.95
4.532	24.37	6.41	4.92	3.83	6.57	0.34	43.95
4.625	24.37	6.41	5.3	3.84	6.28	0.32	43.94
4.681	24.37	6.41	5.19	3.84	6.64	0.35	43.94
4.69	24.37	6.41	5.26	3.83	6.44	0.38	43.95
4.758	24.37	6.41	5.72	3.83	6.1	0.34	43.95
4.848	24.38	6.41	4.77	3.84	5.77	0.4	43.94
4.93	24.38	6.41	5.3	3.88	5.48	0.68	43.94
4.987	24.38	6.41	4.96	3.91	5.32	0.48	43.94
5.023	24.37	6.41	4.81	3.94	5.28	0.44	43.94
5.048	24.37	6.41	5.0	3.96	5.23	0.41	43.95
5.101	24.38	6.41	5.57	3.97	5.05	0.41	43.95
5.185	24.38	6.41	4.88	3.98	4.87	0.49	43.95
5.27	24.38	6.41	4.81	3.99	4.74	0.39	43.94
5.33	24.38	6.41	5.23	4.0	4.64	0.32	43.94
5.355	24.38	6.41	4.96	3.98	4.64	4.72	43.95
5.404	24.38	6.41	4.77	3.95	4.47	9.12	43.95

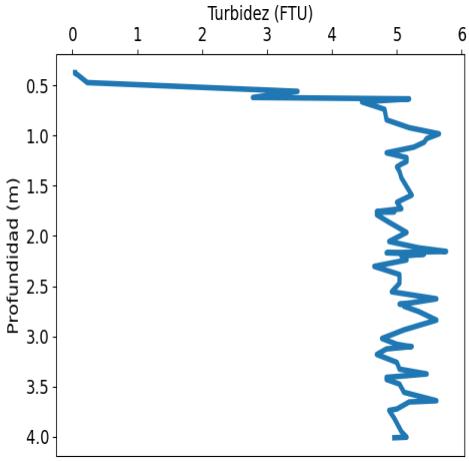
5.5	24.38	6.41	4.92	3.92	4.27	9.64	43.95
5.621	24.38	6.41	5.04	3.89	4.07	8.85	43.95
5.68	24.38	6.41	5.11	3.85	4.08	6.83	43.95
5.681	24.38	6.41	5.15	3.86	4.05	8.54	43.95
5.723	24.38	6.41	4.84	3.87	3.93	8.96	43.95
5.757	24.38	6.41	5.07	3.89	3.85	2.55	43.94
5.766	24.38	6.41	4.96	3.91	3.77	6.45	43.94
5.769	24.38	6.41	4.62	3.93	3.7	8.33	43.95

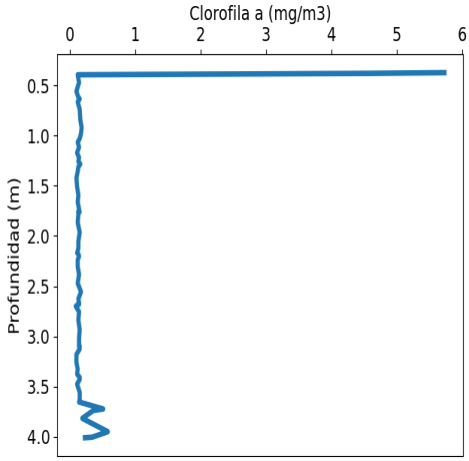
Nombre: CTD E11 - Punto 011 **Fecha: 04/10/2021** **Hora: 08:10:14**

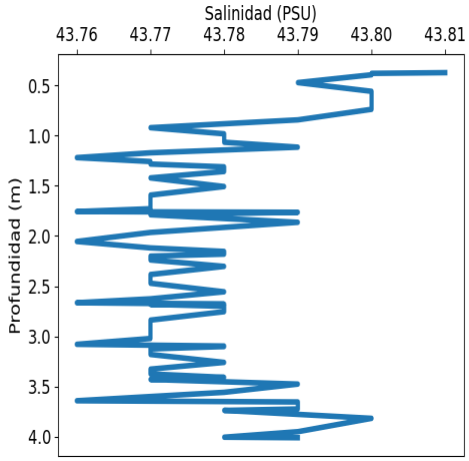


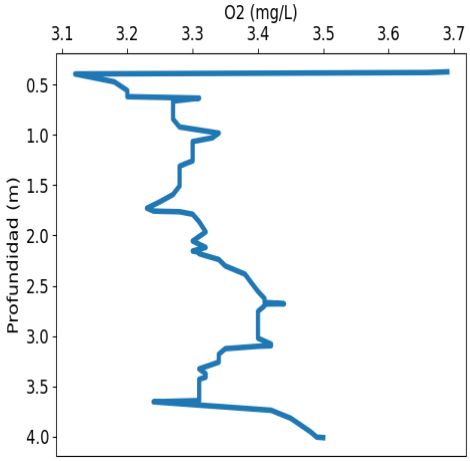


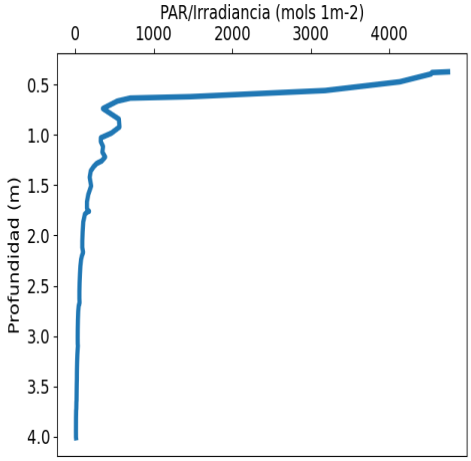












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	23.85	6.32	0.04	3.12	9.83	0.09	43.76
PROF (metros)	0.473	0.473	0.374	0.395	3.949	2.7	1.22
MÁXIMO	23.91	23.91	5.76	3.69	4748.0	5.73	43.81
PROF (metros)	0.381	0.374	2.154	0.374	0.374	0.374	0.374

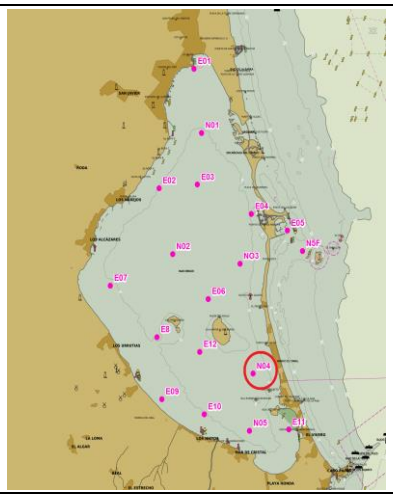
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E11 - Punto 011	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	23.87	6.33	3.06	3.32	2147.78	0.98	43.79
1 - 2m	23.89	6.33	5.05	3.28	223.15	0.13	43.78
2 - 3m	23.9	6.33	5.17	3.37	65.26	0.13	43.77
3 - 4m	23.89	6.33	5.04	3.36	22.36	0.19	43.78
4 - 5m	23.89	6.33	5.05	3.49	10.55	0.29	43.78

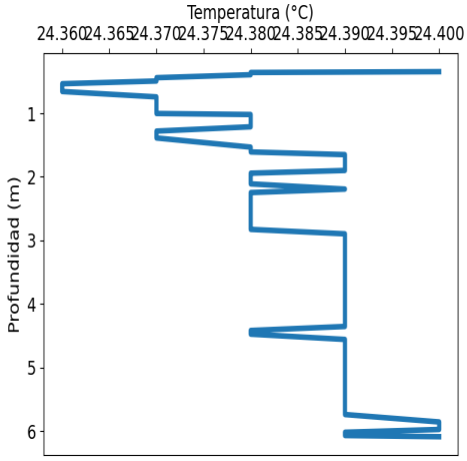
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m con los valores 3.32, 3.28, 3.37, 3.36, 3.49 respectivamente.

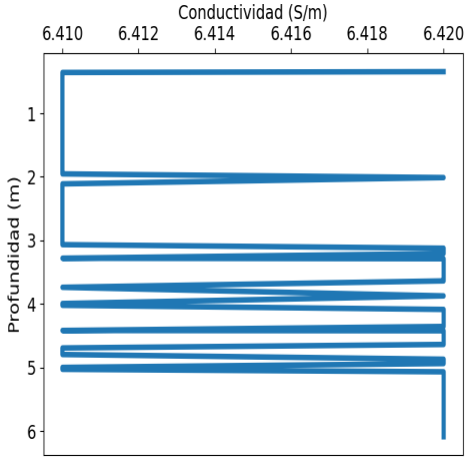
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.374	23.9	6.33	0.04	3.69	4748.0	5.73	43.81
0.381	23.91	6.33	0.04	3.66	4542.4	4.58	43.8
0.395	23.86	6.33	0.08	3.12	4530.8	0.12	43.8
0.473	23.85	6.32	0.23	3.18	4133.5	0.14	43.79
0.56	23.85	6.33	3.47	3.2	3181.1	0.1	43.8
0.621	23.85	6.33	2.78	3.2	1463.4	0.13	43.8
0.635	23.85	6.32	5.19	3.31	702.06	0.15	43.8
0.665	23.86	6.33	4.46	3.27	537.17	0.12	43.8
0.739	23.86	6.33	4.81	3.27	352.88	0.15	43.8
0.844	23.87	6.33	4.84	3.27	556.69	0.16	43.79
0.922	23.88	6.32	5.19	3.28	564.1	0.18	43.77
0.983	23.88	6.33	5.65	3.34	461.3	0.17	43.78
1.03	23.88	6.33	5.46	3.33	326.82	0.15	43.78
1.067	23.88	6.33	5.42	3.3	325.91	0.12	43.78
1.116	23.89	6.33	5.26	3.3	354.93	0.14	43.79
1.172	23.89	6.33	4.84	3.3	346.23	0.11	43.77
1.22	23.89	6.33	5.15	3.3	381.9	0.14	43.76
1.259	23.89	6.33	5.15	3.3	338.77	0.13	43.77
1.284	23.89	6.33	5.07	3.29	275.43	0.16	43.77
1.312	23.89	6.33	5.0	3.28	240.01	0.13	43.78
1.358	23.9	6.33	5.04	3.28	198.74	0.12	43.78
1.422	23.9	6.33	5.07	3.28	184.66	0.1	43.77
1.508	23.9	6.33	5.15	3.28	203.17	0.11	43.78
1.593	23.9	6.33	5.23	3.27	166.88	0.13	43.77
1.665	23.9	6.33	5.0	3.25	150.24	0.12	43.77
1.729	23.9	6.33	5.07	3.23	150.07	0.14	43.77
1.757	23.9	6.33	4.69	3.24	164.88	0.13	43.76
1.76	23.9	6.33	4.96	3.25	176.87	0.15	43.77
1.764	23.9	6.33	4.73	3.28	155.52	0.13	43.79
1.789	23.9	6.33	4.69	3.3	123.58	0.13	43.77
1.864	23.9	6.33	4.88	3.31	103.26	0.12	43.79
1.965	23.9	6.33	5.15	3.32	95.15	0.15	43.77
2.055	23.9	6.33	4.88	3.3	90.92	0.13	43.76

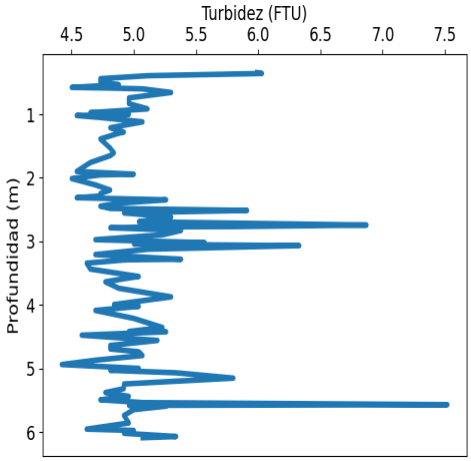
2.119	23.9	6.33	5.34	3.32	90.69	0.13	43.77
2.154	23.9	6.33	5.76	3.3	98.08	0.12	43.78
2.168	23.9	6.33	4.84	3.31	100.82	0.11	43.78
2.181	23.9	6.33	5.42	3.31	96.01	0.13	43.78
2.201	23.9	6.33	5.07	3.32	86.32	0.14	43.77
2.239	23.9	6.33	5.15	3.34	75.03	0.12	43.77
2.303	23.9	6.33	4.65	3.35	66.51	0.12	43.78
2.384	23.9	6.33	5.04	3.38	60.93	0.14	43.77
2.471	23.9	6.33	5.04	3.39	56.29	0.12	43.77
2.556	23.9	6.33	4.92	3.4	53.89	0.17	43.78
2.626	23.9	6.33	5.61	3.41	53.8	0.13	43.77
2.665	23.9	6.33	5.23	3.41	55.73	0.14	43.76
2.679	23.89	6.33	5.04	3.44	53.69	0.12	43.78
2.681	23.89	6.33	5.11	3.41	50.35	0.14	43.77
2.7	23.89	6.33	5.11	3.41	44.72	0.09	43.78
2.754	23.89	6.33	5.34	3.4	38.84	0.14	43.78
2.838	23.89	6.33	5.61	3.4	34.87	0.13	43.77
2.935	23.89	6.33	5.11	3.4	32.44	0.15	43.77
3.021	23.89	6.33	4.77	3.4	31.77	0.14	43.77
3.079	23.89	6.33	5.0	3.42	32.31	0.14	43.76
3.096	23.89	6.33	5.15	3.42	34.52	0.15	43.78
3.101	23.89	6.33	5.23	3.4	34.07	0.14	43.78
3.125	23.89	6.33	4.84	3.35	31.89	0.15	43.77
3.18	23.89	6.33	4.69	3.34	28.11	0.1	43.77
3.259	23.89	6.33	5.0	3.34	24.77	0.1	43.78
3.326	23.89	6.33	5.04	3.31	22.83	0.12	43.77
3.374	23.89	6.33	5.46	3.32	21.9	0.11	43.77
3.408	23.89	6.33	4.84	3.32	21.76	0.15	43.78
3.429	23.89	6.33	4.84	3.31	21.55	0.15	43.77
3.475	23.89	6.33	5.04	3.31	20.1	0.11	43.79
3.557	23.89	6.33	5.11	3.31	18.63	0.15	43.78
3.641	23.89	6.33	5.61	3.31	17.49	0.15	43.76
3.653	23.88	6.33	5.19	3.24	15.98	0.14	43.79
3.723	23.89	6.33	5.0	3.39	14.37	0.51	43.79
3.737	23.89	6.33	4.88	3.42	12.45	0.36	43.78
3.816	23.89	6.33	4.96	3.45	10.59	0.19	43.8
3.949	23.89	6.33	5.07	3.48	9.83	0.58	43.79
4.004	23.89	6.33	5.15	3.49	10.21	0.34	43.78
4.009	23.89	6.33	4.96	3.5	10.89	0.23	43.79

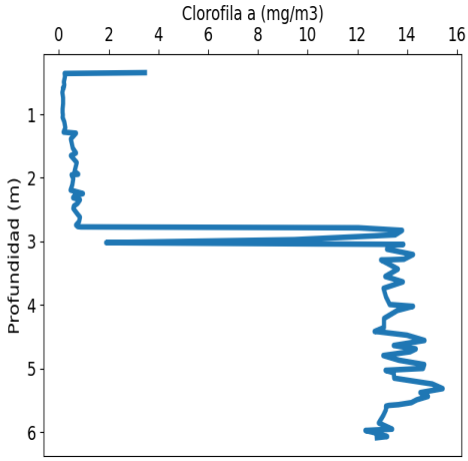
Nombre: CTD N04 - Punto 012 **Fecha: 04/10/2021** **Hora: 09:10:56**

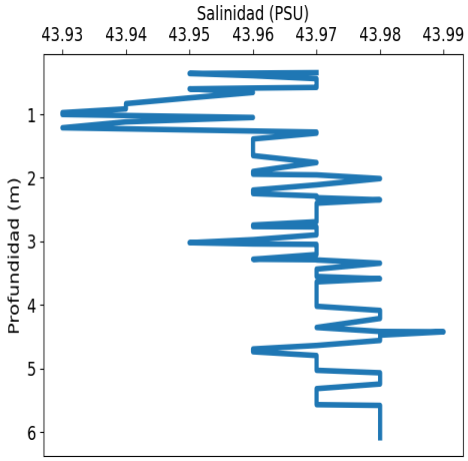


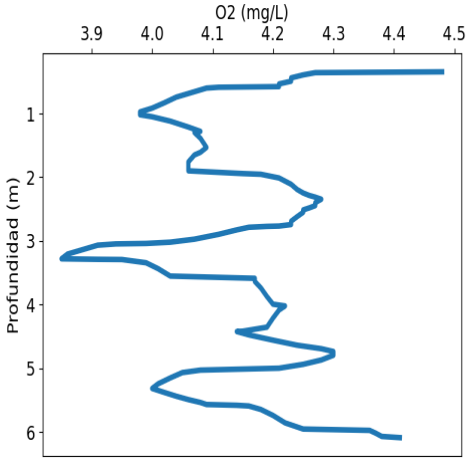


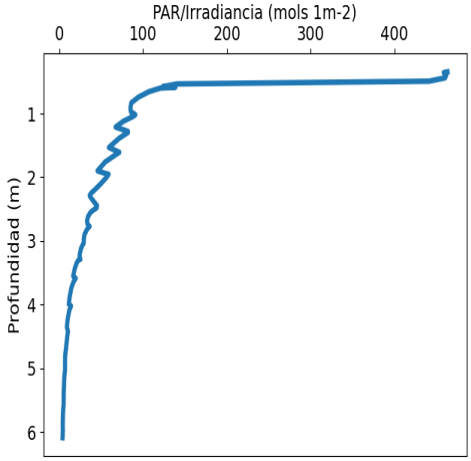












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.36	6.41	4.43	3.85	4.02	0.14	43.93
PROF (metros)	0.535	0.358	4.936	3.28	6.087	0.657	0.974
MÁXIMO	24.4	24.4	7.52	4.49	463.34	15.43	43.99
PROF (metros)	0.345	0.345	5.567	0.345	0.345	5.315	4.421

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	24.37	6.41	5.06	4.16	233.44	0.42	43.96
1 - 2m	24.38	6.41	4.8	4.07	70.71	0.45	43.96
2 - 3m	24.38	6.41	5.08	4.22	38.58	2.89	43.97
3 - 4m	24.39	6.41	5.07	4.02	21.77	12.57	43.97
4 - 5m	24.39	6.42	4.92	4.22	9.19	13.75	43.97
5 - 6m	24.39	6.42	5.15	4.12	5.3	13.72	43.98
6 - 7m	24.39	6.42	5.11	4.39	4.12	12.92	43.98

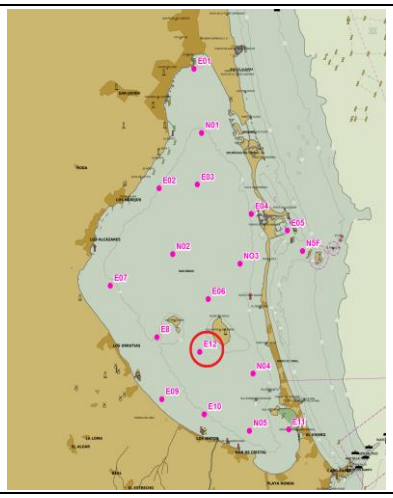
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m, 6 - 7m con los valores 2.89, 12.57, 13.75, 13.72, 12.92 respectivamente

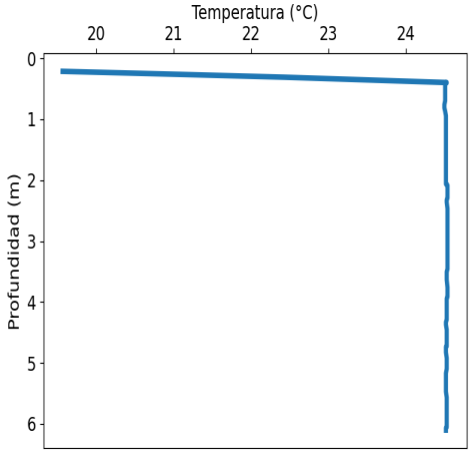
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.345	24.4	6.42	5.99	4.48	463.34	3.46	43.97
0.358	24.38	6.41	6.03	4.27	458.85	0.23	43.95
0.393	24.38	6.41	5.11	4.25	462.05	0.25	43.96
0.44	24.37	6.41	4.73	4.23	460.44	0.23	43.97
0.492	24.37	6.41	4.73	4.23	441.43	0.2	43.97
0.535	24.36	6.41	4.88	4.21	140.74	0.22	43.97
0.577	24.36	6.41	4.5	4.21	123.78	0.2	43.97
0.587	24.36	6.41	4.81	4.11	138.63	0.16	43.96
0.6	24.36	6.41	5.07	4.09	120.75	0.17	43.95
0.657	24.36	6.41	5.3	4.07	107.06	0.14	43.96
0.742	24.37	6.41	4.96	4.04	94.6	0.17	43.95
0.832	24.37	6.41	4.96	4.02	85.98	0.17	43.94
0.915	24.37	6.41	5.11	4.0	84.97	0.15	43.94
0.974	24.37	6.41	4.65	3.98	85.56	0.15	43.93
1.003	24.37	6.41	4.96	3.98	89.31	0.16	43.93
1.019	24.38	6.41	4.54	3.98	90.92	0.16	43.94
1.05	24.38	6.41	4.73	4.0	87.45	0.15	43.96
1.119	24.38	6.41	5.07	4.03	76.84	0.22	43.94
1.212	24.38	6.41	4.81	4.06	67.25	0.26	43.93
1.28	24.37	6.41	4.92	4.08	82.03	0.19	43.97
1.297	24.37	6.41	4.88	4.07	82.05	0.69	43.97
1.388	24.37	6.41	4.73	4.08	71.55	0.48	43.96
1.532	24.38	6.41	4.81	4.09	59.26	0.56	43.96
1.608	24.38	6.41	4.84	4.08	71.8	0.69	43.96
1.65	24.39	6.41	4.81	4.07	66.88	0.48	43.96
1.759	24.39	6.41	4.65	4.06	54.92	0.72	43.97
1.899	24.39	6.41	4.54	4.06	45.69	0.63	43.96
1.942	24.38	6.41	5.0	4.15	55.68	0.78	43.96
1.953	24.38	6.41	4.73	4.18	58.96	0.51	43.97
2.011	24.38	6.42	4.5	4.21	55.78	0.58	43.98
2.11	24.38	6.41	4.69	4.23	49.0	0.54	43.97
2.192	24.39	6.41	4.81	4.24	42.76	0.47	43.96
2.247	24.38	6.41	4.73	4.25	38.3	0.97	43.96

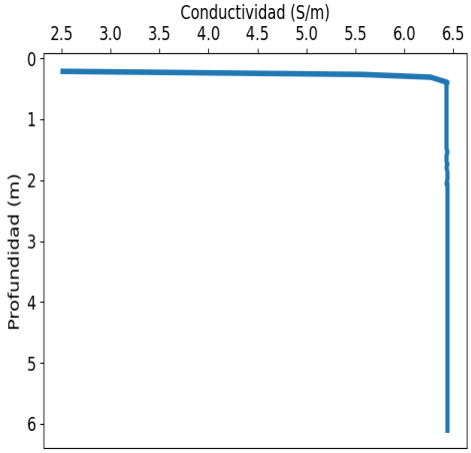
2.285	24.38	6.41	4.73	4.26	36.34	0.62	43.97
2.312	24.38	6.41	4.54	4.27	37.28	0.57	43.97
2.345	24.38	6.41	5.26	4.28	39.25	0.85	43.98
2.398	24.38	6.41	4.88	4.27	42.2	0.76	43.97
2.445	24.38	6.41	4.73	4.27	45.14	0.6	43.97
2.481	24.38	6.41	4.81	4.26	44.56	0.58	43.97
2.512	24.38	6.41	5.91	4.25	41.06	0.64	43.97
2.55	24.38	6.41	4.92	4.25	37.44	0.71	43.97
2.618	24.38	6.41	5.3	4.24	34.34	0.85	43.97
2.69	24.38	6.41	5.04	4.23	33.16	0.81	43.97
2.742	24.38	6.41	6.87	4.23	34.02	0.69	43.96
2.766	24.38	6.41	5.8	4.21	35.71	0.76	43.96
2.771	24.38	6.41	5.15	4.19	36.37	0.88	43.97
2.785	24.38	6.41	4.81	4.16	35.04	12.04	43.97
2.826	24.38	6.41	5.38	4.14	32.84	13.8	43.97
2.896	24.39	6.41	5.23	4.11	30.17	13.52	43.97
2.972	24.39	6.41	4.69	4.07	29.33	9.47	43.96
3.019	24.39	6.41	5.57	4.03	29.38	1.9	43.95
3.039	24.39	6.41	5.0	3.99	29.14	10.42	43.96
3.046	24.39	6.41	5.15	3.94	28.68	13.85	43.97
3.066	24.39	6.41	6.33	3.91	27.73	13.24	43.97
3.122	24.39	6.42	5.11	3.89	25.97	13.19	43.97
3.206	24.39	6.42	4.69	3.86	24.46	14.24	43.97
3.28	24.39	6.41	5.38	3.85	24.44	13.87	43.96
3.288	24.39	6.42	4.96	3.91	25.34	13.29	43.97
3.291	24.39	6.42	4.92	3.95	23.49	12.95	43.97
3.342	24.39	6.42	4.62	3.99	20.91	13.2	43.98
3.435	24.39	6.42	4.65	4.01	18.55	13.63	43.97
3.551	24.39	6.42	5.04	4.03	16.64	13.12	43.97
3.586	24.39	6.42	4.92	4.17	19.78	13.42	43.98
3.636	24.39	6.42	4.77	4.17	17.2	13.83	43.97
3.737	24.39	6.41	4.88	4.18	14.49	13.05	43.97
3.872	24.39	6.42	5.3	4.19	12.53	13.15	43.97
3.992	24.39	6.41	4.84	4.2	11.46	13.3	43.97
4.02	24.39	6.41	5.04	4.22	14.15	14.24	43.97
4.085	24.39	6.42	4.69	4.21	12.14	13.61	43.98
4.211	24.39	6.42	5.0	4.2	10.29	13.07	43.98
4.353	24.39	6.42	5.23	4.19	9.11	13.07	43.97
4.416	24.38	6.41	4.96	4.15	10.43	12.69	43.98
4.421	24.38	6.42	5.26	4.14	10.45	12.86	43.99
4.474	24.38	6.42	4.58	4.16	9.79	13.99	43.98
4.557	24.39	6.42	5.19	4.2	9.15	14.7	43.98
4.636	24.39	6.42	4.81	4.24	8.5	13.46	43.97
4.691	24.39	6.41	4.81	4.28	8.16	14.35	43.96
4.735	24.39	6.41	5.04	4.3	7.61	14.12	43.96
4.794	24.39	6.41	5.07	4.3	7.16	13.04	43.97
4.868	24.39	6.42	4.69	4.28	6.99	13.67	43.97
4.936	24.39	6.42	4.42	4.25	6.97	14.69	43.97
4.997	24.39	6.41	5.04	4.21	6.93	14.64	43.97
5.027	24.39	6.41	4.81	4.08	7.0	13.13	43.97
5.066	24.39	6.42	5.34	4.05	6.56	13.46	43.98
5.15	24.39	6.42	5.8	4.03	6.07	13.48	43.98
5.242	24.39	6.42	4.92	4.01	5.77	15.01	43.98
5.315	24.39	6.42	4.92	4.0	5.6	15.43	43.97
5.377	24.39	6.42	4.77	4.02	5.38	14.53	43.97
5.437	24.39	6.42	4.96	4.04	5.35	14.84	43.97
5.49	24.39	6.42	4.73	4.06	5.3	14.39	43.97
5.535	24.39	6.42	5.07	4.08	5.28	14.17	43.97

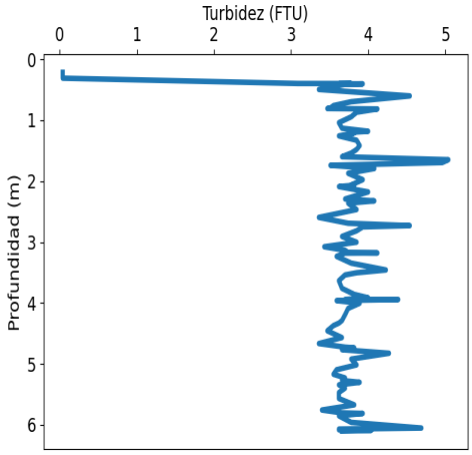
5.567	24.39	6.42	7.52	4.09	5.28	13.65	43.97
5.579	24.39	6.42	4.96	4.14	5.25	13.27	43.98
5.59	24.39	6.42	5.26	4.16	5.12	13.15	43.98
5.645	24.39	6.42	5.0	4.18	4.76	13.15	43.98
5.738	24.39	6.42	4.92	4.2	4.47	13.04	43.98
5.855	24.4	6.42	4.96	4.22	4.26	12.86	43.98
5.952	24.4	6.42	4.62	4.25	4.2	13.4	43.98
5.973	24.4	6.42	5.0	4.36	4.41	12.32	43.98
6.017	24.39	6.42	4.92	4.37	4.19	12.79	43.98
6.068	24.39	6.42	5.34	4.38	4.14	13.2	43.98
6.087	24.4	6.42	5.07	4.41	4.02	12.78	43.98

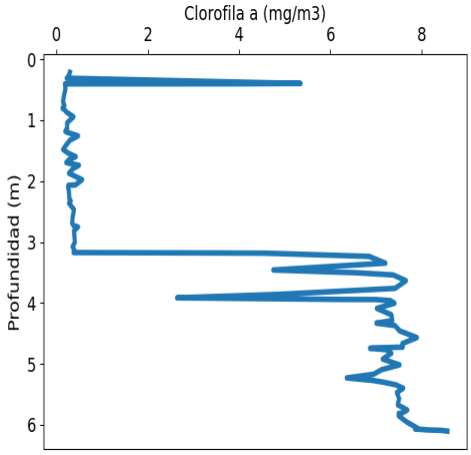
Nombre: CTD E12 - Punto 013 **Fecha: 04/10/2021** **Hora: 09:10:47**

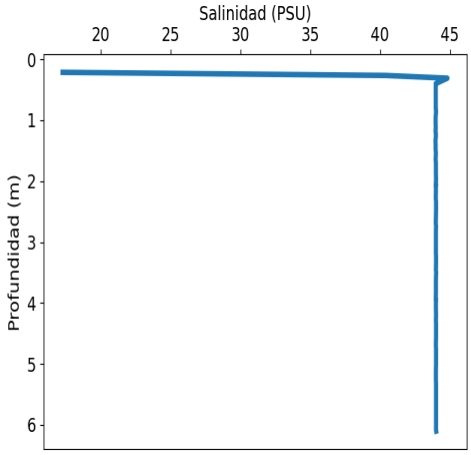


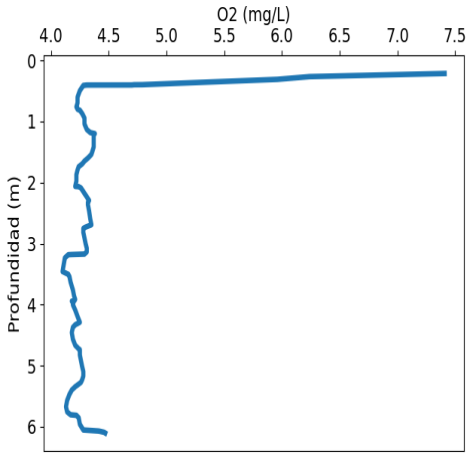


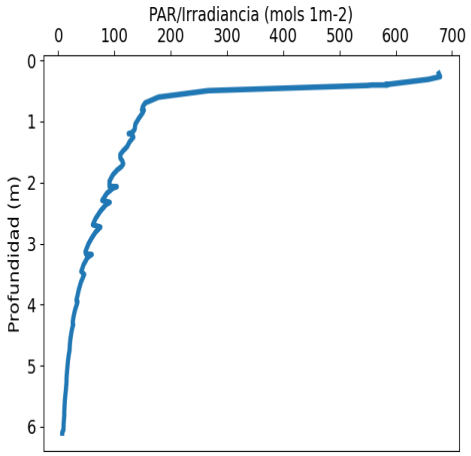












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	19.57	2.51	0.04	4.1	7.12	0.13	17.26
PROF (metros)	0.214	0.214	0.214	3.458	6.103	0.799	0.214
MÁXIMO	24.54	24.54	5.04	7.41	678.86	8.57	44.83
PROF (metros)	2.089	0.397	1.648	0.214	0.265	6.103	0.31

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E12 - Punto 013	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	23.9	6.14	3.07	4.74	374.38	1.02	42.26
1 - 2m	24.52	6.43	3.93	4.31	118.56	0.3	43.99
2 - 3m	24.54	6.44	3.83	4.3	79.3	0.34	44.0
3 - 4m	24.54	6.44	3.8	4.2	44.04	4.74	44.0
4 - 5m	24.53	6.44	3.71	4.22	23.31	7.31	44.01
5 - 6m	24.53	6.44	3.69	4.22	12.92	7.35	44.01
6 - 7m	24.52	6.44	3.88	4.41	7.93	8.14	44.01

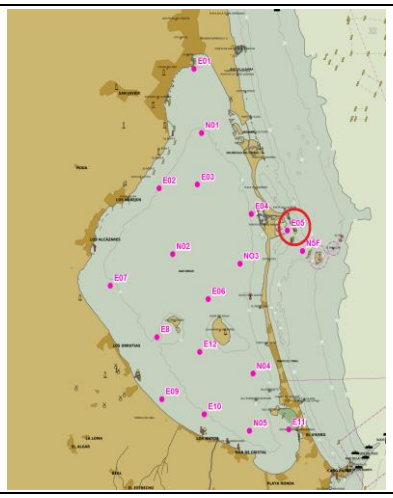
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 3 - 4m, 4 - 5m, 5 - 6m, 6 - 7m con los valores 4.74, 7.31, 7.35, 8.14 respectivamente

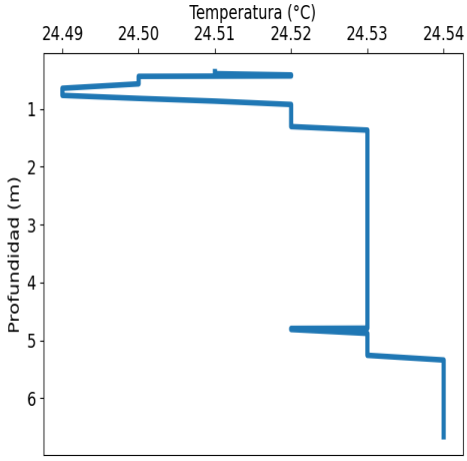
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.214	19.57	2.51	0.04	7.41	676.51	0.29	17.26
0.265	21.12	5.57	0.04	6.24	678.86	0.27	40.4
0.31	22.43	6.27	0.04	5.96	657.95	0.22	44.83
0.397	24.51	6.44	3.09	4.79	581.22	5.35	44.01
0.398	24.53	6.44	3.78	4.72	585.95	5.1	44.01
0.402	24.53	6.44	3.62	4.7	583.11	4.1	44.01
0.403	24.51	6.43	3.93	4.31	557.34	0.18	43.99
0.41	24.51	6.43	3.7	4.28	549.64	0.19	43.99
0.495	24.51	6.43	3.36	4.25	266.33	0.19	43.99
0.601	24.51	6.43	4.54	4.23	178.31	0.16	43.99
0.696	24.51	6.43	3.78	4.23	154.48	0.14	43.99
0.76	24.5	6.43	3.55	4.22	150.07	0.17	43.99
0.799	24.5	6.43	3.51	4.23	150.98	0.13	43.99
0.808	24.5	6.43	3.47	4.24	148.65	0.13	43.99
0.815	24.5	6.43	4.12	4.25	152.24	0.16	44.0
0.869	24.51	6.43	3.85	4.27	149.34	0.22	44.01
0.944	24.52	6.43	3.78	4.29	143.54	0.37	43.98
1.04	24.52	6.43	3.62	4.29	137.19	0.23	43.98
1.131	24.52	6.43	3.66	4.31	135.77	0.23	43.99
1.181	24.52	6.43	4.0	4.34	131.34	0.19	43.97
1.199	24.52	6.43	3.78	4.38	125.1	0.23	43.99
1.21	24.52	6.43	3.82	4.37	131.56	0.28	43.99
1.257	24.52	6.43	3.62	4.37	133.62	0.47	44.0
1.329	24.52	6.43	3.85	4.37	127.15	0.29	43.97
1.416	24.52	6.43	3.89	4.37	122.15	0.2	43.98
1.48	24.52	6.43	3.85	4.36	115.36	0.14	43.98
1.539	24.52	6.44	3.78	4.35	110.41	0.25	44.0
1.599	24.52	6.43	3.66	4.32	110.44	0.42	43.99
1.648	24.52	6.43	5.04	4.29	114.13	0.27	43.98
1.695	24.52	6.43	4.96	4.27	115.65	0.21	44.0
1.74	24.52	6.44	3.51	4.24	112.22	0.49	44.0
1.793	24.52	6.43	4.08	4.23	104.97	0.36	44.0
1.871	24.52	6.44	3.74	4.22	97.29	0.27	44.0

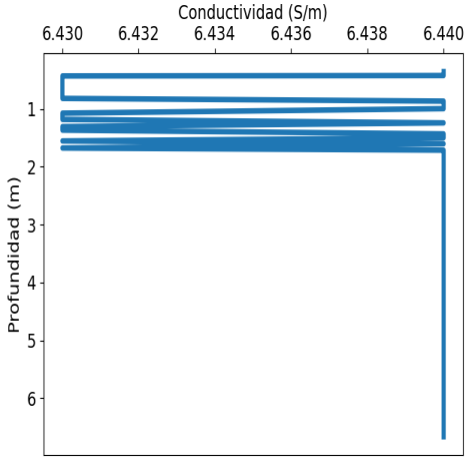
1.976	24.52	6.44	3.93	4.22	91.22	0.56	44.01
2.063	24.52	6.43	3.78	4.21	91.09	0.41	43.99
2.067	24.53	6.44	3.82	4.24	104.2	0.26	44.02
2.089	24.54	6.44	3.62	4.26	97.63	0.25	44.0
2.177	24.54	6.44	4.0	4.29	86.36	0.27	44.0
2.293	24.54	6.44	3.7	4.33	78.22	0.28	43.99
2.324	24.53	6.44	4.08	4.32	91.62	0.31	44.01
2.362	24.53	6.44	3.74	4.32	84.89	0.27	44.01
2.466	24.54	6.44	3.85	4.33	75.15	0.38	44.01
2.595	24.54	6.44	3.36	4.34	66.06	0.35	44.0
2.691	24.54	6.44	3.74	4.35	61.57	0.34	43.99
2.73	24.54	6.44	4.54	4.3	75.01	0.37	44.01
2.751	24.54	6.44	3.93	4.28	72.77	0.47	44.01
2.815	24.54	6.44	3.85	4.28	66.11	0.38	44.0
2.908	24.54	6.44	3.66	4.29	59.58	0.39	44.0
3.002	24.54	6.44	3.85	4.3	53.87	0.4	44.0
3.077	24.54	6.44	3.43	4.31	50.65	0.35	44.0
3.135	24.54	6.44	3.7	4.31	48.38	0.39	44.0
3.172	24.54	6.44	3.74	4.29	49.28	0.37	44.0
3.179	24.54	6.44	4.12	4.18	59.69	3.31	44.0
3.182	24.54	6.44	3.7	4.15	58.13	4.55	44.0
3.235	24.54	6.44	3.59	4.12	51.65	6.85	44.01
3.346	24.54	6.44	3.78	4.11	45.06	7.21	44.01
3.458	24.54	6.44	4.23	4.1	40.94	4.75	44.0
3.504	24.53	6.44	3.85	4.15	46.25	6.58	44.02
3.54	24.53	6.44	3.7	4.16	44.57	7.38	44.01
3.634	24.53	6.44	3.62	4.17	40.3	7.66	44.0
3.76	24.54	6.44	3.66	4.19	36.41	7.42	44.0
3.859	24.54	6.44	3.82	4.2	34.13	4.85	44.0
3.915	24.54	6.44	4.0	4.21	32.53	2.64	43.99
3.942	24.53	6.44	3.7	4.2	32.54	6.28	44.0
3.943	24.53	6.44	4.39	4.18	34.16	6.98	44.01
3.961	24.53	6.44	3.59	4.19	34.16	7.32	44.01
4.004	24.53	6.44	3.89	4.19	32.78	7.41	44.0
4.089	24.53	6.44	3.74	4.21	29.8	7.02	44.0
4.193	24.53	6.44	3.7	4.23	27.33	7.34	44.01
4.289	24.53	6.44	3.66	4.25	25.64	7.36	44.0
4.33	24.52	6.44	3.62	4.21	26.7	7.01	44.01
4.371	24.52	6.44	3.55	4.19	25.2	7.42	44.01
4.457	24.53	6.44	3.47	4.18	23.37	7.52	44.01
4.568	24.53	6.44	3.66	4.19	21.57	7.9	44.01
4.666	24.53	6.44	3.36	4.21	20.58	7.58	44.0
4.725	24.53	6.44	3.7	4.24	20.26	7.59	44.0
4.737	24.52	6.44	3.82	4.25	20.4	6.93	44.01
4.744	24.52	6.44	3.7	4.25	20.18	6.87	44.01
4.767	24.52	6.44	3.66	4.25	19.76	7.23	44.01
4.825	24.52	6.44	4.27	4.25	18.69	7.34	44.01
4.921	24.53	6.44	3.78	4.26	17.35	7.15	44.01
5.016	24.53	6.44	3.85	4.27	16.41	7.52	44.01
5.096	24.53	6.44	3.59	4.28	15.66	7.12	44.0
5.17	24.52	6.44	3.55	4.28	14.99	6.95	44.0
5.23	24.52	6.44	3.7	4.27	14.74	6.36	44.0
5.272	24.52	6.44	3.66	4.26	14.69	6.94	44.0
5.302	24.52	6.44	3.89	4.24	14.43	7.18	44.01
5.344	24.52	6.44	3.62	4.21	14.08	7.44	44.01
5.399	24.52	6.44	3.7	4.18	13.59	7.6	44.01
5.47	24.52	6.44	3.62	4.16	12.78	7.46	44.01
5.568	24.53	6.44	3.62	4.14	11.81	7.51	44.01

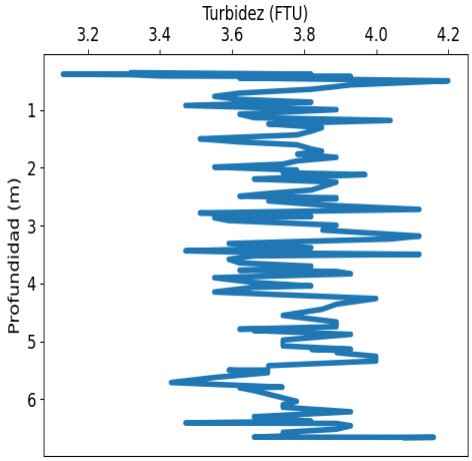
5.672	24.53	6.44	3.82	4.13	11.2	7.48	44.01
5.757	24.53	6.44	3.4	4.14	10.76	7.69	44.01
5.804	24.53	6.44	3.66	4.17	10.7	7.58	44.01
5.813	24.53	6.44	3.93	4.22	10.91	7.5	44.01
5.853	24.53	6.44	3.62	4.24	10.37	7.5	44.01
5.96	24.53	6.44	3.78	4.25	9.59	7.69	44.01
6.053	24.53	6.44	4.69	4.28	9.32	7.91	44.01
6.07	24.52	6.44	3.62	4.41	8.28	7.86	44.01
6.073	24.52	6.44	3.62	4.42	8.03	7.96	44.01
6.082	24.52	6.44	3.62	4.44	7.65	8.1	44.01
6.091	24.52	6.44	4.04	4.46	7.16	8.44	44.01
6.103	24.52	6.44	3.66	4.47	7.12	8.57	44.02

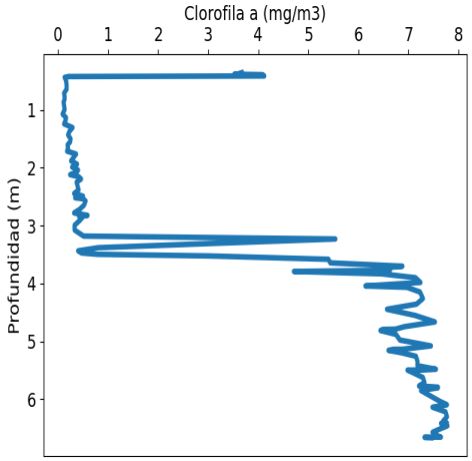
Nombre: CTD E06 - Punto 014 **Fecha: 04/10/2021** **Hora: 09:10:22**

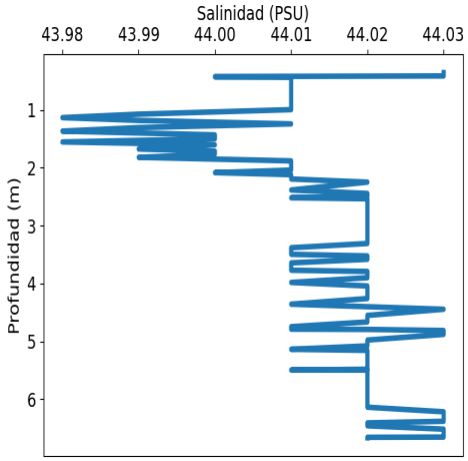


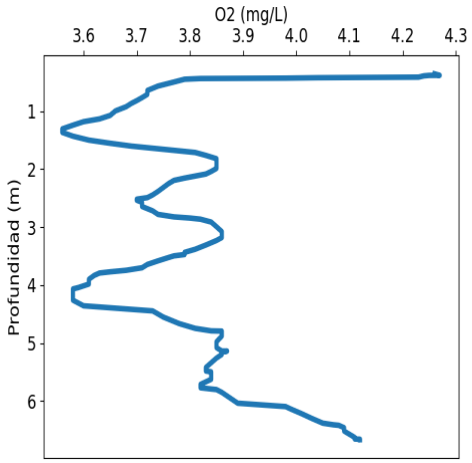


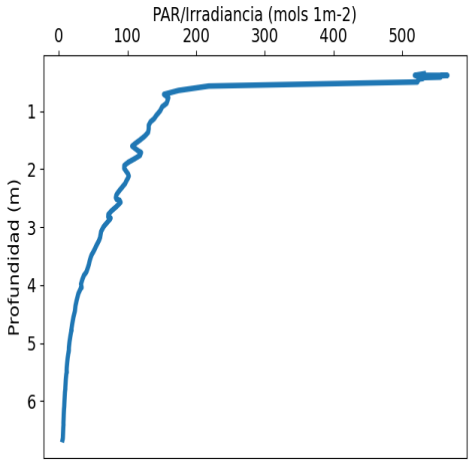












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.49	6.43	3.13	3.56	5.6	0.09	43.98
PROF (metros)	0.645	0.432	0.385	1.307	6.664	1.075	1.135
MÁXIMO	24.54	24.54	4.2	4.27	565.8	7.78	44.03
PROF (metros)	5.339	0.358	0.499	0.384	0.385	6.458	0.358

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E06 - Punto 014	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	24.51	6.44	3.66	3.9	370.88	1.16	44.01
1 - 2m	24.53	6.44	3.75	3.7	119.04	0.23	44.0
2 - 3m	24.53	6.44	3.77	3.77	85.32	0.42	44.02
3 - 4m	24.53	6.44	3.77	3.74	46.39	3.95	44.01
4 - 5m	24.53	6.44	3.79	3.73	22.46	6.87	44.02
5 - 6m	24.54	6.44	3.74	3.84	11.82	7.17	44.02
6 - 7m	24.54	6.44	3.82	4.06	6.77	7.63	44.03

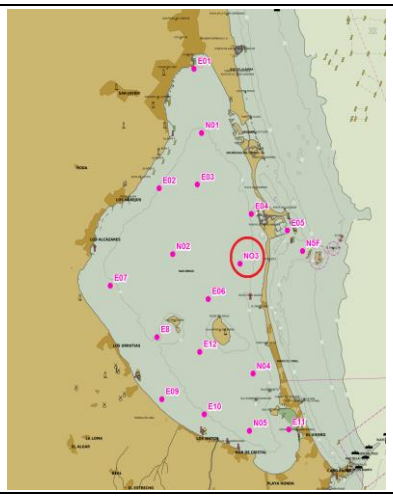
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 3.9, 3.7, 3.77, 3.74, 3.73, 3.84 respectivamente. CLOROFILA elevada en la(s) columna(s) de agua 3 - 4m, 4 - 5m, 5 - 6m, 6 - 7m con los valores 3.95, 6.87, 7.17, 7.63 respectivamente

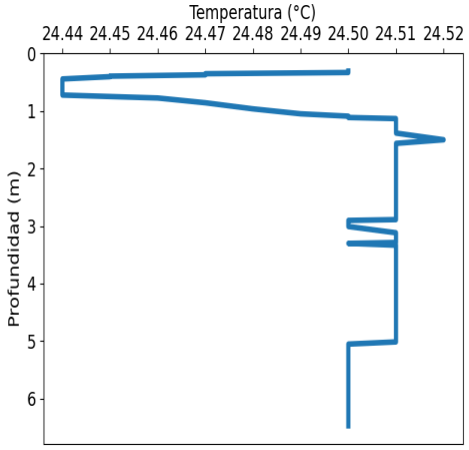
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.358	24.51	6.44	3.32	4.26	531.48	3.67	44.03
0.384	24.51	6.44	3.82	4.27	518.22	3.58	44.03
0.385	24.51	6.44	3.13	4.25	565.8	3.52	44.03
0.393	24.51	6.44	3.32	4.24	556.18	4.09	44.03
0.415	24.52	6.44	3.4	4.23	555.53	4.12	44.03
0.425	24.52	6.44	3.93	4.04	525.11	0.2	44.0
0.432	24.52	6.43	3.7	3.98	529.63	0.18	44.0
0.439	24.5	6.43	3.82	3.82	530.0	0.13	44.01
0.451	24.5	6.43	3.62	3.79	523.29	0.14	44.01
0.499	24.5	6.43	4.2	3.77	521.96	0.16	44.01
0.569	24.5	6.43	3.93	3.74	218.25	0.17	44.01
0.645	24.49	6.43	3.82	3.72	174.23	0.17	44.01
0.712	24.49	6.43	3.62	3.72	153.16	0.12	44.01
0.768	24.49	6.43	3.55	3.71	159.58	0.13	44.01
0.82	24.5	6.43	3.62	3.7	158.32	0.13	44.01
0.867	24.51	6.44	3.82	3.69	156.9	0.11	44.01
0.925	24.52	6.44	3.47	3.68	150.63	0.12	44.01
0.997	24.52	6.44	3.89	3.66	147.55	0.13	44.01
1.075	24.52	6.43	3.62	3.65	142.05	0.09	43.99
1.135	24.52	6.43	3.66	3.63	138.57	0.16	43.98
1.183	24.52	6.43	4.04	3.6	133.77	0.15	43.99
1.243	24.52	6.44	3.7	3.58	130.98	0.12	44.01
1.307	24.52	6.43	3.85	3.56	130.95	0.29	43.99
1.368	24.53	6.43	3.82	3.56	130.07	0.23	43.98
1.433	24.53	6.44	3.78	3.58	125.08	0.2	44.0
1.501	24.53	6.44	3.51	3.61	118.06	0.25	44.0
1.555	24.53	6.43	3.62	3.65	111.88	0.24	43.98
1.604	24.53	6.44	3.78	3.69	106.84	0.19	44.0
1.677	24.53	6.43	3.82	3.77	114.74	0.2	43.99
1.714	24.53	6.44	3.85	3.81	119.91	0.18	44.0

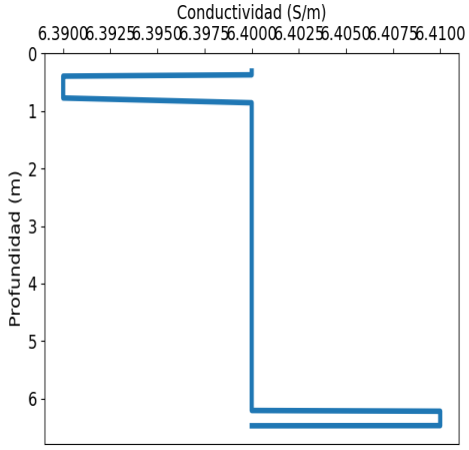
1.764	24.53	6.44	3.78	3.83	118.28	0.36	44.0
1.821	24.53	6.44	3.89	3.85	110.46	0.31	43.99
1.882	24.53	6.44	3.78	3.85	101.34	0.26	44.01
1.938	24.53	6.44	3.74	3.85	95.43	0.38	44.01
1.989	24.53	6.44	3.55	3.85	95.3	0.28	44.01
2.041	24.53	6.44	3.78	3.84	98.4	0.4	44.01
2.085	24.53	6.44	3.74	3.83	100.99	0.36	44.0
2.12	24.53	6.44	3.97	3.81	102.02	0.24	44.01
2.155	24.53	6.44	3.82	3.79	100.75	0.41	44.01
2.195	24.53	6.44	3.66	3.77	98.83	0.46	44.01
2.249	24.53	6.44	3.89	3.76	96.66	0.37	44.02
2.385	24.53	6.44	3.82	3.74	87.35	0.41	44.01
2.445	24.53	6.44	3.7	3.73	83.88	0.32	44.02
2.492	24.53	6.44	3.62	3.72	83.08	0.5	44.02
2.519	24.53	6.44	3.89	3.7	84.07	0.34	44.01
2.537	24.53	6.44	3.89	3.7	88.59	0.5	44.02
2.573	24.53	6.44	3.7	3.71	90.04	0.55	44.02
2.645	24.53	6.44	3.85	3.71	84.05	0.52	44.02
2.72	24.53	6.44	4.12	3.73	76.86	0.43	44.02
2.781	24.53	6.44	3.51	3.74	72.23	0.32	44.02
2.824	24.53	6.44	3.7	3.77	72.0	0.59	44.02
2.844	24.53	6.44	3.82	3.8	75.57	0.42	44.02
2.864	24.53	6.44	3.55	3.82	74.65	0.48	44.02
2.913	24.53	6.44	3.59	3.84	71.0	0.43	44.02
2.993	24.53	6.44	3.89	3.85	65.32	0.33	44.02
3.077	24.53	6.44	3.85	3.86	61.64	0.33	44.02
3.181	24.53	6.44	4.12	3.86	60.16	0.51	44.02
3.231	24.53	6.44	4.04	3.85	58.6	5.54	44.02
3.309	24.53	6.44	3.59	3.83	55.2	3.05	44.02
3.382	24.53	6.44	3.82	3.81	52.29	0.8	44.01
3.436	24.53	6.44	3.47	3.79	49.99	0.4	44.01
3.473	24.53	6.44	3.74	3.79	48.08	0.47	44.01
3.496	24.53	6.44	4.12	3.77	47.33	0.79	44.01
3.524	24.53	6.44	3.66	3.76	46.5	3.02	44.02
3.582	24.53	6.44	3.59	3.74	45.03	5.4	44.02
3.644	24.53	6.44	3.62	3.72	43.86	5.44	44.01
3.701	24.53	6.44	3.82	3.71	42.36	6.88	44.01
3.745	24.53	6.44	3.74	3.68	41.08	6.35	44.01
3.771	24.53	6.44	3.62	3.65	40.34	6.63	44.01
3.792	24.53	6.44	3.89	3.63	39.15	4.71	44.02
3.833	24.53	6.44	3.93	3.62	36.63	6.46	44.02
3.9	24.53	6.44	3.55	3.61	34.43	7.14	44.02
3.982	24.53	6.44	3.66	3.61	32.41	7.24	44.01
4.043	24.53	6.44	3.82	3.59	33.35	6.14	44.02
4.066	24.53	6.44	3.66	3.58	31.63	6.97	44.02
4.147	24.53	6.44	3.55	3.58	28.57	7.23	44.02
4.26	24.53	6.44	4.0	3.58	26.12	7.29	44.02
4.357	24.53	6.44	3.89	3.6	24.37	7.16	44.01
4.445	24.53	6.44	3.85	3.73	23.59	6.57	44.03
4.551	24.53	6.44	3.74	3.75	21.41	7.13	44.02
4.664	24.53	6.44	3.89	3.78	19.71	7.53	44.02
4.746	24.53	6.44	3.89	3.81	18.66	6.92	44.01
4.789	24.53	6.44	3.62	3.84	18.12	6.74	44.01
4.793	24.52	6.44	3.82	3.86	18.44	6.49	44.02
4.812	24.52	6.44	3.66	3.86	17.89	6.44	44.03
4.879	24.53	6.44	3.93	3.86	16.94	6.75	44.03
4.977	24.53	6.44	3.74	3.85	15.68	6.83	44.02
5.078	24.53	6.44	3.74	3.85	14.8	7.45	44.02

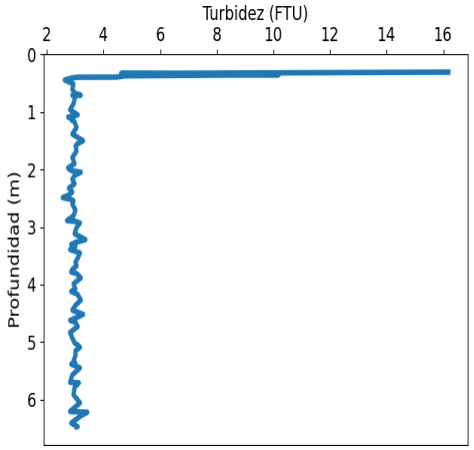
5.136	24.53	6.44	3.93	3.86	14.74	6.88	44.01
5.137	24.53	6.44	3.82	3.87	14.6	6.7	44.01
5.155	24.53	6.44	3.89	3.86	14.27	6.6	44.02
5.196	24.53	6.44	3.89	3.86	13.74	6.86	44.02
5.258	24.53	6.44	4.0	3.85	12.98	7.15	44.02
5.339	24.54	6.44	4.0	3.84	12.28	7.18	44.02
5.42	24.54	6.44	3.7	3.83	11.66	7.18	44.02
5.481	24.54	6.44	3.7	3.83	11.44	7.55	44.02
5.495	24.54	6.44	3.7	3.84	11.81	7.26	44.01
5.496	24.54	6.44	3.59	3.84	11.58	6.98	44.02
5.54	24.54	6.44	3.7	3.84	10.99	7.09	44.02
5.624	24.54	6.44	3.55	3.84	10.3	7.29	44.02
5.711	24.54	6.44	3.43	3.82	9.88	7.32	44.02
5.77	24.54	6.44	3.66	3.82	9.6	7.21	44.02
5.791	24.54	6.44	3.74	3.84	9.64	7.59	44.02
5.801	24.54	6.44	3.62	3.85	9.46	7.59	44.02
5.849	24.54	6.44	3.66	3.86	9.04	7.25	44.02
6.036	24.54	6.44	3.78	3.89	8.2	7.63	44.02
6.094	24.54	6.44	3.74	3.98	8.0	7.77	44.02
6.137	24.54	6.44	3.74	3.99	7.67	7.48	44.02
6.216	24.54	6.44	3.93	4.01	7.34	7.74	44.03
6.301	24.54	6.44	3.66	4.03	7.09	7.77	44.03
6.38	24.54	6.44	3.82	4.05	6.83	7.69	44.03
6.408	24.54	6.44	3.47	4.07	6.94	7.77	44.02
6.417	24.54	6.44	3.89	4.08	6.84	7.65	44.02
6.458	24.54	6.44	3.93	4.09	6.64	7.78	44.02
6.516	24.54	6.44	3.89	4.09	6.43	7.62	44.03
6.571	24.54	6.44	3.74	4.1	6.25	7.48	44.03
6.626	24.54	6.44	3.78	4.11	6.05	7.57	44.03
6.653	24.54	6.44	3.66	4.11	5.87	7.65	44.03
6.657	24.54	6.44	4.16	4.12	5.73	7.32	44.02
6.664	24.54	6.44	4.08	4.12	5.6	7.46	44.02

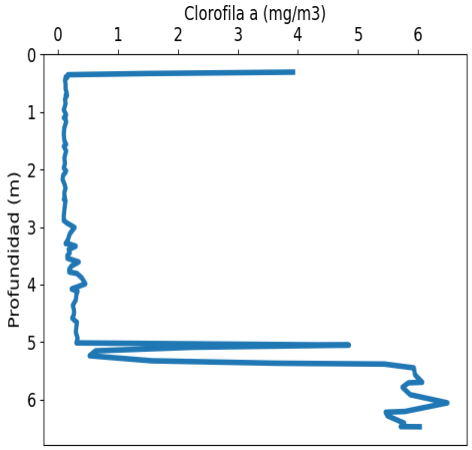
Nombre: CTD N03 - Punto 015 **Fecha: 04/10/2021** **Hora: 09:10:08**

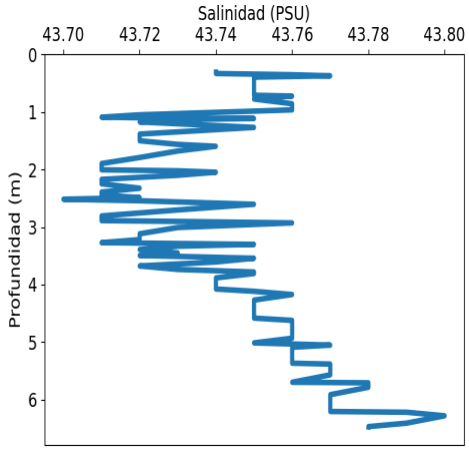


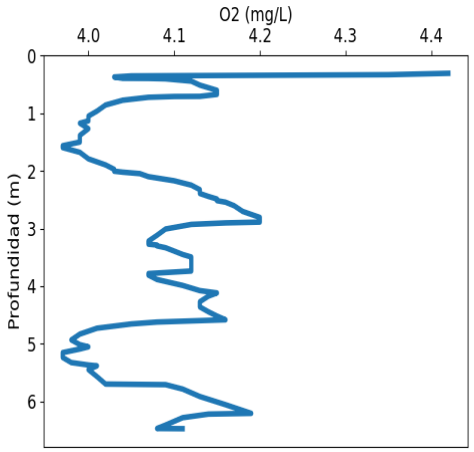


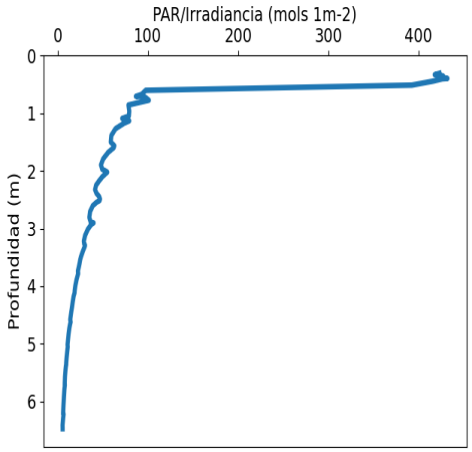












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.44	6.39	2.56	3.97	5.31	0.08	43.7
PROF (metros)	0.443	0.394	2.488	1.563	6.409	2.171	2.516
MÁXIMO	24.52	24.52	16.18	4.42	432.11	6.49	43.8
PROF (metros)	1.5	6.219	0.307	0.307	0.396	6.056	6.281

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N03 - Punto 015	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	24.46	6.4	4.45	4.12	265.69	0.44	43.75
1 - 2m	24.51	6.4	2.96	4.0	64.08	0.12	43.73
2 - 3m	24.51	6.4	2.91	4.13	43.81	0.11	43.72
3 - 4m	24.51	6.4	3.02	4.09	26.18	0.24	43.73
4 - 5m	24.51	6.4	3.0	4.1	14.95	0.29	43.75
5 - 6m	24.5	6.4	3.0	4.02	9.05	3.9	43.77
6 - 7m	24.5	6.4	3.09	4.13	5.82	5.82	43.78

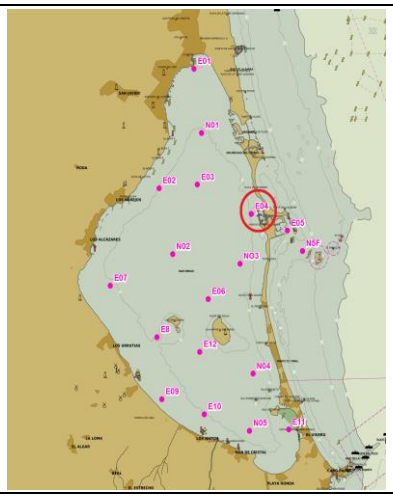
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 5 - 6m, 6 - 7m con los valores 3.9, 5.82 respectivamente

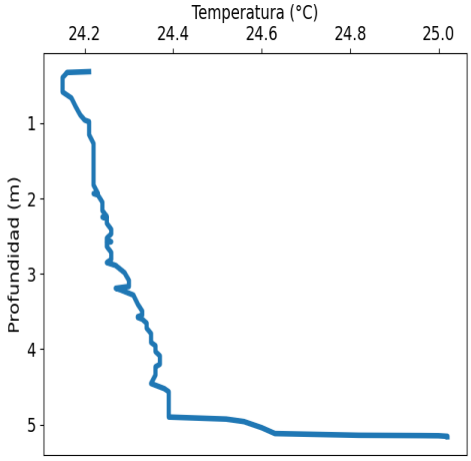
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.307	24.5	6.4	16.18	4.42	423.19	3.92	43.74
0.331	24.5	6.4	4.62	4.35	417.93	1.49	43.74
0.352	24.47	6.4	10.18	4.05	427.13	0.17	43.76
0.371	24.47	6.4	4.77	4.03	426.05	0.16	43.77
0.394	24.45	6.39	4.46	4.04	431.01	0.13	43.75
0.396	24.45	6.39	3.13	4.07	432.11	0.16	43.75
0.403	24.45	6.39	2.94	4.09	426.44	0.15	43.75
0.443	24.44	6.39	2.63	4.12	416.09	0.12	43.75
0.512	24.44	6.39	2.94	4.13	392.58	0.13	43.75
0.602	24.44	6.39	2.9	4.15	97.51	0.13	43.75
0.673	24.44	6.39	2.98	4.15	92.99	0.15	43.75
0.707	24.44	6.39	3.2	4.13	86.56	0.15	43.75
0.709	24.44	6.39	2.9	4.1	91.6	0.13	43.75
0.723	24.44	6.39	3.01	4.07	97.02	0.15	43.76
0.774	24.46	6.39	2.98	4.04	100.96	0.12	43.75
0.857	24.47	6.4	2.94	4.02	78.31	0.13	43.76
0.963	24.48	6.4	2.82	4.01	79.28	0.1	43.76
1.049	24.49	6.4	3.09	4.0	78.86	0.14	43.72
1.09	24.5	6.4	2.75	4.0	71.4	0.12	43.71
1.1	24.5	6.4	2.94	4.0	73.02	0.1	43.72
1.113	24.5	6.4	2.86	4.0	74.77	0.13	43.75
1.132	24.51	6.4	2.86	4.0	79.28	0.13	43.73
1.173	24.51	6.4	2.98	3.99	73.46	0.14	43.72
1.268	24.51	6.4	3.05	4.0	64.04	0.11	43.75
1.384	24.51	6.4	2.9	3.99	59.42	0.1	43.72
1.5	24.52	6.4	3.28	3.99	58.7	0.11	43.72
1.563	24.51	6.4	3.05	3.97	62.71	0.14	43.73
1.596	24.51	6.4	3.01	3.97	62.07	0.1	43.74
1.678	24.51	6.4	3.05	3.99	55.92	0.14	43.73
1.791	24.51	6.4	2.9	4.0	50.35	0.11	43.72
1.896	24.51	6.4	2.98	4.02	47.83	0.12	43.71
1.972	24.51	6.4	2.75	4.03	49.3	0.1	43.71
2.005	24.51	6.4	2.82	4.03	53.35	0.12	43.71
2.022	24.51	6.4	2.9	4.04	54.84	0.14	43.73

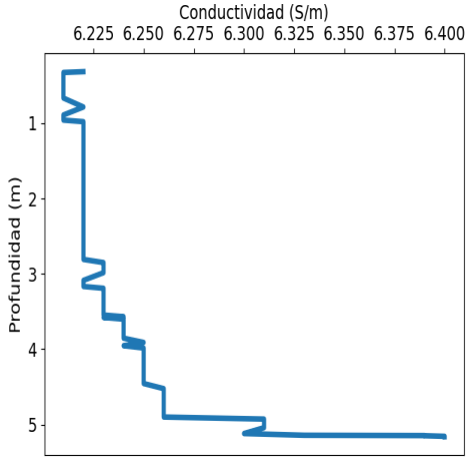
2.047	24.51	6.4	3.2	4.06	53.07	0.13	43.74
2.1	24.51	6.4	2.98	4.07	49.47	0.09	43.73
2.171	24.51	6.4	2.9	4.1	45.91	0.08	43.71
2.247	24.51	6.4	2.98	4.12	42.52	0.11	43.71
2.325	24.51	6.4	2.78	4.13	41.3	0.13	43.72
2.392	24.51	6.4	2.9	4.13	43.05	0.11	43.71
2.443	24.51	6.4	2.78	4.14	45.84	0.11	43.71
2.488	24.51	6.4	2.56	4.15	46.8	0.12	43.72
2.516	24.51	6.4	2.82	4.15	46.28	0.1	43.7
2.543	24.51	6.4	2.94	4.16	43.1	0.13	43.72
2.604	24.51	6.4	2.9	4.17	38.8	0.12	43.75
2.703	24.51	6.4	3.01	4.18	35.88	0.11	43.73
2.807	24.51	6.4	2.94	4.2	34.96	0.1	43.71
2.888	24.51	6.4	2.71	4.2	36.51	0.1	43.71
2.902	24.5	6.4	3.01	4.16	39.69	0.12	43.73
2.928	24.5	6.4	3.17	4.12	37.21	0.15	43.76
3.008	24.5	6.4	3.05	4.09	33.49	0.28	43.73
3.117	24.51	6.4	2.98	4.08	30.32	0.2	43.72
3.218	24.51	6.4	3.36	4.07	28.9	0.17	43.72
3.271	24.51	6.4	2.98	4.07	29.35	0.14	43.71
3.286	24.51	6.4	2.98	4.08	30.13	0.13	43.73
3.301	24.5	6.4	2.86	4.08	30.06	0.21	43.75
3.333	24.51	6.4	3.01	4.09	29.35	0.3	43.73
3.391	24.51	6.4	2.82	4.1	27.86	0.18	43.72
3.45	24.51	6.4	3.17	4.11	26.56	0.2	43.73
3.494	24.51	6.4	3.13	4.12	25.64	0.16	43.72
3.542	24.51	6.4	3.09	4.12	24.83	0.16	43.75
3.607	24.51	6.4	3.01	4.12	24.1	0.35	43.74
3.676	24.51	6.4	3.05	4.12	23.2	0.23	43.72
3.737	24.51	6.4	2.9	4.12	22.31	0.19	43.73
3.781	24.51	6.4	2.86	4.07	22.64	0.19	43.75
3.808	24.51	6.4	3.05	4.07	22.12	0.32	43.75
3.884	24.51	6.4	3.2	4.08	20.82	0.4	43.74
3.987	24.51	6.4	2.94	4.11	19.53	0.46	43.74
4.077	24.51	6.4	3.01	4.13	18.75	0.23	43.74
4.117	24.51	6.4	2.86	4.15	18.59	0.33	43.75
4.173	24.51	6.4	3.09	4.14	17.56	0.31	43.76
4.27	24.51	6.4	3.2	4.13	16.57	0.3	43.75
4.36	24.51	6.4	3.01	4.13	15.82	0.25	43.75
4.444	24.51	6.4	2.9	4.14	14.97	0.27	43.75
4.518	24.51	6.4	3.28	4.15	14.32	0.27	43.75
4.583	24.51	6.4	3.01	4.16	13.77	0.24	43.75
4.622	24.51	6.4	2.82	4.08	14.24	0.28	43.76
4.655	24.51	6.4	3.01	4.05	13.66	0.32	43.76
4.729	24.51	6.4	3.09	4.01	12.82	0.31	43.76
4.831	24.51	6.4	2.82	3.99	11.97	0.3	43.76
4.932	24.51	6.4	2.9	3.98	11.34	0.33	43.76
5.014	24.51	6.4	2.98	3.99	10.82	0.31	43.75
5.052	24.5	6.4	3.09	4.0	11.03	4.85	43.77
5.09	24.5	6.4	3.17	3.99	10.74	2.25	43.76
5.152	24.5	6.4	3.01	3.97	10.34	0.63	43.76
5.237	24.5	6.4	3.01	3.97	9.8	0.53	43.76
5.325	24.5	6.4	2.94	3.98	9.38	1.56	43.76
5.367	24.5	6.4	3.01	4.0	9.28	3.62	43.76
5.382	24.5	6.4	2.86	4.01	9.04	5.44	43.77
5.448	24.5	6.4	3.17	4.0	8.58	5.93	43.77
5.569	24.5	6.4	2.9	4.01	7.98	5.95	43.77
5.698	24.5	6.4	2.82	4.02	7.67	6.07	43.76

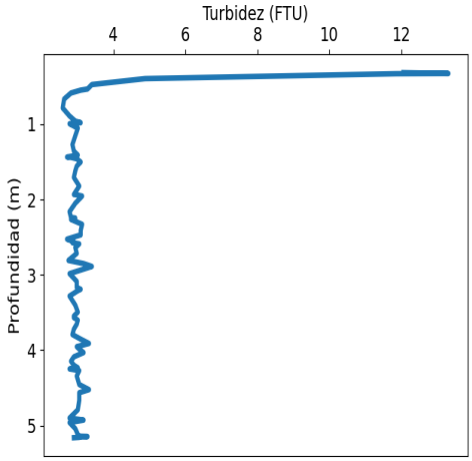
5.708	24.5	6.4	3.13	4.09	7.89	5.84	43.78
5.785	24.5	6.4	2.98	4.11	7.36	5.74	43.78
5.914	24.5	6.4	2.94	4.13	6.83	5.87	43.77
6.056	24.5	6.4	3.17	4.16	6.34	6.49	43.77
6.206	24.5	6.4	2.82	4.19	5.92	5.78	43.77
6.219	24.5	6.41	3.43	4.14	6.43	5.46	43.79
6.281	24.5	6.41	3.2	4.11	5.99	5.49	43.8
6.409	24.5	6.41	2.86	4.09	5.31	5.77	43.79
6.469	24.5	6.41	3.09	4.08	5.38	5.71	43.78
6.472	24.5	6.4	3.05	4.11	5.38	6.03	43.78

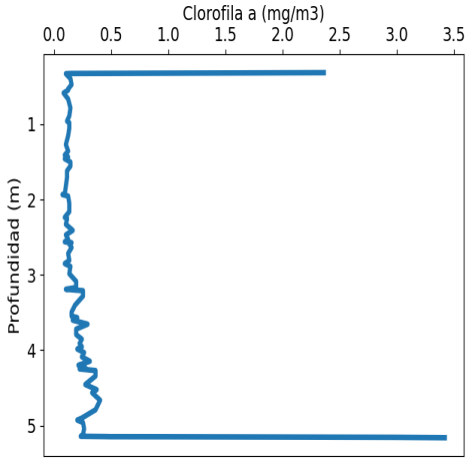
Nombre: CTD E04 - Punto 016 **Fecha: 04/10/2021** **Hora: 09:10:23**

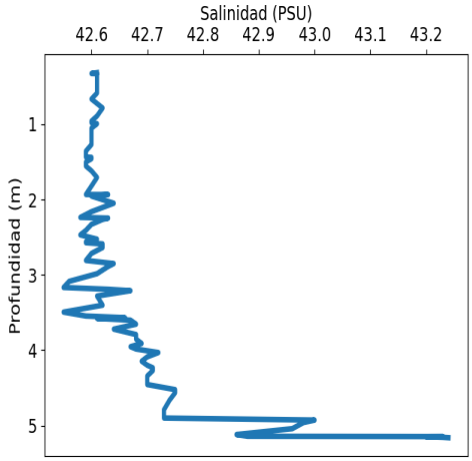


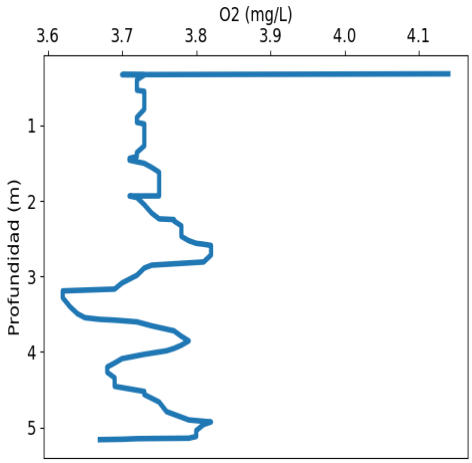


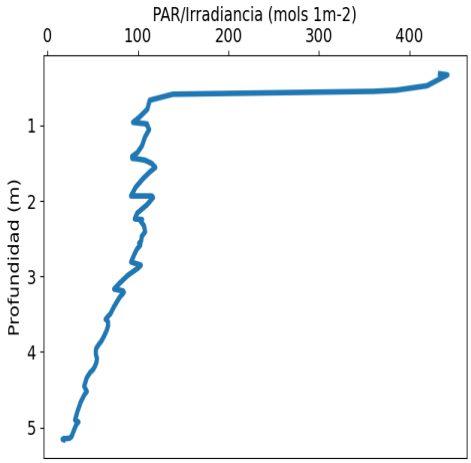












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	24.15	6.21	2.59	3.62	16.61	0.07	42.55
PROF (metros)	0.396	0.328	0.786	3.192	5.157	1.935	3.168
MÁXIMO	25.02	25.02	13.31	4.14	441.94	3.42	43.24
PROF (metros)	5.157	5.157	0.328	0.317	0.331	5.162	5.162

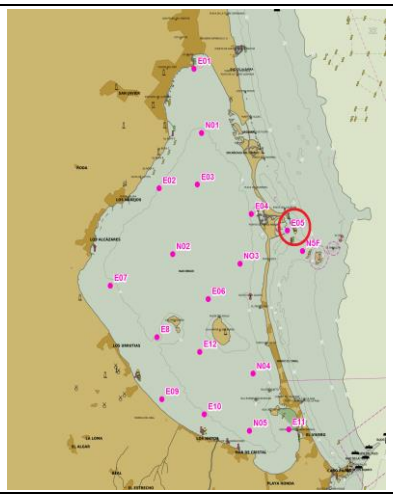
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E04 - Punto 016	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	24.17	6.21	5.11	3.75	263.53	0.28	42.61
1 - 2m	24.22	6.22	2.95	3.73	105.59	0.11	42.6
2 - 3m	24.25	6.22	2.95	3.78	101.07	0.12	42.61
3 - 4m	24.33	6.24	2.98	3.7	67.91	0.2	42.64
4 - 5m	24.39	6.26	2.99	3.73	43.39	0.29	42.75
5 - 6m	24.88	6.36	3.05	3.74	21.56	1.13	43.1

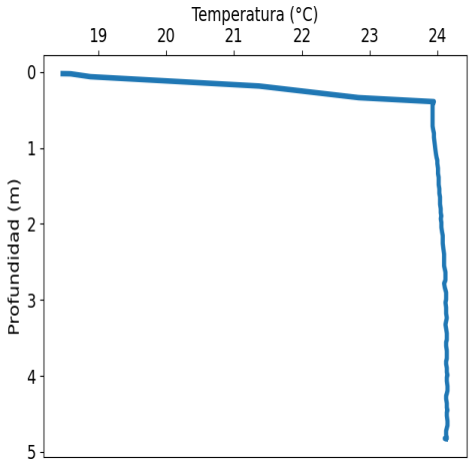
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 3.75, 3.73, 3.78, 3.7, 3.73, 3.74 respectivamente.

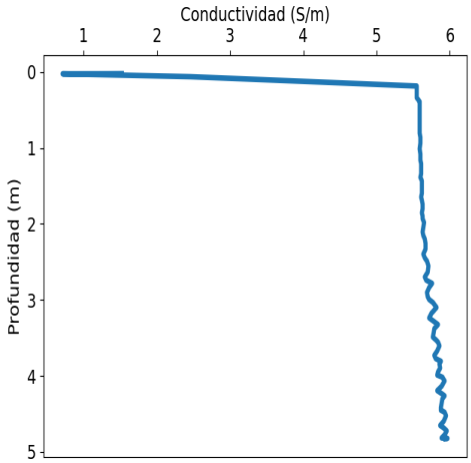
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.317	24.21	6.22	12.06	4.14	433.62	2.36	42.61
0.328	24.16	6.21	13.31	3.7	440.1	0.14	42.6
0.331	24.16	6.21	11.86	3.73	441.94	0.1	42.61
0.396	24.15	6.21	4.88	3.72	431.61	0.14	42.61
0.475	24.15	6.21	3.4	3.72	419.29	0.15	42.61
0.534	24.15	6.21	3.28	3.72	384.92	0.12	42.61
0.549	24.15	6.21	3.09	3.73	360.73	0.12	42.61
0.587	24.15	6.21	2.82	3.73	138.44	0.08	42.61
0.667	24.17	6.21	2.63	3.73	112.92	0.12	42.6
0.786	24.18	6.22	2.59	3.73	110.28	0.14	42.62
0.892	24.19	6.21	2.78	3.72	101.39	0.13	42.61
0.96	24.2	6.21	2.94	3.72	94.47	0.11	42.6
0.981	24.21	6.22	3.09	3.73	109.95	0.13	42.6
0.995	24.21	6.22	2.78	3.73	109.83	0.13	42.61
1.054	24.21	6.22	3.01	3.73	112.3	0.13	42.6
1.154	24.21	6.22	2.94	3.73	107.66	0.12	42.6
1.271	24.22	6.22	2.86	3.73	104.32	0.1	42.6
1.358	24.22	6.22	2.9	3.72	99.43	0.12	42.59
1.411	24.22	6.22	3.01	3.72	93.51	0.09	42.59
1.437	24.22	6.22	2.71	3.71	93.62	0.12	42.59
1.441	24.22	6.22	2.82	3.71	97.94	0.1	42.6
1.46	24.22	6.22	2.98	3.71	107.38	0.09	42.6
1.503	24.22	6.22	3.09	3.73	115.01	0.14	42.59
1.557	24.22	6.22	2.98	3.74	119.11	0.14	42.59
1.62	24.22	6.22	2.94	3.75	112.69	0.11	42.6
1.708	24.22	6.22	2.9	3.75	105.26	0.11	42.61
1.822	24.22	6.22	3.05	3.75	97.22	0.1	42.6
1.934	24.23	6.22	2.9	3.75	92.24	0.09	42.59
1.935	24.22	6.22	2.94	3.71	115.2	0.07	42.63
1.955	24.23	6.22	3.13	3.72	116.62	0.12	42.6
2.05	24.24	6.22	2.94	3.73	109.98	0.13	42.64
2.162	24.24	6.22	2.78	3.74	99.06	0.13	42.6

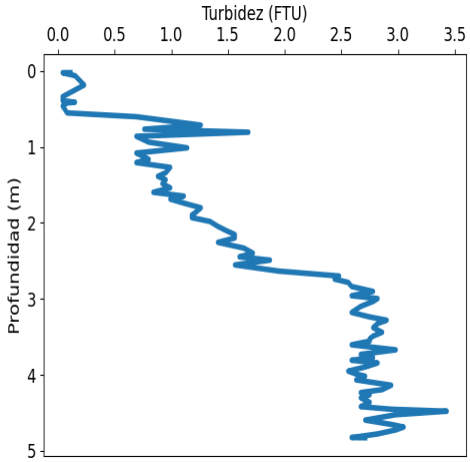
2.238	24.25	6.22	2.82	3.75	96.37	0.09	42.58
2.247	24.24	6.22	2.94	3.77	104.51	0.11	42.63
2.265	24.25	6.22	2.82	3.77	102.64	0.11	42.62
2.33	24.25	6.22	3.13	3.78	106.62	0.1	42.6
2.41	24.26	6.22	3.09	3.78	107.81	0.16	42.59
2.47	24.26	6.22	3.09	3.78	104.12	0.1	42.58
2.527	24.25	6.22	2.71	3.79	103.47	0.12	42.61
2.562	24.25	6.22	2.9	3.8	101.15	0.09	42.59
2.574	24.26	6.22	2.86	3.81	102.59	0.15	42.59
2.59	24.25	6.22	3.05	3.82	102.26	0.13	42.62
2.638	24.25	6.22	2.94	3.82	98.76	0.15	42.62
2.716	24.26	6.22	2.98	3.82	95.63	0.12	42.6
2.809	24.26	6.22	2.75	3.81	92.34	0.13	42.59
2.851	24.25	6.23	3.17	3.74	103.09	0.09	42.64
2.889	24.27	6.23	3.4	3.73	100.03	0.14	42.63
2.985	24.29	6.23	2.78	3.72	88.8	0.13	42.61
3.087	24.3	6.22	2.98	3.7	79.89	0.19	42.56
3.168	24.3	6.22	2.98	3.69	73.53	0.19	42.55
3.192	24.27	6.23	3.09	3.62	83.35	0.1	42.63
3.211	24.28	6.23	3.01	3.62	84.36	0.25	42.67
3.282	24.31	6.23	2.78	3.62	79.34	0.25	42.61
3.403	24.32	6.23	2.94	3.63	73.34	0.18	42.62
3.495	24.33	6.23	3.01	3.64	69.44	0.15	42.55
3.547	24.33	6.23	2.9	3.65	65.53	0.15	42.59
3.569	24.32	6.24	2.9	3.67	64.13	0.2	42.66
3.579	24.32	6.23	2.94	3.69	65.47	0.18	42.61
3.602	24.33	6.24	3.01	3.72	66.86	0.16	42.67
3.655	24.34	6.24	2.98	3.74	66.93	0.29	42.68
3.721	24.34	6.24	2.9	3.77	65.12	0.19	42.64
3.793	24.35	6.24	2.86	3.78	62.34	0.19	42.68
3.854	24.35	6.24	3.09	3.79	59.64	0.24	42.68
3.911	24.35	6.25	3.32	3.78	56.08	0.22	42.69
3.954	24.36	6.24	2.98	3.77	53.76	0.24	42.67
3.985	24.36	6.25	3.05	3.76	53.32	0.2	42.68
4.032	24.36	6.25	3.17	3.73	53.38	0.26	42.72
4.089	24.37	6.25	2.9	3.7	54.65	0.24	42.7
4.147	24.37	6.25	2.82	3.69	53.89	0.31	42.69
4.2	24.37	6.25	2.9	3.68	51.98	0.21	42.7
4.234	24.36	6.25	3.01	3.68	50.28	0.27	42.71
4.249	24.36	6.25	2.78	3.68	49.02	0.22	42.71
4.271	24.36	6.25	3.05	3.68	47.13	0.36	42.71
4.343	24.36	6.25	2.98	3.69	43.29	0.36	42.7
4.456	24.35	6.25	3.05	3.69	40.43	0.27	42.7
4.524	24.38	6.26	3.32	3.73	43.46	0.37	42.75
4.565	24.39	6.26	3.05	3.73	40.84	0.33	42.75
4.664	24.39	6.26	3.05	3.75	36.65	0.4	42.74
4.791	24.39	6.26	3.01	3.76	32.99	0.36	42.73
4.901	24.39	6.26	2.78	3.79	30.38	0.24	42.73
4.928	24.52	6.31	3.17	3.82	34.16	0.2	43.0
4.961	24.56	6.31	2.78	3.81	31.8	0.25	42.98
5.042	24.6	6.31	2.94	3.8	29.01	0.26	42.96
5.12	24.63	6.3	3.01	3.8	26.59	0.25	42.86
5.143	24.82	6.33	3.05	3.79	24.28	0.23	42.88
5.147	24.96	6.39	3.28	3.74	21.13	0.46	43.23
5.148	24.98	6.39	3.05	3.73	19.41	0.48	43.21
5.149	25.0	6.39	3.09	3.72	17.77	0.96	43.2
5.157	25.02	6.4	3.05	3.7	16.6	2.99	43.23
5.162	25.02	6.4	2.9	3.67	17.68	3.42	43.24

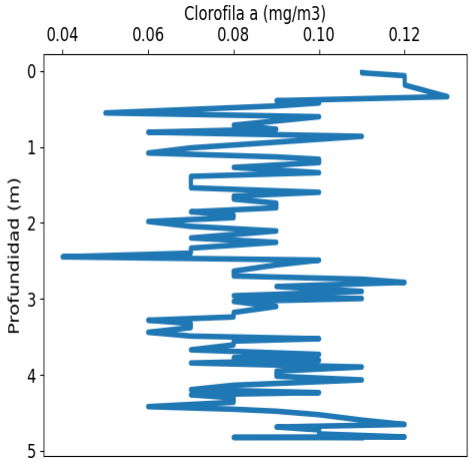
Nombre: CTD E05 - Punto 017 **Fecha: 04/10/2021** **Hora: 09:10:58**

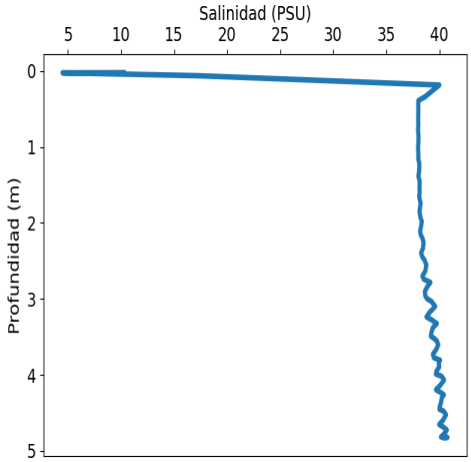


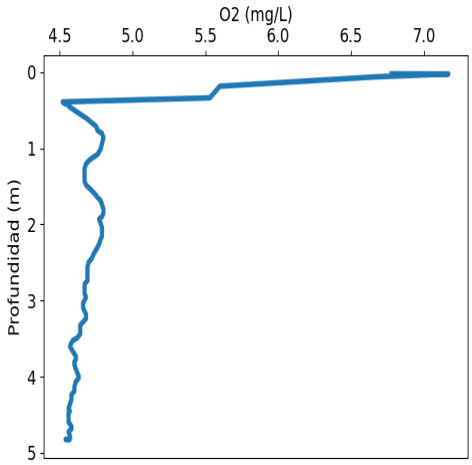


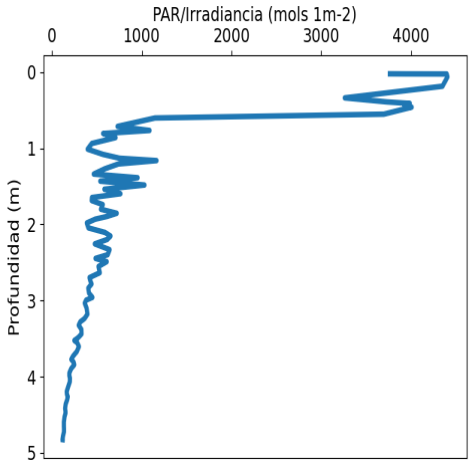












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	18.47	0.71	0.04	4.52	117.33	0.04	4.49
PROF (metros)	0.021	0.023	0.022	0.39	4.817	2.446	0.023
MÁXIMO	24.15	24.15	3.43	7.17	4407.6	0.13	40.77
PROF (metros)	3.989	4.823	4.478	0.023	0.061	0.337	4.823

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E05 - Punto 017	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	22.47	4.63	0.4	5.3	2832.67	0.1	31.64
1 - 2m	24.02	5.62	1.0	4.74	637.07	0.08	38.12
2 - 3m	24.1	5.68	2.0	4.72	504.03	0.08	38.55
3 - 4m	24.13	5.81	2.74	4.62	284.9	0.08	39.55
4 - 5m	24.14	5.91	2.81	4.57	148.32	0.09	40.31

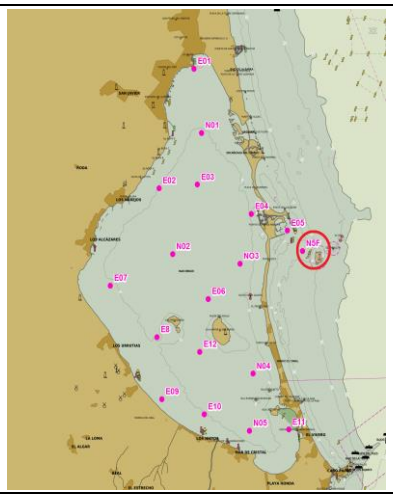
OBSERVACIONES GENERALES

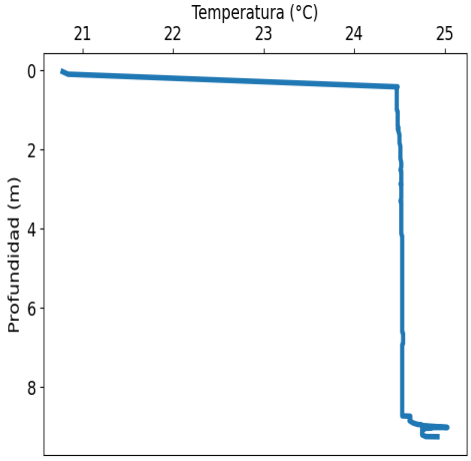
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.021	18.47	1.52	0.11	6.78	3765.7	0.11	10.25
0.022	18.55	1.35	0.04	6.93	3937.1	0.11	9.05
0.023	18.59	0.71	0.04	7.17	4399.4	0.11	4.49
0.061	18.88	2.46	0.15	6.67	4407.6	0.12	17.2
0.184	21.37	5.55	0.23	5.6	4351.7	0.12	40.0
0.337	22.84	5.55	0.04	5.53	3262.4	0.13	38.67
0.39	23.95	5.59	0.04	4.52	3731.9	0.09	38.02
0.41	23.94	5.59	0.15	4.53	3988.5	0.1	38.02
0.42	23.93	5.59	0.08	4.55	3919.8	0.1	38.02
0.459	23.93	5.59	0.04	4.57	4008.9	0.09	38.02
0.551	23.93	5.59	0.08	4.64	3698.3	0.05	38.02
0.601	23.93	5.59	0.69	4.68	1147.3	0.1	38.01
0.712	23.93	5.59	1.26	4.75	729.6	0.08	38.02
0.765	23.94	5.59	0.76	4.76	1087.2	0.09	38.0
0.805	23.95	5.59	1.68	4.79	568.3	0.06	38.01
0.859	23.95	5.6	0.69	4.8	708.27	0.11	38.04
0.936	23.96	5.6	0.8	4.79	443.37	0.09	38.03
1.011	23.97	5.59	1.14	4.78	396.51	0.07	38.0
1.079	23.98	5.6	0.69	4.76	567.11	0.06	38.02
1.13	23.99	5.6	0.76	4.72	753.14	0.09	38.03
1.161	24.0	5.6	0.8	4.7	1165.0	0.1	38.02
1.205	24.0	5.61	0.69	4.68	739.99	0.1	38.1
1.268	24.01	5.61	0.99	4.67	589.22	0.08	38.12
1.338	24.01	5.61	0.95	4.67	464.3	0.1	38.08
1.386	24.02	5.6	0.88	4.67	954.22	0.07	38.03
1.431	24.02	5.62	0.95	4.67	537.05	0.07	38.12
1.482	24.02	5.62	0.92	4.68	1030.5	0.07	38.15
1.537	24.03	5.62	0.99	4.71	582.43	0.07	38.13
1.596	24.03	5.62	0.84	4.74	763.16	0.1	38.15
1.646	24.04	5.61	1.11	4.76	444.61	0.08	38.1
1.686	24.04	5.62	0.99	4.78	441.53	0.08	38.15
1.739	24.04	5.63	1.11	4.79	565.93	0.09	38.24
1.8	24.05	5.63	1.26	4.8	544.07	0.09	38.18
1.853	24.05	5.62	1.22	4.8	721.7	0.07	38.13
1.895	24.06	5.63	1.18	4.79	611.2	0.08	38.19
1.93	24.05	5.63	1.18	4.77	482.4	0.08	38.23
1.98	24.06	5.65	1.34	4.78	387.24	0.06	38.35

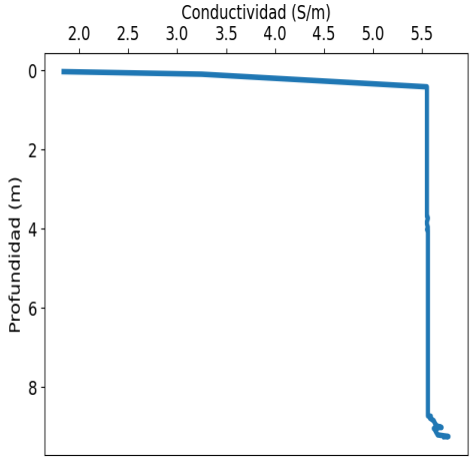
2.045	24.06	5.64	1.41	4.79	405.15	0.07	38.28
2.105	24.07	5.63	1.49	4.79	590.18	0.09	38.19
2.152	24.08	5.64	1.56	4.79	652.18	0.08	38.24
2.197	24.08	5.66	1.56	4.78	615.04	0.07	38.4
2.255	24.08	5.67	1.41	4.77	475.85	0.09	38.52
2.331	24.09	5.67	1.64	4.75	641.53	0.07	38.46
2.397	24.1	5.64	1.72	4.73	620.76	0.07	38.28
2.446	24.1	5.66	1.6	4.72	483.86	0.04	38.4
2.489	24.1	5.69	1.87	4.7	609.5	0.1	38.61
2.552	24.1	5.71	1.56	4.69	517.26	0.09	38.78
2.634	24.12	5.7	1.95	4.69	532.46	0.08	38.68
2.698	24.12	5.66	2.48	4.69	417.25	0.08	38.41
2.74	24.12	5.68	2.44	4.69	426.54	0.11	38.53
2.782	24.1	5.76	2.56	4.67	440.51	0.12	39.16
2.836	24.11	5.72	2.59	4.67	403.46	0.09	38.88
2.901	24.13	5.69	2.78	4.67	411.58	0.11	38.64
2.958	24.13	5.7	2.59	4.68	450.42	0.08	38.68
2.995	24.13	5.72	2.82	4.67	378.99	0.11	38.83
3.033	24.12	5.77	2.78	4.66	364.01	0.08	39.26
3.099	24.13	5.82	2.67	4.66	385.01	0.09	39.61
3.178	24.13	5.75	2.59	4.68	394.77	0.08	39.08
3.237	24.14	5.72	2.75	4.68	361.15	0.08	38.79
3.28	24.13	5.78	2.9	4.66	313.97	0.06	39.33
3.324	24.12	5.84	2.82	4.64	296.84	0.07	39.77
3.378	24.13	5.79	2.78	4.64	326.74	0.07	39.39
3.439	24.14	5.78	2.86	4.64	328.64	0.06	39.26
3.489	24.14	5.77	2.78	4.62	288.84	0.07	39.2
3.524	24.14	5.81	2.75	4.59	247.64	0.1	39.55
3.555	24.13	5.84	2.75	4.58	280.98	0.08	39.77
3.604	24.13	5.86	2.59	4.57	299.68	0.08	39.9
3.67	24.14	5.83	2.98	4.59	275.56	0.07	39.69
3.73	24.14	5.79	2.67	4.61	233.91	0.1	39.39
3.773	24.14	5.81	2.78	4.61	213.94	0.08	39.49
3.807	24.13	5.88	2.59	4.6	239.79	0.1	40.07
3.843	24.13	5.86	2.82	4.6	248.04	0.07	39.95
3.896	24.14	5.87	2.71	4.61	212.31	0.11	39.99
3.95	24.14	5.84	2.56	4.62	193.16	0.09	39.73
3.989	24.15	5.83	2.63	4.63	193.11	0.09	39.68
4.017	24.14	5.9	2.71	4.63	199.3	0.09	40.21
4.066	24.14	5.93	2.63	4.61	198.24	0.11	40.45
4.136	24.15	5.89	2.94	4.6	178.85	0.08	40.09
4.194	24.15	5.83	2.86	4.6	163.47	0.07	39.69
4.233	24.14	5.89	2.67	4.58	166.07	0.1	40.14
4.262	24.13	5.93	2.75	4.58	175.77	0.07	40.43
4.302	24.13	5.9	2.67	4.58	168.94	0.08	40.23
4.36	24.14	5.89	2.75	4.57	151.85	0.08	40.17
4.418	24.14	5.88	2.67	4.56	145.58	0.06	40.04
4.452	24.15	5.88	2.94	4.57	149.44	0.08	40.02
4.478	24.14	5.93	3.43	4.56	150.42	0.09	40.41
4.524	24.14	5.95	2.98	4.56	139.63	0.1	40.63
4.595	24.15	5.92	2.71	4.56	131.95	0.11	40.36
4.652	24.15	5.87	2.94	4.58	131.99	0.12	39.99
4.686	24.14	5.92	3.05	4.58	133.0	0.09	40.37
4.724	24.13	5.96	2.98	4.56	132.75	0.1	40.71
4.777	24.13	5.93	2.82	4.57	122.75	0.1	40.46
4.817	24.14	5.89	2.63	4.57	117.33	0.12	40.16
4.823	24.11	5.97	2.59	4.54	117.87	0.08	40.77
4.825	24.12	5.95	2.59	4.54	119.8	0.1	40.58

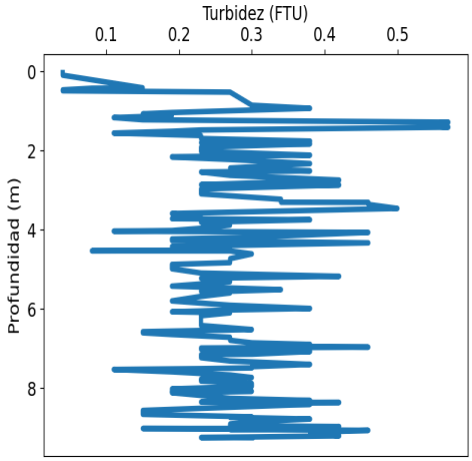
4.827	24.13	5.94	2.71	4.56	119.66	0.11	40.5

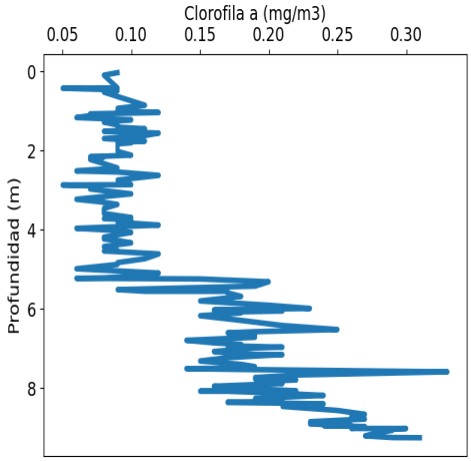
Nombre: CTD N5F - Punto 018 **Fecha: 04/10/2021** **Hora: 10:10:06**

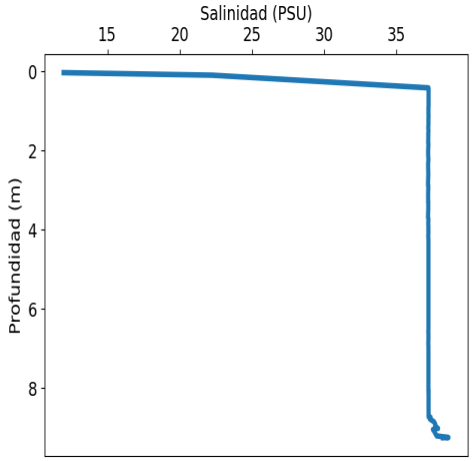


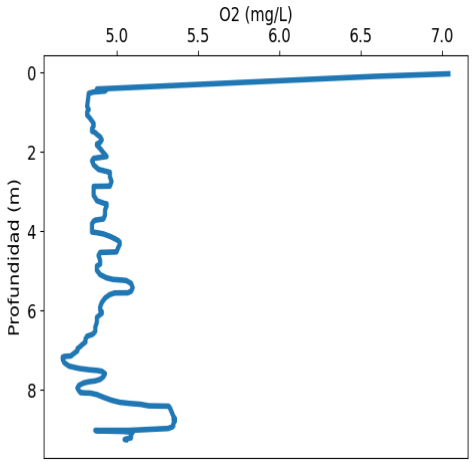


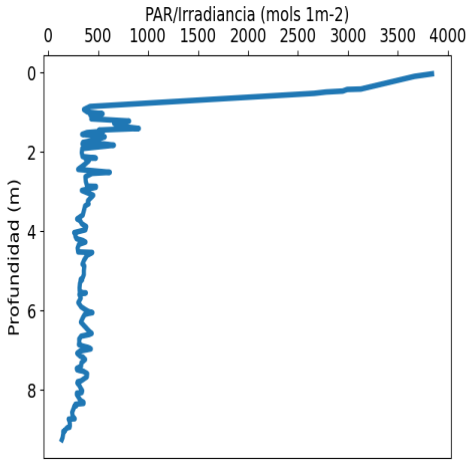












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	20.78	1.84	0.04	4.67	136.91	0.05	11.96
PROF (metros)	0.029	0.029	0.029	7.173	9.256	0.423	0.029
MÁXIMO	25.03	25.03	0.57	7.04	3841.6	0.33	38.64
PROF (metros)	9.022	9.252	1.281	0.029	0.029	7.591	9.252

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N5F - Punto 018	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	23.74	4.95	0.16	5.25	2319.08	0.08	33.23
1 - 2m	24.49	5.55	0.28	4.86	530.09	0.09	37.24
2 - 3m	24.52	5.55	0.3	4.91	405.52	0.08	37.24
3 - 4m	24.52	5.55	0.31	4.89	364.67	0.09	37.24
4 - 5m	24.53	5.56	0.25	4.94	334.47	0.09	37.25
5 - 6m	24.53	5.56	0.27	4.99	335.9	0.14	37.25
6 - 7m	24.53	5.56	0.26	4.84	374.78	0.18	37.25
7 - 8m	24.53	5.56	0.27	4.79	327.65	0.19	37.25
8 - 9m	24.57	5.58	0.28	5.15	269.19	0.22	37.36
9 - 10m	24.83	5.68	0.33	5.03	152.52	0.29	37.89

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)
0.029	20.78	1.84	0.04	7.04	3841.6	0.09	11.96
0.093	20.84	3.25	0.04	6.59	3665.0	0.08	22.26
0.413	24.48	5.55	0.15	4.88	3129.1	0.09	37.25
0.423	24.47	5.55	0.08	4.94	2992.2	0.05	37.26
0.464	24.47	5.55	0.04	4.93	2947.5	0.09	37.26
0.487	24.47	5.55	0.04	4.86	2781.6	0.09	37.26
0.521	24.47	5.55	0.27	4.83	2663.0	0.08	37.26
0.853	24.47	5.55	0.3	4.82	419.48	0.11	37.26
0.93	24.47	5.55	0.38	4.83	357.4	0.09	37.25
0.992	24.47	5.55	0.27	4.82	393.94	0.09	37.25
1.037	24.48	5.55	0.19	4.82	545.33	0.12	37.25
1.07	24.48	5.55	0.15	4.82	421.82	0.07	37.25
1.114	24.48	5.55	0.19	4.83	497.39	0.07	37.26
1.164	24.48	5.55	0.11	4.84	430.91	0.06	37.25
1.22	24.48	5.55	0.15	4.85	810.75	0.1	37.25
1.281	24.48	5.55	0.57	4.86	660.39	0.08	37.25
1.349	24.48	5.55	0.53	4.86	712.39	0.09	37.25
1.407	24.48	5.55	0.57	4.85	907.84	0.09	37.24
1.447	24.49	5.55	0.38	4.85	508.7	0.11	37.24
1.478	24.48	5.55	0.23	4.85	552.45	0.1	37.25
1.511	24.49	5.55	0.19	4.87	388.5	0.08	37.25
1.556	24.49	5.55	0.11	4.88	339.87	0.12	37.24
1.618	24.5	5.55	0.23	4.9	566.72	0.11	37.24
1.694	24.5	5.55	0.23	4.91	481.51	0.08	37.24
1.759	24.5	5.55	0.38	4.9	348.24	0.11	37.23
1.796	24.5	5.55	0.23	4.88	342.48	0.09	37.23
1.798	24.5	5.55	0.27	4.88	557.6	0.1	37.24
1.829	24.5	5.55	0.38	4.88	658.25	0.09	37.25
1.914	24.51	5.55	0.23	4.9	340.66	0.09	37.24
2.019	24.51	5.55	0.23	4.92	335.96	0.09	37.23
2.114	24.51	5.55	0.38	4.94	343.83	0.1	37.23
2.155	24.51	5.55	0.19	4.87	478.06	0.07	37.24

2.161	24.51	5.55	0.19	4.86	371.08	0.08	37.24
2.223	24.51	5.55	0.27	4.85	406.28	0.07	37.25
2.327	24.52	5.55	0.38	4.86	358.65	0.08	37.23
2.439	24.52	5.55	0.27	4.89	299.68	0.09	37.23
2.513	24.51	5.55	0.38	4.96	617.61	0.06	37.24
2.54	24.52	5.55	0.23	4.96	438.88	0.09	37.24
2.625	24.52	5.55	0.27	4.96	372.71	0.12	37.24
2.744	24.52	5.55	0.42	4.97	376.71	0.09	37.23
2.861	24.52	5.55	0.23	4.96	389.4	0.1	37.22
2.868	24.51	5.55	0.42	4.86	479.28	0.05	37.24
2.89	24.52	5.55	0.38	4.86	478.17	0.07	37.24
2.97	24.52	5.55	0.23	4.86	336.5	0.07	37.24
3.092	24.52	5.55	0.23	4.86	451.88	0.1	37.23
3.229	24.52	5.55	0.34	4.88	398.26	0.06	37.23
3.304	24.51	5.55	0.34	4.93	395.96	0.08	37.24
3.307	24.52	5.55	0.46	4.94	405.62	0.08	37.23
3.36	24.52	5.55	0.46	4.94	369.28	0.09	37.24
3.461	24.52	5.55	0.5	4.93	359.65	0.08	37.24
3.589	24.52	5.55	0.19	4.93	346.71	0.08	37.23
3.69	24.52	5.55	0.23	4.92	288.9	0.1	37.22
3.719	24.52	5.56	0.19	4.87	310.5	0.08	37.25
3.747	24.52	5.56	0.38	4.86	323.57	0.1	37.25
3.81	24.52	5.55	0.23	4.85	336.58	0.09	37.24
3.882	24.52	5.55	0.27	4.85	381.01	0.12	37.24
3.963	24.52	5.56	0.23	4.85	372.8	0.06	37.25
4.02	24.52	5.55	0.19	4.85	284.45	0.09	37.24
4.035	24.52	5.56	0.11	4.88	259.75	0.09	37.25
4.067	24.52	5.56	0.46	4.92	274.03	0.1	37.25
4.128	24.52	5.56	0.38	4.96	272.51	0.09	37.24
4.187	24.53	5.56	0.3	4.99	284.06	0.08	37.24
4.233	24.53	5.56	0.19	5.01	345.75	0.08	37.25
4.272	24.53	5.56	0.19	5.02	373.41	0.09	37.25
4.331	24.53	5.56	0.46	5.02	307.7	0.1	37.25
4.424	24.53	5.56	0.19	5.01	294.51	0.08	37.25
4.521	24.53	5.56	0.27	5.0	299.82	0.09	37.25
4.533	24.53	5.56	0.08	4.91	438.57	0.08	37.25
4.535	24.53	5.56	0.27	4.9	441.63	0.08	37.25
4.61	24.53	5.56	0.3	4.89	388.14	0.12	37.25
4.731	24.53	5.56	0.27	4.9	358.98	0.11	37.25
4.831	24.53	5.56	0.27	4.9	343.04	0.09	37.25
4.876	24.53	5.56	0.19	4.88	362.58	0.09	37.25
4.986	24.53	5.56	0.19	4.88	356.99	0.06	37.25
5.094	24.53	5.56	0.23	4.9	357.07	0.12	37.25
5.176	24.53	5.56	0.42	4.94	344.95	0.1	37.25
5.216	24.53	5.56	0.27	4.98	324.7	0.08	37.25
5.227	24.53	5.56	0.23	5.02	339.71	0.06	37.25
5.243	24.53	5.56	0.27	5.06	327.19	0.15	37.25
5.314	24.53	5.56	0.27	5.09	318.0	0.2	37.25
5.425	24.53	5.56	0.19	5.1	314.04	0.19	37.25
5.513	24.53	5.56	0.34	5.09	315.21	0.09	37.25
5.553	24.53	5.56	0.27	5.07	347.92	0.11	37.25
5.555	24.53	5.56	0.23	5.03	377.76	0.11	37.25
5.556	24.53	5.56	0.23	4.99	356.57	0.17	37.25
5.596	24.53	5.56	0.27	4.96	312.23	0.17	37.25
5.684	24.53	5.56	0.23	4.93	326.82	0.18	37.25
5.799	24.53	5.56	0.19	4.91	301.21	0.15	37.25
5.908	24.53	5.56	0.27	4.9	331.16	0.2	37.25
5.989	24.53	5.56	0.38	4.9	379.87	0.23	37.25

6.027	24.53	5.56	0.27	4.91	407.5	0.16	37.25
6.053	24.53	5.56	0.23	4.91	443.89	0.21	37.25
6.073	24.53	5.56	0.19	4.91	401.13	0.18	37.25
6.1	24.53	5.56	0.27	4.9	365.53	0.18	37.25
6.173	24.53	5.56	0.23	4.88	348.65	0.15	37.25
6.292	24.53	5.56	0.23	4.88	327.19	0.18	37.25
6.42	24.53	5.56	0.23	4.87	373.06	0.21	37.25
6.522	24.53	5.56	0.3	4.87	410.35	0.25	37.25
6.576	24.53	5.56	0.15	4.86	436.44	0.19	37.24
6.605	24.53	5.56	0.15	4.85	409.02	0.17	37.25
6.647	24.54	5.56	0.19	4.82	330.55	0.19	37.25
6.718	24.54	5.56	0.27	4.81	310.21	0.19	37.25
6.794	24.54	5.56	0.27	4.81	311.58	0.14	37.25
6.858	24.54	5.56	0.3	4.79	307.06	0.16	37.24
6.898	24.54	5.56	0.38	4.78	349.21	0.18	37.24
6.932	24.53	5.56	0.3	4.77	401.32	0.17	37.25
6.967	24.53	5.56	0.46	4.76	427.33	0.21	37.25
6.989	24.53	5.56	0.23	4.76	386.08	0.19	37.25
7.019	24.53	5.56	0.23	4.76	319.85	0.18	37.25
7.077	24.53	5.56	0.38	4.74	290.11	0.16	37.25
7.145	24.53	5.56	0.3	4.72	319.18	0.18	37.25
7.157	24.53	5.56	0.23	4.68	327.04	0.21	37.25
7.173	24.53	5.56	0.23	4.67	346.79	0.2	37.25
7.233	24.53	5.56	0.23	4.67	370.05	0.17	37.25
7.317	24.53	5.56	0.27	4.68	332.62	0.15	37.25
7.403	24.53	5.56	0.38	4.71	329.71	0.18	37.25
7.46	24.53	5.56	0.3	4.77	285.91	0.19	37.25
7.492	24.53	5.56	0.3	4.83	288.77	0.19	37.25
7.51	24.53	5.56	0.23	4.88	310.71	0.14	37.25
7.531	24.53	5.56	0.11	4.91	351.73	0.18	37.25
7.591	24.53	5.56	0.19	4.93	390.67	0.33	37.25
7.671	24.53	5.56	0.27	4.92	387.6	0.22	37.25
7.735	24.53	5.56	0.3	4.9	351.32	0.19	37.25
7.774	24.53	5.56	0.23	4.87	328.56	0.19	37.25
7.796	24.53	5.56	0.27	4.83	295.13	0.22	37.25
7.824	24.53	5.56	0.23	4.8	291.39	0.2	37.25
7.886	24.53	5.56	0.3	4.77	310.86	0.21	37.25
7.955	24.53	5.56	0.3	4.76	325.08	0.16	37.25
8.023	24.53	5.56	0.19	4.77	341.05	0.19	37.25
8.07	24.53	5.56	0.27	4.78	336.11	0.22	37.25
8.079	24.53	5.56	0.19	4.81	301.91	0.15	37.25
8.082	24.53	5.56	0.3	4.84	286.97	0.17	37.26
8.119	24.53	5.56	0.19	4.88	286.9	0.2	37.26
8.187	24.53	5.56	0.23	4.92	304.58	0.24	37.26
8.262	24.53	5.56	0.27	4.97	321.18	0.19	37.26
8.314	24.53	5.56	0.38	5.02	354.51	0.2	37.26
8.342	24.53	5.56	0.27	5.08	354.68	0.21	37.26
8.354	24.53	5.56	0.23	5.12	305.22	0.17	37.26
8.365	24.53	5.56	0.42	5.15	272.64	0.17	37.26
8.382	24.53	5.56	0.3	5.17	272.07	0.21	37.26
8.403	24.53	5.56	0.34	5.2	280.65	0.24	37.26
8.412	24.53	5.56	0.38	5.32	261.68	0.21	37.26
8.465	24.53	5.56	0.3	5.33	255.51	0.21	37.26
8.567	24.53	5.56	0.15	5.34	239.73	0.25	37.26
8.665	24.53	5.56	0.15	5.35	245.07	0.27	37.26
8.729	24.53	5.56	0.3	5.36	266.08	0.26	37.26
8.739	24.62	5.59	0.27	5.35	204.58	0.26	37.4
8.784	24.62	5.58	0.38	5.36	213.99	0.27	37.35

8.851	24.61	5.62	0.3	5.35	216.64	0.23	37.63
8.908	24.65	5.63	0.27	5.35	217.64	0.23	37.72
8.945	24.7	5.64	0.27	5.34	214.39	0.26	37.73
8.952	24.74	5.64	0.27	5.33	192.17	0.24	37.71
8.974	24.75	5.64	0.42	5.32	183.77	0.27	37.73
9.022	25.03	5.7	0.38	5.08	167.3	0.26	37.92
9.023	24.87	5.67	0.15	4.87	165.57	0.3	37.79
9.038	24.85	5.66	0.34	4.91	165.68	0.29	37.72
9.048	24.75	5.62	0.27	5.04	150.73	0.29	37.56
9.07	24.77	5.63	0.46	5.1	155.41	0.29	37.61
9.122	24.75	5.64	0.38	5.09	149.86	0.28	37.69
9.209	24.75	5.66	0.42	5.09	144.07	0.27	37.82
9.252	24.79	5.77	0.23	5.05	137.16	0.29	38.64
9.256	24.92	5.73	0.3	5.06	136.91	0.31	38.25