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

Fecha: Martes 30/11/2021

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 9:00 a 13:00 horas.

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

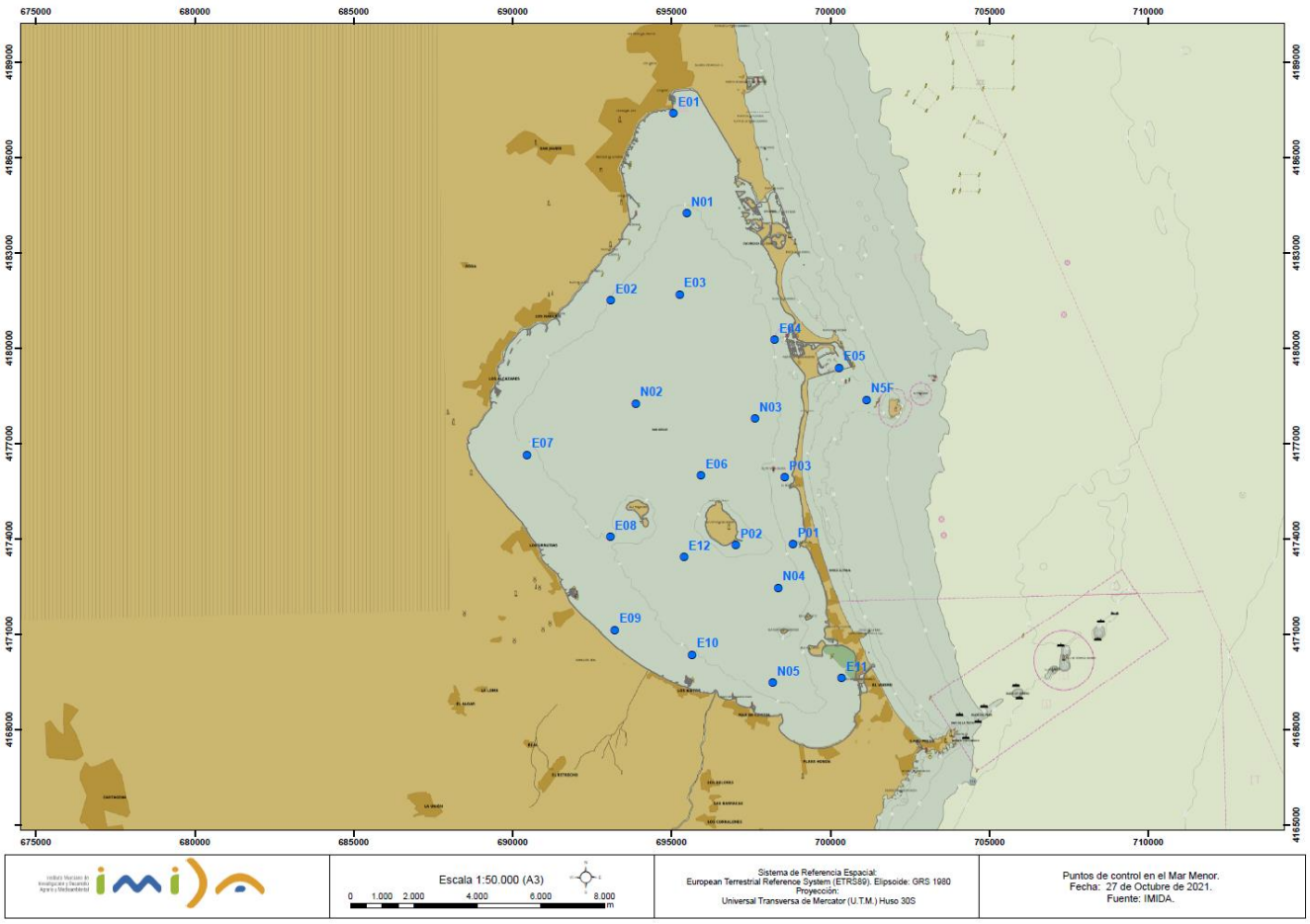
ORDEN	Punto	D. Secchi	Hora	Fondo	Viento (km/h)	Dirección	Sonda
1	E01	2.50	09:29	Si	6	W	2.50
2	N01	5.70	09:39	No	6	W	5.70
3	E03	6.30	09:47	No	6	W	6.30
4	E02	5.80	09:55	No	6	W	5.80
5	N02	6.20	10:04	No	6	W	6.20
6	E07	2.70	10:23	No	10	W	4.80
7	E08	3.80	10:35	No	10	W	5.10
8	E09	2.60	10:43	Si	10	W	2.60
9	E10	1.50	10:50	No	10	W	5.10
10	N05	2.30	10:57	No	10	W	5.80
11	E11	4.30	11:05	No	10	W	4.30
12	N04	3.30	11:14	No	10	W	6.00
13	P01	1.60	11:19	Si	10	W	1.60
14	P02	3.30	11:24	No	10	W	3.30
15	E12	3.20	11:31	No	10	W	6.00
16	E06	3.20	11:38	No	4	W	6.80
17	P03	1.50	11:45	Si	4	W	1.50
18	N03	6.00	11:52	No	4	W	6.40
19	E04	5.60	11:59	No	4	W	5.60
20	E05	5.10	12:18	Si	4	W	5.10
21	N5F	10.30	12:22	Si	4	W	10.30

UBICACIÓN DE LOS TRABAJOS

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

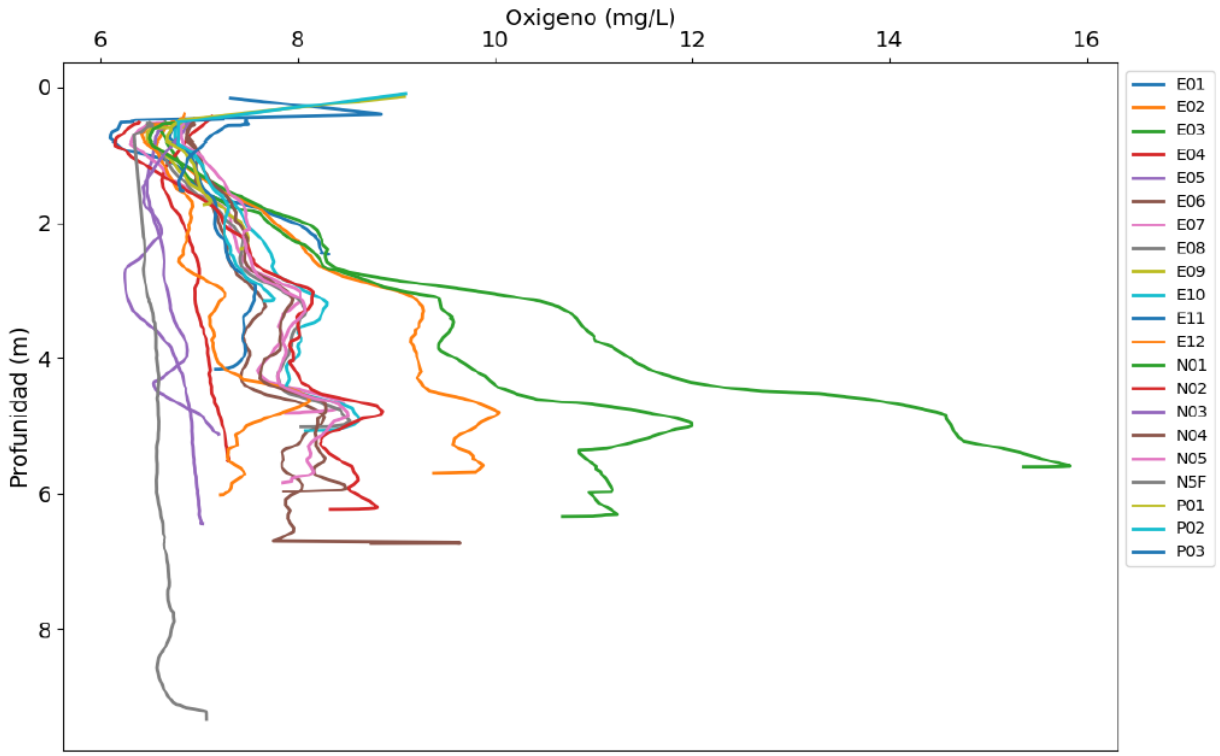
Instalaciones del IMIDA de La Alberca: Diseño y puesta en marcha de la encuesta para la toma de datos, procesamiento, tratamiento, análisis de datos, cartografía y maquetación.

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

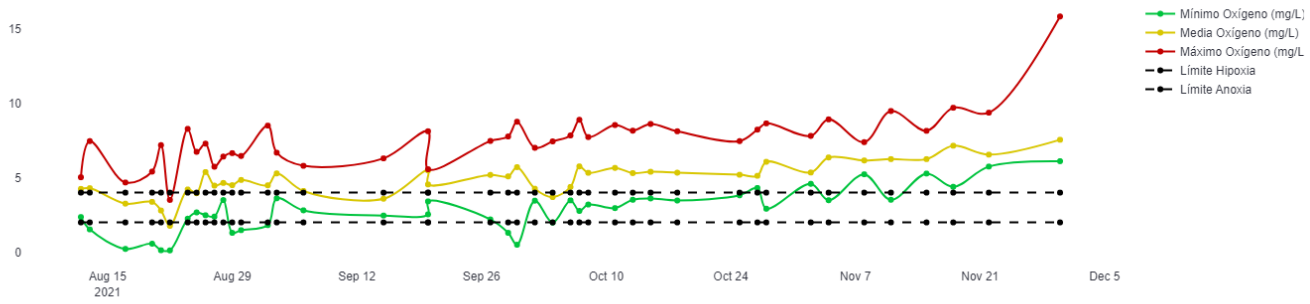


SITUACIÓN GENERAL

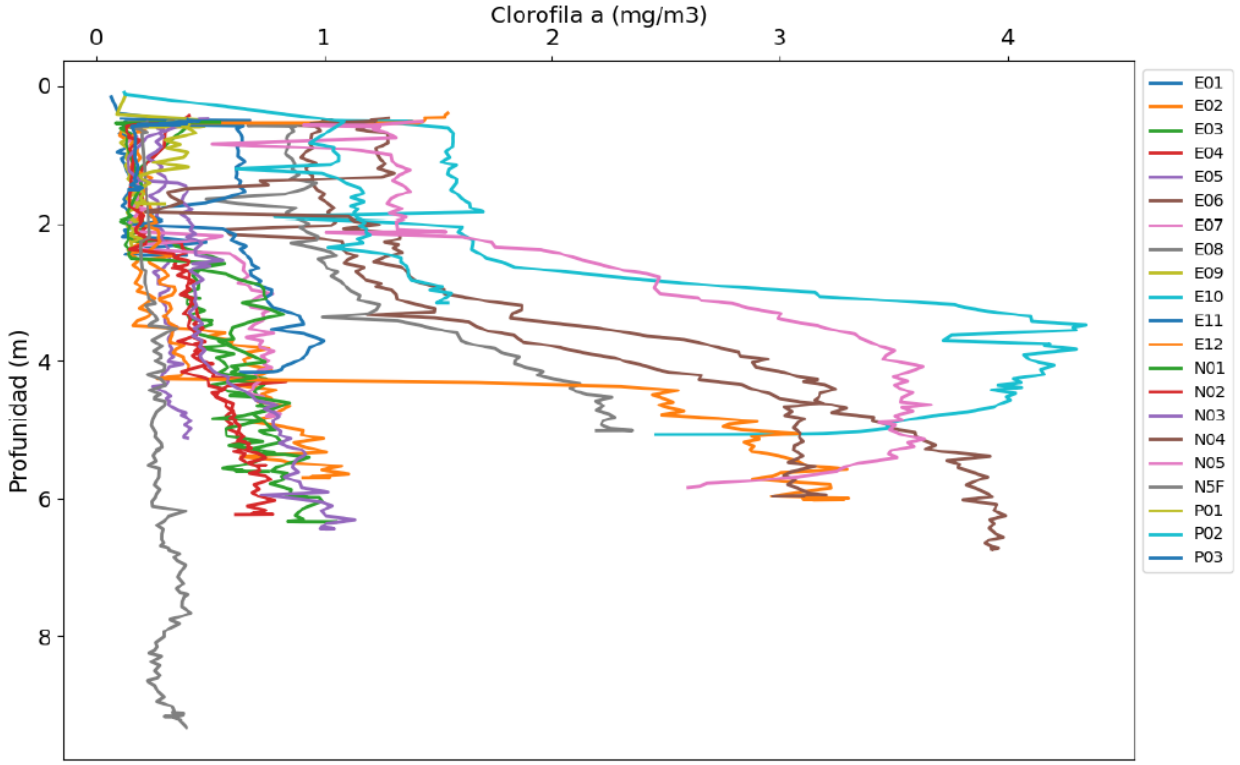
Los niveles medios de oxígeno son normales en todos los puntos (> 6 mg/L). Los valores medios de clorofila están por debajo 1 mg/m3 y los máximos por debajo de 5 mg/m3. Los valores medios de turbidez están bajando pero los máximos se mantienen altos en varias estaciones.



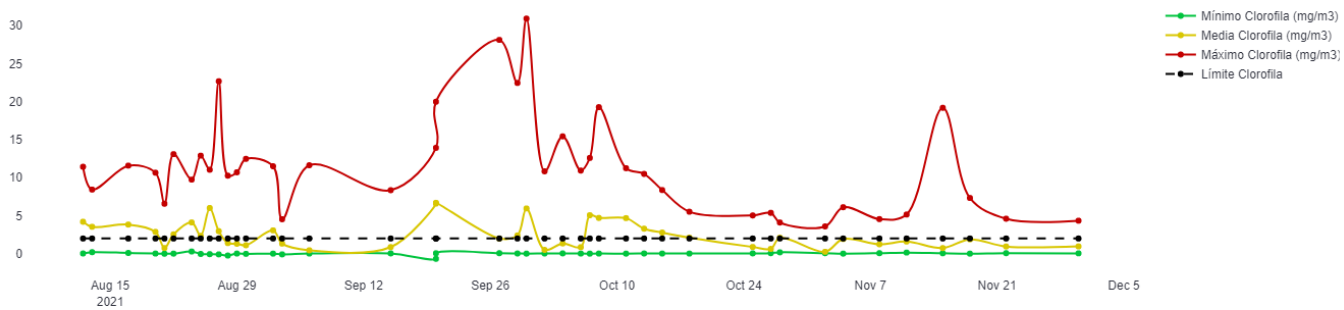
Perfiles de oxígeno (mg/L) por estación



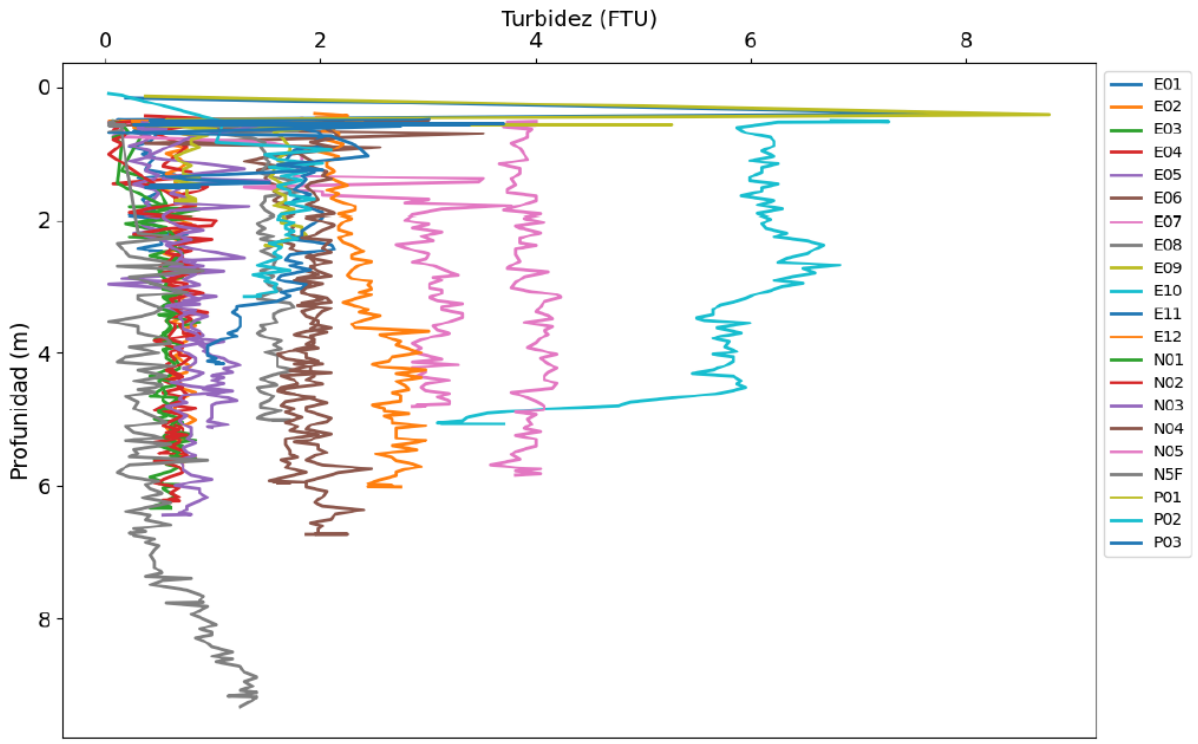
Evolución del contenido de oxígeno (mg/L)



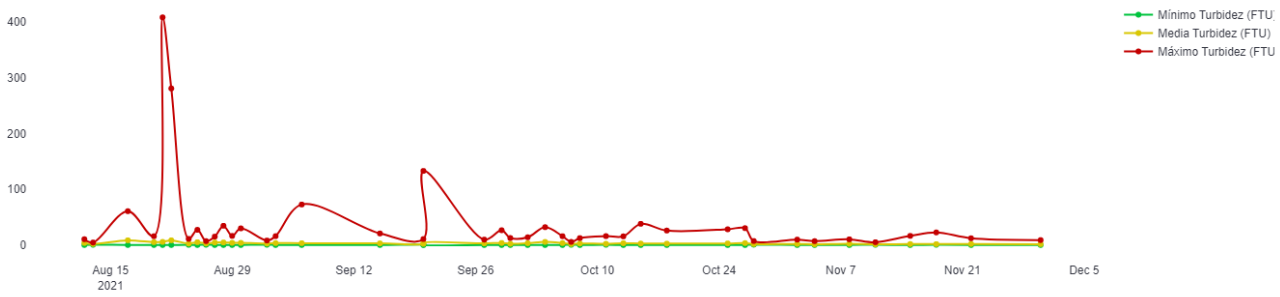
Perfiles de los valores de clorofila (mg/m3)



Evolución del contenido en clorofila (mg/m3)



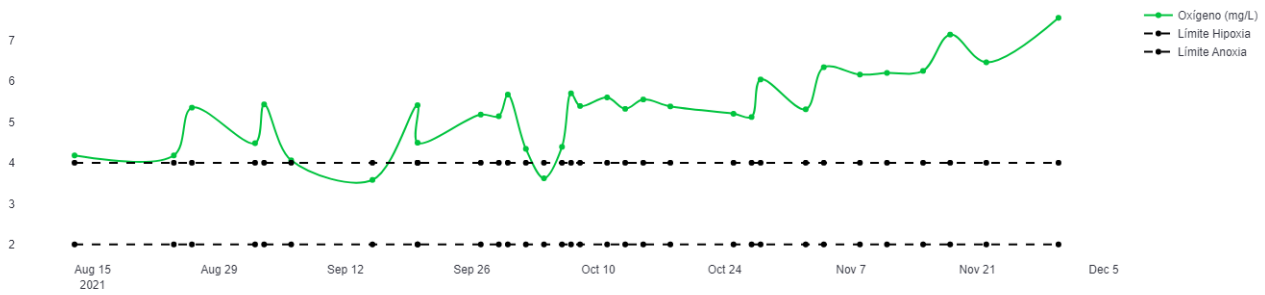
Perfiles de los valores de turbidez (FTU)



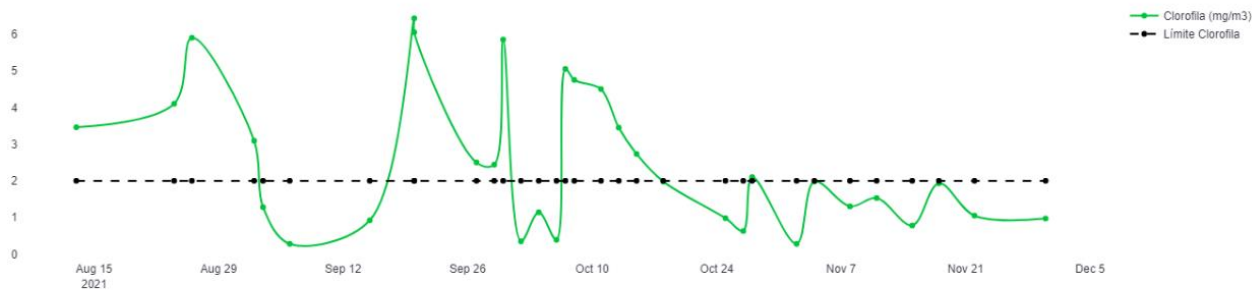
Evolución de la turbidez (FTU)

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

- Clorofila (mg/m3): 0.96
- Turbidez (FTU): 1.48
- Oxigeno (mg/L): 7.55



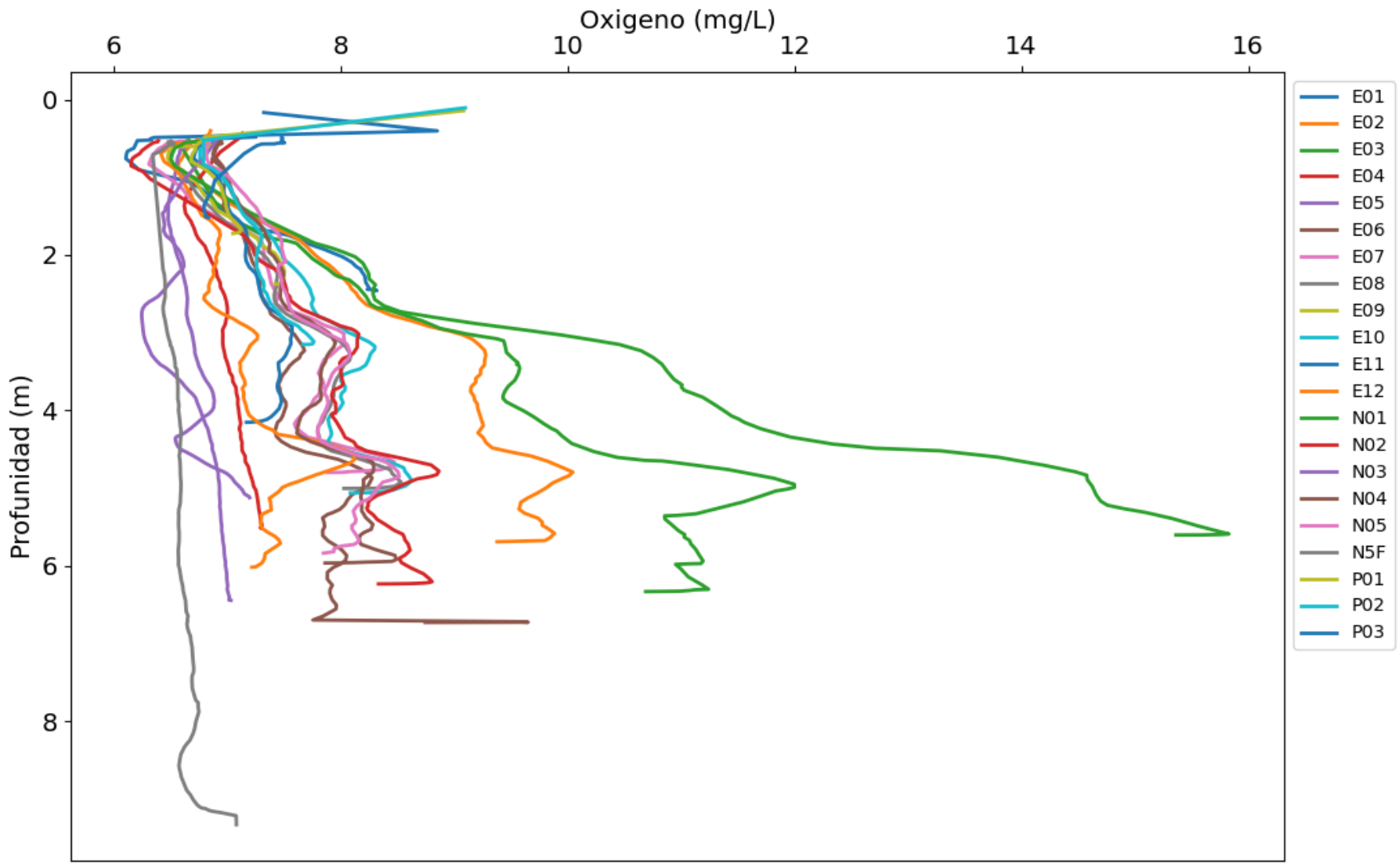
Evolución del contenido de oxígeno (mg/L)

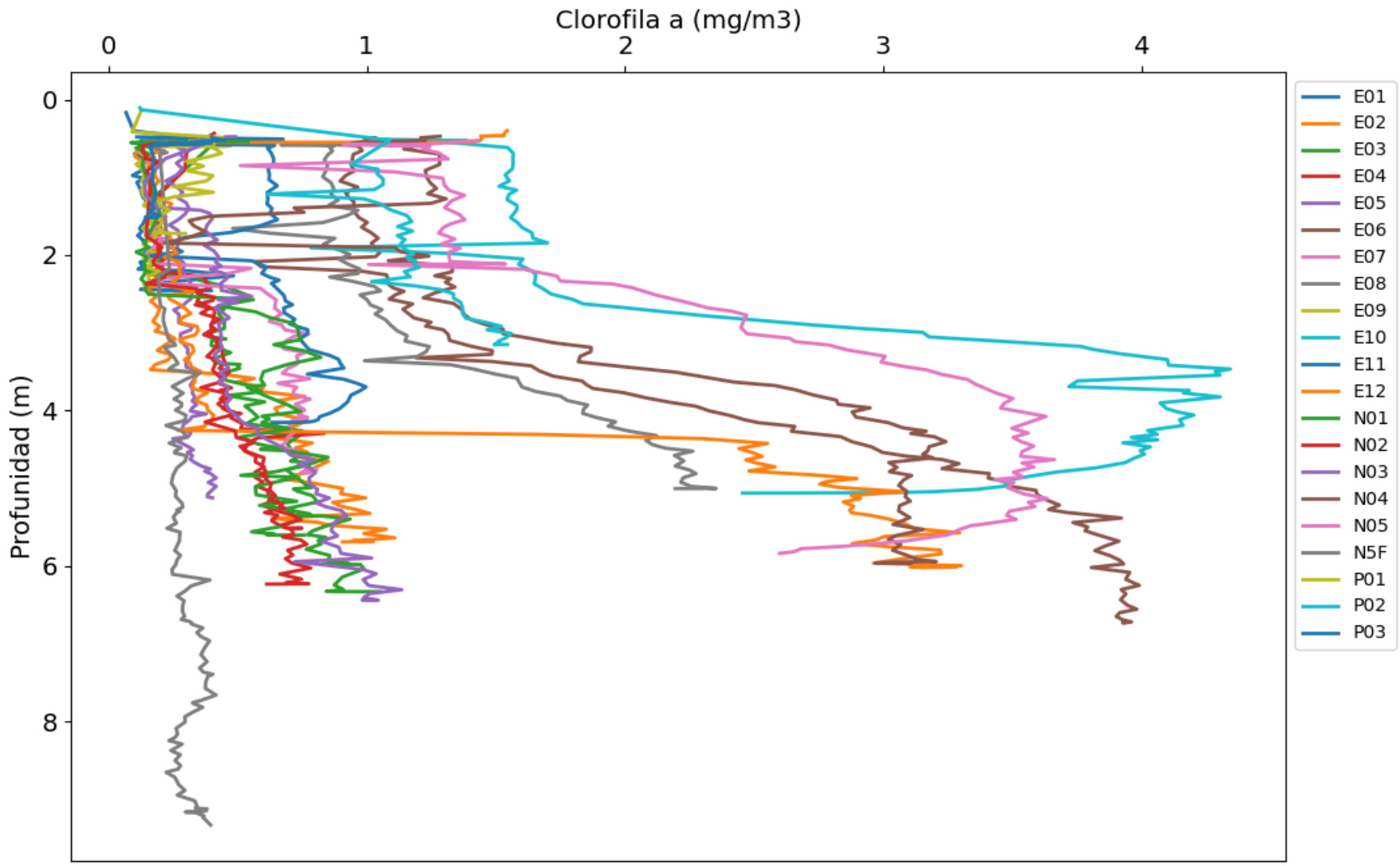


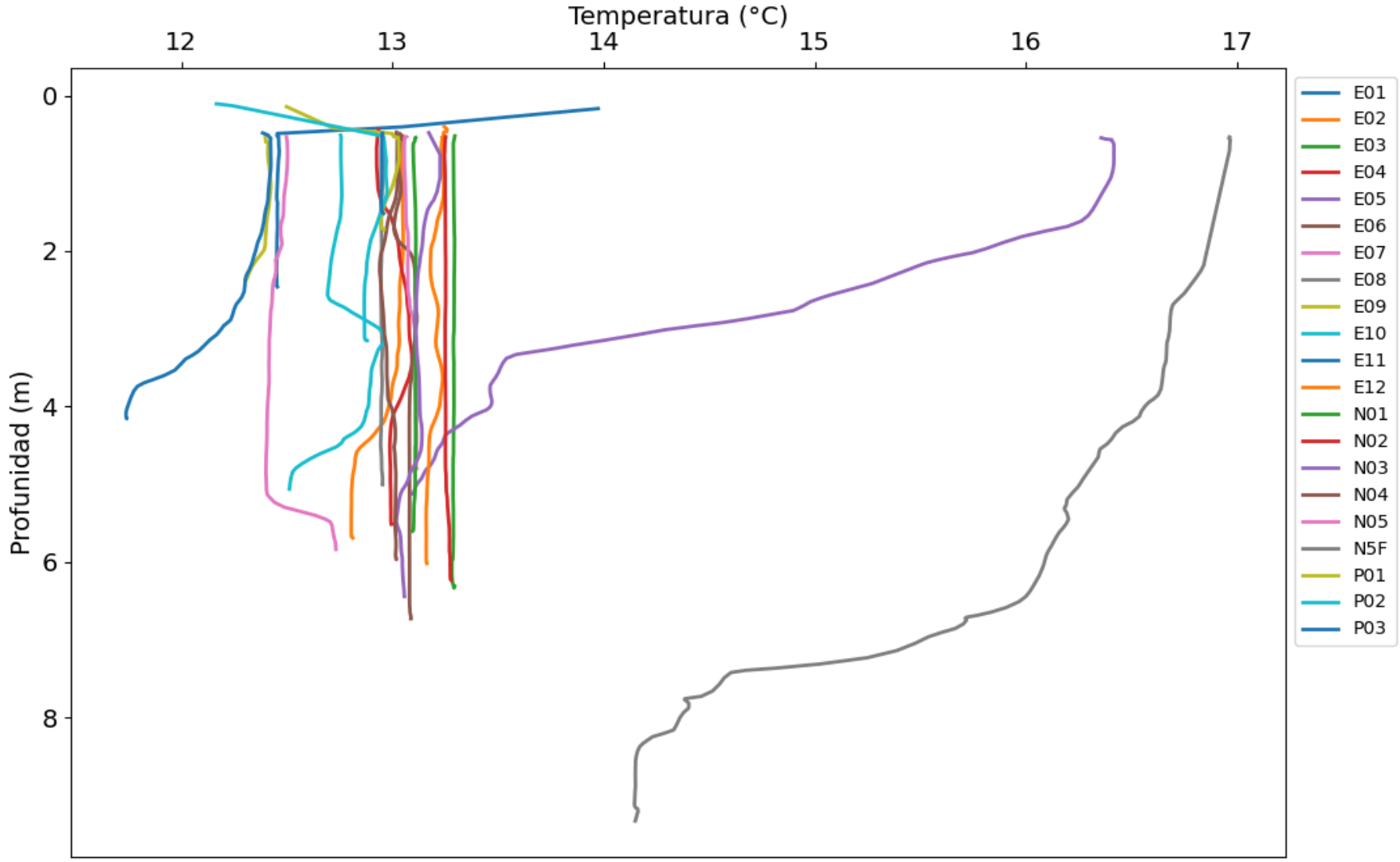
Evolución de la clorofila *a* (mg/m3)

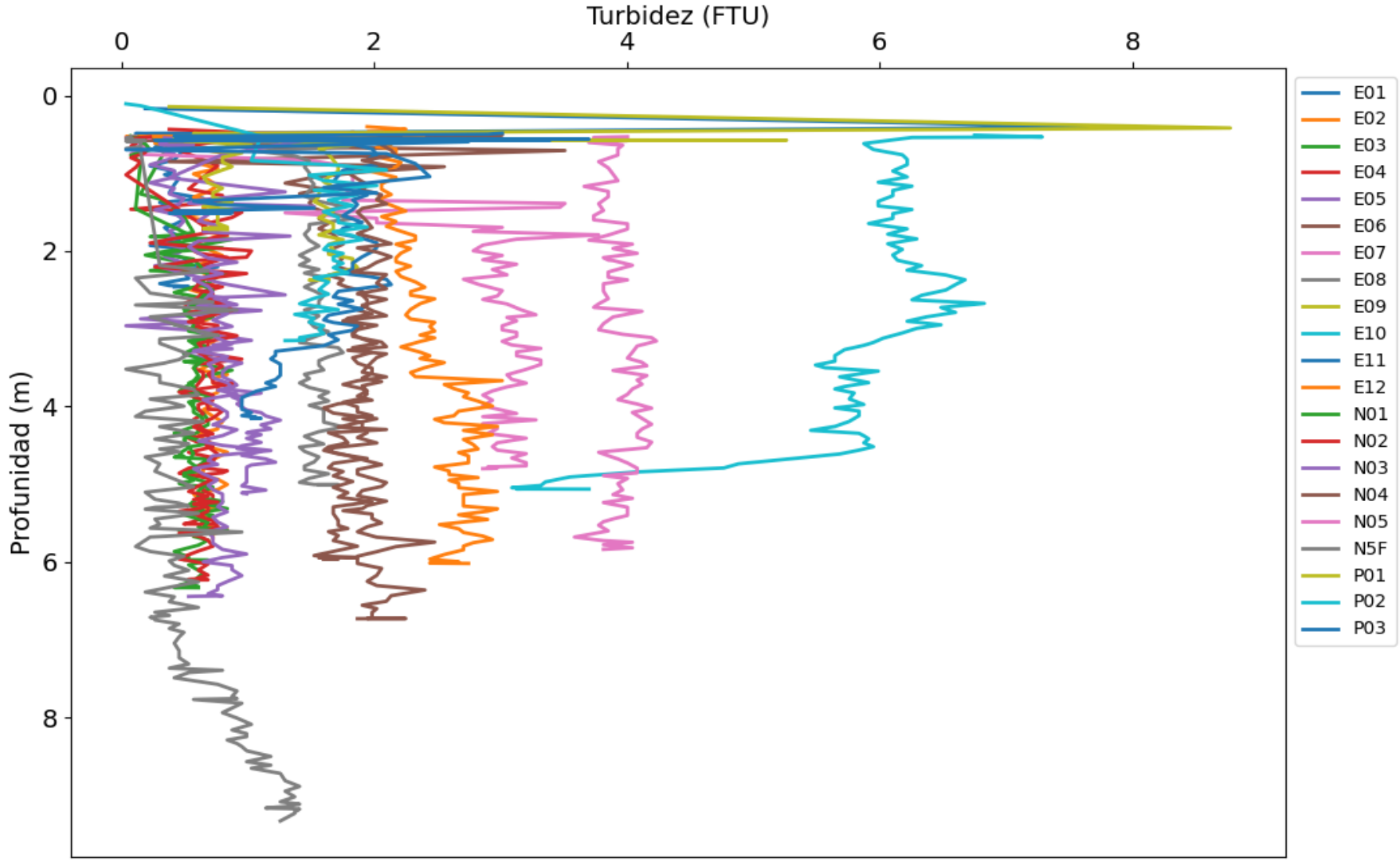
Evolución de la turbidez (FTU)

FICHA GENERAL DE MUESTREOS PARA OXÍGENO, TURBIDEZ, CLOROFILA Y TEMPERATURA **FECHA: 30-11-2021**

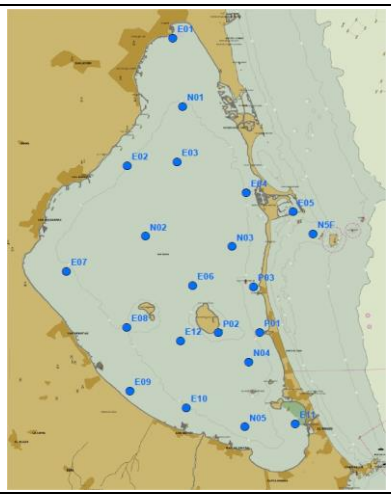


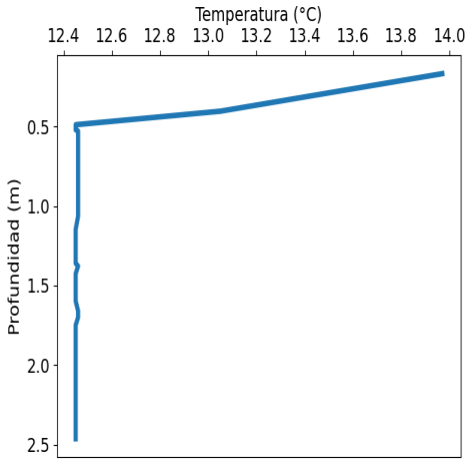

Clorofila a (mg/m3)
0
1
2
3
4
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F
P01
P02
P03

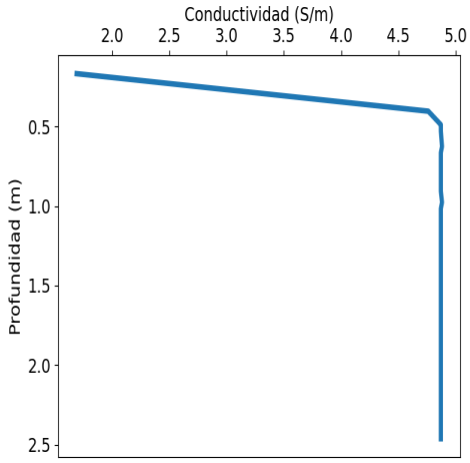

Temperatura (°C)
12
13
14
15
16
17
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F
P01
P02
P03

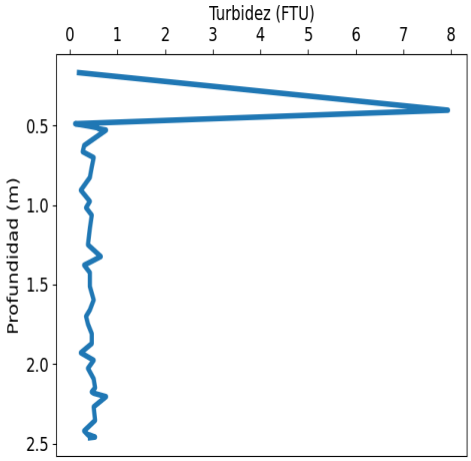

Turbidez (FTU)
0
2
4
6
8
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F
P01
P02
P03

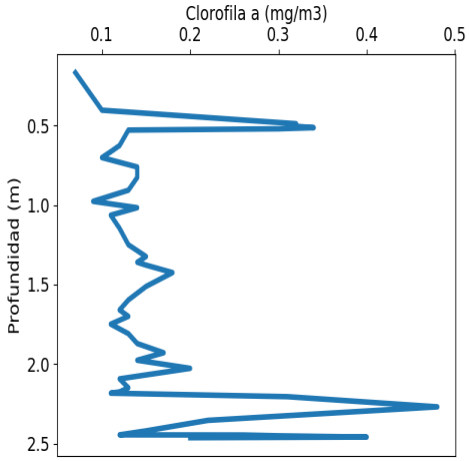
Nombre: CTD E01 - Punto 001 **Fecha: 30/11/2021** **Hora: 09:11:29**

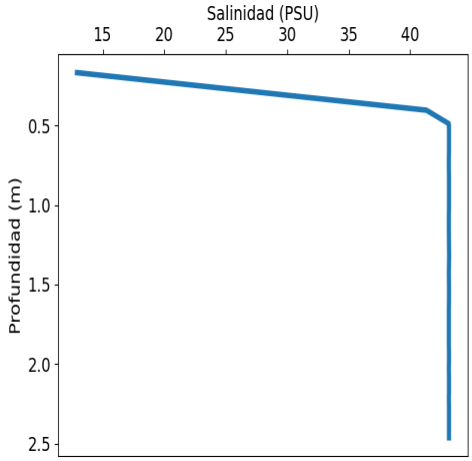


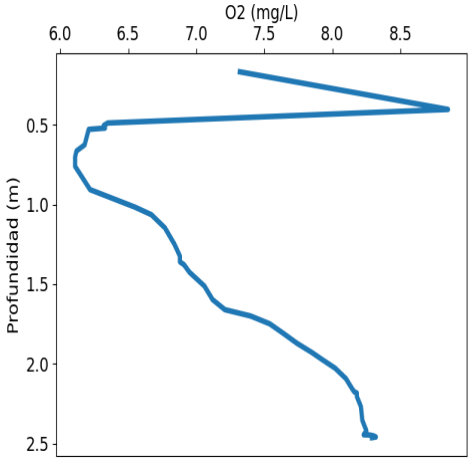


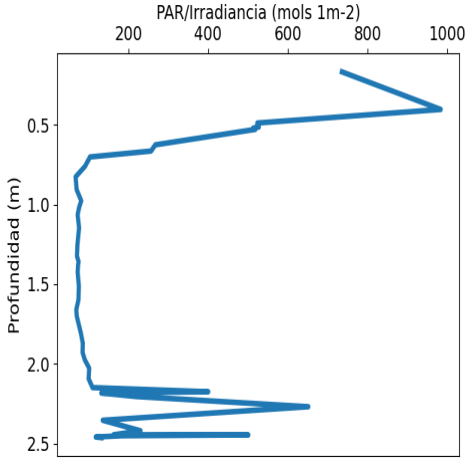












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.45	1.69	0.11	6.11	67.36	0.07	12.88
PROF (metros)	0.489	0.168	0.489	0.702	0.827	0.168	0.168
MÁXIMO	13.97	13.97	7.94	8.85	983.64	0.48	43.18
PROF (metros)	0.168	0.626	0.404	0.404	0.404	2.269	1.324

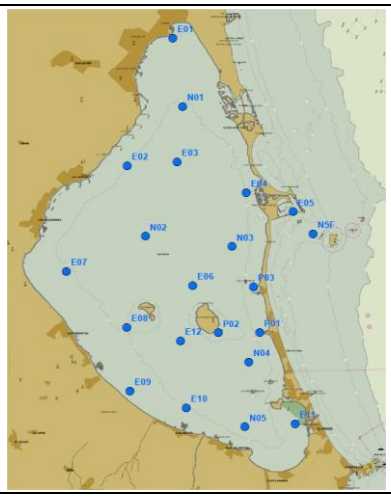
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01 - Punto 001	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.61	4.64	0.94	6.5	375.87	0.17	40.87
1 - 2m	12.45	4.87	0.42	7.17	76.2	0.14	43.17
2 - 3m	12.45	4.87	0.48	8.2	227.0	0.22	43.17

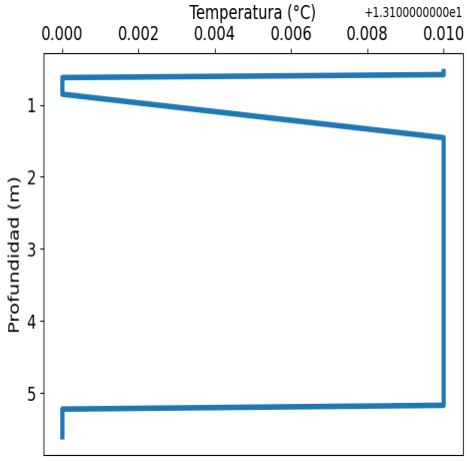
OBSERVACIONES GENERALES

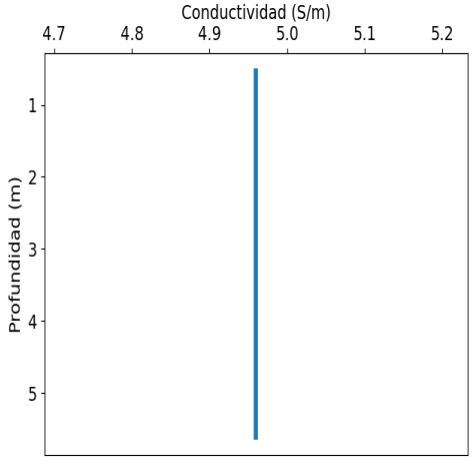
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.168	13.97	1.69	0.19	7.32	735.54	0.07	12.88
0.404	13.05	4.76	7.94	8.85	983.64	0.1	41.33
0.489	12.45	4.87	0.11	6.35	523.41	0.32	43.16
0.505	12.45	4.87	0.42	6.32	523.17	0.32	43.17
0.514	12.45	4.87	0.57	6.32	527.31	0.34	43.16
0.521	12.45	4.87	0.61	6.33	513.08	0.3	43.17
0.529	12.46	4.87	0.76	6.21	518.34	0.13	43.17
0.626	12.46	4.88	0.3	6.18	267.51	0.12	43.17
0.665	12.46	4.87	0.27	6.12	256.69	0.11	43.17
0.702	12.46	4.87	0.5	6.11	103.59	0.1	43.16
0.761	12.46	4.87	0.46	6.11	90.94	0.14	43.16
0.827	12.46	4.87	0.42	6.16	67.36	0.14	43.17
0.907	12.46	4.87	0.23	6.22	69.97	0.13	43.17
0.977	12.46	4.88	0.42	6.43	81.59	0.09	43.17
1.017	12.46	4.87	0.34	6.55	76.36	0.14	43.17
1.064	12.46	4.87	0.46	6.67	72.53	0.11	43.16
1.147	12.45	4.87	0.42	6.77	76.08	0.12	43.16
1.25	12.45	4.87	0.38	6.84	72.03	0.13	43.17
1.324	12.45	4.87	0.65	6.88	70.82	0.15	43.18
1.36	12.45	4.87	0.42	6.88	74.92	0.14	43.17
1.378	12.46	4.87	0.3	6.91	73.68	0.15	43.17
1.425	12.45	4.87	0.42	6.95	72.56	0.18	43.16
1.512	12.45	4.87	0.42	7.06	75.5	0.15	43.17
1.597	12.45	4.87	0.5	7.12	74.61	0.13	43.17
1.66	12.46	4.87	0.42	7.21	69.12	0.12	43.16
1.7	12.46	4.87	0.34	7.4	70.28	0.13	43.16
1.749	12.45	4.87	0.38	7.54	74.94	0.11	43.16
1.809	12.45	4.87	0.46	7.64	80.8	0.13	43.16
1.871	12.45	4.87	0.46	7.74	85.48	0.14	43.16
1.929	12.45	4.87	0.23	7.85	84.91	0.17	43.17
1.976	12.45	4.87	0.5	7.93	90.69	0.14	43.17
2.027	12.45	4.87	0.38	8.02	101.55	0.2	43.16
2.093	12.45	4.87	0.5	8.1	100.01	0.12	43.17
2.149	12.45	4.87	0.53	8.14	109.85	0.13	43.17
2.175	12.45	4.87	0.46	8.16	400.29	0.12	43.17
2.183	12.45	4.87	0.5	8.18	131.71	0.11	43.17
2.205	12.45	4.87	0.76	8.18	219.57	0.31	43.16
2.269	12.45	4.87	0.5	8.21	651.42	0.48	43.17
2.354	12.45	4.87	0.53	8.22	135.36	0.22	43.17

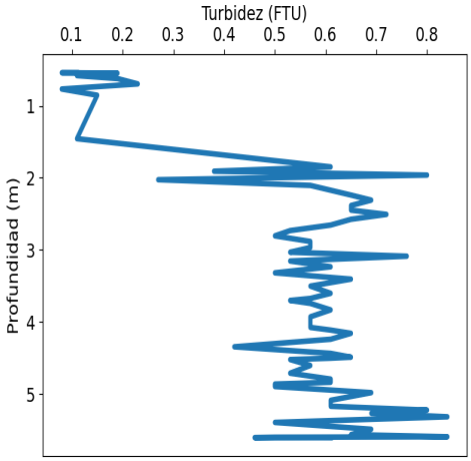
2.42	12.45	4.87	0.3	8.25	230.41	0.15	43.17
2.445	12.45	4.87	0.38	8.23	162.79	0.12	43.17
2.446	12.45	4.87	0.42	8.27	500.86	0.26	43.17
2.451	12.45	4.87	0.46	8.3	184.24	0.3	43.17
2.459	12.45	4.87	0.53	8.32	117.84	0.4	43.17
2.463	12.45	4.87	0.42	8.29	132.17	0.2	43.17

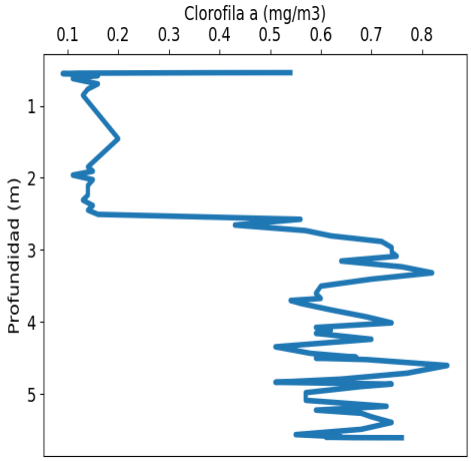
Nombre: CTD N01 - Punto 002 **Fecha: 30/11/2021** **Hora: 09:11:19**

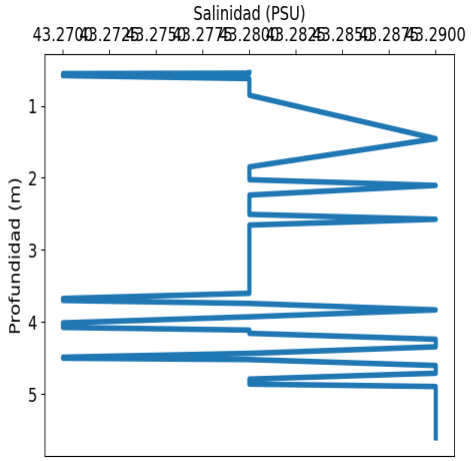


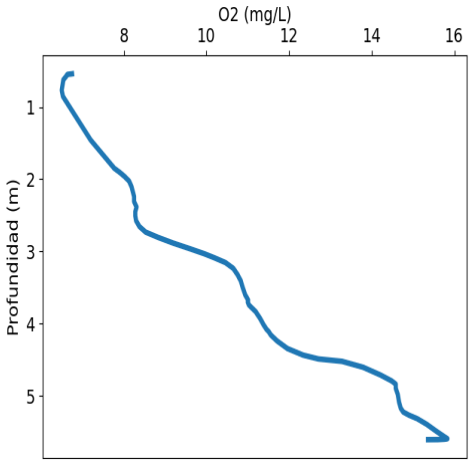


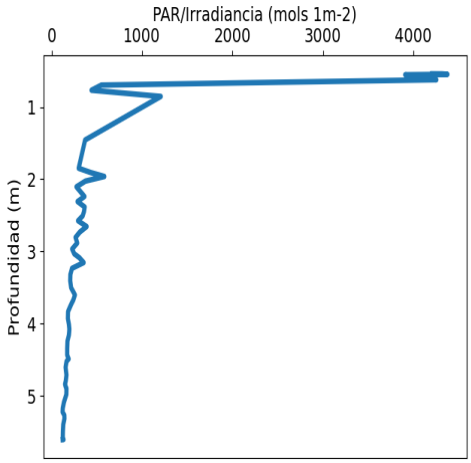












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.1	4.96	0.08	6.5	120.89	0.09	43.27
PROF (metros)	0.623	0.541	0.542	0.768	5.222	0.554	0.554
MÁXIMO	13.11	13.11	0.84	15.83	4376.0	0.85	43.29
PROF (metros)	0.541	0.541	5.315	5.592	0.548	4.603	1.457

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	13.1	4.96	0.14	6.61	3028.08	0.2	43.28
1 - 2m	13.11	4.96	0.48	7.73	421.09	0.15	43.28
2 - 3m	13.11	4.96	0.59	8.5	317.41	0.36	43.28
3 - 4m	13.11	4.96	0.59	10.78	235.38	0.66	43.28
4 - 5m	13.11	4.96	0.58	13.04	171.96	0.65	43.28
5 - 6m	13.1	4.96	0.65	15.28	128.74	0.66	43.29

OBSERVACIONES GENERALES

DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.541	13.11	4.96	0.11	6.75	4208.9	0.54	43.28
0.542	13.11	4.96	0.08	6.74	4317.6	0.39	43.28
0.548	13.11	4.96	0.19	6.65	4376.0	0.12	43.28
0.554	13.11	4.96	0.11	6.63	3908.0	0.09	43.27
0.582	13.11	4.96	0.11	6.6	3992.2	0.16	43.27
0.623	13.1	4.96	0.19	6.54	4253.0	0.11	43.28
0.697	13.1	4.96	0.23	6.52	549.9	0.16	43.28
0.768	13.1	4.96	0.08	6.5	440.4	0.14	43.28
0.854	13.1	4.96	0.15	6.53	1206.7	0.13	43.28
1.457	13.11	4.96	0.11	7.2	369.87	0.2	43.29
1.848	13.11	4.96	0.61	7.77	298.71	0.14	43.28
1.908	13.11	4.96	0.38	7.91	433.22	0.15	43.28
1.962	13.11	4.96	0.8	8.02	582.57	0.11	43.28
2.026	13.11	4.96	0.27	8.13	373.32	0.15	43.28
2.105	13.11	4.96	0.57	8.19	273.91	0.14	43.29
2.239	13.11	4.96	0.65	8.25	362.83	0.14	43.28
2.309	13.11	4.96	0.69	8.25	285.91	0.13	43.28
2.384	13.11	4.96	0.65	8.31	365.11	0.15	43.28
2.448	13.11	4.96	0.65	8.28	357.73	0.14	43.28
2.507	13.11	4.96	0.72	8.28	343.2	0.16	43.28
2.575	13.11	4.96	0.65	8.3	291.66	0.56	43.29
2.655	13.11	4.96	0.61	8.38	387.33	0.43	43.28
2.732	13.11	4.96	0.53	8.53	311.29	0.57	43.28
2.805	13.11	4.96	0.5	8.83	264.3	0.62	43.28
2.883	13.11	4.96	0.57	9.19	282.87	0.72	43.28
2.966	13.11	4.96	0.57	9.62	226.86	0.74	43.28
3.032	13.11	4.96	0.53	9.95	249.13	0.74	43.28
3.087	13.11	4.96	0.76	10.19	306.78	0.75	43.28
3.154	13.11	4.96	0.53	10.46	354.19	0.64	43.28
3.234	13.11	4.96	0.61	10.65	225.08	0.76	43.28
3.318	13.11	4.96	0.5	10.75	207.16	0.82	43.28
3.405	13.11	4.96	0.65	10.83	205.2	0.7	43.28
3.502	13.11	4.96	0.57	10.88	215.24	0.6	43.28
3.602	13.11	4.96	0.61	10.94	257.59	0.59	43.28
3.673	13.11	4.96	0.57	11.01	238.9	0.6	43.27
3.701	13.11	4.96	0.53	11.0	227.87	0.54	43.27

3.742	13.11	4.96	0.57	11.03	212.07	0.56	43.28
3.832	13.11	4.96	0.61	11.19	181.31	0.62	43.29
3.928	13.11	4.96	0.57	11.3	179.47	0.69	43.28
4.012	13.11	4.96	0.57	11.38	191.37	0.74	43.27
4.075	13.11	4.96	0.57	11.45	196.04	0.59	43.27
4.112	13.11	4.96	0.61	11.51	194.19	0.62	43.28
4.157	13.11	4.96	0.65	11.56	191.02	0.59	43.28
4.239	13.11	4.96	0.61	11.71	175.04	0.7	43.29
4.344	13.11	4.96	0.42	11.96	171.98	0.51	43.29
4.435	13.11	4.96	0.61	12.34	171.78	0.58	43.28
4.488	13.11	4.96	0.65	12.71	188.6	0.67	43.27
4.502	13.11	4.96	0.61	12.95	176.87	0.59	43.27
4.521	13.11	4.96	0.53	13.28	164.95	0.69	43.28
4.603	13.11	4.96	0.57	13.79	154.23	0.85	43.29
4.71	13.11	4.96	0.53	14.21	163.92	0.77	43.29
4.792	13.11	4.96	0.61	14.48	156.39	0.64	43.28
4.836	13.11	4.96	0.61	14.58	147.89	0.51	43.28
4.861	13.11	4.96	0.5	14.58	152.38	0.74	43.28
4.895	13.11	4.96	0.5	14.58	164.04	0.68	43.29
4.98	13.11	4.96	0.69	14.63	162.71	0.57	43.29
5.086	13.11	4.96	0.61	14.66	136.15	0.57	43.29
5.169	13.11	4.96	0.61	14.7	123.09	0.73	43.29
5.222	13.1	4.96	0.8	14.76	120.89	0.59	43.29
5.266	13.1	4.96	0.69	14.9	140.25	0.68	43.29
5.315	13.1	4.96	0.84	15.1	141.33	0.7	43.29
5.393	13.1	4.96	0.5	15.33	128.75	0.74	43.29
5.488	13.1	4.96	0.69	15.56	124.61	0.68	43.29
5.562	13.1	4.96	0.65	15.75	123.43	0.55	43.29
5.592	13.1	4.96	0.84	15.83	124.55	0.64	43.29
5.599	13.1	4.96	0.5	15.76	128.28	0.61	43.29
5.604	13.1	4.96	0.46	15.6	131.62	0.67	43.29
5.605	13.1	4.96	0.61	15.36	121.87	0.76	43.29

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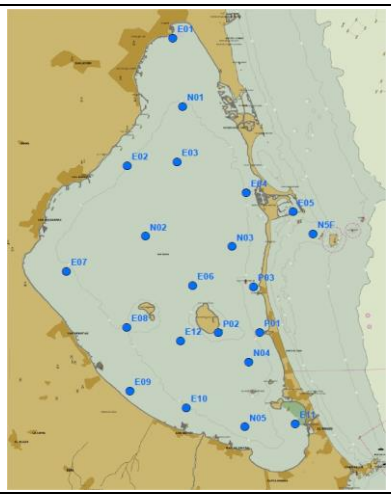
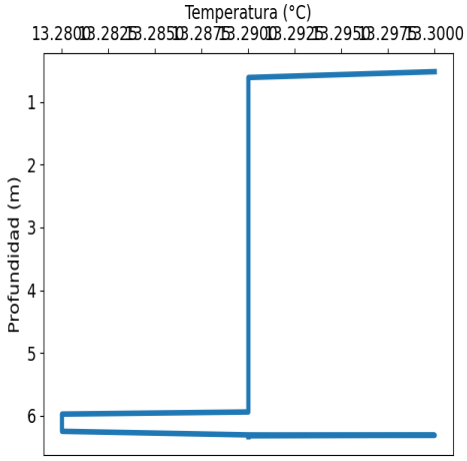
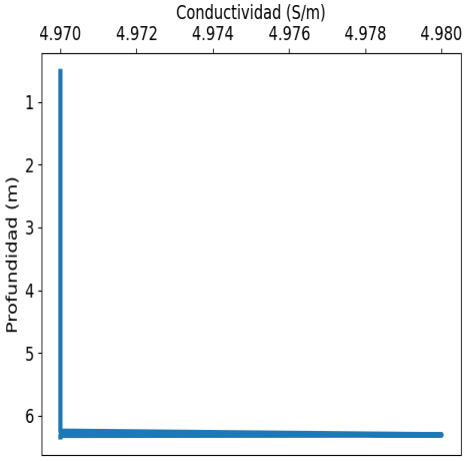
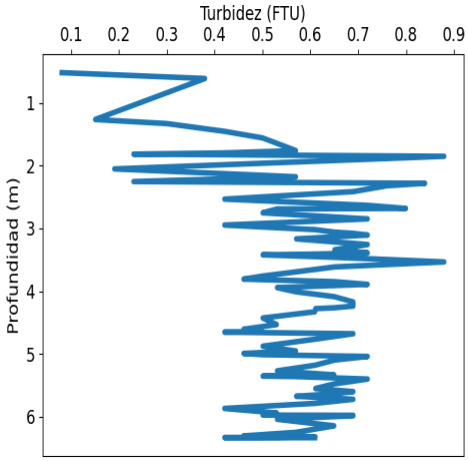
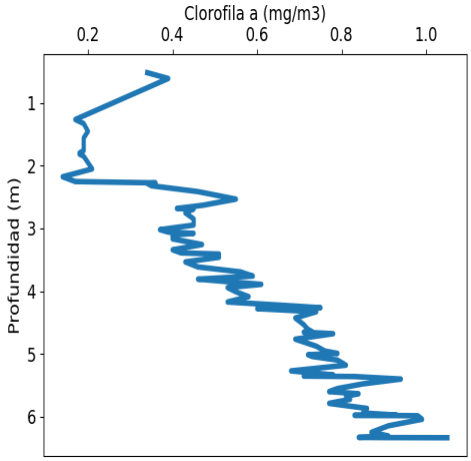
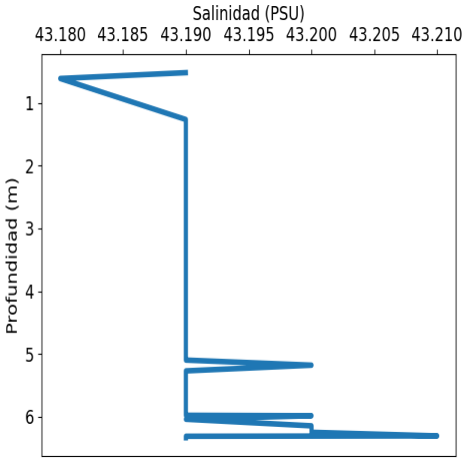


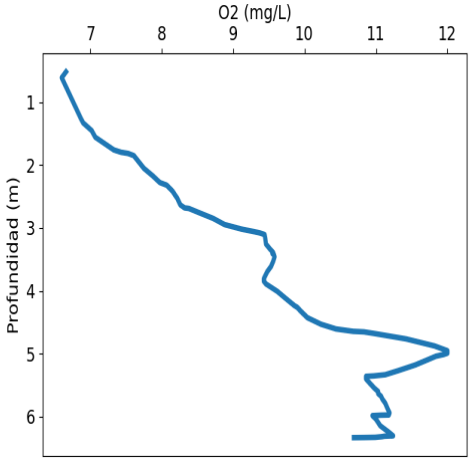


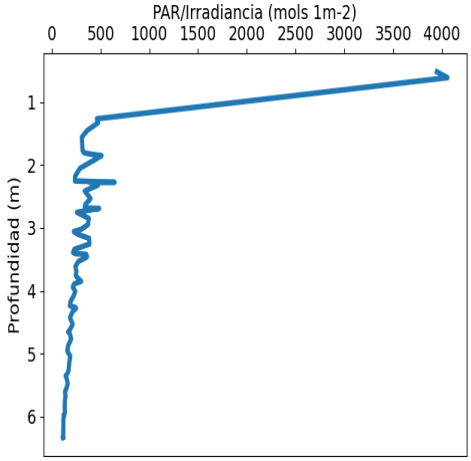












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.28	4.97	0.08	6.6	112.09	0.14	43.18
PROF (metros)	5.976	0.52	0.52	0.613	6.328	2.178	0.613
MÁXIMO	13.3	13.3	0.88	12.0	4055.7	1.05	43.21
PROF (metros)	0.52	6.304	1.852	4.952	0.613	6.333	6.304

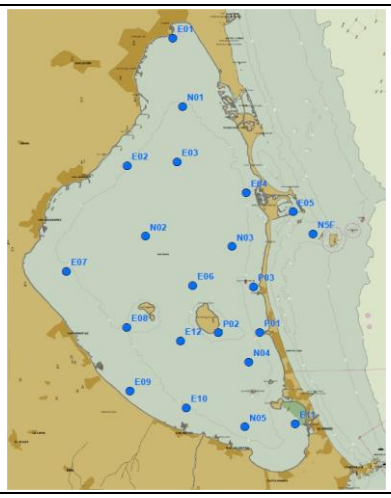
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E03 - Punto 003	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	13.29	4.97	0.23	6.63	4001.45	0.36	43.19
1 - 2m	13.29	4.97	0.43	7.22	390.41	0.19	43.19
2 - 3m	13.29	4.97	0.58	8.22	371.68	0.37	43.19
3 - 4m	13.29	4.97	0.63	9.46	277.95	0.47	43.19
4 - 5m	13.29	4.97	0.57	10.54	198.92	0.69	43.19
5 - 6m	13.29	4.97	0.61	11.19	150.58	0.81	43.19
6 - 7m	13.29	4.97	0.55	11.02	117.66	0.92	43.2

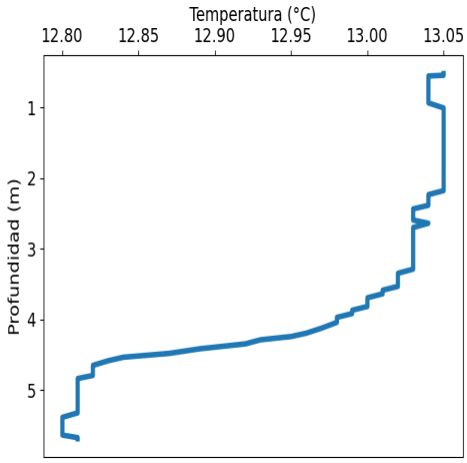
OBSERVACIONES GENERALES

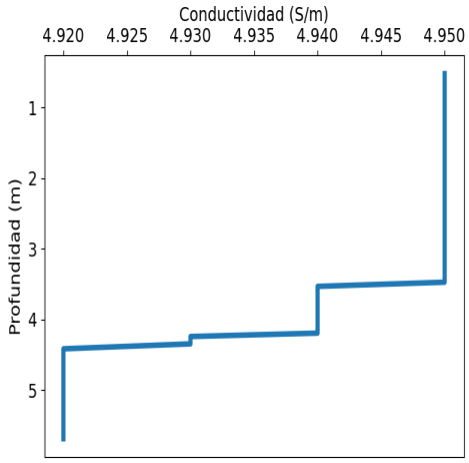
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.52	13.3	4.97	0.08	6.66	3947.2	0.34	43.19
0.613	13.29	4.97	0.38	6.6	4055.7	0.39	43.18
1.266	13.29	4.97	0.15	6.87	463.23	0.17	43.19
1.331	13.29	4.97	0.3	6.9	475.19	0.19	43.19
1.454	13.29	4.97	0.42	7.02	362.58	0.2	43.19
1.559	13.29	4.97	0.5	7.07	309.42	0.19	43.19
1.761	13.29	4.97	0.57	7.33	316.09	0.19	43.19
1.798	13.29	4.97	0.42	7.43	325.15	0.18	43.19
1.817	13.29	4.97	0.23	7.53	360.23	0.18	43.19
1.852	13.29	4.97	0.88	7.61	511.42	0.19	43.19
2.053	13.29	4.97	0.19	7.75	290.04	0.21	43.19
2.178	13.29	4.97	0.57	7.88	240.56	0.14	43.19
2.254	13.29	4.97	0.23	7.95	237.74	0.17	43.19
2.275	13.29	4.97	0.69	7.97	645.86	0.36	43.19
2.282	13.29	4.97	0.84	7.98	396.88	0.34	43.19
2.321	13.29	4.97	0.76	8.07	474.42	0.35	43.19
2.414	13.29	4.97	0.69	8.15	339.16	0.46	43.19
2.534	13.29	4.97	0.42	8.22	398.81	0.55	43.19
2.633	13.29	4.97	0.72	8.26	342.72	0.47	43.19
2.682	13.29	4.97	0.8	8.32	338.61	0.41	43.19
2.691	13.29	4.97	0.53	8.38	486.9	0.45	43.19
2.752	13.29	4.97	0.5	8.51	259.03	0.43	43.19
2.849	13.29	4.97	0.72	8.72	380.75	0.45	43.19
2.947	13.29	4.97	0.42	8.88	372.11	0.45	43.19
3.02	13.29	4.97	0.61	9.12	306.21	0.37	43.19
3.059	13.29	4.97	0.65	9.29	226.86	0.39	43.19
3.079	13.29	4.97	0.69	9.37	247.87	0.45	43.19
3.106	13.29	4.97	0.72	9.44	276.78	0.4	43.19
3.167	13.29	4.97	0.57	9.45	384.29	0.4	43.19
3.257	13.29	4.97	0.72	9.46	386.71	0.47	43.19
3.341	13.29	4.97	0.65	9.52	232.67	0.4	43.19
3.39	13.29	4.97	0.72	9.56	218.81	0.42	43.19
3.409	13.29	4.97	0.61	9.55	240.29	0.51	43.19
3.421	13.29	4.97	0.5	9.57	355.5	0.5	43.19
3.46	13.29	4.97	0.65	9.58	363.16	0.51	43.19

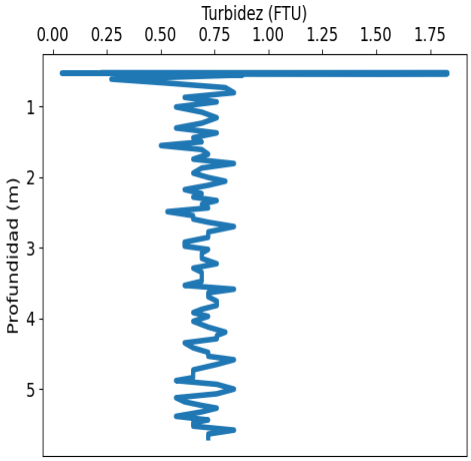
3.534	13.29	4.97	0.88	9.56	273.78	0.43	43.19
3.614	13.29	4.97	0.65	9.53	243.03	0.46	43.19
3.692	13.29	4.97	0.57	9.48	253.44	0.56	43.19
3.759	13.29	4.97	0.5	9.45	247.18	0.59	43.19
3.808	13.29	4.97	0.46	9.43	274.1	0.46	43.19
3.848	13.29	4.97	0.65	9.43	302.82	0.53	43.19
3.891	13.29	4.97	0.72	9.46	230.57	0.61	43.19
3.943	13.29	4.97	0.53	9.53	216.99	0.53	43.19
4.01	13.29	4.97	0.57	9.62	242.86	0.55	43.19
4.087	13.29	4.97	0.65	9.7	223.52	0.58	43.19
4.172	13.29	4.97	0.69	9.79	193.34	0.53	43.19
4.237	13.29	4.97	0.69	9.86	186.77	0.69	43.19
4.264	13.29	4.97	0.65	9.9	243.93	0.75	43.19
4.278	13.29	4.97	0.61	9.91	250.46	0.6	43.19
4.327	13.29	4.97	0.61	9.95	215.14	0.74	43.19
4.427	13.29	4.97	0.5	10.04	187.73	0.69	43.19
4.531	13.29	4.97	0.53	10.23	215.84	0.71	43.19
4.606	13.29	4.97	0.46	10.44	190.49	0.72	43.19
4.644	13.29	4.97	0.5	10.68	175.73	0.73	43.19
4.652	13.29	4.97	0.42	10.83	168.55	0.71	43.19
4.677	13.29	4.97	0.69	10.97	186.34	0.78	43.19
4.764	13.29	4.97	0.61	11.42	200.69	0.69	43.19
4.876	13.29	4.97	0.5	11.82	168.08	0.74	43.19
4.952	13.29	4.97	0.57	12.0	160.32	0.76	43.19
4.991	13.29	4.97	0.46	12.0	171.9	0.79	43.19
5.011	13.29	4.97	0.5	11.95	181.86	0.72	43.19
5.039	13.29	4.97	0.72	11.84	191.82	0.73	43.19
5.097	13.29	4.97	0.65	11.72	184.36	0.79	43.19
5.178	13.29	4.97	0.61	11.55	178.56	0.81	43.2
5.269	13.29	4.97	0.53	11.31	173.66	0.68	43.19
5.333	13.29	4.97	0.65	11.13	154.37	0.78	43.19
5.352	13.29	4.97	0.5	10.97	143.11	0.71	43.19
5.359	13.29	4.97	0.57	10.86	144.14	0.83	43.19
5.399	13.29	4.97	0.72	10.86	155.56	0.94	43.19
5.476	13.29	4.97	0.65	10.92	164.34	0.85	43.19
5.55	13.29	4.97	0.61	10.98	151.64	0.79	43.19
5.599	13.29	4.97	0.69	11.03	137.67	0.77	43.19
5.633	13.29	4.97	0.65	11.03	138.89	0.84	43.19
5.673	13.29	4.97	0.57	11.07	143.14	0.81	43.19
5.721	13.29	4.97	0.69	11.09	137.8	0.82	43.19
5.786	13.29	4.97	0.61	11.13	134.58	0.77	43.19
5.867	13.29	4.97	0.42	11.16	134.39	0.86	43.19
5.939	13.29	4.97	0.53	11.19	135.64	0.85	43.19
5.973	13.28	4.97	0.5	11.18	130.28	0.93	43.19
5.976	13.28	4.97	0.69	11.07	121.64	0.83	43.19
5.983	13.28	4.97	0.69	10.95	124.82	0.98	43.2
6.039	13.28	4.97	0.53	11.0	120.72	0.99	43.19
6.144	13.28	4.97	0.65	11.06	120.22	0.91	43.2
6.247	13.28	4.97	0.57	11.18	119.13	0.87	43.2
6.304	13.29	4.98	0.46	11.24	119.22	0.91	43.21
6.31	13.3	4.97	0.57	11.12	119.63	0.89	43.19
6.318	13.29	4.97	0.61	11.08	113.87	0.88	43.19
6.328	13.29	4.97	0.53	10.99	112.09	0.84	43.19
6.331	13.29	4.97	0.42	10.84	116.84	0.9	43.19
6.333	13.29	4.97	0.61	10.69	117.19	1.05	43.19

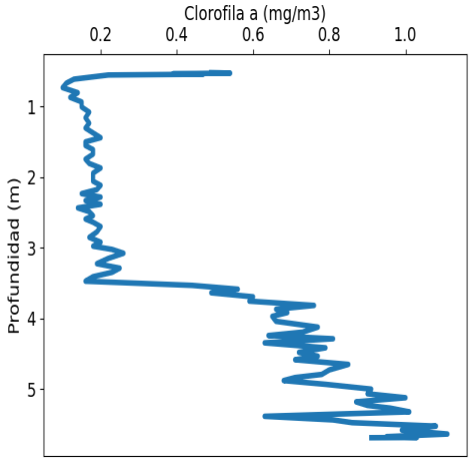
Nombre: CTD E02 - Punto 004 **Fecha: 30/11/2021** **Hora: 09:11:03**

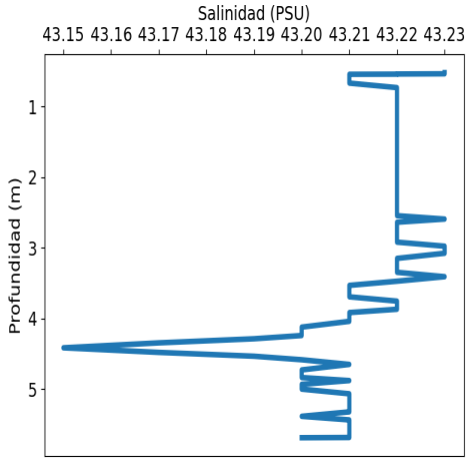


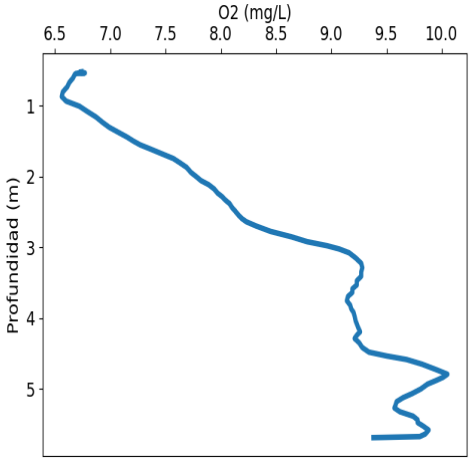


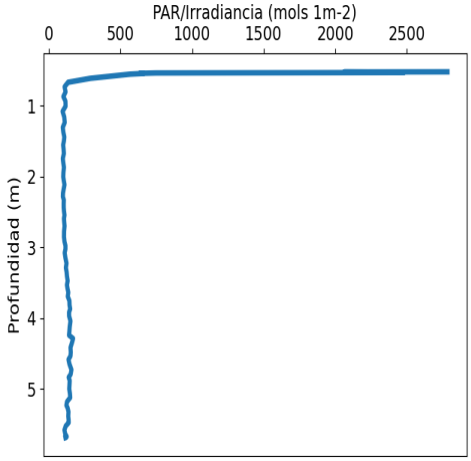












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.8	4.92	0.04	6.56	96.19	0.1	43.15
PROF (metros)	5.389	4.419	0.53	0.873	1.082	0.735	4.419
MÁXIMO	13.05	13.05	1.83	10.05	2782.9	1.11	43.23
PROF (metros)	0.523	0.523	0.525	4.796	0.523	5.64	0.523

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	13.05	4.95	0.79	6.68	929.18	0.32	43.22
1 - 2m	13.05	4.95	0.67	7.23	104.05	0.17	43.22
2 - 3m	13.04	4.95	0.69	8.19	105.91	0.18	43.22
3 - 4m	13.01	4.94	0.71	9.2	130.38	0.42	43.22
4 - 5m	12.88	4.93	0.71	9.55	149.47	0.74	43.19
5 - 6m	12.81	4.92	0.7	9.69	129.73	0.93	43.21

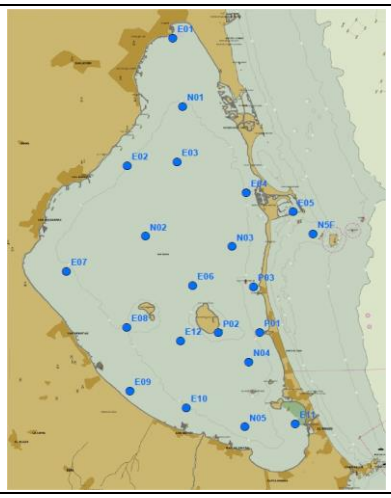
OBSERVACIONES GENERALES

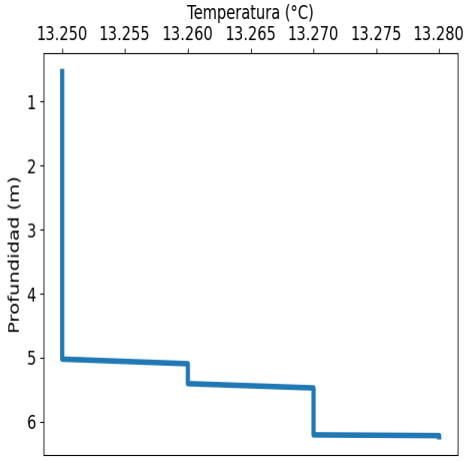
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.523	13.05	4.95	0.23	6.74	2782.9	0.49	43.23
0.525	13.05	4.95	1.83	6.73	2062.2	0.51	43.23
0.53	13.05	4.95	0.04	6.73	2448.7	0.54	43.23
0.533	13.05	4.95	0.5	6.72	2477.8	0.48	43.23
0.539	13.05	4.95	1.83	6.77	748.44	0.39	43.23
0.542	13.05	4.95	1.53	6.75	686.93	0.47	43.22
0.544	13.05	4.95	0.46	6.74	635.47	0.43	43.22
0.546	13.05	4.95	0.69	6.69	659.93	0.45	43.21
0.556	13.04	4.95	0.88	6.68	566.19	0.22	43.21
0.615	13.04	4.95	0.27	6.66	289.44	0.13	43.21
0.671	13.04	4.95	0.53	6.63	134.74	0.11	43.21
0.735	13.04	4.95	0.8	6.61	110.11	0.1	43.22
0.807	13.04	4.95	0.84	6.57	117.03	0.14	43.22
0.873	13.04	4.95	0.61	6.56	101.62	0.12	43.22
0.937	13.04	4.95	0.76	6.6	116.24	0.15	43.22
1.009	13.05	4.95	0.57	6.72	117.08	0.15	43.22
1.082	13.05	4.95	0.69	6.79	96.19	0.17	43.22
1.161	13.05	4.95	0.76	6.87	107.78	0.16	43.22
1.238	13.05	4.95	0.69	6.93	111.29	0.17	43.22
1.307	13.05	4.95	0.57	6.99	97.72	0.16	43.22
1.376	13.05	4.95	0.76	7.07	101.57	0.18	43.22
1.444	13.05	4.95	0.65	7.15	108.28	0.2	43.22
1.503	13.05	4.95	0.69	7.21	105.19	0.16	43.22
1.555	13.05	4.95	0.5	7.27	100.33	0.16	43.22
1.612	13.05	4.95	0.69	7.36	103.04	0.18	43.22
1.677	13.05	4.95	0.72	7.46	105.26	0.18	43.22
1.748	13.05	4.95	0.65	7.57	97.97	0.16	43.22
1.809	13.05	4.95	0.84	7.63	101.36	0.17	43.22
1.873	13.05	4.95	0.69	7.69	105.58	0.2	43.22
1.945	13.05	4.95	0.65	7.73	102.16	0.18	43.22
2.007	13.05	4.95	0.72	7.78	100.94	0.18	43.22
2.06	13.05	4.95	0.8	7.82	104.54	0.18	43.22
2.118	13.05	4.95	0.72	7.89	109.5	0.2	43.22
2.179	13.05	4.95	0.61	7.94	103.91	0.19	43.22
2.236	13.04	4.95	0.69	7.97	99.38	0.15	43.22
2.285	13.04	4.95	0.65	8.01	98.33	0.2	43.22

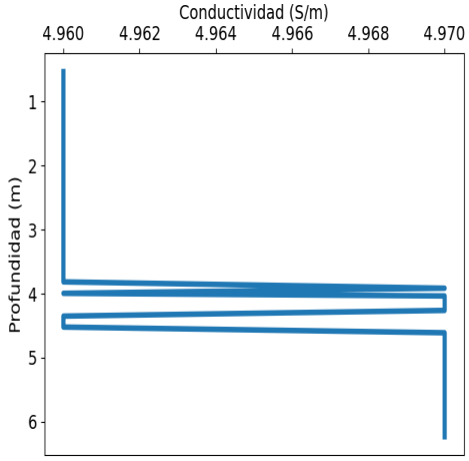
2.334	13.04	4.95	0.76	8.04	104.78	0.16	43.22
2.387	13.04	4.95	0.69	8.08	103.93	0.2	43.22
2.438	13.03	4.95	0.72	8.1	104.03	0.14	43.22
2.491	13.03	4.95	0.53	8.13	105.93	0.17	43.22
2.548	13.03	4.95	0.65	8.16	109.47	0.18	43.22
2.596	13.03	4.95	0.65	8.19	105.83	0.16	43.23
2.641	13.04	4.95	0.72	8.23	107.33	0.18	43.22
2.702	13.03	4.95	0.84	8.32	109.98	0.2	43.22
2.778	13.03	4.95	0.72	8.45	106.49	0.19	43.22
2.855	13.03	4.95	0.72	8.64	106.0	0.17	43.22
2.923	13.03	4.95	0.61	8.78	109.62	0.2	43.22
2.98	13.03	4.95	0.61	8.96	116.3	0.18	43.23
3.026	13.03	4.95	0.72	9.07	116.24	0.23	43.23
3.08	13.03	4.95	0.69	9.16	110.82	0.26	43.23
3.153	13.03	4.95	0.69	9.22	116.11	0.22	43.22
3.228	13.03	4.95	0.76	9.27	123.63	0.19	43.22
3.291	13.03	4.95	0.65	9.28	119.35	0.25	43.22
3.35	13.02	4.95	0.69	9.27	124.24	0.23	43.22
3.412	13.02	4.95	0.69	9.27	126.92	0.18	43.23
3.476	13.02	4.95	0.69	9.23	131.74	0.16	43.22
3.535	13.02	4.94	0.61	9.23	126.65	0.44	43.21
3.589	13.01	4.94	0.84	9.19	130.98	0.56	43.21
3.64	13.01	4.94	0.72	9.19	136.18	0.49	43.21
3.697	13.0	4.94	0.72	9.15	132.38	0.6	43.21
3.758	13.0	4.94	0.76	9.14	143.94	0.59	43.22
3.819	13.0	4.94	0.76	9.17	144.84	0.76	43.22
3.873	12.99	4.94	0.69	9.18	149.03	0.66	43.22
3.92	12.99	4.94	0.65	9.2	141.55	0.69	43.21
3.974	12.98	4.94	0.72	9.21	141.88	0.65	43.21
4.044	12.98	4.94	0.65	9.22	151.19	0.66	43.21
4.126	12.97	4.94	0.72	9.24	146.02	0.77	43.2
4.197	12.96	4.94	0.8	9.26	143.54	0.73	43.2
4.245	12.95	4.93	0.76	9.23	141.16	0.64	43.2
4.291	12.93	4.93	0.76	9.21	169.41	0.81	43.19
4.349	12.92	4.93	0.61	9.25	162.07	0.63	43.17
4.419	12.89	4.92	0.65	9.28	151.4	0.79	43.15
4.484	12.87	4.92	0.72	9.34	153.41	0.72	43.17
4.538	12.84	4.92	0.72	9.5	151.54	0.77	43.19
4.588	12.83	4.92	0.84	9.68	137.51	0.71	43.2
4.654	12.82	4.92	0.76	9.82	144.44	0.85	43.21
4.732	12.82	4.92	0.65	9.95	157.99	0.8	43.2
4.796	12.82	4.92	0.65	10.05	152.74	0.78	43.2
4.84	12.81	4.92	0.65	10.01	138.57	0.71	43.2
4.883	12.81	4.92	0.57	9.95	145.85	0.68	43.21
4.936	12.81	4.92	0.76	9.87	144.71	0.79	43.2
5.004	12.81	4.92	0.84	9.81	142.81	0.91	43.2
5.07	12.81	4.92	0.76	9.73	147.41	0.9	43.21
5.126	12.81	4.92	0.57	9.65	149.37	1.0	43.21
5.184	12.81	4.92	0.61	9.59	127.15	0.87	43.21
5.235	12.81	4.92	0.69	9.58	123.01	0.9	43.21
5.273	12.81	4.92	0.76	9.57	131.56	0.96	43.21
5.326	12.81	4.92	0.69	9.62	137.42	1.01	43.21
5.389	12.8	4.92	0.57	9.74	135.83	0.63	43.2
5.44	12.8	4.92	0.72	9.78	138.25	0.81	43.21
5.479	12.8	4.92	0.65	9.78	138.99	0.86	43.21
5.528	12.8	4.92	0.65	9.83	118.17	1.08	43.21
5.584	12.8	4.92	0.84	9.88	109.19	0.99	43.21
5.64	12.8	4.92	0.72	9.85	114.77	1.11	43.21

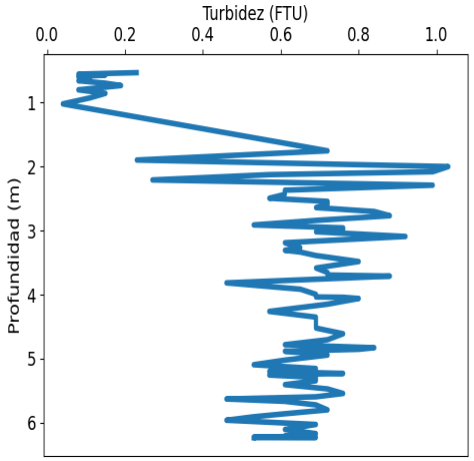
5.677	12.81	4.92	0.72	9.8	124.76	0.95	43.21
5.689	12.81	4.92	0.72	9.47	120.55	1.03	43.21
5.692	12.81	4.92	0.72	9.38	116.38	0.91	43.2

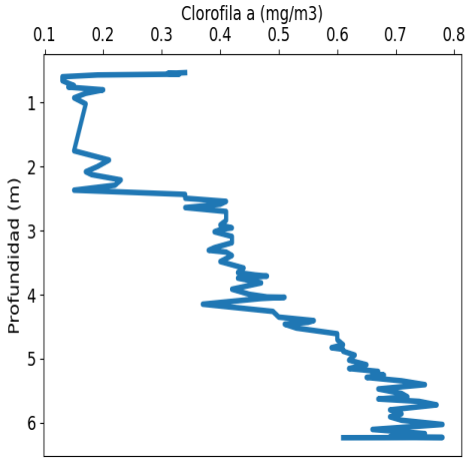
Nombre: CTD N02 - Punto 005 **Fecha: 30/11/2021** **Hora: 10:11:19**

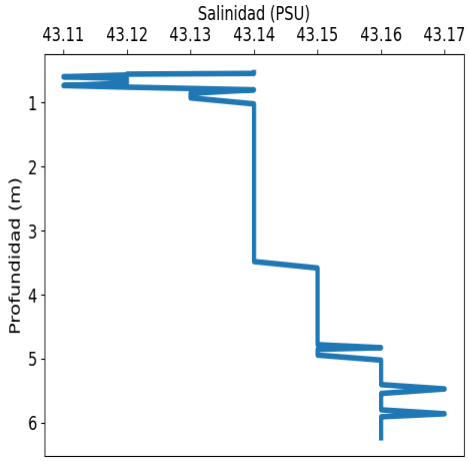


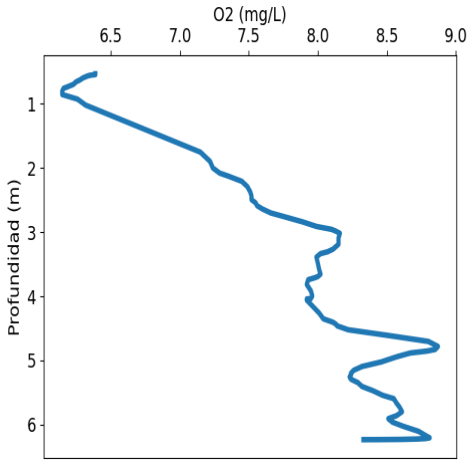


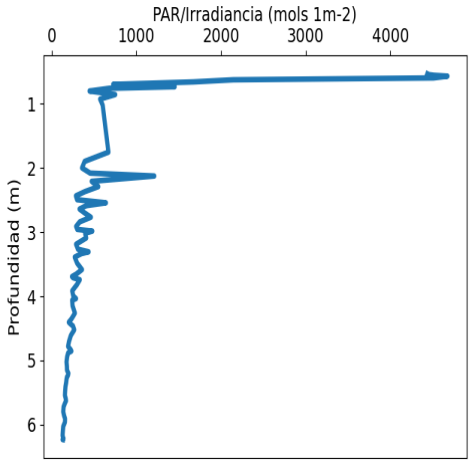












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.25	4.96	0.04	6.15	127.92	0.13	43.11
PROF (metros)	0.532	0.532	1.02	0.8	6.234	0.596	0.596
MÁXIMO	13.28	13.28	1.03	8.87	4675.9	0.78	43.17
PROF (metros)	6.218	3.915	1.999	4.782	0.568	6.028	5.473

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	13.25	4.96	0.13	6.26	2387.29	0.19	43.12
1 - 2m	13.25	4.96	0.51	6.98	504.48	0.18	43.14
2 - 3m	13.25	4.96	0.7	7.65	455.72	0.33	43.14
3 - 4m	13.25	4.96	0.7	8.03	313.59	0.43	43.14
4 - 5m	13.25	4.97	0.71	8.32	232.5	0.54	43.15
5 - 6m	13.26	4.97	0.63	8.42	165.79	0.69	43.16
6 - 7m	13.28	4.97	0.61	8.65	132.01	0.71	43.16

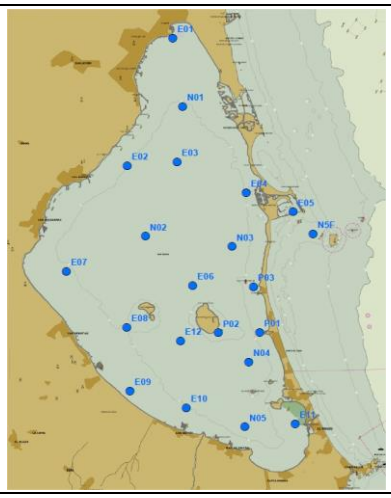
OBSERVACIONES GENERALES

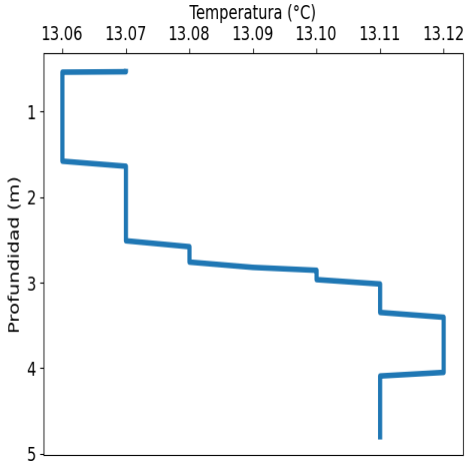
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.532	13.25	4.96	0.23	6.39	4438.3	0.34	43.14
0.544	13.25	4.96	0.15	6.39	4453.8	0.31	43.14
0.555	13.25	4.96	0.08	6.35	4516.1	0.33	43.12
0.568	13.25	4.96	0.15	6.33	4675.9	0.19	43.12
0.596	13.25	4.96	0.08	6.3	4509.9	0.13	43.11
0.625	13.25	4.96	0.11	6.28	2143.6	0.13	43.12
0.658	13.25	4.96	0.08	6.25	1672.8	0.13	43.12
0.697	13.25	4.96	0.15	6.23	725.05	0.14	43.12
0.733	13.25	4.96	0.19	6.19	1452.9	0.15	43.11
0.758	13.25	4.96	0.15	6.16	678.39	0.14	43.12
0.8	13.25	4.96	0.08	6.15	446.36	0.2	43.14
0.855	13.25	4.96	0.15	6.15	750.18	0.17	43.13
0.926	13.25	4.96	0.11	6.26	571.47	0.15	43.13
1.02	13.25	4.96	0.04	6.32	601.78	0.17	43.14
1.753	13.25	4.96	0.72	7.15	669.8	0.15	43.14
1.897	13.25	4.96	0.23	7.22	388.95	0.21	43.14
1.999	13.25	4.96	1.03	7.24	357.4	0.19	43.14
2.08	13.25	4.96	0.99	7.29	454.19	0.17	43.14
2.125	13.25	4.96	0.57	7.35	1211.5	0.18	43.14
2.208	13.25	4.96	0.27	7.45	471.46	0.23	43.14
2.29	13.25	4.96	0.99	7.49	550.54	0.22	43.14
2.368	13.25	4.96	0.61	7.51	392.21	0.15	43.14
2.434	13.25	4.96	0.61	7.52	285.44	0.34	43.14
2.494	13.25	4.96	0.57	7.52	298.78	0.34	43.14
2.543	13.25	4.96	0.72	7.55	640.2	0.41	43.14
2.587	13.25	4.96	0.72	7.56	408.45	0.4	43.14
2.64	13.25	4.96	0.69	7.6	327.8	0.34	43.14
2.701	13.25	4.96	0.84	7.66	389.31	0.41	43.14
2.767	13.25	4.96	0.88	7.77	462.37	0.41	43.14
2.84	13.25	4.96	0.69	7.89	330.4	0.41	43.14
2.911	13.25	4.96	0.53	7.99	288.1	0.4	43.14
2.957	13.25	4.96	0.76	8.1	301.0	0.42	43.14
2.984	13.25	4.96	0.76	8.13	479.84	0.4	43.14
3.018	13.25	4.96	0.69	8.16	394.4	0.39	43.14
3.091	13.25	4.96	0.92	8.15	407.31	0.42	43.14

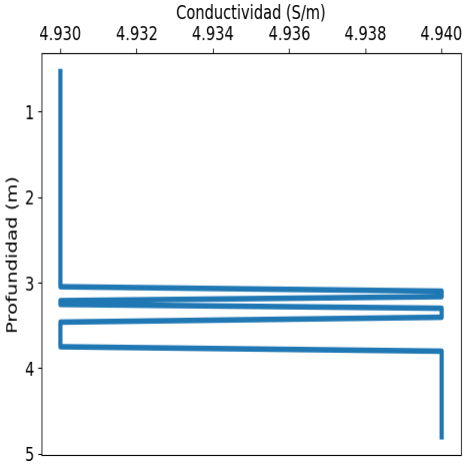
3.189	13.25	4.96	0.61	8.15	287.1	0.42	43.14
3.266	13.25	4.96	0.65	8.11	309.63	0.39	43.14
3.307	13.25	4.96	0.61	8.07	435.73	0.38	43.14
3.335	13.25	4.96	0.65	8.02	350.92	0.41	43.14
3.389	13.25	4.96	0.69	7.99	271.69	0.42	43.14
3.483	13.25	4.96	0.8	8.0	299.4	0.4	43.14
3.584	13.25	4.96	0.69	8.01	357.15	0.44	43.15
3.655	13.25	4.96	0.72	8.02	288.44	0.43	43.15
3.693	13.25	4.96	0.72	8.0	239.06	0.46	43.15
3.71	13.25	4.96	0.88	7.98	250.87	0.48	43.15
3.742	13.25	4.96	0.76	7.93	331.39	0.43	43.15
3.816	13.25	4.96	0.46	7.92	298.64	0.47	43.15
3.915	13.25	4.97	0.65	7.95	241.79	0.42	43.15
3.995	13.25	4.96	0.69	7.96	253.97	0.45	43.15
4.036	13.25	4.97	0.69	7.95	287.03	0.48	43.15
4.041	13.25	4.97	0.76	7.92	279.16	0.51	43.15
4.06	13.25	4.97	0.8	7.92	241.63	0.47	43.15
4.149	13.25	4.97	0.72	7.96	245.75	0.37	43.15
4.262	13.25	4.97	0.57	8.01	273.72	0.49	43.15
4.351	13.25	4.96	0.69	8.04	233.86	0.5	43.15
4.405	13.25	4.96	0.69	8.11	201.24	0.56	43.15
4.433	13.25	4.96	0.69	8.13	222.59	0.55	43.15
4.461	13.25	4.96	0.69	8.14	249.83	0.51	43.15
4.522	13.25	4.96	0.69	8.22	266.27	0.53	43.15
4.611	13.25	4.97	0.76	8.51	225.45	0.6	43.15
4.704	13.25	4.97	0.72	8.8	204.2	0.6	43.15
4.782	13.25	4.97	0.61	8.87	192.49	0.61	43.15
4.829	13.25	4.97	0.84	8.85	222.13	0.59	43.16
4.854	13.25	4.97	0.8	8.79	232.56	0.61	43.15
4.884	13.25	4.97	0.61	8.67	193.02	0.61	43.15
4.944	13.25	4.97	0.72	8.57	181.57	0.63	43.15
5.023	13.25	4.97	0.61	8.46	174.55	0.62	43.16
5.095	13.26	4.97	0.53	8.32	179.14	0.65	43.16
5.154	13.26	4.97	0.69	8.26	180.18	0.62	43.16
5.199	13.26	4.97	0.57	8.24	196.86	0.67	43.16
5.231	13.26	4.97	0.76	8.24	192.98	0.66	43.16
5.256	13.26	4.97	0.57	8.23	179.97	0.68	43.16
5.293	13.26	4.97	0.69	8.24	174.79	0.65	43.16
5.346	13.26	4.97	0.69	8.29	170.35	0.71	43.16
5.406	13.26	4.97	0.61	8.32	162.37	0.75	43.16
5.473	13.27	4.97	0.72	8.4	158.4	0.67	43.17
5.544	13.27	4.97	0.76	8.47	155.49	0.71	43.16
5.596	13.27	4.97	0.69	8.55	165.37	0.72	43.16
5.63	13.27	4.97	0.46	8.56	168.66	0.67	43.16
5.667	13.27	4.97	0.61	8.57	155.85	0.74	43.16
5.722	13.27	4.97	0.69	8.59	140.12	0.77	43.16
5.8	13.27	4.97	0.72	8.61	135.9	0.69	43.16
5.861	13.27	4.97	0.61	8.57	145.68	0.71	43.17
5.908	13.27	4.97	0.53	8.51	157.33	0.69	43.16
5.962	13.27	4.97	0.46	8.54	155.99	0.71	43.16
6.028	13.27	4.97	0.69	8.62	136.05	0.78	43.16
6.106	13.27	4.97	0.61	8.73	131.1	0.66	43.16
6.171	13.27	4.97	0.69	8.78	127.95	0.75	43.16
6.206	13.27	4.97	0.61	8.81	134.89	0.71	43.16
6.218	13.28	4.97	0.61	8.78	138.73	0.69	43.16
6.225	13.28	4.97	0.53	8.72	130.98	0.72	43.16
6.231	13.28	4.97	0.69	8.61	128.19	0.78	43.16
6.234	13.28	4.97	0.53	8.45	127.92	0.68	43.16

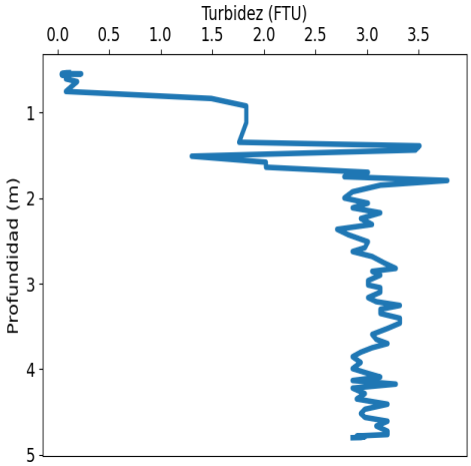
6.235	13.28	4.97	0.53	8.33	132.32	0.61	43.16

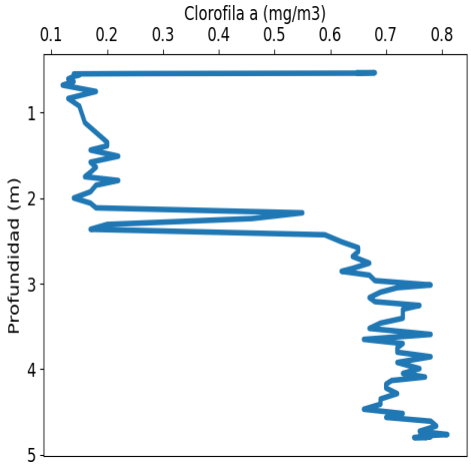
Nombre: CTD E07 - Punto 006 **Fecha: 30/11/2021** **Hora: 10:11:28**

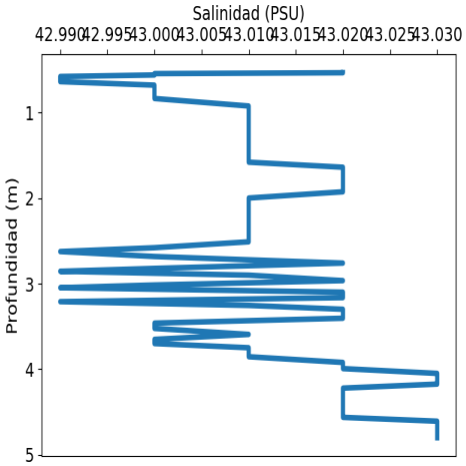


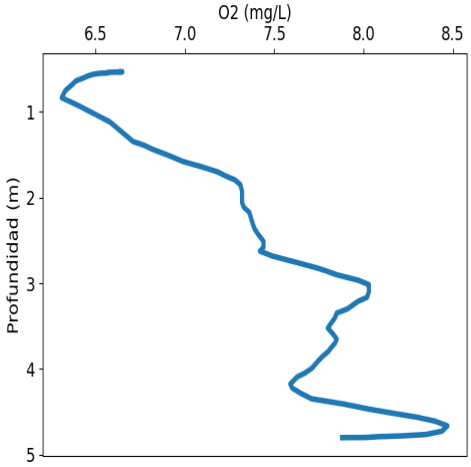


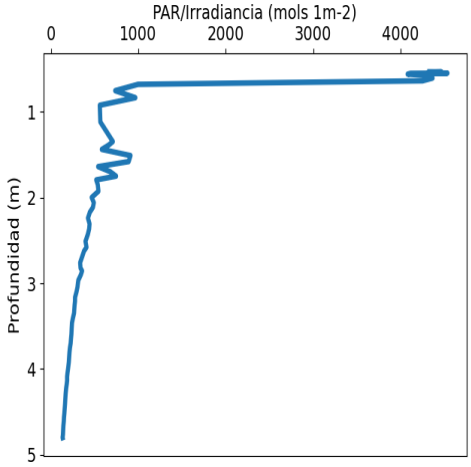












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.06	4.93	0.04	6.31	133.06	0.12	42.99
PROF (metros)	0.538	0.532	0.543	0.834	4.799	0.678	0.577
MÁXIMO	13.12	13.12	3.78	8.47	4535.0	0.81	43.03
PROF (metros)	3.404	3.099	1.793	4.664	0.547	4.764	4.049

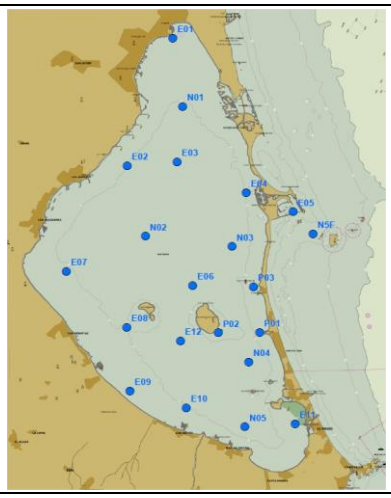
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E07 - Punto 006	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	13.06	4.93	0.32	6.48	3392.4	0.25	43.0
1 - 2m	13.07	4.93	2.64	7.04	641.24	0.18	43.01
2 - 3m	13.08	4.93	3.0	7.52	397.63	0.51	43.01
3 - 4m	13.11	4.93	3.09	7.87	248.11	0.72	43.01
4 - 5m	13.11	4.94	3.03	7.98	156.34	0.74	43.03

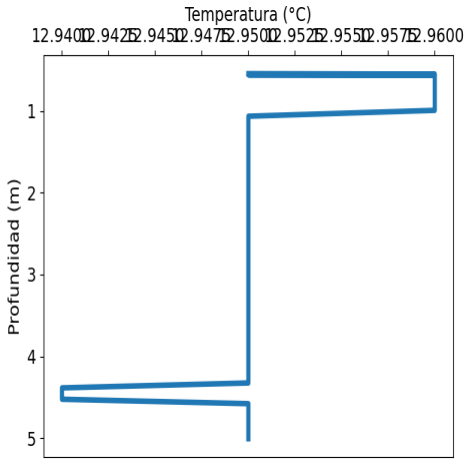
OBSERVACIONES GENERALES

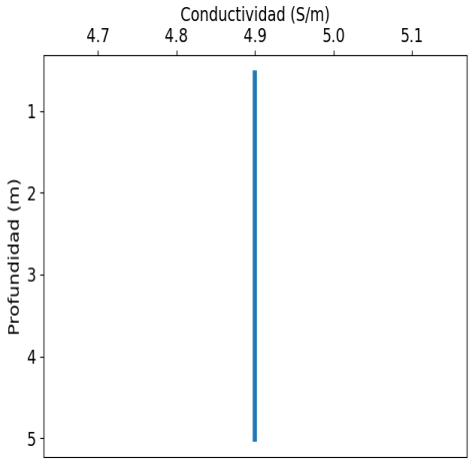
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.532	13.07	4.93	0.11	6.64	4328.6	0.65	43.02
0.533	13.07	4.93	0.08	6.65	4466.2	0.68	43.02
0.538	13.06	4.93	0.08	6.57	4318.6	0.65	43.01
0.543	13.06	4.93	0.04	6.57	4456.9	0.25	43.0
0.546	13.06	4.93	0.23	6.56	4381.1	0.15	43.0
0.547	13.06	4.93	0.11	6.54	4535.0	0.14	43.0
0.55	13.06	4.93	0.11	6.52	4112.5	0.14	43.0
0.559	13.06	4.93	0.04	6.49	4079.2	0.15	43.0
0.577	13.06	4.93	0.11	6.46	4337.6	0.14	42.99
0.605	13.06	4.93	0.08	6.43	4364.9	0.13	42.99
0.637	13.06	4.93	0.19	6.39	4250.1	0.14	42.99
0.678	13.06	4.93	0.15	6.37	995.8	0.12	43.0
0.752	13.06	4.93	0.08	6.33	734.69	0.18	43.0
0.834	13.06	4.93	1.49	6.31	966.01	0.13	43.0
0.922	13.06	4.93	1.83	6.4	558.76	0.15	43.01
1.117	13.06	4.93	1.83	6.58	565.01	0.16	43.01
1.346	13.06	4.93	1.76	6.71	707.95	0.2	43.01
1.388	13.06	4.93	3.51	6.77	658.71	0.2	43.01
1.437	13.06	4.93	3.47	6.82	581.62	0.17	43.01
1.509	13.06	4.93	1.3	6.91	909.73	0.22	43.01
1.579	13.06	4.93	2.02	6.99	889.3	0.17	43.01
1.638	13.07	4.93	2.02	7.09	539.3	0.18	43.02
1.697	13.07	4.93	3.01	7.18	677.13	0.17	43.02
1.749	13.07	4.93	2.78	7.23	744.64	0.16	43.02
1.793	13.07	4.93	3.78	7.28	518.22	0.22	43.02
1.848	13.07	4.93	3.13	7.31	535.31	0.18	43.02
1.925	13.07	4.93	2.86	7.32	543.44	0.17	43.02
1.998	13.07	4.93	2.78	7.32	465.7	0.14	43.01
2.058	13.07	4.93	3.01	7.32	490.18	0.17	43.01
2.113	13.07	4.93	2.86	7.33	480.39	0.18	43.01
2.171	13.07	4.93	3.13	7.36	444.71	0.55	43.01
2.238	13.07	4.93	2.94	7.37	423.49	0.46	43.01
2.307	13.07	4.93	3.05	7.38	441.43	0.2	43.01
2.364	13.07	4.93	2.71	7.39	436.85	0.17	43.01
2.428	13.07	4.93	2.82	7.41	422.21	0.59	43.01
2.51	13.07	4.93	3.01	7.44	395.04	0.62	43.01
2.579	13.08	4.93	2.98	7.44	406.65	0.65	43.0

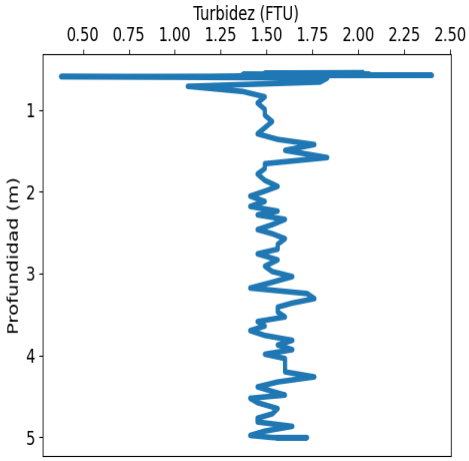
2.624	13.08	4.93	2.86	7.42	378.37	0.65	42.99
2.682	13.08	4.93	3.05	7.49	359.23	0.64	43.0
2.759	13.08	4.93	3.17	7.63	333.86	0.67	43.02
2.821	13.09	4.93	3.28	7.74	338.14	0.64	43.0
2.855	13.1	4.93	3.05	7.79	356.0	0.62	42.99
2.9	13.1	4.93	3.13	7.85	342.32	0.67	43.01
2.964	13.1	4.93	3.01	7.97	313.24	0.68	43.02
3.015	13.11	4.93	3.01	8.03	306.78	0.78	43.0
3.047	13.11	4.93	3.13	8.03	302.96	0.72	42.99
3.099	13.11	4.94	3.13	8.03	292.47	0.69	43.02
3.163	13.11	4.94	3.01	8.02	276.07	0.67	43.02
3.21	13.11	4.93	3.09	7.97	275.37	0.68	42.99
3.254	13.11	4.93	3.32	7.94	270.5	0.76	43.01
3.299	13.11	4.94	3.13	7.91	267.38	0.73	43.02
3.348	13.11	4.94	3.13	7.85	264.3	0.73	43.02
3.404	13.12	4.94	3.32	7.84	251.63	0.73	43.02
3.461	13.12	4.93	3.32	7.82	240.96	0.69	43.0
3.523	13.12	4.93	3.2	7.8	237.35	0.67	43.0
3.593	13.12	4.93	3.05	7.83	234.24	0.78	43.01
3.651	13.12	4.93	3.09	7.85	228.98	0.66	43.0
3.7	13.12	4.93	3.2	7.84	225.4	0.73	43.0
3.749	13.12	4.93	3.05	7.82	217.75	0.72	43.01
3.801	13.12	4.94	2.94	7.8	212.36	0.72	43.01
3.854	13.12	4.94	2.86	7.77	208.85	0.78	43.01
3.921	13.12	4.94	2.94	7.74	204.49	0.72	43.02
3.993	13.12	4.94	2.86	7.71	196.27	0.76	43.02
4.049	13.12	4.94	3.01	7.67	188.95	0.73	43.03
4.091	13.11	4.94	3.13	7.63	184.75	0.77	43.03
4.132	13.11	4.94	2.86	7.61	185.05	0.71	43.03
4.174	13.11	4.94	3.28	7.59	180.85	0.7	43.03
4.221	13.11	4.94	2.86	7.6	174.47	0.7	43.02
4.285	13.11	4.94	2.98	7.65	168.39	0.72	43.02
4.348	13.11	4.94	2.9	7.71	164.53	0.69	43.02
4.409	13.11	4.94	3.2	7.89	161.17	0.69	43.02
4.468	13.11	4.94	2.98	8.03	156.9	0.66	43.02
4.518	13.11	4.94	2.94	8.17	153.41	0.73	43.02
4.563	13.11	4.94	2.98	8.3	149.24	0.7	43.02
4.608	13.11	4.94	3.2	8.4	147.07	0.78	43.03
4.664	13.11	4.94	3.09	8.47	142.18	0.79	43.03
4.725	13.11	4.94	3.2	8.44	139.31	0.76	43.03
4.764	13.11	4.94	3.2	8.35	137.48	0.81	43.03
4.781	13.11	4.94	2.9	8.21	135.77	0.76	43.03
4.79	13.11	4.94	2.98	8.08	134.27	0.78	43.03
4.799	13.11	4.94	2.94	8.01	133.06	0.75	43.03
4.801	13.11	4.94	2.86	7.88	133.52	0.77	43.03

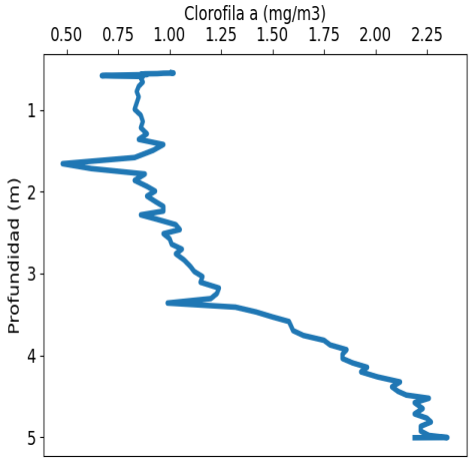
Nombre: CTD E08 - Punto 007 **Fecha: 30/11/2021** **Hora: 10:11:40**

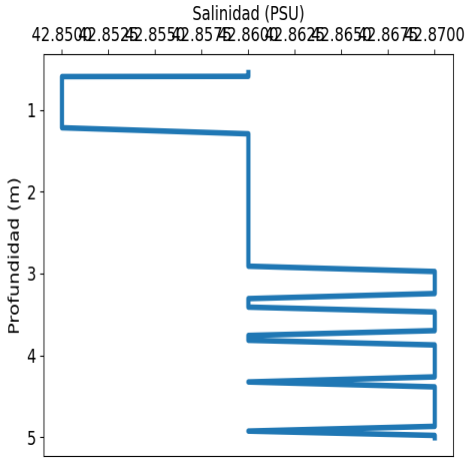


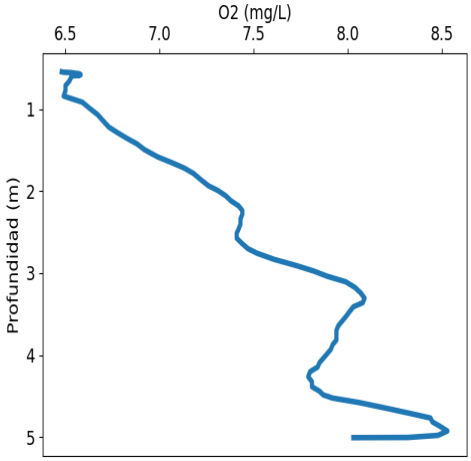


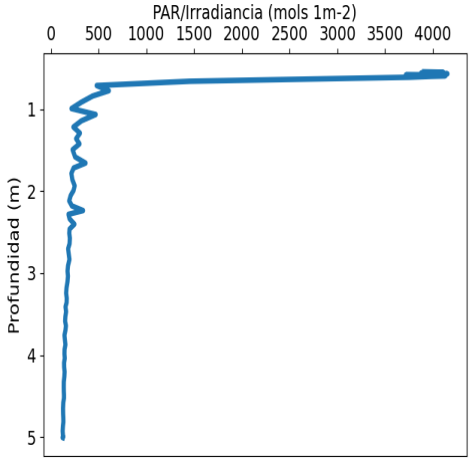












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.94	4.9	0.38	6.48	123.26	0.48	42.85
PROF (metros)	4.44	0.547	0.595	0.547	5.005	1.659	0.595
MÁXIMO	12.96	12.96	2.4	8.53	4152.7	2.35	42.87
PROF (metros)	0.552	0.547	0.58	4.925	0.571	5.004	2.976

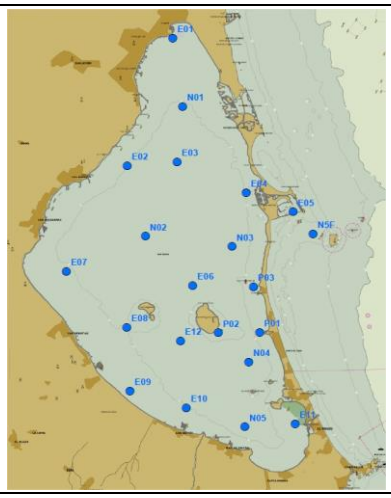
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E08 - Punto 007	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.96	4.9	1.53	6.54	3007.97	0.85	42.86
1 - 2m	12.95	4.9	1.55	6.98	279.4	0.84	42.86
2 - 3m	12.95	4.9	1.51	7.48	205.8	1.0	42.86
3 - 4m	12.95	4.9	1.56	7.98	157.1	1.46	42.87
4 - 5m	12.95	4.9	1.54	8.08	134.66	2.12	42.87
5 - 6m	12.95	4.9	1.6	8.17	125.06	2.27	42.87

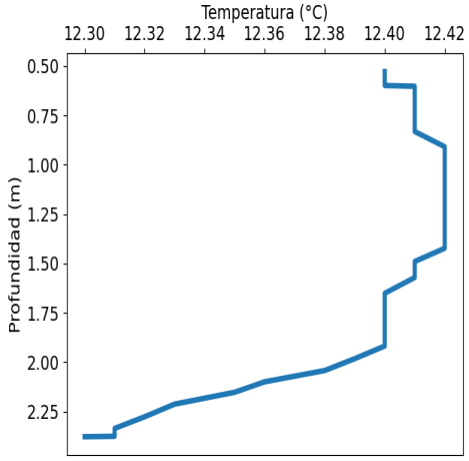
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 4 - 5m, 5 - 6m con los valores 2.12, 2.27 respectivamente

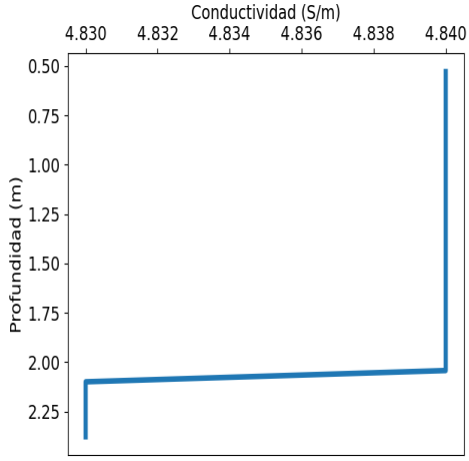
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.547	12.95	4.9	2.02	6.48	3908.9	1.01	42.86
0.552	12.96	4.9	1.49	6.49	4106.7	1.02	42.86
0.554	12.96	4.9	1.64	6.51	4010.8	0.97	42.86
0.559	12.96	4.9	1.56	6.54	4075.5	0.94	42.86
0.561	12.95	4.9	1.72	6.54	3877.3	0.88	42.86
0.567	12.96	4.9	2.06	6.56	3985.8	0.86	42.86
0.569	12.96	4.9	1.37	6.57	4008.9	0.89	42.86
0.571	12.96	4.9	1.49	6.57	4152.7	0.89	42.86
0.58	12.96	4.9	2.4	6.58	4066.0	0.69	42.86
0.582	12.96	4.9	1.68	6.57	3994.1	0.68	42.86
0.584	12.96	4.9	1.37	6.58	3717.2	0.67	42.86
0.588	12.96	4.9	1.34	6.57	3925.3	0.73	42.86
0.592	12.96	4.9	1.18	6.57	3938.0	0.83	42.86
0.595	12.96	4.9	0.38	6.54	4130.6	0.87	42.85
0.613	12.96	4.9	1.83	6.53	3754.4	0.86	42.85
0.662	12.96	4.9	1.79	6.52	1453.9	0.87	42.85
0.714	12.96	4.9	1.07	6.5	479.95	0.85	42.85
0.777	12.96	4.9	1.37	6.5	608.09	0.84	42.85
0.842	12.96	4.9	1.49	6.49	438.27	0.85	42.85
0.918	12.96	4.9	1.45	6.59	318.81	0.84	42.85
0.995	12.96	4.9	1.49	6.63	216.14	0.83	42.85
1.067	12.95	4.9	1.49	6.67	470.37	0.86	42.85
1.144	12.95	4.9	1.53	6.7	320.59	0.87	42.85
1.22	12.95	4.9	1.49	6.73	236.15	0.86	42.85
1.294	12.95	4.9	1.45	6.78	305.36	0.89	42.86
1.362	12.95	4.9	1.56	6.83	264.73	0.85	42.86
1.425	12.95	4.9	1.76	6.88	300.51	0.97	42.86
1.496	12.95	4.9	1.6	6.92	228.08	0.92	42.86
1.584	12.95	4.9	1.83	6.99	254.33	0.83	42.86
1.659	12.95	4.9	1.49	7.07	363.59	0.48	42.86
1.719	12.95	4.9	1.49	7.13	238.95	0.62	42.86
1.785	12.95	4.9	1.45	7.18	215.24	0.88	42.86
1.863	12.95	4.9	1.49	7.22	225.92	0.83	42.86
1.936	12.95	4.9	1.56	7.26	250.0	0.89	42.86
1.994	12.95	4.9	1.49	7.31	237.79	0.93	42.86

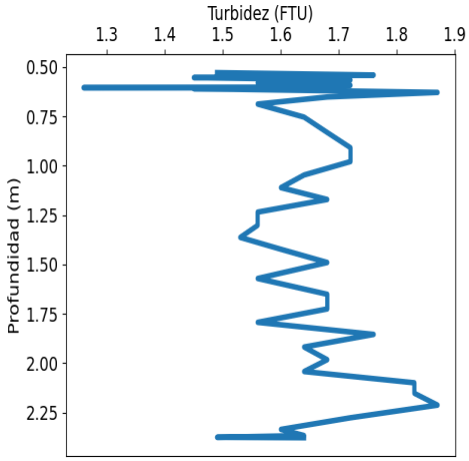
2.055	12.95	4.9	1.41	7.35	207.88	0.89	42.86
2.12	12.95	4.9	1.49	7.38	192.62	0.93	42.86
2.181	12.95	4.9	1.41	7.42	220.74	0.97	42.86
2.238	12.95	4.9	1.56	7.44	337.83	0.97	42.86
2.284	12.95	4.9	1.45	7.44	185.05	0.86	42.86
2.339	12.95	4.9	1.6	7.43	196.82	0.94	42.86
2.404	12.95	4.9	1.53	7.43	247.23	1.03	42.86
2.464	12.95	4.9	1.45	7.42	196.41	1.05	42.86
2.514	12.95	4.9	1.53	7.41	193.51	0.97	42.86
2.575	12.95	4.9	1.6	7.41	199.48	1.0	42.86
2.643	12.95	4.9	1.56	7.44	196.36	1.01	42.86
2.703	12.95	4.9	1.56	7.47	181.27	1.06	42.86
2.76	12.95	4.9	1.45	7.52	186.99	1.03	42.86
2.834	12.95	4.9	1.56	7.61	195.32	1.07	42.86
2.911	12.95	4.9	1.49	7.73	180.14	1.1	42.86
2.976	12.95	4.9	1.53	7.82	175.12	1.12	42.87
3.038	12.95	4.9	1.64	7.89	179.47	1.16	42.87
3.107	12.95	4.9	1.53	7.99	174.63	1.15	42.87
3.178	12.95	4.9	1.41	8.04	164.84	1.24	42.87
3.245	12.95	4.9	1.72	8.07	160.73	1.23	42.87
3.307	12.95	4.9	1.76	8.09	166.76	1.2	42.86
3.361	12.95	4.9	1.64	8.08	165.37	0.99	42.86
3.411	12.95	4.9	1.56	8.03	153.73	1.32	42.86
3.47	12.95	4.9	1.56	8.01	160.24	1.42	42.87
3.531	12.95	4.9	1.6	7.99	152.52	1.5	42.87
3.587	12.95	4.9	1.45	7.97	149.79	1.58	42.87
3.642	12.95	4.9	1.49	7.95	158.54	1.59	42.87
3.698	12.95	4.9	1.41	7.94	153.27	1.6	42.87
3.757	12.95	4.9	1.49	7.94	142.97	1.65	42.86
3.816	12.95	4.9	1.64	7.94	147.76	1.75	42.86
3.873	12.95	4.9	1.56	7.92	153.09	1.78	42.87
3.931	12.95	4.9	1.64	7.91	144.0	1.86	42.87
3.986	12.95	4.9	1.49	7.89	142.97	1.84	42.87
4.039	12.95	4.9	1.6	7.87	146.19	1.84	42.87
4.093	12.95	4.9	1.6	7.85	139.05	1.89	42.87
4.146	12.95	4.9	1.6	7.84	139.73	1.96	42.87
4.202	12.95	4.9	1.6	7.8	144.51	1.93	42.87
4.263	12.95	4.9	1.76	7.79	141.88	2.01	42.87
4.325	12.95	4.9	1.56	7.81	136.05	2.12	42.86
4.385	12.94	4.9	1.45	7.81	135.61	2.08	42.87
4.44	12.94	4.9	1.53	7.85	136.09	2.11	42.87
4.485	12.94	4.9	1.6	7.87	137.77	2.15	42.87
4.524	12.94	4.9	1.41	7.92	137.7	2.26	42.87
4.578	12.95	4.9	1.45	8.06	130.83	2.19	42.87
4.65	12.95	4.9	1.56	8.21	128.16	2.23	42.87
4.715	12.95	4.9	1.53	8.34	129.02	2.19	42.87
4.767	12.95	4.9	1.45	8.44	131.01	2.25	42.87
4.814	12.95	4.9	1.45	8.45	131.77	2.27	42.87
4.867	12.95	4.9	1.64	8.49	127.0	2.22	42.87
4.925	12.95	4.9	1.49	8.53	124.15	2.22	42.86
4.978	12.95	4.9	1.41	8.48	127.3	2.26	42.87
5.004	12.95	4.9	1.53	8.32	126.21	2.35	42.87
5.005	12.95	4.9	1.72	8.16	123.26	2.26	42.87
5.006	12.95	4.9	1.56	8.03	125.72	2.19	42.87

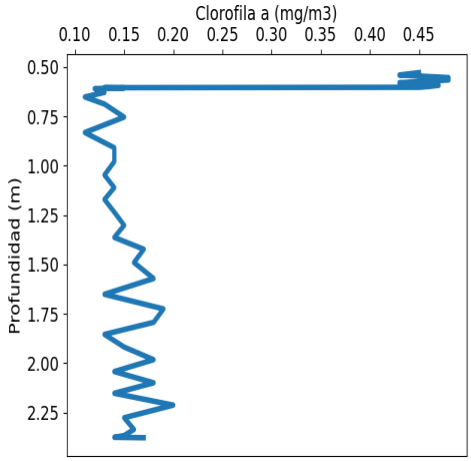
Nombre: CTD E09 - Punto 008 **Fecha: 30/11/2021** **Hora: 10:11:04**

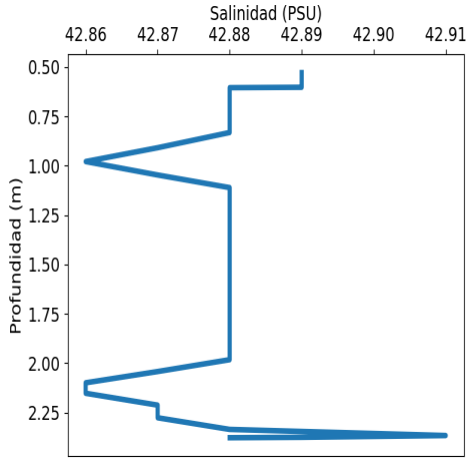


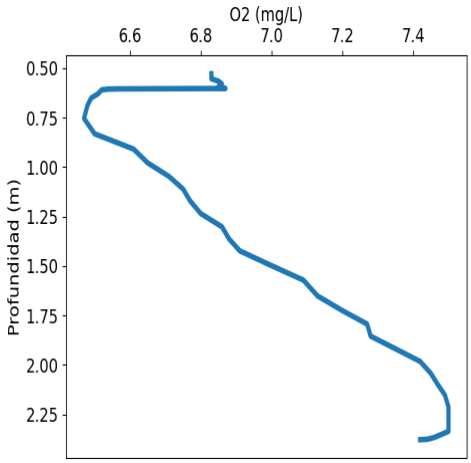


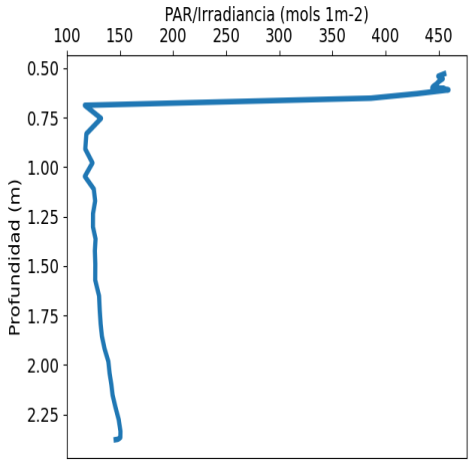


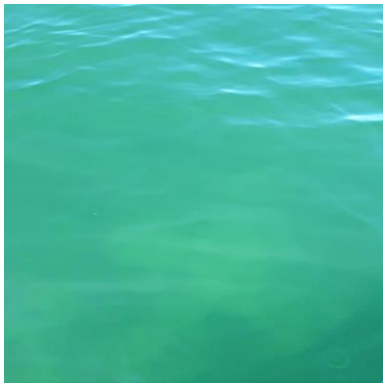












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.3	4.83	1.26	6.47	116.89	0.11	42.86
PROF (metros)	2.377	2.099	0.605	0.754	0.688	0.652	0.979
MÁXIMO	12.42	12.42	1.87	7.5	459.38	0.48	42.91
PROF (metros)	0.909	0.529	0.629	2.212	0.61	0.554	2.366

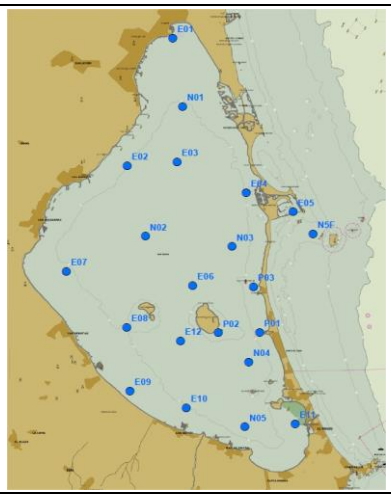
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E09 - Punto 008	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.41	4.84	1.62	6.67	354.7	0.28	42.88
1 - 2m	12.41	4.84	1.63	7.03	128.36	0.15	42.88
2 - 3m	12.33	4.83	1.7	7.47	146.05	0.16	42.88

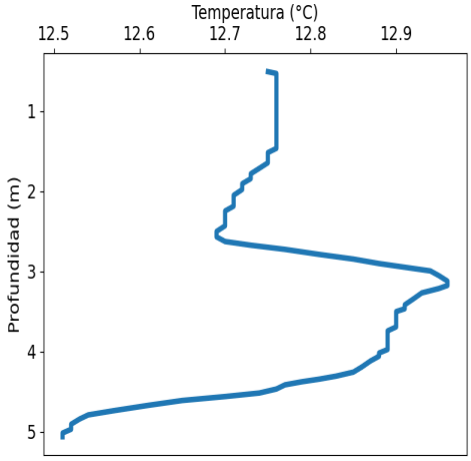
OBSERVACIONES GENERALES

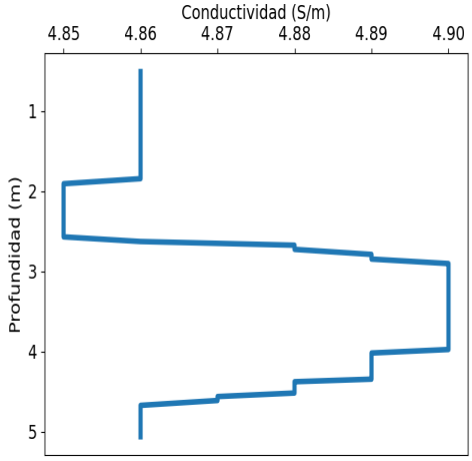
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.529	12.4	4.84	1.49	6.83	455.35	0.45	42.89
0.541	12.4	4.84	1.76	6.83	449.69	0.43	42.89
0.554	12.4	4.84	1.45	6.83	453.98	0.48	42.89
0.566	12.4	4.84	1.72	6.85	450.63	0.48	42.89
0.58	12.4	4.84	1.56	6.86	448.13	0.43	42.89
0.593	12.4	4.84	1.72	6.85	444.92	0.47	42.89
0.599	12.4	4.84	1.56	6.85	444.09	0.46	42.89
0.603	12.41	4.84	1.68	6.87	455.35	0.45	42.89
0.605	12.41	4.84	1.26	6.57	444.3	0.13	42.88
0.606	12.41	4.84	1.68	6.54	453.56	0.15	42.88
0.61	12.41	4.84	1.45	6.52	459.38	0.12	42.88
0.629	12.41	4.84	1.87	6.51	430.01	0.13	42.88
0.652	12.41	4.84	1.68	6.49	386.35	0.11	42.88
0.688	12.41	4.84	1.56	6.48	116.89	0.13	42.88
0.754	12.41	4.84	1.64	6.47	132.17	0.15	42.88
0.832	12.41	4.84	1.68	6.5	118.36	0.11	42.88
0.909	12.42	4.84	1.72	6.61	117.33	0.14	42.87
0.979	12.42	4.84	1.72	6.65	124.09	0.14	42.86
1.047	12.42	4.84	1.64	6.71	116.92	0.13	42.87
1.111	12.42	4.84	1.6	6.75	125.34	0.14	42.88
1.171	12.42	4.84	1.68	6.77	126.62	0.13	42.88
1.235	12.42	4.84	1.56	6.8	124.61	0.14	42.88
1.302	12.42	4.84	1.56	6.86	124.55	0.15	42.88
1.363	12.42	4.84	1.53	6.88	127.0	0.14	42.88
1.423	12.42	4.84	1.6	6.91	126.36	0.17	42.88
1.49	12.41	4.84	1.68	6.99	126.77	0.16	42.88
1.571	12.41	4.84	1.56	7.09	126.68	0.18	42.88
1.651	12.4	4.84	1.68	7.13	130.31	0.13	42.88
1.725	12.4	4.84	1.68	7.2	130.95	0.19	42.88
1.793	12.4	4.84	1.56	7.27	131.8	0.18	42.88
1.854	12.4	4.84	1.76	7.28	132.97	0.13	42.88
1.918	12.4	4.84	1.64	7.35	135.49	0.15	42.88
1.982	12.39	4.84	1.68	7.42	139.05	0.18	42.88
2.042	12.38	4.84	1.64	7.45	140.22	0.14	42.87
2.099	12.36	4.83	1.83	7.47	141.88	0.18	42.86
2.152	12.35	4.83	1.83	7.49	143.04	0.14	42.86
2.212	12.33	4.83	1.87	7.5	145.68	0.2	42.87
2.276	12.32	4.83	1.72	7.5	148.82	0.15	42.87
2.335	12.31	4.83	1.6	7.5	150.45	0.16	42.88

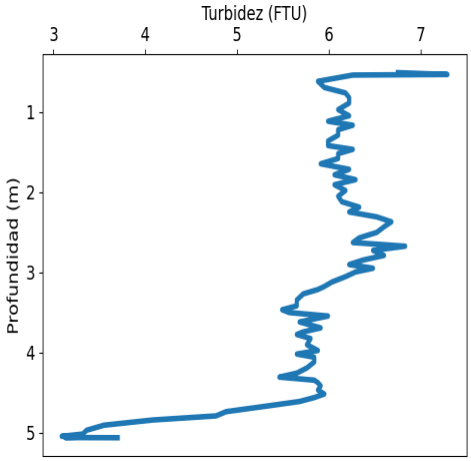
2.366	12.31	4.83	1.64	7.46	150.35	0.15	42.91
2.375	12.31	4.83	1.49	7.44	148.1	0.14	42.89
2.377	12.3	4.83	1.64	7.42	145.92	0.17	42.88

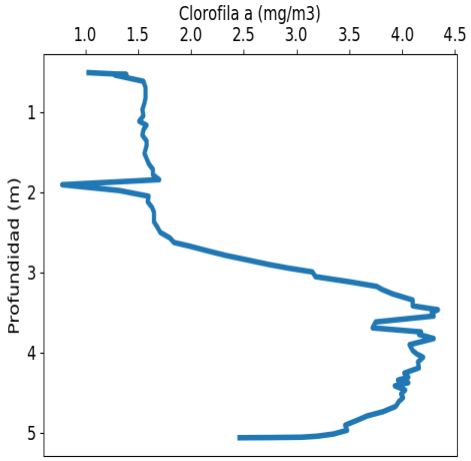
Nombre: CTD E10 - Punto 009 **Fecha: 30/11/2021** **Hora: 10:11:08**

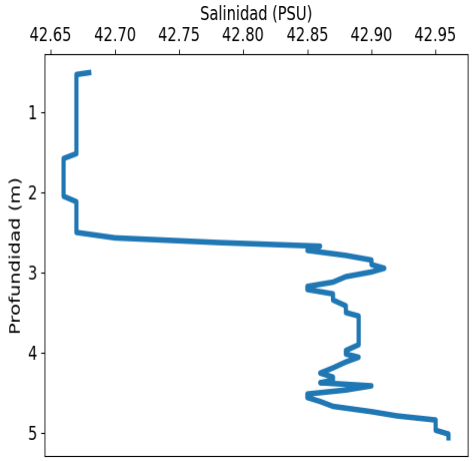


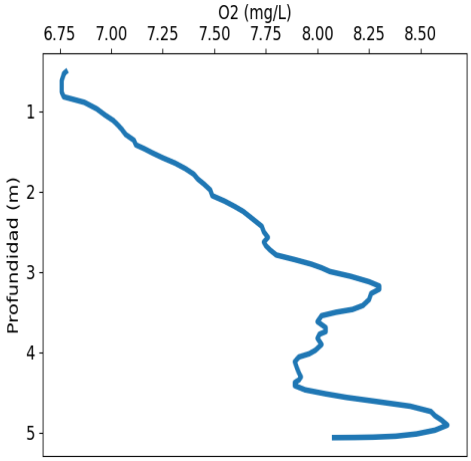


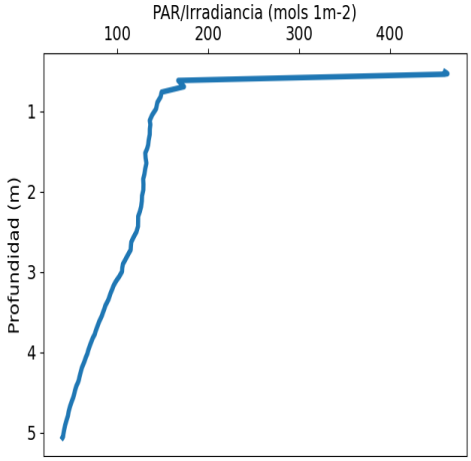












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.51	4.85	3.09	6.76	39.65	0.78	42.66
PROF (metros)	5.018	1.908	5.046	0.618	5.058	1.908	1.581
MÁXIMO	12.96	12.96	7.29	8.63	463.55	4.34	42.96
PROF (metros)	3.123	2.904	0.533	4.908	0.533	3.468	5.018

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	12.76	4.86	6.32	6.8	256.45	1.45	42.67
1 - 2m	12.75	4.86	6.12	7.21	132.67	1.52	42.66
2 - 3m	12.76	4.87	6.41	7.76	117.3	2.04	42.77
3 - 4m	12.91	4.9	5.79	8.12	84.22	3.98	42.88
4 - 5m	12.72	4.88	5.32	8.15	53.61	3.93	42.89
5 - 6m	12.51	4.86	3.3	8.28	39.98	2.96	42.96

OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 2.04, 3.98, 3.93, 2.96 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)
0.51	12.75	4.86	6.75	6.78	460.66	1.03	42.68
0.533	12.76	4.86	7.29	6.77	463.55	1.39	42.67
0.54	12.76	4.86	6.26	6.77	460.34	1.28	42.67
0.618	12.76	4.86	5.88	6.76	167.03	1.55	42.67
0.695	12.76	4.86	5.95	6.76	173.38	1.57	42.67
0.763	12.76	4.86	6.18	6.76	148.72	1.57	42.67
0.821	12.76	4.86	6.22	6.77	147.65	1.57	42.67
0.89	12.76	4.86	6.22	6.87	144.07	1.56	42.67
0.971	12.76	4.86	6.1	6.93	142.61	1.54	42.67
1.048	12.76	4.86	6.22	6.97	138.25	1.55	42.67
1.116	12.76	4.86	5.99	7.01	135.64	1.51	42.67
1.166	12.76	4.86	6.26	7.03	136.34	1.58	42.67
1.222	12.76	4.86	6.1	7.05	135.74	1.55	42.67
1.29	12.76	4.86	6.1	7.07	135.64	1.54	42.67
1.362	12.76	4.86	5.99	7.11	134.46	1.58	42.67
1.42	12.76	4.86	5.99	7.12	133.9	1.58	42.67
1.467	12.76	4.86	6.26	7.16	132.75	1.57	42.67
1.52	12.75	4.86	6.1	7.2	130.74	1.56	42.67
1.581	12.75	4.86	6.1	7.25	131.07	1.58	42.66
1.647	12.75	4.86	5.91	7.31	131.99	1.6	42.66
1.716	12.74	4.86	6.22	7.36	130.68	1.64	42.66
1.784	12.73	4.86	6.06	7.4	129.77	1.64	42.66
1.845	12.73	4.86	6.29	7.42	128.45	1.7	42.66
1.908	12.72	4.85	6.06	7.45	128.72	0.78	42.66
1.98	12.72	4.85	6.18	7.48	128.6	1.32	42.66
2.052	12.71	4.85	6.1	7.49	127.18	1.6	42.66
2.12	12.71	4.85	6.14	7.55	126.92	1.59	42.67
2.188	12.71	4.85	6.33	7.6	126.15	1.63	42.67
2.248	12.7	4.85	6.22	7.64	124.79	1.65	42.67
2.309	12.7	4.85	6.52	7.67	122.92	1.65	42.67
2.371	12.7	4.85	6.68	7.7	122.86	1.65	42.67
2.433	12.7	4.85	6.6	7.73	122.75	1.68	42.67
2.503	12.69	4.85	6.52	7.74	120.97	1.71	42.67
2.571	12.69	4.85	6.33	7.76	117.73	1.8	42.7

2.629	12.7	4.86	6.26	7.74	115.33	1.84	42.78
2.675	12.73	4.88	6.83	7.75	114.93	1.99	42.86
2.727	12.77	4.88	6.48	7.77	114.61	2.14	42.85
2.79	12.81	4.89	6.6	7.8	111.52	2.33	42.88
2.848	12.85	4.89	6.37	7.89	108.79	2.54	42.9
2.904	12.88	4.9	6.22	7.97	106.1	2.74	42.9
2.95	12.91	4.9	6.48	8.02	105.39	2.93	42.91
2.996	12.94	4.9	6.29	8.06	105.14	3.15	42.9
3.055	12.95	4.9	6.18	8.16	102.24	3.18	42.88
3.123	12.96	4.9	6.03	8.25	98.13	3.52	42.87
3.177	12.96	4.9	5.95	8.3	95.61	3.76	42.85
3.215	12.95	4.9	5.88	8.3	94.38	3.81	42.85
3.27	12.93	4.9	5.72	8.26	92.37	3.91	42.87
3.346	12.92	4.9	5.65	8.25	90.14	4.1	42.87
3.419	12.91	4.9	5.65	8.22	86.84	4.1	42.88
3.468	12.91	4.9	5.49	8.17	85.43	4.34	42.88
3.503	12.9	4.9	5.57	8.09	84.23	4.28	42.88
3.546	12.9	4.9	5.99	8.02	82.97	4.3	42.89
3.62	12.9	4.9	5.68	8.0	79.93	3.75	42.89
3.694	12.9	4.9	5.91	8.04	77.5	3.72	42.89
3.744	12.89	4.9	5.72	8.04	75.92	4.18	42.89
3.776	12.89	4.9	5.65	8.01	75.13	4.16	42.89
3.827	12.89	4.9	5.8	8.0	72.78	4.3	42.89
3.904	12.89	4.9	5.76	8.02	70.17	4.07	42.89
3.976	12.89	4.9	5.88	7.99	67.93	4.1	42.88
4.02	12.88	4.89	5.65	7.96	66.93	4.14	42.88
4.06	12.88	4.89	5.84	7.91	65.39	4.2	42.89
4.119	12.87	4.89	5.84	7.89	63.61	4.15	42.88
4.193	12.86	4.89	5.76	7.9	60.92	4.16	42.87
4.258	12.85	4.89	5.65	7.91	59.38	4.02	42.86
4.308	12.83	4.89	5.46	7.92	58.26	4.06	42.87
4.346	12.81	4.89	5.84	7.91	57.54	3.96	42.87
4.378	12.79	4.88	5.88	7.89	56.6	4.06	42.86
4.417	12.77	4.88	5.91	7.89	54.97	3.93	42.9
4.469	12.76	4.88	5.88	7.94	53.54	4.03	42.88
4.519	12.74	4.88	5.95	8.04	52.49	3.99	42.85
4.563	12.7	4.87	5.84	8.14	51.42	4.01	42.85
4.612	12.65	4.87	5.68	8.28	49.78	3.97	42.86
4.673	12.61	4.86	5.3	8.45	47.93	3.94	42.87
4.739	12.57	4.86	4.88	8.55	46.36	3.82	42.9
4.792	12.54	4.86	4.77	8.57	45.55	3.67	42.92
4.843	12.53	4.86	4.08	8.6	44.13	3.58	42.95
4.908	12.52	4.86	3.55	8.63	42.5	3.46	42.95
4.971	12.52	4.86	3.36	8.57	41.31	3.48	42.95
5.018	12.51	4.86	3.32	8.48	40.56	3.35	42.96
5.046	12.51	4.86	3.09	8.38	40.25	3.19	42.96
5.058	12.51	4.86	3.24	8.27	39.65	3.04	42.96
5.062	12.51	4.86	3.13	8.18	39.79	2.74	42.96
5.064	12.51	4.86	3.7	8.08	39.67	2.46	42.96

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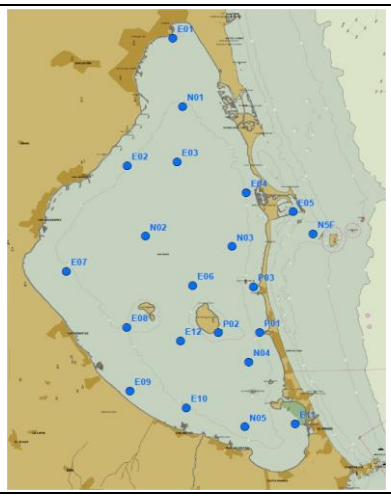
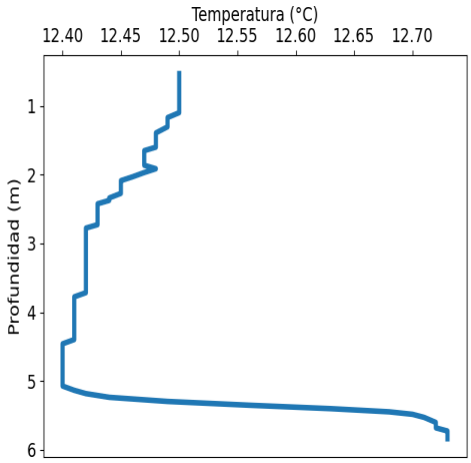
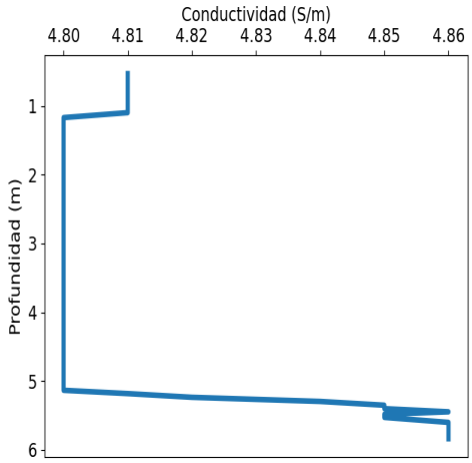
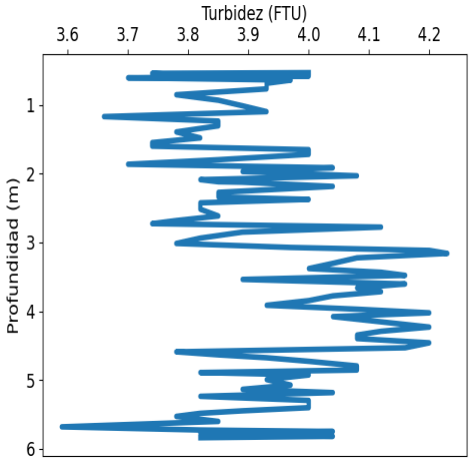
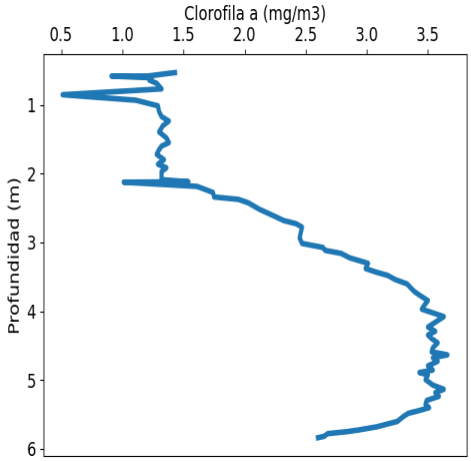
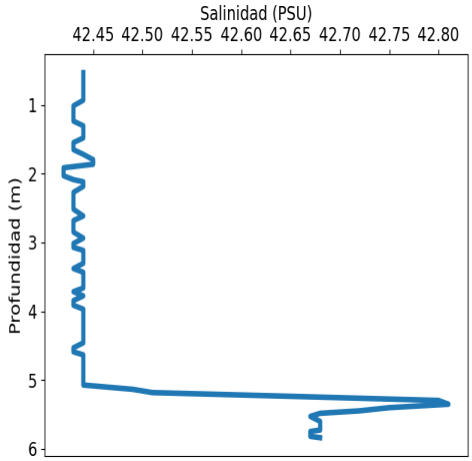


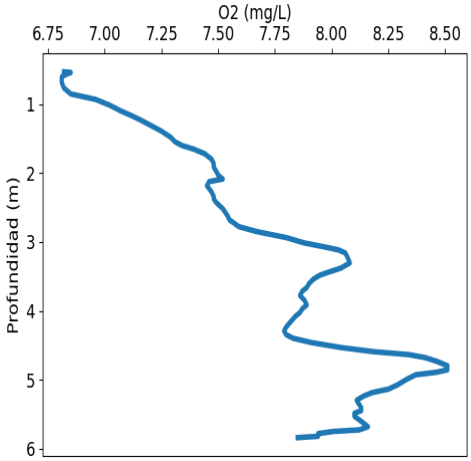


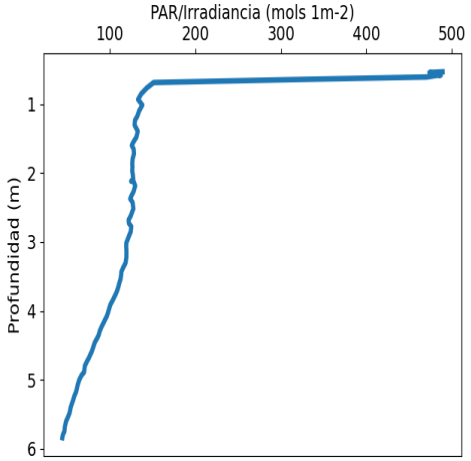












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.4	4.8	3.59	6.81	44.11	0.51	42.42
PROF (metros)	4.459	1.169	5.681	0.605	5.839	0.851	1.913
MÁXIMO	12.73	12.73	4.23	8.51	489.39	3.66	42.81
PROF (metros)	5.727	5.448	3.159	4.795	0.53	4.634	5.352

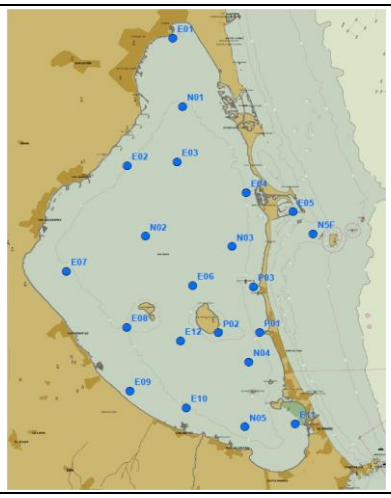
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N05 - Punto 010	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.5	4.81	3.87	6.84	329.63	1.16	42.44
1 - 2m	12.48	4.8	3.85	7.3	129.18	1.32	42.43
2 - 3m	12.44	4.8	3.89	7.54	125.21	1.92	42.43
3 - 4m	12.41	4.8	4.05	7.95	111.94	3.11	42.44
4 - 5m	12.4	4.8	4.03	8.14	79.44	3.54	42.44
5 - 6m	12.62	4.84	3.89	8.1	52.11	3.23	42.66

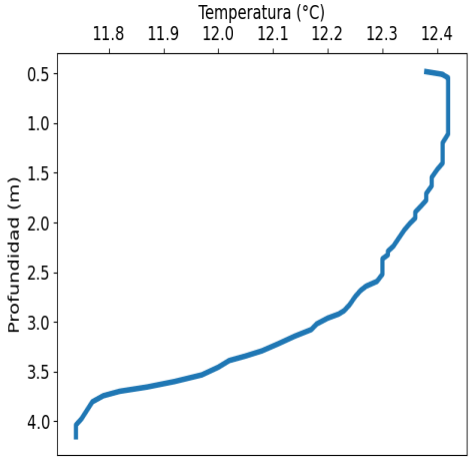
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 3 - 4m, 4 - 5m, 5 - 6m con los valores 3.11, 3.54, 3.23 respectivamente

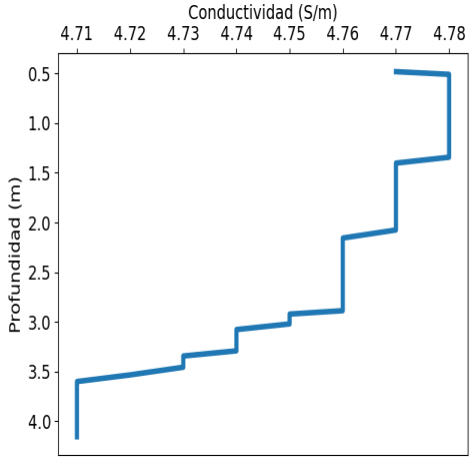
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.53	12.5	4.81	4.0	6.82	489.39	1.43	42.44
0.54	12.5	4.81	3.74	6.85	473.87	1.38	42.44
0.579	12.5	4.81	3.82	6.82	487.23	1.21	42.44
0.58	12.5	4.81	4.0	6.82	483.19	0.91	42.44
0.605	12.5	4.81	3.7	6.81	470.7	1.24	42.44
0.639	12.5	4.81	3.97	6.81	328.94	1.22	42.44
0.685	12.5	4.81	3.93	6.81	151.01	1.28	42.44
0.766	12.5	4.81	3.93	6.82	142.84	1.32	42.44
0.851	12.5	4.81	3.78	6.85	136.37	0.51	42.44
0.931	12.5	4.81	3.85	6.96	132.75	1.11	42.44
1.012	12.5	4.81	3.89	7.02	137.77	1.29	42.43
1.097	12.5	4.81	3.93	7.07	133.99	1.3	42.43
1.169	12.49	4.8	3.66	7.12	132.08	1.32	42.43
1.234	12.49	4.8	3.85	7.16	129.14	1.38	42.43
1.303	12.49	4.8	3.85	7.2	128.69	1.33	42.44
1.392	12.48	4.8	3.78	7.25	132.45	1.3	42.44
1.479	12.48	4.8	3.82	7.29	130.8	1.36	42.44
1.547	12.48	4.8	3.74	7.31	127.36	1.38	42.43
1.599	12.48	4.8	3.74	7.34	125.39	1.32	42.43
1.65	12.47	4.8	4.0	7.39	127.59	1.3	42.43
1.718	12.47	4.8	4.0	7.44	127.98	1.28	42.44
1.796	12.47	4.8	3.85	7.47	126.36	1.34	42.45
1.862	12.47	4.8	3.7	7.48	126.01	1.29	42.45
1.913	12.48	4.8	4.04	7.48	126.18	1.36	42.42
1.968	12.47	4.8	3.89	7.49	125.95	1.32	42.42
2.03	12.46	4.8	4.08	7.5	126.71	1.32	42.42
2.086	12.45	4.8	3.82	7.52	127.09	1.32	42.43
2.117	12.45	4.8	3.85	7.47	124.61	1.54	42.44
2.123	12.45	4.8	3.89	7.46	127.68	1.01	42.44
2.184	12.45	4.8	4.04	7.45	129.44	1.61	42.44
2.271	12.45	4.8	3.85	7.47	127.39	1.74	42.43
2.338	12.44	4.8	3.85	7.48	124.67	1.75	42.43
2.373	12.44	4.8	4.0	7.48	123.58	1.95	42.43
2.423	12.43	4.8	3.82	7.49	126.36	2.03	42.43
2.516	12.43	4.8	3.82	7.52	127.27	2.12	42.43

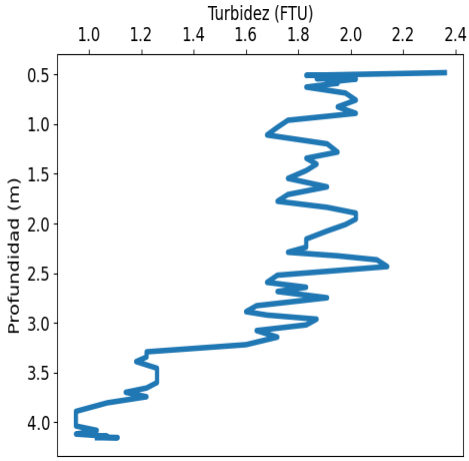
2.614	12.43	4.8	3.85	7.54	124.41	2.24	42.44
2.681	12.43	4.8	3.78	7.55	121.7	2.32	42.43
2.726	12.43	4.8	3.74	7.57	122.01	2.42	42.43
2.776	12.42	4.8	4.12	7.59	124.87	2.47	42.43
2.849	12.42	4.8	3.89	7.67	124.18	2.46	42.43
2.936	12.42	4.8	3.82	7.8	121.39	2.45	42.44
3.014	12.42	4.8	3.78	7.88	119.0	2.47	42.43
3.072	12.42	4.8	3.97	7.97	118.91	2.64	42.43
3.115	12.42	4.8	4.2	8.03	119.16	2.66	42.44
3.159	12.42	4.8	4.23	8.06	119.16	2.79	42.44
3.223	12.42	4.8	4.08	8.07	119.11	2.86	42.44
3.303	12.42	4.8	4.04	8.08	118.14	3.01	42.44
3.379	12.42	4.8	4.0	8.04	115.04	2.99	42.43
3.433	12.42	4.8	4.12	7.99	113.19	3.08	42.44
3.478	12.42	4.8	4.16	7.95	112.95	3.17	42.44
3.537	12.42	4.8	3.89	7.92	112.3	3.23	42.44
3.603	12.42	4.8	4.16	7.9	110.62	3.33	42.44
3.661	12.42	4.8	4.08	7.89	109.47	3.36	42.44
3.715	12.42	4.8	4.12	7.87	108.03	3.39	42.43
3.776	12.41	4.8	4.04	7.86	105.83	3.44	42.44
3.845	12.41	4.8	4.0	7.88	103.09	3.5	42.43
3.913	12.41	4.8	3.93	7.89	100.22	3.47	42.43
3.97	12.41	4.8	4.08	7.87	98.83	3.45	42.44
4.023	12.41	4.8	4.2	7.86	97.67	3.54	42.44
4.078	12.41	4.8	4.04	7.84	96.1	3.63	42.44
4.23	12.41	4.8	4.2	7.8	90.04	3.5	42.44
4.291	12.41	4.8	4.12	7.79	87.94	3.56	42.44
4.346	12.41	4.8	4.08	7.8	86.78	3.5	42.44
4.397	12.41	4.8	4.08	7.83	84.81	3.53	42.44
4.459	12.4	4.8	4.2	7.91	82.03	3.58	42.44
4.531	12.4	4.8	4.16	8.04	80.17	3.54	42.43
4.59	12.4	4.8	3.78	8.18	78.55	3.53	42.43
4.634	12.4	4.8	3.85	8.34	76.88	3.66	42.44
4.676	12.4	4.8	3.93	8.41	75.39	3.54	42.44
4.728	12.4	4.8	4.0	8.46	73.14	3.58	42.44
4.795	12.4	4.8	4.08	8.51	70.51	3.5	42.44
4.855	12.4	4.8	4.08	8.51	69.91	3.54	42.44
4.891	12.4	4.8	3.82	8.46	69.5	3.43	42.44
4.927	12.4	4.8	4.0	8.37	66.96	3.5	42.44
4.994	12.4	4.8	3.93	8.33	64.1	3.48	42.44
5.073	12.4	4.8	3.97	8.29	62.08	3.54	42.44
5.135	12.41	4.8	3.89	8.25	60.99	3.63	42.49
5.183	12.42	4.81	4.04	8.18	59.94	3.56	42.51
5.237	12.44	4.82	3.82	8.14	58.08	3.59	42.65
5.297	12.49	4.84	4.0	8.11	56.67	3.49	42.8
5.352	12.56	4.85	4.0	8.12	55.12	3.48	42.81
5.402	12.63	4.85	4.0	8.13	53.82	3.51	42.75
5.448	12.68	4.86	3.89	8.13	53.12	3.42	42.72
5.484	12.7	4.85	3.82	8.1	52.48	3.34	42.68
5.529	12.71	4.85	3.78	8.1	51.04	3.3	42.67
5.602	12.72	4.86	3.85	8.13	48.49	3.25	42.68
5.681	12.72	4.86	3.59	8.16	47.04	3.08	42.68
5.727	12.73	4.86	3.82	8.12	46.72	2.93	42.68
5.748	12.73	4.86	4.04	8.01	46.56	2.85	42.67
5.78	12.73	4.86	3.82	7.94	45.26	2.68	42.67
5.819	12.73	4.86	4.04	7.94	44.36	2.65	42.67
5.839	12.73	4.86	3.82	7.85	44.11	2.6	42.68

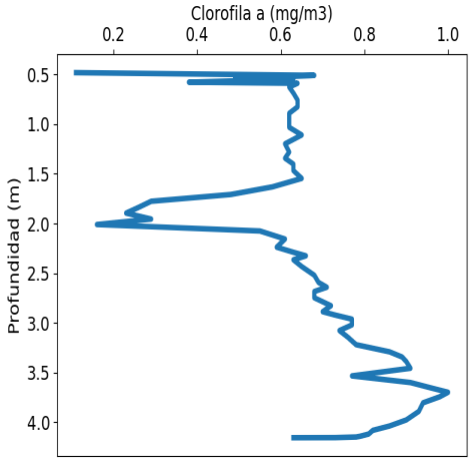
Nombre: CTD E11 - Punto 011 **Fecha: 30/11/2021** **Hora: 11:11:47**

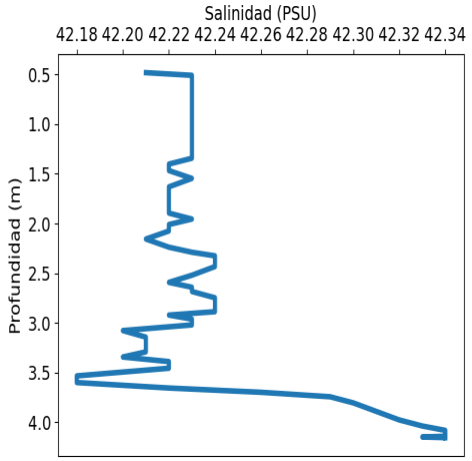


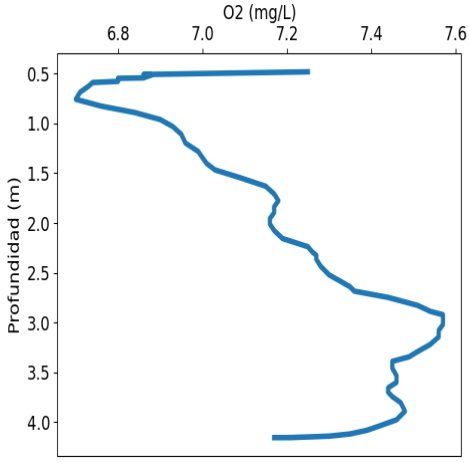


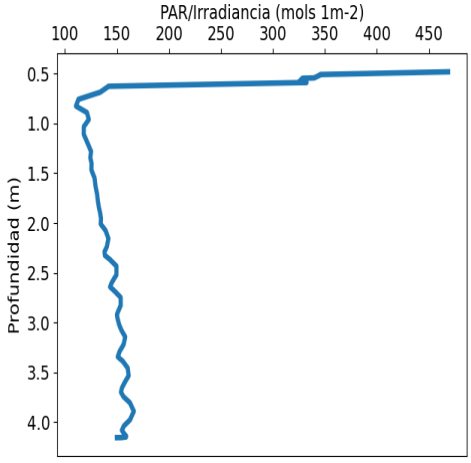












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.74	4.71	0.95	6.7	110.54	0.11	42.18
PROF (metros)	4.037	3.6	3.89	0.758	0.826	0.482	3.533
MÁXIMO	12.42	12.42	2.37	7.57	468.52	1.0	42.34
PROF (metros)	0.543	0.509	0.482	2.921	0.482	3.698	4.081

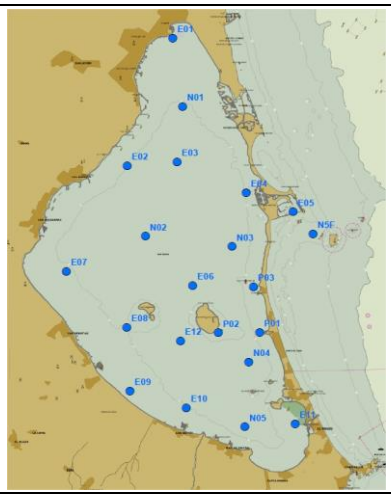
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E11 - Punto 011	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.42	4.78	1.96	6.83	248.43	0.57	42.23
1 - 2m	12.39	4.77	1.85	7.07	127.1	0.51	42.22
2 - 3m	12.28	4.76	1.83	7.34	145.25	0.64	42.23
3 - 4m	11.96	4.73	1.3	7.49	157.17	0.87	42.23
4 - 5m	11.74	4.71	1.02	7.3	155.82	0.78	42.34

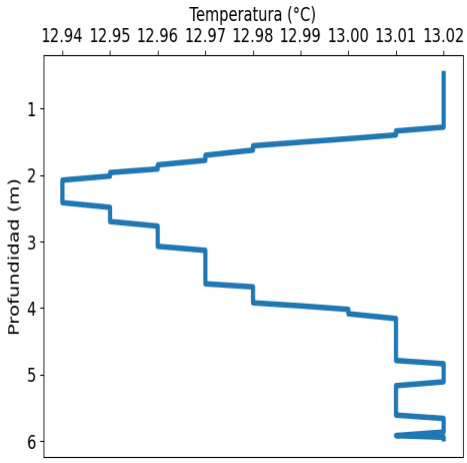
OBSERVACIONES GENERALES

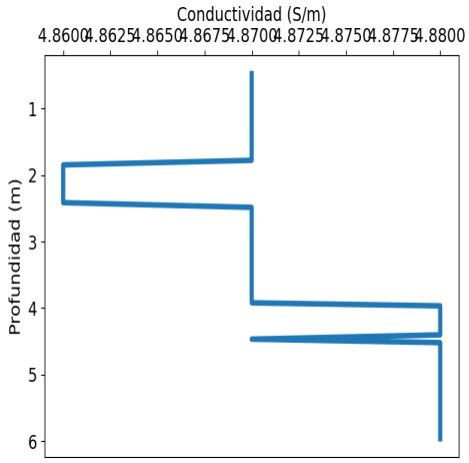
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.482	12.38	4.77	2.36	7.25	468.52	0.11	42.21
0.509	12.41	4.78	1.83	6.86	345.75	0.68	42.23
0.512	12.41	4.78	1.98	6.88	345.75	0.67	42.23
0.543	12.42	4.78	1.87	6.86	339.71	0.49	42.23
0.547	12.42	4.78	2.02	6.8	328.41	0.63	42.23
0.578	12.42	4.78	1.91	6.8	325.61	0.38	42.23
0.589	12.42	4.78	1.95	6.74	332.39	0.64	42.23
0.627	12.42	4.78	1.83	6.73	142.01	0.62	42.23
0.687	12.42	4.78	1.98	6.71	133.8	0.63	42.23
0.758	12.42	4.78	2.02	6.7	112.98	0.64	42.23
0.826	12.42	4.78	1.95	6.76	110.54	0.64	42.23
0.891	12.42	4.78	2.02	6.84	121.14	0.62	42.23
0.961	12.42	4.78	1.76	6.9	122.92	0.62	42.23
1.032	12.42	4.78	1.72	6.93	118.12	0.62	42.23
1.109	12.42	4.78	1.68	6.95	118.06	0.65	42.23
1.198	12.41	4.78	1.91	6.96	121.73	0.61	42.23
1.281	12.41	4.78	1.95	6.99	125.1	0.62	42.23
1.343	12.41	4.78	1.83	7.0	124.35	0.61	42.23
1.402	12.41	4.77	1.87	7.01	125.57	0.63	42.22
1.467	12.4	4.77	1.83	7.03	125.39	0.63	42.22
1.546	12.39	4.77	1.76	7.09	128.39	0.65	42.23
1.631	12.39	4.77	1.91	7.15	129.38	0.58	42.22
1.708	12.38	4.77	1.76	7.17	130.86	0.48	42.22
1.776	12.38	4.77	1.72	7.18	131.59	0.29	42.22
1.837	12.37	4.77	1.91	7.17	132.51	0.26	42.22
1.895	12.36	4.77	2.02	7.17	133.74	0.23	42.22
1.955	12.36	4.77	2.02	7.16	134.61	0.29	42.23
2.01	12.35	4.77	1.98	7.16	134.36	0.16	42.22
2.075	12.34	4.77	1.91	7.17	139.02	0.55	42.22
2.156	12.33	4.76	1.83	7.19	141.78	0.61	42.21
2.238	12.32	4.76	1.83	7.25	140.25	0.59	42.22
2.289	12.31	4.76	1.76	7.26	138.02	0.63	42.23
2.325	12.31	4.76	1.95	7.27	138.38	0.66	42.24
2.365	12.3	4.76	2.1	7.27	143.07	0.63	42.24
2.433	12.3	4.76	2.14	7.28	149.51	0.65	42.24
2.52	12.3	4.76	1.72	7.3	149.48	0.68	42.23
2.592	12.29	4.76	1.68	7.33	145.34	0.69	42.22

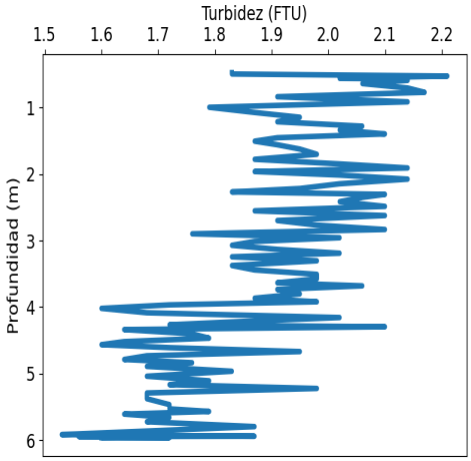
2.641	12.27	4.76	1.83	7.35	143.34	0.71	42.23
2.684	12.26	4.76	1.72	7.36	147.76	0.68	42.23
2.747	12.25	4.76	1.91	7.44	153.55	0.68	42.24
2.827	12.24	4.76	1.64	7.51	153.62	0.72	42.24
2.887	12.23	4.76	1.6	7.54	151.12	0.7	42.24
2.921	12.22	4.75	1.68	7.57	149.96	0.73	42.22
2.962	12.2	4.75	1.87	7.57	150.63	0.77	42.23
3.02	12.18	4.75	1.83	7.57	152.06	0.77	42.23
3.077	12.17	4.74	1.64	7.56	154.3	0.74	42.2
3.143	12.14	4.74	1.72	7.56	157.92	0.76	42.21
3.219	12.11	4.74	1.6	7.54	156.43	0.78	42.21
3.291	12.08	4.74	1.22	7.51	152.45	0.86	42.21
3.343	12.05	4.73	1.22	7.49	150.77	0.89	42.2
3.389	12.02	4.73	1.18	7.45	155.7	0.9	42.22
3.456	12.0	4.73	1.26	7.45	160.32	0.91	42.22
3.533	11.97	4.72	1.26	7.46	161.25	0.77	42.18
3.6	11.92	4.71	1.26	7.46	157.48	0.91	42.18
3.655	11.87	4.71	1.22	7.44	154.8	0.96	42.22
3.698	11.82	4.71	1.14	7.44	153.84	1.0	42.26
3.743	11.79	4.71	1.22	7.45	156.21	0.98	42.29
3.804	11.77	4.71	1.07	7.47	162.41	0.94	42.3
3.89	11.76	4.71	0.95	7.48	166.22	0.93	42.31
3.976	11.75	4.71	0.95	7.46	162.56	0.9	42.32
4.037	11.74	4.71	0.95	7.42	156.68	0.86	42.33
4.081	11.74	4.71	1.03	7.39	154.73	0.82	42.34
4.118	11.74	4.71	0.95	7.35	157.12	0.81	42.34
4.14	11.74	4.71	1.07	7.3	158.87	0.79	42.34
4.148	11.74	4.71	1.03	7.25	158.76	0.78	42.33
4.154	11.74	4.71	1.11	7.21	154.66	0.73	42.34
4.155	11.74	4.71	1.03	7.17	149.9	0.63	42.34

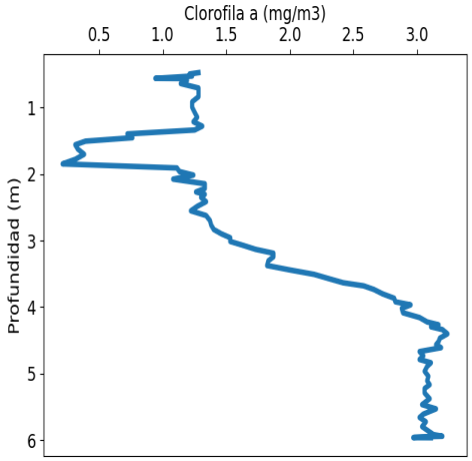
Nombre: CTD N04 - Punto 012 **Fecha: 30/11/2021** **Hora: 11:11:41**

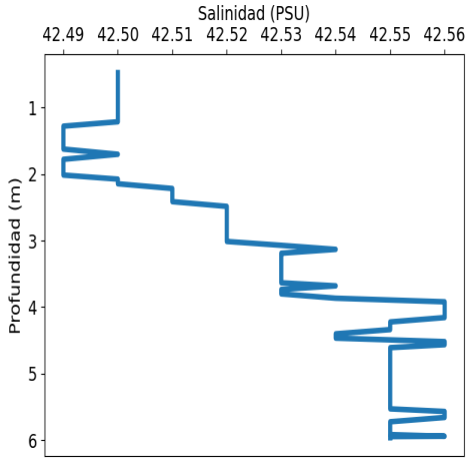


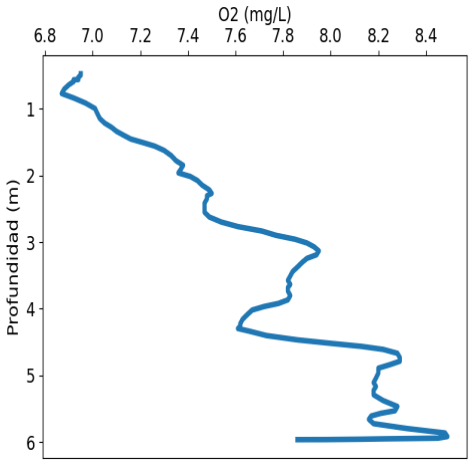


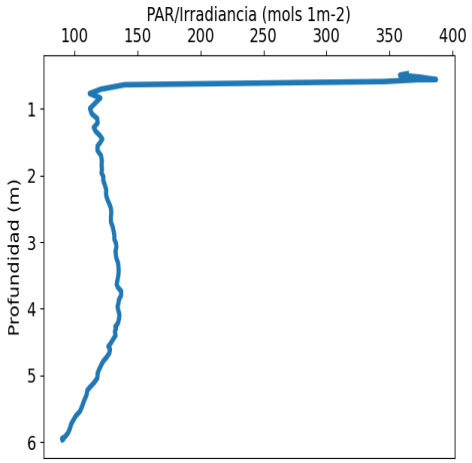












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.94	4.86	1.53	6.87	90.08	0.21	42.49
PROF (metros)	2.075	1.846	5.919	0.769	5.949	1.846	1.278
MÁXIMO	13.03	13.03	2.21	8.49	386.89	3.24	42.56
PROF (metros)	0.524	3.967	0.524	5.919	0.559	4.403	3.921

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	13.02	4.87	2.02	6.93	243.49	1.21	42.5
1 - 2m	12.99	4.87	1.96	7.21	119.21	0.8	42.49
2 - 3m	12.95	4.87	2.0	7.54	127.41	1.32	42.51
3 - 4m	12.97	4.87	1.91	7.85	134.33	2.22	42.54
4 - 5m	13.01	4.88	1.76	7.94	128.83	3.09	42.55
5 - 6m	13.02	4.88	1.71	8.22	100.58	3.08	42.55

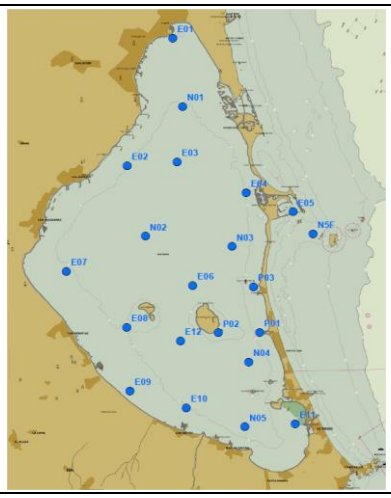
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 3 - 4m, 4 - 5m, 5 - 6m con los valores 2.22, 3.09, 3.08 respectivamente

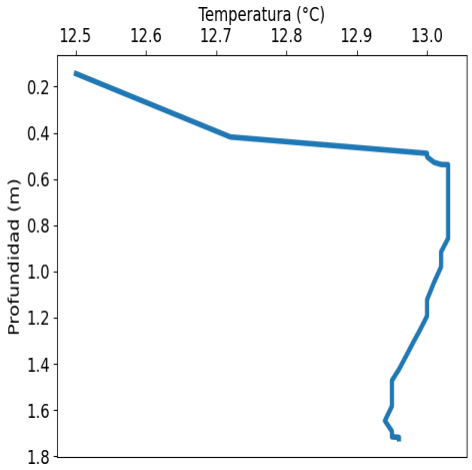
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.473	13.02	4.87	1.83	6.95	363.84	1.28	42.5
0.493	13.02	4.87	1.83	6.95	358.23	1.21	42.5
0.524	13.02	4.87	2.21	6.94	374.36	1.23	42.5
0.559	13.02	4.87	2.02	6.94	386.89	0.94	42.5
0.562	13.02	4.87	2.06	6.92	371.08	1.16	42.5
0.589	13.02	4.87	2.14	6.92	345.59	1.19	42.5
0.637	13.02	4.87	2.06	6.9	139.76	1.14	42.5
0.704	13.02	4.87	2.14	6.88	120.91	1.28	42.5
0.769	13.02	4.87	2.17	6.87	112.04	1.28	42.5
0.835	13.02	4.87	1.91	6.92	120.52	1.28	42.5
0.912	13.02	4.87	2.14	6.97	116.46	1.23	42.5
0.994	13.02	4.87	1.79	7.01	112.24	1.23	42.5
1.072	13.02	4.87	1.87	7.02	113.63	1.25	42.5
1.144	13.02	4.87	1.95	7.03	117.98	1.27	42.5
1.212	13.02	4.87	1.91	7.05	118.36	1.24	42.5
1.278	13.02	4.87	2.06	7.08	115.25	1.31	42.49
1.336	13.01	4.87	2.02	7.1	116.78	1.25	42.49
1.395	13.01	4.87	2.1	7.13	119.94	0.72	42.49
1.452	13.0	4.87	1.91	7.16	122.07	0.76	42.49
1.504	12.99	4.87	1.87	7.21	120.35	0.39	42.49
1.558	12.98	4.87	1.91	7.26	118.23	0.31	42.49
1.623	12.98	4.87	1.95	7.3	118.2	0.33	42.49
1.701	12.97	4.87	1.98	7.33	121.03	0.38	42.5
1.777	12.97	4.87	1.87	7.35	121.7	0.31	42.49
1.846	12.96	4.86	2.02	7.38	121.45	0.21	42.49
1.907	12.96	4.86	2.14	7.37	121.76	1.11	42.49
1.961	12.95	4.86	1.87	7.36	121.39	1.13	42.49
2.014	12.95	4.86	2.02	7.41	122.83	1.24	42.49
2.075	12.94	4.86	2.14	7.44	122.81	1.08	42.5
2.145	12.94	4.86	2.02	7.46	124.12	1.33	42.5
2.216	12.94	4.86	1.95	7.49	125.13	1.33	42.51
2.268	12.94	4.86	1.83	7.5	125.02	1.26	42.51
2.304	12.94	4.86	2.1	7.48	125.16	1.33	42.51
2.35	12.94	4.86	2.06	7.48	125.89	1.3	42.51
2.414	12.94	4.86	2.02	7.47	127.33	1.34	42.51

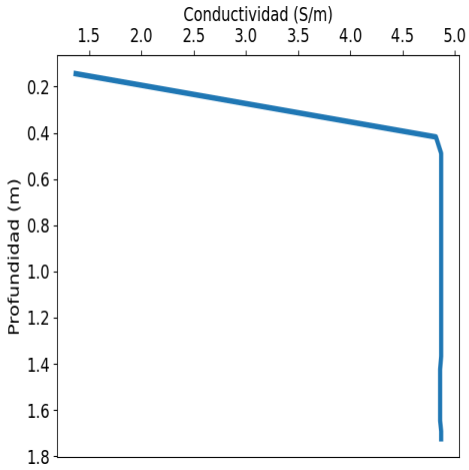
2.485	12.95	4.87	2.1	7.47	128.78	1.27	42.52
2.552	12.95	4.87	1.87	7.47	129.2	1.22	42.52
2.623	12.95	4.87	2.1	7.49	128.87	1.34	42.52
2.698	12.95	4.87	1.91	7.54	128.9	1.37	42.52
2.767	12.96	4.87	1.98	7.61	130.22	1.38	42.52
2.833	12.96	4.87	2.1	7.71	131.01	1.4	42.52
2.898	12.96	4.87	1.76	7.77	131.62	1.46	42.52
2.957	12.96	4.87	2.02	7.85	131.62	1.53	42.52
3.013	12.96	4.87	1.87	7.9	132.78	1.53	42.52
3.071	12.96	4.87	1.83	7.93	133.28	1.63	42.53
3.132	12.97	4.87	1.91	7.95	132.54	1.73	42.54
3.19	12.97	4.87	2.02	7.94	132.78	1.87	42.53
3.244	12.97	4.87	1.83	7.9	133.25	1.87	42.53
3.304	12.97	4.87	1.98	7.88	134.42	1.83	42.53
3.375	12.97	4.87	1.83	7.86	134.89	1.82	42.53
3.442	12.97	4.87	1.87	7.84	135.02	2.0	42.53
3.508	12.97	4.87	1.98	7.83	134.7	2.19	42.53
3.575	12.97	4.87	1.98	7.82	134.05	2.31	42.53
3.635	12.97	4.87	1.91	7.83	133.4	2.42	42.53
3.681	12.98	4.87	2.06	7.82	134.46	2.58	42.54
3.735	12.98	4.87	1.91	7.82	137.0	2.66	42.53
3.802	12.98	4.87	1.95	7.83	136.94	2.73	42.53
3.867	12.98	4.87	1.87	7.82	135.17	2.82	42.54
3.921	12.98	4.87	1.98	7.78	134.8	2.83	42.56
3.967	12.99	4.88	1.72	7.72	134.14	2.95	42.56
4.02	13.0	4.88	1.6	7.67	134.64	2.88	42.56
4.086	13.0	4.88	1.68	7.65	135.64	2.89	42.56
4.158	13.01	4.88	2.02	7.63	135.24	3.02	42.56
4.224	13.01	4.88	1.83	7.62	134.33	3.08	42.55
4.267	13.01	4.88	1.72	7.62	132.35	3.17	42.55
4.297	13.01	4.88	2.1	7.61	132.91	3.11	42.55
4.339	13.01	4.88	1.64	7.66	132.02	3.2	42.55
4.403	13.01	4.88	1.76	7.73	132.54	3.24	42.54
4.468	13.01	4.87	1.79	7.86	130.31	3.18	42.54
4.52	13.01	4.88	1.64	8.0	128.69	3.17	42.56
4.566	13.01	4.88	1.6	8.13	126.83	3.15	42.56
4.611	13.01	4.88	1.72	8.22	128.19	3.19	42.55
4.67	13.01	4.88	1.95	8.28	127.56	3.02	42.55
4.733	13.01	4.88	1.68	8.29	125.25	3.05	42.55
4.789	13.01	4.88	1.64	8.29	122.78	3.02	42.55
4.838	13.02	4.88	1.76	8.25	121.36	3.11	42.55
4.893	13.02	4.88	1.68	8.2	119.99	3.08	42.55
4.966	13.02	4.88	1.83	8.2	118.34	3.06	42.55
5.041	13.02	4.88	1.68	8.19	118.12	3.09	42.55
5.11	13.02	4.88	1.79	8.18	115.52	3.08	42.55
5.168	13.01	4.88	1.72	8.19	112.74	3.1	42.55
5.225	13.01	4.88	1.98	8.18	110.18	3.06	42.55
5.293	13.01	4.88	1.68	8.18	109.57	3.06	42.55
5.379	13.01	4.88	1.68	8.22	107.63	3.1	42.55
5.468	13.01	4.88	1.72	8.28	105.95	3.04	42.55
5.532	13.01	4.88	1.72	8.27	104.56	3.15	42.55
5.571	13.01	4.88	1.79	8.21	102.92	3.1	42.56
5.611	13.01	4.88	1.64	8.17	100.94	3.05	42.56
5.661	13.02	4.88	1.72	8.16	99.45	3.02	42.56
5.726	13.02	4.88	1.68	8.18	97.47	3.07	42.55
5.799	13.02	4.88	1.87	8.32	96.32	3.04	42.55
5.866	13.02	4.88	1.68	8.48	94.8	3.09	42.55
5.919	13.01	4.88	1.53	8.49	92.67	3.13	42.55

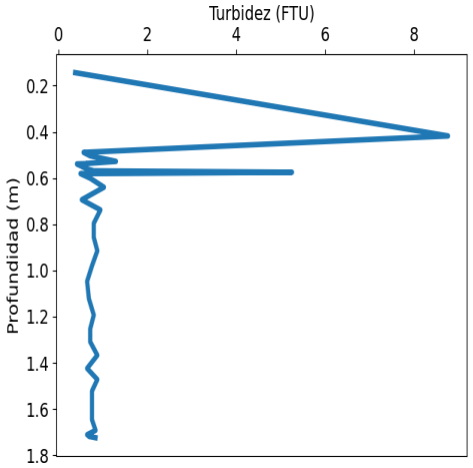
5.944	13.02	4.88	1.87	8.45	90.54	3.2	42.56
5.949	13.02	4.88	1.56	8.34	90.08	3.1	42.55
5.953	13.02	4.88	1.68	8.24	90.21	3.04	42.55
5.96	13.02	4.88	1.6	8.12	91.13	2.98	42.55
5.965	13.02	4.88	1.72	7.98	90.82	2.97	42.55
5.966	13.02	4.88	1.6	7.86	90.58	3.11	42.55

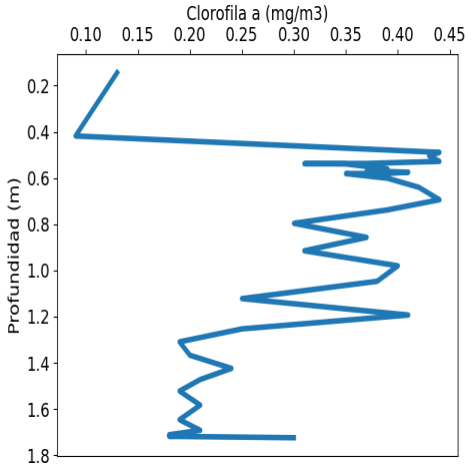
Nombre: CTD P01 - Punto 013 **Fecha: 30/11/2021** **Hora: 11:11:59**

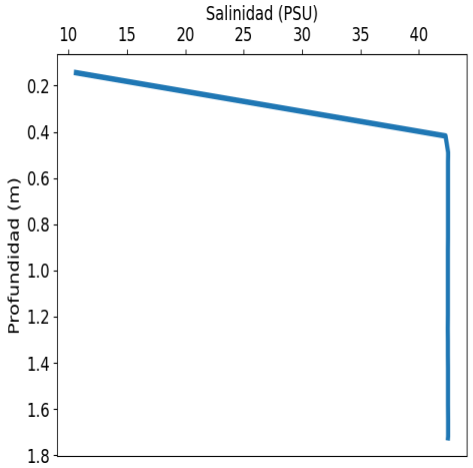


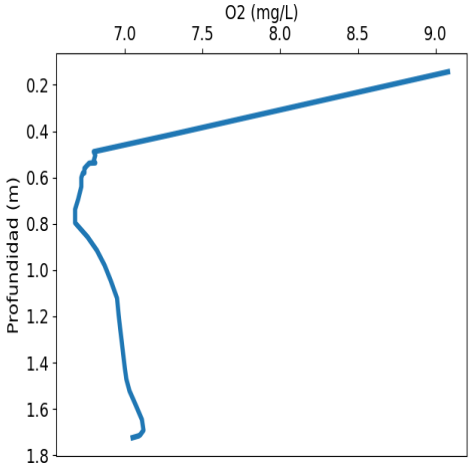


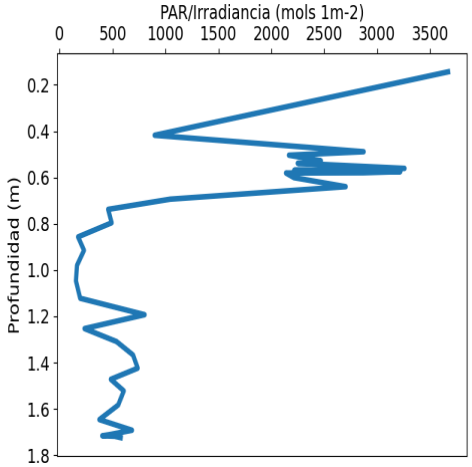












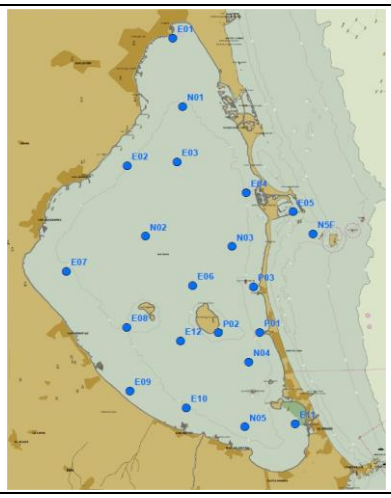
VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.5	1.37	0.38	6.68	153.73	0.09	10.63
PROF (metros)	0.144	0.144	0.144	0.738	1.047	0.418	0.144
MÁXIMO	13.03	13.03	8.77	9.08	3671.8	0.44	42.51
PROF (metros)	0.538	0.489	0.418	0.144	0.144	0.489	0.489

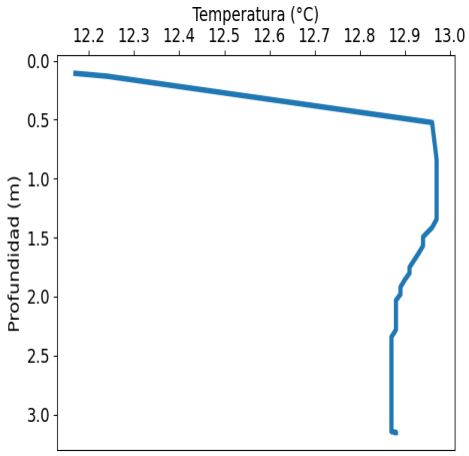
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD P01 - Punto 013	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.98	4.7	1.37	6.89	1919.19	0.36	40.97
1 - 2m	12.97	4.87	0.75	7.03	501.53	0.24	42.5

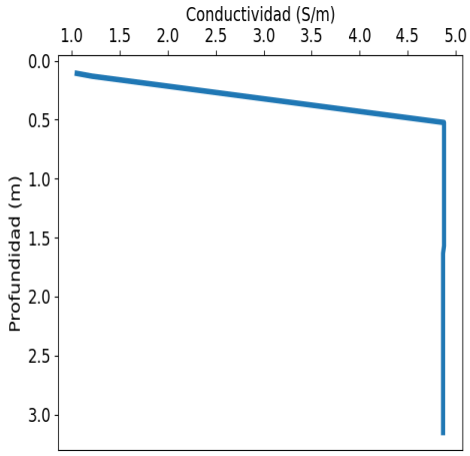
OBSERVACIONES GENERALES

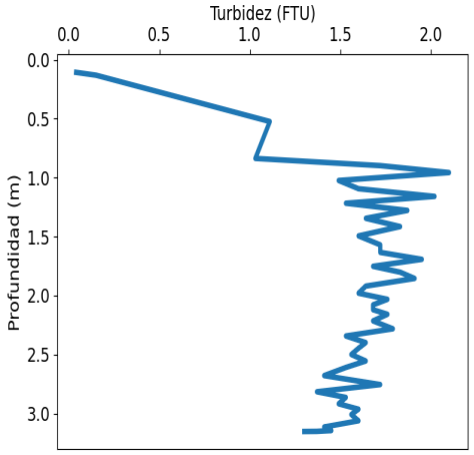
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.144	12.5	1.37	0.38	9.08	3671.8	0.13	10.63
0.418	12.72	4.82	8.77	7.28	896.96	0.09	42.29
0.489	13.0	4.87	0.57	6.8	2874.0	0.44	42.51
0.504	13.0	4.87	0.72	6.81	2166.6	0.43	42.51
0.528	13.01	4.87	1.3	6.8	2469.7	0.44	42.5
0.537	13.02	4.87	0.65	6.81	2374.3	0.37	42.5
0.538	13.03	4.87	0.65	6.78	2413.7	0.31	42.5
0.539	13.03	4.87	0.42	6.77	2249.5	0.35	42.5
0.561	13.03	4.87	0.65	6.74	3260.2	0.39	42.5
0.569	13.03	4.87	0.8	6.74	2216.9	0.37	42.5
0.575	13.03	4.87	5.26	6.74	3220.4	0.41	42.5
0.58	13.03	4.87	1.53	6.74	2870.0	0.39	42.5
0.581	13.03	4.87	0.5	6.73	2138.7	0.35	42.5
0.601	13.03	4.87	0.72	6.72	2214.8	0.39	42.5
0.64	13.03	4.87	1.03	6.72	2704.0	0.42	42.5
0.694	13.03	4.87	0.53	6.7	1045.0	0.44	42.5
0.738	13.03	4.87	0.95	6.68	458.0	0.39	42.5
0.796	13.03	4.87	0.8	6.68	491.2	0.3	42.5
0.857	13.03	4.87	0.8	6.76	173.86	0.37	42.5
0.915	13.02	4.87	0.88	6.82	229.88	0.31	42.49
0.98	13.02	4.87	0.76	6.87	163.58	0.4	42.49
1.047	13.01	4.87	0.65	6.91	153.73	0.38	42.49
1.122	13.0	4.87	0.69	6.95	193.47	0.25	42.49
1.193	13.0	4.87	0.8	6.96	803.27	0.41	42.49
1.253	12.99	4.87	0.72	6.97	234.4	0.25	42.48
1.309	12.98	4.87	0.72	6.98	537.3	0.19	42.49
1.367	12.97	4.87	0.88	6.99	693.49	0.2	42.49
1.424	12.96	4.86	0.65	7.0	737.76	0.24	42.5
1.472	12.95	4.86	0.88	7.01	482.85	0.21	42.5
1.522	12.95	4.86	0.76	7.03	606.12	0.19	42.5
1.583	12.95	4.86	0.76	7.07	553.22	0.21	42.5
1.646	12.94	4.86	0.76	7.11	375.05	0.19	42.51
1.692	12.95	4.87	0.84	7.12	684.23	0.21	42.51
1.711	12.95	4.87	0.65	7.1	470.8	0.18	42.51
1.716	12.95	4.87	0.76	7.09	401.69	0.2	42.51
1.718	12.96	4.87	0.69	7.08	520.14	0.18	42.51
1.724	12.96	4.87	0.84	7.05	576.92	0.3	42.5

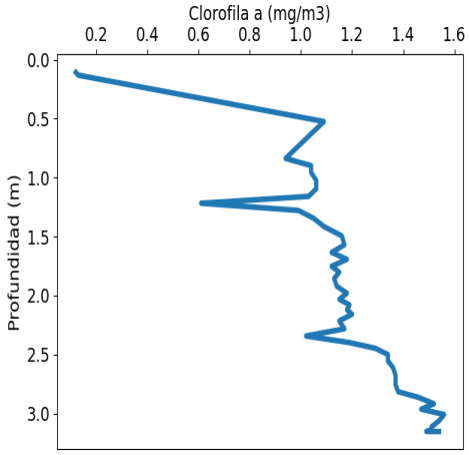
Nombre: CTD P02 - Punto 014 **Fecha: 30/11/2021** **Hora: 11:11:18**

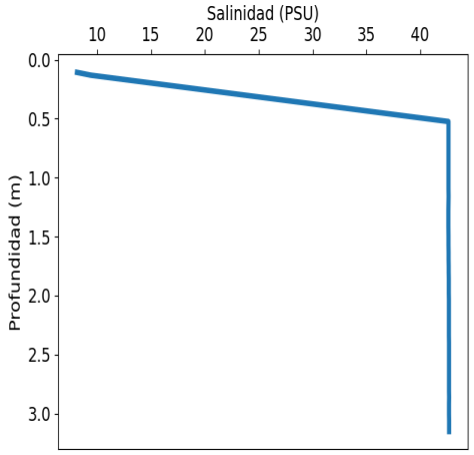


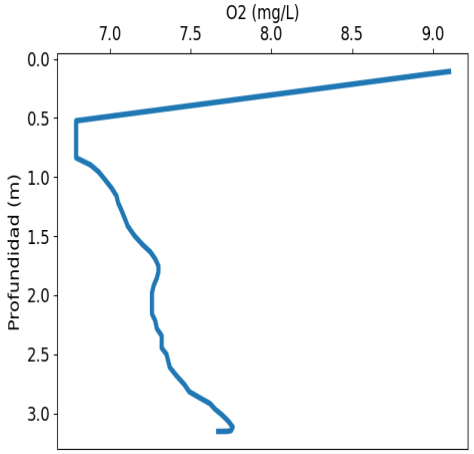


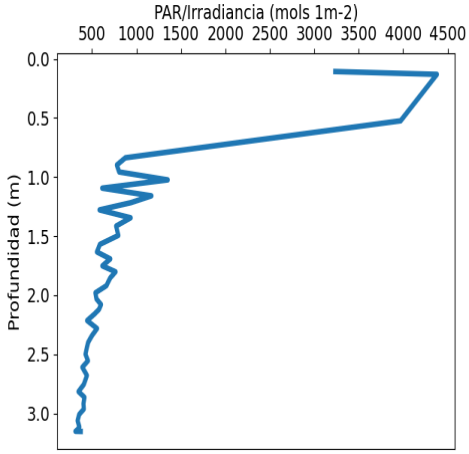












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.17	1.05	0.04	6.79	313.1	0.12	8.11
PROF (metros)	0.107	0.107	0.107	0.524	3.152	0.107	0.107
MÁXIMO	12.97	12.97	2.1	9.1	4379.1	1.56	42.68
PROF (metros)	0.837	0.524	0.957	0.107	0.131	3.009	2.864

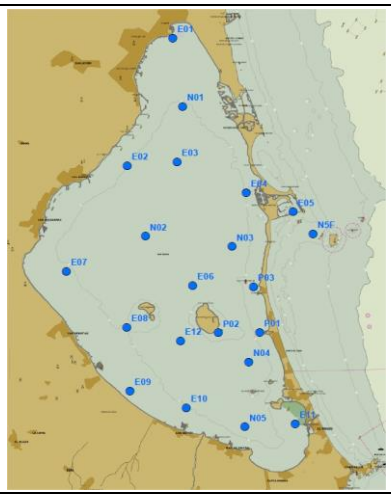
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD P02 - Punto 014	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.71	3.63	1.02	7.57	2341.03	0.73	31.33
1 - 2m	12.94	4.88	1.73	7.17	768.06	1.08	42.63
2 - 3m	12.87	4.87	1.61	7.38	464.05	1.29	42.67
3 - 4m	12.87	4.87	1.45	7.72	344.43	1.53	42.68

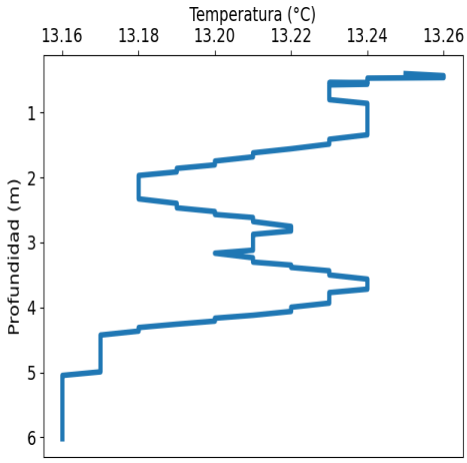
OBSERVACIONES GENERALES

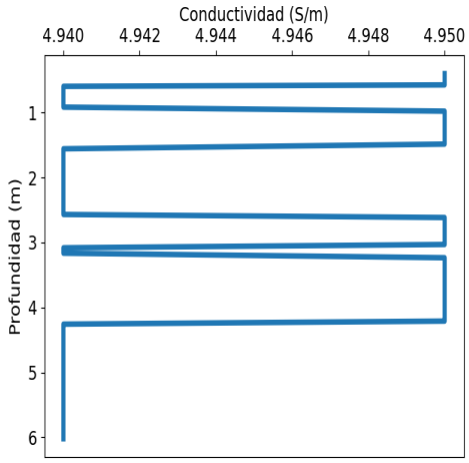
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.107	12.17	1.05	0.04	9.1	3236.1	0.12	8.11
0.131	12.24	1.21	0.15	8.96	4379.1	0.13	9.4
0.524	12.96	4.88	1.11	6.79	3971.0	1.09	42.62
0.837	12.97	4.88	1.03	6.79	875.6	0.94	42.62
0.898	12.97	4.88	1.72	6.88	779.42	1.04	42.62
0.957	12.97	4.88	2.1	6.93	804.94	1.04	42.62
1.024	12.97	4.88	1.49	6.97	1352.2	1.06	42.62
1.094	12.97	4.88	1.6	7.01	614.18	1.06	42.62
1.159	12.97	4.88	2.02	7.04	1168.2	1.03	42.63
1.217	12.97	4.88	1.53	7.05	935.82	0.61	42.62
1.278	12.97	4.88	1.87	7.07	584.46	0.99	42.61
1.345	12.97	4.88	1.64	7.09	934.74	1.05	42.61
1.415	12.96	4.88	1.83	7.11	770.8	1.09	42.61
1.494	12.94	4.88	1.6	7.15	795.85	1.16	42.62
1.57	12.94	4.88	1.72	7.2	588.68	1.17	42.62
1.634	12.93	4.87	1.72	7.25	554.89	1.12	42.63
1.693	12.92	4.87	1.95	7.28	705.82	1.18	42.63
1.752	12.91	4.87	1.68	7.3	616.03	1.12	42.64
1.802	12.91	4.87	1.83	7.3	764.57	1.15	42.64
1.855	12.9	4.87	1.91	7.29	703.53	1.13	42.65
1.92	12.89	4.87	1.64	7.27	661.31	1.14	42.65
1.98	12.89	4.87	1.6	7.26	537.8	1.18	42.65
2.032	12.88	4.87	1.76	7.26	550.28	1.15	42.66
2.079	12.88	4.87	1.68	7.26	601.36	1.19	42.66
2.12	12.88	4.87	1.68	7.26	578.8	1.18	42.66
2.159	12.88	4.87	1.76	7.26	528.04	1.2	42.66
2.215	12.88	4.87	1.68	7.28	444.71	1.15	42.66
2.282	12.88	4.87	1.79	7.29	556.69	1.17	42.66
2.343	12.87	4.87	1.53	7.32	498.43	1.02	42.66
2.399	12.87	4.87	1.64	7.32	456.51	1.19	42.67
2.447	12.87	4.87	1.6	7.32	441.12	1.29	42.67
2.5	12.87	4.87	1.56	7.35	426.44	1.34	42.67
2.555	12.87	4.87	1.64	7.36	454.3	1.34	42.67
2.61	12.87	4.87	1.53	7.37	390.85	1.36	42.67
2.679	12.87	4.87	1.41	7.41	442.76	1.37	42.67
2.755	12.87	4.87	1.72	7.46	408.07	1.37	42.67
2.816	12.87	4.87	1.37	7.49	347.68	1.38	42.67
2.864	12.87	4.87	1.53	7.55	415.13	1.46	42.68

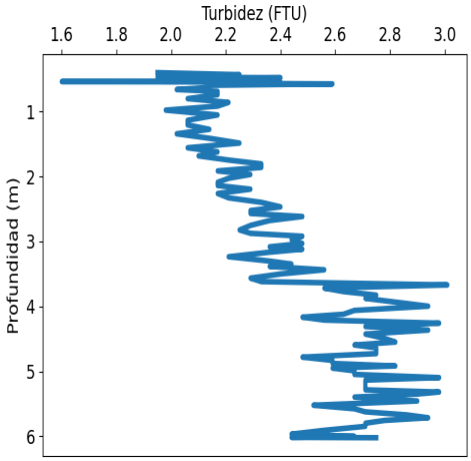
2.918	12.87	4.87	1.49	7.62	403.74	1.52	42.67
2.964	12.87	4.87	1.6	7.65	408.07	1.47	42.67
3.009	12.87	4.87	1.56	7.69	355.58	1.56	42.67
3.062	12.87	4.87	1.6	7.73	337.83	1.54	42.68
3.115	12.87	4.87	1.41	7.76	357.4	1.51	42.68
3.145	12.87	4.87	1.45	7.75	329.1	1.51	42.68
3.152	12.88	4.87	1.37	7.73	313.1	1.49	42.68
3.153	12.88	4.87	1.3	7.67	373.58	1.54	42.68

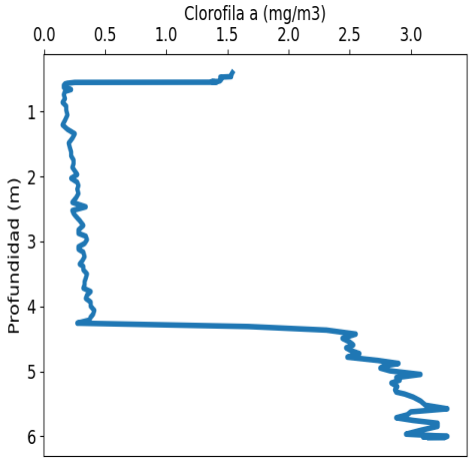
Nombre: CTD E12 - Punto 015 **Fecha: 30/11/2021** **Hora: 11:11:50**

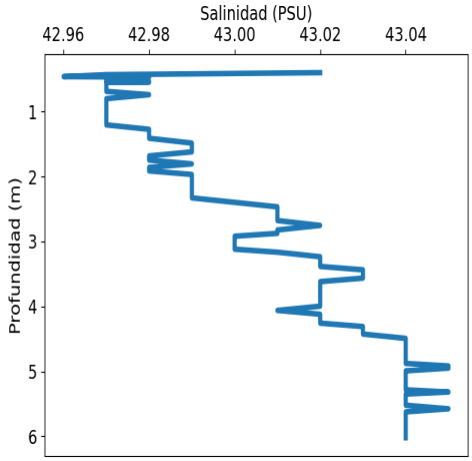


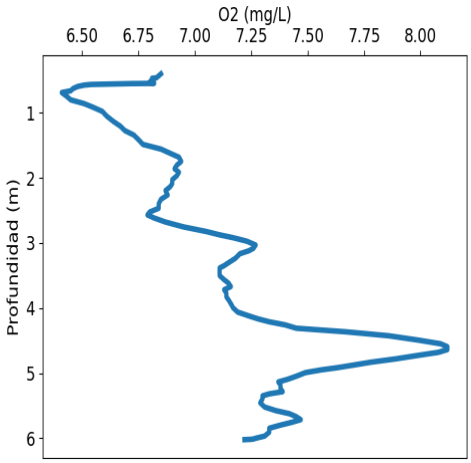


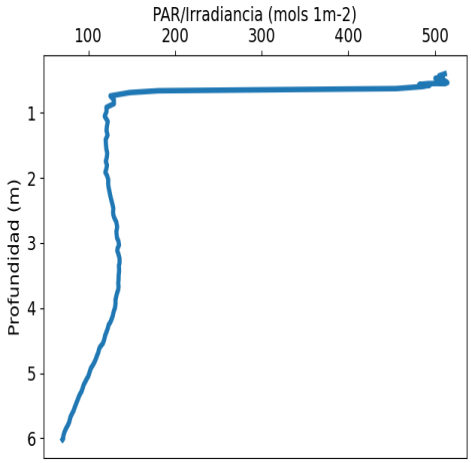












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.16	4.94	1.6	6.41	70.23	0.15	42.96
PROF (metros)	5.046	0.597	0.539	0.69	6.02	0.86	0.463
MÁXIMO	13.26	13.26	3.01	8.12	514.51	3.3	43.05
PROF (metros)	0.433	0.402	3.669	4.593	0.538	5.575	4.916

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E12 - Punto 015	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	13.24	4.95	2.12	6.66	389.38	0.79	42.98
1 - 2m	13.22	4.94	2.17	6.81	120.9	0.22	42.98
2 - 3m	13.2	4.94	2.3	6.93	128.62	0.28	43.0
3 - 4m	13.22	4.95	2.53	7.16	134.05	0.33	43.02
4 - 5m	13.18	4.94	2.7	7.69	115.26	1.99	43.03
5 - 6m	13.16	4.94	2.74	7.37	84.63	3.02	43.04
6 - 7m	13.16	4.94	2.57	7.24	70.41	3.18	43.04

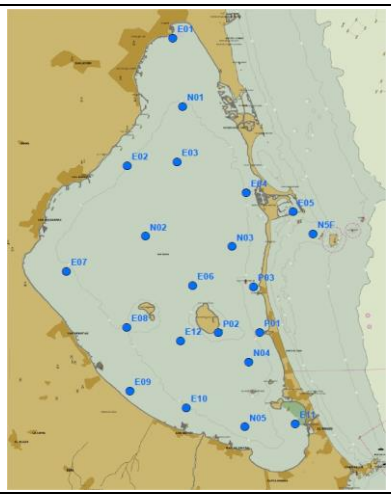
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 5 - 6m, 6 - 7m con los valores 3.02, 3.18 respectivamente

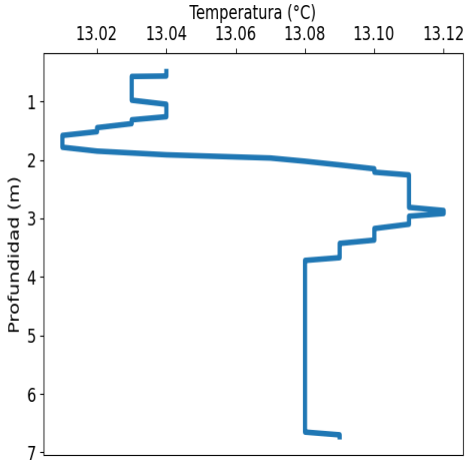
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.402	13.25	4.95	1.95	6.85	511.42	1.54	43.02
0.433	13.26	4.95	2.25	6.84	504.82	1.53	42.97
0.463	13.26	4.95	2.14	6.83	508.93	1.53	42.96
0.471	13.24	4.95	1.95	6.81	500.51	1.44	42.98
0.48	13.24	4.95	2.4	6.81	503.07	1.45	42.98
0.502	13.24	4.95	2.02	6.81	510.71	1.45	42.97
0.526	13.24	4.95	2.1	6.8	513.2	1.44	42.97
0.538	13.24	4.95	2.02	6.8	514.51	1.42	42.97
0.539	13.23	4.95	1.6	6.82	505.06	1.37	42.98
0.541	13.23	4.95	1.95	6.82	505.99	1.39	42.98
0.549	13.24	4.95	2.21	6.82	512.49	1.41	42.98
0.552	13.24	4.95	2.4	6.72	492.8	0.25	42.97
0.565	13.24	4.95	2.14	6.54	481.96	0.19	42.97
0.575	13.23	4.95	2.59	6.51	494.17	0.17	42.97
0.597	13.23	4.94	2.14	6.48	486.11	0.16	42.97
0.629	13.23	4.94	2.14	6.46	455.35	0.16	42.97
0.662	13.23	4.94	2.02	6.45	180.73	0.22	42.97
0.69	13.23	4.94	2.17	6.41	147.69	0.17	42.97
0.741	13.23	4.94	2.17	6.43	125.42	0.16	42.98
0.802	13.23	4.94	2.06	6.45	129.47	0.17	42.97
0.86	13.24	4.94	2.21	6.51	129.56	0.15	42.97
0.917	13.24	4.94	2.17	6.55	120.83	0.18	42.97
0.979	13.24	4.95	1.98	6.59	121.0	0.18	42.97
1.053	13.24	4.95	2.17	6.61	118.83	0.19	42.97
1.135	13.24	4.95	2.06	6.64	122.44	0.17	42.97
1.206	13.24	4.95	2.06	6.67	121.39	0.15	42.97
1.274	13.24	4.95	2.14	6.69	120.91	0.19	42.98
1.343	13.24	4.95	2.02	6.73	122.18	0.25	42.98
1.412	13.23	4.95	2.14	6.75	119.96	0.23	42.98
1.486	13.23	4.95	2.25	6.77	120.27	0.2	42.99
1.558	13.22	4.94	2.06	6.85	120.8	0.21	42.99
1.621	13.21	4.94	2.17	6.89	121.76	0.22	42.99
1.683	13.21	4.94	2.1	6.93	121.28	0.22	42.98
1.747	13.2	4.94	2.21	6.94	120.13	0.24	42.98

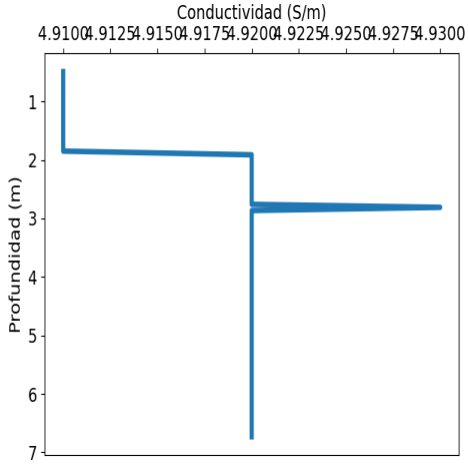
1.806	13.2	4.94	2.33	6.92	121.5	0.24	42.99
1.86	13.19	4.94	2.33	6.91	120.72	0.23	42.98
1.914	13.19	4.94	2.17	6.93	119.6	0.25	42.98
1.969	13.18	4.94	2.29	6.92	121.67	0.27	42.99
2.028	13.18	4.94	2.21	6.9	122.98	0.22	42.99
2.089	13.18	4.94	2.17	6.9	122.86	0.27	42.99
2.139	13.18	4.94	2.17	6.89	123.26	0.28	42.99
2.195	13.18	4.94	2.29	6.87	124.12	0.27	42.99
2.262	13.18	4.94	2.17	6.88	125.08	0.28	42.99
2.329	13.18	4.94	2.21	6.85	126.3	0.26	42.99
2.398	13.19	4.94	2.33	6.84	127.62	0.23	43.0
2.467	13.19	4.94	2.4	6.84	128.81	0.34	43.01
2.524	13.2	4.94	2.29	6.8	128.51	0.23	43.01
2.569	13.2	4.94	2.29	6.79	128.81	0.24	43.01
2.616	13.21	4.95	2.48	6.82	130.01	0.26	43.01
2.678	13.21	4.95	2.36	6.87	132.26	0.29	43.01
2.753	13.22	4.95	2.29	6.95	133.25	0.32	43.02
2.823	13.22	4.95	2.25	7.05	132.35	0.28	43.01
2.875	13.21	4.95	2.29	7.11	132.63	0.28	43.01
2.919	13.21	4.95	2.48	7.17	133.06	0.34	43.0
2.972	13.21	4.95	2.44	7.23	134.7	0.35	43.0
3.031	13.21	4.95	2.48	7.27	135.36	0.33	43.0
3.082	13.21	4.94	2.36	7.26	133.71	0.28	43.0
3.119	13.21	4.94	2.48	7.24	133.37	0.28	43.0
3.165	13.2	4.94	2.36	7.2	134.55	0.32	43.01
3.235	13.21	4.95	2.21	7.18	135.96	0.33	43.02
3.302	13.21	4.95	2.36	7.15	136.05	0.31	43.02
3.348	13.22	4.95	2.44	7.13	135.21	0.29	43.02
3.384	13.22	4.95	2.36	7.11	135.39	0.32	43.02
3.436	13.23	4.95	2.56	7.11	135.46	0.32	43.03
3.5	13.23	4.95	2.4	7.11	134.92	0.35	43.03
3.564	13.24	4.95	2.29	7.13	134.83	0.34	43.03
3.618	13.24	4.95	2.33	7.15	134.46	0.33	43.02
3.669	13.24	4.95	3.01	7.16	134.83	0.33	43.02
3.718	13.24	4.95	2.56	7.13	134.42	0.32	43.02
3.771	13.23	4.95	2.63	7.14	133.09	0.38	43.02
3.826	13.23	4.95	2.75	7.14	132.05	0.35	43.02
3.876	13.23	4.95	2.71	7.15	131.28	0.34	43.02
3.933	13.23	4.95	2.82	7.16	131.34	0.38	43.02
3.996	13.22	4.95	2.94	7.17	130.71	0.38	43.02
4.061	13.22	4.95	2.67	7.19	129.08	0.41	43.01
4.12	13.21	4.95	2.63	7.24	128.1	0.4	43.02
4.165	13.2	4.95	2.48	7.28	126.94	0.38	43.02
4.21	13.2	4.95	2.56	7.33	125.6	0.37	43.02
4.257	13.19	4.94	2.98	7.4	123.43	0.27	43.02
4.309	13.18	4.94	2.71	7.45	122.44	1.67	43.03
4.364	13.18	4.94	2.94	7.67	120.94	2.31	43.03
4.425	13.17	4.94	2.71	7.86	119.27	2.55	43.03
4.491	13.17	4.94	2.78	7.99	118.12	2.44	43.04
4.548	13.17	4.94	2.82	8.09	116.51	2.5	43.04
4.593	13.17	4.94	2.67	8.12	113.61	2.53	43.04
4.637	13.17	4.94	2.75	8.12	112.19	2.47	43.04
4.679	13.17	4.94	2.75	8.08	111.54	2.51	43.04
4.726	13.17	4.94	2.75	7.99	110.05	2.58	43.04
4.78	13.17	4.94	2.48	7.89	108.66	2.48	43.04
4.831	13.17	4.94	2.59	7.78	106.96	2.73	43.04
4.877	13.17	4.94	2.59	7.7	105.14	2.9	43.04
4.916	13.17	4.94	2.82	7.63	103.19	2.78	43.05

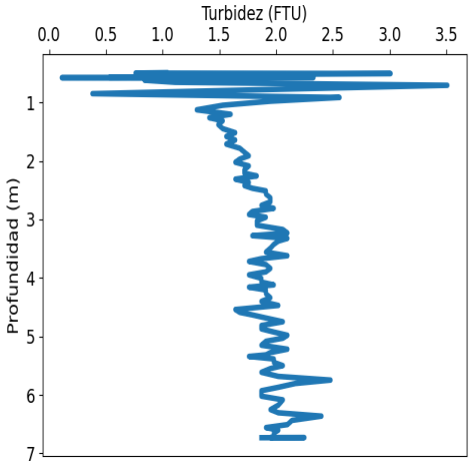
4.949	13.17	4.94	2.59	7.56	102.24	2.75	43.05
4.991	13.17	4.94	2.67	7.49	101.24	2.83	43.04
5.046	13.16	4.94	2.67	7.45	99.92	3.08	43.04
5.095	13.16	4.94	2.98	7.41	97.78	2.88	43.04
5.134	13.16	4.94	2.71	7.37	96.32	2.91	43.04
5.178	13.16	4.94	2.71	7.38	94.6	2.84	43.04
5.233	13.16	4.94	2.71	7.38	93.31	2.89	43.04
5.283	13.16	4.94	2.71	7.39	92.04	2.87	43.04
5.317	13.16	4.94	2.98	7.33	90.48	2.88	43.05
5.348	13.16	4.94	2.9	7.3	89.33	2.95	43.04
5.395	13.16	4.94	2.67	7.3	88.04	3.02	43.04
5.455	13.16	4.94	2.9	7.29	86.2	3.08	43.04
5.52	13.16	4.94	2.52	7.31	84.36	3.12	43.04
5.575	13.16	4.94	2.67	7.36	82.91	3.3	43.05
5.622	13.16	4.94	2.71	7.42	81.16	3.0	43.04
5.668	13.16	4.94	2.86	7.45	79.45	2.97	43.04
5.713	13.16	4.94	2.94	7.47	78.57	2.88	43.04
5.754	13.16	4.94	2.78	7.43	77.77	3.02	43.04
5.797	13.16	4.94	2.71	7.38	76.36	3.22	43.04
5.845	13.16	4.94	2.71	7.33	74.37	3.22	43.04
5.906	13.16	4.94	2.56	7.33	72.31	3.08	43.04
5.965	13.16	4.94	2.44	7.31	71.1	2.96	43.04
5.999	13.16	4.94	2.67	7.27	70.84	3.3	43.04
6.01	13.16	4.94	2.52	7.26	70.44	3.1	43.04
6.015	13.16	4.94	2.44	7.25	70.54	3.28	43.04
6.02	13.16	4.94	2.75	7.22	70.23	3.15	43.04

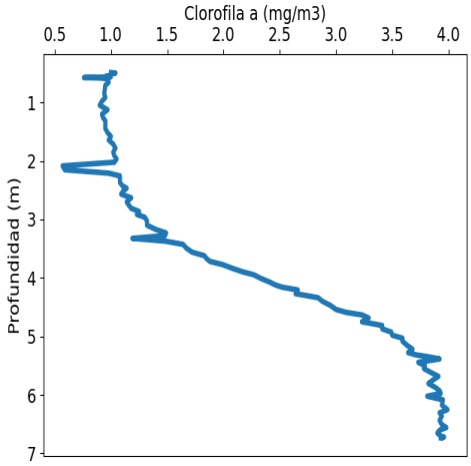
Nombre: CTD E06 - Punto 016 **Fecha: 30/11/2021** **Hora: 11:11:55**

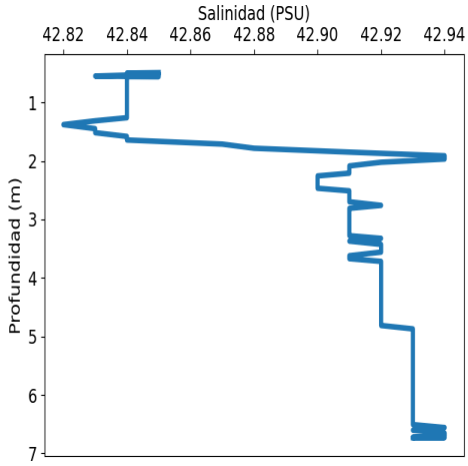


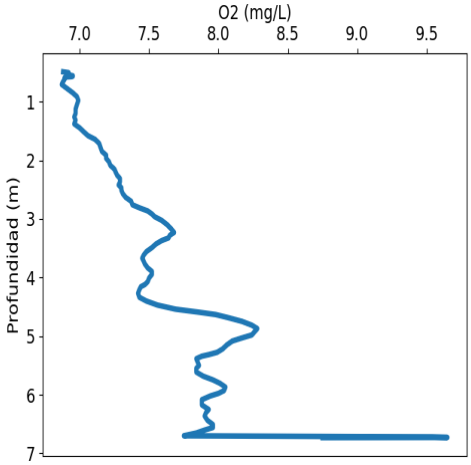


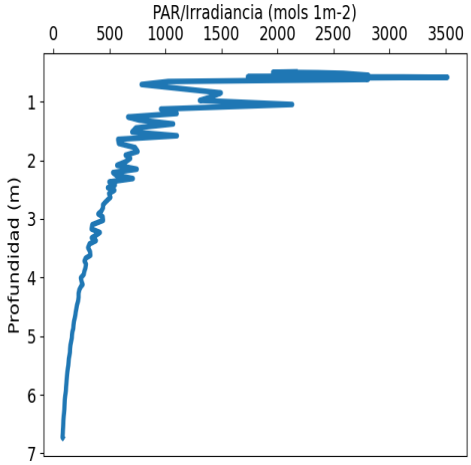












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.01	4.91	0.11	6.87	80.65	0.57	42.82
PROF (metros)	1.582	0.492	0.578	0.708	6.73	2.086	1.38
MÁXIMO	13.12	13.12	3.51	9.65	3516.1	3.99	42.94
PROF (metros)	2.865	2.811	0.708	6.728	0.585	6.251	1.913

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E06 - Punto 016	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	13.04	4.91	1.58	6.92	2131.02	0.94	42.84
1 - 2m	13.03	4.91	1.57	7.06	879.48	0.98	42.86
2 - 3m	13.11	4.92	1.81	7.34	525.19	1.07	42.91
3 - 4m	13.09	4.92	1.93	7.55	329.8	1.69	42.92
4 - 5m	13.08	4.92	1.89	7.78	208.85	2.96	42.92
5 - 6m	13.08	4.92	1.99	7.96	132.48	3.78	42.93
6 - 7m	13.08	4.92	2.04	8.3	88.04	3.93	42.93

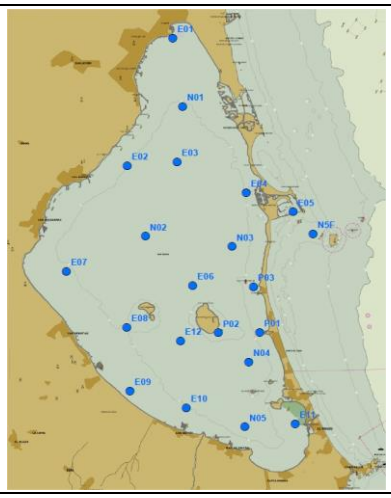
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 4 - 5m, 5 - 6m, 6 - 7m con los valores 2.96, 3.78, 3.93 respectivamente

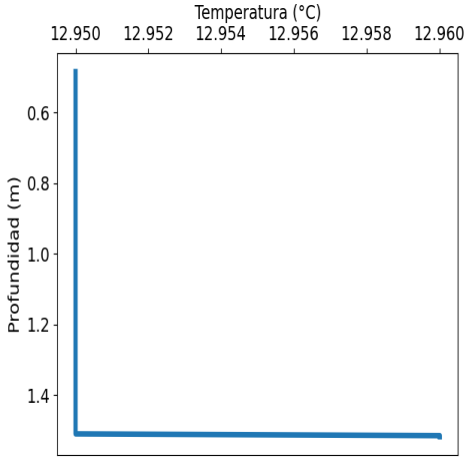
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.492	13.04	4.91	1.03	6.88	2161.1	1.0	42.85
0.499	13.04	4.91	0.76	6.9	1959.3	1.04	42.84
0.507	13.04	4.91	3.01	6.92	2360.1	1.01	42.85
0.518	13.04	4.91	2.21	6.92	2585.7	1.0	42.85
0.55	13.04	4.91	1.56	6.92	2809.4	0.98	42.83
0.555	13.04	4.91	1.87	6.94	2455.5	0.96	42.84
0.559	13.04	4.91	1.45	6.95	2120.4	0.95	42.85
0.56	13.04	4.91	1.83	6.95	2288.4	1.0	42.84
0.567	13.04	4.91	1.64	6.95	2117.0	0.99	42.84
0.574	13.03	4.91	0.53	6.94	1916.2	0.78	42.84
0.576	13.03	4.91	2.33	6.93	1734.4	0.76	42.84
0.578	13.03	4.91	0.11	6.91	2001.5	0.79	42.84
0.579	13.03	4.91	1.14	6.9	3123.3	0.83	42.84
0.585	13.03	4.91	1.45	6.9	3516.1	0.92	42.84
0.594	13.03	4.91	1.91	6.89	2775.8	0.96	42.84
0.622	13.03	4.91	0.84	6.89	2806.2	0.97	42.84
0.657	13.03	4.91	1.11	6.88	1024.1	0.98	42.84
0.708	13.03	4.91	3.51	6.87	785.59	0.95	42.84
0.851	13.03	4.91	0.38	6.95	1493.9	0.94	42.84
0.916	13.03	4.91	2.56	6.98	1412.1	0.95	42.84
0.98	13.03	4.91	1.95	6.99	1305.4	0.92	42.84
1.049	13.04	4.91	1.53	6.98	2130.7	0.9	42.84
1.127	13.04	4.91	1.3	6.97	958.21	0.97	42.84
1.203	13.04	4.91	1.6	6.97	1100.2	0.92	42.84
1.262	13.04	4.91	1.41	6.96	664.85	0.93	42.84
1.315	13.03	4.91	1.53	6.97	764.22	0.95	42.83
1.38	13.03	4.91	1.49	6.96	1068.5	0.95	42.82
1.449	13.02	4.91	1.53	7.0	735.54	0.95	42.83
1.518	13.02	4.91	1.64	7.03	701.9	0.97	42.83
1.582	13.01	4.91	1.56	7.06	1101.9	1.0	42.84
1.643	13.01	4.91	1.64	7.11	575.99	0.98	42.84
1.713	13.01	4.91	1.56	7.14	582.57	1.02	42.87
1.784	13.01	4.91	1.68	7.15	728.08	1.04	42.88
1.85	13.02	4.91	1.72	7.16	751.22	1.02	42.91

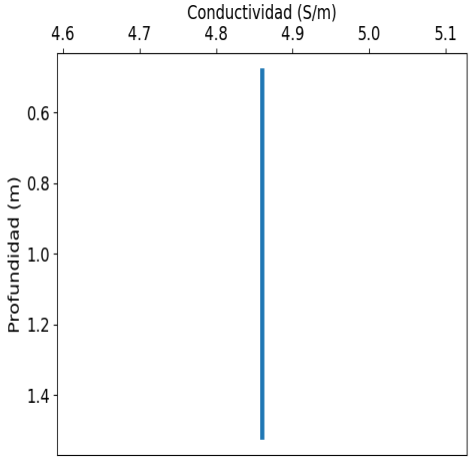
1.913	13.04	4.92	1.76	7.19	643.32	1.03	42.94
1.968	13.07	4.92	1.68	7.19	685.03	1.05	42.94
2.023	13.08	4.92	1.64	7.21	645.86	1.03	42.92
2.086	13.09	4.92	1.76	7.22	567.38	0.57	42.91
2.152	13.1	4.92	1.72	7.25	743.43	0.59	42.91
2.21	13.1	4.92	1.72	7.26	531.11	0.98	42.91
2.257	13.11	4.92	1.83	7.27	560.32	1.08	42.9
2.312	13.11	4.92	1.64	7.29	708.44	1.08	42.9
2.369	13.11	4.92	1.76	7.29	497.74	1.08	42.9
2.422	13.11	4.92	1.72	7.28	548.37	1.1	42.9
2.468	13.11	4.92	1.79	7.3	484.53	1.14	42.9
2.512	13.11	4.92	1.91	7.3	543.44	1.11	42.91
2.568	13.11	4.92	1.91	7.31	495.2	1.09	42.91
2.631	13.11	4.92	1.95	7.33	508.11	1.18	42.91
2.699	13.11	4.92	1.95	7.37	470.91	1.14	42.91
2.76	13.11	4.92	1.87	7.38	441.53	1.16	42.92
2.811	13.11	4.93	1.98	7.43	441.73	1.18	42.91
2.865	13.12	4.92	1.79	7.49	427.43	1.25	42.91
2.916	13.12	4.92	1.76	7.52	399.18	1.23	42.91
2.963	13.11	4.92	1.91	7.54	438.77	1.3	42.91
3.025	13.11	4.92	1.83	7.59	442.35	1.32	42.91
3.099	13.11	4.92	1.83	7.63	345.67	1.32	42.91
3.173	13.1	4.92	2.06	7.66	339.32	1.4	42.91
3.232	13.1	4.92	2.1	7.68	413.78	1.49	42.91
3.278	13.1	4.92	1.79	7.65	379.6	1.48	42.91
3.324	13.1	4.92	2.1	7.64	340.74	1.19	42.92
3.371	13.1	4.92	2.02	7.59	378.55	1.48	42.91
3.427	13.09	4.92	1.98	7.55	321.33	1.64	42.92
3.491	13.09	4.92	1.95	7.52	308.13	1.67	42.92
3.559	13.09	4.92	1.91	7.48	326.13	1.72	42.92
3.621	13.09	4.92	2.1	7.46	329.25	1.83	42.91
3.671	13.09	4.92	1.87	7.45	286.5	1.85	42.91
3.718	13.08	4.92	1.76	7.46	275.94	1.88	42.92
3.772	13.08	4.92	1.91	7.47	289.91	1.99	42.92
3.837	13.08	4.92	1.95	7.49	284.78	2.08	42.92
3.896	13.08	4.92	1.91	7.52	274.73	2.17	42.92
3.947	13.08	4.92	1.76	7.52	269.81	2.27	42.92
4.007	13.08	4.92	1.87	7.5	243.14	2.33	42.92
4.071	13.08	4.92	1.87	7.49	250.76	2.41	42.92
4.119	13.08	4.92	1.98	7.47	259.69	2.46	42.92
4.158	13.08	4.92	1.76	7.44	243.54	2.52	42.92
4.206	13.08	4.92	1.91	7.43	230.79	2.66	42.92
4.269	13.08	4.92	1.91	7.42	223.58	2.64	42.92
4.338	13.08	4.92	1.95	7.43	223.63	2.84	42.92
4.401	13.08	4.92	1.87	7.48	219.21	2.88	42.92
4.47	13.08	4.92	2.02	7.56	209.14	2.95	42.92
4.54	13.08	4.92	1.64	7.69	202.93	3.0	42.92
4.589	13.08	4.92	1.68	7.85	198.01	3.09	42.92
4.632	13.08	4.92	1.79	7.98	195.27	3.23	42.92
4.685	13.08	4.92	1.91	8.07	190.05	3.29	42.92
4.749	13.08	4.92	2.06	8.17	182.37	3.23	42.92
4.813	13.08	4.92	1.87	8.24	178.27	3.41	42.92
4.871	13.08	4.92	1.87	8.28	175.93	3.41	42.93
4.925	13.08	4.92	1.98	8.26	168.31	3.49	42.93
4.98	13.08	4.92	2.1	8.24	164.69	3.5	42.93
5.03	13.08	4.92	2.06	8.17	163.17	3.59	42.93
5.083	13.08	4.92	1.91	8.1	157.96	3.59	42.93
5.15	13.08	4.92	1.87	8.06	151.08	3.63	42.93

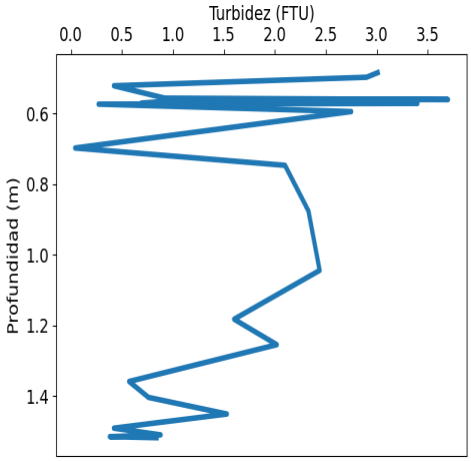
5.218	13.08	4.92	2.1	8.03	147.59	3.68	42.93
5.276	13.08	4.92	1.95	7.99	146.29	3.64	42.93
5.315	13.08	4.92	1.91	7.93	143.07	3.71	42.93
5.342	13.08	4.92	1.76	7.88	140.67	3.8	42.93
5.385	13.08	4.92	1.98	7.84	136.56	3.92	42.93
5.443	13.08	4.92	1.98	7.85	134.27	3.73	42.93
5.499	13.08	4.92	2.06	7.86	131.8	3.79	42.93
5.549	13.08	4.92	1.95	7.84	127.51	3.78	42.93
5.613	13.08	4.92	1.87	7.84	123.38	3.84	42.93
5.683	13.08	4.92	2.02	7.89	119.83	3.91	42.93
5.746	13.08	4.92	2.48	7.96	117.0	3.86	42.93
5.804	13.08	4.92	2.17	8.01	114.96	3.82	42.93
5.869	13.08	4.92	2.02	8.05	111.96	3.88	42.93
5.928	13.08	4.92	1.87	8.04	110.21	3.92	42.93
5.976	13.08	4.92	1.87	8.0	107.26	3.93	42.93
6.021	13.08	4.92	1.87	7.94	103.88	3.81	42.93
6.084	13.08	4.92	2.06	7.88	100.5	3.95	42.93
6.173	13.08	4.92	2.02	7.88	98.31	3.94	42.93
6.251	13.08	4.92	1.95	7.93	96.55	3.99	42.93
6.305	13.08	4.92	2.02	7.91	94.07	3.92	42.93
6.362	13.08	4.92	2.4	7.9	90.84	3.94	42.93
6.435	13.08	4.92	2.14	7.92	88.02	3.92	42.93
6.507	13.08	4.92	2.1	7.96	86.66	3.94	42.93
6.558	13.08	4.92	1.91	7.96	85.37	3.98	42.94
6.602	13.08	4.92	2.02	7.9	83.72	3.92	42.93
6.652	13.08	4.92	1.98	7.84	82.79	3.9	42.94
6.699	13.09	4.92	1.98	7.75	80.95	3.93	42.94
6.72	13.09	4.92	1.98	9.54	80.97	3.96	42.93
6.728	13.09	4.92	1.95	9.65	81.24	3.95	42.93
6.729	13.09	4.92	2.25	9.39	80.99	3.93	42.94
6.73	13.09	4.92	2.14	9.08	80.65	3.93	42.93
6.731	13.09	4.92	1.87	8.75	81.14	3.93	42.93

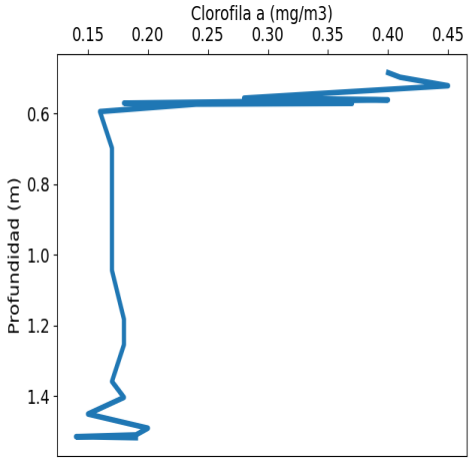
Nombre: CTD P03 - Punto 017 **Fecha: 30/11/2021** **Hora: 11:11:24**

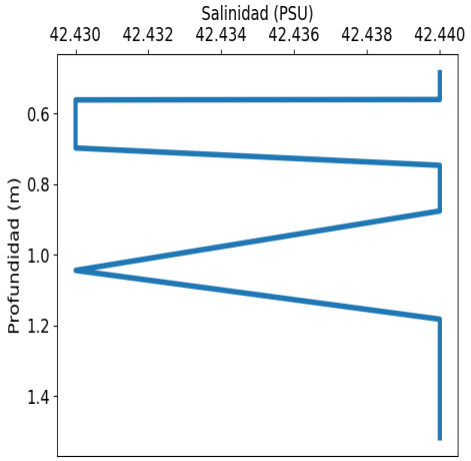


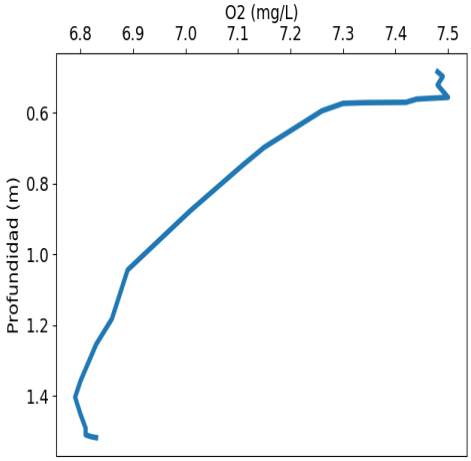


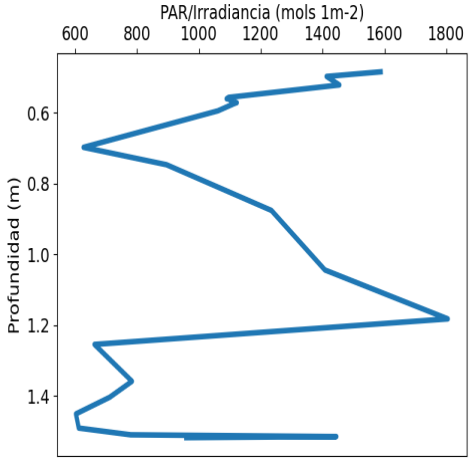


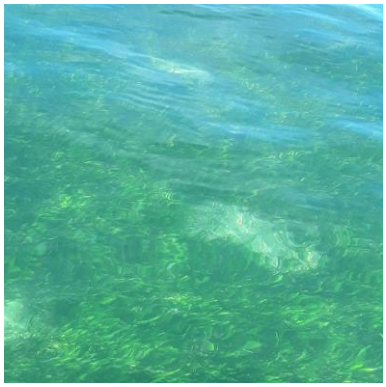












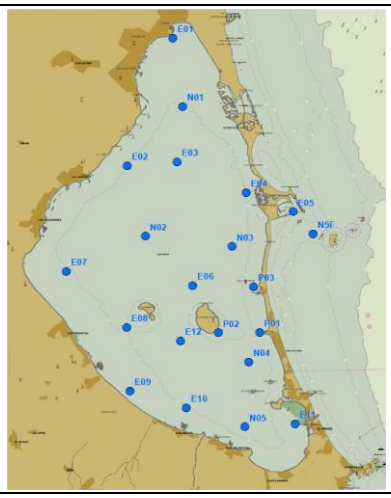
VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.95	4.86	0.04	6.79	602.48	0.14	42.43
PROF (metros)	0.485	0.485	0.698	1.403	1.45	1.514	0.562
MÁXIMO	12.96	12.96	3.7	7.51	1804.9	0.45	42.44
PROF (metros)	1.514	0.485	0.561	0.557	1.182	0.522	0.485

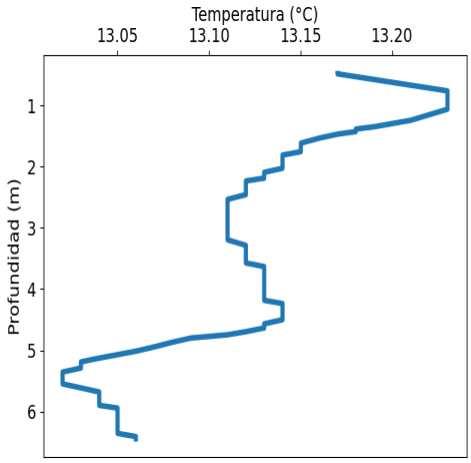
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD P03 - Punto 017	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.95	4.86	1.82	7.34	1146.74	0.29	42.44
1 - 2m	12.95	4.86	1.14	6.82	976.76	0.17	42.44

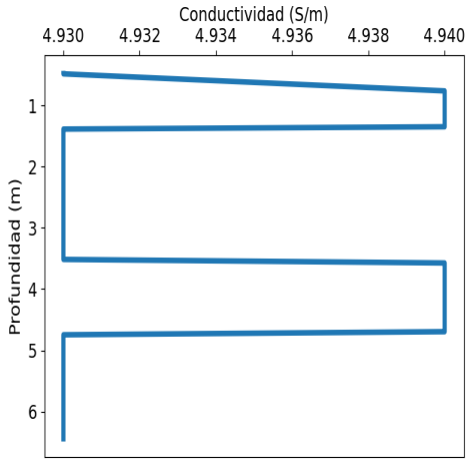
OBSERVACIONES GENERALES

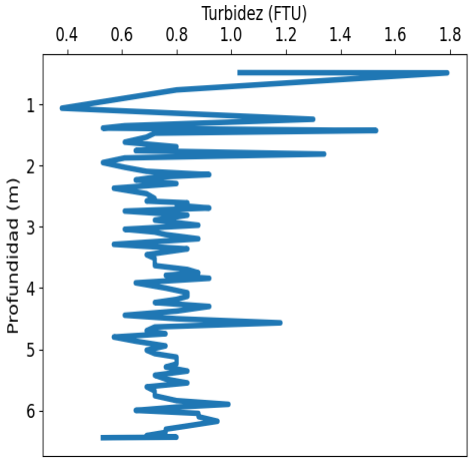
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.485	12.95	4.86	3.01	7.48	1587.8	0.4	42.44
0.498	12.95	4.86	2.9	7.49	1412.7	0.41	42.44
0.522	12.95	4.86	0.42	7.48	1454.3	0.45	42.44
0.557	12.95	4.86	0.92	7.5	1096.6	0.28	42.44
0.561	12.95	4.86	3.7	7.45	1089.5	0.39	42.44
0.562	12.95	4.86	1.14	7.44	1096.3	0.4	42.43
0.571	12.95	4.86	0.69	7.42	1113.5	0.18	42.43
0.572	12.95	4.86	3.4	7.34	1122.8	0.37	42.43
0.574	12.95	4.86	0.27	7.3	1115.8	0.24	42.43
0.595	12.95	4.86	2.75	7.26	1061.6	0.16	42.43
0.698	12.95	4.86	0.04	7.15	626.98	0.17	42.43
0.747	12.95	4.86	2.1	7.11	895.3	0.17	42.44
0.876	12.95	4.86	2.33	7.01	1234.5	0.17	42.44
1.044	12.95	4.86	2.44	6.89	1407.5	0.17	42.43
1.182	12.95	4.86	1.6	6.86	1804.9	0.18	42.44
1.254	12.95	4.86	2.02	6.83	662.39	0.18	42.44
1.358	12.95	4.86	0.57	6.8	783.77	0.17	42.44
1.403	12.95	4.86	0.76	6.79	711.73	0.18	42.44
1.45	12.95	4.86	1.53	6.8	602.48	0.15	42.44
1.49	12.95	4.86	0.42	6.81	611.62	0.2	42.44
1.509	12.95	4.86	0.88	6.81	779.6	0.19	42.44
1.514	12.96	4.86	0.38	6.82	1444.5	0.14	42.44
1.517	12.96	4.86	0.84	6.83	959.1	0.19	42.44

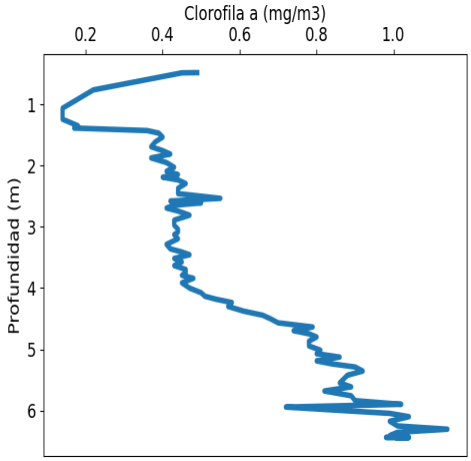
Nombre: CTD N03 - Punto 018 **Fecha: 30/11/2021** **Hora: 11:11:46**

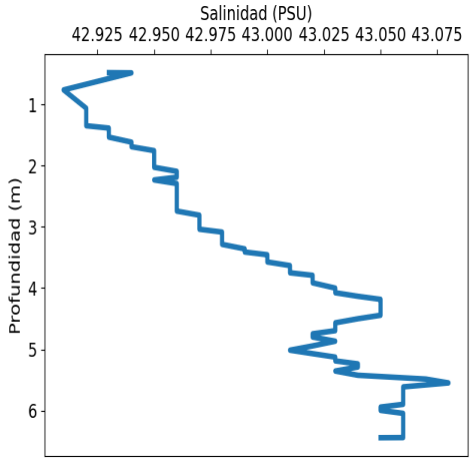


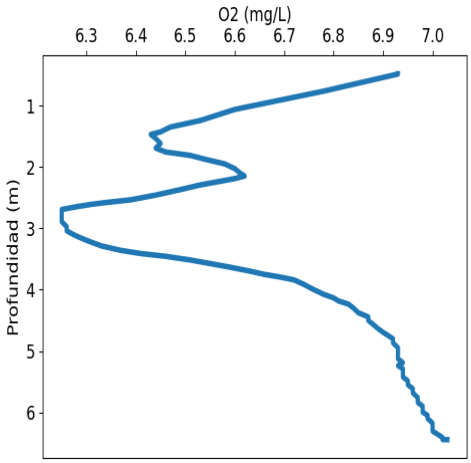


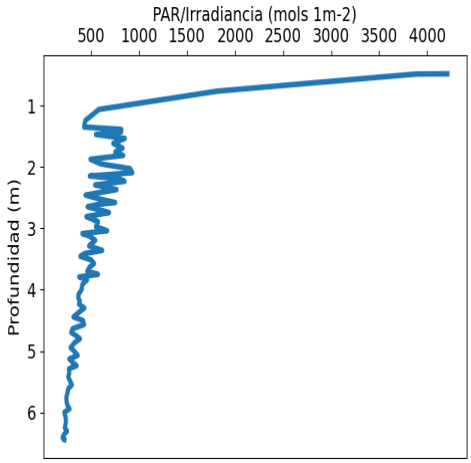












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.02	4.93	0.38	6.25	202.09	0.14	42.91
PROF (metros)	5.356	0.478	1.059	2.691	6.411	1.059	0.76
MÁXIMO	13.23	13.23	1.79	7.03	4211.8	1.14	43.08
PROF (metros)	0.76	0.76	0.481	6.446	0.478	6.307	5.55

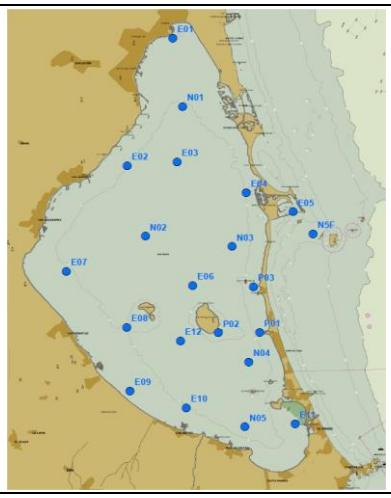
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N03 - Punto 018	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	13.19	4.94	1.21	6.88	3305.23	0.39	42.93
1 - 2m	13.17	4.93	0.79	6.49	669.85	0.32	42.94
2 - 3m	13.12	4.93	0.75	6.41	643.67	0.44	42.96
3 - 4m	13.12	4.93	0.75	6.49	487.26	0.44	43.0
4 - 5m	13.12	4.94	0.78	6.86	360.6	0.66	43.03
5 - 6m	13.04	4.93	0.77	6.95	279.48	0.86	43.05
6 - 7m	13.05	4.93	0.76	7.01	223.72	1.02	43.06

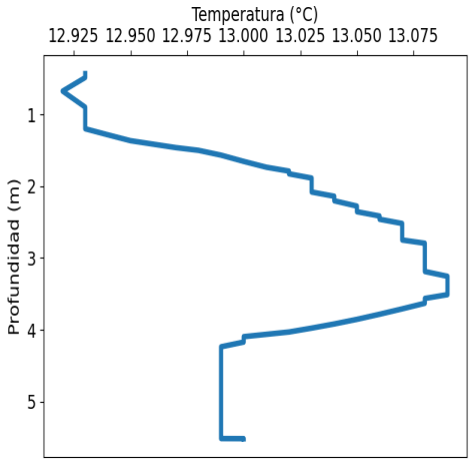
OBSERVACIONES GENERALES

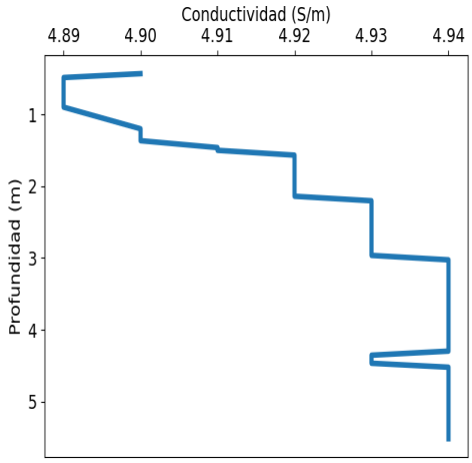
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.478	13.17	4.93	1.03	6.93	4211.8	0.49	42.93
0.481	13.17	4.93	1.79	6.93	3887.2	0.45	42.94
0.76	13.23	4.94	0.8	6.78	1816.7	0.22	42.91
1.059	13.23	4.94	0.38	6.6	580.81	0.14	42.92
1.24	13.21	4.94	1.3	6.53	438.88	0.14	42.92
1.346	13.19	4.94	0.61	6.47	426.34	0.18	42.92
1.384	13.18	4.93	0.53	6.46	813.76	0.17	42.93
1.425	13.18	4.93	1.53	6.45	812.63	0.36	42.93
1.467	13.17	4.93	0.72	6.43	548.62	0.39	42.93
1.532	13.16	4.93	0.69	6.44	850.4	0.4	42.93
1.614	13.15	4.93	0.61	6.45	729.94	0.38	42.94
1.689	13.15	4.93	0.8	6.44	826.88	0.37	42.94
1.753	13.15	4.93	0.65	6.46	751.22	0.4	42.95
1.809	13.14	4.93	1.34	6.51	834.19	0.42	42.95
1.872	13.14	4.93	0.61	6.54	492.34	0.37	42.95
1.948	13.14	4.93	0.53	6.58	602.06	0.41	42.95
2.025	13.14	4.93	0.61	6.6	904.68	0.43	42.95
2.091	13.13	4.93	0.69	6.61	929.12	0.41	42.96
2.145	13.13	4.93	0.92	6.62	485.32	0.44	42.96
2.187	13.13	4.93	0.72	6.6	787.23	0.4	42.96
2.232	13.12	4.93	0.65	6.57	848.03	0.44	42.95
2.291	13.12	4.93	0.8	6.53	540.67	0.46	42.96
2.367	13.12	4.93	0.57	6.49	764.57	0.44	42.96
2.456	13.12	4.93	0.69	6.44	440.3	0.44	42.96
2.533	13.11	4.93	0.72	6.39	622.06	0.55	42.96
2.577	13.11	4.93	0.69	6.34	750.35	0.42	42.96
2.607	13.11	4.93	0.84	6.31	577.46	0.5	42.96
2.646	13.11	4.93	0.8	6.28	462.37	0.43	42.96
2.691	13.11	4.93	0.92	6.25	573.19	0.41	42.96
2.741	13.11	4.93	0.61	6.25	686.46	0.44	42.96
2.808	13.11	4.93	0.84	6.25	449.69	0.47	42.97
2.889	13.11	4.93	0.72	6.25	570.94	0.43	42.97
2.972	13.11	4.93	0.88	6.26	550.03	0.43	42.97
3.038	13.11	4.93	0.61	6.26	666.7	0.44	42.97
3.084	13.11	4.93	0.72	6.27	407.79	0.44	42.98

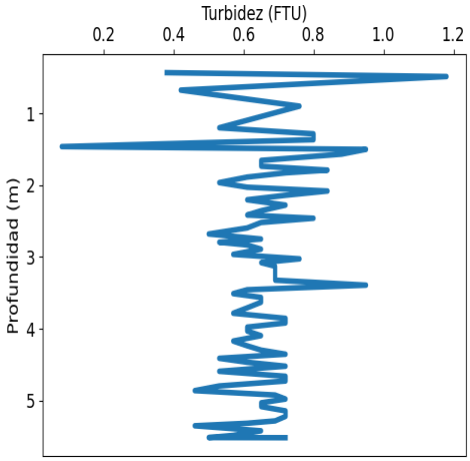
3.125	13.11	4.93	0.76	6.28	482.29	0.43	42.98
3.194	13.11	4.93	0.88	6.3	542.68	0.44	42.98
3.285	13.12	4.93	0.57	6.33	478.28	0.41	42.98
3.359	13.12	4.93	0.84	6.37	614.47	0.42	42.99
3.41	13.12	4.93	0.76	6.41	432.21	0.45	42.99
3.455	13.12	4.93	0.69	6.46	387.6	0.47	43.0
3.515	13.12	4.93	0.72	6.51	500.4	0.43	43.0
3.573	13.12	4.94	0.72	6.55	530.25	0.45	43.0
3.632	13.13	4.94	0.72	6.59	483.19	0.43	43.01
3.696	13.13	4.94	0.84	6.63	460.02	0.46	43.01
3.75	13.13	4.94	0.88	6.66	570.94	0.46	43.01
3.791	13.13	4.94	0.76	6.69	374.53	0.45	43.02
3.84	13.13	4.94	0.92	6.72	457.57	0.48	43.02
3.914	13.13	4.94	0.65	6.74	407.31	0.45	43.02
4.0	13.13	4.94	0.76	6.76	399.83	0.47	43.03
4.076	13.13	4.94	0.84	6.78	367.57	0.5	43.03
4.134	13.13	4.94	0.84	6.8	365.78	0.51	43.04
4.184	13.13	4.94	0.8	6.81	380.92	0.54	43.05
4.236	13.14	4.94	0.72	6.83	372.97	0.58	43.05
4.3	13.14	4.94	0.92	6.84	428.62	0.57	43.05
4.376	13.14	4.94	0.8	6.85	366.46	0.61	43.05
4.444	13.14	4.94	0.61	6.87	314.63	0.66	43.05
4.501	13.14	4.94	0.8	6.87	414.07	0.68	43.04
4.568	13.13	4.94	1.18	6.88	426.15	0.7	43.03
4.636	13.13	4.94	0.72	6.89	306.78	0.79	43.03
4.696	13.12	4.94	0.69	6.9	291.86	0.74	43.03
4.747	13.11	4.93	0.76	6.91	340.58	0.78	43.02
4.8	13.09	4.93	0.57	6.92	383.4	0.8	43.02
4.868	13.08	4.93	0.65	6.92	325.23	0.78	43.03
4.945	13.07	4.93	0.76	6.93	284.72	0.78	43.02
5.015	13.06	4.93	0.69	6.93	330.32	0.81	43.01
5.072	13.05	4.93	0.72	6.93	359.48	0.8	43.02
5.128	13.04	4.93	0.8	6.93	272.32	0.86	43.03
5.19	13.03	4.93	0.8	6.94	308.77	0.8	43.03
5.239	13.03	4.93	0.8	6.93	348.81	0.84	43.04
5.29	13.03	4.93	0.76	6.94	268.94	0.9	43.04
5.356	13.02	4.93	0.84	6.94	271.82	0.92	43.03
5.425	13.02	4.93	0.72	6.94	261.14	0.88	43.04
5.487	13.02	4.93	0.76	6.95	278.64	0.87	43.07
5.55	13.02	4.93	0.84	6.95	299.82	0.86	43.08
5.615	13.03	4.93	0.69	6.96	261.38	0.89	43.06
5.682	13.04	4.93	0.72	6.96	253.03	0.82	43.06
5.76	13.04	4.93	0.72	6.97	240.62	0.89	43.06
5.84	13.04	4.93	0.8	6.97	244.95	0.9	43.06
5.9	13.04	4.93	0.99	6.98	256.04	1.02	43.06
5.945	13.05	4.93	0.8	6.98	274.54	0.72	43.05
5.999	13.05	4.93	0.65	6.98	220.59	0.86	43.05
6.048	13.05	4.93	0.88	6.99	228.13	0.99	43.06
6.102	13.05	4.93	0.88	6.99	235.98	1.04	43.06
6.177	13.05	4.93	0.95	7.0	235.6	0.99	43.06
6.253	13.05	4.93	0.84	7.0	224.35	1.01	43.06
6.307	13.05	4.93	0.76	7.0	249.02	1.14	43.06
6.358	13.05	4.93	0.76	7.01	217.8	1.01	43.06
6.411	13.06	4.93	0.69	7.02	202.09	0.99	43.06
6.438	13.06	4.93	0.8	7.02	215.49	1.04	43.06
6.441	13.06	4.93	0.69	7.02	218.55	0.98	43.06
6.444	13.06	4.93	0.57	7.02	213.65	1.04	43.06
6.446	13.06	4.93	0.53	7.03	220.28	1.01	43.05

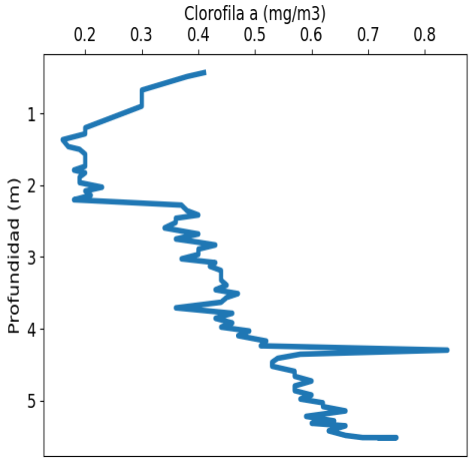
Nombre: CTD E04 - Punto 019 **Fecha: 30/11/2021** **Hora: 12:11:44**

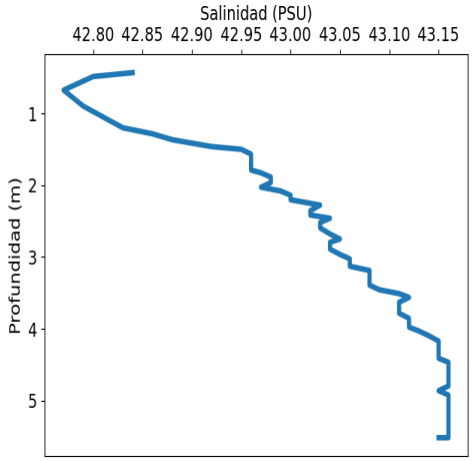


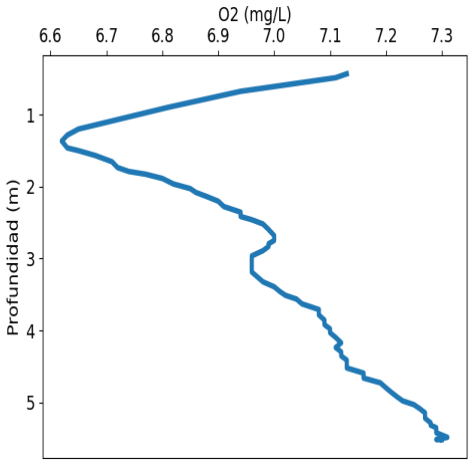


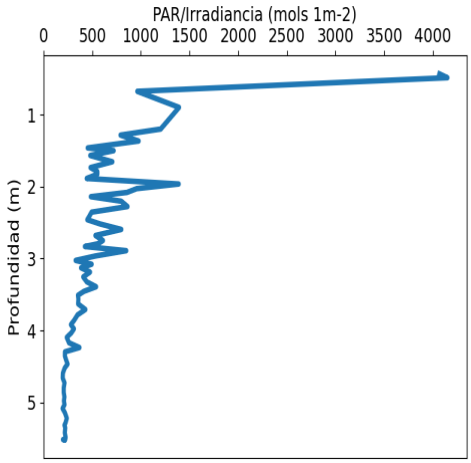












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.92	4.89	0.08	6.62	194.91	0.16	42.77
PROF (metros)	0.678	0.489	1.464	1.368	5.082	1.368	0.678
MÁXIMO	13.09	13.09	1.18	7.31	4150.8	0.84	43.16
PROF (metros)	3.255	3.026	0.489	5.483	0.489	4.296	4.465

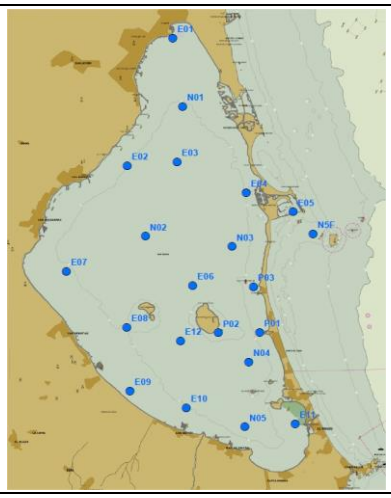
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E04 - Punto 019	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.93	4.89	0.69	7.0	2643.3	0.35	42.8
1 - 2m	12.99	4.91	0.67	6.7	728.96	0.19	42.93
2 - 3m	13.06	4.93	0.65	6.95	641.16	0.34	43.03
3 - 4m	13.07	4.94	0.68	7.02	389.96	0.43	43.09
4 - 5m	12.99	4.94	0.63	7.15	233.24	0.57	43.15
5 - 6m	12.99	4.94	0.63	7.28	217.17	0.65	43.16

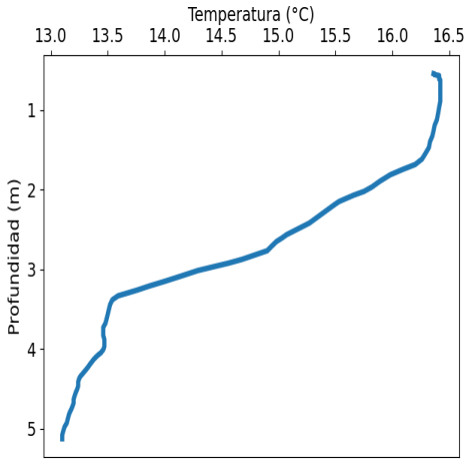
OBSERVACIONES GENERALES

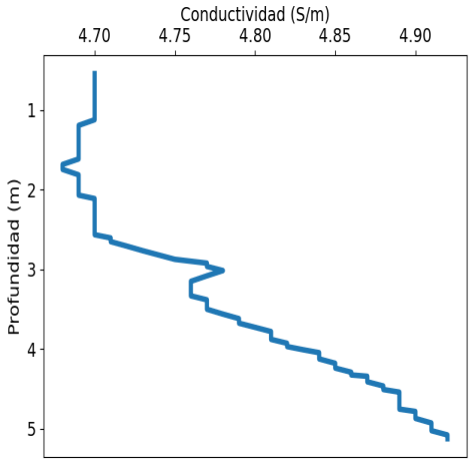
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.435	12.93	4.9	0.38	7.13	4067.9	0.41	42.84
0.489	12.93	4.89	1.18	7.11	4150.8	0.38	42.8
0.678	12.92	4.89	0.42	6.94	962.22	0.3	42.77
0.901	12.93	4.89	0.76	6.81	1392.3	0.3	42.79
1.202	12.93	4.9	0.53	6.65	1203.1	0.2	42.83
1.286	12.94	4.9	0.8	6.63	789.97	0.2	42.86
1.368	12.95	4.9	0.8	6.62	977.27	0.16	42.88
1.464	12.97	4.91	0.08	6.63	452.61	0.17	42.92
1.502	12.98	4.91	0.95	6.65	720.86	0.19	42.95
1.569	12.99	4.92	0.88	6.68	478.73	0.2	42.96
1.656	13.0	4.92	0.65	6.71	707.13	0.2	42.96
1.737	13.01	4.92	0.65	6.72	481.62	0.2	42.96
1.791	13.02	4.92	0.84	6.74	552.58	0.18	42.96
1.829	13.02	4.92	0.72	6.77	552.45	0.2	42.97
1.888	13.03	4.92	0.61	6.8	442.45	0.19	42.98
1.965	13.03	4.92	0.53	6.82	1388.7	0.19	42.98
2.029	13.03	4.92	0.61	6.85	957.1	0.23	42.97
2.082	13.03	4.92	0.84	6.86	856.93	0.2	42.99
2.141	13.04	4.92	0.72	6.88	484.53	0.21	43.0
2.204	13.04	4.93	0.61	6.9	797.7	0.18	43.0
2.278	13.05	4.93	0.72	6.91	862.7	0.37	43.03
2.356	13.05	4.93	0.65	6.94	493.14	0.38	43.02
2.416	13.06	4.93	0.61	6.94	468.84	0.4	43.02
2.461	13.06	4.93	0.8	6.96	448.96	0.36	43.04
2.52	13.07	4.93	0.65	6.98	581.49	0.36	43.03
2.596	13.07	4.93	0.61	6.99	799.0	0.34	43.03
2.68	13.07	4.93	0.5	7.0	532.09	0.4	43.04
2.75	13.07	4.93	0.65	7.0	610.35	0.36	43.05
2.795	13.08	4.93	0.53	6.99	557.73	0.4	43.04
2.833	13.08	4.93	0.61	6.99	423.49	0.43	43.04
2.891	13.08	4.93	0.65	6.98	850.0	0.4	43.04
2.964	13.08	4.93	0.57	6.96	534.57	0.4	43.05
3.026	13.08	4.94	0.76	6.96	328.56	0.37	43.06
3.079	13.08	4.94	0.65	6.96	494.4	0.43	43.06
3.129	13.08	4.94	0.69	6.96	384.03	0.42	43.06
3.188	13.08	4.94	0.69	6.96	477.84	0.44	43.08

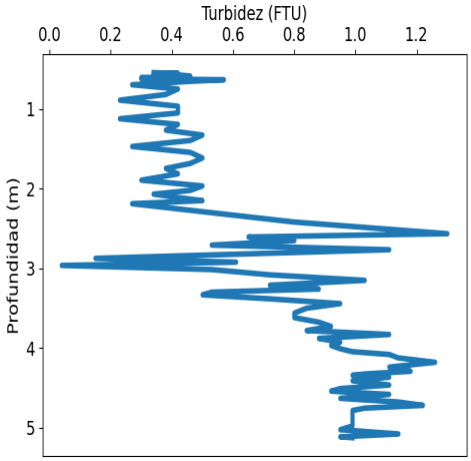
3.255	13.09	4.94	0.69	6.97	406.75	0.44	43.08
3.323	13.09	4.94	0.69	6.98	443.27	0.44	43.08
3.392	13.09	4.94	0.95	7.0	540.05	0.45	43.08
3.456	13.09	4.94	0.61	7.01	413.98	0.43	43.09
3.51	13.09	4.94	0.57	7.02	352.88	0.47	43.11
3.563	13.08	4.94	0.65	7.04	357.49	0.45	43.12
3.63	13.08	4.94	0.65	7.05	354.43	0.44	43.11
3.708	13.07	4.94	0.61	7.08	429.72	0.36	43.11
3.783	13.06	4.94	0.57	7.08	348.16	0.46	43.11
3.854	13.05	4.94	0.72	7.09	315.58	0.43	43.12
3.918	13.04	4.94	0.72	7.09	280.2	0.46	43.12
3.976	13.03	4.94	0.61	7.1	311.94	0.44	43.12
4.03	13.02	4.94	0.61	7.1	286.24	0.49	43.13
4.095	13.0	4.94	0.65	7.11	237.52	0.47	43.14
4.17	13.0	4.94	0.57	7.12	261.14	0.52	43.15
4.236	12.99	4.94	0.61	7.11	368.68	0.51	43.15
4.296	12.99	4.94	0.65	7.12	219.06	0.84	43.15
4.353	12.99	4.93	0.72	7.12	218.6	0.58	43.15
4.41	12.99	4.93	0.53	7.13	231.7	0.54	43.15
4.465	12.99	4.93	0.61	7.13	246.38	0.53	43.16
4.52	12.99	4.94	0.72	7.13	216.89	0.53	43.16
4.591	12.99	4.94	0.53	7.16	198.24	0.57	43.16
4.66	12.99	4.94	0.72	7.16	196.22	0.57	43.16
4.726	12.99	4.94	0.72	7.19	214.94	0.6	43.16
4.795	12.99	4.94	0.53	7.2	206.78	0.57	43.16
4.86	12.99	4.94	0.46	7.21	206.82	0.57	43.15
4.921	12.99	4.94	0.69	7.22	213.99	0.6	43.16
4.977	12.99	4.94	0.72	7.23	208.61	0.58	43.16
5.029	12.99	4.94	0.65	7.25	214.84	0.62	43.16
5.082	12.99	4.94	0.65	7.26	194.91	0.62	43.16
5.142	12.99	4.94	0.72	7.27	219.11	0.66	43.16
5.218	12.99	4.94	0.72	7.27	238.34	0.59	43.16
5.281	12.99	4.94	0.69	7.28	225.4	0.64	43.16
5.314	12.99	4.94	0.61	7.28	214.19	0.6	43.16
5.349	12.99	4.94	0.46	7.29	222.34	0.66	43.16
5.419	12.99	4.94	0.65	7.29	217.75	0.63	43.16
5.483	12.99	4.94	0.57	7.31	226.18	0.66	43.16
5.513	12.99	4.94	0.5	7.29	222.49	0.69	43.16
5.514	13.0	4.94	0.61	7.3	198.51	0.75	43.16
5.515	13.0	4.94	0.72	7.3	212.02	0.72	43.15

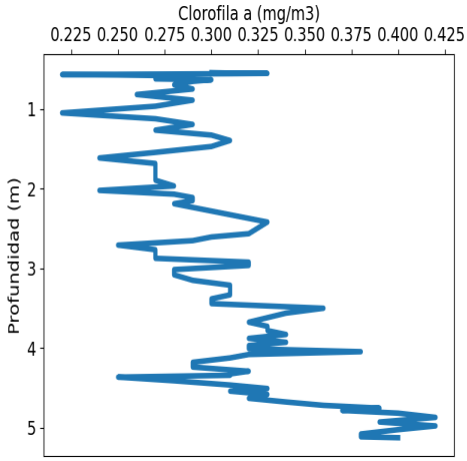
Nombre: CTD E05 - Punto 020 **Fecha: 30/11/2021** **Hora: 12:11:26**

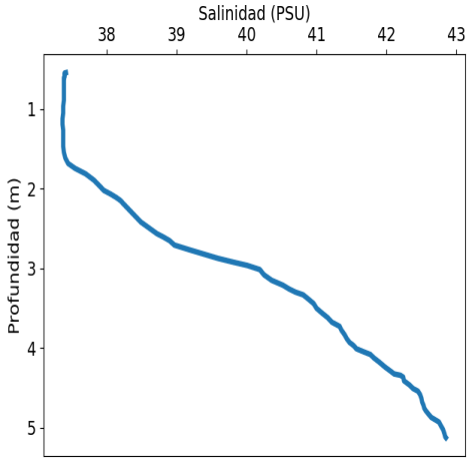


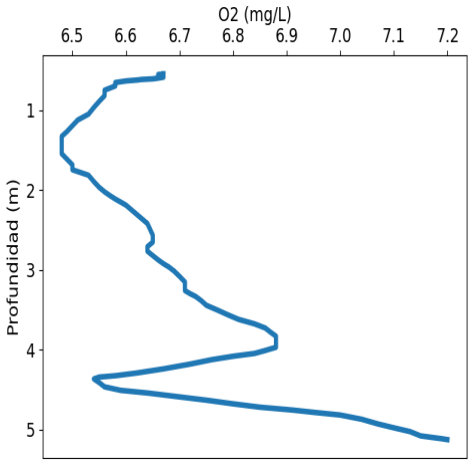


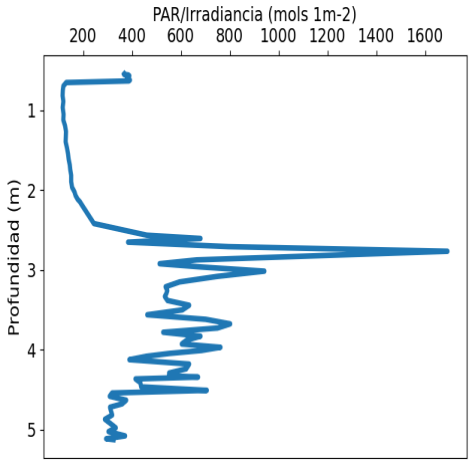












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.1	4.68	0.04	6.48	116.11	0.22	37.37
PROF (metros)	5.077	1.684	2.963	1.328	0.819	0.569	1.123
MÁXIMO	16.42	16.42	1.3	7.2	1691.5	0.42	42.85
PROF (metros)	0.623	5.077	2.565	5.124	2.766	4.869	5.124

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E05 - Punto 020	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	16.4	4.7	0.38	6.62	293.83	0.28	37.39
1 - 2m	16.22	4.69	0.41	6.5	136.97	0.27	37.49
2 - 3m	15.13	4.72	0.57	6.63	500.95	0.29	38.79
3 - 4m	13.64	4.78	0.82	6.79	639.29	0.32	40.96
4 - 5m	13.25	4.88	1.05	6.77	444.66	0.34	42.28
5 - 6m	13.1	4.92	1.01	7.17	323.72	0.39	42.83

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)
0.545	16.36	4.7	0.34	6.67	368.85	0.3	37.42
0.55	16.37	4.7	0.38	6.67	369.96	0.31	37.4
0.554	16.37	4.7	0.42	6.66	367.91	0.33	37.4
0.558	16.37	4.7	0.38	6.66	384.12	0.31	37.41
0.569	16.41	4.7	0.34	6.67	389.59	0.22	37.4
0.574	16.41	4.7	0.42	6.67	384.03	0.25	37.4
0.587	16.41	4.7	0.46	6.67	380.31	0.29	37.4
0.599	16.41	4.7	0.42	6.66	380.39	0.27	37.4
0.608	16.41	4.7	0.3	6.65	378.28	0.28	37.39
0.615	16.41	4.7	0.38	6.63	385.72	0.27	37.39
0.623	16.42	4.7	0.3	6.62	392.12	0.27	37.39
0.634	16.42	4.7	0.57	6.6	387.87	0.3	37.39
0.654	16.42	4.7	0.46	6.58	131.31	0.29	37.39
0.697	16.42	4.7	0.27	6.58	119.41	0.28	37.39
0.75	16.42	4.7	0.42	6.56	117.13	0.29	37.39
0.819	16.42	4.7	0.38	6.56	116.11	0.26	37.39
0.89	16.42	4.7	0.23	6.55	119.35	0.29	37.39
0.966	16.41	4.7	0.42	6.54	116.51	0.27	37.38
1.05	16.4	4.7	0.42	6.53	120.16	0.22	37.38
1.123	16.39	4.7	0.23	6.51	119.11	0.27	37.37
1.194	16.37	4.69	0.42	6.5	126.21	0.29	37.37
1.266	16.36	4.69	0.38	6.49	130.1	0.27	37.38
1.328	16.35	4.69	0.5	6.48	129.41	0.3	37.38
1.396	16.33	4.69	0.46	6.48	128.54	0.31	37.38
1.471	16.32	4.69	0.27	6.48	134.08	0.3	37.38
1.545	16.29	4.69	0.46	6.48	138.34	0.27	37.39
1.615	16.26	4.69	0.5	6.49	141.06	0.24	37.41
1.684	16.2	4.68	0.46	6.5	145.51	0.27	37.45
1.746	16.09	4.68	0.38	6.5	147.59	0.27	37.55
1.814	15.98	4.69	0.42	6.53	151.26	0.27	37.7
1.894	15.89	4.69	0.3	6.54	151.26	0.27	37.82
1.966	15.82	4.69	0.5	6.55	154.98	0.28	37.9
2.022	15.75	4.69	0.46	6.56	164.72	0.24	37.96
2.069	15.66	4.69	0.34	6.57	169.37	0.28	38.06
2.112	15.59	4.7	0.42	6.58	177.12	0.29	38.14
2.15	15.53	4.7	0.5	6.59	187.9	0.29	38.2

2.189	15.49	4.7	0.27	6.6	195.72	0.28	38.24
2.419	15.27	4.7	0.8	6.64	244.33	0.33	38.49
2.565	15.07	4.7	1.3	6.65	460.87	0.32	38.72
2.606	15.03	4.71	0.65	6.65	680.75	0.3	38.81
2.652	14.98	4.71	0.8	6.65	383.94	0.29	38.9
2.708	14.94	4.72	0.53	6.64	794.56	0.25	38.97
2.766	14.9	4.73	1.11	6.64	1691.5	0.27	39.18
2.874	14.68	4.75	0.15	6.66	665.0	0.27	39.59
2.922	14.56	4.77	0.61	6.67	513.08	0.32	39.81
2.963	14.44	4.77	0.04	6.68	684.39	0.32	40.01
3.015	14.29	4.78	0.53	6.69	942.13	0.28	40.19
3.081	14.15	4.77	0.72	6.7	748.44	0.28	40.25
3.15	14.0	4.76	1.03	6.71	594.85	0.29	40.36
3.211	13.86	4.76	0.72	6.71	537.67	0.31	40.52
3.259	13.76	4.76	0.88	6.71	544.82	0.31	40.61
3.298	13.67	4.76	0.53	6.72	540.55	0.31	40.7
3.332	13.59	4.76	0.5	6.73	534.57	0.31	40.81
3.382	13.54	4.77	0.72	6.74	545.33	0.3	40.88
3.442	13.52	4.77	0.95	6.75	634.44	0.3	40.96
3.5	13.51	4.77	0.84	6.77	606.26	0.36	41.0
3.561	13.5	4.78	0.8	6.79	462.58	0.34	41.08
3.618	13.49	4.79	0.8	6.81	702.23	0.33	41.16
3.675	13.48	4.79	0.88	6.84	802.34	0.32	41.22
3.727	13.46	4.8	0.92	6.86	750.18	0.33	41.33
3.78	13.46	4.81	0.84	6.87	527.8	0.33	41.36
3.829	13.46	4.81	1.11	6.88	680.91	0.34	41.4
3.878	13.47	4.81	0.88	6.88	624.81	0.32	41.43
3.927	13.47	4.82	0.95	6.88	603.88	0.34	41.47
3.968	13.47	4.82	0.92	6.88	762.63	0.32	41.53
4.008	13.46	4.83	0.95	6.86	684.71	0.32	41.57
4.045	13.44	4.84	0.99	6.84	552.97	0.38	41.67
4.08	13.41	4.84	1.11	6.8	460.34	0.32	41.77
4.123	13.38	4.84	1.14	6.76	389.4	0.31	41.82
4.178	13.35	4.85	1.26	6.72	634.29	0.29	41.9
4.238	13.32	4.85	1.11	6.67	621.92	0.29	41.98
4.29	13.29	4.86	1.18	6.62	552.07	0.32	42.06
4.324	13.27	4.86	1.03	6.58	552.45	0.31	42.11
4.341	13.26	4.87	0.99	6.55	671.04	0.31	42.2
4.364	13.25	4.87	1.11	6.54	414.36	0.25	42.24
4.41	13.24	4.87	0.99	6.55	434.32	0.28	42.25
4.463	13.24	4.88	1.11	6.56	437.66	0.31	42.33
4.507	13.23	4.88	0.95	6.59	706.63	0.33	42.38
4.54	13.22	4.89	0.92	6.64	318.96	0.31	42.45
4.581	13.21	4.89	1.11	6.69	308.92	0.33	42.48
4.63	13.2	4.89	0.95	6.75	376.62	0.32	42.5
4.676	13.2	4.89	1.14	6.8	359.81	0.34	42.51
4.718	13.19	4.89	1.22	6.85	310.14	0.36	42.53
4.753	13.18	4.89	1.03	6.91	312.81	0.39	42.54
4.782	13.17	4.9	0.99	6.95	316.01	0.37	42.56
4.816	13.16	4.9	0.99	7.0	319.18	0.4	42.59
4.869	13.15	4.9	0.99	7.04	289.24	0.42	42.64
4.927	13.14	4.91	0.99	7.07	313.97	0.39	42.75
4.976	13.12	4.91	0.99	7.1	334.01	0.42	42.78
5.023	13.11	4.91	0.95	7.13	303.95	0.4	42.81
5.077	13.1	4.92	1.14	7.15	372.2	0.38	42.83
5.113	13.1	4.92	0.95	7.19	294.04	0.38	42.84
5.124	13.1	4.92	0.99	7.2	324.7	0.4	42.85

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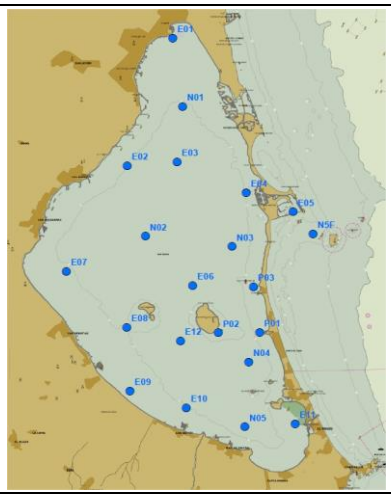

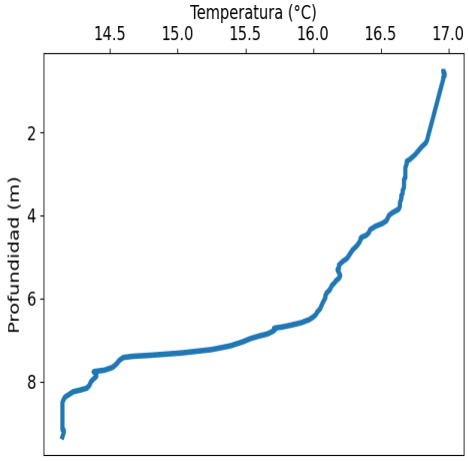

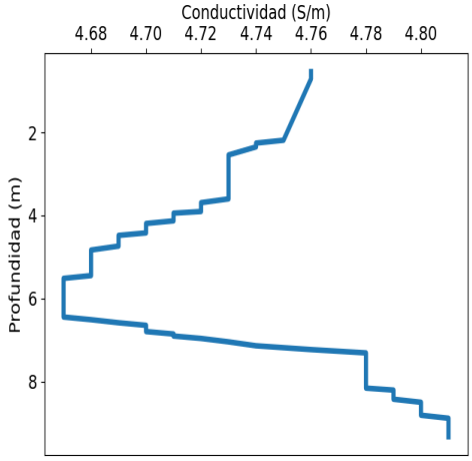

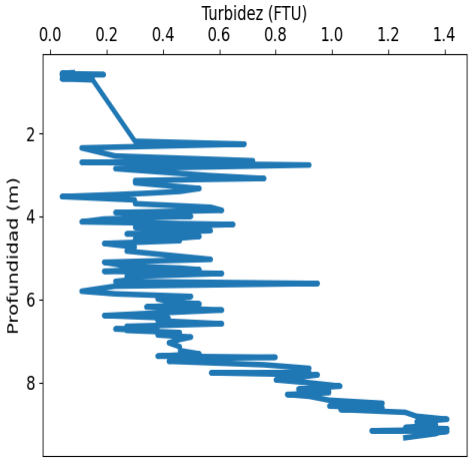

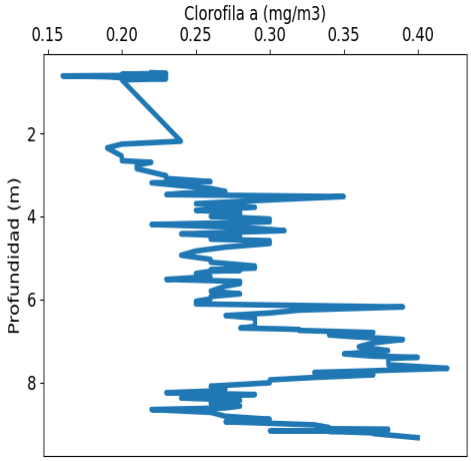

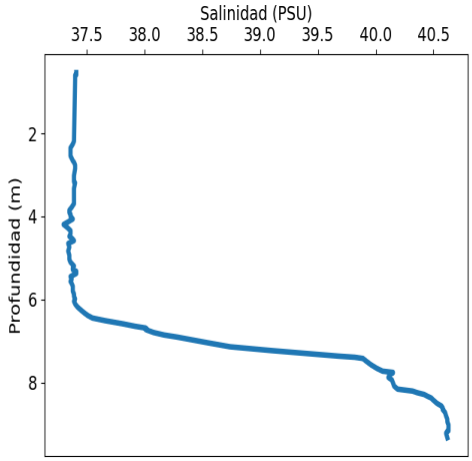

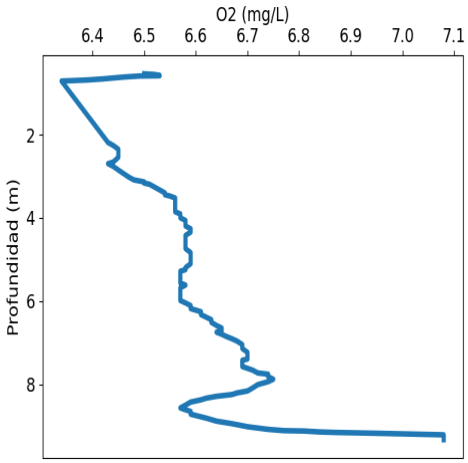

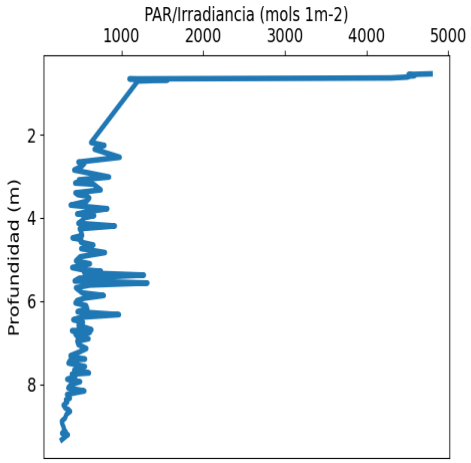

VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	14.15	4.67	0.04	6.34	267.13	0.16	37.3
PROF (metros)	8.504	5.517	0.55	0.708	8.889	0.612	4.194
MÁXIMO	16.97	16.97	1.41	7.08	4787.8	0.42	40.63
PROF (metros)	0.571	8.889	8.889	9.218	0.534	7.662	9.023

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N5F - Punto 021	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	16.96	4.76	0.11	6.46	3655.09	0.21	37.41
2 - 3m	16.75	4.73	0.41	6.44	625.53	0.21	37.38
3 - 4m	16.65	4.72	0.4	6.54	573.43	0.26	37.38
4 - 5m	16.4	4.69	0.36	6.58	554.45	0.27	37.35
5 - 6m	16.17	4.67	0.37	6.57	632.76	0.27	37.38
6 - 7m	15.86	4.69	0.39	6.63	526.96	0.31	37.81
7 - 8m	14.7	4.77	0.67	6.71	452.68	0.36	39.74
8 - 9m	14.2	4.79	1.07	6.63	345.48	0.27	40.46
9 - 10m	14.15	4.81	1.32	6.9	298.23	0.35	40.62

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)
0.534	16.96	4.76	0.08	6.5	4787.8	0.22	37.41
0.55	16.96	4.76	0.04	6.52	4514.1	0.23	37.41
0.571	16.97	4.76	0.11	6.53	4591.1	0.2	37.41
0.581	16.97	4.76	0.19	6.53	4588.9	0.23	37.41
0.587	16.97	4.76	0.04	6.49	4536.1	0.22	37.41
0.595	16.97	4.76	0.15	6.48	4526.6	0.23	37.4
0.612	16.97	4.76	0.15	6.46	4501.5	0.16	37.4
0.633	16.97	4.76	0.15	6.44	4301.6	0.19	37.4
0.656	16.96	4.76	0.15	6.42	1094.6	0.2	37.4
0.682	16.96	4.76	0.04	6.39	1564.8	0.23	37.4
0.708	16.96	4.76	0.15	6.34	1198.9	0.2	37.4
2.187	16.84	4.75	0.3	6.43	625.1	0.24	37.39
2.256	16.83	4.74	0.69	6.44	791.26	0.2	37.38
2.348	16.8	4.74	0.11	6.45	667.63	0.19	37.36
2.542	16.75	4.73	0.23	6.45	979.09	0.2	37.36
2.657	16.71	4.73	0.72	6.44	469.17	0.2	37.38
2.695	16.69	4.73	0.11	6.43	544.07	0.22	37.39
2.76	16.69	4.73	0.92	6.44	509.88	0.21	37.4
2.848	16.68	4.73	0.23	6.45	418.03	0.21	37.4
3.017	16.68	4.73	0.57	6.47	848.23	0.23	37.39
3.085	16.68	4.73	0.76	6.48	475.08	0.23	37.39
3.134	16.67	4.73	0.3	6.5	502.84	0.25	37.39
3.162	16.67	4.73	0.3	6.5	429.91	0.26	37.39
3.189	16.67	4.73	0.3	6.51	656.27	0.22	37.4
3.326	16.67	4.73	0.53	6.53	745.5	0.26	37.39
3.397	16.66	4.73	0.46	6.54	432.51	0.27	37.39
3.442	16.66	4.73	0.34	6.54	464.73	0.24	37.39
3.474	16.66	4.73	0.23	6.55	574.52	0.23	37.39
3.521	16.65	4.73	0.04	6.56	605.7	0.35	37.39
3.601	16.65	4.73	0.3	6.56	572.26	0.3	37.39
3.692	16.64	4.72	0.3	6.56	374.53	0.25	37.39
3.779	16.64	4.72	0.57	6.56	826.69	0.29	37.37
3.853	16.63	4.72	0.61	6.56	576.92	0.25	37.35

3.905	16.6	4.72	0.23	6.57	453.77	0.28	37.35
3.945	16.58	4.71	0.38	6.57	665.93	0.28	37.36
3.997	16.56	4.71	0.5	6.57	542.93	0.26	37.36
4.062	16.55	4.71	0.19	6.58	517.98	0.3	37.38
4.13	16.54	4.71	0.11	6.58	468.74	0.3	37.34
4.194	16.51	4.7	0.65	6.58	919.06	0.22	37.3
4.261	16.46	4.7	0.3	6.59	485.21	0.28	37.33
4.342	16.42	4.7	0.57	6.59	506.46	0.31	37.36
4.421	16.41	4.7	0.27	6.58	518.1	0.24	37.36
4.481	16.39	4.69	0.53	6.58	397.24	0.28	37.35
4.522	16.36	4.69	0.46	6.58	507.87	0.26	37.37
4.548	16.35	4.69	0.3	6.58	492.23	0.26	37.38
4.584	16.35	4.69	0.46	6.58	500.63	0.3	37.39
4.652	16.34	4.69	0.19	6.58	655.97	0.3	37.34
4.739	16.32	4.69	0.3	6.58	503.42	0.27	37.35
4.834	16.29	4.68	0.27	6.59	798.07	0.25	37.34
4.935	16.27	4.68	0.42	6.59	491.32	0.24	37.35
5.035	16.25	4.68	0.57	6.59	439.59	0.26	37.35
5.104	16.22	4.68	0.19	6.59	613.75	0.26	37.36
5.195	16.19	4.68	0.27	6.58	393.21	0.29	37.39
5.245	16.19	4.68	0.46	6.58	514.03	0.29	37.38
5.283	16.19	4.68	0.53	6.57	748.96	0.26	37.38
5.298	16.18	4.68	0.27	6.57	658.56	0.28	37.39
5.322	16.18	4.68	0.19	6.57	541.8	0.26	37.41
5.375	16.19	4.68	0.61	6.57	1274.9	0.25	37.41
5.45	16.2	4.68	0.27	6.57	480.62	0.26	37.36
5.517	16.19	4.67	0.3	6.57	423.19	0.23	37.37
5.566	16.17	4.67	0.23	6.57	1317.9	0.28	37.36
5.616	16.16	4.67	0.95	6.58	607.81	0.28	37.37
5.681	16.14	4.67	0.23	6.57	439.79	0.27	37.38
5.803	16.12	4.67	0.11	6.57	517.62	0.26	37.38
5.866	16.1	4.67	0.23	6.57	783.41	0.28	37.39
5.929	16.09	4.67	0.5	6.57	547.74	0.26	37.39
5.988	16.09	4.67	0.38	6.57	453.98	0.26	37.4
6.045	16.08	4.67	0.42	6.58	433.22	0.25	37.39
6.109	16.07	4.67	0.53	6.59	566.33	0.25	37.4
6.182	16.06	4.67	0.34	6.59	580.41	0.39	37.42
6.257	16.05	4.67	0.61	6.61	458.42	0.32	37.45
6.327	16.03	4.67	0.38	6.61	969.6	0.3	37.48
6.389	16.02	4.67	0.19	6.62	505.41	0.27	37.51
6.449	16.0	4.67	0.42	6.63	406.28	0.29	37.55
6.513	15.97	4.68	0.38	6.63	528.9	0.29	37.66
6.587	15.91	4.69	0.61	6.64	470.91	0.29	37.81
6.649	15.83	4.7	0.27	6.65	573.99	0.29	37.92
6.69	15.77	4.7	0.38	6.65	632.24	0.28	38.01
6.713	15.72	4.7	0.23	6.65	390.4	0.31	38.02
6.726	15.71	4.7	0.27	6.65	408.35	0.32	38.01
6.748	15.72	4.7	0.27	6.64	615.46	0.32	38.03
6.799	15.7	4.7	0.46	6.65	434.12	0.37	38.08
6.858	15.66	4.71	0.38	6.66	458.53	0.34	38.17
6.907	15.6	4.71	0.5	6.67	596.92	0.36	38.28
6.965	15.54	4.72	0.46	6.68	455.77	0.39	38.39
7.047	15.48	4.73	0.42	6.69	469.39	0.37	38.55
7.142	15.39	4.74	0.46	6.69	569.48	0.36	38.74
7.234	15.25	4.76	0.46	6.7	473.1	0.38	39.1
7.314	15.03	4.78	0.53	6.7	372.71	0.35	39.44
7.368	14.81	4.78	0.38	6.7	462.05	0.37	39.68
7.395	14.67	4.78	0.8	6.7	553.86	0.4	39.82

7.424	14.6	4.78	0.53	6.69	368.76	0.38	39.89
7.492	14.57	4.78	0.42	6.69	347.68	0.38	39.92
7.576	14.55	4.78	0.76	6.69	553.09	0.38	39.96
7.662	14.52	4.78	0.92	6.71	417.44	0.42	40.01
7.73	14.46	4.78	0.88	6.72	601.92	0.36	40.06
7.76	14.39	4.78	0.92	6.74	388.23	0.33	40.15
7.77	14.38	4.78	0.57	6.74	407.31	0.33	40.15
7.819	14.4	4.78	0.95	6.74	432.31	0.37	40.12
7.881	14.4	4.78	0.88	6.75	332.01	0.33	40.11
7.94	14.38	4.78	0.8	6.74	493.6	0.3	40.14
8.01	14.36	4.78	0.92	6.72	376.8	0.3	40.15
8.091	14.35	4.78	1.03	6.71	344.87	0.26	40.16
8.163	14.33	4.78	0.88	6.7	545.46	0.27	40.19
8.21	14.28	4.79	0.99	6.68	418.51	0.26	40.32
8.249	14.23	4.79	0.99	6.67	329.86	0.23	40.36
8.292	14.21	4.79	0.84	6.64	347.2	0.29	40.42
8.337	14.19	4.79	0.92	6.62	368.34	0.26	40.45
8.376	14.17	4.79	0.95	6.61	316.75	0.24	40.48
8.43	14.16	4.79	0.99	6.59	335.26	0.28	40.5
8.504	14.15	4.8	1.18	6.58	287.57	0.26	40.53
8.571	14.15	4.8	0.99	6.57	308.92	0.28	40.57
8.616	14.15	4.8	1.18	6.58	351.98	0.27	40.58
8.655	14.15	4.8	1.03	6.59	370.05	0.22	40.58
8.722	14.15	4.8	1.26	6.59	325.46	0.26	40.6
8.816	14.15	4.8	1.3	6.62	307.06	0.27	40.61
8.889	14.15	4.81	1.41	6.64	267.13	0.3	40.62
8.95	14.15	4.81	1.3	6.67	271.94	0.27	40.62
9.023	14.15	4.81	1.37	6.7	287.57	0.33	40.63
9.087	14.15	4.81	1.26	6.74	297.46	0.34	40.63
9.117	14.15	4.81	1.41	6.77	294.45	0.34	40.63
9.127	14.15	4.81	1.37	6.81	297.53	0.38	40.63
9.149	14.15	4.81	1.3	6.84	317.85	0.38	40.63
9.161	14.15	4.81	1.18	6.87	311.15	0.36	40.63
9.168	14.15	4.81	1.14	6.9	292.47	0.3	40.63
9.175	14.16	4.81	1.34	6.93	271.69	0.35	40.62
9.181	14.16	4.81	1.41	6.95	269.12	0.34	40.62
9.218	14.16	4.81	1.37	7.08	343.36	0.37	40.61
9.235	14.16	4.81	1.37	7.08	328.03	0.37	40.61
9.334	14.15	4.81	1.26	7.08	268.06	0.4	40.62