

Abstract

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Hydrographic Variations in the deep and shallow areas of the Egyptian Mediterranean Coast

Water temperature, salinity and conductivity profiles were obtained at each location during the mobilization, service visits and final recovery from February, 1999 to January, 2000. A Seabird 19 CTD recorder was used to obtain data at regular intervals throughout the water column from 1m below the surface to the seabed. The instrument was set up to take readings at a rate of 2 samples every second. CTD data were recorded on both the downward and the upward casts. At locations C02, C05, C06, C07, C06, C09 and C12: CTD profiles at these shallow water locations showed the water column to be well mixed, with temperature, salinity and density being constant throughout depth. The calculated salinity at each of the service visits fluctuated around 39 with a slight increase in salinity in the months of October 1999 through to December 1999. Only at C7, the shallowest measurement location (7m), was a lower salinity value of 37.5 recorded. At locations C01, C03, C04, C10, C11, M01 and H01: CTD profiles taken at the deeper water moorings indicate a seasonal variation to the water column structure. During the months of February to April 1999, the temperature, salinity and density were fairly uniform throughout the water column, although an increase in density and a decrease in temperature were observed at most of the deeper water locations. During the June 1999 service visit, a variation in temperature and salinity at a depth of approximately 30 m was apparent for most of the locations. By August 1999, a strong thermocline at most of the above locations had started to appear in the profiles at a depth of approximately 30 m, with a variation in temperature of 10 °C above and below the thermocline.