

ABSTRACT

Base line studies of the seven selected metals Fe, Mn, Pb, Cr, Ni, Cu and Cd were carried out in a section of the Gulf of Paria, off the west coast of Trinidad and Tobago. The area monitored was located close to an industrial estate. Metal levels in sea-water, sediment and mussel samples collected between December, 1979 and December, 1982 were found to be relatively low.

In the sea-water, the metals Mn, Cu, Pb, Ni and Cr appeared to be associated with Fe to varying extents. Sorption of these metals onto Fe has been proposed as a possible form of association. Oxidative remobilisation seems to be responsible for the marked increase in dissolved metal levels observed for some samples.

Dredging activities in the area during part of the sampling period appear to have resulted in enhanced sediment metal levels. Underwater currents have been suggested as being at least partly responsible for the translocation of sediments in the area resulting in similar variation patterns for some of the metals between different sampling stations.

Levels in mussels were generally low with bioaccumulation indicated for Fe, Mn, Cu and Ni.

In spite of the relatively low metal concentrations in sea-water, marine sediments and mussels in the environment sampled, some of the metals appear to have potential for future pollution in the area.