

TABLE 26.—Trace elements in sediments and waters west of Andros Island, in precipitated and algal aragonite needles, and in a fresh-water calcitic sediment

[Semiquantitative spectrographic analyses performed in U.S. Geol. Survey laboratories by Joseph Hafty, Charles Annell, and Katherine V. Hazel, under the supervision of Claude Waring]

Table with multiple columns: Aragonite needles (washed and centrifuged or filtered; except C6, an unwashed residue), Whole sediment (unwashed), Dissolved solid content of random 1955 water samples (evaporated)**. Rows include elements like Ag, Al, Ba, Cr, Cu, Fe, La, Mg, Mn, Mo, Ni, Pb, Sr, Sn, Ti, V, Zn, Zr.

1 Cadmium present in conc. 7.
2 Minute sample run by special techniques, which probably explains nonappearance of Ba, Cr, Cu, Ni, Pb, Sn, and V. Sample taken in field directly from sea water without washing or removal of foraminifera which explains high Mg (and Na) content.
3 Sn in all analyses, and Pb and Zn in some, could be contaminants where detected; the algae were stored in tin cans and sediments were halved with a metal band saw.
*B a, C u, and M n have been detected below normal sensitivity limits in a few analyses.
**Mg consistently 1-5 percent of dissolved solids in random 1955 water samples.

NOTES:
Elements reported but not given are as follows:
Ca.....Consistently 1-5 percent of dissolved solids in water; bulk component of sediments.
K.....Consistently 1-5 percent of dissolved solids in water; none reported from sediments.
Na.....Consistently >10 percent of dissolved solids in water; 1-5 percent of unwashed whole sediment, 0.1-0.5 percent of washed aragonite needles, and 0.015 percent of calcitic sediment.
Pt.....Reported as 10-500 ppm of dissolved solids in water; presumably from platinum crucibles in which evaporated. None in sediments.

Elements found in fresh-water calcitic sediment only, with code number expressing abundance: As (7), Be (2), Co (5).
Elements looked for but not detected within sensitivity limits of method are Au, Bi, Cd, Ce, Cs, Dy, Er, Eu, Ga, Gd, Ge, Er, Hg, In, Li (sensitivity 7, in water from 0.5-1.3 mg/l), Nb, Nd, P (sensitivity 8, in water 0.003-0.01 mg/l), Sb, Se, Sm, Ta, Te, Th, Tl, U, W, Y, Yb.

Coding system semilogarithmic, successive even or odd numbers upward indicating tenfold increase in value spans as follows:
Parts per million Code No.
5,000-10,000.....10
1,000-5,000.....9
500-1,000.....8

100-500.....7
50-100.....6
10-50.....5
5-10.....4
1-5.....3
0.5-1.....2
0.1-0.5.....1