Reddy, C.M. and J.G. Quinn, *GC-MS analysis of total petroleum hydrocarbons and polycyclic aromatic hydrocarbons after the North Cape oil spill*, Marine Pollution Bulletin, 1999; v38, pp. 126-135.

A gas chromatography-mass spectrometry (GC-MS) method was developed to measure total petroleum hydrocarbons (TPH) and polycyclic arom. hydrocarbons (PAH) in seawater samples collected after the North Cape oil spill. After sample extn. with methylene chloride and hexane, exts. are fractionated on silica-gel columns then injected into a GC-MS operating in the selected-ion-monitoring mode. The signal from the ion m/z 57 ($C_4H_9^+$), a major ion in aliph. compds., is integrated throughout the chromatogram and used to calc. the amt. of TPH. PAH are analyzed using distinct quantification ions during the same run. This method is faster than conventional GC techniques that use flame ionization detectors for aliphatics and mass spectrometers for PAH; it also gives a more pos. identification because it uses GC-MS. Lab. blanks, recoveries from spiked seawater, and detection limits for TPH and PAH with the simplified method are comparable to conventional methods. More than 50 seawater samples were analyzed after the North Cape oil spill; TPH and PAH concns. were as high as 3940 and 115 mg/L, respectively.