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Geological Survey of Canada / Commission géologique du Canada

GSC Open File 3458 (sheet 7 of 9)

EAST COAST BASIN ATLAS SERIES
GRAND BANKS OF NEWFOUNDLAND
BIOSTRATIGRAPHY AND MATURATION DATA 7
COMPILED INFORMATION FOR SELECTED WELLS 1

CONTRIBUTORS

P. Ascoli, M. P. Avery, M. S. Barss, J. P. Bujak, E. H. Davies, W. B. Ervine, R. A. Fensome, P. A. Hacquebard, P. H. Harrison, K. D. McAlpine, W. C. MacMillan, P. N. Mair, J. A. Wade and G. L. Williams

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Additional copies of this map sheet may be obtained from the Geological Survey of Canada (Atlantic), P.O. Box 1006, Dartmouth, Nova Scotia, B2Y 4A2, Canada. Phone: 902-426-4386; FAX: 902-426-4848; e-mail: agc@agc.bio.ns.ca; website: http://agonline.bio.ns.ca

In order to show and compare the range of data available, Figures 25-33 show individual plots for the following wells: Ben Nevis I-45, Bittern M-62, Bonnition H-32, Cormorant N-83, Murre G-67, Osprey H-84, Puffin B-90, Terra Nova K-08, and Whiterose N-22.

Calibration against the international standard ages as determined by palynology is shown in column 1 and as determined micropaleontologically (i.e. by inorganic-walled microfossils) in column 8. The ages shown in column 9 follow the scheme proposed by Palmer (1983). Those shown in column 1 follow the scheme proposed by Harland et al. (1990) except that the Portlandian is used as the youngest Jurassic age. Columns 2 and 8 show the alphanumeric codes for the palynological and micropaleontological zones; see Figures 20 and 6 for an explanation of these codes.

Lithostratigraphic units are shown in column 3. The downwell variation in proportions of the various kerogen types is shown in column 4, A = amorphogen, P = phytogen, H = hylogen, and M = melanogen. Column 5 shows the thermal alteration index (T.A.I.). (For further information on kerogen types and maturation plots, see sheets 8 and 9.) Column 6 shows vitrinite reflectance values. Column 7 shows bathymetry as determined from the micropaleontological assemblages (NM = nonmarine, TR = terrestrial, IN = inner neritic, ON = outer neritic, UB = upper bathyal, MB = middle bathyal, LB = lower bathyal).

The sources of information are as follows: palynological ages and zones - Barss et al. (1979) and Bujak-Davies (1988); lithostratigraphic formations - K. D. McAlpine, P. N. Mair and J. A. Wade (unpublished data); kerogen and T.A.I. data - Barss et al. (1980); vitrinite reflectance - M. P. Avery, W. B. Ervine, P. A. Hacquebard and P. H. Harrison (unpublished data) and McAlpine (1990); bathymetry and micropaleontological ages and zones (Ascoli, 1988) and F. M. Gradstein *in* Srivastava (1986).

Figure 34 shows depositional rate curves for the nine wells plotted in Figures 25-33 as assessed from biostratigraphic data. The horizontal scale follows Palmer (1983); the vertical scale is thickness of accumulated sediment (in metres). The slope of each curve is proportional to the rate of sedimentation. A horizontal line indicates that no sediment of that age has been observed.

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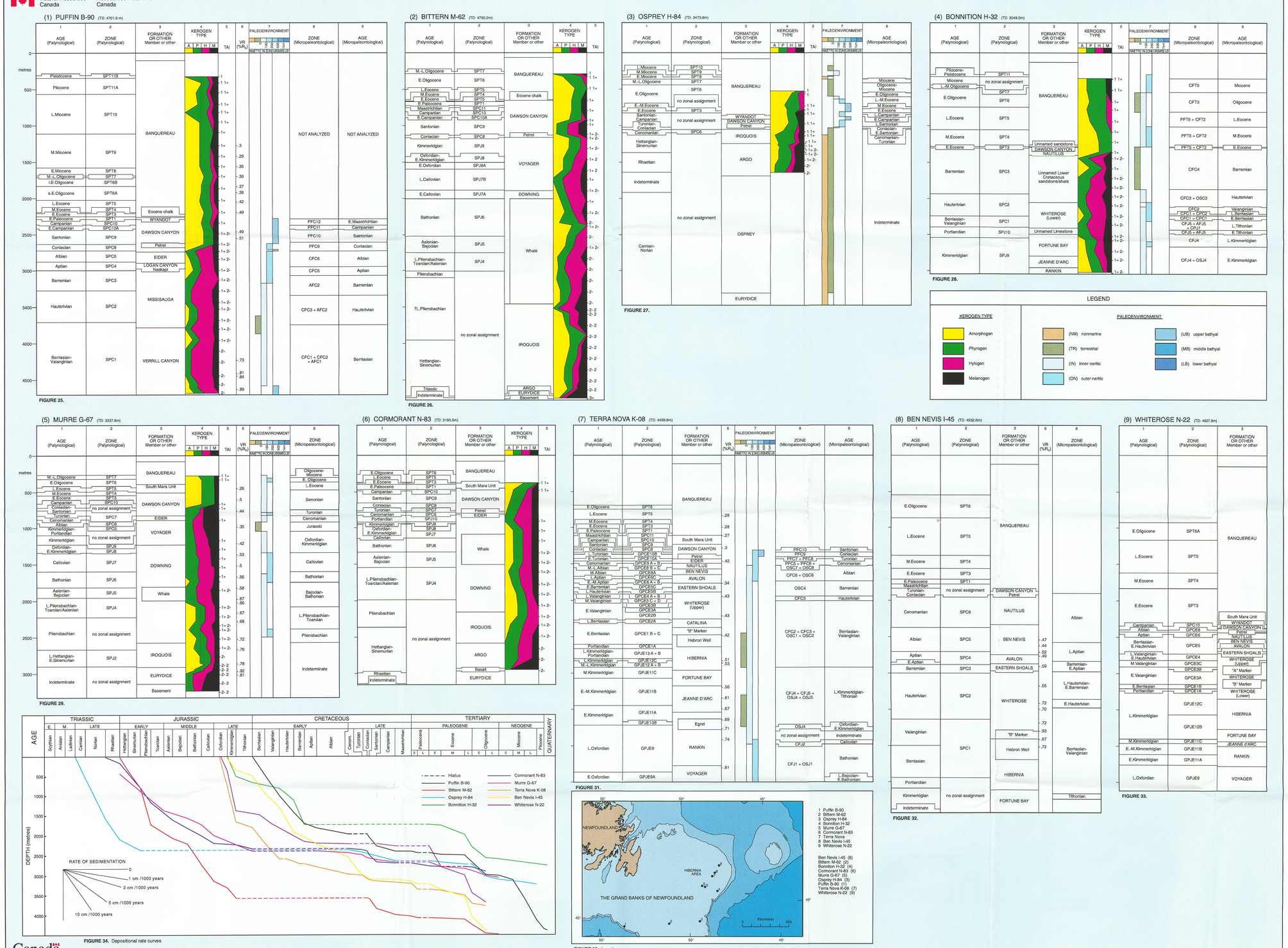

FIGURE 34. Depositional rate curves

FIGURE 35. Location map