TOP**FIVE**

B**OOKS**

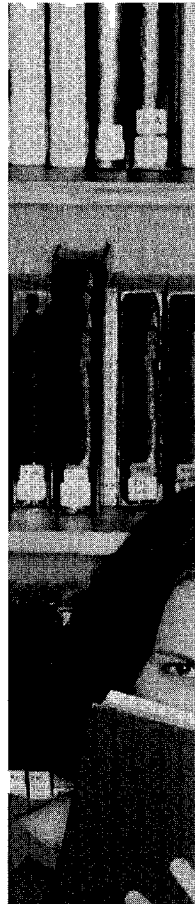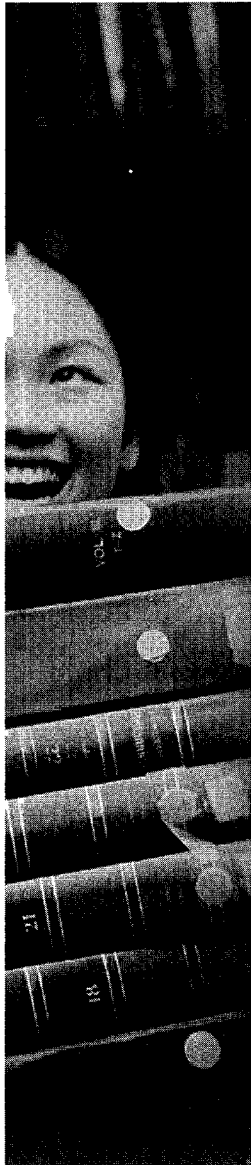## for statisticians

Amstat News asked three review editors to rate their top five favorite books

Statistical Methods for Reliability Data, W Meeker and L Escobar, 1998, New York John Wiley & Sons

The safety and reliability of operations is one of the core values at BP Databases continue to be developed and expanded It is important to use effective statistical tools to estimate failure times and probabilities to enable planning for repair and replacement of equipment and to quantify risk for critical operations This is an excellent and comprehensive book on reliability methods and their application

Statistical Methods for Detection and Quantification of Environmental Contamination, R Gibbons and D Coleman, 2001, New York John Wiley & Sons

Concern for and preservation of the environment in which BP operates is a core value and a distinguishing characteristic, compared to other petrochemical companies This book elucidates a fundamental aspect of environmental data the obtaining of numerical measurements that represent the true state of affairs as accurately as possible

Methods of Multivariate Analysis, A Rencher, 2002, New York John Wiley & Sons

At chemical plants, gas plants, refineries, even in technology, large databases are available everywhere for learning about how to make improvements and maximize profitability Effective utilization of multivariate statistics is essential This is an excellent comprehensive book for applied multivariate analysis

Applied Econometric Time Series, W Enders, 1995, New York, John Wiley & Sons

BP is essentially a federation of many business units which are dispersed all over the world There is endless opportunity and need for more sophisticated usage of business modeling This is still my favorite book on modern time series methods for business and economic applications

The Elements of Statistical Learning, T Hastie, R Tibshirami, and J Friedman, 2001, New York, Springer

Computational capabilities that are accessible and cheap provide the means for wholly new statistical methodologies This is the first book by statisticians that has been devoted to new ways of learning from data Though difficult because of a high mathematical level, this book provides a statistical basis and context for many methods that have been developed outside of the statistical community ∎

Eric Ziegel

Technology Manager for Statistics at BP in Naperville, Illinois, Ziegel has been *Technometrics* Book Reviews Editor for 17 years In that time, he has processed more than 3,000 statistics books, published approximately 1,200 book reviews, and written shorter editor reports for more than 600 other statistics books