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(54) **Title:** GLOBAL CRUDE OIL QUALITY MONITORING

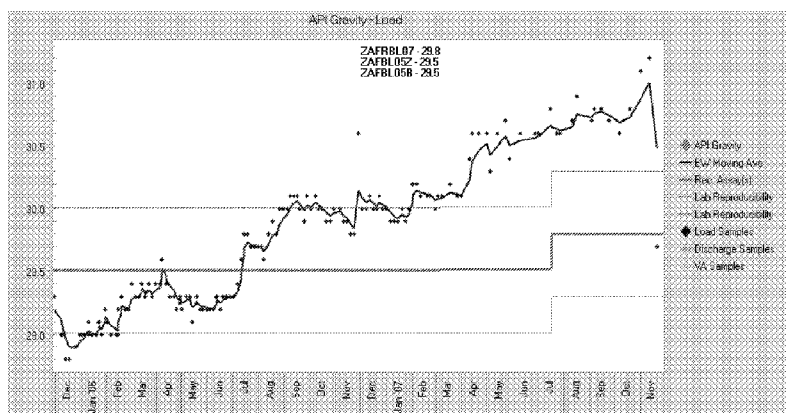


FIG. 1

(57) **Abstract:** A method for monitoring global crude oil quality. The method includes the steps of obtaining samples of a crude oil having a quality, generating characterization data from measurements of samples of the crude oil, determining values of properties of an assay of the crude oil using the data of step a), storing the values of the properties of the assay in a database, determining deviations of the values of the properties of the assay from the values of the properties of a recommended assay having a quality, determining a statistical significance of the deviations of the values of the properties of the assay from the values of the properties of the recommended assay to determine if the crude oil quality is different from the quality of the recommended assay, and determining if the statistical significance indicates a change in the economic valuation between the assay and the recommended assay.