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The Implementation of a Consistent Risk Assessment Process Improved Exploration Performance

Prior to the merging of Chevron and Texaco in 2001, Texaco had implemented a consistent exploration risk assessment process in 1996. Before the implementation more than the predicted discoveries were made, while less than the predicted resources were found. Subsequent to implementation, the annual predictions closely matched the actual outcomes.

The key cause of improvement was the use of a team of specialists that were assigned the sole responsibility of reviewing all the significant exploration projects. They quickly became knowledgeable in the process, implemented consistent definitions and utilized a parametric resource calculation process for all prospects.

Of particular note was the use of four separate chance assessments for each of the critical elements of the petroleum system (Charge, Reservoir, Structural Integrity and Seal). Seal efficiency and Structural Integrity were assessed beyond crestal locations to assign risk.

Also of note was the use of an area distribution factor that distributed the resource assessment across a wide range of lognormal outcomes.

The legacy Texaco performance data from before and after implementation will be compared and demonstrate a significant improvement in predictive accuracy.

The above techniques have now been widely integrated into the ChevronTexaco Exploration workflow and are being improved upon to assist in portfolio decision making and technology application. We look forward to sharing the observations and the lessons learned from this new phase at a later stage.